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Abstract

This dissertation analyzes the Capital Markets Union (CMU) as a transformative policy framework aimed at dismantling persistent barriers in European capital markets and reconfigure the dynamics of financial integration. It argues that the CMU should not be conceived as a multi-disciplinary corpus of regulatory initiatives; rather it must be understood as a strategic instrument to enhance cross-border capital allocation, retain domestic savings within the Union, and diversify financing channels for small and medium enterprises. To capture this multidimensional role, the thesis develops a novel “CMU Policy Matrix” that maps, critically evaluates, and consolidates legislative, regulatory, and institutional measures introduced since 2015.

Methodologically, the thesis combines qualitative analysis and triangulation techniques, scenario-based simulations, and quantitative econometric techniques to assess the effectiveness of CMU reforms and to answer the research questions. This mixed approach allows for a systematic investigation of how integration initiatives influence market efficiency (i.e., Research Question 1), capital retention (i.e., Research Question 2), and SMEs financing (i.e., Research Question 3). Accordingly, the research question guiding the thesis seeks to ascertain whether the Capital Markets Union, within its current framework and objectives, can strengthen Europe’s financial markets by enhancing allocative efficiency, incentivizing capital retention, and expanding market-based financing possibilities for SMEs.

The dissertation concludes that, while the Capital Markets Union shows signs of progress, its transformative impact remains under-exploited and constrained by fragmentation, uneven national frameworks, and limited retail investors’ and households’ participation. Full implementation, anchored in stronger institutional presence and supervisory convergence, is essential if the CMU intends to mobilize capital for Europe’s green and digital transitions and secure the Union’s long-term resilience and competitiveness.

Keywords: Capital Markets Union (CMU); Financial Integration; Allocative Efficiency; Capital Retention; Small and Medium Enterprises (SMEs); Equity and Debt Financing; European Union; Euro Area

List of Abbreviations

AFME	Association for Financial Markets in Europe
CMU	Capital Markets Union
CR	Capital Retention
CRI	Capital Markets Union Readiness Index
EA	Euro Area
EC	European Commission
ECB	European Central Bank
ECSP	European Crowdfunding Service Providers
ELTIFs	European Long-Term Investment Funds
ESAs	European Supervisory Authorities
ESAP	European Single Access Point
ESMA	European Securities and Markets Authority
EU	European Union
EUGBS	European Green Bond Standard
EuVECA	European Venture Capital Fund
EuSEF	European Social Entrepreneurship Fund
FSAP	Financial Services Action Plan
GDP	Gross Domestic Product
HH	Households
HICP	Harmonized Index of Consumer Prices
ICOR	Incremental Capital-Output Ratio
IPOs	Initial Public Offerings
NGEU	Next Generation EU
OCA	Optimal Currency Area
OECD	Organization for Economic Co-operation and Development
PEPP	Pan-European Pension Product
SAFE	Survey on the Access to Finance of Enterprises
SIU	Savings and Investments Union
SME	Small and Medium Enterprises
STS	Simple, Transparent and Standardized (Securitizations)
TFEU	Treaty on the Functioning of the European Union
TFP	Total Factor Productivity

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Introduction

In a visionary reflection made in his memoirs in 1976, Jean Monnet – amongst the founding fathers of today’s Europe and the principal architects of the early-stages of European integration – observed that “*Europe will be forged in crises, and will be the sum of solutions adopted for those crises.*”

Decades before the 2008 financial crisis, the ensuing Sovereign Debt crisis, and the Covid-19 disruptions, Monnet’s words managed to capture a foundational paradox, an enduring and defining motif of the future trajectory of European integration. Indeed, rather than unfolding through proactive proposals, strategic foresight and comprehensive policy projects, the integrative path of the European Union (hereinafter: *EU*) has often progressed through reactive, crisis-driven adaptations (Jones, Kelemen, & Meunier, 2016). Stated differently, the pattern of the European integration process reveals a systemic tendency towards piecemeal and incremental reforms, whereby institutional, economic and regulatory overhauls are likely to be catalyzed by the necessity to respond to crises, observed inefficiencies in governance structures or structural imbalances. As the former president of the European Commission (hereinafter: *EC*) Jean-Claude Juncker has observed, this tendency has endowed the EU with “*decades of experience in overcoming crises,*” yet it has simultaneously entrenched a cyclical dynamic of often-fragmented governance and crisis-driven institution-building within the Union’s development (Ferrara & Kriesi, 2021). This is particularly appreciable in the domain of *financial integration*, where the EU’s reform pathway has been consistently steered by the prioritization of fragmented national interests and contextual priorities (Schimmelfennig, 2018).

This dissertation adopts the conceptualization of financial integration advanced by the European Central Bank (hereinafter: *ECB*) in its 2004 report *Measuring Financial Integration in the Euro Area* (Baele, Ferrando, Hördahl, Krylova, & Monnet, 2004). This definition measures financial integration along three distinct dimensions: (1) the existence of a uniform regulatory framework – or, at minimum, implemented harmonization procedures; (2) the extent to which market participants enjoy equal access to financial services and instruments; and (3) the degree of non-discriminatory treatment across different jurisdictions. However, the empirical reality within the Euro Area (hereinafter: *EA*) and the EU remains – at least partially – misaligned with this ideal. Despite numerous initiatives aimed at fostering deeper and more cohesive financial integration, progress has been persistently impeded by the dominance of national policy priorities, institutional fragmentation, and enduring socio-economic and cultural disparities among Member States.

Such observations are further reinforced by the empirical evidence presented in the statistical annex of the ECB’s 2025 “*Financial Integration and Structure in the Euro Area*” report, which highlights

persistent divergences across key financial indicators and underscores the uneven progress in cross-border integration (ECB, 2025a).

Firstly, in the domain of *money markets* – both secured and unsecured¹ – data reveal an asymmetric evolution: the expansion of the secured segment reflects growing market sophistication and institutional resilience, but this development has not been accompanied by a proportional increase in cross-border integration, with persistent fragmentation along national lines (p. 9-10)² and consistent preference for domestic over foreign counterparties – thereby signaling a consistent presence of home biases in investments. Secondly, the *sovereign bond market* still displays a non-negligible degree of yield dispersion, which has been widening since 2020 (p. 15)². These variances point to the enduring role of national priorities in driving pricing differentiation (ECB, 2006). In addition, *equity markets* remain comparatively more fragmented, and this is largely attributable to (a) national legal heterogeneity, (b) investor biases, and (c) structural differences in (1) corporate governance and (2) financial disclosure practices. These factors have contributed to hinder deeper cross-border integration, as evidenced by stronger equity market segmentation data. In particular, the segmentation index – which seeks to capture the extent to which equity returns are driven by national rather than sectoral factors – has remained high, with a pronounced spike during the COVID-19 crisis (p. 17)². This suggests that, in times of stress, equity markets revert to national dynamics, undermining the formation of a unified cross-border pricing benchmark. Moreover, data on investment funds’ holdings of both debt and equity instruments reveal a strong preference for assets issued outside the euro area, further underscoring the limited confidence and attractiveness of intra-EU capital markets.

Finally, the broad picture on the *financing structure of the euro area economy* reflects the systemic dominance of bank-based financial intermediation. Data from the report confirms that loans remain the primary channel of financing for the private sector, and the transition toward a more market-based financial system has been incremental and insufficient (p. 31)³.

Collectively, these empirical observations seemingly support a shared conclusion: the financial system of the Euro Area remains deeply fragmented, heavily reliant on banking intermediation, and persistently shaped by national boundaries.

This fragmentation reasonably resembles the definition of the EU as an “*incomplete economic and monetary union*”, which has long been acknowledged, and explicitly stated in the 2015’s Five Presidents’ Report (Juncker, Draghi, Tusk, Dijsselbloem, & Schulz, 2015). This definition exemplifies the fact that monetary integration was pursued in the absence of the required and

¹ In the secured money market, transactions are always backed by collateral, that typically corresponds to government securities, thereby mitigating counterparty risk and enhancing financial stability. In contrast, the unsecured money market involves borrowing and lending without collateral, relying solely on the creditworthiness of counterparties and playing a key role in monetary policy transmission.

² See “Annex 1”

³ See “Annex 2”

corresponding institutional reforms to create a unified and resilient financial system (Jones, Kelemen, & Meunier, 2016) – most notably, without a properly-defined fiscal union and without centralized mechanisms for economic risk-sharing (Demosthenes, Pagliari, & Stracca, 2020).

Therefore, it becomes evident how the long-standing promise and objective of creating a truly integrated European financial space – formally embedded in the policy agenda since the Single European Act of 1986 – remains largely unfulfilled. This is not merely a strategic objective, but also a formal legal commitment, being firmly rooted in the founding treaties of the European Union, in Article 26 of the Treaty on the Functioning of the European Union⁴ (hereinafter: *TFEU*).

The current and persisting fragmentation is not merely a technical concern; it entails profound macroeconomic costs. One of the most relevant refers to the significant variation in the cost of capital across Member States, with peripheral economies facing consistently higher financing costs than core countries. This divergence hampers the correct transmission of monetary policy and impairs investment, innovation, and convergence across the Union (Laeven & Tressel, 2013).

Therefore, periods of financial calm and market optimism create the illusion of convergence and integration, but these gains are rapidly reversed when crises re-emerge. The 2008 financial crisis, the sovereign debt crisis, and most recently the COVID-19 pandemic have revealed the inadequacy of existing frameworks and the inability of partial agreements on overarching principles to ensure operational coherence and resilience. Central to this fragmentation is the absence of a central supranational supervisory and regulatory authority capable of imposing consistent rules across all Member States as it happens for the Banking Union. Differences in jurisdictions also contribute to explain why attempts to harmonize financial regulation have often defaulted to “*lowest common denominator*” solutions. These fragmented arrangements hinder the formation of a single pool of capital and liquidity, raising transaction costs and reducing allocative efficiency (Valiante, European financial market structure and integration in the CMU era, 2016a).

The overreliance on banking intermediation makes the financial system vulnerable to credit contractions and procyclical lending behaviors. The underdevelopment of capital markets – especially equity markets – hampers the capacity of the financial system to support long-term investment and innovation (European Commission, 2020). In particular, European equity markets are the most affected from chronic underdevelopment. Retail investor participation remains low, equity cultures are different across member states, and ownership structures are often heavily concentrated. These

⁴ Article 26 – TFEU affirms that “[t]he Union shall adopt measures with the aim of establishing or ensuring the functioning of the internal market,” further specifying that this internal market “shall comprise an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured.”

factors limit the depth and liquidity of capital markets, discourage new listings, and impede the emergence of a shared equity investment culture. Moreover, concentrated shareholding and familial control structures reduce the availability of publicly tradable shares and limit the contestability of corporate control, further weakening investor confidence and hampering cross-border equity flows (Lehmann, 2020). Corporate governance models also play a critical role in reinforcing financial fragmentation (Tron, Dallochio, Ferri, & Colantoni, 2023). Divergences in shareholder rights, board structures, and takeover regulations might create significant barriers to cross-border investment.

The cumulative effect of these factors generates a vicious circle of underdevelopment. European firms are somehow obliged to seek listings on foreign exchanges, particularly in the United States, draining domestic liquidity and further weakening the European financial ecosystem. Accordingly, the implementation of comprehensive and coordinated integration measures has become more imperative than ever – particularly in a historical period marked by heightened geopolitical tensions, persistent economic uncertainty, and transformative technological and social developments that are reshaping market dynamics. In the absence of such structural reforms, the functional coherence of the Economic and Monetary Union is likely to remain compromised, thereby constraining the European Union’s capacity to ensure macroeconomic stability, foster convergence, and build systemic resilience.

It is on the basis of these considerations – and, as a tool of moving beyond the persistent perception of the European project as being solely marked by partial achievement and unfulfilled potential – that the full implementation of the Capital Markets Union (hereinafter: *CMU*) must be envisaged – and prioritized – as a central pillar of the Union’s economic and institutional consolidation.

Accordingly, this thesis conceives the CMU not merely as a technical regulatory endeavor but as an economic and social imperative, necessary to the future cohesion, resilience and stability of the whole European Union.

The CMU was originally launched in 2015, chaired by former European Commission president Jean-Claude Juncker, as a part of a strategic initiative to address long-standing structural flaws in European capital markets, thereby enabling the seamless flow of liquidity across the whole Union. In this way, the CMU seeks to provide access to alternative sources of financing, particularly for Small and Medium Enterprises (hereinafter: *SMEs*) and infrastructure projects, and to simultaneously foster greater financial stability and economic resilience (European Commission, 2015). However, the midterm review of its status on the status of its implementation proved to be a sobering reality check: original expectations – also in the light of the United Kingdom’s Brexit – were significantly slower and more fragmented than expected (European Commission, 2017). Nevertheless, the necessity to

pursue deeper and stronger integration of Capital Markets culminated in the launch of a renewed agenda, commonly referred to as “CMU 2.0”, aimed at revitalizing the integration process and aligning capital markets more closely with the Union’s evolving economic and geopolitical priorities (European Commission, 2020).

In the face of persistent fragmentation, the Capital Markets Union has increasingly been framed not only as a tool for financial integration, but as a vehicle for advancing broader macroeconomic and strategic objectives. Indeed, at its core, the CMU seeks to address Europe’s chronic weaknesses in shock absorption and risk sharing through market-based financial instruments – that, in the European Union, are significantly underdeveloped (mostly) due to the historical dominance of bank-based finance. The limited availability of market-based instruments for equity financing, securitization, and portfolio diversification has hindered the EU’s ability to smooth consumption and stabilize investment during economic downturns (Cimaomo, 2022). Empirical analyses exhibit that the euro area absorbs only 20% of asymmetric shocks through capital markets (ECB, 2025a), compared to over 70% in the United States, where equity ownership and inter-state investment flows are more developed.

Therefore, facilitating the flow of capital across borders, CMU seeks to enhance financial stability, reduce dependency on bank financing, and improve shock absorption through market-based instruments. Yet the structural impediments to achieving such a transformation remain significant. Indeed, persistent legal and regulatory divergence continues to hamper integration (Arampatzi, et al., 2025). Moreover, following the publication of the Action Plan 2.0, the CMU has been reoriented to support the EU’s dual transformation agendas: the green transition and the digital transition. Innovation strategies will require massive volumes of patient capital, which cannot be provided by the banking system alone (European Commission, 2020). Market-based finance represents the most suitable instrument to channel long-term savings into sustainable infrastructure, low-carbon technologies, and digital projects (Wheeler, Wu, Chatry, & Allain-Dupré, 2023). The CMU is likewise indispensable for small and medium-sized enterprises, which remain disproportionately reliant on bank credit (Navaretti, Calzolari, Ottaviano, & Pozzolo, 2019). Market-based alternatives – such as venture capital, private equity, and SME-specific bond markets – can provide more flexible financing models suited to the growth trajectories of these firms (Werner, Menk, & Neitzert, 2020). Furthermore, it also has the potential to tackle the macroeconomic rationale of efficiency and stability by aligning capital supply with investment needs, enabling better risk diversification, and creating a more robust financial infrastructure (Véron, 2024). Through harmonizing insolvency laws, improving supervision, and fostering financial literacy, CMU offers a pathway toward a more resilient European

economy. The CMU's importance further extends to the domain of financial inclusion and household wealth formation. Retail investor participation in European capital markets remains substantially below that of other advanced economies, due to limited financial literacy, constrained product offerings, and fragmented consumer protection regimes – the Eurobarometer survey, in this sense, is self-evident. An effective CMU has the potential address these deficits through the promotion of a shared investors' culture, regulatory simplification, and trust-enhancing governance (European Commission, 2020).

Nevertheless, technical reforms alone are insufficient. The legitimacy, governance, and democratic acceptability of these initiatives are fundamental to CMU long-term sustainability: past experiences with EU integration reveal how insufficient citizen engagement and weak public trust can contribute to derail even well-conceived projects. The CMU must therefore embed principles of transparency, accountability, and subsidiarity in its implementation. In this broader context, the CMU assumes a cross-cutting role in the EU's evolving economic governance model. It complements the fiscal and monetary policy pillars of the Union by providing a third channel for macroeconomic stabilization, structural convergence and progress in the path towards greater integration. As such, it is not only a financial reform, but a constitutive element of a more resilient and autonomous European economic order.

Consequently, this thesis seeks to analyze the role and effectiveness that a fully implemented Capital Markets Union framework might play in enhancing the efficiency of European capital allocation. This includes assessing its capacity (a) to promote the retention of capital within the Union and (b) to diversify financing channels available to small and medium-sized enterprises. The primary research question guiding this dissertation is therefore formulated as follows: *Can the Capital Markets Union – within its current framework and with its current objectives – strengthen Europe's financial markets by enhancing allocative efficiency, incentivizing capital retention, and expanding market-based financing possibilities for SMEs?*

This research question will be assessed along a series of interrelated sub-question, each designed to address specific dimensions of the broader framework.

First, how can a fully implemented Capital Markets Union enhance the efficiency of European capital allocation by reducing market frictions and barriers, and by directing funds toward businesses in strategic sectors and SMEs? (Code: RQ.1)

Second, can a fully implemented Capital Markets Union improve the retention of domestic capital within the EU? And, if so, how? (*Code RQ.2*)

Third, on the basis of the evidence emerged in the analysis of the first two sub-research questions, can the Capital Markets Union facilitate a transition from predominantly bank-based financing of SMEs to a more equity-oriented model, and if so, to what extent? (*Code RQ.3*)

Finally, as a forward-looking consideration, the dissertation will ascertain whether the CMU can provide an institutional foundation for the effective mobilization of capital in support of Europe's key investment priorities – including the green and digital transitions, demographic resilience, and defense infrastructure.

This analysis will be pursued systematically through the following chapters of the thesis.

The literature review (Chapter 1) provides a detailed theoretical grounding in financial integration and allocative efficiency, as well as empirical findings concerning capital allocation and capital retention within integrated and fragmented markets. It also outlines the structural limitations of bank-based financing for SMEs and explores the potential of market-based alternatives.

Chapter 2 examines the conceptual evolution and institutional framework of the CMU, from its initial articulation in the Five Presidents' Report and in the Action Plan 1.0 to successive action plans and revisions. This chapter positions the CMU within the broader architecture of EU financial governance and identifies the principles guiding its operationalization.

Chapter 3 assesses the current state of implementation, identifying key institutional, regulatory, and political barriers, while also presenting a roadmap of strategic proposals aimed at achieving full realization of the CMU's objectives.

Chapter 4 seeks to answer to the three sub-research questions, undertaking an empirical analysis of the mechanisms designed to reduce market inefficiencies and enhance capital allocation and retention. It will employ statistical tools to assess, from a quantitative standpoint, the potential of the CMU under controlled conditions.

The final conclusion synthesizes the findings, draws policy-relevant conclusions, and situates the CMU within the broader context of EU economic strategy. It also identifies future research avenues, particularly in relation the role of the CMU in addressing emergent socio-economic challenges such as digitalization, climate change, demographic ageing, the European welfare state and strategic investment in defense and infrastructure.

Chapter 1 – Literature Review

Over the course of the European Union’s development, *financial governance* has continuously evolved through the pressures of recurring crises and the imperative – institutional in nature, strategic in practice – of advancing broader economic integration.

Most notably, it is the evolution of *financial crisis management* to precisely reflect the existing tension between short-term stabilization efforts and the pursuit of long-term resilience. This interplay reveals why, historically, economic crises have exerted a profound impact on the Union’s financial architecture, while simultaneously prompting gradual but profound re-orientations in the strategic priorities of policymakers. For instance, in the immediate aftermath of the 2008 financial crisis and throughout the Sovereign debt crisis, policy responses were largely reactive, focused primarily on the so-called “fire-fighting measures” (EPRS, 2019), thereby addressing short-term disruptions with limited consideration for the long-term viability and sustainability of the enacted measures⁵. Consequently, several mechanisms, tools and initiatives introduced during this period de facto acted more as deterrents than as strategic tools. In more recent years, however, crisis response strategies have evolved, increasingly reflecting a dual objective: (a) providing immediate relief from economic pressures and (b) simultaneously advancing broader, long-term structural and institutional goals (Hobelsberger, Kok, & Mongelli, 2023). Illustrative of this is the Next Generation EU (hereinafter: *NGEU*) initiative: a new paradigm in EU crisis management in which short-term fiscal stimulus measures are linked to a forward-looking investment agenda (Messori, 2020).

Yet, this evolution must also be understood against the backdrop of persistent and structural flaws within the Union’s financial framework. Among these, the incomplete and uneven degree of financial integration stands out as a core structural weakness, that consistently hinders the Union’s ability to achieve complete economic convergence and deliver its institutional objectives. Indeed, while it is evident that the financial architecture of the whole Union has become increasingly integrated – with empirical data and relevant financial indicators confirming this trend (ECB, 2025a) – this increased interdependence also reveals one of the most striking paradoxes in the Union’s integration process: while the current level of financial integration remains unable to deliver fully unified capital, banking, and fiscal unions (Jones, Kelemen, & Meunier, 2016), it is nonetheless more than adequate to facilitate the rapid transmission of financial crises across the continent (Kostylenko, Rodrigues, & Torres, 2019).

⁵ At the institutional level, this short-term, reactive approach was also, to a significant extent, shaped – and constrained – by the existing legal and institutional framework of the European Union. The TFEU, for instance, imposes strict limitations on fiscal transfers and prohibits the mutualization of public debt (TFEU – Art. 125, “no bailout” clause), thereby restricting the scope of collective financial responses. Moreover, the absence at the time of a central fiscal authority or a fully developed financial backstop further limited the Union’s capacity to implement coordinated, long-term strategies.

It is in this context that the pursuit of more profound integration – in turn, driven by the dual objectives of (a) spurring robust, sustainable growth and (b) solidifying the continent’s competitiveness on a growingly complex global stage – constitutes a strategic priority. And, it is in the exact same context that the *Capital Markets Union initiative* should be embedded into: an initiative that is able to offer new pathways into how financial integration can facilitate more fluid cross-border capital movement, enhance allocative efficiency of European financial – and, more specifically, capital – markets by channeling resources to their most productive uses, support local economies through the retention of domestic savings under favorable market conditions, and expand financing options – particularly for SMEs – by promoting market-based mechanisms alongside traditional banking channels.

Accordingly, the following chapter engages in a critical examination of four interrelated themes central in the framework of European financial integration: (1) the dynamics of *financial integration*, (2) the efficiency of *capital allocation*, (3) the mechanisms supporting the *retention and mobilization of domestic savings*, and (4) the methods of *financing of small and medium-sized enterprises*. Building upon theoretical contributions from economics and finance literature, empirical analyses of the European financial system, and other relevant studies within related subjects, the discussion endeavors to investigate how these dimensions intersect with the strategic objectives of the Capital Markets Union to promote a more resilient, efficient, and inclusive financial system across the European Union.

1.1 – Financial Integration

Financial integration has long been recognized as a foundational pillar of the European Union’s economic and monetary agenda. In general terms, it denotes the progressive interconnection and functional unification of financial markets across national borders (Faruqee, 2007). Thus, it represents a dynamic process that, being capable of reshaping the financial architecture of the whole European EMU, necessitates a deeper understanding of its underlying principles.

Along these lines, its theoretical framework provides critical insights into the mechanisms through which the free movement of capital can be facilitated, financial risks more effectively shared, and economic cohesion – particularly within the EU – enhanced. The following sections explore the multifaceted dimensions of financial integration, beginning with its definition, its conceptual and theoretical foundations – which draw upon economic, legal, and political insights – and proceeds towards an examination of its practical significance, with particular emphasis on the integrationist aims of the Capital Markets Union.

1.1.1 – Defining Financial Integration

Reflecting the multifaceted nature of the subject, there exists no single, universally accepted definition of *financial integration*. Within economic literature, prevailing definitions tendentially emphasize the attributes of integrated markets – thereby adopting a policy-oriented perspective. In this light, financial integration is examined solely in relation to (a) its end-state, (b) its positive and/or negative implications, and on (c) the outcomes on market dynamics. In particular, Baele et al. (2004) – as preliminary mentioned in the *Introduction*⁶ – define Financial Integration from an operational perspective, focusing on the main implications of a fully-achieved integration: (1) coherent pricing of financial instrument and services across borders⁷, (2) the elimination of location-based distortions, and (3) the full application and adherence to the law of one price. As a result, financial assets are allocated according to efficiency criteria, ensuring their deployment toward the most productive uses, independent of institutional or regulatory segmentation (Schmiedel & Schönenberger, 2005). Along similar lines, de Haan, Oosterloo and Schoemaker (2009) further emphasize on the static perspective of integration, identifying in the absence of (1) frictions and of (2) discriminatory practices between (a) different economic agents and (b) different types of investment, the presence of financial integration.

In addition to these definitional and static perspectives, a parallel strand of literature focuses on the empirical measurements of financial integration, aiming to operationalize the concept through observable market behaviors, and their evolution. Within this context, Adam et al. (2002) offer a comprehensive framework that sees financial integration as a continuum of convergence processes rather than as a binary condition. According to their framework, financial integration can be empirically evaluated by examining the extent to which cross-border capital flows respond to common macroeconomic shocks (Adam, Jappelli, Menichini, Padula, & Pagano, 2002). This multidimensional perspective enables a more dynamic assessment of integration, particularly relevant in the context of the European Union, where institutional convergence tends to evolve incrementally rather than uniformly.

Indeed, while it is undeniably important to highlight the characteristics and behavior of markets in the presence of financial integration, it is equally essential to acknowledge that a more encompassing perspective does exist: a vision one that simultaneously encompasses for static, consequential factors and a dynamic, process-based dimension. Stated differently, a broader perspective that (1) emphasizes

⁶ Ref. to Page 1: “*This dissertation adopts the conceptualization of financial integration [...] of non-discriminatory treatment across different jurisdictions*”

⁷ Once adjustments are made for transaction costs and the inherent risks linked to cross-border financial activities

on the necessary conditions, that (2) specifies the criteria by which the progression should be assessed and that (3) accounts for the evolutionary, dynamic and context-specific nature of integration.

Therefore, adopting this perspective, financial integration can be viewed as a “multidimensional process, in which a system of financial markets becomes more closely interrelated over time in terms of its (1) market organization and infrastructure, (2) rules and regulations, and (3) pricing, transactions, and market practices” (Faruquee, 2007).

This perspective allows to conceptualize financial integration as a point lying on a continuum between no integration (i.e., financial autarky) and perfect integration (i.e., the single market). At one end of the spectrum, financial autarky refers to a utopic scenario in which markets essentially do not communicate among each other, without any linkage or interrelation. At the opposite end, instead, lies the ideal of the single market: an environment in which all the divides – regardless of their nature – essentially vanish, thereby making geographical, behavioral, economic or political factors irrelevant insofar the occurrence of transactions is considered. In practice, however, most financial systems operate at varying distances from these two theoretical extremes, thereby occupying intermediate positions along the integration spectrum. Accordingly, the measured and observed degree of integration achieved by a certain financial system depends on a complex interplay of institutional, regulatory, informational, and behavioral factors (Lemmen & Eijffinger, 1995). Therefore, no market has ever been entirely autarkic or perfectly integrated. Rather, they exist in a dynamic and often fluctuating state of partial integration.

The specific collocation of a financial system on this continuum does not have only a merely descriptive meaning; it inevitably becomes a defining characteristic of how its markets function and an indication for policymakers on how to intervene. It influences the efficiency of capital allocation, the nature and magnitude of transaction costs, the level of market access for different categories of investors, and the degree of systemic risk sharing.

1.1.2 – Theoretical Framework of Financial Integration in the European Union

Studies on financial integration applied to the context of the European Union provide a multi-disciplinary theoretical foundation, drawing upon a wide range of economic, legal, and political science perspectives, that contribute to the explanation of its underlying rationale, and of the institutional mechanisms through which it is pursued, the constraints it faces, and the broader normative and policy implications it entails. The interdisciplinary approach provided below is, therefore, essential for capturing the complexity of integration as both an *economic process* and a *governance challenge* within the EU’s unique supranational context.

Within *economic theories*, financial integration and its associated effects occupy a central place in both the Optimal Currency Area (hereinafter: *OCA*) theory and neoclassical economic frameworks. The *OCA* theory – originally developed by Mundell (1961), and later refined by McKinnon (1963), Kenen (1969), and Grubel (1970) – claims that for a currency union to be viable, the participating economic regions need to possess mechanisms for adjustment in the absence of autonomous monetary policy. The European Union, and the Euro Area specifically, perfectly exemplify their statement. Within this setting, financial integration might act as an adjustment mechanism by allowing enhanced capital mobility and safer private risk-sharing, thereby cushioning against asymmetric shocks. Therefore, for the specific context of the European EMU, financial integration is not only an economic goal but a structural (pre-)condition for monetary stability (Howarth & Verdun, 2020).

The concept of financial integration is also analyzed by *institutional theories*, that emphasize the role of formal and informal rules in shaping financial integration.

From a rational choice institutionalist perspective, EU Member States engage in integration to reduce transaction costs and gain credibility in financial markets (Aspinwall & Schneider, 2000).

Historical institutionalism emphasizes on the concepts of path dependency and the sequencing of institutional reforms, which can steer integration in particular directions or limit the range of future policy choices (Bulmer, 1993). Through this approach, the development of the Banking Union and CMU can be seen as gradual but path-shaping responses to external shocks and enduring structural weaknesses.

Discursive institutionalism' novelty lies in the introduction, in this strand of literature, of the role of ideas, discourse, and communicative practices in shaping institutional developments (Schmidt, 2008). From this perspective, financial integration is not only the product of material interests and institutional bargaining but is also depends on how it is framed and legitimized through public discourses. Stated differently, they claim that when policymakers, EU and national institutions actively construct narratives – such as the need for 'market efficiency', 'capital mobility', or 'financial stability' –, they inevitably shape policy preferences and justify regulatory choices. These narratives and the related interpretation of the broader public influence both public acceptance and elite consensus. In turn, this makes them a crucial variable in explaining both the momentum and resistance behind integration initiatives.

From a *political economy* standpoint, financial integration is not a neutral or automatic process but one shaped by power relations, interest group politics, and institutional configurations.

Moravcsik's (1998) liberal intergovernmentalism argues that integration reflects the preferences of national governments in the way they are influenced by domestic economic actors. Financial integration, in this view, represents the result of interstate bargaining, wherein more powerful states or coalitions actively shape outcomes to reflect their interests. In turn, this helps to explain the uneven nature of financial integration within geo-political blocs and across the world, and the persistence of regulatory asymmetries despite formal commitments to harmonization (Parsons, 1999). Therefore, financial integration, in this view, arises from negotiated outcomes among states with uneven bargaining power and different domestic interests. More powerful states, or coalitions of states, are better able to shape the regulatory architecture of integration to align with their economic preferences and institutional capacities. This is exemplified by the Franco-German 'engine' during the Euro crisis, which steered key reforms like the ESM and Fiscal Compact in line with their fiscal and governance priorities (Schramm & Krotz, 2023).

Therefore, despite its deeply political nature, the path toward greater integration is shaped by (a) economic logics and objectives, (b) institutional dynamics and constraints, (c) discursive framing, and (d) interstate bargaining and power dynamics. In turn, each of these aspects pertains to a specific discipline that, inevitably, needs to be accounted for, and balanced with others for a comprehensive picture.

1.1.3 – The Stability Trade-Offs of Financial Integration: Benefits and Risks

The process of financial integration entails a complex interplay of opportunities and vulnerabilities. On one hand, it is able to facilitate more efficient capital allocation, strengthening market liquidity, and supporting long-term economic convergence. On the other, it magnifies the risks associated to systemic contagion – especially throughout economically stressful periods – as it deepens interdependencies among financial institutions and markets. This twofold character makes it essential to evaluate financial integration not merely in terms of its theoretical framework, but also through the lenses of financial stability.

At its most fundamental level, a financial system performs public goods-alike functions: (a) it facilitates the reallocation of resources across time and different geographical regions, (b) it enables the smoothing of consumption, (c) the diversification of investment, and (d) enhances the public and private support for productive activities. Thus, through the harmonization of previously fragmented national financial systems, financial integration amplifies these functions and unlocks a broad array of macroeconomic and microeconomic benefits. The most immediate gains are the removal of legal, regulatory, and institutional barriers that historically constrained capital mobility (Baele, Ferrando,

Hördahl, Krylova, & Monnet, 2004). Simultaneously, financial integration has the potential to deepen financial markets, improving liquidity, tightening bid-ask spreads, and stabilizing asset prices (Pagano & von Thadden, 2004). Therefore, legal, regulatory, and institutional barriers de facto have a dual role: they might serve as catalysts that propel financial integration, yet they may also emerge as endogenous outcomes of the same integration processes they help to initiate. In turn, this depends on the design and scope of the integration initiatives undertaken. In addition, financial integration also supports the development of sophisticated financial instruments and promotes intertemporal capital allocation across jurisdictions, improving resilience and market completeness (European Commission, 2013). Integration also promotes dynamic efficiency by encouraging financial innovation, creating economies of scale opportunities, and diversifying funding sources, particularly for SMEs. In traditionally bank-centric systems, SMEs often face credit constraints, especially during domestic downturns (Beck, Demirguc-Kunt, & Levine, 2000).

Financial integration further supports macroeconomic stability by improving the alignment of risk and return across the Union. With capital moving freely and risk being priced consistently across borders, financial resources are more likely to be channeled toward their most productive uses. This process not only underpins sustainable growth but also broadens access to credit in peripheral regions and during economic shocks, thereby strengthening risk-sharing mechanisms (Obstfeld, 1994).

As such, integration is central not only for enhancing capital market functionalities and characteristics, but also for advancing convergence, cohesion, and inclusive growth across the Union.

However, these benefits are inevitably accompanied by a parallel set of systemic vulnerabilities that, if unaddressed, or poorly addressed, are able to offset or potentially reverse the gains of integration. The very mechanisms that promote efficiency may also facilitate the rapid transmission of financial shocks. Structural interconnectedness through cross-ownership, intragroup financing, and interbank exposures creates immediate channels for contagion (Allen & Gale, 2000). A disruption in one member state can echo across others, impairing liquidity and capital buffers (de Grauwe & Ji, 2013). Further compounding systemic risk are the characteristics of large, complex financial institutions that operate cross-border. Their scale, opacity, and transnational operations create supervisory blind spots and moral hazard risks associated with their “too-big-to-fail” status (Acharya, Pedersen, Philippon, & Richardson, 2017). In times of market stress, coordinated asset sales, liquidity prioritization, and deteriorating valuations can trigger fire-sale dynamics and deleveraging spirals (Brunnermeier & Pedersen, 2009). Financial integration may also increase vulnerability in economies undergoing rapid financial deepening, where capital inflows can lead to asset bubbles and current account imbalances that reverse abruptly under external shocks. Even diversification strategies may falter, as the search

for yield increases risk concentration and latent home biases re-emerge during crises, weakening the effectiveness of cross-border risk sharing (Portes & Rey, 2005).

These dynamics and risks, analyzed together, underscore the dual nature of financial integration. Without adequate supervisory convergence, robust macroprudential frameworks, and resilient crisis management tools, the same interdependence that fosters efficiency can serve as a conduit for systemic instability. As Danielsson and Zigrand (2006) emphasize, systemic risk is endogenous to the financial system and often exacerbated by the very innovations intended to enhance performance.

1.1.4 – Financial Integration through the CMU: a Theoretical Perspective

The Capital Markets Union initiative ranks amongst the main pillars of the recent European Union's strategy to deepen financial integration, enhance financial stability, and promote sustainable economic growth.

At the heart of the CMU lies the recognition that Europe's financial system has historically been consistently bank-centric and, to a considerable extent, fragmented. According to Langfield and Pagano (2016), the overreliance on banking channels for financing increased systemic risk and restricted access to finance during periods of financial distress. The CMU was thus conceived as a supportive pillar to the Banking Union, in a broader attempt to focus on developing more resilient, diverse, and accessible non-bank funding sources – particularly capital markets.

The theoretical roots of the CMU can somehow be associated to insights drawn from financial integration theory, that suggests how greater integration improves capital allocation, creates a broader liquidity base, and enhances the functioning risk-sharing mechanisms (Baele, Ferrando, Hördahl, Krylova, & Monnet, 2004). In this context, the CMU represents a vehicle for harmonizing regulatory frameworks, fostering cross-border investments, and facilitating the development of equity and bond markets.

A significant body of research has focused on evaluating the CMU's impact on financial integration. The findings from Arampatzi et al. (2025) seem to convey a widespread belief in this regard: while progress has been made in certain areas – like the securitization market, crowdfunding regulation, and the establishment of the European Single Access Point (*ESAP*) – overall integration in equity and bond markets remains significantly limited. Legal fragmentation, national insolvency regimes, and the lack of a unified withholding tax framework continue to impede cross-border investments. Furthermore, barriers related to information asymmetry, investor protection, and corporate governance differences persist (Arampatzi, et al., 2025).

Researchers have also emphasized the CMU's role in strengthening the mechanisms of private risk-sharing in the EMU. Comparing the studies from Asdrubali et al. (1996) and more recent ECB's

reports (2018), it is noticeable how risk-sharing via capital markets remains underdeveloped in the Eurozone compared to the United States and how this problem existed prior to the introduction of the single currency and the launch of the EMU. The CMU intended to propose actionable solutions to this issue by enabling households and firms greater ease in diversifying their asset holdings geographically (European Commission, 2020). However, these benefits are inherently contingent upon a deeper integration of legal and supervisory frameworks, as well as improved financial literacy and participation rates among retail investors – which are likewise amongst CMU’s objectives.

Another important theme in the literature concerns the CMU’s governance and implementation challenges. Verdun and Zeitlin (2017) argue that the EU’s multi-level governance structure and divergent national interests have led to incrementalism and regulatory fragmentation, limiting the transformative potential of the CMU. Although the European Commission has introduced successive action plans (i.e., in 2015, 2017 and 2020), progress has often been hindered by political reluctance to cede sovereignty over sensitive areas like taxation and insolvency law.

Generally speaking, these findings suggest how long-standing financial integration objectives of the EU significantly overlaps with the objectives of the Capital Markets Union: both prioritize the establishment of interconnected financial systems capable of facilitating efficient capital allocation and risk-sharing across borders.

Financial integration, indeed, encompasses harmonization in regulatory standards, market practices, and institutional frameworks, aimed at removing barriers to cross-border investment, thus fostering greater liquidity and efficiency in capital markets (Baele, Ferrando, Hördahl, Krylova, & Monnet, 2004). The CMU – according to its intended objectives – specifically targets these dimensions within the European Union context, focusing on creating unified markets, standardizing frameworks, and mitigating risks associated with fragmented and bank-dependent financial structures (Arampatzi, et al., 2025). Consequently, the CMU can be viewed as one of the initiatives which more closely represent the practical embodiment of financial integration theories within the EU.

In conclusion, the literature presents a nuanced assessment of the CMU as a tool for fostering financial integration in the European Union. The future of the CMU will depend not only on technical and regulatory reforms but also on political will and stakeholder cooperation. The CMU remains a central yet evolving and underexplored instrument in the broader project of European financial integration.

1.2 – Allocative Efficiency

Building upon this analysis of the CMU’s role in advancing financial integration, it is crucial to further explore its implications for allocative efficiency within the European Union's financial architecture.

Broadly, the literature on *allocative efficiency* – of different types of resources, and of different market structures – provides an important standpoint through which to assess the optimality of economic systems and the structural conditions underpinning welfare-maximizing outcomes.

Rooted in classical and neoclassical economic thought, the concept of effective allocation of resources, closely linked to the concept of *effective functioning of markets*, is most precisely captured in the *principle of allocative efficiency*, wherein resources are distributed in accordance with consumer preferences and societal needs, thereby equating marginal costs with marginal benefits.

However, as in the case of financial integration, reality is far from what is predicted by the models. Accordingly, a substantial body of literature acknowledges the persistent gap between idealized market models and real-world dynamics, attributing allocative inefficiencies to a range of economic, legal, political, and institutional frictions. Therefore, this chapter reviews insights drawn from different fields, including microeconomic theory, institutional economics, public choice, and regulatory studies, offering a comprehensive understanding of how various frictions distort allocation mechanisms. It begins by outlining the theoretical foundations that define and conceptualize efficient allocation of financial and non-financial resources within economic thought. Successively, it turns to the economic frictions and imperfections capable to disrupt market efficiency. Accordingly, it moves towards addressing the legal and institutional constraints that undermine a proper and effective allocation of resources in reality. Finally, the review assesses the role of the EU's Capital Markets Union in this realm, which embodies a policy-driven attempt to enhance allocative efficiency by fostering financial integration and removing structural barriers to capital flow across member states.

1.2.1 – The Theoretical Framework of Allocative Efficiency

The concept of allocative efficiency is intrinsically rooted in the foundational theories of economic thought and represents a pivotal concept in understanding how societies can achieve optimal economic welfare through the judicious distribution of scarce resources. Broadly, allocative efficiency refers to a market condition in which resources are allocated in such a manner that the marginal benefit to society equals the marginal cost of production, and all goods and services are produced in quantities that precisely reflect consumer preferences (Holmes, Hsu, & Lee, 2013).

Classical economic thought laid the earliest and most influential groundwork for the concept of effective allocation through the contributions of Adam Smith. In his “*An Inquiry into the Nature and Causes of the Wealth of Nations*”, Smith (1776) defined the notion of the “invisible hand,” arguing that individuals, in the pursuit of their own self-interest, in competitive markets, unwittingly promote the collective welfare of society. Accordingly, prices in competitive markets directly signal whether resources are being redirect toward their most valued uses. In turn, these mechanisms effectively

coordinate individual decisions in a decentralized manner without requiring central planning (i.e., no government intervention). Therefore, the assumption is that, under conditions of perfect competition, market forces align private incentives with social benefits, thus naturally guiding economies toward allocative efficiency. This perspective, although largely qualitative, continues to influence – to a considerable extent – contemporary liberal economic policy, particularly in the context of market deregulation and free trade (Persky, 1989). Neoclassical economic thought, instead, provides more formal analytical tools to evaluate resource allocation. Pareto's (1906) *Pareto efficiency* codification redefined the criteria for optimality in allocation, and has become, ever since, a foundational theory in microeconomics. A situation is Pareto efficient if no individual can be made better off without making someone else worse off. This concept remains a benchmark for determining whether any reallocation could potentially improve social welfare (Popa, 2007).

Along similar lines, the neoclassical position on the theme was further refined by Paul Samuelson, who provided a rigorous mathematical treatment of welfare economics in his *Foundations of Economic Analysis* (1947). Samuelson introduced marginal conditions for allocative efficiency, arguing that equilibrium in perfectly competitive markets is attained when prices equal marginal costs and when individual consumption choices reflect marginal rates of substitution. In his formulation, welfare-maximizing resource allocation depends directly on the assumption that market participants act rationally, have complete information, and face no external distortions (Hands, 2020). These assumptions inadvertently challenge the model's actual application: not only market participants are not always rational, but they are also most likely not to have complete information and might as well face external distortions.

A major theoretical advancement came with the development of general equilibrium theory, most notably through the *Arrow-Debreu model*. This model formalized the conditions under which a set of competitive markets could reach an equilibrium where all agents maximize their utility or profit, and all markets clear. Accordingly, this model demonstrated that, under a specific set of conditions – including perfect competition, complete markets, no externalities, and full information – markets would achieve a Pareto-efficient allocation of resources. The model is often criticized for its reliance on unrealistic assumptions (Geanakoplos, 1989).

As specified above, the real critiques to these models and ideas concerned their real-world applicability: the conditions under which these conceptualizations are expected to work are considered to be excessively idealized.

The recognition of *market imperfections* gave rise to a more critical, reality-based branch of economic thought. One of the most significant contributions came from the work of Grossman and Stiglitz

(1980), who argued that – if they do exist – informational asymmetries make perfectly efficient markets theoretically impossible. They demonstrated how, under perfect information, no incentive would exist for individuals to acquire costly information, thus undermining the very foundation of price-based resource allocation (Grossman & Stiglitz, 1980). Closely related to the issue of imperfect information is the problem of *externalities*. Coase (1960) argued that, if property rights are defined properly and market exchanges occur with zero transaction costs, private bargaining might internalize externalities and lead to efficient outcomes. However, the author itself acknowledged how, in most real-world settings, transaction costs are not negligible, and legal or institutional constraints effectively prevent efficient bargaining from occurring. Externalities, thus, prevent the efficient allocative functioning of markets from occurring by creating divergences between private and social costs or benefits (Coase, 1960).

Market structure is another critical determinant of effective allocation. Theories of monopolistic and oligopolistic competition, developed by Chamberlin (1933) and Robinson (1933), reveal how firms with market power can set prices above marginal cost, leading to underproduction and allocative inefficiency. Tirole (1988), in his “*Theory of Industrial Organization*,” analyzed strategic firm behavior in imperfectly competitive markets and demonstrated how barriers to entry, collusion, and price discrimination distort resource allocation (Tirole, 1988).

The body of literature on transaction cost economics, initiated by Williamson (1979), focuses on the frictions inherent in economic exchanges. Williamson emphasized that real-world transactions are often hindered by factors such as bounded rationality, opportunism, and incomplete contracts, that inevitably increase the cost of exchanging goods and services, thereby discouraging potentially welfare-enhancing transactions.

Recent theoretical contributions have sought to integrate these diverse perspectives, and account for the afore-mentioned “reality check” into a more comprehensive framework for understanding effective allocation. For instance, institutional economics emphasizes the role of formal and informal institutions – most notably, laws, norms, and enforcement mechanisms – in shaping economic behavior and resource flows. North (1990) argued that institutions provide the “rules of the game” that reduce uncertainty and transaction costs, thereby improving allocative outcomes (Krikelas, 1995). Moreover, contemporary approaches in political economy recognize that allocation decisions are not merely the outcome of impersonal market forces but are also shaped by power dynamics, lobbying, and rent-seeking behaviors (Grossman & Helpman, 1994).

The increasing complexity of global economic systems has also necessitated the development of new theoretical models that account for network effects, systemic risks, and technological innovation. For

example, the rise of digital platforms, algorithmic trading, and financial technologies (FinTech) has introduced new variables into the calculus of efficient resource allocation (Feyen, Frost, Gambacorta, Natarajan, & Saal, 2021). Overall, these innovations pose significant challenges related to data monopolies, algorithmic biases, and regulatory arbitrage areas that require further theoretical inquiry to fully assess their impact on allocative efficiency.

1.2.2 – Economic, Legal and Institutional Barriers to Allocative Efficiency

The main insight to draw from the previous paragraph is that, while allocative efficiency represents an ideal state in which resources are directed toward their most productive uses in alignment with societal preferences, the realization of this theoretical construct is persistently undermined by a complex array of economic, legal, and institutional barriers.

These barriers do not operate in isolation. Rather, they interact dynamically, reinforcing structural inefficiencies that impede optimal resource distribution. These imperfections are embedded within the structures of economies and are “sustained” by static institutional frameworks and long-lasting regulatory asymmetries, thereby making the attainment of allocative efficiency a far more intricate and contested endeavor than any theoretical models or combination of models would suggest.

One of the most prominent economic barriers to allocative efficiency is the prevalence of *information asymmetry*. This phenomenon arises when different market participants possess unequal access to relevant information, thereby undermining the ability of markets to accurately signal the marginal costs and benefits associated with various resource allocations. Stiglitz and Weiss (1981) demonstrated how asymmetrical information in credit markets inevitably results in credit rationing, wherein potentially productive borrowers are denied access to financing due to lenders' inability to distinguish between high- and low-risk applicants. This inefficiency extends beyond financial markets and permeates product and labor markets, where informational disparities distort pricing mechanisms and lead to suboptimal investment, production, and consumption decisions. The systemic nature of information asymmetry implies that market participants often operate under conditions of uncertainty, thereby constraining their capacity to allocate resources in a manner that maximizes societal welfare (Stiglitz & Weiss, 1981).

In addition, *market power* represents another critical economic distortion that impairs allocative efficiency. In competitive markets, prices ideally reflect the equilibrium between supply and demand, thereby guiding resources to their most valued uses. However, in monopolistic or oligopolistic settings, firms possess significant pricing power, enabling them to set prices above marginal cost and restrict output below socially optimal levels (Tirole, 1988). This distortion also dampens innovation and dynamic efficiency by reducing competitive pressures, and can lead to rent-seeking behaviors,

where firms use resources to maintain or enhance their market dominance rather than investing in productive activities (Brou & Ruta, 2013).

Externalities further compound economic inefficiencies by introducing discrepancies between private and social costs or benefits. Negative externalities impose unaccounted-for costs on third parties, leading to the overproduction of harmful goods. Conversely, positive externalities, such as public health initiatives or education, generate societal benefits that are not fully captured by private actors, resulting in underinvestment. In the presence of well-defined property rights and low transaction costs, externalities could be internalized through private bargaining. However, in practice, transaction costs are seldom negligible, and property rights are often ill-defined or inadequately enforced, particularly in developing economies or transitional regulatory environments (Coase, 1960). Overall, this implies that market signals fail to reflect the true social opportunity costs of economic activities.

Legal barriers to allocative efficiency are equally significant and frequently intersect with economic distortions to magnify their adverse effects. *Weaknesses or inconsistencies within institutional frameworks* governing property rights, contract enforcement, and insolvency procedures rank amongst the most famous. In jurisdictions where property rights are tenuous or contested, investors face high risks, leading to underinvestment in productive sectors and capital flights. Some studies empirically demonstrated that in settings that dispose of more efficient judicial systems and stronger legal protections exhibit higher levels of financial development and more effective capital allocation. In contrast, weak legal institutions increase transaction costs, inhibit market participation, and foster environments conducive to corruption and rent-seeking (Shleifer, Djankov, LaPorta, & Lopez-de-Silanes, 2008).

The extent of *contract enforcement* represents another critical legal determinant of allocative efficiency. Incomplete or poorly enforced contracts increase uncertainty and reduce the credibility of market transactions. This might deter long-term investment, particularly in capital-intensive sectors that rely on complex contractual arrangements (Koepl, Monnet, & Quintin, 2014).

Moreover, *legal uncertainty* tends to disproportionately affect SMEs, which typically lack the resources to navigate protracted legal disputes or to dispose of a sufficient degree of legal knowledge. As a result, they face the risk to be excluded from accessing capital or entering into high-value contracts, further entrenching allocative inefficiencies. The efficiency of insolvency regimes also bears directly on capital allocation, as it has the ability to maintain, foster or hamper the dynamism of the economic system (OECD Economics Department, 2016).

Institutional barriers extend beyond formal legal frameworks to encompass the broader organizational and bureaucratic structures that govern economic activity. These include the *efficiency of regulatory agencies*, the *degree of bureaucratic transparency*, and the *prevalence of corruption*. Mauro (1995) highlighted how corruption systematically distorts resource allocation by incentivizing investments based on political access rather than economic merit. Corrupt practices also shift resources toward sectors where rent extraction is feasible, thereby undermining innovation and productivity growth (De Rosa, Gooroochurn, & Görg, 2016). Furthermore, *institutional fragmentation* – where overlapping jurisdictions, regulatory duplication, and inconsistent enforcement mechanisms coexist, as in the European Union – creates an operational environment that raises compliance costs and deters investment. This fragmentation is particularly problematic in multi-level governance systems, such as the European Union, where the lack of harmonization among national regulatory frameworks hampers the efficient flow of capital across borders (Kalmenovitz, Lowry, & Volkova, 2022). *Institutional inertia* also presents a further barrier to reform. Deep-seated bureaucratic practices and resistance to change often slow the pace of institutional transformation. Reform efforts may be further hampered by a lack of technical capacity, particularly in lower-income member states, and by the absence of sufficient political will to undertake comprehensive structural adjustments (Ritchie, 2014). Additionally, *vested interests* within existing institutional frameworks may actively oppose reforms that threaten to disrupt established rent-seeking channels. As a result, even well-designed policy initiatives may falter during implementation, leading to a persistence of inefficiencies despite formal commitments to reform (Moe, 2015).

In this realm, the introduction of digital technologies and financial innovation presents both opportunities and challenges in addressing these barriers.

On one hand, technologies such as blockchain and artificial intelligence have the potential to (a) reduce transaction costs, (b) enhance transparency, and (c) improve contract enforcement through smart contracts and automated compliance systems. On the other hand, having to account for the pace of innovation, it is undeniable that the regulatory landscape has struggled to keep pace with it. This has resulted in legal ambiguities and jurisdictional uncertainties that may introduce new sources of allocative inefficiency. International coordination is increasingly recognized as essential for mitigating institutional and legal frictions in an era of globalized capital flows.

Therefore, the pursuit of (greater) allocative efficiency is profoundly constrained by a confluence of economic, legal, and institutional barriers that are deeply embedded within the structural architecture of contemporary economies, as well as within the EU's landscape.

1.2.3 – Allocative Efficiency in the European Union: The Role of the Capital Markets Union

The CMU initiative seeks to contribute actively to addressing many of the economic, institutional and legal barriers within national European economies and the broader Union's economy by fostering regulatory convergence, enhancing transparency, and improving cross-border investment flows (European Commission, 2020). However, the CMU itself has faced challenges in implementation, primarily due to the political sensitivities surrounding national sovereignty and the reluctance of member states to cede regulatory authority. While the initiative has made progress, significant disparities remain in areas such as insolvency law, corporate governance, and taxation (European Parliament, 2024). Therefore, these result in a continued fragmentation of capital markets, that ultimately limits the ability of the CMU to fully realize its allocative efficiency objectives. In addition, enforcement remains uneven across jurisdictions.

The optimal allocation of financial resources represents a foundational pillar of long-term economic growth and social welfare in the EU. Despite the process of deepening integration has been ongoing ever since the Maastricht Treaty, the EU still exhibits significant inefficiencies in capital allocation. These inefficiencies manifest in persistent disparities in investment levels, uneven access to finance, and the underutilization of capital in economically dynamic sectors or regions (ECB, 2025a). The issue of allocative efficiency in the EU context must therefore be addressed both as a structural weakness in the Union's financial architecture and as a target for institutional reform.

These differences give rise to systemic barriers to allocative efficiency. Empirical studies reveal that capital often fails to reach its most productive destinations within the Union, with flows concentrated disproportionately in core countries with mature financial systems, rather than in other regions which are more likely to be needing external financial resources (Lane, 2012). Peripheral and less-developed regions, by contrast, remain underserved by financial markets, despite exhibiting significant growth potential. This phenomenon is partly attributed to informational asymmetries, legal fragmentation, and home bias, which collectively discourage cross-border investment. Moreover, the EU's historically bank-centric financial system has constrained capital availability for non-bank actors and innovative enterprises, particularly small and medium-sized enterprises (Beck, Demirguc-Kunt, & Levine, 2000). Legal and institutional fragmentation further compounds these barriers, with differences in national insolvency regimes, taxation policies, and corporate governance frameworks that impede the standardization of financial products and the enforceability of contracts across borders (Shleifer, Djankov, LaPorta, & Lopez-de-Silanes, 2008).

The EU's uneven distribution of financial resources also has a temporal dimension. Intertemporal allocation is often hampered by procyclical lending practices and limited access to long-term finance. During downturns, capital returns towards core markets and low-risk assets, amplifying investment shortfalls in peripheral regions and high-growth sectors. The absence of deep, liquid markets for long-duration instruments further constrains the ability of firms to undertake long-term projects (European Parliament, 2024) and in persistent underinvestment in areas such as digital infrastructure, renewable energy, and human capital; essential for the EU's long-term competitiveness and cohesion.

Against this backdrop, the CMU emerges as a strategic initiative, explicitly aligned with the goal of improving allocative efficiency through multiple interlinked domains and policy dimensions.

First, by addressing informational frictions, the CMU facilitates better price discovery and investment decision-making. Initiatives such as the European Single Access Point (*ESAP*) aim to centralize and standardize financial and sustainability-related disclosures from issuers, making it easier for investors to assess risk and compare investment opportunities (European Commission, 2020).

Second, the CMU seeks to eliminate regulatory fragmentation by enabling different legal frameworks across member states to converge. One of its key proposals includes the convergence of national insolvency laws – a long-standing obstacle to cross-border investment. From an institutional economics perspective, consistent legal rules reduce transaction costs and uncertainty, thereby fostering investor confidence and encouraging cross-border flows (Shleifer, Djankov, LaPorta, & Lopez-de-Silanes, 2008). The standardization of legal processes enhances the enforceability of contracts and strengthens the protection of creditor rights, prerequisites for the development of deep, resilient capital markets.

Third, the CMU targets the diversification of financial intermediation beyond traditional banking. This aspect is theoretically significant because reliance on bank lending in the EU has historically limited the breadth of capital allocation channels, particularly for SMEs and start-ups. The promotion of alternative financing instruments responds to the need for financial systems that support differentiated risk appetites and funding durations, thereby aligning with the insights of Tirole (1988).

Moreover, the CMU's promotion of long-term investment vehicles further supports allocative efficiency by aligning investment horizons with long-term economic and strategic needs. European Long-Term Investment Funds (*ELTIFs*), for instance, are structured to attract institutional investors into infrastructure and social projects with extended payback periods.

Finally, the CMU addresses behavioral and structural biases that hinder optimal resource allocation. Retail investors in Europe remain underexposed to equity markets, often due to lack of financial literacy, regulatory complexity, or cultural preferences for low-risk assets. The CMU aims to foster retail participation through simplified disclosures, investor education, and digitalization of financial services.

Importantly, the CMU's contribution to allocative efficiency extends beyond static resource distribution. By supporting the development of deeper and more integrated capital markets, the CMU also enhances (a) the system's dynamic efficiency, (b) the capacity to adapt resource allocation in response to (1) evolving technologies, (2) preferences, and (3) macroeconomic conditions. Financial innovation plays a central role in this regard: CMU's efforts to integrate digital finance, support FinTech development, and establish common frameworks for digital assets are thus critical to maintaining allocative efficiency in a rapidly changing economic landscape (European Commission, 2015). Yet, despite its strong theoretical underpinnings, the implementation of CMU reforms faces practical and political constraints. National sovereignty, divergent economic interests, and institutional inertia continue to hamper progress in harmonizing legal frameworks and supervisory practices. Member states are often reluctant to cede regulatory authority or align insolvency laws, fearing negative domestic implications. Moreover, disparities in enforcement capacity and administrative sophistication among national regulators limit the uniform application of CMU policies, undermining investor confidence and perpetuating fragmentation.

To overcome the challenge stemming from national sovereignty, divergent economic interests, and institutional inertia, the literature advocates for a more centralized and binding approach to CMU governance, potentially through treaty amendments or enhanced cooperation mechanisms. The establishment of a *European Capital Markets Authority with binding powers* has been proposed as a means of ensuring consistent rule enforcement and reducing regulatory arbitrage (Véron & Wolff, 2016). In the absence of such institutional reforms, the CMU risks remaining a policy aspiration rather than a transformative instrument for allocative efficiency.

Therefore, in the realm of efficient allocation of financial and non-financial resources, the Capital Markets Union represents the most comprehensive attempt to address the existing structural impediments in the European Union. Specifically, it intends to achieve these objectives by targeting informational, legal, institutional, and behavioral frictions, and creating the conditions under which capital can flow freely and productively across the Union. While its implementation is fraught with political and administrative challenges, the CMU remains a critical policy vehicle for enhancing

allocative efficiency and, by extension, economic cohesion, resilience, and welfare across the European Union.

1.3 – Capital Retention

Capital retention within the European Union has emerged as a central focus of both academic research and policy interventions, particularly in light of persistent structural challenges that undermine the bloc's ability to efficiently channel domestic savings into productive investment. Despite being one of the world's largest economic regions, the EU has historically and consistently experienced lower levels of domestic capital employed for internal investments relative to other advanced economies such as the United States (Hanzl-Weiss & Stehrer, 2024).

Recurring themes, such as fragmented financial markets, heterogeneous regulatory and tax frameworks, and limited cross-border investment integration have contributed to significant capital outflows and underutilization of internal financial resources. In response, the EU has pursued ambitious initiatives – such as the Capital Markets Union – yet their effectiveness depends on overcoming regulatory divergence, enhancing investor confidence, and ensuring equitable access to capital across all member states and economic actors. This section reviews the key determinants, policy frameworks, and emerging themes that shape capital retention in the EU, drawing upon recent empirical and theoretical contributions.

1.3.1 – Regulatory Fragmentation and Capital Outflows in the EU

A significant and persistent impediment to capital retention in the EU is the persistent regulatory fragmentation across member states. This situation creates inefficiencies, raises investment-related costs, and prompts capital to flee the area in search of more integrated and predictable markets.

Regulatory fragmentation can be defined as the lack of coherence and uniformity in financial regulations, tax regimes, insolvency laws, and corporate governance frameworks among EU countries. Despite the overarching goal of economic and financial integration, the EU remains a mosaic of diverse legal and institutional environments, which complicates the creation of a truly single European capital market (De Sury D'Aspremont & Spitzer, 2024). This fragmentation undermines the Union's capacity to retain domestically generated savings by discouraging cross-border investment and failing to provide a sufficiently attractive environment for both domestic and international investors (De Sury D'Aspremont & Spitzer, 2024). Empirical studies consistently highlight how regulatory divergence within the EU plays a significant role in facilitating capital outflows. Anderson et al. (2019) demonstrate that the lack of harmonized financial market regulation results in market segmentation, where investors are confronted elevated transaction costs, legal uncertainties, and barriers to cross-border investment (Anderson, Brooke, Hume, & Kürtösiová,

2015). These frictions incentivize both institutional and private investors to allocate capital outside the EU to jurisdictions such as the United States, where regulatory frameworks are more predictable and streamlined. This issue is particularly severe in sectors that heavily rely on capital mobility, such as infrastructure, technology, and SMEs, which find it hard to cope with the legal mosaic that characterizes EU capital markets. Accordingly, cross-border investment flows within the EU remain substantially below their potential, mirroring persistent regulatory bottlenecks and investor hesitancy (ECB, 2020).

Taxation represents one of the most significant areas of regulatory divergence. Corporate tax rates and rules for dividend withholding vary widely across the EU, creating opportunities for tax arbitrage and distorting the allocation of capital (ECB, 2025a). De Mooij and Devereux (2010) show that disparities in corporate tax policy significantly influence the location of investment and profit-shifting behavior among multinational corporations. Accordingly, investors and firms seek to exploit these differences to minimize their tax burden, often at the expense of investment in countries with less favorable regimes, which are inevitably left behind. Sørensen (2001) argues that the absence of tax harmonization is a structural impediment to market integration, considering that it distorts competition, encourages rent-seeking behaviors, and ultimately hampers the efficient allocation of capital across the EU. Along similar lines, inconsistent tax treatment of capital gains, dividends, and interest income imposes compliance costs and legal uncertainties on cross-border investors, further discouraging them from retaining or reinvesting capital within the EU.

Divergences in insolvency and restructuring frameworks further exacerbate regulatory fragmentation. Insolvency laws vary significantly among EU member states in terms of (a) creditor rights, (b) duration of proceedings, and the (c) treatment of cross-border claims. This heterogeneity impairs investor confidence by reducing the predictability of investment outcomes in the event of firm failure and imposing significant legal and administrative costs on investors, limiting their willingness to allocate capital domestically. Letta's 2024 Report identifies insolvency law harmonization as a key priority for the EU, arguing that integrated restructuring frameworks are essential to building investor confidence and reducing the systemic risk of capital flight – especially, during periods of financial stress.

Divergent corporate governance practices further contribute to regulatory inconsistency across the EU. While the EU has made significant progress in promoting coherent governance through directives and soft law mechanisms, their actual implementation and enforcement remain uneven across member states: differences in board structures, shareholder rights, disclosure requirements, and enforcement mechanisms persist, creating uncertainty for investors and limit the scalability of corporate investment across borders (Véron & Wolff, 2016).

The slow pace of reform reflects both institutional and political obstacles. The responsibility for guaranteeing coherence in the realms of the above-mentioned themes remain stably under the jurisdiction of member states, limiting the EU's capacity to enforce uniform standards. Efforts to harmonize tax policies, for instance, require unanimous agreement among all member states, which is often difficult to achieve due to divergent national interests. Draghi's 2024 Report emphasizes the need for a renewed political commitment to regulatory harmonization, arguing that Europe must overcome national reluctance in order to realize the full benefits of financial integration and capital retention. Moreover, the absence of a centralized supervisory authority with comprehensive oversight powers and the possibility of making binding decisions has also limited the EU's ability to enforce consistent regulations. While the European Securities and Markets Authority (hereinafter: *ESMA*) plays an important role in coordinating national regulators, its authority is primarily limited to issuing technical standards and guidelines. In relation, scholars sustain that without stronger supranational enforcement mechanisms, regulatory divergence will persist, undermining the credibility and effectiveness of EU-wide financial policies (Anderson, Brooke, Hume, & Kürtösiová, 2015). Strengthening ESMA's mandate and establishing more binding legal instruments are essential initiatives toward reducing fragmentation and enhancing capital retention.

As Letta's and Draghi's reports sustain, the EU must adopt a holistic approach that includes both legislative harmonization and institutional strengthening. Key policy priorities include aligning tax regimes, establishing unified insolvency standards, enhancing corporate governance coherence, and empowering supranational regulatory bodies.

The lack of harmonized financial regulations, tax policies, insolvency laws, and governance standards creates a fragmented investment environment that deters cross-border capital flows and incentivizes capital flights – not only in periods of financial distress.

1.3.2 – Retaining Capital in a Fragmented Union: The Role of the CMU

The European Commission has long recognized the negative implications of regulatory fragmentation and has pursued several initiatives to mitigate its effects. The CMU, in this realm, represents EU's flagship project aimed at creating a unified capital market by harmonizing regulations, reducing barriers to cross-border investment, and enhancing transparency, as it seeks to simplify prospectus rules, standardize securitization practices, and create a more coherent supervisory architecture (European Commission, 2015). However, progress has been not only slow and incremental, but also uneven across different member states. Currently, while the CMU has improved some aspects of market functioning, such as reducing market fragmentation and improving regulatory transparency,

it has fallen short in achieving deeper harmonization in areas such as taxation, insolvency, and governance (Véron & Wolff, *Capital Markets Union: A Vision for the Long Term*, 2016).

At its core, the CMU seeks to promote market-based financing over traditional bank-based systems, reduce reliance – and dependence – on foreign investment, and re-direct domestic savings into domestic productive investments (European Commission, 2015). Accordingly, the CMU is not only a mere, ambitious response to financial inefficiencies but a strategic initiative to bolster capital retention by fostering a unified, accessible, and resilient financial ecosystem.

A key reform under the CMU is the *Prospectus Regulation (EU) 2017/1129*, which aims to simplify and standardize disclosure requirements for securities issuance, especially for SMEs, that have traditionally faced significant barriers to accessing capital markets due to high listing costs and complex compliance procedures.

Another pillar of the CMU is the *Securitization Regulation (EU) 2017/2402*, which establishes a framework for simple, transparent, and standardized (*STS*) securitizations. Securitization allows financial institutions to transfer credit risk and free up balance sheet space for new lending.

A crucial aspect of capital retention lies in *supervisory convergence*, and the CMU addresses this through the strengthened role of the European Securities and Markets Authority. ESMA's expanded mandate enables would promote a consistent and coherent application of EU rules, oversee credit rating agencies, and develop technical standards (European Commission, 2020). This greater alignment in supervision would help to reduce regulatory arbitrage and uncertainty, which currently represent two significant deterrents to investor confidence. When investors perceive coherence and predictability in regulatory enforcement, they are more likely to commit capital within the EU.

The CMU also prioritizes *cross-border investment facilitation* by working to harmonize key legal frameworks such as insolvency, shareholder rights, and taxation. While politically sensitive and still in early stages, these reforms are intendedly essential for reducing the legal uncertainty that is able to deter cross-border investment. A harmonized legal environment increases the predictability of returns and reduces risk, thereby encouraging investors to commit long-term capital within the EU single market (Lausberg, Otero-Iglesias, Riekeles, & González-Agote, 2024).

To diversify sources of finance beyond traditional bank lending, the CMU also engages in supporting alternative financing mechanisms such as venture capital, private equity, and crowdfunding (European Commission, 2020). Regulations such as the European Venture Capital Funds (*EuVECA*) and the European Long-Term Investment Funds (*ELTIF*) have been designed to mobilize institutional and retail capital toward innovative, long-term projects, thereby expanding the array of investment

opportunities available within the EU, particularly for high-growth and technology-driven sectors (Hooghiemstra, 2020).

Lastly, technological innovation and digital finance play an increasingly central role in the CMU's updated agenda (European Commission, 2020). Through the Digital Finance Strategy, the EU promotes the integration of FinTech, open finance, and real-time data infrastructure into the broader financial ecosystem. These initiatives seek to translate capital markets into a more efficient and appealing infrastructure to a broader investor base. A well-regulated digital environment can counterbalance this by increasing the attractiveness of EU financial products, platforms and businesses (Donnelly, Camacho, & Heidebrecht, 2023).

1.3.3 – Inclusive Capital Retention through the CMU: SMEs' Access to Finance

Capital retention policies in the EU must be evaluated not only in relation to their capacity to prevent capital flight or attract foreign investment, but also in terms of their effectiveness in ensuring inclusive access to financial resources across all sectors of the economy. Nowhere is this more critical than in the domain of SMEs, which constitute over 99% of all businesses in the EU, account for two-thirds of private sector employment, and produce over half of total value added (Pavlova & Signore, 2021). Despite this role, SMEs remain significantly underserved by European capital markets, facing persistent barriers that hinder their ability to access funding for growth, innovation, and internationalization.

As the OECD (2020) highlights, European SMEs rely disproportionately on bank loans, making them especially vulnerable to credit supply fluctuations and banking sector de-risking, that inevitably intensify during economic downturns. While capital markets are ideally able to provide more stable and diversified financing channels, entering these mechanisms remains inherently difficult due to high compliance costs, complex disclosure requirements, and limited investor appetite. Beck et al. (2000) attribute these challenges to deeper structural issues such as asymmetric information, insufficient credit risk tools, and fragmented reporting standards, factors that are persisting in the EU and continue to hinder capital allocation and weaken capital retention across the EU.

Recognizing these challenges, the CMU has positioned SME financing as a strategic priority. Reforms such as the SME Growth Markets framework, introduced under *MiFID II* and reinforced by *Regulation (EU) 2019/2115*, aim to simplify listing requirements and reduce regulatory burdens for SMEs seeking to raise public capital. However, real-world impact remains limited: European SMEs markets have grown in number, but actual listings remain low due to persistent issues like illiquidity, low visibility, and weak investor demand.

To bridge this financing gap, public-private initiatives have played an important role. Programmes like the European Investment Fund's *COSME* and the *InvestEU* platform offer guarantees and co-investment mechanisms that de-risk SME finance and crowd in private capital. Kraemer-Eis et al. (2020) find that such models are particularly effective in regions with underdeveloped financial ecosystems. Still, their long-term sustainability depends on coordination with national actors and integration into broader market development strategies.

The digitalization of finance offers new opportunities to “*democratize*” access to capital. Crowdfunding, peer-to-peer lending, and tokenization are increasingly viable tools for SMEs to raise funds directly. The second CMU Action Plan emphasizes the potential of these innovations to lower intermediation costs and increase funding access. Yet, without robust oversight, digital finance may also facilitate capital outflows, underscoring the need for balanced regulation that supports innovation while retaining capital within the EU (European Commission, 2020).

Information asymmetries also remain a key barrier. SMEs continue to lack standardized financial and sustainability disclosures, deterring institutional investors and driving up risk premiums. In response, the European Financial Reporting Advisory Group (*EFRAG*) is developing simplified ESG reporting standards tailored to SMEs (Friede, Busch, & Bassen, 2015), aiming to improve transparency and foster investor trust.

However, financial inclusion cannot succeed without deeper and more liquid markets. As Levine et al. (2000) argue, market depth yields the force to improve resource allocation and risk-sharing, essential for sustained capital retention. Yet many EU member states, especially in Central and Eastern Europe, lack the financial infrastructure to scale SME financing effectively (ECB, 2020). Complementary initiatives, such as investor education and financial literacy, can help build demand and broaden participation. Empirical studies demonstrate that financial literacy is positively correlated with capital market engagement, further supporting inclusive capital mobilization (Lusardi & Mitchell, 2007).

Recent policy voices have stressed the importance of reorienting CMU toward more inclusive outcomes. M. Draghi and E. Letta, in this regard, seem to agree in arguing that capital markets must serve the real economy by reaching smaller enterprises and underfunded regions. Accordingly, they do advocate for dedicated European investment platforms and regional equity strategies that place SMEs at the center of capital market development.

1.4 – Empowering European SMEs: Financing Challenges and the Capital Markets Union Response

Small and medium-sized enterprises are universally acknowledged as the cornerstone of the European economy, contributing significantly to (a) innovation, (b) employment, and (c) regional development.

Despite their economic importance, SMEs across the EU face long-standing, persistent financing challenges that impede their growth potential and limit their role in driving sustainable economic transformation. These difficulties are primarily rooted in the EU's historically bank-based financial structure, compounded by regulatory fragmentation, institutional inefficiencies, and limited financial diversification. In response to these enduring barriers, a broad spectrum of academic and policy literature has examined both the traditional and emerging methods of SME financing as well as institutional initiatives, most notably the Capital Markets Union, aimed at addressing the structural deficiencies of the current system.

This section explores two main themes in this regard: the first explores the current array of financing methods available to SMEs in the EU, the theoretical frameworks underlying SME financing behaviors and the empirical evidence documenting access constraints; the second focuses on the role of the CMU as a strategic policy initiative designed to enhance financial inclusion, evaluating its objectives, key reforms, and implementation challenges.

1.4.1 – Current State of SMEs Financing in the European Union

As said, SMEs constitute the cornerstone of the whole European economy, accounting for approximately 99% of all businesses and generating over half of the Union's gross domestic product (ECB, 2020). The limitations they continue to face have been widely documented in both academic and policy literature, with underlying causes frequently attributed to the EU's traditionally bank-centric financial system, entrenched institutional inefficiencies, and pervasive information asymmetries (Stiglitz & Weiss, 1981).

Bank lending remains the predominant source of external finance for SMEs in Europe (ECB, 2025a). Typically characterized by long-term relationships between lenders and borrowers, this model relies on informational capital accumulated over time to assess the creditworthiness of the borrower. However, such dependence exposes SMEs to heightened vulnerability during periods of financial stress, when lending conditions tighten and risk aversion increases, thereby further posing a significant brake to the economy under these conditions. The ECB's Survey on the Access to Finance of Enterprises reports that SMEs consistently cite high collateral requirements, elevated interest rates, and outright loan rejections as critical barriers to obtaining bank credit (ECB, 2025b). These challenges are further exacerbated by market concentration in the banking sector and an overarching culture of risk aversion (ECB, 2020).

The theoretical foundation for these financing constraints lies in well-established models of asymmetric information and credit rationing. As said previously, Stiglitz and Weiss (1981) argue that imperfect information prevents lenders from accurately pricing risk, leading to credit rationing and suboptimal investment in smaller firms. Building on this, other scholars propose the so-called

“*pecking order theory*”, which suggests that SMEs prefer internal financing over external capital due to the adverse selection costs and control implications associated with external funding. Cultural preferences among European SMEs for maintaining ownership independence further reinforce this tendency (Lusardi & Mitchell, 2007).

In response to these limitations, alternative financing instruments have gained increasing attention. These include venture capital, private equity, leasing, factoring, and trade credit (European Commission, 2015). While particularly relevant for high-growth and innovation-driven SMEs, these mechanisms remain underutilized in many EU member states. Barriers include limited fund availability, and high transaction costs (Kraemer-Eis, Botsari, Gvetadze, Lang, & Torfs, 2020). Capital markets offer another potential avenue, yet the administrative burden and financial cost of public listings continue to deter widespread SME participation.

Recent years have witnessed the emergence of digital finance and FinTech solutions as promising alternatives to traditional financing channels. Crowdfunding, peer-to-peer lending, and blockchain-based instruments offer greater flexibility, reduced costs, and broader geographical reach. Moreover, the application of artificial intelligence in credit scoring and the use of alternative data sources provide innovative solutions to longstanding information asymmetries. Nevertheless, the scalability of these solutions remains constrained by uneven regulatory environments, digital infrastructure disparities, and cybersecurity risks (European Parliament, 2021).

Simultaneously, ESG criteria have become increasingly influential in shaping access to finance. Evidence suggests that SMEs demonstrating strong ESG performance are more likely to attract investment, particularly from sustainability-oriented institutional investors (Drobotz, Hackmann, El Ghoul, & Guedhami, 2024). However, compliance with existing regulations, such as the EU’s Sustainable Finance Disclosure Regulation (*SFDR*), presents a significant administrative burden for smaller firms, highlighting the need for tailored, proportionate ESG reporting frameworks.

Hybrid financing models, including public-private partnerships, have also gained traction as a means of bridging the SME financing gap. EU-led programmes such as *COSME* and *InvestEU* proved especially effective during the COVID-19 pandemic, when liquidity constraints severely impacted SME viability.

1.4.2 – The Capital Markets Union and Its Role in Enhancing SME Financing

The CMU has introduced several reforms specifically aimed at SMEs. One key intervention is the establishment of SME Growth Markets under MiFID II, designed to streamline listing procedures, reduce regulatory burdens, and promote visibility for small firms in equity markets. The simplified prospectus regulation further lowers the cost of capital raising, aiming to stimulate public offerings by SMEs (European Commission, 2020). Despite these regulatory adjustments, the uptake of these

instruments remains limited due to continued market fragmentation, lack of financial literacy, and persistent risk aversion among SME owners (ECB, 2025b).

Complementary to regulatory reform, the CMU supports ecosystem development through instruments like the Pan-European Venture Capital Fund-of-Funds and ELTIFs. These initiatives seek to pool resources across member states, mobilize institutional capital, and de-risk investments in innovative SMEs. Currently, however, studies observe increased venture capital flows in financially developed regions like Germany and France but note continued disparities in southern and eastern Europe (Kraemer-Eis, Botsari, Gvetadze, Lang, & Torfs, 2020).

Digital finance is another CMU priority, aligning with the broader EU Digital Finance Strategy. The CMU promotes regulatory harmonization for FinTech platforms and fosters digital financial inclusion through improved cybersecurity standards and licensing frameworks (European Commission, 2020). This digital agenda is essential for enabling SMEs to leverage alternative financing channels that are more accessible and adaptable to their needs.

Despite its promise, the CMU has faced criticisms over its limited implementation and modest impact. European Institutions and academic commentators such as E. Letta and M. Draghi emphasize that deeper integration requires political will, tax harmonization, and further institutional coordination. Moreover, many SMEs remain unaware of CMU initiatives or lack the capacity to utilize them effectively (ECB, 2025b).

Overall, recent developments, including the economic aftermath of the COVID-19 pandemic and heightened geopolitical tensions, have reinforced the urgency of enhancing SME financing resilience. Empirical evidence indicates that firms with access to diversified financial instruments were better positioned to survive the crisis.

Chapter 2 – The Capital Markets Union

The leitmotif running through the reflections of the previous chapter has been centered around the conviction that integrating European capital markets constitutes an essential condition for completing the Union’s financial architecture, in line with the objectives of the Economic and Monetary Union. Nevertheless, this perspective, independently, is not sufficiently exhaustive to entirely capture the complexity of the issues at stake: successful initiatives along these lines have been implemented, yet crucial deficiencies persist. Allocative efficiency of European financial markets cannot be achieved if barriers to market functioning persist, nor can monetary policies be transmitted seamlessly, efficiently and uniformly across member states if they are confronted with fragmented markets and diverging financial outlooks. Moreover, even had market fragmentation – in all its dimensions – been overcome, incomplete legal harmonization and political factors hampering financial cohesion would endure, as most member states remain reluctant to cede sovereignty to European institutions in financial matters.

Against this background, the political and economic discourse advocating for the creation of a more integrated and resilient financial architecture, capable of providing diversified financing channels for enterprises and generating greater private sector involvement, has steadily intensified. Within this discourse, the Capital Markets Union – formerly introduced in June 2015 with the Five Presidents’ Report, and later formalized in September with its first Action Plan – emerged amongst the primary initiatives, with its potential to deepen financial integration, address structural imbalances and align financial initiatives with broader EMU’s objectives.

In its early formulations, the CMU sought to enhance the degree of financial integration and promote mechanisms to reinforce financial stability. However, its structure was also driven by an early recognition that a single European market for capital would be indispensable for fostering sustainable economic growth, supporting innovation, and ultimately enhancing the EU’s competitiveness on the global stage (European Commission, 2015). Therefore, it somehow reflected a forward-looking strategy, a warning against future issues that the EU would be compelled to deal with.

The financial conception of the CMU addresses the necessities of all the levels within the European financial “pyramid”: citizens, at the bottom, would benefit from accessing a wider array of investment opportunities across European borders, enhanced prospects for improving their financial literacy, more effective mechanisms to prevent excessive savings-investment imbalances, and instruments to harmonize consumption levels across pre- and post-retirement periods. Small and medium-sized enterprises would enjoy greater diversification in terms of both financial instruments and of access to

capital beyond traditional banking channels. For institutional investors, the CMU is able to expand the range of investable assets, thereby facilitating the efficient allocation of capital across the Union. Finally, in relation to member states, the CMU facilitates the creation and the functioning of risk-sharing mechanisms, ultimately strengthening the financial resilience of the Union as a whole (Véron & Wolff, 2016). Nevertheless, the sound economic rationale of the CMU has repeatedly encountered substantial political and institutional obstacles. The CMU's objectives, inherently political as much as economic, have frequently clashed with Member States' reluctance to implement reforms that would entail the inevitable surrender of national responsibilities. Accordingly, the first decade of history of the CMU has been characterized by the necessity to balance the ambitious supranational goals of its reforms with the harsh reality of national sovereignty and institutional and political inertia (Véron, 2024).

Against this complex backdrop – and with the aim of finalizing the analytical framework necessary for addressing the research questions that guide the thesis – a rigorous and systematic examination of the conceptual foundations of the CMU, of its historical evolution, and current obstacles – which will be critically assessed in the following chapter in order to detail the necessary conditions for advancing towards its full realization – is indispensable. Accordingly, this chapter is structured along two main sections. The first section (paragraph 2.1) establishes the conceptual framework of the CMU, offering a definition of the initiative, outlining its primary objectives, and situating it within the broader European financial and economic architecture. It aims to describe the underlying rationale and strategic ambitions that have underscored the CMU's design and evolution. The second section (paragraph 2.2) provides an historical analysis of the CMU's evolution, tracing its development from its first conceptualization in the Five Presidents' Report through the adoption of the first Action Plan in 2015, the midterm review in 2017, and the latest formulation in the renewed 2020 Action Plan. This historical overview seeks to critically assess the progression of the CMU project, highlighting key achievements, setbacks, reductions and adaptations to changing political and economic contexts.

2.1 – The Conceptual Framework of the Capital Markets Union

Historically, the European Commission's policy initiatives – whether introduced during periods of economic stability or crisis, and irrespective of their objectives – i.e., be they aimed at economic stabilization, enhancing competitiveness, or stimulating growth – have consistently exhibited a narrow focus on the *supply-side* of the economy⁸ (Kudrna, 2016).

⁸ Supply-side policies seek to enhance economic capacity by reducing business costs (i.e., *capital*), boosting workforce skills (i.e., *labor*), and incentivizing innovation (i.e., *technology*). Examples include tax reforms, deregulation, infrastructure spending, and education upgrades. These measures aim to increase productive potential by improving factor inputs and, consequently, market efficiency.

Within this context, the Capital Markets Union constitutes a partial continuation of this established supply-side trajectory. However, while its principal aims include (1) the elimination of barriers to investment, (2) a more effective mobilization of financial resources – both existing and new – and (3) an overall enhancement of the European financial architecture, it is nonetheless evident that the CMU also encompasses *demand-side* objectives. Specifically, by reducing the cost of capital and promoting increased investor confidence, it seeks to indirectly stimulate both investments and consumption, ultimately targeting the investment-savings imbalance that has long and prominently featured in the economic history of the Union.

The dual-faceted interpretation of the practical objectives of the CMU reveals a deeper and persisting ambiguity surrounding its authentic nature, a recurring characteristic of the history of the initiative. Indeed, while some academics and policy experts framed it as the “*natural complement*” to the Banking Union (Quaglia, Howarth, & Liebe, The political economy of european capital markets union, 2016), the European Commission has – instead – described it as the “*comprehensive remedy*” for the majority of European financial markets flaws (European Commission, 2015). Alternative interpretations, in addition, broadly consider the CMU as a vehicle towards the objectives of the EMU, especially in the absence of a fully-fledged fiscal union (Matthes & Iara, 2017). Overall, the CMU remains a potentially-transformative policy project, whose promises – nearly a decade after its initial formulation – remains largely unrealized, unexplored and conceptually elusive.

2.1.1 – Defining the Capital Markets Union

The Capital Markets Union has been conceived in response to the necessity of establishing a “*true single market for capital*”⁹ in the European Union, thereby aligning with the European Union’s strategy to deepen its economic governance framework and reinforce the internal market’s resilience to exogenous shocks. Accordingly, regardless of the results achieved since its formal launch in 2015, the CMU transcends the boundaries of a simple technocratic reform in the domain of financial regulation. Rather, it must be understood – in a broader perspective – as a political-economic project with profound implications for the competitiveness and structural development of EU’s financial and economic landscape (Braun, Gabor, & Hübner, 2018). This *breadth of ambition*, however, makes the task of tracing a unique, coherent and precise definition of the initiative – within both academic literature and policy documents – inherently difficult. As a result, this *vagueness* has managed to create a trend according to which the definitions and the public opinion on the CMU closely reflects the trajectory of policy developments within the Union.

⁹ Quote from Jean-Claude Juncker – from “Action Plan on Building a Capital Markets Union” (European Commission (2015))

This is particularly evident when tracing the CMU's development through its successive phases. In its formative phase in 2015, a confluence of purely economic factors happened to be predominant in CMU's definitions – from the realization that the European financial system was excessively bank-based, to the desire to peg away the enduring savings-investment imbalance in the Union (European Commission, 2015). From a more political perspective, in 2016, in the aftermath of the British referendum on EU membership, the CMU began to acquire broader symbolic and strategic functions, becoming a tool to reflect the desire of the whole European Union – and its institutions – to affirm its economic cohesion and institutional resilience (Véron & Wolff, 2016). Following its “Midterm Review”, between 2017 and 2019, the CMU entered a phase of recalibration, during which its scope was narrowed and its priorities refined (Ringe, 2019). This phase signaled a transition from broad structural objectives or political concerns towards a more pragmatic and operational agenda. The emphasis shifted towards the delivery of tangible outcomes, the reinforcement of investors' confidence across Member States, and the targeted correction of the structural deficiencies within European financial markets that had initially motivated its formalization (European Commission, 2017). In the wake of the Covid-19 crisis, the CMU has further evolved to accommodate the necessities arising from the “twin transitions” – green and digital – as well as the broader objective of enhancing European competitiveness and deepening the Union's economic integration (European Commission, 2020). Finally, from late 2023 onwards, the CMU has been further expanded in the light of a series of high-level reflections on the future of Europe. Mario Draghi, in his “*The future of European competitiveness*”, has identified in the CMU the platform to mobilize the financial means to pursue European ambitions in innovation, defense, and digital sovereignty (Draghi, 2024). Enrico Letta, in his “*Much more than a Market*”, proposed a substantial evolution of the CMU in a fully-fledged *Savings and Investment Union*, making it the necessary instrument to transform private savings into productive investments (Letta, 2024). Finally, Christian Noyer, in his “*Developing European Capital Markets to Finance the Future*”, emphasized the need of consolidating the current CMU structure rather than reforming it completely, advocating for a stronger, more centralized supervisory authority to ensure coherence across Member States and accelerate progress (Noyer et al., 2024).

This evolving narrative and the gradual expansion in the scope of the Capital Markets Union naturally lead to a deeper, conceptual question that remains largely unexplored within academic literature and policy documents: *should the CMU be conceived as a foundational project, aimed at constructing a new, fully-fledged, integrated, pan-European capital market – thereby characterized by uniform regulatory standards, centralized supervisory mechanisms and institutions, seamless cross-border*

financial infrastructures and, potentially, new internal dynamics? Or, alternatively, should it be more accurately understood as a series of initiatives designed to change current dysfunctional dynamics in EU financial markets and, consequently, to harmonize, coordinate and enhance the interoperability of currently existing national capital markets within the EU?

Were the CMU primarily oriented towards the creation of a new, single, and pan-European capital market, one would expect its action plans to comprise mainly market-building interventions, aimed, for instance, at creating new supranational financial infrastructures or entities, establishing entirely uniform legal and supervisory frameworks, and centralizing capital allocation mechanisms at the EU level. In this direction, for instance, one might find initiatives envisioning (a) the creation of a pan-European Venture Capital Funds-of-Funds in the first action plan or (b) the legislative formulation a Pan-European Personal Pension Product (hereinafter: *PEPP*), introduced in 2015 and re-formulated in the midterm review. Conversely, were the CMU to be primarily conceived as an integrative project, seeking to unify already mature yet nationally-siloed capital markets, then the focus would fall towards the removal of regulatory inconsistencies, the alignment of supervisory practices, and the improvement of the interoperability among existing system. On this line, one can find measures aimed at removing national barriers to cross-border investment – including insolvency and securities laws – as detailed in the initial Action Plan.

Reflecting on the three main CMU documents allows to draw a conclusion regarding the strategic orientation of the initiative. Evidence seems to largely reveal how the CMU has pursued a consistent strategic orientation, aimed at laying the foundations for a *process of progressive integration of national capital markets*. Indeed, from its inception, the CMU has been framed as a response to the fragmentation of European capital markets, with precise focus placed on dismantling legal, regulatory, and infrastructural barriers to cross-border economic activities.

The 2015 Action Plan clearly stated that “the direction to take is clear: to build a single market for capital from the bottom up, identifying barriers and knocking them down one by one [...], and sparking a growing confidence for investing in Europe's future.” Later, the 2020 Action Plan further confirmed the CMU's nature, asserting that there is “no single measure [that] will complete the CMU. The only way to progress is to move step by step, in all areas where barriers to the free movement of capital still exist.” Further reinforcing this idea, the same Action Plan also includes an explicit reference to the fact that “each action [implemented] represents one more piece of the puzzle”, thereby pointing to the fact that each measure represents an incremental gain towards the construction of an integrated and functional single market for capital within the EU. This formulation reflects a deliberate strategy of gradualism, whereby institutional, legal, and infrastructural advancements are

layered over time to progressively overcome fragmentation. As such, these statements support the idea that the success of the CMU depends not on the immediate impact of any single reform, but on the coherent interaction of multiple complementary measures. In support, the Commission claimed that while “the groundwork has been completed,” the “benefits of these measures on the ground are not yet fully measurable” (European Commission, 2020).

On the basis of these considerations, and for the purpose of this dissertation, the CMU will be defined as a broad, comprehensive and multi-disciplinary set of policy initiatives aimed at gradually mitigating – and ultimately removing – the fragmentation that has long characterized European financial markets, from legal, economic and political perspectives. Its defining feature lies in its *incrementalism*: the CMU follows a coherent step-by-step pattern along several routes. While certain initiatives may appear parallel – and so, disconnected, or only loosely connected among them – the current real achievement of policymakers has been the construction of a *framework which is simultaneously layered and coherent*, in which *individual measures mutually reinforce one another*. This architecture has proven sufficiently adaptable to integrate new initiatives and respond to evolving policy priorities.

2.1.2 – Understanding the Capital Markets Union

The incremental, reinforcing and adaptive trajectory of the reforms envisioned in the Capital Markets Union simultaneously reflects, as said, an imposed necessity and a deliberate strategic orientation (Braun, Gabor, & Hübner, 2018). Indeed, while being shaped by the political, economic and legal limitations inherent to the European institutional architecture, the reform process has also been designed to align with the Union’s broader ambitions and objectives pursuant to capital markets integration. This mode of advancement – though less visible in terms of headline achievements – is recognizable in the CMU’s underlying logic: rather than pursuing a radical transformation of European capital markets, it seeks to proceed through a coherent and layered framework of reforms (Moloney, 2016). This is aimed at progressively embedding the implemented policies within national structures, acknowledging the deeply rooted national competences in areas such as supervision, insolvency or taxation. This approach is enshrined in the official documents, in the objective “*to build a single market for capital from the bottom up*” (European Commission, 2015), recognizing that radical changes are not likely to produce the desired outcomes and, accordingly, that financial integration cannot be achieved through a hierarchical, Europe-driven imposition. Single measures, indeed, aim at fostering institutional convergence, spreading mutual trust and, ultimately, creating a consensus on the initiative which is intended to be driven by tangible results rather than political momentum.

A further justification to the approach employed is to be found in the inherent nature of capital market integration: unlike monetary union, capital markets still lack a single and centralized institutional anchor, thereby it encompasses a complex multitude of domestic regulators, and a variety of different market participants – in terms of interests, size, market power and strategies.

In this scenario, national regulatory frameworks simultaneously represent a primary obstacle to the CMU's ambitions, but also a potential facilitator of its integration-related objectives. The harmonization of national systems in areas such as company laws, insolvency proceedings or securities regulations assumes, therefore, a strategic relevance for the creation of a *common and predictable legal basis* and of the necessary *procedural coherence* to foster investors' confidence and reduce the transaction costs currently associated with cross-border transactions. However, convergence efforts in the regulatory field are not pursued in isolation, as they are – to a considerable extent – influenced by the surrounding social, political and economic context. Stated differently, member states with well-established financial centers might perceive harmonization efforts as potential threats to their competitiveness. Accordingly, they might be reluctant towards the implementation of certain CMU-associated measures. For instance, Luxembourg and Ireland – whose fund sectors each exceed 180% of national GDP¹⁰ – have consistently opposed the expansion of ESMA's supervisory powers under the CMU, viewing such harmonization efforts as a threat to their regulatory autonomy and financial sector competitiveness. Conversely, smaller member states with smaller financial centers might lack the administrative capacity to adhere to complex European standards. In support, indeed, in the 11 European Countries which joined the Union following the 2004 Enlargement¹¹ display levels of corporate financing which remain heavily bank-dependent¹², and equity capital is comparatively underdeveloped. The paradox arises from the fact that the sustained growth recorded in the region compared to the rest of the continent should have been an incentive for investors, but cross-border exposure to traded equity in the region is still limited (Lehmann, 2020).

This inconsistency in national interests and capacities frequently transforms ambitious reform blueprints into compromised outcomes on paper, or into fragile instruments whose effectiveness results uneven in practice. Therefore, the CMU has been continuously confronted with a delicate balancing act, that necessarily had to avoid a “one-fits-all” approach, but rather to pursue convergence

¹⁰ By “*fund sectors*”, the reference is to the investment fund industry that comprises mutual funds, hedge funds, real estate funds, and private equity funds. Therefore, the expression “*180% of national GDP*” refers to the aggregate net assets of all funds domiciled in the country, expressed as a percentage of that country's gross domestic product.

¹¹ These 11 countries are known as “EU11”, and – for clarification purposes – are: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia.

¹² The level of corporate financing sourced from the banking sector is not only comparatively higher than in other European Union Member States, but also elevated in absolute terms.

through a combination of different legal techniques, including minimum harmonization, soft law instruments or stronger framework legislations. This combination enables policymakers to simultaneously enjoy a sufficient degree of flexibility while promoting common objectives of the broad European regulatory system and tailor responses to specific policy areas. *Technical aspects* are often addressed through minimum harmonization practices, as they enable to define baseline standards and grant the possibility to member states to maintain stricter provisions, should the necessity occur. This solution has proved particularly beneficial in areas such as insolvency law procedures. *Soft law instruments*, instead, seek to promote the sharing of best practices and encourage voluntary alignment among member states, as the Union's policymakers attempted to do with the recommendation on crowdfunding service providers. Nevertheless, these might prove inadequate in more delicate policy areas, as they inevitably leave significant discretion in the hands of individual member states and, as such, of political inertia. In these areas, in particular, the Commission often opts for framework legislations, which establish unified and binding set of rules, to be directly adhered upon by member states.

Overall, this divergence of instruments demonstrates how the regulatory reforms envisioned by the Capital Markets Union are not confined exclusively to technical concerns; rather, they inherently reflect also the political and economic heterogeneity of member states. Stated differently, the choice between various legal instruments is hardly ever a purely legal or efficiency-driven decision, but most often represents a strategic response to the fragmented and uneven nature of Europe's financial landscape.

Indeed, given the Union's heterogeneous financial landscape, a similar approach – akin to the one employed for regulatory reforms – is evident in the design and implementation of more economic-focused reforms. Member state exhibit different degrees of financial – and capital – markets maturity, institutional capacity and cross-border financial activity. In turn, these differences structurally translate into differing national preferences insofar the pace, the scope and the direction of integration is concerned. Accordingly, in line with a “quiet politics” spirit, caution is often prioritized over political and economic openness: the “threats” to financial intermediation models and the potential shifts to the balance of financial power act as substantial deterrents to the ambitions of the single initiatives, specifically, and of the CMU, in general. In this context, political stability and the interests of the ruling governments might either reinforce resistance to structural change – particularly when financial actors wield significant influence – or, conversely, serve as catalysts for reform – for instance, by framing these mechanisms of “alternative finance” as an opportunity rather than a threat. Conversely, smaller or less developed economies, which often face constraints in mobilizing domestic

and attracting foreign capital, are more likely to support supranational initiatives that promise to attract foreign investment and expand access to funding, increasing economic diversification (Lehmann, 2020).

Nevertheless, a successful understanding of the CMU is not solely contingent upon legal or economic factors, but necessarily relies on the recognition that it is necessary to guarantee a sufficient level of capacity, coherence, and coordination of institutional actors across multiple levels of governance. Stated differently, different institutional mandates, varying degrees of administrative capacity, and differences in regulatory cultures can lead to fragmented enforcement and inconsistent application of EU rules and other initiatives. Accordingly, the interplay between European institutions – particularly the European Commission, the ESMA, and the European Parliament – and national regulatory bodies significantly shapes both the design and implementation of CMU initiatives. In particular, institutional veto points – such as the legislative dynamics within the Council and the requirement for national transposition of EU rules – frequently act as obstacles to reform, particularly when proposals encroach upon areas closely tied to national sovereignty. These structural frictions within the EU’s political economy help explain why progress on the CMU often relies on initiatives framed in technical terms that, despite appearing neutral, often carry significant redistributive consequences beneath the surface. In response to these challenges, the European Commission has increasingly adopted consultative and incremental approaches, engaging with expert groups and stakeholders while rolling out reforms in stages.

Therefore, the CMU’s reform trajectory reveals less a linear path toward integration – which remains regardless amongst its main objectives – than a carefully calibrated response to the Union’s institutional, economic, and political asymmetries.

It is not merely a solution to long-standing market inefficiencies, but represents a *quiet architecture of resilience and autonomy*, ideally designed to gradually align fragmented systems while accommodating national complexities and specificities. Accordingly, within both its sector-specific and broader reforms, the CMU reflects a potentially replicable, distinct method of integration: cautious yet ambitious, adaptive yet principled. A method captured, as said, by Braun et al.’s “*quiet politics*”: an initiative whose significance does not lie in headline breakthroughs, but in its capacity to potentially translate shared vulnerabilities into collective strength.

2.1.3 – Positioning the Capital Markets Union in the European Financial System

The Capital Markets Union stands, as said, at the core of the European integration project, at the intersection between ambition and necessity, between monetary centralization and fiscal fragmentation.

Since the introduction of the single currency and the launch of the EMU, the integration process has often relied on one-off financial initiatives – designed to enhance integration through consequential benefits – or through the efforts championed by Europe’s central monetary authority: the European Central Bank. Nevertheless, the reliance on monetary policies alone has exposed the Union – and the member states of the Euro Area in particular – to increased vulnerabilities during periods of economic stress. This contrasts sharply with the status quo in the United States, wherein a fully integrated capital market operates alongside a centralized fiscal authority, and this enables more effective federal-level responses to region-specific economic shocks (Hodge, Jakab, Lindé, & Nguyen, 2022).

The Union, lacking such a unified fiscal counterpart, (should) turn to the CMU as a functional substitute for stabilization and investment redistribution. Indeed, the CMU intervenes directly on this institutional gap: it promotes private sector risk-sharing and investors’ involvement into the financial life of the Union (European Commission, 2015). Additionally, the gradual harmonization of legal frameworks and economic landscapes translates into strengthened automatic stabilization mechanisms of financial markets, which would enable capital to move more efficiently in regions in times of distress, thereby mitigating differences within the area. These market-based channels offer a form of decentralized, yet Union-wide, adjustment capacity that can relieve pressure on national budgets and the ECB alike.

Closely related to this mitigation-stabilization function is the role that the CMU’s might play in support of the prospective development of a European Fiscal Union. While progress toward deeper fiscal integration has been slow and repeatedly impaired by political factors, the CMU has the potential to intervene in this setting, providing the technical and economic infrastructure that would be essential for such a union to operate effectively if political conditions were to align (Acharya & Steffen, 2017). Indeed, a fully functional CMU would enable the efficient issuance, distribution, and trading of common EU debt instruments by ensuring that capital markets across the Union are sufficiently deep, liquid, and harmonized to absorb large-scale flows of funds and, specifically, of public borrowing without generating distortions or fragmentation. The success of this the Fiscal Union initiative, and its potential as a precedent for future fiscal capacity, depends in no small part on the continued development of a robust CMU that can support high-volume, cross-border capital mobilization.

Furthermore, the CMU contributes to the European financial governance structure through its relationship with the Banking Union, its fellow major pillar of post-crisis financial integration in Europe. While the latter was initially designed primarily to address the weaknesses in the banking system exposed following the 2008 financial crisis and the subsequent sovereign debt crisis – accordingly, it is centered around supervision, resolution, and deposit insurance – the CMU emerged as a response to the deeper structural need to rebalance Europe’s over-reliance on banks as the main source of financing, that, in turn, limits the availability of flexible, long-term financing for high-risk or innovative ventures. Therefore, while both focus on addressing Europe’s structural weaknesses and problems, the relationship between them is one of mutual reinforcement (Epstein & Rhodes, 2018).

On one hand, the latter, the Banking Union, seeks to establish mechanisms, institutions and tools to safeguard the soundness and stability of the banking sector, somehow “inadvertently” creating the macro-financial environment necessary for capital market development.

On the other hand, the CMU complements these efforts by building alternative pathways for financing the economy, thereby reducing pressure on the banking system – and reducing the risks associated – and enabling more efficient capital allocation.

Moreover, the CMU and BU share common objectives in the above-mentioned areas of supervisory convergence and regulatory coherence. The underlying rationale is that both initiatives agree upon the consideration that a stable and integrated financial system requires not only harmonized rules on paper but also a consistent and effective implementation, with dedicated institutions entrusted with supervisory, and eventually, corrective powers (Acharya & Steffen, 2017). While the BU advances this agenda in the banking sector through centralized supervision under the ECB, the CMU seeks to enhance convergence in capital markets, ideally by strengthening the responsibilities and the mandate of the ESMA.

However, as we shall see throughout the whole thesis, the CMU has constantly evolved throughout its short, though intense, history. The 2016 Brexit referendum inevitably emerges amongst the most significant. The Capital Markets Union had originally been ideated with the United Kingdom, and the financial hub of London, at its core (Kudrna, 2016), despite ongoing political debates suggesting the outcome later revealed by the referendum. In turn, this exposed a further structural vulnerability at the financial core of Europe: the Union had tacitly relied on a financial system outside the euro area and, following Brexit, outside of the Union itself. Accordingly, Europe did not simply lose part of its economic and political weight in the global scenario, but saw a striking paradox revealed: the regulatory core of the EU had remained detached from its operational center for a prolonged period of time. Accordingly, the reforms envisioned by the Capital Markets Union started to align with a

different political narrative, one heavily reliant upon the themes of *strategic autonomy* and *economic resilience* – alongside technical and economic narratives – which translate, in practice, into the internalization of the functions previously externalized to the UK and to lay the foundation for a robust, self-sufficient financial ecosystem within the EU’s borders. Along these lines, the CMU’s promotion of a wide and geographically-diversified network of financial hubs represents a direct and eloquent response: the intended objective is to reduce the dependency on any single hub while enhancing the Union’s capacity to mobilize capital independently (Quaglia, 2019).

In this context, the CMU assumes a dual role: it is considered, at times, a defensive mechanism to mitigate the structural vulnerabilities exposed by the UK’s departure or by the pandemic crisis, while, in other circumstances, represents an affirmative, future-oriented strategy to reposition the EU as a coherent, competitive, and autonomous financial power (Belke & Allroggen, 2019). The CMU, therefore, is not simply a continuation of earlier efforts to deepen the internal market for financial services; it is a continuously evolving and frequently reimagined project that speaks directly to the EU’s evolving identity as a sovereign economic and geopolitical actor.

2.2 – The Evolution of the Capital Markets Union

From a more historical perspective, the Capital Markets Union should be best understood not as a singular event but as the culmination of a decades-long process of financial integration within the European Union. To some extent, its early conceptualizations can be found within the 1966 Segré Report, and the later institutional reforms prompted by the Financial Services Action Plan (hereinafter: *FSAP*) and the 2001 Lamfalussy Report. Through these initiatives, European policymakers progressively acknowledged the need for deeper capital markets to complement monetary union. The 2008 financial crisis and its Eurozone consequences revealed structural vulnerabilities that further intensified calls for a unified, supranational regulatory and supervisory framework. This momentum materialized in the 2015 Action Plan, which laid the groundwork for broad reforms across financing access, market regulation, and supervisory convergence. The 2017 Midterm Review reaffirmed this agenda while addressing new pressures, including Brexit and digitalization. The 2020 Action Plan, framed throughout the COVID-19 crisis and amidst the emerging green and digital transitions, deepened the CMU’s strategic ambition. Across each phase, the CMU evolved alongside economic priorities, initiatives of crisis responses, and institutional maturity.

2.2.1 – Before 2015: The Precursors to the Capital Markets Union

Although the formal launch of the Capital Markets Union in 2015 marked a significant – and symbolic – milestone in the European Union’s ongoing process of financial integration, the strategic rationale underscoring the initiative has evolved gradually over the course of several decades. Each stage in this development trajectory has responded to specific historical periods and contingencies – be them economic integration, monetary union or financial crises – while simultaneously contributing to the gradual creation of an increasingly sophisticated governance framework.

Stated differently, the CMU itself does not represent a breakthrough idea, at least in its foundations. Rather, it represents the peak of a long-standing acknowledgement among different generations of European policymakers that efficient and integrated capital markets are indispensable to the functioning of the internal market first and, lately, of the Economic and Monetary Union. Therefore, tracing the CMU’s heritage means identifying a set of specific policy interventions, diluted in time, with each of them intended to respond to evolving economic conditions and regulatory challenges.

The earliest of these formative moments can be found in the 1966 *Segré Report* on “[t]he Development of a European Capital Market”, amongst the first comprehensive efforts by the former European institutions to articulate a vision for cross-border capital market integration. The proposals envisioned were ambitious but were constrained by the lack of a supportive institutional framework and the limited political appetite for financial integration in the pre-Maastricht era. Nonetheless, this Report contributed to the creation of a “unified capital markets” narrative, thereby representing the conceptual foundations for future efforts by framing capital market integration as a critical enabler of economic convergence and efficient investment allocation (Valiante, 2016b).

The integrationist agenda – on the financial perspective – regained momentum in the late 1990s as the EU prepared for the introduction of the single currency. Against this backdrop, Internal Market Commissioner Mario Monti launched the *Financial Services Action Plan* in 1999, a comprehensive initiative aimed at ideally completing the internal market for financial services by 2005. The FSAP represented a significant shift from previous, “simpler” declarations of intent. Indeed, it envisioned a concrete pathway composed of 42 measures spanning securities markets, banking, insurance, and pensions, intended to harmonize national regulations, remove barriers to cross-border financial activity, and enhance the competitiveness of EU financial institutions. The FSAP adopted a preventive, sectoral, directive-driven approach, wherein national specificities were not only considered but also respected and – potentially – valorized. Accordingly, it intended to proceed through the gradual introduction of common standards, trying to adapt the EU’s regulatory

architecture to the near post-Euro context, where the upcoming monetary union would have inevitably necessitated a more integrated financial market to support the ECB's monetary policy and ensure effective capital allocation across a diverse economic area (Valiante, 2016b).

The FSAP however suffered a harsh reality check: the operational complexity related to implementation, combined with the increasing sophistication of global financial markets, prompted further institutional innovation in the early 2000s. The so-called "*Lamfalussy Report*", published in 2001 by the "*Committee of Wise Men*" chaired by Alexandre Lamfalussy, tried to address the procedural and governance limitations of the EU's existing regulatory framework. The report proposed a new four-level regulatory process aimed at improving the timeliness, flexibility, and consistency of EU financial regulation. The core of this process was the creation of specialized committees, such as the *Committee of European Securities Regulators*, which were tasked with drafting technical standards, fostering cooperation among national regulators, and promoting supervisory convergence. Although these committees did not possess formal binding authority, their formation regardless marked the first attempt towards the development of a multi-level governance system for financial supervision within the EU. The framework envisioned also distinguished between political-level directives and lower-level – more detailed – technical rules (Valiante, 2016b).

The outbreak of the global financial crisis in 2008 and its implications across Europe further altered the political and regulatory landscape in which financial – and, specifically, capital markets – integration was pursued. In response, the European Commission appointed a high-level expert group chaired by Jacques de Larosière to reassess the EU's supervisory framework, proposing solutions to eventual flaws. The resulting "*Larosière Report*," ultimately published in 2009, marked a turning point in EU financial regulation as it requested the creation of a "single rulebook", with binding applicability across Member States and direct support and supervision from ad-hoc supervisory institutions. Most notably, the report called for a complete institutional reform, which prioritized the replacement of the existing network of advisory committees with three *European Supervisory Authorities* (hereinafter: *ESAs*). Each of these authorities was endowed with specific legal personality and tailored powers. These included *the European Securities and Markets Authority*, which was established in 2011 to oversee the functioning and stability of EU capital markets. This establishment represented a firm attempt to extend the institutional capacity for capital markets governance at the European level and introduced the legal and supervisory coherence necessary to support cross-border financial integration.

Lately, as the EU gradually recovered from the crisis, attention turned to the long-term structural reforms needed to complete the EMU and cushion against future shocks. The Four Presidents' Report, published in 2012, co-authored by the Presidents of the European Commission, European Council, ECB, and Eurogroup, identified financial integration as a critical pillar of a more robust EMU. It called for the establishment of a genuine financial union, encompassing not only the Banking Union but also deeper capital market integration. Building on this, the Five Presidents' Report (2015), that was also extended to the President of the European Parliament, reaffirmed the strategic importance of completing the EMU through the progressive development of a Capital Markets Union. The report explicitly linked capital markets integration to the broader objectives of risk-sharing, economic convergence, and financial stability within the euro area. In this way, the Five Presidents' Report elevated its political profile and integrated it into the Union's core strategic agenda.

Therefore, the CMU is not the result of a single blueprint, or of a 21st century acknowledgement. Rather, it represents the somewhat expected outcome of a gradually-developed, cumulative logic of integration, characterized by continuity in intents, but differences in actions, political blockages and gradual reforms.

2.2.2 – The First “Action Plan on Building a Capital Markets Union”

The publication of the European Commission's "*Action Plan on Building a Capital Markets Union*" in September 2015 marked the official beginning of the Capital Markets Union as a priority element of the Union's reform agenda, broadly aimed at completing the single market for capital within the European Union itself.

The plan, formally presented as "*COM(2015) 468 final*", responded directly to long-term structural flaws of the Union and to the economic challenges arisen in the aftermath of the financial and sovereign debt crises. Accordingly, it sought to break the excessive reliance of European non-monetary financial institutions on bank lending, the underdevelopment and fragmentation of capital markets, and the limited access to traditional finance for SMEs. Accordingly, the document outlined a comprehensive strategy to dismantle the several legal, regulatory, and structural barriers that inhibited cross-border capital flows and hampered access to market-based finance.

At its core, the Action Plan was structured around a set of thematic pillars, each of them focused on addressing a specific policy area where EU capital markets required reform or development.

Amongst the most prominent of these was the (I) *need to improve financing for innovation, start-ups, and non-listed companies*. Through this tacit recognition of the centrality of SMEs in the European economy, the plan focused on broadening the range of financing options available to firms

at all stages of development, from seed funding (i.e., in the start-up phase) to scale-up, passing through the earliest expansion phases. To this end, it proposed supporting alternative finance mechanisms such as (a) crowdfunding, (b) strengthening cross-border business angel networks, and (c) reforming venture capital frameworks, notably through revisions to the *EuVECA* (i.e., European Venture Capital Funds) and *EuSEF* (i.e., European Social Entrepreneurship) regulations. While these revisions immediately proved beneficial, with 70 *EuVECA* and 4 *EuSEF* having been notified to ESMA as early as 2016, they remain clustered around the most developed European nations. Moreover, the investments in venture capital remain on a slow yet declining trajectory: in 2023, despite amounting to a total of €12.9 billion, they stably remain below the average from the previous five years. Interestingly enough, these investments spanned across a variety of sectors: the ICT sector received approximately 43% of the total funds, biotech and healthcare ventures positioned themselves in the second place (24% of total funds), followed by businesses active in the energy and environment sector (9% of total funds). Overall, however, venture capital investments account for the smallest share of total equity investments, with buyout and growth capital investments constituting their majority. Nevertheless, in recent years, even these larger categories of equity investments have exhibited a slow but declining trajectory.

The promotion of pan-European funds-of-funds and tax incentives for equity investments were also central components within the first pillar of the first CMU Action Plan. Importantly, the Commission acknowledged the information asymmetry between SMEs and potential investors as a major obstacle to capital access. It therefore committed to developing a strategy to overcome these information gaps, including improving credit data availability and facilitating investor-SME matchmaking via digital platforms, with the latter requiring ad-hoc regulations.

A second major intervention area focused on (II) *enabling companies – particularly SMEs – to raise capital through public markets*. This objective was formalized through the modernization of the “Prospectus Directive”, aimed at reducing the cost and complexity associated with public offerings. The introduction of the EU Growth Prospectus provided a simplified disclosure regime specifically tailored for SMEs, allowing for shorter and less complex prospectuses without compromising investor protection. However, empirical analyses indicate that while the EU Growth Prospectus is less complex in terms of wording specificities, it has not led to a significant reduction in fixed listing costs or a substantial increase in IPO activity among SMEs.

To further support SME access to capital markets, the development of “SME Growth Markets” under MiFID II started. These markets were designed as “stepping-stone platforms” for smaller firms aiming to eventually list on larger exchanges. As of April 2021, seventeen multilateral trading

facilities (hereinafter: *MTFs*) had registered as SME Growth Markets. Euronext Growth markets, for instance, obtained the SME Growth Market status, facilitating easier access for SMEs to list their equities or bonds. Despite these efforts, however, challenges persist, including the disproportionate costs and regulatory burdens associated with IPOs and the persistent lack of financial analyst coverage for listed SMEs, which impair liquidity and investor interest. Measures to streamline listing procedures, enhance financial reporting standards, and foster equity research have been proposed to address these gaps. Additionally, the Commission has highlighted the need to assess and, if necessary, revise corporate bond market regulations to enhance secondary market liquidity, which remains a stable agenda priority to attract a larger and more diversified pool of institutional investors.

Third, the Action Plan emphasized the relevance of (III) *mobilizing long-term investment, particularly in infrastructure and sustainable development*, which were identified as pivotal for promoting European economic competitiveness and the Union's broader climate and digital transition objectives. The European Commission acknowledged a substantial investment gap, estimating that the EU would require over €350 billion annually throughout the 2020s to meet its climate and energy targets alone, in addition to around €125 billion per year for digital transformation.

Accordingly, to meet these targets, the Action Plan 1.0 proposed the revision and adjustment of the Solvency II Directive. In particular, this revision targeted a reduction of capital charges for insurance companies investing in infrastructure projects and to review bank capital requirements to be better suited to reflect the real risk profiles of infrastructure investments. In this way, the objective is to remove regulatory disincentives, thereby enhancing the involvement of institutional investors in financing the green and digital transition. Furthermore, under the reforms of this pillar, the European Long-Term Investment Fund (hereinafter: *ELTIF*) Regulation, recently adopted at the time, was promoted as a new cross-border investment vehicle suitable for channeling capital into long-duration projects. While its initial success was modest, with only 20 ELTIFs launched by the end of 2021, the regulatory revision adopted in 2023 simplified investment rules and broadened eligibility criteria, leading to a marked increase in adoption: by August 2023, the number of ELTIFs had already risen to a total of 95, with associated assets under management exceeding €10 billion. The Action Plan also sought to scale up the green bond market, recognizing its potential to channel private capital into environmentally sustainable projects. Between 2014 and 2023, EU green bond issuance grew from €5 billion to over €270 billion annually, accounting for 6.8% of total bond issuance in the Union. To reinforce investor confidence and standardize practices, the Commission committed to developing an official EU Green Bond Standard – later proposed in 2021 – to improve transparency, credibility, and comparability across ESG-related financial instruments.

(IV) *Retail and institutional investor participation* formed another key theme. The relevance of this theme was highlighted on the basis of the observation of the declining direct involvement of households in capital markets and the inefficiencies in the distribution of investment products. Indeed, despite households in the EU holding over €33 trillion in assets, only a small portion – approximately 20% – is channeled into capital markets across Europe. Moreover, most savings are still currently held in low-return deposits. Accordingly, the Commission aimed to improve transparency, advice, and cross-border access for retail savers.

It announced the publication, in 2015, of a Green Paper on retail financial services and committed to assessing the feasibility and the development of a pan-European personal pension product. The PEPP represents a voluntary, standardized pension scheme designed to enhance retirement savings mobility and expand the range of long-term investment instruments available to retail clients across the EU. The PEPP regulation, adopted in 2019, is intended to allow providers to market pension products under a single EU regime, offering consumers a portable and transparent savings vehicle, and encouraging greater allocation to capital markets.

Instead, for institutional investors, the plan proposed regulatory adjustments to facilitate investments in private equity, ELTIFs, and securitization. Finally, the plan also targeted the persistent fragmentation of the EU investment fund market, identifying the cross-border distribution of funds as an area for reform. Despite the existence of the UCITS (i.e., Undertaking for Collective Investment in Transferable Securities) and AIFMD (i.e., Alternative Investment Fund Managers Directive) frameworks, which allow for the marketing of investment funds across Member States, practical barriers – especially administrative burdens and inconsistent tax treatments – continued to hamper their effective operation. As of 2019, indeed, approximately 70% of UCITS funds were registered for sale in only one Member State, reflecting the enduring challenges of cross-border marketing. The Commission therefore pledged to streamline notification procedures, reduce double regulatory costs, and address discriminatory withholding tax practices, with the aim of fostering a more integrated and competitive environment for fund distribution within the Single Market.

Another strategic pillar involved a (V) careful, though necessary, balancing act between the advancement of innovative market-based financing mechanisms and the ability of the banking system to support the economy.

In particular, the aim of the Commission was to prevent a potential decline in the size of bank-based financial operation, while simultaneously advancing alternative mechanisms. Accordingly, the CMU envisions a strategy to revitalize securities markets, to be achieved through the establishment

of a common framework for “*simple, transparent and standardized (STS) securitization*”. This framework, formally adopted in 2017, has been designed to restore trust and confidence in securitization markets, facilitate the transfer of risk from bank balance sheets and improve lending capacity. The necessity stems from the heavy decline in securitization volumes following the global financial crisis that, as of 2020, had not yet been recovered (from over €700 billion in 2008 to less than €220 billion in 2020).

Alongside, the Commission advanced the development of a pan-European covered bond framework to streamline national regimes and support stable long-term funding for banks. This led to the adoption of the Covered Bond Directive in 2019, which introduced common rules to enhance market integration and spread investor protection. The Action Plan also considered the role of smaller, local credit institutions, such as credit unions, as important actors in community-based lending. Given their low systemic risk and limited cross-border activity, the Commission explored the possibility of proportionate regulatory treatment under existing capital requirements. These initiatives collectively aimed to strike a balance between strengthening traditional banking channels and expanding the role of capital markets in financing the European economy.

The final pillar of the Capital Markets Union Action Plan focused on (VI) *advancing the cross-border integration of capital markets*, a long-standing objective that remains incomplete despite the institutional and legal foundations of the Single Market. The European Commission acknowledged that significant fragmentation persisted across Member States, particularly in critical areas for the seamless flow of capital. These include divergent insolvency regimes and securities ownership rules, divergent tax treatments, and the complexity of post-trade infrastructures. Such disparities impose considerable legal uncertainty and transaction costs on cross-border investment, which in turn undermine the efficiency and depth of European capital markets. In support, the Commission estimated that the lack of convergence in insolvency frameworks alone could result in forgone investment opportunities of up to €55 billion annually across the EU. In response, the Commission committed to pursuing targeted legislative proposals, including initiatives to gradually harmonize national rules on business insolvency and to clarify the rules applicable to the cross-border assignment of claims. The latter issue had often led to conflicting national jurisprudence and legal ambiguity, particularly in secured lending contexts.

To reinforce legal coherence and strengthen supervisory coordination, the Commission also emphasized the need for greater supervisory convergence. While the ESMA already plays a central role in coordinating national regulators and ensuring consistent implementation of the single rulebook, its powers remained limited, especially in the supervision of market practices and in the

enforcement of EU-level legislation. The Action Plan proposed a more active and potentially expanded role for ESMA, particularly in cases involving cross-border financial activities, third-country equivalence assessments, and supervisory arbitration, complemented also by soft governance tools aimed at fostering alignment without immediate legislative change (European Commission, 2015).

Overall, beyond its technical substance and the envisaged reforms, the 2015 Action Plan held strategic significance as a simultaneously politically sensitive and institutionally conscious initiative: the CMU was largely framed as an economic reform, and as a structural component of deeper integration, explicitly aligned with the Five Presidents' Report and the broader goals of completing the Economic and Monetary Union (Kudrna, 2016). The Plan not only acknowledged the diversity of national financial systems and the limits of legislative harmonization in specific sovereignty-sensitive domains, but proposed actionable, incremental and pragmatic solutions to the highlighted problems. The emphasis on stakeholder engagement, its empirical grounding, and iterative adaptation marked a shift toward a more “experimental” policymaking, underscoring the objective of reinforcing and detailing the CMU's credibility and resilience. Nonetheless, despite the ambition, width and depth of the reforms, several measures remained at a preliminary stage, others – sooner or later – fell short of delivering the anticipated outcomes, and some encountered resistance due to political constraints or broader contextual factors (Sapir, Véron, & Wolff, 2018). As a result, a formal review was deemed necessary two years after the Action Plan's publication to assess progress and recalibrate the policy trajectory where needed.

2.2.3 – Assessing Progresses: the 2017 “Midterm Review”

The Midterm Review of the Capital Markets Union, published by the European Commission in June 2017, was simultaneously conceived as an interim review and a forward-looking recalibration of the initial CMU agenda.

It was released in a moment in which the European Union was struggling with a multi-layered set of pressures, from economic and institutional, to geopolitical. The slow and uneven recovery in investment across Member States 5 years after the Sovereign Debt Crisis, persistent regulatory and structural fragmentation, the departure of the United Kingdom from the Single Market, and the rapid emergence of digital finance and sustainability imperatives converged to further expose the limitations of the existing financial governance framework already acknowledged prior to the “Action Plan 1.0”.

Against this backdrop, the mid-term review of the Capital Markets Union initiative was not merely a pre-established procedural obligation but a reflection of the EU's broader tendency toward a new

policy approach: incremental and crisis-responsive. The review highlighted CMU's complementary role to the Banking Union and its importance in reinforcing the Economic and Monetary Union's capacity for convergence and risk-sharing, thereby reaffirming its strategic function. It offered an opportunity to assess the implementation of the original thirty-three proposals envisioned by the first Action Plan and, on this basis, eventually recalibrate priorities and actions in light of evolving structural and political realities.

From the publication, the Midterm Review was extremely direct in acknowledging that a significant share of the structural problems targeted by the 2015 Action Plan remained largely unresolved. While over half of the original 33 measures had been implemented, others had not, and significant barriers to cross-border capital flows and to the development of market-based financing methods persisted. The Commission explicitly cited (a) continued and unresolved difficulties in SME access to (risk) finance, (b) a regulatory environment still poorly suited for scale-ups and public listings, (c) low participation of institutional investors in long-term equity, (d) significantly different levels of financial literacy and (e) an insufficient level of retail investor engagement (European Commission, 2017).

Venture capital remained unevenly developed, and public equity markets in many Member States lagged behind global comparative benchmarks. Banks, though gradually recovering from the financial crisis, continued to face balance sheet pressures, which in turn also limited their lending capacity – with direct consequences on the institutions dependent on their financing. In addition, disincentives to equity activism such as the tax bias towards debt remained insufficiently addressed. Beyond these longstanding challenges, new threats were also emerging. Brexit loomed heavily over the CMU agenda, “planning” to leave the EU devoid of its largest financial center. Simultaneously, advances in financial technology were reshaping intermediation mechanisms, market infrastructure, and regulatory practices at a pace that demanded immediate institutional adaptation. The Commission also noted the growing strategic urgency of integrating sustainability goals into financial markets development in line with the UN Sustainable Development Goals (SDGs) and the Paris Agreement – both of which called for a structural redirection of capital towards environmentally and socially beneficial outcomes.

Therefore, despite the sustained efforts made in implementing many of the Action Plan's envisaged initiatives, the Midterm Review carefully emphasized how the pace of reforms was not commensurate with the urgency of the problems.

In particular, (a) persistent barriers – whether national, legal, administrative, or economic – continued to hinder the seamless cross-border movement of capital; (b) supervisory practices

remained significantly fragmented along national lines; and (c) regulatory harmonization progressed only marginally, undermining the creation of the level playing field originally envisioned by the CMU (European Commission, 2017).

Further concerns were expressed insofar the use of alternative market-based was concerned: tools to diversify funding sources for businesses, such as ELTIFs or STS securitization practices, were yet to gain large market traction. In addition, the lack of a common retail investment culture in the EU and the complex, often opaque nature of financial product distribution systems impeded the ability of households to contribute effectively to capital market development.

Nonetheless, against the backdrop of this status quo, the midterm review proposed a detailed set of priority actions to reinforce, expand and, ultimately, sustain the CMU agenda. In line with the Action Plan 1.0, the policies reflected a similar baseline approach. This approach, however, was simultaneously aimed at guaranteeing a more structured line of action. Indeed, the policies introduced tried to complement measures included in the original plan and were grouped around similar clusters.

The starting point, in line with the objective of guaranteeing a more structured and responsive plan, was *the enhancement of supervision*. The core actions emphasized on (a) proposing the reinforcement of the ESMA, and (b) ensuring the consistent implementation of the guidelines included in the single rulebook. Indeed, acknowledging a significant bias towards national investments and persistent regulatory arbitrage, the Commission delivered a formal commitment on the strengthening of European Supervisory Authorities. In this realm, indeed, Brussels technicians convened that, on the long-term, ESMA's role had to be broadened in terms of (a) mandate and (b) operational capacity.

Another central priority of the reform agenda concerned the refinement of proportionality within the regulatory framework governing SME listings and investment firms.

Starting from the acknowledgement of the persistent underrepresentation of small and medium-sized enterprises in public markets and the recognition that differential and disproportionate compliance burden had long been a significant deterrent for smaller firms in accessing capital markets, the Commission formally committed to examining targeted legislative reforms aimed at simplifying the initial public offering (hereinafter: *IPO*) process and calibrating regulatory requirements to the size and complexity of issuers.

In parallel, the Commission indicated its desire to reassess and eventually propose innovative prudential treatment for investment firms, with the dual objective of mitigating competitive

distortions and ensuring that capital requirements can more accurately reflect underlying risk exposures. These efforts formed part of a wider strategy to render public markets a more viable and attractive financing route for smaller enterprises.

In this realm, the most encompassing objective referred to the development of a stronger and streamlined equity culture within the Union, particularly by enhancing the visibility of SMEs to prospective investors and reinforcing the supporting infrastructure for equity financing. Measures in this regard included the promotion of independent research coverage, improved availability of objective financial and non-financial data, and the encouragement of governance practices conducive to investor confidence. Finally, the Commission also reaffirmed the value of expanding EU-wide fund-of-funds programs and promoting cross-border coordination among early-stage investors, including business angel networks, as mechanisms to stimulate venture capital flows and diversify funding channels for high-growth firms.

Nevertheless, the real breaking point with respect to the first Action Plan was represented by the attention posed to the *FinTech sector*. The Commission, indeed, not only did announce plans to assess the need for a pan-European licensing and a passporting regime for financial technology firms, but also, in this way, inherently recognized on the public stage the transformative potential of digitization and the need for regulatory frameworks that are able to simultaneously support innovation without undermining stability. Indeed, the Review emphasized that FinTech are not simply a challenge to existing financial models but also an opportunity to expand market access, reduce transaction costs, and foster competition. Ensuring consistent regulatory treatment and supervisory coordination across jurisdictions was highlighted as essential to avoiding fragmentation and fostering the growth of a digital single market in finance.

In a similar fashion, the Commission also committed to prioritizing sustainable finance practices and regulations.

Firstly, the EC formally committed to (a) proposing follow-up recommendations to the publication of the High-Level Expert Group on Sustainable Finance and (b) to integrate environmental, social and governance factors into investment mandates. This was driven from the considerations of long-term financial opportunities and risks: sustainability, indeed, can be turned into a competitive advantage for European financial markets and, accordingly, as a catalyst for innovation. Therefore, the practical objective of this section is to detail actionable strategies to reorient capital resources towards green ventures. In order to achieve this goal, the Commission proposed actions to enhance transparency, standardize ESG metrics and require the consideration of sustainability within risk assessment and

fiduciary duties. Also, the Commission's reach extended to the promotion of green bonds, climate-risk disclosures, and support for sustainable infrastructure investment vehicles.

The Midterm Review also outlined targeted actions to address non-performing loans (hereinafter: *NPLs*), given their relevance in relation to financial stability and to bank lending decisions. The Commission proposed initiatives to foster a secondary market for NPLs and to enhance the efficiency of collateral enforcement. These measures should be located within a broader agenda of reducing systemic risk and enabling banks to refocus their activities on new lending, thus aimed at supporting national asset management companies and encouraging the development of securitization frameworks that could facilitate the removal of NPLs from bank balance sheets.

Another major component of the revised agenda under the 2017 Midterm Review was centered around the facilitation of cross-border investment, the distribution of investment funds, improvements in post-trade infrastructure, and guidance on the treatment of intra-EU investments. The Review identified unnecessary regulatory and administrative complexity in fund marketing as a major deterrent to integration. The envisaged reforms, again, proposed the harmonization of national rules, the simplification of notification procedures, and improving access to information for cross-border fund distribution. Similarly, the Commission aimed to address bottlenecks in post-trade services, including settlement and custody, through the promotion of standardized practices and the adoption of interoperable technologies. It also announced plans to clarify the application of EU law to intra-EU investments, particularly in relation to bilateral investment treaties and the principles of mutual recognition and non-discrimination.

Finally, the Review addressed the uneven development of capital markets across Member States by proposing a comprehensive strategy to support the emergence of local and regional capital market ecosystems, particularly in Central, Eastern, and Southeastern Europe, with the view of avoiding the creation of a two-pace financial markets in Europe. This effort was driven by the recognition that capital markets integration would be inevitably bound to remain incomplete unless all Member States could participate meaningfully and actively in the benefits of financial openness. To that end, it proposed innovative capacity-building initiatives, technical assistance, and policy support tailored to national contexts.

In sum, while the Midterm Review introduced a broad, comprehensive and well-calibrated array of reforms, it ultimately fell short of marking a genuine inflection point in the trajectory of the CMU.

The proposed measures, despite being responsive, adaptive and technically sound, largely adhered to the incremental logic of the original 2015 Action Plan and failed to introduce transformative or structurally disruptive elements. As such, the Review de facto reaffirmed rather than redefined the Union's Capital Markets Union strategy, remaining anchored in pragmatic continuity rather than strategic innovation, thereby limiting its capacity to achieve the initial political and institutional ambitions. Therefore, the “*final boost*” needed to complete the majority of the CMU project by 2019 – as originally stated in the 2015 Action Plan – was not reached through the 2017 Review.

2.2.4 – Strategic Re-Alignment: the “Action Plan 2.0”

The second Capital Markets Union Action Plan, published by the European Commission in September 2020, was meant to mark another, renewed strategic effort toward the construction of an integrated capital market throughout the Union more rapidly. The paper, novel in some ways, was nonetheless founded upon what was established in the first 2015 Action Plan and upon the adjustments made in the 2017 Midterm Review.

The essential, unavoidable aspect of change, paradoxically enough, was embodied in the externalized socio-economic and political environment. By the date of its release, in fact, the Covid-19 pandemic already affected the European economic tissue, undermining economic and industrial organizations and stressing policy coordination within the Union. Indeed, the following economic crisis amplified in national and supranational economic and political debates long-standing concerns about European financial and, in particular, capital markets' resilience and flexibility. However, simultaneously, the Union had cemented parallel ambitious policy initiatives – such as the European Green Deal or the plan for the digital transition – that, despite not being specifically and directly connected to the CMU, required deep, liquid, pan-European capital markets.

The 2020 Plan rested upon the analogous perception of the 2018 Midterm Review: that, whereas much of the legal and institutional progress made since the adoption of the 2015 Plan remained, many of the essential and structural weaknesses did not just continue but some of them actually worsened throughout the period. The Commission acknowledged that, while twelve out of thirteen legislative proposals of the first Action Plan were adopted and several non-legislative measures were finalized, their direct impact upon market integration and access was incomplete, uneven and clustered around leading economies.

Consequently, in 2020, the CMU Action Plan proposed an ambitious agenda consisting of sixteen interconnected actions, which aimed at overcoming these barriers, further integrating the markets, and reacting to a whole new set of challenges with increased ambition.

The fragmentation of national regulatory frameworks, mainly in taxation, insolvency, and company law, and the cost and complexity of listing on public markets remained a significant disincentive for SMEs, which further depended largely on bank lending and were poorly served by equity investors, primarily foreigners.

Even though early initiatives toward building instruments such as ELTIFs and simplified SME Growth Markets were made, their adoption was growing but limited, and rebalancing toward market-based finance at scale was still awaited.

Regulatory inconsistency, duplicative disclosure frameworks, and underdeveloped post-trading infrastructure further constrained capital mobility and introduced inefficiencies. In retail finance, access to capital markets remained low, EU households preferring still to keep a high share of savings in low-return deposits, while information asymmetry and financial literacy differentials deterred further use of financial instruments.

Moreover, the COVID-19 crisis has further highlighted the shortcomings in the available mechanisms in mobilizing enough capital for lending to facilitate recovery, specifically for those in highly affected sectors or less developed Member States. The Review also considered that not enough progress had been made in the area of supervisory convergence, given that for example, continued divergence in practices between national authorities undermined investor confidence and market stability, specifically in light of Brexit developments.

Among these challenges, the Commission found new and emerging structural issues that, in order to be addressed, required revisiting the CMU's mandate and priorities. These issues included accelerating digitalization in financial services, which was disrupting established models for intermediation and bringing about new sources of risk and regulatory blind spots. Although FinTech innovations yield the potential to enhance cost reduction and access in capital markets, an absence of common EU frameworks for them raised the prospect of fragmenting the digital finance environment (Feyen, Frost, Gambacorta, Natarajan, & Saal, 2021). At the same time, the increasing need for a shift toward a greener and more sustainable economy created demand for stronger ESG frameworks and green finance instruments capable of directing private capital into climate-compatible sectors. These trends called for (a) the development of new financial instruments and data standards and for (b) the renewal of supervisory duties and investor protection legislation in accordance with changing market dynamics. Further, experience from Brexit highlighted strategic weaknesses stemming from the dependency on third-country financial infrastructures – mostly, USA and UK. Underdevelopment of the European capital markets implied that much trading, clearing, and asset management still ended up in London-based private institutions (De Sury D'Aspremont & Spitzer, 2024).

Responding, the 2020 Action Plan laid out a series of ambitious and focused initiatives that represented both a building on past efforts and a change in strategic direction. Organized around three high-level objectives – notably, (1) *increasing access to finance for companies, particularly SMEs*; (2) *making the EU a secure place for people to invest for the long term*; and (3) *linking national capital markets into an authentic single market* – sixteen new actions were proposed as a way to overcome deeply embedded hurdles and bring innovations into the system that were close to broader European policy objectives.

In the first package of measures, actions were aimed at enhancing SMEs access to finance. These mostly consisted in proposals for reducing complexity in public listing rules, creating an SME's IPO fund, and encouraging pan-European platforms for data in order to bring smaller companies onto investor radars. The Commission reaffirmed its will to revisit the ELTIF framework in order to channel new long-term investments into the real economy and required a review of insurer and banker prudential rules in order to induce long-term and equity-based investment. The Action Plan expanded upon a new initiative for an EU-wide portal for financial and sustainability-related firm data, called ESAP, proposed as a mechanism for overcoming long-standing information asymmetries and reinforcing the underpinnings of market transparency and effectiveness.

The second cluster of measures was centered around creating the conditions for higher retail investor participation and long-term savings mobilization. Observing high savings rates and low participation in capital markets, the Commission detailed several of measures promoting (a) financial literacy, (b) clarity of disclosure, and (c) regulatory framework harmonization across financial products. A feasibility study for a pan-European framework for financial competence was initiated, in parallel with efforts to simplify inducement requirements, enhance advisor qualification, and eliminate information overload for high-end investors. This segment of the measures underlined the strategic position of the Pan-European Personal Pension Product as well and pledged to work out pension dashboards and individual tracking systems in order to enhance people's involvement in long-term saving devices. These measures were part of the overall vision for inclusive finance, intending that capital markets benefit not just institutional or high-net-worth clients but have the potential to create positive effects, in terms of involvement, stability and consumption-smoothing for all the households within the Union.

The initiatives in the third package targeted structural fragmentation in EU capital markets and proposed, once again, enhanced regulatory and supervision convergence. The most ambitious were

proposals for setting up a harmonized relief system for withholdings tax, further converging non-bank insolvency frameworks, and standardizing shareholder rights and corporate action procedures. The Commission again expressed its commitment to setting up a consolidated tape for equity markets and making central securities depositories' passporting and operational abilities more effective. All these proposals were aimed at decreasing trading friction across borders, lowering costs and complexity, and creating an integrated market infrastructure.

Most importantly, perhaps, for the first time, an Action Plan made a commitment toward a deeper single rulebook and a more convergent system of supervision, including direct supervision under European Supervisory Authorities in important areas. This was an important step forward from the first CMU initiative, acknowledging that real integration entails not just rules harmonized on paper, but enforced equally. This represented an “implicit” acknowledgement of increased awareness about the geopolitical consequences of multi-centered supervision in an increasingly multi-center financial system post-Brexit (European Commission, 2020).

Besides its technical content, the 2020 Action Plan was integrated into the EU's wider strategic narrative. The report explicitly referenced the European Green Deal, estimating that at least hundreds of billions of euros in additional funding would be needed annually in order to reach climate targets, and referred to the crucial involvement expected from private capital provision for such funding. The report further insisted upon complementarity between CMU, the Digital Finance Strategy, and the SME Strategy, while underlining interdependence between financial infrastructure and economic competitiveness. CMU was portrayed in the Action Plan as an instrument for social inclusion through enabling people to benefit from improved financial products, secure savings mechanisms, and clearer investment choices.

2.2.5 – Renewed Interest after the CMU Action Plan 2.0

From the consolidation of the Second Action Plan in 2020, and mostly due to the successive geopolitical, economic and social developments, the CMU has gradually acquired an even more prominent role within European policy, political and economic discourses.

In support, Commissioner Mairead McGuinness' April 2021 keynote at the *Eurofi Seminar* signaled a first strategic reframing of the Capital Markets Union, aligning it more explicitly with Europe's post-pandemic recovery strategy and the structural economic transformations necessary for the long-term resilience of the Old Continent. Indeed, while prior considerations on the CMU primarily regarded (a) its relevance for financial markets integration, (b) its institutional implications and (c) its economic potential, this speech formally – and, somehow, institutionally – redefined the CMU as

a primary component of the Union's toolkit for addressing the emerging transition and needs of the extremely volatile geopolitical, economic and social landscape. However, while – in her opinion – “everyone agrees about the political objectives of the Capital Markets Union”, the reality on the actual implementation of the CMU, as seen, is totally different.

The Commissioner McGuinness' narrative positioned the CMU as a “macroeconomic enabler,” rather than a simple regulatory initiative: a strategic lever capable of altering the balance of power of financial markets. In her idea, the CMU is closely interrelated to the Banking Union. The former is intended to reduce the Union's economy reliance on the banking sector, while the latter seeks to strengthen its resilience. The former will, consequently, enlarge the capacity of private sector risk-sharing, while the latter will support the development of EU Capital Markets.

From an economic perspective, her vision is centered around the theme of capital reallocation: mobilizing European household savings and institutional capital to support long-term, patient investments in the green and digital transitions. Accordingly, this explains her commitment to initiatives such as European Single Access Point (hereinafter: *ESAP*), revisions to the ELTIF Regulation, and a consolidated tape for trading data. These measures serve dual functions: improving market efficiency and creating the infrastructural prerequisites for deeper cross-border capital flows. Politically, while she acknowledges that the core impediments to the realization of the CMU – such as non-bank insolvency laws and taxation remain under national control – have remained consistent if compared to the first Action Plan of 2015, she frames their resolution not as abstract legal harmonization but as essential economic modernization. By noting that “wide divergence in these areas gets in the way of cross-border investment,” she reframes institutional fragmentation as a constraint on recovery and competitiveness, rather than as an issue of sovereignty per se (McGuinness, 2021).

While this might be considered the umpteenth declaration of intents, the reframing of the CMU initiated by Commissioner McGuinness in 2021 has continued to shape developments well into early 2025. The European Commission’s annual *CMU Key Performance Indicators* reports offer a detailed assessment of capital markets integration across the EU. The 2023 Report signaled improvements in transparency - particularly through the ESAP - and legislative advancement - particularly in the context of the consolidated tape and ELTIF reforms (European Commission, 2023a).

The 2024 CMU Progress Update, building on earlier reporting mechanisms, confirmed political agreement on several key initiatives, including the Listing Act and a renewed framework for securitization, demonstrating technical advancement in areas with high policy visibility and

feasibility (European Commission, 2024a), which is opposed to the “no-headline achievements” logic brought forward by previous Action Plans.

At the political level, momentum intensified through Eurogroup coordination. On March 11th, 2024, European finance ministers endorsed a Eurogroup Action Plan - to be presented at the Euro Summit of March 2024 in Brussels - focused on the “ABC” of Capital Markets - respectively, Architecture, Business and Citizens.

“Architecture” refers to the ambition to build a financial infrastructure that is simultaneously integrative, adaptive and anticipatory, capable of absorbing shocks, allocating capital across borders with no discrimination among preferred and less preferred countries, and embedding increased market activity within the Union’s long-term strategic priorities.

“Business” refers, instead, to the recurring imperative of expand private financing options for EU companies, enabling them to scale, innovate, and remain globally competitive.

Finally, by referring to “Citizens,” the Eurogroup aim directly at deepening their direct and indirect participation in financial markets activities, seen as a necessary prerogative for creating household wealth and community financial security.

On this basis, this action plan envisions a set of 12 policy lines to be prioritized in the current 2024-2029 European Commission term. In particular, these range from reviving the EU securitization market to enable more efficient risk transfer, to advancing supervisory convergence through an enhanced role for the European Supervisory Authorities – including the ESMA. Key priorities also include deepening retail and institutional participation by promoting long-term savings products – such as the Pan European Pension Product – and fostering a stronger pan-European investment culture (Lovells, 2024).

However, at the same time, the non-institutional economic stakeholders continued to share mixed – and overall, non-positive – assessments. The *Association for Financial Markets in Europe* (hereinafter: *AFME*), in its 2024 “CMU Key Performance Indicators Report,” noted that while there were only slight improvements in market depth – particularly in secondary equity markets – and modest gains in SME access to public equity, structural gaps persisted. The EU continued to chase the United States and the United Kingdom in key performance dimensions such as household participation in equity markets, which remained below 20% in most EU member states compared to over 50% in the U.S., and cross-border equity ownership, where intra-EU flows accounted for less than 35% of total equity holdings. The report further emphasizes on the persistence of national discrepancies in prospectus regimes and withholding tax procedures as critical inhibitors of cross-

border capital allocation. AFME concluded that the lack of convergence in these areas creates functional equivalents of internal capital barriers – similar to an “internal, not imposed tariffs” – which undermine the EU’s ambition for a genuinely integrated capital market and calling for accelerated standardization of supervisory practices and reporting requirements (AFME, 2024).

A significant development, which signals the integrated nature of the CMU in relation to other European initiatives, occurred in early 2025 with the Commission’s formal unveiling of the *Savings and Investment Union* (hereinafter: *SIU*), a rebranding and – to some extent - a strategic extension of the CMU's reach.

The title of communication 124/2025 is self-explanatory: “A Strategy to Foster Citizens’ Wealth and Economic Competitiveness in the EU.”

Indeed, the SIU aims to mobilize household savings into long-term productive investment, including via expanded auto-enrolment pension schemes and retail-friendly investment platforms. Commissioner McGuinness’s successor, Helena Albuquerque, reinforced this initiative by highlighting the ongoing cost of fragmentation, explicitly stating that disparities in financial regulation and taxation operate as a tariff on intra-EU capital allocation.

In institutional and strategic terms, this communication precisely reflects the effort to operationalize the policy guidance embedded in the Competitiveness Compass and to support broader objectives such as the Clean Industrial Deal and the ReArm Europe Plan. The policy framework exemplifies the crucial role of capital markets in enabling the green and digital transitions, fostering technological sovereignty, and unlocking the EUR 750-800 billion annual investment gap identified by the Draghi Report. Particularly noteworthy is the Commission’s commitment to develop a European blueprint for savings and investment accounts, which, by leveraging best practices across Member States, aims to standardize access to capital market products and enhance trust among retail investors. Simultaneously, the planned revision of the EuVECA Regulation and measures to strengthen IPO and secondary market exit options signal a broader intention to make EU markets more attractive for scaleups. The SIU thereby recasts the CMU as an integrated, cross-cutting vehicle for industrial, social, and geopolitical renewal (European Commission, 2025a).

The SIU is therefore conceived as a transversal strategy embedded within broader agendas, thereby absorbing the CMU into a more expansive and politically salient policy framework. By focusing simultaneously on microeconomic incentives – such as tax incentives for retail investment accounts – and macro-level, structural reforms – such as the alignment of public investment instruments with private capital mobilization – the SIU exemplifies a hybrid governance approach reminiscent of post-crisis European economic governance (EPRS, 2019).

A notable institutional innovation of the SIU lies in the emphasis placed upon co-investment modalities, whereby retail investors are invited to support strategic projects – in sectors such as defense, space, clean tech – alongside public entities such as the European Investment Bank. This development testifies a paradigmatic shift: the traditional separation between private savings and public investment planning is increasingly blurred in a period of geo-economic pressures and increasing financing needs, as formalized in the Draghi Report (European Commission, 2025a). Compared to the 2015 and 2020 CMU Action Plans, the Savings and Investments Union represents a qualitative departure not in ambition or broad, high-level objectives, but in its underlying orientation. Capital markets are not seen as vehicles for efficiency or integration, but as instruments of geopolitical resilience, continental unity and social security. In addition, citizens are now placed at the core of the envisioned reforms: retail investors primary political and economic agents whose effective involvement is crucial for the success of reforms. On this line, the Communication envisages the proposal for an EU-wide savings and investment accounts, the embedding of financial literacy within the “Union of Skills,” and the open acknowledgment of entrenched fiscal biases signal a shift from a technocratic to a distributive logic.

Chapter 3 - Designing a Coherent Strategy for the Complete Realization of the Capital Markets Union

Any attempt to ascertain the (a) substance, (b) trajectory and (c) delivery of expected outcomes of a composite financial, infrastructural and regulatory agenda, such as the Capital Markets Union, demands a systematic classification and rationalization of every measure detailed in official sources, irrespective of whether that specific measure has been adopted, remains a proposal, or has been abandoned. This imperative is further reinforced by the Union's multi-level governance landscape, which specifically shapes each stage of the CMU's design and execution. Within this landscape, the (i) timing, (ii) jurisdictional reach and (iii) dispositive force of individual interventions vary significantly across the policy space.

Timing refers to the moment in which a measure acquires legal power or practical effect and to the duration over which that effect unfolds: because some measures are immediately enforceable, others require lengthier transpositions, and still others remain at the proposal stage, their impact surfaces at different points along the policy timeline, often generating overlapping or sequential waves of adjustments. The resulting staggered impacts' sequence complicates empirical analysis by making it difficult to establish an unambiguous causal link between specific outcomes and the intervention that actually triggered them.

Jurisdictional reach, instead, denotes the geographical and, most importantly, the institutional scope over which an intervention is authoritative (i.e., over which it has judicial power): an EU regulation may bind all Member States simultaneously, a national statute only the enacting state, and a supervisory circular perhaps no more than a specific class of market participants.

Finally, *dispositive force* captures the degree of legal compulsion embedded in the instrument itself, distinguishing, for example, between the direct and full applicability of a regulation from the conditional force of a directive, which depends on domestic transposition, and the merely persuasive character of a recommendation. These gradations in binding power decisively condition the capacity of individual measures to alter market incentives and behaviors.

Accordingly, on the basis of these considerations, the opening section of this chapter seeks to construct a comprehensive "*Capital Markets Union Policy Matrix*" that catalogues the principal initiatives underpinning the CMU itself. This matrix will be constructed along coherent underlying principles and methods, with the objective of providing a structured and analytical framework through which to assess the scope, depth, and coherence of CMU-related measures to date.

Following this paragraph – whose methodology will be properly explained as the chapter unfolds, in the beginning of paragraph 3.1 – the measures identified as most coherent and directly aligned with

the core arguments of this thesis will be subject to further examination and elaboration. These selected initiatives will serve as focal points for a more in-depth policy analysis, with the aim of developing a forward-looking roadmap for regulatory refinement, institutional adaptation, and strategic policy evolution. This roadmap will not only reflect upon existing legislative and institutional developments initiated by the European Commission or other European institutions but will also critically engage with initiatives that have been announced, proposed, or are otherwise anticipated in the near- to medium-term policy cycle. The analytical approach adopted will remain grounded in a policy-oriented methodology, integrating both qualitative and quantitative data where available, and seeking to identify actionable policy recommendations.

Accordingly, in the second half of this chapter, individual CMU-related initiatives will be analyzed in greater detail. In particular, this seeks to pave the way for the introduction of a second analytical matrix. This matrix – to be referred to as the “*Strategic Policy Recommendation Matrix for CMU Advancement*” – will be specifically designed to summarize and categorize the proposed policy recommendations developed in the course of this section. It will serve as a structured tool to map out suggested reforms and enhancements, organized by thematic area, expected impact, and feasibility of implementation.

Together, the two matrices – the first cataloguing existing and planned CMU initiatives, and the second synthesizing the thesis’s original policy proposals – will provide a comprehensive framework for understanding both the current trajectory of the Capital Markets Union and the potential avenues for its future advancement.

3.1 – The “Capital Markets Union Policy Matrix”

As a foundational element of this chapter’s analytical framework, the *Capital Markets Union Policy Matrix* is introduced to systematically map the principal legislative, regulatory, and institutional measures underpinning the CMU. Designed to capture the complexity and multidimensionality of the Union’s policy landscape, the matrix serves as a structured tool for evaluating the scope, coherence, and temporal sequencing of CMU-related interventions.

The relevance of this matrix becomes evident against the backdrop represented by the methodological challenges related to the evaluation of layered, multi-sectoral reform programs. The previous chapter (i.e., Chapter 2) has demonstrated how CMU interventions have historically entailed a varied set of reforms, from regulations, to directives, soft-law communications and delegated acts. These, in turn, enter into force at different moments and operate across overlapping policy areas.

Traditional narrative reviews often struggle to capture this simultaneity, while single-indicator scoreboards risk to flatten the legal and functional diversity of the reforms. The Policy Matrix intendedly seeks to occupy a precise point along the spectrum whose extremes are these traditional

narrative analyses and single-indicator scoreboards: a middle point. Indeed, it is detailed enough to distinguish, for example, between different types of reforms, outcomes and consequences. Yet, it is also abstract enough to enable the aggregation into meaningful, tailored and mutually exclusive clusters such as SME-related or market-centered initiatives.

Therefore, for each measure implemented the matrix details and records their functional objective, policy domain, implementation stage, evolution over time and concrete output, thereby establishing a coherent analytical ontology that will serve as a common reference throughout the unfolding of the thesis. This systematic codification enables data on financial markets, SME-aggregate level behavior and institutional activity to be matched to clearly defined regulatory inputs, ultimately contributing to bridging the methodological gap between the text-based analysis developed in Chapter 2 and the mixed-methods (Chapters 3 and 4) and quantitative (Chapter 5) evaluations that follow.

The procedure for detailing initiatives into the matrix begins with a rigorous content analysis of the three foundational Capital Markets Union documents – namely, the 2015 Action Plan, the 2017 Mid-Term Review and the 2020 Action Plan. Generally speaking, a *content analysis*, in its classical conception, represents an objective, systematic and replicable technique for translating textual material into structured data that can be compared, aggregated and subject to statistical, quantitative analyses. Specifically, the analysis is facilitated by the fact that the three Capital Markets Union’s official documents – although with their own specificities – follow a similar structure and functional logic: single initiatives are broadly arranged according to specific thematic pillars, and each document culminates with an annex that translates those narrative sections into tabulated action items complete with indicative timelines. However, although the initiatives akin to a single cluster share a single, thematic background, they might vary in terms of policy scope (i.e., in terms of the purpose, breadth or timeline of the intervention).

For instance, an example of a thematic pillar that will be used in the matrix includes all the initiatives aimed at enlarging – in terms of scope and ease to use – equity-type financing sources for start-ups and SMEs. Within this cluster, the reach of individual initiatives varies significantly: from a fully-fledged legislative proposal to establish a pan-European venture-capital “fund-of-funds,” to the targeted amendments of the EuVECA and EuSEF regulations.

Instead, the areas where the three documents diverge are purpose and tonal register. This factor, for the creation of the matrix, does represent a significant aspect to consider as the stance of the European Commission in relation a single initiative varies significantly across the three documents. Stated differently, a measure mentioned in the first CMU Action Plan of 2015, reiterated in the Mid-term

Review of 2017 is more likely to be phrased as more urgent than a measure solely listed in the second CMU Action Plan of 2020, either due to technical advancements in a specific sector or because its introduction is entirely attributable to Covid-related necessities.

Indeed, the 2015 Action Plan is a forward-looking blueprint, establishing the basis for the Capital Markets Union, listing thirty-three foundational measures and indicative timelines. The 2017 Mid-Term Review shifts its focus towards a more evaluative stance, monitoring progress, adding targeted initiatives on supervision and FinTech, and framing them against the impending Brexit menace. The 2020 Action Plan acts as a strategic accelerator, de facto narrowing the CMU agenda to sixteen flagship actions, integrating post-COVID recovery, and prioritizing sustainability and digitalization. Therefore, over time, the rhetoric evolves from growth-centric to resilience- and finally sustainability-focused. Accordingly, it can be concluded that each document is framed (a) along the lines of specific objectives, (b) across different policy domains and (c) against contextual factors.

3.1.1 – Building the “CMU Policy Matrix”: the Methodology and the Structure

Against the unavoidable difficulties posed by these inevitable differences, the solution is represented by the coding architecture of the matrix, which has been ideated with the precise intent of being forward-compatible: uniform classification rules across the three documents guarantee longitudinal comparability across the three main CMU policy documents, thereby accounting for the contextual factors underscoring their publication, and providing a coherent standpoint for the empirical inquiries of the subsequent chapters.

The operational phase of the *content analysis* has begun with a sequential reading of the CMU texts, adopting a *top-down approach*: starting from each document’s annex¹³, where initiatives are explicitly listed in table formats, and then moving through the “longer” sections to capture any additional worth mentioning specificity or detail.

Every “candidate initiative” was recorded verbatim (i.e., in full adherence to the text), with its document (i.e., CMU Action Plan 1.0, CMU Midterm Review and CMU Action Plan 2.0), paragraph number, and action of reference. Thereafter, they were provisionally matched to the most pertinent amongst the seven policy areas. Following the completion of this first phase, the second consisted in consolidating duplicate entries arising from reiterated actions. These were merged under a single “policy line” – which corresponds to a unique row on the matrix – that preserved all the details, and all the source references. Once the provisional inventory was complete, the third phase consisted in cross-checking each initiative against the annex timelines to verify legal form and implementation stage. This stage also saw the corpus of consulted documents being broadened: official legislative

¹³ The Capital Markets Union Action Plan 2.0 does not have an annex listing all the Actions in a table format. Accordingly, the specific procedure for this document has yielded an additional phase of construction of a table listing the 16 “Priority Actions” identified and grouping them by thematic areas, which broadly correspond to the paragraphs of the document.

documents, policy, position and academic papers – particularly those written by ESAs – were examined with the scope of confirming the information drawn from the three foundational text and upholding implementation milestones and timelines. The fourth and final stage saw the harmonization, from a formal perspective, of the filled fields, aligning terminology and thematic labels consistently across the entire set of initiatives.

Having defined how the inventory of initiatives and the coding workflow were created, it is important to clarify how each initiative is captured within the matrix itself. What follows therefore explains, in turn, the purpose and content of each of the eight columns.

The first column, named “*Title of the initiative*,” assigns a unique label to a policy initiative or a set of policy initiatives, in consistency with the analyzed documents. This labelling strategy seeks to avoid the division into multiple rows of similar initiatives, thereby consolidating functionally equivalent actions within a single matrix entry and preserving their traceability to the wording of the source documents.

The second field, titled “*Functional objective of the initiative*,” defines the specific policy problem that the measure seeks to address and how the initiative aims to identify a solution, employing an action-oriented formulation that will be later linked to observable outcomes.

The third field, “*Policy Area*,” situates each initiative within one of seven mutually exclusive domains. These domains comprise: (1) measures that broaden or simplify access to finance for small and medium-sized enterprises, titled “*SMEs Financing*”; (2) interventions aimed at deepening cross-border capital market integration and upgrading post-trade infrastructure, titled “*Capital Markets Integration and Infrastructure*”; (3) actions designed to increase participation by retail investors, pension funds and insurers, named “*Investors Participation*”; (4) policies that channel capital toward long-term or sustainable projects, which correspond to the category of “*Long-term and Sustainable Investments*”; (5) initiatives that regulate or enable digital finance and other forms of financial innovation, which pertain to the “*Digital Finance and Innovation*” cluster; (6) steps that enhance banking–market complementarity or revitalize securitizations markets, titled “*Banking-Market Complementarity and Securitization*”; and, finally, (7) a residual category that captures cross-cutting themes such as supervisory convergence, single-rulebook consolidation, financial literacy, crisis-management tools, pension portability and market-data transparency, titled “*Others*”. A strict one-to-one assignment safeguards against double counting and permits the aggregation of results by thematic cluster.

The fourth field, the “*Status*,” records the point that a single or a set of initiatives has reached in the EU policy cycle, using only four potential responses: “*Proposal*”; “*Implemented*”; “*Amended*”; “*Under review*”. This categorization seeks to eliminate distortions caused by a potential interpretative bias. Accordingly, if a measure can be clearly linked to a market-based initiative, a regulatory instrument, or any other binding official act, it is classified under the “*Implemented*” category. Conversely, if the initiative is supported exclusively by a non-binding Communication or similar soft-law instrument, it is placed within the “*Proposal*” category.

The fifth column, “*Outcome of the Measure*,” identifies the legal, economic or organizational instrument ultimately adopted, whether regulation, directive, delegated act, communication or guidance. Its role is to highlight the instruments’ form, which, in turn, signal the degree of binding force and the behavioral traction that can reasonably be expected. These last two columns will be particularly useful for the creation of the second matrix, since it will draw directly on these classifications to identify where institutional follow-through has occurred and where it has not; where ambitious proposals have stalled in soft-law form; or where binding measures have lacked policy depth or have not yielded the expected results. This approach enables a more layered assessment, highlighting not only policy gaps, but also mismatches between political ambition and regulatory delivery.

The sixth field, “*Functional Description of the Outcome*,” summarizes what the instrument actually does. For example, establishing a European prospectus database or adjusting prudential treatment for simple securitizations. Accordingly, while it maintains sufficient granularity for future econometric work, it also preserves an adequate degree of comparability across entries.

The seventh field, “*CMU Action Plan Reference*,” anchors each initiative to a precise locus in the source material by citing both the relevant Action Plan or Review, the paragraph number and the associated action, allowing contextual retrieval.

Finally, the eighth field, titled “*Revision history*,” provides a longitudinal view of each initiative by documenting how it has been modified, expanded, or restructured over time. Rather than focusing solely on the initiative’s original form, this field tracks its evolution, capturing the legal and institutional adjustments it has undergone, and referencing the external¹⁴ sources of each change.

Collectively, these eight fields manage to translate narrative policy communications, proposals and acts into a harmonized dataset that can be aligned with market, firm-level and institutional data, thereby furnishing the robust analytical bridge required for the thesis’s mixed-methods and

¹⁴ Here, the term “*external*” indicates that subsequent updates to an initiative are typically recorded in documents outside the three principal CMU texts.

quantitative assessments. The figure below offers a structured visualization of the matrix architecture described in the preceding section.

Title of the initiative	Functional objective of the initiative	Policy Area	Status	Outcome of the measure	Functional description of the outcome	CMU Action Plan Reference	Revision History
		(1) SME Financing	Proposal				
		(2) Capital Markets Integration & Infrastructure	Implemented				
		(3) Retail & Institutional Investors Participation	Amended				
		(4) Long-Term & Sustainable Investments	Under Review				
		(5) Digital Finance, Green & Innovation					
		(6) Banking-Market Complementarity and Securitization					
		(7) Others (Topic Specification)					

Figure 1: Structural Overview of the CMU Policy Matrix

The matrix that will be presented below contains only a partial extract, limited to the first five analytical dimensions outlined in “Figure 1”. The deliberate choice of this selection serves to illustrate the outcome of the afore-mentioned methodological approach and the structure of the classification framework, offering a clear entry point into the analytical logic underpinning the matrix.

For reasons of clarity and formatting, the complete version of the CMU Policy Matrix, which includes all the eight columns and their corresponding entries, is provided in Annex 3.

Title of the initiative	Functional objective of the initiative	Policy Area	Status	Outcome of the measure
Simple, Transparent & Standardized (STS) Securitisation Framework	Revive EU securitization procedures, enabling banks to de-risk and free their balance-sheets and channel diversified funding to the real economy while containing systemic risk. Ultimately aiming at “increasing the availability of credit and reducing the cost of funding”	(6) Banking-Market Complementarity and Securitization	(1) Implemented (Regulation fully applicable since 2019) (2) Under review (COM(2025) 825-826 on the Securitization Framework)	(1) Regulation (EU) 2017/2402 (2) Compulsory Review Report quick-fix Reg. (EU) 2017/2401 (3) Ongoing consultations and revision of the Securitisation framework through COM(2025) 825-826
Modernization of Prospectus & Listing Rules (i.e., “Prospectus Regulation” and “Listing Act”)	Reduce the cost of going public, especially for SMEs, by streamlining prospectus’ content and approvals and introducing lighter secondary-issuance documents, significantly reducing fixed listing costs and widening retail access so smaller issuers can leverage EU capital markets sooner. The Listing Act reinforces this with the creation of a single EU template, quicker ESMA clearance, and an online database that makes every filing passportable across borders, helping high-growth European firms raise follow-on capital quickly, cheaply, and investor-friendly, so they list and stay in the EU.	(1) SME Financing	(1) Implemented (Regulation 2017/1129 fully applicable since July 2019) (2) Amended and Implemented (Regulation 2024/2809 fully applicable since December 2024)	(1) Regulation (EU) 2017/1129 - “Prospectus Regulation” (2) Regulation (EU) 2024/2809 - “EU Listing Act”
Establishment of the European Single Access Point (ESAP)	Give investors one digital gateway to all regulated financial and sustainability data on EU companies by establishing an European Single Access Point that centralises disclosures across the Union, lowers search costs, and makes company information, especially from SMEs, easy to find, compare and use, boosting market transparency, supporting cross-border investment, promoting greener capital flows, enabling fintech innovation. Ultimately aimed at levelling the playing field and strengthening the visibility and competitiveness of EU issuers.	(2) Capital Markets Integration & Infrastructure	(1) Implemented (Fully applicable since January 2024)	(1) Regulation (EU) 2023/2859 - “Establishing an European Single Access Point” (2) Directive (EU) 2023/2864 & Regulation (EU) 2023/2869 - “[A]mending certain Directives and Regulations as regards the establishment and functioning of the [ESAP]”

Title of the initiative	Functional objective of the initiative	Policy Area	Status	Outcome of the measure
Pan-European Personal Pension Product (PEPP)	Create the missing "third pillar" of the European Retirement architecture: a portable, single and standardized pension product that works across the EU, boosting consumer choice, lowering costs, and supporting labour mobility. In this way, citizens can dispose of a product to across borders without losing tax benefits or savings momentum. Accordingly, PEPP also channels long-term household savings into capital markets, supporting green and long-term investments, SME finance, and the creation of a truly integrated European pensions market.	(4) Long-Term & Sustainable Investments	(1) Implemented (Fully applicable since March 2022)	(1) Regulation (EU) 2019/1238 - "[O]n a pan-European Personal Pension Product (PEPP)" (2) Delegated Regulation (EU) 2021/473 - "[S]upplementing Regulation (EU) 2019/1238 [...] with regard to regulatory technical standards specifying the requirements on information documents, on the costs and fees included in the cost cap and on risk-mitigation techniques for the pan-European Personal Pension Product"
Pan-European Covered Bonds Framework	Create a truly pan-European market for covered bonds (bank-issued debt backed by a protected pool of assets) by replacing fragmented national rules with a single, harmonised framework that ensures dual recourse, dynamic cover-pool management, and strong investor protection. This allows banks to issue bonds across borders under a common label, making the market more liquid, transparent, and accessible to a wider range of investors, thereby reducing funding costs. In turn, consumers benefit from cheaper mortgages, while long-term savings flow into housing and infrastructure finance, reinforcing financial stability and market integration.	(6) Banking-Market Complementarity and Securitization	(1) Implemented (Transposition of Directive (EU) 2019/2162 by July 2021 & Fully applicable since July 2022)	(1) Directive (EU) 2019/2162 - Better known as the "CBD" (Covered Bonds Directive), "on the issue of covered bonds and covered bond public supervision and amending Directives 2009/65/EC and 2014/59/EU" (2) Regulation (EU) 2019/2160 - "[A]mending Regulation (EU) 575/2013 [...] [on] exposures in the form of covered bonds"
Review and Expansion of the EuVECA (European Venture Capital Fund) and EuSEF (European Social Entrepreneurship Funds) Regulations	Expand the EuVECA and EuSEF frameworks to serve a broader share of the investment industry by opening venture capital and social-impact fund passports to larger fund managers and a wider range of eligible assets. In this way, more equity capital can reach cross-border innovative SMEs and mission-led enterprises, overcoming longstanding scale and scope limitations. Accordingly, the EuVECA reform supports diversified SME funding, private risk-sharing, and a renewed equity culture across Europe, while the EuSEF reform channels capital toward social innovation and the circular economy transition.	(1) SME Financing	(1) Implemented (Fully applicable since March 2018)	(1) Regulation (EU) 2017/1991 - "[O]n amending Regulation (EU) 345/2013 on European venture capital funds and Regulation (EU) 346/2013 on European social entrepreneurship funds"
Pan-European "Venture Capital Funds-of-Funds" Programme (Venture EU)	Deploy VentureEU to mobilise large, diversified pools of risk capital capable of backing early-stage and scale-up venture funds across the Union. In this way, the programme addresses Europe's persistent equity gap by anchoring fund-of-funds with public money to attract private investors, accelerate first closings, and raise average fund size to globally competitive levels. Accordingly, VentureEU boosts the supply of growth capital for EU-based start-ups and scale-ups, crowds in global institutional investors, supports later-stage venture rounds, and strengthens the broader ecosystem by mentoring emerging VC teams and spreading best practices across the European venture capital market.	(1) SME Financing	(1) Implemented (Launched in April 2018)	(1) VentureEU: pan-European fund-of-funds initiative launched by the European Commission and the European Investment Fund
European Loan-Originating Funds Framework - Part of AIFMD II	Establish a common EU framework for loan-originating funds to unlock a stable non-bank credit channel for SMEs and infrastructure projects across the Union. In this way, the directive addresses fragmented national regimes that have hindered cross-border lending, discouraged investor participation, and limited supervisory oversight. Accordingly, the rules impose safeguards such as borrower concentration caps, leverage limits, and loan retention requirements to ensure sound risk management and financial stability. Retail investor protection is reinforced through a ban on open-ended loan funds, requiring closed-ended structures with redemption terms aligned to loan maturities. By harmonising conduct and prudential standards, the framework enables credit funds domiciled in one Member State to safely lend across borders, broadening SME access to finance while embedding private credit within the EU's macro-prudential perimeter.	(1) SME Financing	(1) Implemented (Directive was signed on 13 March 2024, published on 26 March 2024 and entered into force on 15 April 2024. Final Member States' transposition is due in April 2026)	(1) Directive (EU) 2024/927 - "[A]mending Directives 2011/61/EU and 2009/65/EC as regards delegation arrangements, liquidity risk management, supervisory reporting, the provision of depositary and custody services and loan origination by alternative investment funds"
Undertakings for Collective Investment in Transferable Securities (UCITS) - Part of AIFMD II	Recast the UCITS Directive to align it with AIFMD II, remedy shortcomings in delegation, liquidity-risk management and reporting, and introduce mandatory liquidity-management tools, tighter substance and notification requirements for outsourced portfolio management, harmonised ESMA templates and a cross-border depositary passport, thereby enhancing investor protection, improving supervisory transparency and preparing the ground for a future single rulebook governing all EU fund managers.	(2) Capital Markets Integration & Infrastructure	(1) Implemented (Directive was signed on 13 March 2024, published on 26 March 2024 and entered into force on 15 April 2024. Final Member States' transposition is due in April 2026)	(1) Directive (EU) 2024/927 - "[A]mending Directives 2011/61/EU and 2009/65/EC as regards delegation arrangements, liquidity risk management, supervisory reporting, the provision of depositary and custody services and loan origination by alternative investment funds"

Title of the initiative	Functional objective of the initiative	Policy Area	Status	Outcome of the measure
Cross-Border Distribution of Funds (CBDF) Package	The Cross-Border Distribution of Funds package (CBDF) turns the EU passport from paperwork into practice by setting a single playbook for marketing collective investment schemes: it removes national marketing, tax-agent and notification barriers so UCITS (Undertakings for the Collective Investment in Transferable Securities) and AIFs (Alternative Investment Funds) can scale across the EU at lower cost, standardises pre-marketing for AIFs, fixes maximum notification clocks at ten days for UCITS and twenty for AIFs, abolishes host-state exit fees, and channels every filing through a central portal run by ESMA that uses the same PRIIPs (Packaged Retail Investment and Insurance Products) risk-and-cost label. Together these changes slash distribution costs, cut months off time-to-market and make selling a fund across borders almost as straightforward as marketing it at home.	(2) Capital Markets Integration & Infrastructure	(1) Implemented (Directive and Regulation are fully applicable since August 2021)	(1) Directive (EU) 2019/1160 - "[A]mending Directives 2009/65/EC and 2011/61/EU with regard to cross-border distribution of collective investment undertakings" (2) Regulation (EU) 2019/1156 - "[O]n facilitating cross-border distribution of collective investment undertakings and amending Regulations (EU) No 345/2013, (EU) No 346/2013 and (EU) No 1286/2014"
MiFIR Review - EU Post-Trade Consolidated Data	Establish a real-time, pan-European consolidated tape by requiring all trading venues and systematic internalisers to submit post-trade data at cost, capping user fees, and redistributing revenues to data contributors, thereby reducing information asymmetry, lowering execution costs, and addressing long-standing concerns over the monopolisation of market data. The initiative aims to replace today's fragmented, high-cost data landscape with a single, authoritative view of prices and volumes across asset classes, enabling investors, brokers, and regulators to see where liquidity truly resides. It reinforces MiFID (Markets in Financial Instruments Directive)'s best-execution regime by allowing firms to benchmark trades against an EU-wide composite rather than national prints, while calibrated deferrals for large or illiquid trades preserve market depth. Ultimately, the framework supports deeper integration of EU capital markets, improves conduct-of-business oversight, and creates the foundations for a competitive, transparent, and accessible European market data ecosystem.	(2) Capital Markets Integration & Infrastructure	(1) Implemented (Regulation fully applicable since March 2024; Directive fully applicable since March 2024, to be transposed by September 2025)	(1) Directive (EU) 2020/1504 - "[A]mending Directive 2014/65/EU on markets in financial instruments" (MiFID) (2) Directive (EU) 2024/290 - "[A]mending Directive 2014/65/EU on markets in financial instruments" (MiFID) (3) Regulation (EU) 2024/791 - "[A]mending Regulation (EU) No 600/2014 as regards enhancing data transparency, removing obstacles to the emergence of consolidated tapes, optimising the trading obligations and prohibiting receiving payment for order flow" (MiFIR)
European Long-Term Investment Funds (ELTIF 2.0)	Modernize the ELTIF (European Long-Term Investment Fund) regime to channel more retail and institutional capital into long-term projects, green infrastructure, and SME finance by removing entry barriers, broadening eligible assets, and adding flexible liquidity features. The revised framework eliminates the €10,000 minimum investment and the 10% portfolio cap for retail investors, making the product more accessible to households. It expands the investable universe by lowering the illiquid-asset quota to 55%, and permitting exposures to STS securitisations, green bonds, master-feeder structures, and funds-of-funds, thereby enabling greater portfolio diversification. Optional liquidity tools such as redemption windows, transfer mechanisms, and life-cycle-aligned gates are introduced to meet growing demand for semi-liquid private market vehicles. Together, these reforms support the Capital Markets Union's ambition to redirect Europe's €34 trillion in household savings toward productive investment, while delivering a more flexible, transparent, and investor-friendly gateway to private assets.	(4) Long-Term & Sustainable Investments	(1) Implemented (Regulation fully applicable since January 2024; Delegated Regulation fully applicable since August 2024)	(1) Regulation (EU) 2023/606 - "[A]mending Regulation (EU) 2015/760 as regards the requirements pertaining to the investment policies and operating conditions of European long-term investment funds (...)" (2) Delegated Regulation (EU) 2024/2759 - "[S]upplementing Regulation (EU) 2015/760 (...) with regard to regulatory technical standards"
European Crowdfunding Service Providers (ECSP) Framework	The ECSP framework seeks to open a single EU market for investment- and lending-based crowdfunding by giving platforms a single license, a harmonized rulebook, and an EU-wide passport that replaces the patchwork of 27 national regimes. The framework modernizes the crowdfunding landscape by allowing platforms to operate cross-border under one set of conduct rules, streamlining access to capital for startups and small businesses across the Union. It strengthens investor protection by requiring a six-page Key Investment Information Sheet (KIIIS) for every offer, mandating creditworthiness checks on borrowers, enforcing asset segregation, and introducing a knowledge test and four-day cooling-off period for non-sophisticated investors. To encourage cross-border participation, it standardizes disclosures, identity verification of project owners, and secondary trading bulletin boards, enabling retail investors to confidently support SMEs in any Member State. Together, these reforms aim to diversify SME financing beyond domestic banks and help unlock Europe's €34 trillion in household financial wealth by lowering frictions and boosting trust in crowdfunding as a mainstream funding channel.	(1) SME Financing	(1) Implemented (Regulation fully applicable since November 2021) (2) Under Review (Delegated Regulation will become compulsory from January 2026)	(1) Regulation (EU) 2020/1503 - "[O]n European crowdfunding service providers for business, and amending Regulation (EU) 2017/1129 and Directive (EU) 2019/1937" (2) Directive (EU) 2020/1504 - "[A]mending Directive 2014/65/EU on markets in financial instruments" (MiFID) (3) Delegated Regulation (EU) 2024/358 - "[S]upplementing Regulation (EU) 2020/1503 (...) with regard to regulatory technical standards specifying requirements on credit scoring of crowdfunding projects, pricing of crowdfunding offers, and risk management policies and procedures"
European Green Bond Standard (EUGBS) Regulation	The EU Green Bond "Gold Label" seeks to unite Europe's patchwork of green-debt standards under a single standard. Opt-in issuers would have to direct at least 85% of net proceeds to projects fully aligned with the EU Taxonomy, while a strictly limited 15% flexibility pocket could support sectors or transition activities not yet covered. Each year they must release standardised allocation and impact reports, externally verified by ESMA-supervised reviewers, giving investors consistent, comparable data. National supervisors gain explicit powers to fine, withdraw the label, and publicly name violators, providing a strong deterrent to green-washing. By replacing 27 national labels with one EU passport, the regime slashes due-diligence costs for asset managers, improves secondary-market liquidity, and encourages participation from hard-to-abate industries. Ultimately, it aims to deepen Europe's sustainable-bond market and channel more private capital toward Green Deal goals.	(5) Digital Finance, Green & Innovation	(1) Implemented (Regulation fully applicable since December 2024)	(1) Regulation (EU) 2023/2631 - "[O]n European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds"
DLT (Distributed Ledger Technology) Pilot Regime for Market Infrastructures	The DLT Pilot Regime establishes a time-limited regulatory framework that gives EU market operators a single passport and controlled environment to trade, record, and settle tokenised shares, bonds, and UCITS on permissioned distributed-ledger platforms. It introduces three bespoke licence categories - DLT Multilateral Trading Facility (DLT MTF), DLT Settlement System (DLT SS), and an integrated DLT Trading and Settlement System (DLT TSS) - allowing participants to operate under rules tailored to distributed ledger technology. Operators can benefit from targeted waivers of key MiFID II/MiFIR, CSDR, and SFD obligations, such as paper-based certification or reliance on central bank money, with an overall cap of €9 billion in tokenised instruments per bank. The pilot runs for up to six years, combining live experimentation with strict investor-protection safeguards and supervision coordinated by ESMA and national regulators. By enabling real-world testing of blockchain infrastructures, the regime aims to determine whether distributed ledgers can reduce post-trade costs, accelerate settlement cycles, and enhance the EU's competitiveness in digital finance, while laying the groundwork for a potential permanent regulatory framework.	(5) Digital Finance, Green & Innovation	(1) Implemented (Regulation fully applicable since March 2023)	(1) Regulation (EU) 2022/858 - "[O]n a pilot regime for market infrastructures based on distributed ledger technology"

Title of the initiative	Functional objective of the initiative	Policy Area	Status	Outcome of the measure
<p>Faster & Safer Tax Relief of Excess Withholding Taxes (FASTER Framework)</p>	<p>The EU Withholding-Tax Relief Framework tackles the cost, delay and fraud risk of today's piecemeal refund systems for over-withheld dividend and interest tax. It introduces two Union-wide fast-track routes: a relief-at-source channel that applies the correct treaty rate from the outset, and a quick-refund lane obliging Member States to return any excess within 50 days. A single digital EU Tax-Residence Certificate (eTRC) will be issued online and reused for a year, ending the paper chase that slows cross-border flows. Banks, brokers, custodians and CSDs that join the new register of Certified Financial Intermediaries must follow harmonised due-diligence rules, transmit transaction data in a standard XML format and stamp key events on a permissioned distributed ledger, giving tax authorities near-real-time oversight. By merging 27 national procedures into one digital rulebook, the framework is projected to cut refund times from more than a year to under two months, slash administrative costs for asset managers, and remove a long-standing tax barrier to EU portfolio investment.</p>	<p>(7) Others (Tax)</p>	<p>(1) Implemented (Council Directive adopted in May 2024, transposition by December 2027)</p>	<p>(1) Council Directive 2025/50 - "[O]n faster and safer relief of excess withholding taxes"</p>
<p>Directive on Harmonisation of Certain Aspects of Insolvency Law</p>	<p>The initiative aims to make corporate insolvency proceedings more predictable and transparent for cross-border investors by introducing minimum EU standards in areas where divergent national rules currently create legal uncertainty, delay value recovery, and discourage investment. It seeks to harmonise critical aspects of insolvency law, including rules on avoidance actions, asset tracing, pre-pack sales, the functioning of creditors' committees, and directors' duties during the so-called twilight period before formal insolvency. By aligning these rules, the proposal aims to facilitate faster and more reliable recovery of value from distressed debt across Member States, support the development of secondary markets for non-performing loans and securitised assets, and reduce the due diligence burden for investors and lenders navigating the EU's currently fragmented insolvency regimes.</p>	<p>(7) Others (Insolvency)</p>	<p>(1) Proposal (After Commission's Communication on the Harmonization of Insolvency Laws, political dialogues are still ongoing)</p>	<p>(1) Directive (EU) 2019/1023 - "[O]n preventive restructuring frameworks, on discharge of debt and disqualifications, and on measures to increase the efficiency of procedures concerning restructuring, insolvency and discharge of debt" (2) COM(2022) 702 - "Proposal for a Directive of the European Parliament and of the Council harmonising certain aspects of insolvency law"</p>
<p>Strengthening ESAs Mandate for Supervisory Convergence - Focus on ESMA</p>	<p>Widening the supervisory power of the European Securities and Markets Authority so it can enforce the EU's single rulebook uniformly, close off avenues for regulatory arbitrage and support the emergence of fully integrated capital markets. Under the proposal, ESMA would run more robust peer reviews, issue faster and clearer Q&A guidance, and trigger breach-of-EU-law proceedings when national supervisors fall short. Pan-European data-reporting utilities, including the Consolidated Tape Providers, would be required to register directly with ESMA and would remain under its continuous oversight. The authority would also gain the mandate to coordinate cross-border commodity-position limits and to create a central EU market-abuse database, giving regulators a shared view of suspicious activity. Collectively, these upgrades are intended to pave the way for a possible future transition to a single EU capital-markets supervisor.</p>	<p>(7) Others (Supervisory convergence)</p>	<p>(1) Implemented (Both regulations are already fully applicable)</p>	<p>① Regulation (EU) 2019/2175 - "[A]mending [...] Regulation (EU) 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority) [and] Regulation (EU) 600/2014 on markets in financial instruments" (2) Regulation (EU) 2024/791 - "[A]mending Regulation (EU) No 600/2014 as regards enhancing data transparency, removing obstacles to the emergence of consolidated tapes, optimising the trading obligations and prohibiting receiving payment for order flow" (MiFIR)</p>
<p>Financial Competence Framework - Joint Action EU & OECD/INFE</p>	<p>The initiative seeks to raise the level of financial literacy among European citizens, enabling them to save, invest, and plan more effectively, a foundation for boosting retail participation in EU capital markets. At its core is a structured, common competence framework applied EU-wide, designed to support national education systems and adult learning schemes, while also guiding the development of evidence-based financial-education policies. It provides a reference point for industry-led investor-awareness programmes and offers a foundation for future regulatory initiatives, such as setting potential minimum education or skills standards under the MiFID II retail-investor reforms. Ultimately, the goal is to equip individuals with the knowledge and confidence to navigate increasingly complex financial markets and make informed financial decisions throughout their lives.</p>	<p>(3) Retail & Institutional Investors Participation</p>	<p>(1) Implemented (Adult report published in 2022, Youth report in 2023)</p>	<p>(1) Financial competence framework for adults in the European Union (2022) (2) Financial competence framework for children and youth in the European Union (2023)</p>
<p>Cross-Border Shareholder Rights & Digitalization of Corporate Actions</p>	<p>The initiative seeks to ensure that all shareholders—especially cross-border and retail investors—can effectively exercise their voting, dividend, and information rights across the EU. It introduces a harmonised definition of "shareholder" and clearly defined obligations for intermediaries involved in the securities holding chain. A key pillar is the full digitalisation of corporate actions, making processes such as general meetings, dividend payments, and shareholder notifications digital-by-default. Communications between issuers, intermediaries, and investors will be standardised using machine-readable formats (ISO 20022), ensuring compatibility across systems and jurisdictions. The framework also aims to bridge company law and capital markets operations by promoting seamless interoperability.</p>	<p>(3) Retail & Institutional Investors Participation</p>	<p>(1) Implemented (Directive 2017/828 and Implementing Regulation 2018/1212 are fully enforceable) (2) Under Review (Directive 2025/25 is in the transposition phase)</p>	<p>(1) Directive (EU) 2017/828 - "[A]mending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement" (2) Implementing Regulation (EU) 2018/1212 - "[L]aying down minimum requirements implementing the provisions of Directive 2007/36/EC (...) as regards shareholder identification, the transmission of information and the facilitation of the exercise of shareholders rights" (3) Directive (EU) 2025/25 - "[A]mending Directives 2009/102/EC and (EU) 2017/1132 as regards further expanding and upgrading the use of digital tools and processes in company law"</p>
<p>Reform of the Central Securities Depositories Regulation (CSDR): Establishment of a Single EU Settlement Passport, Revised Settlement Discipline Regime, and Roadmap to T+1 Settlement</p>	<p>The reform of the Central Securities Depositories Regulation (CSDR) aims to modernize the European Union's post-trade infrastructure by making securities settlement faster, more cross-border, and more competitive, while maintaining strong discipline and operational resilience. At its core is a single EU "settlement passport", allowing a Central Securities Depository (CSD) authorized in one Member State to serve clients and issue International Securities Identification Numbers (ISINs) anywhere in the EU without needing separate licenses, reducing fragmentation and simplifying access. To improve supervisory consistency, the proposal streamlines oversight by national authorities and gives the European Securities and Markets Authority (ESMA) binding mediation powers in cross-border disputes. The settlement discipline regime is also adjusted: cash penalties for failed settlements will apply from day one, but mandatory buy-ins (MBIs) become a last-resort measure, triggered only if settlement performance drops EU-wide. To help EU-based CSDs compete with global players, the cap on banking-ancillary services - like providing credit or liquidity for settlement - is raised from 20% to 40% of a CSD's balance sheet. ESMA also gains new authority to recognize and supervise third-country CSDs operating in EU markets.</p>	<p>(2) Capital Markets Integration & Infrastructure</p>	<p>(1) Proposal (Trilogues between Commission, Parliament and Council, on the basis of COM(2022)-120, had positive outcome, expectation for a regulation in Q4 2025)</p>	<p>(1) COM(2022)-120 - "[A]mending Regulation (EU) 909/2014 as regards settlement discipline, cross-border provision of services, supervisory cooperation, provision of banking-type ancillary services and requirements for third-country central securities depositories" (2) SWD(2022)-75 - "Impact Assessment Report", accompanying COM(2022)-120 (3) SWD(2022)-76 - "Executive Summary of Impact Assessment Report", accompanying COM(2022)-120</p>

Title of the initiative	Functional objective of the initiative	Policy Area	Status	Outcome of the measure
<p>European Investment-Protection & Facilitation Framework ("Retail-Investment Strategy" package)</p>	<p>The initiative aims to rebuild retail-investor confidence in cross-border investing by ensuring that all savers in the EU benefit from greater transparency, protection, and access. Under the proposal, every retail investor would receive value-for-money financial products, assessed against EU-wide cost and performance benchmarks to ensure fairness and comparability. Uniform rules on best-interest duties and inducements would apply across all distribution channels, eliminating discrepancies that currently confuse or disadvantage consumers. In parallel, a single public information hub would allow investors to compare products, make purchases, and file complaints online, supported by a simplified redress system. Together, the six interlinked legislative measures seek to mobilize household savings, deepen the retail dimension of the Capital Markets Union, and build lasting trust in EU capital markets.</p>	<p>(3) Retail & Institutional Investors Participation</p>	<p>(1) Proposal (Commission has proposed the "Retail-Investment Package", trilogues negotiations expected to begin in Q4 2025)</p>	<p>"Retail-Investment Strategy Package" - Two Communications: (1) COM(2023)-278 - "[A]mending Regulation (EU) No 1286/2014 as regards the modernisation of the key information document (KID)" for Packaged Retail and Insurance-based Investment Products (PRIIPs) (2) COM(2023)-279 - "[A]mending Directives (EU) 2009/65/EC, 2009/138/EC, 2011/61/EU, 2014/65/EU and (EU) 2016/97 as regards the Union retail investor protection rules" - "Omnibus" Directive amending five previous texts (UCITS, AIFMD, Solvency II, MiFID II, IDD)</p>
<p>Post-Trade Barrier-Removal Roadmap ("Giovannini Barriers")</p>	<p>The initiative aims to make post trade clearing and settlement across the European Union more efficient, cost effective, and fully cross border by systematically addressing the structural obstacles that continue to fragment the market. It builds on the original list of 13 Giovannini barriers, incorporates additional frictions identified by the 2017 European Post Trade Forum, and assigns clear responsibility for resolving each issue. For every barrier, a specific actor such as an EU institution, national authority, or industry body is identified as the lead, along with a defined timeline for implementation. This structured and continuously updated roadmap supports future legislative and regulatory reforms, including measures related to Shareholder Rights Directive Two templates based on ISO 20022, the FASTER initiative on withholding tax, and the review of the Central Securities Depositories Regulation. It also contributes to the European Commission's regular Capital Markets Union Progress Reports, promoting transparency and coordinated action toward a more integrated post trade environment.</p>	<p>(2) Capital Markets Integration & Infrastructure</p>	<p>(1) Implemented (Ongoing programme, with updates on a two-year basis)</p>	<p>(1) 2017's European Post-Trade Forum (EPTF) Report</p>
<p>Conflict-of-Laws Rules on the Third-Party Effects of Assignment of Claims</p>	<p>The initiative aims to eliminate legal uncertainty about which national law applies to priority disputes and the ownership effects of assigning or pledging claims - such as trade receivables, loans, or margin posted for derivatives - when these transactions take place across borders. By setting clear and consistent conflict of law rules at the European Union level, the reform would lower legal risk premiums tied to securitizations, factoring, collateral arrangements, and supply chain finance. This clarity would also help prevent overlapping enforcement actions and contradictory court decisions, making cross border transactions more predictable and enforceable. In doing so, it would support the growth of secondary markets for non performing loans and trade receivables. The proposal further seeks to align European Union rules with international legal standards developed by the International Institute for the Unification of Private Law (UNIDROIT), and the United Nations Commission on International Trade Law (UNCITRAL). This alignment would enhance the European Union's global standing as a safe and reliable market for international investors.</p>	<p>(7) Others (Legal certainty)</p>	<p>(1) Proposal (COM(2018)-96 has remained dormant, with a focus on other CMU files and COVID-related priorities)</p>	<p>(1) COM(2018)-96 - "[O] the law applicable to the third-party effects of assignments of claims" (2) COM(2018)-89 - "[O]n the applicable law to the proprietary effects of transactions in securities"</p>
<p>Commission Recommendation on Private Placements</p>	<p>The initiative aims to provide mid-sized companies and unrated corporates with a more cost-effective way to raise long-term capital by promoting a standardized Pan-European private placement market. It seeks to harmonize processes and documentation for privately placed corporate debt, enabling mid-caps to access institutional investors without the complexity and cost of a full public offering. Common legal templates, such as those developed by ICMA and LMA for Europ-PP transactions, will help streamline deal structuring and reduce execution risk. Standardized due diligence and disclosure checklists will further enhance transparency and investor confidence. The initiative also calls for the removal of regulatory and tax frictions - such as burdensome withholding tax certification - that currently limit cross-border investment. By improving legal certainty and lowering transaction costs, the reform aims to establish a reliable funding channel that sits between bank loans and listed bonds, reducing refinancing risk and supporting growth for Europe's medium-sized firms.</p>	<p>(1) SME Financing</p>	<p>(1) Implemented (Regulation 2017/1129 fully applicable since July 2019) (*) The regulation does not specifically target Private Placements, and the study is not legally-binding. Therefore, even though measures somehow exist, no specific initiative for Private Placements has a legally-binding power.</p>	<p>(1) 2017's European Post-Trade Forum (EPTF) Report</p>
<p>Solvency II – Lower Capital Calibrations for Infrastructure & Long-Term Equity Investments</p>	<p>The initiative cuts the solvency capital that insurers must set aside when they finance real-economy assets judged to be lower-risk and societally valuable. Three categories now benefit: infrastructure projects such as offshore wind arrays or high-capacity fibre lines; infrastructure corporates whose revenues are contractually tied to a single public-interest asset; and long-term equity stakes - whether held directly or through European Long-Term Investment Funds - kept in portfolio for at least five years. To qualify, the assets must offer predictable cash-flows, robust contractual covenants and public-interest purpose, and must meet an investment-grade risk profile verified by supervisors. For infrastructure the shock factor in the standard equity module has been trimmed to roughly 30 percent, while a new "long-term equity" sub-module sets a charge of about 22 percent compared with the 39 percent applied to ordinary listed shares; this dovetails with the capital incentives already granted to ELTIF holdings and to simple, transparent and standardised securitisations. Therefore, the initiative seeks to lower capital charges so that insurers can invest more in infrastructure projects, corporates and ELTIF equity, boosting patient capital for the green & digital transitions</p>	<p>(4) Long-Term & Sustainable Investments</p>	<p>(1) Implemented (Both Delegated Regulations have been implemented) (2) Under Review (Directive 2025/02 has been approved)</p>	<p>(1) Delegated Regulation (EU) 2016/467 - "[A]mending Commission Delegated Regulation (EU) 2015/25 concerning the calculation of regulatory capital requirements for several categories of assets held by insurance and reinsurance undertakings" (2) Delegated Regulation (EU) 2019/981 - "[A]mending Delegated Regulation (EU) 2015/35 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II)" (3) Directive (EU) 2025/02 - "[A]mending Directive 2009/138/EC as regards proportionality, quality of supervision, reporting, long-term guarantee measures, macro-prudential tools, sustainability risks and group and cross-border supervision, and amending Directives 2002/87/EC and 2013/34/EU"</p>
<p>SME IPO Fund (InvestEU Equity Window)</p>	<p>The initiative aims to strengthen Europe's small-cap public market ecosystem by providing targeted equity support to high-growth small and medium-sized enterprises and mid-cap companies preparing to go public. Acting as an anchor investor, the facility participates in initial public offerings by injecting cornerstone capital during the book-building phase - covering up to approximately 25 percent of the free float - to help ensure successful pricing and investor confidence. It can also provide stabilisation capital during the 30-day period following the listing to help manage market volatility. In parallel, the initiative supports specialist pre-IPO and IPO-focused investment funds that assist companies in upgrading their governance, financial reporting, and strategic readiness ahead of listing. By combining direct market participation with ecosystem-building measures, the facility aims to mobilise 3.75 billion euros in public and private capital and enable at least 500 new SME listings across EU markets by 2030.</p>	<p>(1) SME Financing</p>	<p>(1) Implemented (SME IPO Sub-Window, part of InvestEU Equity Window has been launched in 2023)</p>	<p>(1) InvestEU Equity Window (2) SME IPO Sub-Window</p>

Title of the initiative	Functional objective of the initiative	Policy Area	Status	Outcome of the measure
CRR "Infrastructure-Supporting Factor"	<p>The initiative seeks to unlock additional bank lending capacity for long-term infrastructure projects by adjusting prudential rules to better reflect the lower risk profile of high-quality infrastructure investments. Specifically, it introduces an Infrastructure-Supporting Factor under the Capital Requirements Regulation (CRR), which allows banks to apply reduced own-funds requirements - that is, hold less capital - against qualifying infrastructure exposures. By lowering the capital charges associated with such lending, the measure aims to reduce financing costs for essential infrastructure projects in sectors such as transport, energy, digital networks, and social infrastructure. To qualify, projects must meet defined criteria demonstrating stable and predictable cash flows, strong contractual frameworks, and low default risk. These safeguards ensure that the risk sensitivity of the capital rules is preserved while making long-term infrastructure financing more attractive to banks. In doing so, the initiative helps crowd in private capital and complement public funding.</p>	(6) Banking-Market Complementarity and Securitization	(1) Implemented (All the three regulations are already fully applicable)	<p>(1) Regulation (EU) 2017/2395 - "[A]mending Regulation (EU) No 575/2013" (i.e., the CRR Regulation)</p> <p>(2) Regulation (EU) 2019/876 (i.e., the "CRR II Regulation") - "[A]mending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements"</p> <p>(3) Regulation (EU) 2024/1623 - "[A]mending Regulation (EU) No 575/2013 as regards requirements for credit risk, credit valuation adjustment risk, operational risk, market risk and the output floor"</p> <p>(4) Directive (EU) 2024/1619 - "[A]mending Directive 2013/36/EU as regards supervisory powers, sanctions (...) and governance risks"</p>
Review of the EU Macro-Prudential Framework (Art. 513 CRR)	<p>The initiative aims to provide EU and national authorities with a unified, forward-looking macro-prudential framework capable of addressing systemic risks across the financial system. It seeks to streamline the current capital buffer structure for banks by removing overlaps and gaps that weaken the effectiveness of risk prevention tools. It would also embed borrower-based instruments - such as loan-to-value (LTV), debt-to-income (DTI), and debt-service-to-income (DSTI) limits - into EU law, allowing policymakers to curb excessive credit growth in overheated real estate markets. A single, transparent trigger for activating the systemic risk buffer (SyRB) would improve clarity and coordination across Member States. Finally, the initiative aims to prepare the ground for extending macro-prudential surveillance to non-bank financial intermediaries (NBFIs), including asset managers, insurers, central counterparties (CCPs), and money market funds (MMFs), where systemic vulnerabilities from liquidity or leverage may emerge.</p>	(6) Banking-Market Complementarity and Securitization	(1) Proposal (COM(2024)91 has been published, but legislative text expected in 2026)	(1) COM(2024)91 - "[O]n the macroprudential review for credit institutions, the systemic risks relating to Non-Bank Financial Intermediaries (NBFIs) and their interconnectedness with credit institutions, under Article 513 of Regulation (EU) 575/2013"
MiFID II "Quick-Fix" (SME Research & Investor Information Relief)	<p>The initiative seeks to boost SME access to equity markets by removing two key MiFID II bottlenecks: the research unbundling rules, which drastically reduced analyst coverage of small caps, and the one-size-fits-all disclosure and product-governance rules, which created disproportionate burdens for simple products sold to professional clients. It restores bundled payments for research and execution where the issuer's market capitalization is €1 billion or less, helping revive analyst coverage for small caps. It also eases disclosure and product governance rules for plain-vanilla instruments sold to professional clients, and introduces flexibility in commodity-derivative position limits. These targeted changes lower listing costs, expand investor reach, and improve liquidity on SME growth markets. Together, they aim to strengthen the ecosystem around SME Growth Markets, such as those operated under the "SME Growth Market" label introduced by MiFID II.</p>	(1) SME Financing	(1) Implemented (Dir. 2021/338 transposed before November 2022)	(1) Directive (EU) 2021/338 - "[A]mending Directive 2014/65/EU as regards information requirements, product governance and position limits, and Directives 2013/36/EU and (EU) 2019/878 as regards their application to investment firms, to help the recovery from the COVID-19 crisis", known as "MiFID II Quick-Fix Directive" or "Covid-19 MiFID Recovery Directive"
Investment-Firm Prudential Regime (IFR/IFD)	<p>The initiative aims to replace the one-size-fits-all capital framework inherited from the Basel banking standards and the Capital Requirements Regulation (CRR) with a tailored, risk-sensitive regime for non-bank investment firms. Rather than treating all firms as if they pose the same systemic risk as banks, the new approach introduces bespoke capital, liquidity, and governance rules that reflect the actual business models and risk profiles of investment firms. This reform lifts disproportionately heavy compliance burdens from approximately 2,300 EU-based brokers, dealers, proprietary traders, market-makers, and asset managers, many of which do not engage in deposit-taking or credit intermediation. At the same time, it strengthens safeguards where they matter most - such as client asset protection, liquidity coverage, and exposure concentration limits - especially for firms that hold client money or engage in riskier trading activities.</p>	(7) Others (Proportionality)	(1) Implemented (Regulation (EU) 2019/2033 and Directive (EU) 2019/2034 have been fully implemented)	(1) Regulation (EU) 2019/2033 - "[O]n the prudential requirements of investment firms"
EU Taxonomy & Sustainable-Finance Disclosure (SFDR)	<p>The initiative creates a unified, science-based system to help investors identify and compare genuinely sustainable activities while reducing the risk of greenwashing. The Sustainable Finance Disclosure Regulation (SFDR) imposes harmonized sustainability reporting at both firm and product levels for all financial market participants and advisers, clarifying whether and how a financial product promotes ESG objectives. The Taxonomy Regulation provides a detailed classification of environmentally sustainable economic activities based on technical screening criteria linked to six environmental objectives. It serves as the reference point for sustainable investment claims and supports alignment across key EU frameworks, including the CSRD and the EU Green Bond Standard. Together, these measures aim to improve transparency, comparability, and credibility in the EU sustainable finance market.</p>	(4) Long-Term & Sustainable Investments	(1) Implemented (Each Regulation has started to apply from the 20th day after the publication on the Official Journal)	<p>(1) Regulation (EU) 2019/2088 - "[O]n sustainability-related disclosures in the financial services sector" (SFDR)</p> <p>(2) Regulation (EU) 2020/852 - "[O]n the establishment of a framework to facilitate sustainable investment" (Taxonomy)</p> <p>(3) Delegated Regulation (EU) 2023/2486 - "[E]stablishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing (...) [or] causes no significant harm to any of the other environmental objectives"</p>
European Secured Notes (ESN) Framework	<p>Create a dual-recourse, long-term funding instrument modelled on covered bonds, specifically designed to channel capital-market funding into granular SME and infrastructure loan portfolios. European Secured Notes (ESNs) would combine key features of traditional covered bonds (e.g. bankruptcy remoteness, asset-cover test, preferential regulatory treatment) with broader asset eligibility, filling the gap between covered bonds and securitisation. Within this framework, infrastructure loans - characterized by stable, long-term cash flows and public-interest objectives - are especially well-suited to ESNs, which offer predictable funding structures aligned with their financing needs. The aim is to diversify SME financing sources, enhance financial stability, and foster bank-market complementarity across the Union. By establishing a harmonised EU label for high-quality, non-securitised funding instruments, the ESN framework could improve cross-border investor confidence and enable smaller banks to access long-term funding more efficiently.</p>	(6) Banking-Market Complementarity and Securitization	(1) Proposal (Report and Feasibility Study respectively from European Banking Authority and the Commission have been published, but no legislative proposal yet)	(1) 2018 - "EBA Report on the European Secured Notes"

Title of the initiative	Functional objective of the initiative	Policy Area	Status	Outcome of the measure
European Cross-Border FinTech Testing Framework ("EU Sandbox")	The EU digital finance sandbox provides a single access point for innovative financial-services firms and RegTech or green-finance projects to test new products across multiple Member States at once, reducing regulatory fragmentation and accelerating cross-border scale-up. It operates through a unified application process and a coordinated testing cohort involving relevant national supervisors. Participants receive jointly agreed testing plans, risk-mitigation measures, and consolidated supervisory feedback. The sandbox supports cutting-edge use cases such as distributed-ledger market infrastructures, AI-driven underwriting, instant payments, RegTech tools, and ESG-data solutions. It complements national innovation hubs and the Global Financial Innovation Network (GFIN) pilot, while informing the policy work of the European Supervisory Authorities on digital innovation.	(5) Digital Finance, Green & Innovation	(1) Implemented (EU Sandbox available within the EU Digital Finance Platform since April 2023)	(1) European Digital Finance Platform (DFP) (2) EU Sandbox (Cross-border testing service)

Figure 2: CMU Policy Matrix (from column 1 to column 5, the matrix with all the 8 columns is presented in Annex 3)

3.1.1 – Critical Assessment of the “CMU Policy Matrix”

In order to properly frame the successive analysis on individual initiatives, the “CMU Policy Matrix” must first be assessed with respect to its key aspects in order to properly frame the successive analysis on individual initiatives, the “CMU Policy Matrix” must first be examined with respect to its core dimensions. The table that follows offers an overview of the implementation status of the initiatives identified in the Capital Markets Union Policy Matrix across the seven defined policy areas.

Capital Markets Union Initiatives by (1) Policy Area and (2) Implementation Stage

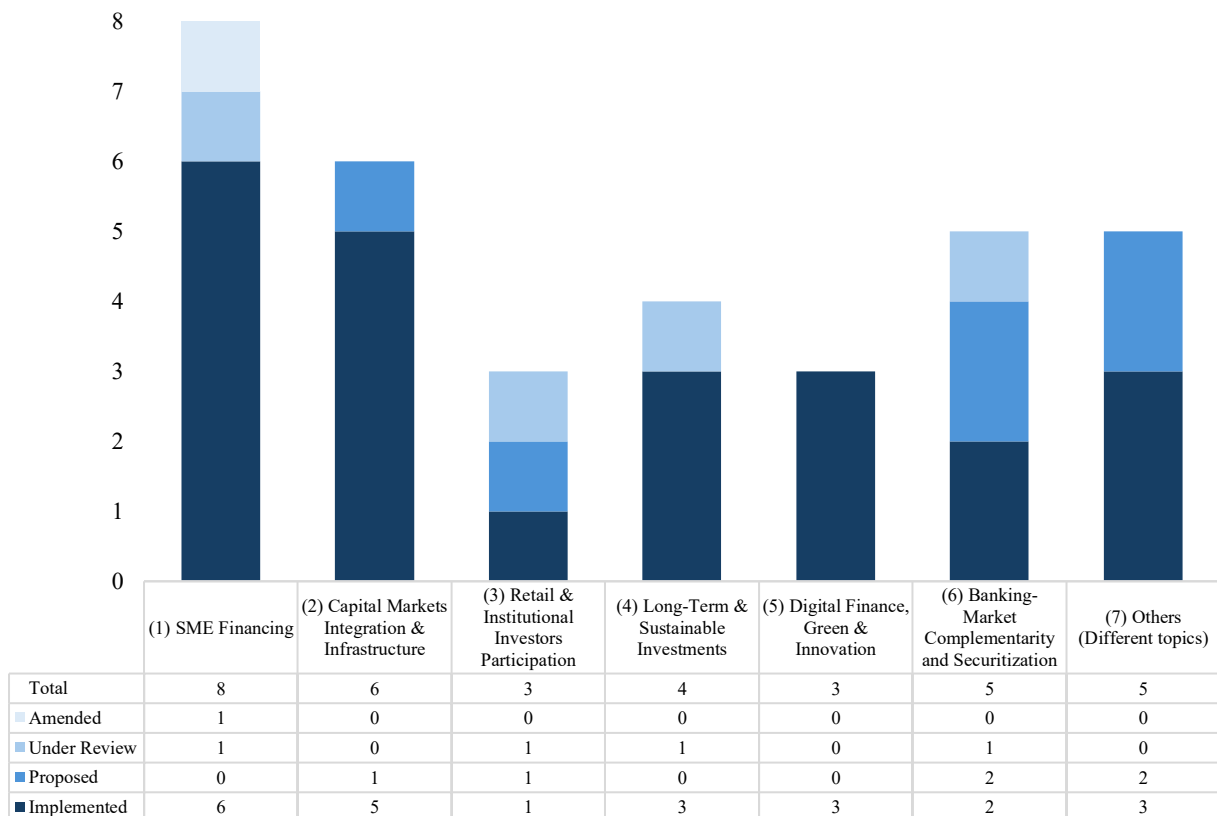


Figure 3: Distribution of CMU Measures by Policy Area and Implementation Status

Data seems to confirm that the majority of initiatives have reached the implementation stage, signaling that the CMU agenda – across all the three documents – has moved decisively beyond the proposal and consultation stages, towards its tangible delivery. This is especially visible in areas such

as SME Financing, Capital Markets Integration, and Digital Finance, where implementation density is highest. However, the classification of measures as “Implemented” should not be simply read as a proxy for effectiveness or completeness. In many instances, these initiatives have only recently entered into force, and the medium- to long-term impacts, consequences and effects – both at market and institutional level – are yet to be evaluated in a systematic way. In other cases, instead, the effects are, and are likely to be, difficult to measure: the initiatives which have been translated into Directives inherently rely on transposition processes, which introduce variations in timing, scope and enforcement.

The relatively modest number of measures that remain in the “Proposal” category suggests that the legislative drafting phase of the CMU agenda has, for the most part, reached its maturity stage. Rather than indicating institutional inertia, this limited presence is more likely to be associated with a strategic prioritization of files considered politically viable and technically ready for adoption. The initiatives that have not yet advanced tend to be those associated with more sensitive areas of regulatory intervention or touch upon deeply entrenched national legal frameworks. Accordingly, these represent domains where consensus is more difficult to achieve, and legal harmonization more politically charged. Reforms in the fields of retail investor protection and cross-border insolvency, for instance, illustrate the tensions that can arise when European-level objectives encounter divergent domestic traditions and market structures. In these cases, delays may stem less from opposition to the substance of reform and more from the legal complexity involved in reconciling different jurisdictional traditions. Simultaneously, the persistence of these initiatives in the proposal phase underscores the limitations of existing tools for accelerating legislative convergence in politically-sensitive areas. Their eventual adoption will likely require not only technical refinements but also on the presence or absence of political momentum and a clearer articulation and communication to the wider public of the benefits of integration for national systems.

It is also notable that the “Amended” and “Implemented” categories remain consistently marginal across the whole dataset. This may be attributed to the temporal proximity of many CMU reforms: in practice, most measures have not yet been in place long enough to undergo formal revision, meaning that potential shortcomings or unintended effects have not been formally addressed through amendment.

Thus, the resulting picture is one of a framework still consolidating its first layer of legislative output, with structured regulatory refinement remaining a challenge for the next phase of CMU development, which can be reasonably expected starting from 2027. Indeed, the deliberate choice of introducing a distinct subset of initiatives classified as “Under Review” is particularly significant. Although numerically limited, these cases suggest that the CMU framework is beginning to engage in a second-

order phase of policy development. In this phase, the measures enacted are expected to be revisited not merely for compliance, but for regulatory optimization. Reviews often originate in response to either one of the following three situations: (1) the emergence of unintended market effects, (2) the identification of legal or operational misalignments with broader EU objectives, or (3) the need to ensure coherence with evolving international standards. For instance, the ongoing review of the STS Securitization Framework¹⁵ reflects concerns over persistent fragmentation and underutilization in secondary markets, suggesting that the regulation has not fully achieved its market-deepening objectives. Similarly, the re-examination of the European Crowdfunding Service Providers (hereinafter: *ECSP*) framework¹⁶ highlights the need to calibrate investor protection rules as platforms scale cross-border, revealing tensions between supervisory proportionality and market growth. In the case of Solvency II¹⁷ reforms, current revisions seek to ascertain whether existing calibrations for long-term equity investments are aligned with broader goals of channeling capital into sustainable infrastructure, underscoring the importance of adapting EU prudential regimes to global standards while preserving strategic economic priorities. Finally, it is also worth noting that several of the measures currently classified as “Under Review” or “Amended” originate from legislative frameworks that predate the formal launch of the CMU. In such cases, their inclusion within the CMU agenda represents a recontextualization rather than a wholly new policy effort. For instance, both the Solvency II Directive and the Securitization Regulation were adopted prior to the 2015 CMU Action Plan. Nevertheless, they have been subsequently reframed and revised in line with high-level CMU’s objectives. Therefore, the existence of this category, though small, is an indicator of institutional responsiveness, and may signal the maturation of a more dynamic, feedback-based regulatory model.

In terms of cross-sectoral patterns, the data suggests a certain asymmetry in how the *identified* policy areas have been addressed. SME Financing emerges prominently in the dataset not merely as a proxy of the trajectory of political choices, but more fundamentally due to persistent structural barriers that continue to constrain small and medium-sized enterprises’ access to non-bank finance, which the CMU seeks to address. As highlighted in both academic and policy research, and as repeatedly emphasized throughout the thesis, SMEs in the EU remain overwhelmingly reliant on traditional bank lending, with limited uptake of market-based financing instruments (Baioni, et al., 2025). The comparatively high number of initiatives in this area can therefore be understood as a targeted response to long-standing market fragmentation, information asymmetries, and underdeveloped

¹⁵ STS Securitization Framework: Line 1 of the CMU Policy Matrix presented above

¹⁶ European Crowdfunding Service Provider (ECSP) Framework: Line 13 of the CMU Policy Matrix presented above

¹⁷ Solvency II Reforms: Line 26 of the CMU Policy Matrix presented above

capital market infrastructures at the national level. From a broad perspective, these measures aim to widen the financing landscape for SMEs, through regulatory simplification, the development of alternative investment platforms, and initiatives such as the SME IPO Sub-Window¹⁸ under the InvestEU program. As such, the volume of implemented actions should be interpreted not as a sign of completed reform, but as a reflection of the scale and temporal persistence of the challenge.

By contrast, areas such as “Retail & Institutional Investors Participation” or “Banking-Market Complementarity and Securitization” exhibit a more heterogeneous implementation profile, reflecting either greater legislative complexity or a lack of clear agreement among Member States.

The “Others” category, which includes diverse initiatives such as those on supervisory convergence, legal certainty, and cross-border insolvency, should not be viewed as a coherent group with a uniform expected implementation profile. Rather, it represents a “*sui generis*” category, and the variation in status across these measures reflects the intrinsically diverse legal and institutional terrains they occupy. For example, reforms aimed at enhancing supervisory convergence, such as granting greater powers for ESMA, have gained traction, in part because they build on existing frameworks and enjoy support from market actors and EU institutions (European Banking Authority, 2023). By contrast, efforts to approximate insolvency regimes across Member States have proceeded far more cautiously: insolvency law is closely tied to domestic legal culture and national judicial practices, making harmonization both technically and politically sensitive (Hallak, 2023). Accordingly, the “Others” category should be better understood as a residual domain composed of structurally dissimilar reforms, rather than a thematic block advancing at a uniform pace.

From a broader perspective, this implementation mapping underscores a critical inflection point in the CMU agenda. With most legislative texts now formally adopted and many already in force, the challenge for EU institutions and policymakers is apparently moving away from rule-making and toward effective monitoring, enforcement, and evaluation. The relatively contained number of amendments and reviews, while not necessarily problematic in themselves, should prompt reflection on whether existing mechanisms for post-implementation scrutiny are sufficiently robust. In particular, the development of structured impact assessments, longitudinal data collection, and adaptive legislative instruments will be essential to ensure that the CMU remains responsive to market developments and capable of course correction where needed.

Ultimately, what emerges from the analytical grid is the evolving structure of EU financial governance. The trajectory of the Capital Markets Union reveals a regulatory agenda that is steadily

¹⁸ SMEs IPO Sub-Window: Line 27 of the CMU Policy Matrix presented above

maturing and delivering its expectations: not only in terms of the volume of implemented acts, but in the growing recognition of the need for critical assessment, recalibration, and strategic alignment with broader Union priorities.

Additional, interesting considerations can be drawn by analyzing the yearly composition of the outcomes associated with single initiatives. Focusing on how the blend of regulations, directives, communications and other types of initiatives shifts from one year to the next helps understand the CMU’s transition from an early, regulation-driven surge to later phases of targeted refinement and interpretative guidance.

Capital Markets Union Initiatives by Outcome Type

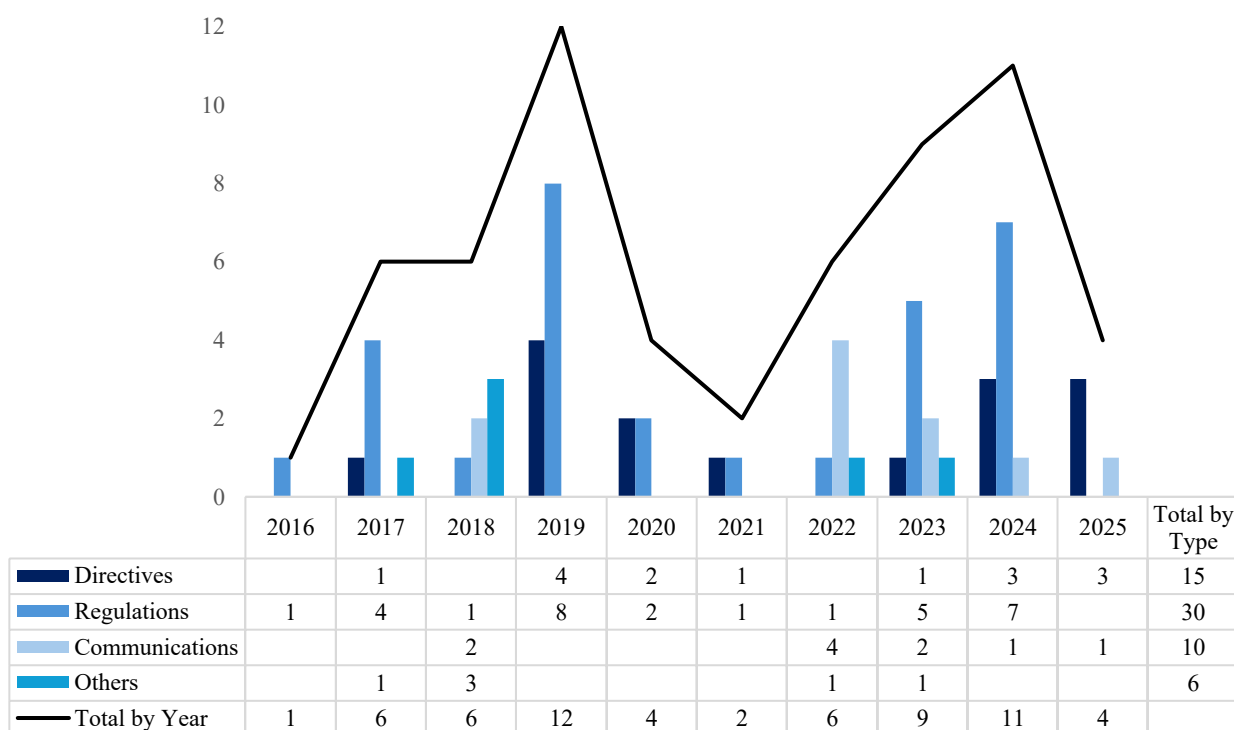


Figure 4: Capital Markets Union Initiatives by Outcome Type

Overall, regulations dominate the categorization, as they account for half of CMU-associated outcomes. This hierarchy is significant: regulations, being directly applicable, are typically reserved for measures where the Union seeks immediate and – arguably, more importantly – uniform market effects; their numerical pre-eminence therefore signals a deliberate preference for speed and homogeneity over the slower, nationally-mediated pathway of directives. Regulations, indeed, deliver the strongest integration dividend because they impose identical obligations on all Member States at the point of entry into force, thereby eliminating both transposition delay and the residual legal heterogeneity that directives invariably tolerate. The CMU sample has consistently adhered to this logic since 2015. Moreover, the dense crop of regulations issued between 2017 and 2019 – including, for instance, the Prospectus Reform, STS Securitization, CCP recovery and the Pan-European

Pension Product – matches with the so-called Union’s “*toolbox moment*,” when the European political objective is to establish a single set of rules before national path dependencies reassert themselves. However, the preference is not absolute, and its intensity fluctuates markedly across the decade. Indeed, as EU financial integration matures – at least on paper – regulatory dominance fades. By 2023, directives, soft-law tools and other instruments increasingly supplement – but, importantly, not substitute – regulations (Sabel, Moore, & Zeitlin, 2012).

The increasing diversification observed reflects two parallel dynamics. First, the shift from market opening to market deepening, which in turn requires increased legal alignment across diverse national systems. Secondly, the growing burden of centralized implementation, which soft instruments help to manage. In a sense, this change reflects “dynamic delegation,” enabling Brussels-based institutions to balance legal coherence with political adaptability as the Capital Markets Union progresses (Kelemen, 2011).

Annual totals can be traced in three distinct phases. The first phase, between 2016 and 2019, is expansionary. Starting from a single regulation in 2016, output climbs to six acts in both 2017 and 2018, then doubles to twelve in 2019. The instruments that power this surge are mostly regulations and, to a lesser extent, directives. The pattern is consistent with a legislative agenda focused on laying down its foundation: the Union relies on regulations to carve out uniform market rules and uses directives sparingly, primarily when national legal variation must be accommodated.

The second phase, between 2020 and 2021, is one of relative pause. Output falls from twelve acts in 2019 to four in 2020 and an unprecedented low of two in 2021, and that collapse coincides precisely with the first two pandemic-stricken years. COVID-19 disrupted the legislative pipeline on three mutually reinforcing fronts.

First, the Council and Parliament had to re-direct time and political capital toward emergency fiscal and public-health packages, leaving fewer slots on agendas for capital-markets files.

Second, the practical shift to remote trilogues and committee work slowed line-by-line negotiations, as underscored in the European Parliament’s own “Working Methods During the Pandemic” stock-take of May 2021.

Third, several CMU dossiers were temporarily repurposed as crisis instruments: most notably, the Quick-Fix amendments to the Prospectus Regulation, which diverted drafting resources away from medium-term integration projects.

The third phase, from 2022 to (H1) 2025, is marked by a renewed, but more heterogeneous activity. Total output rebounds to six acts in 2022, rises to nine in 2023 and touches eleven in 2024 before easing to four in 2025. Yet, as said, the composition of those totals sees no longer the same marked

predominance of regulations. Seemingly, this dilution of hard, directly-applicable law hides some considerations: on one hand, it lowers the risk of “regulatory shock” for smaller market actors suddenly faced with uniform rules; on the other, it re-opens space for divergent national transposition practices that may re-fragment the very markets the CMU seeks to integrate. The timing also coincides with the post-COVID fiscal squeeze, which makes Member States more reluctant to cede competence over revenue-sensitive domains such as insolvency or tax. Ultimately, the flatter hierarchy of instruments complicates accountability chains, because soft law lacks the justiciability of regulations, pushing dispute-resolution into the supervisory discretion.

“Other” instruments, negligible after 2018, make only sporadic reappearances. This altered mix hints at a strategic pivot: with the regulatory base largely in place, policymakers deploy soft-law communications to interpret or promote existing frameworks and return to directives when they need to recalibrate domestic legal architectures, which often represent more common activities once an initial harmonization wave has taken place. However, this must not be associated to the idea of “institutional inertia”: as said, mature regimes often demand finer calibration, and directives provide the necessary granularity by allowing Member States to tailor implementation to domestic necessities and contextual factors. Yet, it is undeniably true that this flexibility might mutate into path-dependency if transposition deadlines are put off or – broadly speaking – not respected or gold-plating proliferates.

Overall, it is interesting to notice how CMU-related activity, both in absolute terms over the years (i.e., without distinguishing by outcome type) and in its shifting instrumental composition, reflects an increasingly maturing policy architecture that seemingly privileges more and more adaptability over uniformity.

3.2 – Understanding the Initiatives of the CMU Policy Matrix

While the preceding analysis provides a high-level overview of the dataset’s composition, such a macroscopic perspective alone cannot fully capture the functional rationale behind individual measures. Therefore, to move beyond aggregate patterns and better understand the strategic intent underlying the legislative output, it is necessary to critically analyze individual CMU-related initiatives – each associated to a distinct line in the CMU Policy Matrix – focusing in particular on those measures that are most significant both for the CMU project itself and for the core arguments and research questions developed in this thesis.

3.2.1 – CMU Initiatives: The “Simple, Transparent and Standardized” Securitization Regime

Among these, the *Simple, Transparent and Standardized* (hereinafter: *STS*) *Securitization Regime* stands out as a flagship initiative of the CMU due to its dual aim of enhancing market-based credit

provision and strengthening financial resilience. The primary economic rationale of the STS project is to convert illiquid, balance-sheet loans – especially financial instruments such as mortgages, auto loans and SMEs’ receivables – into marketable securities. Accordingly, long-term investors can bear credit risk that would otherwise overburden bank capital and limit their lending capabilities. By transferring credit risk from banks’ balance sheet and thus releasing “regulatory capital¹⁹,” the STS framework simultaneously mitigates banks’ risk exposures and “unlocks” additional lending capacity. In turn, this facilitates the flow of funds to the real economy without compromising systemic stability. In macro-financial terms, the mechanism is designed to mitigate the bank-lending channel’s “pro-cyclicality²⁰” and to mobilize Europe’s deep pool of insurance and pension savings, thereby contributing to the mitigation of the long-standing “investment-savings imbalance”.

The 2015 CMU Action Plan defined securitization as a “*vital funding channel for the real economy*” and identified it as an actionable device to narrow the bank-market funding gap with the United States (European Commission, 2015). Nevertheless, the regulatory bargain underpinning the project has always been communicated on a “quid-pro-quo” basis: safer structures may earn lower capital charges for both issuers and investors, but only as long as they can demonstrate simplicity, transparency and standardization. Stated in simpler terms, the framework offers more favorable capital treatment as a “reward” for using clear and standardizes securitizations practices, which in turn reduce risks for the financial system while still encouraging market participation.

That departure from the pre-crisis “*originate-to-distribute*” (i.e., OTD business model) paradigm²¹ seeks to solve two classic market failures, repeatedly emphasized by the academic literature²²: information asymmetry and adverse selection. Accordingly, the policy intent is to create a strictly-screened asset class whose risk-adjusted yields are attractive enough to crowd in private savings yet prudent enough to prevent regulatory arbitrage.

The implementation of the proposal has progressed in two separate phases.

The first phase translated in January 2019 when Regulation 2017/2402 and the parallel CRR “quick-fix” Regulation 2017/2401 became fully applicable, activating the new hierarchy of capital approaches: the public STS notification register and the third-party verification regime. Within

¹⁹ *Regulatory capital*: the minimum amount of capital that financial institutions are required to hold by regulators to absorb losses and reduce the risk of insolvency. Defined under prudential frameworks such as the Basel Accords, it ensures that banks remain solvent under stress and can continue lending without threatening financial stability.

²⁰ *Banks’ lending pro-cyclicality*: tendency of banks to expand credit during economic upswings and restrict it during downturns, thereby amplifying the effects of the business cycle. In recessions, tighter capital constraints and rising credit risk reduce banks’ willingness or ability to lend, which in turn deepens economic contraction. This dynamic is particularly pronounced – and dangerous – in bank-based financial systems.

²¹ “*Originate-to-distribute*” *Business Model*: lending approach in which banks originate loans with the intention of pooling them and selling to third-party investors, rather than holding them on their own balance sheets. While it can improve the disposal of liquidity and risk-sharing, the model has been criticized for weakening lenders’ incentives to assess and monitor credit risk. On these grounds, a similar approach has contributed to the emergence of the 2008 financial crisis.

²² Chapter 1, Paragraph 1

twenty-four months more than one hundred transactions across seven Member States had registered STS status and empirical default rates remained below 0.1 percent. These figures were confirmed by the Joint Committee of the ESAs in its 2025 functioning report (EBA, EIOPA, ESMA, 2025).

The second phase occurred in concomitance with the pandemic-era recovery package of April 2021, which extended the STS label to (a) synthetic balance-sheet²³ and (b) non-performing-exposure securitizations²⁴ – by early-2025 these synthetic STS issuances exceeded €50 billion.

Nevertheless, on comparative terms, the overall EU issuance, that amounts at roughly €170 billion in 2024, still represents barely one-fifth of pre-crisis volumes and just 17 percent of the US counterpart (Letta, 2024). The gap reflects persistent disincentives: inefficient disclosure templates, costly due-diligence obligations for private transactions and risk-weight floors that are widely regarded as being over-conservative by many practitioners (Vallée & Zeng, 2019).

Legally, the architecture is a dual-pillar structure. *Regulation 2017/2402* lays down a single horizontal rulebook that defines securitizations, stipulates the five-percent risk-retention rule, codifies the STS criteria and sets out sanctioning powers for national competent authorities. Complementing it, *Regulation 2017/2401* amends the Capital Requirements Regulation to calibrate preferential risk weights while maintaining a floor that mirrors Basel standards. Subsequent delegated acts have harmonized disclosure templates, homogeneity tests and liquidity-coverage-ratio treatment. The 2021 amendments, *Regulations 2021/557-558*, introduced the afore-mentioned requirements for synthetic and NPL securitizations, including caps on excess-spread trapping and “significant-risk-transfer” rules. In June 2025 the Commission tabled a further legislative proposal through *COM(2025)-825* and *COM(2025)-826* to halve the senior-tranche risk-weight floor from 10 to 5 percent, reduce the p-factor in the securitizations standardized approach by 40 percent, streamline due-diligence obligations and merge ESMA repositories with EBA loan-level data (EBA, EIOPA, ESMA, 2025). That proposal signals a policy shift from post-crisis de-risking toward growth orientation yet remains bounded by a commitment not to significantly depart from the Basel framework.

From a technical standpoint, the STS label imposes stringent design constraints. Asset pools must be homogeneous in product type, underwriting standards and legal jurisdiction, re-securitizations are prohibited, interest and principal distribution hierarchies must be sequential unless objective performance triggers oblige pro-rata switches, risk retention must be retained by a consolidated originator throughout the life of the deal. Further requirements are provided for synthetic and NPL

²³ Synthetic balance-sheet transactions: risk-transfer mechanisms whereby a bank uses credit derivatives or guarantees to shift the credit risk of on-balance-sheet exposures to third parties, typically for the purpose of obtaining regulatory capital relief, without removing the assets themselves from the balance sheet.

²⁴ Non-performing exposure (NPE) securitizations: securitizations backed by loans that are in default or close to default; these structures help banks offload distressed assets and clean up their balance sheets, though they involve higher risk and often require specific safeguards.

securitizations. Since April 2024 the label has also incorporated environmental disclosure fields, potentially paving the way for a future “STS-Green” label aligned with the EU Green Bond Standard (EBA, 2022).

Operationally, investors gain capital relief and a presumption of due-diligence compliance if they rely on an (authorized) third-party verification report, which has been introduced with the idea of being an incentive to correct the information asymmetries that undermined the pre-2008 market.

Strategically, the initiative is woven through three successive CMU roadmaps. As said, the 2015 Action Plan framed it as a lever to “build EU securitizations markets” and mobilize private investment for growth (European Commission, 2015). The 2017 Mid-Term Review crowned the political trilogue as an early CMU success and urged swift application to enhance bank balance-sheet capacity (European Commission, 2017). The 2020 CMU Action Plan then explicitly linked securitization to the green and digital transitions and to Banking-Union risk sharing (European Commission, 2020). Most recently, the 2024 Letta Report on the future of the Single Market cited securitizations as a “fast lane” for channeling dormant household savings into strategic projects (Letta, 2024), while the April 2024 European Council’s conclusions called on the Commission to “relaunching the European securitization market”.

The timeline ahead is partially foreseen by Article 46 of Regulation (EU) 2017/2401. The Commission’s 2025 communication proposes phased application for future steps: reporting simplifications would enter into force six months after adoption, capital-relief amendments after eighteen months, and the integrated data hub pilot in 2026. A second statutory review in 2031 will evaluate interactions with Basel IV output floors and with the prospective digital euro collateral framework.

Academic and policy research converge on three domains where the STS framework requires recalibration: proportionality, risk sensitivity and ecosystem integration. Each can be translated into actionable milestones.

First, the rules underscoring the origination of STS practices should be scaled so that small “originators” are not priced out of the market. Studies show that fixed disclosure costs hit small lenders hardest because they cannot spread the expense over many deals (Vallée & Zeng, 2019). Commission survey data from the 2024 consultation confirm the problem: an average private STS transaction costs about €75.000 in compliance, and almost half of this comes from filling in overlapping data templates. A straightforward remedy is to use – or, better saying, re-adapt – ESMA’s public-notification forms with the granular loan-level templates that the EBA already collects, switch private deals to quarterly – rather than monthly – reporting, and let issuers reuse existing templates

when they tap an outstanding transaction. These changes have the potential to save the market more than €300 million a year. If Parliament and Council pass the review package in 2026, supervisors might publish a cost-saving report within three years later to check whether the expected economic reliefs have been achieved.

Second, capital requirements need to reflect the evidence that STS pools default far less often than non-STS pools. Research by Hardie and Howarth (2013) warns that overly heavy capital charges can push risk into the shadow-banking sector without making banks any safer or more efficient. Three adjustments would restore balance. Firstly, the floor on senior-tranche risk-weights should fall from 10 per cent to 5 per cent, as the Commission has already proposed in *COM(2025) 825-826*. Secondly, the “p-factor”, which inflates risk-weights under the securitizations standardised approach, should vary by asset class so that a low-risk prime-mortgage pool is not treated like a thinly collateralized SME portfolio as testified by EBA’s 2023 calibration study. Finally, AAA-rated STS notes that mature in less than five years should count as high-quality liquid assets for banks’ liquidity-coverage ratios. Because looser capital rules can encourage riskier structures, any relief must be paired with fuller disclosure of tranche-level credit enhancement.

Third, the framework needs to coincide with Europe’s green-finance and digital-finance agendas. Market-based finance can amplify boom-bust cycles unless environmental risks are priced correctly, so the Commission should introduce an optional “STS-Green” label that borrows the taxonomy tests already used in the forthcoming EU Green Bond Standard and requires independent ESG verification. On the technology front, ESMA should run a regulatory sandbox in which originators embed STS cash-flow models in permissioned distributed-ledger platforms; a pilot in 2026-27 could check that tokenized notes settle properly against Eurosystem money and feed results into the 2031 legislative review.

None of this will work without consistent supervision. A pragmatic fix should give ESMA a binding power over STS interpretation and to schedule peer reviews of national authorities every two years starting in 2027.

Title of the initiative	Proposed action(s) by thematic area	Timeline
Simple, Transparent & Standardised (STS) Securitisation Framework	Proportionality: merge ESMA-EBA templates and shift private STS reporting to a quarterly cycle, cutting fixed compliance costs that disproportionately burden small originators.	(1) Adoption: Q3 - 2026 (2) Report: Q3 - 2029
	Risk-sensitivity: halve the senior-tranche risk-weight floor to 5 %, apply asset-class-specific p-factors, and grant short-dated AAA STS notes HQLA status, aligning capital charges with empirical performance.	(1) Full Applicability: Q2 - 2027
	Green integration: introduce an optional “STS-Green” label linked to EU Taxonomy metrics and test tokenised green STS notes in an ESMA-led DLT sandbox to mainstream sustainable securitisation.	(1) Adoption: Q3 - 2026 (2) Report: Q1 - 2031
	Supervision: empower ESMA with responsibilities in STS practices and interpretation	(1) Full Applicability: Q1 - 2027

Figure 5: Proposed Policy Measures for the Future Development of the STS Securitization Framework

3.2.2 – CMU Initiatives: Modernization of European Prospectus and Listing Rules

The changes made to the European Prospectus and Listing framework, codified in Regulation (EU) 2017/1129 and overhauled by the 2024 “Listing Regulation” (i.e. Regulation (EU) 2024/2809), responds to a three of interconnected factors: (i) the observed decline in European initial public offerings, (ii) consistently high fixed listing costs for smaller companies, and (iii) the strategic imperative to finance the Union’s twin green-digital transition through deeper capital markets (European Commission, 2020).

As documented in the 2023 “IPO Watch Europe” report, European IPOs between 2019 and 2023 have remained relatively low and stable in absolute terms, averaging around €15 billion annually, aside from a sharp peak in 2021. That year, European IPOs surged to an all-time high of €75 billion, largely driven by post-pandemic recovery, excess liquidity, and strong investor appetite. Despite this temporary surge, Europe’s share of global IPO market value has remained consistently around 10%, also in 2021 with increased economic activity **Nessuna fonte specificata.**

Moreover, the 2020 “Primary and secondary equity markets in the EU” report, initial costs for an IPO can amount to around 15% of gross proceeds. Most notably, these percentages tend to vary inversely with the total volume of the IPOs: smaller IPOs tend to bear comparatively higher costs to higher IPOs (Oxera Consulting, 2020).

The activity of European Institutions in this realm has begun by replacing the “Prospectus Directive” – published in 2003 in the Official Journal as part of the Financial Services Action Plan – with the directly applicable Regulation (EU) 2017/1129. This regulation has introduced simplified prospectus regimes tailored to specific issuance contexts. Namely, the “EU Growth Prospectus” (now called the “Growth Issuance Prospectus”) for small and mid-sized companies, and the “Follow-on Prospectus” for companies already admitted to trading and seeking to raise additional capital. Simultaneously, the regulation has also reinforced the practices of digital disclosure through ESMA’s central register. The broader aim was to cut compliance costs, enhance investor comparability and restore the appeal of public markets.

Moreover, the 2024 Listing Act introduces additional reforms aimed at making capital markets increasingly accessible and efficient. It expands the exemption for secondary share issuances, thus allowing companies to raise up to 30% of their existing share capital without needing a full prospectus. It also shortens the regulatory approval process to just seven business days for the so-called “seasoned issuers”: companies that are already listed and have a track record of compliance with market regulations. In addition, the Act strengthens the recognition of rules from non-EU

countries (i.e., the “third-country equivalence” concept), reducing legal barriers that previously discouraged companies from pursuing cross-border listings within the EU (Linklaters, 2024).

The same policy goal underlies all these initiatives: creating a disclosure framework that is simultaneously risk-sensitive and cost-efficient. In turn, this is intended to create a new paradigm according to which SMEs regard listing not as a considerable obstacle but as a normal step in their capital-raising life cycle.

Indeed, in support, a whole strand of academic and policy work confirms a strong inverse relation between prospectus length and retail participation: the number of offerings drafted under the EU Growth template between 2020 and 2021 displayed a 18-point increase, but remain highly concentrated in few specific jurisdictions (ESMA, 2022). Furthermore, the uniform regime reduces the recurring problems associated to information asymmetry. This is achieved through the standardization of summaries and risk-factor sequencing, allowing “less experienced” investors to process key metrics consistently and quickly.

However, critics argue that the number of SMEs’ IPOs doesn't increase much when costs go down, because key and recurring expenses – such as advisor fees and underwriter charges – tend to remain consistent and thus are not reduced even with lower disclosure requirements.

Normatively, the regime now rests on two pillars. Regulation 2017/1129 provides the horizontal disclosure framework, while the 2024 Act adjusts thresholds, adds two prospectus types, and broadens language options. Operationally, on the basis of these two Regulations, issuers may choose among four pathways: (a) full-IPO Prospectus; (b) Universal Registration Document (i.e., URD) – a document that has to be updated annually and enables rapid market-window offers; (c) Growth Issuance Prospectus; (d) Follow-On Prospectus. This variety enables issuers to specifically tailor documents to their necessities. Accordingly, it is yielding positive results, as ESMA already records a 35% fall in median prospectus length and a reduction in average approval times from twelve to eight working days between 2018 and 2024 (ESMA, 2025).

Overall, implementation has yielded mixed results. ESMA’s 2022 review reports more than 370 EU-Growth prospectuses and almost 200 simplified secondary prospectuses approved between 2019 and 2021, with drafting times significantly shortened (ESMA, 2022).

Nonetheless, three parallel aspects are worth considering. First, the total number of annual EU IPO approvals have remained consistently below both the 2007-2017 average and pre-crisis levels. Second, the consistent tendency of issuers to be based within the country of approval – which peaks at 100% in Member States such as Czech Republic or Poland (ESMA, 2022). Lastly, the median deal

size continues to rise, indicating that the smallest issuers still find residual fixed costs prohibitive (AFME, 2024).

The 2024 Listing Act has partially responded to these three factors by further tailoring disclosure. As said, it introduces a 50-page Follow-on Prospectus, limited to genuinely new information on business, risks and use of proceeds. Moreover, ESMA's 2025 technical advice cuts metadata requirements and aligns prospectus tagging with the European Single Access Point.

While the legislative trajectory is directionally sound, several structural frictions continue to undermine the full potential of the modernized framework.

First, cost asymmetry persists. As said, survey evidence shows that advisory and underwriting fees for SME IPOs remain roughly 15% per cent of gross proceeds, which is only marginally below the pre-reform average (Oxera Consulting, 2020). Because disclosure is but one component in the cost stack, reductions in document length do not automatically translate into lower total fees.

Second, liability risk is still widely perceived as prohibitive. The retention of a uniform civil-liability regime means that each IPO document attracts the same potential damages.

Third, take-up remains uneven across Member States. Germany, France and Italy account for nearly two-thirds of simplified prospectuses, while smaller exchanges in Central and Eastern Europe struggle to attract any Growth Issuance filings. This concentration suggests that the reform's scale economies are being captured principally in larger legal markets, leaving periphery issuers under-served (AFME, 2024).

Fourth, investor-protection trade-offs have not been fully stress-tested: the long-tail risks of lighter disclosure for complex enterprises have not yet been evaluated over a full business cycle.

Finally, the regime's digital ambitions are still largely aspirational: links to the European Single Access Point and to the EU's trial use of distributed-ledger technology have yet to move beyond small project pilots (AFME, 2024).

Given these problems, a refined implementation roadmap should concentrate on four inter-locking fronts. The first seeks to address the high costs borne particularly by those who engage in smaller IPOs; the second introduces of a presumption of due-diligence for adherence to rules and deadlines to reduce underwriting spreads; the third aims to simultaneously reduce compliance efforts and enhance data comparability; finally, the fourth would enhance the degree of digitalization of prospectus.

Firstly, in order to reduce the economic burden associated with drafting costs, creating a public, pan-European prospectus-builder platform would let firms draft their documents by filling in standard

templates that check errors automatically. That would remove much of the professionals-related (accountants and lawyers) time that has been identified as able of taking away almost half of the cash raised in small IPOs. ESMA could pilot the platform in Q4 2026, giving issuers a full year of real-world testing.

Secondly, empirical evidence from the U.S. suggests that well-defined “safe harbours” can reduce underwriting spreads by approximately 15%. (Lowry & Shu, 2002). A similar approach could be adopted in Europe: issuers who adhere to the official prospectus template and maintain an up-to-date data feed could benefit from a (rebuttable) presumption of due diligence. Preliminary guidance could be released in conjunction with the prototype platform by Q4 2026.

Third, duplicative reports under the Prospectus Regulation and the CSRD inflate compliance effort and hamper data comparability. Creating a single disclosure taxonomy that captures information once and repurposes it across periodic, event-driven, transactional and transnational filings would lower reporting costs and improve secondary-market liquidity. The Commission could table a “Disclosure Backbone” – which incorporates structured data standards, cross-regime alignment, and machine-readable reporting templates – proposal in Q2 2027, alongside with the scheduled 2027 prospectus review, and full adoption in Q2 2028.

Lastly, storing prospectus data in machine-readable form should be only conceived as the first step. If that same data were tied directly to digital tokens representing the shares, settlement and other back-office processes could be automated, further lowering post-trade fees. A smart-prospectus sandbox under the EU’s distributed-ledger pilot (i.e., DLT) could open in Q1 2028, feeding lessons into a second round of legal tweaks. If a potential legislation is to be adopted by Q4 2029, with full application in Q2-2031, would align disclosure modernization with ESAP’s completion, Basel IV’s output-floor phase-in and the expected digital-euro rollout.

Title of the initiative	Proposed action(s) by thematic area	Timeline
Modernization of Prospectus & Listing Rules (i.e., "Prospectus Regulation" and "Listing Act")	Pan-European Prospectus Builder Platform: develop a public drafting hub with pre-validated templates, automated error checks and tagging.	(1) Adoption: Q4 - 2026
	Due-Diligence Safe Harbour for Prospectuses: offer issuers that use the official template and keep data feeds current a rebuttable presumption of due diligence.	(1) ESMA draft guidance: Q4 - 2026 (2) Adoption: Q2 - 2027 (3) Full applicability: Q4 - 2028
	Disclosure Backbone Regulation: merge prospectus, periodic and sustainability reporting into one EU data standard.	(1) Proposal: Q2 - 2027 (2) Adoption: Q2 - 2028
	Smart-Prospectus & DLT Integration: tie machine-readable prospectus data to tokenised securities; automate settlement in a dedicated sandbox.	(1) Sandbox launch: Q1 2028 (2) Legislation: Q4 2029 (3) Full applicability: Q2 2031

Figure 6: Proposed Policy Measures for the Future Development of the Prospectus and Listing Rules

3.2.3 – CMU Initiatives: The European Single Access Point

The Prospectus Regulation and the Listing Act have and are still contributing to improve the “supply side” of disclosures – with the objective of making issuers’ information shorter, clearer, and more standardised – the economic value of those reforms depends on whether that data can be located and

compared at minimal cost. Ensuring such seamless, demand-side access is precisely the task entrusted to the European Single Access Point.

The ESAP has rapidly emerged as the keystone infrastructural project of the Capital-Markets Union because it targets the deepest structural frictions that still impede genuine cross-border portfolio allocation in the European Union. By merging more than fifteen sector-specific reporting streams into a single, multilingual, machine-readable portal operated by the European Securities and Markets Authority (ESMA), Regulation (EU) 2023/2859 seeks to reduce and – to a certain extent - streamline information-search costs. These costs – that can be associated with the already-mentioned market failure of asymmetric information – have long identified by the academic literature as a primary brake to market integration (McClure, Shi, & Watts, 2021).

The policy objective underpinning ESAP is simultaneously straightforward and far-reaching: to lower the fixed cost associated to the acquisition of reliable, comparable data on European issuers and financial products so that analysts, asset managers and retail savers have more information and will accordingly be expected to diversify more naturally across borders. According to McClure, Shi and Watts, which studied evidence associated to electronic disclosure repositories in other jurisdictions, when the marginal cost of data retrieval approaches zero, both information acquisition and price efficiency improve, albeit with complex distributional consequences for informed trading.

On these grounds, ESAP can be therefore intended not merely as a transparency tool but as a lever for private risk-sharing inside the European Monetary Union. This deduction stems from the narrative that the European Central Bank’s recent “deep-dive” into CMU strongly endorses (Arampatzi, et al., 2025). Incorporating sustainability-focused statements required under the Corporate Sustainability Reporting Directive (CSRD) and the Sustainable Finance Disclosure Regulation (SFDR) flow into the same gateway as traditional financial reports, policymakers additionally seek to advance the EU’s “double materiality” doctrine, thereby reflecting the intent to incentivize the allocation of capital should gravitate towards the most profitable but also to the most sustainable projects. Moreover, also the Letta Report frames ESAP as a pillar of “open strategic autonomy” (Letta, 2024).

Regulation 2023/2859 entered into force on 9 January 2024 and already applies to the European Supervisory Authorities (ESAs) and national collection bodies, even though investors will not see a public-facing portal until July 2027. Implementation since then has proceeded on schedule through three parallel dimensions. First, ESMA’s Joint Committee finalized the draft Implementing Technical Standards (ITS) on 29 October 2024, specifying the technical requirements of data and reports. Second, Member States have nominated 160-plus “collection bodies”, ranging from Officially Appointed Mechanisms (OAMs) under the Transparency Directive to business registers, and early “pipeline” tests between Danish and Italian OAMs in early 2025. Third, the Digital Europe Program

has already ring-fenced €37 million for cloud infrastructure, illustrating the Commission's shift from regulatory drafting to operational delivery.

Yet, despite these milestones, the foreseen phased roll-in of data – starting from financial statements in 2026 to insurance templates in 2030 – remains vulnerable to disruptions if either the quality of metadata declines or if funding becomes unreliable.

From a legal perspective, ESAP rests on a dual-novelty structure. The basis, Regulation 2023/2859, is a directly applicable measure that positions ESMA as system owner, but its efficacy depends on two omnibus acts – specifically, Directive 2023/2864 and Regulation 2023/2869 – that *retroactively* insert mandatory ESAP filing requirements into fifteen previously standalone laws. The governance template thus mirrors the “horizontal plus vertical” technique previously used for the European Market Infrastructure Regulation (EMIR): a single central statute supported by multiple, statute-specific amendments, which are enforceable retroactively. The Regulation also establishes a voluntary filing channel: again, an innovative legal initiative that enables private, unlisted entities to submit audited financial statements, thereby broadening the investable universe. Furthermore, the regulation also foresees stringent obligations on cyber resilience and data protection, expressly referring to the Digital Operational Resilience Act to promote harmonized security standards across the system. A five-year review clause further obliges the Commission to revisit the scope, cost and quality of ESAP data by 2031, aligning with the next Multiannual Financial Framework.

From a political-economy angle, ESAP is also the first digital-delivery flagship that binds together the CMU pillar and the EU's emerging data-spaces agenda (Arampatzi, et al., 2025). The Letta Report explicitly calls for ESAP to be the compliance entry point in a future “Savings and Investments Union”, thereby ratcheting institutional pressure for timely deployment (Letta, 2024). Academic authors nonetheless caution that delivering a pan-European data utility will expose latent fiscal-burden asymmetries, since smaller Member States may lack the in-house capacity to maintain high-quality metadata standards (Pekanov, 2024).

A growing body of scholarship evaluates electronic disclosure hubs through the twin lenses of market efficiency and welfare distribution. Academic works have reported that centralized repositories substantially reduce private information acquisition and, paradoxically, may dampen price informativeness by curbing socially useful informed trade (McClure, Shi, & Watts, 2021). Although their evidence is global, it underscores that ESAP's success cannot be measured solely by the volume of downloads or consultations; the portal must also maintain enough differential signal to reward value-adding research. In other words, data volume rises faster than analytical capacity, investors may experience information overload rather than enlightenment.

Turning to the forward roadmap, four clusters of improvements can be retrieved from the academic and policy debate.

The first concerns data quality assurance: Regulation 2023/2859 remains silent on semantic validation and financial ontologies vary widely across Member States. Without a harmonized semantic layer, ESAP risks becoming a repository of difficultly- or comparably- filed. One solution is to empower ESMA to issue binding guidelines on minimum semantic tags, drawing on the success of the Financial Industry Business Ontology (FIBO) in the United States. Alternatively, the Commission could fund an open-source working group under Horizon Europe to collaboratively develop an ontology to adopt throughout the European Union.

The second cluster concerns timeline acceleration and modular deployment. The current three-wave phasing reaches January 2030. Given the rapid diffusion of AI-assisted analysis tools, waiting five years to integrate insurance Solvency II data risks ending up having technologically obsolete solutions already at the introduction date. A practical compromise would be to open ESAP to voluntary uploads of Solvency II reporting templates from 2027 onward and couple this option with a regulatory safe-harbour. Insurers willing to publish their quantitative-reporting forms ahead of the formal deadline would gain certainty that good-faith disclosures will not trigger supervisory sanctions if minor taxonomy changes are introduced later. Supervisors and data users, in turn, would gain a live testing platform to refine validation rules, spot inconsistencies and adjust analytics before the full mandate enforces.

Third, governance and funding require recalibration. In the case in which the platform relies only on a small ESMA filing fee, it risks the same budget squeeze that leaves the U.S. EDGAR database slow and glitch-prone at peak season (McClure, Shi, & Watts, 2021). Therefore, in order to avoid similar pitfalls, a more balanced funding model would couple a modest, fixed levy on entities that file through ESAP, covering the platform's basic operating costs, with a supplementary charge on commercial data intermediaries that repackage ESAP information for profit. This cross-subsidy preserves free public access for ordinary investors while ensuring that those who monetize the database contribute proportionately to its maintenance and periodic upgrades.

Lastly, user-side frictions merit attention. Empirical work shows that when disclosure volumes outstrip an individual's capacity to process them, retail investors revert to shortcuts and rules of thumb (Blankespoor, deHaan, & Marinovic, 2020). ESAP should therefore offer curated, plain-language dashboards instead of undifferentiated data downloads.

Overall, ESAP has been created with a solid background structure and its development is procedurally on track, but its promises are not likely to fully materialize unless regulators partially from legislative

delivery to relentless data-quality governance, phased acceleration and user-centric design. The academic literature warns that disclosure technologies are double-edged swords: they democratize access yet can reduce price discovery if poorly executed (Blankespoor, deHaan, & Marinovic, 2020).

Title of the initiative	Proposed action(s) by thematic area	Timeline
Establishment of the European Single Access Point (ESAP)	Harmonized Semantic Layer for ESAP Data: empower ESMA to promulgate binding semantic-tagging standards, or fund an open-source EU ontology, to ensure that disclosures are fully comparable across Member States.	(1) ESMA consultation launch: Q1 - 2026 (2) Guideline adoption: Q4 - 2026 (3) Mandatory semantic tagging: Q3 - 2027
	Voluntary Advance Submission and Safe Harbor for Solvency II Reports: authorize insurers to upload quantitative templates on a voluntary basis beginning in 2027 and extend a regulatory safe harbor that shields early filers while taxonomies are refined.	(1) ESAP opt-in gate opens: Q1 - 2027 (2) Safe harbor effective: Q1 - 2027 (3) Validation feedback: Q4 - 2028
	Balanced ESAP Funding Model: pair a modest levy on filers with a usage surcharge on commercial data re-packagers, thereby financing system upgrades without compromising free public access.	(1) Commission proposal: Q3 - 2026 (2) Legislative adoption: Q2 - 2027 (3) Fee structure in force: Q1 - 2028
	Investor Dashboards and Customized Alerts: deploy curated, plain-language dashboards and portfolio-based notifications to alleviate information overload documented in behavioral-finance research.	(1) Prototype dashboard: Q4 - 2026 (2) Pilot rollout: Q2 - 2027 (3) Full deployment: Q1 - 2028

Figure 7: Proposed Policy Measures for the Future Development of the European Single Access Point

3.2.4 – CMU Initiatives: The Pan-European Personal Pension Product (PEPP)

Demographic ageing, the relative contraction of pay-as-you-go first-pillar schemes and the uneven spread of occupational pensions, the savings-investments imbalance and the lack of sustainability of current pension schemes have compelled the European Union to design a market-based complement to statutory provision. Regulation (EU) 2019/1238 establishes the Pan-European Personal Pension Product (PEPP), de facto a single passport for third-pillar savings²⁵ and a cost-capped default option, designed to guarantee cross-border continuity.

Indeed, in principle, this architecture has been created to enlarge the base for the supply of “patient” capital available – thereby contributing to the achievement of Capital Markets Union objectives – while simultaneously improving retirement adequacy for mobile workers.

Nevertheless, data on early adoption is definitely not living up to the Commission’s expectations. Between 2022 and 2025, fewer than 5.000 contracts have been signed and approximately €11.5 million of assets under management (Schickler, 2024). Similar take-up problems, however, are recorded in the supply-side: only two registered providers and active marketing in only 5 Member States (Rust, 2025). The limited commercial traction has catalyzed a significant body of academic and policy evaluation – often accompanied with criticism – ultimately prompting a comprehensive review in 2028.

At its core, PEPPs seek to correct three market failures.

First, the persistent fragmentation in national licensing and disclosure rules raise fixed costs for providers, leading to restricted choices and high charges for consumers. Second, heterogeneous

²⁵ Third-pillar saving: voluntary, individually funded retirement arrangements – such as personal pension plans, life-insurance wrappers, and investment accounts – that complement the first-pillar (public, pay-as-you-go) and second-pillar (occupational) components of a multi-pillar pension system

tax regimes and portability obstacles discourage cross-border labor mobility, undermining the Treaty-enshrined commitment to the free movement of workers (Dieleman, 2020). Third, Europe’s “home bias” in household portfolios deprives the real economy of equity and infrastructure finance that long-term investors might otherwise provide (Bär, 2022).

Accordingly, the idea behind the creation of a portable, uniform and standardized product – with a 1% cap on total costs for the “Basic PEPP” product and ready-for-use information sheet (i.e., the so-called “KID”, Key Information Document) in line with PRIIPs (Packaged Retail and Insurance-based Investment Products) rules – was to make prices clearer and encourage competition. From a macroeconomic perspective, if the market surrounding PEPP grows, it could facilitate the transmission of around €34 trillion – sums that households currently keep in savings (EIOPA, 2024) – into higher-return investments (Letta, 2024). Ultimately, this would help closing the Euro Area's gap between savings and investment and strengthening the CMU.

From a legal perspective, the Regulation establishes maximum harmonization rules: any authorized bank, insurer, pension fund (IORP), investment firm, or fund manager (ex. UCITS²⁶ manager) can apply for approval in their own country and then offer a PEPP across the EU without needing separate approval in each country. To ensure national tax systems can still apply their own rules, contributions are placed into country-specific sub-accounts.

The investment options are kept simple: every provider must offer the default Basic PEPP and can offer up to five additional investment choices, each with clearly explained risk and (potential) rewards levels. Savers can switch between these options every five years. If they change providers, the new provider receives a standardized data file within a short period of time, as updated to the EIOPA’s central register – opened since the entry into force of the regulation. Accordingly, PEPPs’ portability, switching and cost transparency collectively aim to shift the balance of the bargaining power from the industry to the saver, thereby improving net replacement rates (Kochaniak & Korzeniowska, 2023).

The benefits of cross-border portability – which policymakers widely regard as one of the most important features of PEPPs – have been poorly exploited due to an extremely important factor: the consistently high advice costs. The regulation requires a suitability control akin to the one carried out for the MiFID²⁷ before subscription. This control represents a “financial health check” look-a-like, with a specific focus on the customer’s financial situation, on their investment goals, on how much

²⁶ UCITS: Undertakings for Collective Investment in Transferable Securities

²⁷ MiFID: Markets in Financial Instruments Directive

risk they are able and willing to take and, ultimately, on ascertaining whether the product is appropriate for their needs.

On the demand side, the 2023 Insurance Europe’s “Pan-European Pension Survey” reports that safety, rather than portability, is consumers’ primary concern; with only 9% of the respondents ranking the ability to move savings across borders as a major attribute. Tax incentives for PEPP remain inconsistent across the EU, creating an uneven playing field for savers. At present, only Germany, Spain, and Latvia grant PEPP the most favorable national tax treatment, such as deductions or exemptions comparable to those offered for domestic pension products. However, even in these countries, the practical implementation has been slow and fragmented. Administrative systems, tax authority guidance, and integration with national reporting processes have still not aligned with the intentions of the legislation. This disconnect can create confusion for both providers and savers, ultimately weakening the effectiveness of the tax incentives themselves.

On the supply side, EFAMA and EIOPA report that the 1% fee cap is often seen as a barrier to covering key basic costs such as marketing, client onboarding, and advisory services, particularly in markets where individuals tend to invest smaller amounts. In these cases, the fixed costs of setting up and servicing each account may outweigh the limited revenue generated under the fee cap, making the product less attractive for providers themselves (EFAMA, 2025).

These considerations signal that recent academic work has highlighted three categories of constraints. First, the challenge of *commercial viability*: life insurers (i.e., providers) have estimated a need between €2 to €3 billion in assets under management to break even under the 1% annual fee cap (EFAMA, 2025). Achieving that scale is difficult without either significantly higher contributions from savers or new sources of revenue beyond management fees, such as cross-selling other financial products or offering premium services.

Second, the problem of *tax fragmentation*: even though the European Commission recommended back in 2017 that Member States should give PEPP the same tax treatment as national pension products, only a few countries have actually done so. As a result, providers face added costs and complexity because they must set up and manage separate tax-compliance systems for each country. It is straightforward that this lack of coordination acts as a disincentive to enter or expand in the PEPP market.

Third, *behavioral barriers* among savers: according to the afore-mentioned survey carried out by Insurance Europe, nearly 40% of adults don’t save for retirement. Moreover, this percentage remains consistent across the three age groups identified (i.e., 18-35, 36-50 and >50), The main reasons are lack of spare income and not having enough clear information. Even though PEPP is portable and

transparent about costs, these features alone cannot bring a sufficiently large audience, unless this audience is able to value the value of saving for the long term (Parkes, O’Neill, Uwaifo, & Lang, 2025). This suggests that financial education and targeted outreach will be essential to change habits and build trust.

Academic research adds further arguments to the discussion. Bär (2022) suggests that PEPP is most likely to gain traction in countries where public pensions are relatively weak and where private retirement savings are not yet widespread. However, he also cautions that national pension products with strong and well-structured tax benefits – like France’s PER²⁸ and Italy’s PIP²⁹ – could compete with and limit the growth of PEPP. Similarly, Kochaniak et al. (2023) find that people tend to save more voluntarily when public pension systems are generous. This means that PEPP can’t depend solely on demographic pressures (i.e., mostly ageing populations or rising old-age dependency ratio) to drive demand, it will also need development through smart incentives, behavioral strategies and profitable structures that encourage people to save.

A forward-looking roadmap should rest on three pillars: proportionality, neutrality and engagement.

Firstly, the second-generation PEPP should apply the principle of *proportionality* to the distribution of the product itself. The mandatory ex-ante suitability test, formerly introduced to protect retail savers against risks, duplicates safeguards already embedded in the design of the Basic PEPP and generates acquisition expenses that weigh most heavily on small contributions. If regulators were to approve a single, ready-for-use investment track that automatically becomes more conservative as the saver gets older, it would count as “simple and suitable” under EU investor-protection rules. Because advisers would no longer need to give each customer a lengthy, tailor-made recommendation, according to EFAMA estimates, each provider could save up to 40% of the upfront expenses normally spent on sales and paperwork. The Commission could open a targeted public consultation in Q1 2026, mandate ESMA and EIOPA to draft a simplified advice regime by the end of that year, and include a legislative amendment making advice optional for the Basic PEPP in the report scheduled for mid-2028. Full applicability would then follow in January 2031, aligning with the completion of ESAP Phase III.

The idea of “PEPP *Neutrality*” refers to the fact that take-up depends not only on product design but also on fiscal incentives. To prevent PEPP from being crowded out by well-subsidized national plans such as the afore-mentioned France’s PER or Italy’s PIP, the Union should adopt a

²⁸ Plan d’Épargne Retraite: France’s individual retirement savings plan, introduced in 2019

²⁹ Piano Individuale Pensionistico: Italy’s individual pension plan, which is part of the country’s third-pillar (private) pension system

“best-available-treatment” clause requiring Member States to grant PEPP at least the tax relief accorded to functionally comparable domestic products. Because direct harmonization would face unanimity hurdles, the Commission could instead ask the Council to issue a recommendation on tax parity by the end of 2027 and link post-2027 disbursements under the revamped Stability and Growth framework to demonstrable progress on that front.

The idea behind increasing PEPPs’ *engagement* is strictly connected to the field of behavioral economics. The latter emphasizes that default choices powerfully shape saving behavior: evidence on “save-more-tomorrow” plans demonstrates that automatic enrolment with an opt-out clause can raise participation to above ninety per cent (Thaler & Benartzi, 2004). EIOPA has suggested the idea of auto-enrolling every EU resident at age eighteen, a politically more feasible variant would oblige employers that do not operate an occupational scheme to enroll new hires into the Basic PEPP unless the worker actively declines. This obligation could be introduced as part of the same 2028 legislative package, with implementation starting in 2029 and full coverage reached by 2032. A parallel initiative, which consists in the creation of an EU pension dashboard consolidating first-, second- and third-pillar entitlements, should be piloted by ESMA in 2027 so that personalized alerts can be integrated into the PEPP interface when auto-enrolment begins.

Therefore, the Pan-European Personal Pension Product remains an ambitious solution for Europe’s yawning pension gap, but, in its current form, ambitions alone have not generated scale. Early uptake data confirm that high distribution costs, fragmented tax incentives and limited behavioral traction imply that PEPPs remain poorly utilized. A “second-generation product regime”, based on proportional advice, fiscal parity and automatic enrollment, offers the most credible path to transform this legal construct into a widely-appreciated portable retirement saving.

Title of the initiative	Proposed action(s) by thematic area	Timeline
Pan-European Personal Pension Product (PEPP)	Proportionality: allow a single, pre-approved investment path to qualify as “simple and suitable,” removing the need for individual suitability assessments and significantly reducing onboarding costs for small savers.	(1) Commission consultations: Q1 - 2026 (2) ESMA/EIOPA draft: Q4 - 2026 (3) Legislative amendment: Q2 - 2028 (4) Full applicability: Q1 - 2031
	Neutrality: introduce a “best-available-treatment” rule requiring Member States to apply the same tax benefits to PEPP as to comparable national products, enforced via Council recommendation and fiscal conditionality.	(1) Council recommendation on tax parity: Q4 - 2027 (2) Fiscal linkage in Stability and Growth Pact disbursements: Q1 - 2028
	Engagement: require employers without pension schemes to auto-enroll new hires into Basic PEPP with opt-out, and launch an EU pension dashboard to centralize entitlements and support personalized alerts.	(1) Pension dashboard pilot: Q2 - 2027 (2) Legislative inclusion of auto-enrolment: Q2 - 2028 (3) Implementation phase begins: Q1 - 2029 (4) Full coverage achieved: Q1 - 2032

Figure 8: Proposed Policy Measures for the Future Development of Pan-European Pension Products

3.2.5 – CMU Initiatives: Expansion of the EuVECA and EuSEF

The European Union has long lagged behind the United States and the most developed areas of Asia in the supply of scale-up finance for innovative SMEs. Venture capital investment in the EU rarely exceeds 0.05% of total European GDP, and the gap with the United States, measured either as a share

of GDP or in absolute terms, has continued to widen since the 2008 financial crisis (OECD, 2023). Fragmented marketing rules, heterogeneous investor protection regimes and uneven supervisory fees have long prevented the emergence of a genuine single market for early-stage risk capital (Hooghiemstra, 2020).

The 2017 upgrade of the European Venture-Capital Fund (hereinafter: *EuVECA*) and European Social-Entrepreneurship Fund (hereinafter: *EuSEF*) Regulations, codified in Regulation (EU) 2017/1991, sought to implement a remedy to these deficits by broadening the fund passports to larger managers, lowering minimum tickets and easing cross-border distribution. Stated differently, from a broad perspective, these measures aim to increase market access, reduce administrative burdens, and make it easier for investors across the EU to participate in a broader range of funds.

Yet uptake, while improved, remains modest: by mid-June 2025 the ESMA central register,³⁰ listed just 151 EuVECA and 17 EuSEF labels, with an aggregate net asset value below €18 billion, or roughly 3% of the European Venture Capital universe.

The primary functional objective of the 2017 reform was to recalibrate the EuVECA and EuSEF labels so that they could finance a broader set of high-growth and social-impact undertakings while remaining recognizable quality seals for sophisticated investors (Hooghiemstra, 2020). Stated differently, this meant opening up the labels to a wider range of businesses – such as innovative start-ups, scale-ups, and social enterprises – while still ensuring that the funds using them met clear standards of transparency, governance, and investor protection, so experienced investors could trust the quality of what they were buying.

To that end the amending Regulation: (i) removed the €500 million upper limit on assets under management, allowing fully authorized alternative investment fund managers (AIFMs³¹) to operate EuVECA or EuSEF vehicles; (ii) lowered the entry ticket for non-professional investors from €100.000 to €10.000 where enhanced suitability safeguards³² apply; (iii) expanded the definition of “*qualifying portfolio undertaking*” to unlisted companies with up to 499 employees and a market capitalization below €500 million; and (iv) imposed a two-month approval clock and a ceiling on national supervisors’ fees.

Lawmakers deliberately chose to anchor the venture capital label within the well-established passport created by the Alternative Investment Fund Managers Directive (AIFMD). Using an already-tested,

³⁰ Available at: [ESMA Central Register](#)

³¹ AIFMs: firms or individuals who manage Alternative Investment Funds (AIFs) – i.e., investment funds not covered by the UCITS directive, regulated under the Alternative Investment Fund Managers Directive (AIFMD).

³² Safeguards are: (1) fund manager needs to perform a MiFID-style suitability assessment showing the investment fits the client’s objectives, financial situation and loss tolerance; (2) the €10.000 ticket does not exceed 10 % of the investor’s financial portfolio; (3) the investor signs a standard risk-acknowledgement statement and accepts a two-year lock-up on redeeming the units.

familiar regulatory channel spares fund managers the cost and delay of consulting different approval regimes and offers investors a single, recognizable badge of compliance. The expectation is that pensions, insurers and endowments, traditionally wary of venturing beyond their domestic markets, will feel more confident committing capital to funds that can operate seamlessly across borders under one single set of norms. A larger pool of institutional money is intended, in turn, to help European managers raise bigger vehicles, support later funding rounds and keep promising companies from migrating to non-EU hubs. Finally, by making it as straightforward to back a Finnish or Portuguese start-up as a local one, the framework seeks to erode the strong “home bias” that still channels most continental VC money into firms located within the investor’s own member state (Arnold, Claveres, & Frie, 2024).

Moreover, it was deliberately decided to keep two distinct labels (i.e., EuVECA and EuSEF) rather than merge everything into a single “alternative growth fund”. One label (i.e., EuVECA) continues to target classic venture-capital activity, high-risk equity finance for young, innovative businesses. Instead, the other (i.e., EuSEF) is reserved for funds whose main purpose is to generate measurable social or environmental impact alongside financial return.

Retaining this twin structure serves two goals. First, it signals to investors that each category is still built around a clear public mission: technological dynamism in the case of EuVECA, and demonstrable social benefit in the case of EuSEF. Second, maintaining a distinct “social” label gives managers who rank social or environmental impact above financial gain a regulatory standard precisely suited to their mission. Instead of being judged by venture-capital benchmarks geared to maximum returns, these funds operate under rules that recognize societal outcomes as the primary success measure. Accordingly, under the EuSEF, it is possible to target investors seeking measurable impact, disclose progress through tailored metrics, and structure pay-outs in ways that fit community projects or sustainability goals, without having to conform to performance tests designed for profit-driven venture vehicles.

By accommodating both profit-seeking and impact-first models, the framework aims to broaden the spectrum of enterprises that can access cross-border capital, from high-growth start-ups to social enterprises tackling persistent societal challenges.

Early evidence corroborates partial success. EU cross-border marketing of EuVECA funds increased by 47% between 2018 and 2023, and the average fund size almost doubled to €126 million (European Investment Fund, 2023). Fee data supplied by Invest Europe indicate that the abolition of double registration and the standard fee cap cut first-time initial authorization costs from a mean €120.000 to €62.000 per fund, thereby almost reducing by 50% the economic burden (Invest Europe, 2025).

Portfolio composition has also shifted: whereas 84% of pre-2018 EuVECA assets targeted went into early-stage start-ups (i.e., seed or Series A), in the post-upgrade cohort most EuVECA money is going towards more mature, growing companies (Series B and beyond), thanks to relaxed limits on the size of eligible companies (European Investment Fund, 2023). Nevertheless, systemic impact remains muted. According to data published by the European Sustainable Investment Forum, EuVECA funds still represent less than one-tenth of total European VC fundraising, and EuSEF, despite the rise in importance and awareness on ESG, attracts a negligible 0.6% of social-impact assets.

Accordingly, this evidence points to residual bottlenecks as a potential explanatory factor: national tax incentives rarely extend to cross-border contributions; retail investors face diverging suitability regimes; and supervisory reporting overlaps with AIFMD and Sustainable Finance Disclosure Regulation (SFDR) templates, thereby increasing back-office cost (Arnold, Claveres, & Frie, 2024).

Within the Capital Markets Union Policy Matrix, the revised EuVECA and EuSEF regimes have formally been included in the first policy area, which corresponds to measures aimed at improving SME financing methods and sources. Nevertheless, their reach extends well beyond this single pillar. The new ELTIF framework (i.e., ELTIF 2.0), for example, now permits funds to allocate up to a fifth of their assets to venture deals, putting it in direct competition for the same start-up pipeline. Parallel reforms will soon require all EuVECA and EuSEF vehicles to file periodic reports into the European Single Access Point, significantly raising their data-reporting obligations. Finally, the March 2024 overhaul of the AIFMD standardizes liquidity-management and loan-origination rules for most specialist funds, unless an explicit carve-out is granted. Taken together, these overlapping initiatives force policymakers and supervisors to clarify how the EuVECA and EuSEF labels should evolve, which investors they are meant to serve, and where ultimate oversight should lie.

The revised EuVECA and EuSEF regimes have delivered a credible passport, yet their economic footprint remains modest. Persistent limits on fund scale, weak retail access, and uncertain “additionality” have de facto limited their contribution to the objectives of the Capital Markets Union. Accordingly, three performance dimensions necessitate closer scrutiny: scale, accessibility and additionality.

The issue of *scale* remains central to the success of EuVECA funds. Although cross-border marketing of EuVECA funds has expanded since the 2017 reform, average vehicle size remains modest relative to due-diligence costs borne by pension funds and fund-of-funds sponsors. (European Investment Fund, 2023). Empirical analysis confirms a negative relationship between regulatory fragmentation and European VC fund scale (Asdrubali, 2023). To increase ticket size the regulatory framework

should lower the qualifying-asset test from 70% to 60%, thereby allowing managers to reserve a larger sleeve for follow-on rounds and venture debt without diluting the label’s thematic orientation. This change would enable fund managers to enjoy more flexibility to support the same companies over time and to use complementary tools like venture loans, while still staying true to the fund’s focus on early-stage and innovative businesses – in the case of EuVECA.

A data-gathering phase – built around ESMA’s new AIFMD reporting template³³ – could begin in 2025; the Commission would then table a targeted amending Regulation in 2027. Comparative evidence from the U.S. Small Business Investment Company (SBIC) program shows that broader diversification rules – that enable funds to support a wider range of early- and later-stage ventures or debt instruments – are associated with larger average fund sizes and stronger investment returns (Brown, Hu, Robinson, & Volckmann, 2024), offering a useful benchmark for the potential future European experience. Indeed, Brown et al. (2024) found that SBICs consistently outperform comparable non-SBIC venture capital funds by around 4% in internal rate of return (IRR), with better multiples on invested capital (MOIC), especially for larger, diversified funds – indicating that more flexible investment rules support stronger performance.

Improving *accessibility* is likewise essential to broaden the investor base for EuVECA funds. The 2017 decision to lower the minimum ticket from €100.000 to €10.000 in some circumstances has not, by itself, brought meaningful retail participation because EuVECA units are rarely distributed through mainstream channels and lack clear consumer-facing information (European Commission 2025b). Behavioral research indicates that non-professional investors respond positively to standardised risk labels and enforceable cost ceilings (European Supervisory Authorities 2022). A dedicated “Retail EuVECA” share class, capped at a 2% total-expense ratio – instead that at the current 1% – and accompanied by a PRIIPs-style key information document, would meet those expectations. If combined with digital-only onboarding under the forthcoming MiFID semi-professional category the structure could reproduce the uptake effect observed for Basic-PEPP life-cycle funds. Legislative text establishing the share class should be included in the 2027 package. Successively, ESMA could finalize disclosure templates by Q2 2028, allowing retail distribution to commence in Q1 2029.

Ensuring additionality is key to preserving the integrity and purpose of the EuVECA and EuSEF labels. This principle implies that the funds should bring fresh capital to the market, not simply relabel older investment structures. Yet, case studies show that around 60% of the funds registered after 2018 were actually existing vehicles that were re-registered under the new framework (Arnold, Claveres,

³³ Available at: [Consolidated AIFMD reporting template](#)

& Frie, 2024). To strengthen this, the revised rules should require all new applicants to meet a “positive innovation test.” This would be similar to the one used in the EuSEF regime and would require that at least half of the fund's capital goes to either companies aligned with the EU’s Net-Zero Industry goals or located in less economically developed regions (European Investment Bank, 2024). In addition, stronger public support is needed to encourage private investors to take part. A Council Recommendation in Q1 2028 should ask EU countries to extend their national tax incentives for venture capital to cover both EuVECA and EuSEF funds. At the EU level, an economically-significant InvestEU window could act as an anchor investor for new fund managers, helping them get started. These updated rules would take effect in Q1 2029, and a full review in Q4 2032 would track their success based on three key targets: value of total assets, an average fund size, and share of capital coming from investors based in other EU countries.

Therefore, the evidence reviewed here indicates that the regime remains comparatively smaller relative to the EU’s innovation ambitions. Academic literature emphasizes the importance of predictable tax treatment, efficient supervision and accessible retail channels for venture-capital deepening (Hooghiemstra, 2020). A sequenced reform program, beginning with data consolidation, followed by calibrated rule-changes and culminating in tax alignment and public cornerstone capital, can transform EuVECA and EuSEF from niche labels into pivotal engines for the Capital Markets Union. Doing so would not only bolster the supply of patient risk capital for SMEs but also further the Union’s strategic goal of open strategic autonomy in key technologies, all while reinforcing investor protection and supervisory coherence.

Title of the initiative	Proposed action(s) by thematic area	Timeline
Review and Expansion of the EuVECA (European Venture Capital Fund) and EuSEF (European Social Entrepreneurship Funds) Regulations	Scale: lower the EuVECA qualifying-asset test from 70 % to 60 %; use ESMA’s AIFMD data to evidence impact; mimic the diversification latitude that has helped U.S. SBIC funds scale and outperform.	(1) Data-gathering start - Q4 2025 (2) Commission amendment - Q3 2027 (3) Legal effect - Q1 2029
	Accessibility: introduce a “Retail EuVECA” capped at a 2 % total-expense ratio and backed by a PRIIPs-style KID; distribute through digital-only and semi-professional MiFID channels to replicate the Basic-PEPP uptake pattern.	(1) Legislative text tabled - Q3 2027 (2) ESMA disclosure templates - Q2 2028 (3) Retail launch - Q1 2029
	Additionality: require a “positive innovation test” (≥ 50 % of assets to Net-Zero or cohesion-region ventures), extend national VC tax credits to EuVECA/EuSEF, and deploy an InvestEU cornerstone window for first-time teams.	(1) Council recommendation & InvestEU window - Q1 2028 (2) Revised rules effective - Q1 2029 (3) Review - Q4 2032

Figure 9: Proposed Policy Measures for the Future Development of the EuVECA and EuSEF

3.2.6 – CMU Initiatives: the VentureEU Funds

While the 2017 reforms for the EuVECA and EuSEF labels addressed several regulatory bottlenecks, their limited scale and modest market share demonstrate that label reform alone cannot close Europe’s deep venture-capital gap. Recognizing the need for a more encompassing, publicly-anchored vehicle capable of crowding in large institutional investors, the Commission and the European Investment Fund turned to a fund-of-funds model. The result is VentureEU, launched in 2018 as a complementary

instrument designed to crowd-in private commitments, spread risk across Member States and channel larger tickets into Europe’s most innovative SMEs. The following section analyses VentureEU’s design, early outcomes and the policy refinements required to make it a durable engine of continental VC integration.

As said in the previous paragraph, Europe’s structural venture-capital deficit persists, in absolute and comparative terms. In 2024 total VC deployment amounted to €57 billion, barely 0.05 per cent of EU-27 GDP and one-third of the US ratio (Arnold, Claveres, & Frie, 2024). Academic research consistently reconstitutes this gap to fragmented fundraising channels, small fund sizes and limited cross-border syndication (Kraemer-Eis, Signore, & Prencipe, 2016). Against this backdrop the Commission and the European Investment Fund launched VentureEU in April 2018, six funds-of-funds (hereinafter: *FoFs*) anchored with €410 million of EU budgetary resources and mandated to raise at least €2.1 billion and invest 70% in EU companies. VentureEU’s explicit objective is to crowd in private limited partners (LPs), scale up underlying VC funds and extend ticket sizes for European start-ups and scale-ups.

VentureEU operates through a multilayer capital stack. The EIF commits up to 25% of each FoF’s target size as a “*pari passu*”³⁴ investor, thereby minimizing subsidy distortions while providing a strong signaling effect (Kraemer-Eis, Botsari, Gvetadze, Lang, & Torfs, 2020). This approach helps prevent market imbalances caused by excessive public support, while also signaling credibility and confidence to private investors, encouraging their participation.

The six selected FoFs – specifically, Aberdeen Standard, Axon Partners, Isomer Capital, LGT, Lombard Odier and Schroders Adveq – were compelled to demonstrate pan-European track records and accept contractual obligations to invest in at least four Member States and attract about twice as many funds from private investors into the venture capital funds.

However, distribution of capital remains uneven: according to data of the European Commission, 57% of commitments have flowed to three fund domiciles – notably, Luxembourg, Sweden and the Netherlands, mirroring, rather than redressing, pre-existing concentration (European Commission, 2024a).

In economic terms, in its objective to significantly increase private investment in European venture capital by using public funds as a cornerstone, expecting each euro of EU money to attract five euros of private investment. In practice, however, the actual leverage achieved has been

³⁴ *Pari Passu*: Refers to investors who have equal rights and status in terms of claims on assets, payments, or returns.

lower, with each EU euro drawing in around €3.60 of private capital. Considering the magnitude, these figures are well-below Commission's expectations. Research suggests that higher leverage is more likely when fund structures allow for predictable reinvestment and are tax-efficient for international investors (Arnold, Claveres, & Frie, 2024). VentureEU's fixed 25-year lifespan and the absence of rules allowing reinvestment of returns weaken its ability to multiply capital over time, especially compared to more flexible US models like the SBIC program, which achieves a 7^x leverage by recycling funds (Brown, Hu, Robinson, & Volckmann, 2024).

VentureEU also faces challenges in how capital is allocated. Because fund managers are contractually required to invest at least more than two-thirds of their capital in EU-based funds, they often struggle to build the most efficient portfolios in terms of risk and return. Studies show that globally diversified venture portfolios perform better – by as much as 2.5 percentage points on a risk-adjusted basis – partly because they can better withstand shocks specific to the Eurozone (Buchner, Mohamed, & Schwienbacher, 2017). Although VentureEU allows up to 30% of investment outside the EU, managers report feeling pressured to back weaker EU-based funds just to meet the quota, which may lower overall performance (AFME, 2024). Nevertheless, investing a significant portion in the EU remains important to support the development of a robust and competitive European innovation ecosystem, address persistent funding gaps for early-stage companies, and ensure that strategic sectors—such as deep tech and green technologies—receive adequate backing to drive long-term economic growth and technological sovereignty within the Union.

Finally, the question of additionality – in this case referring to whether the program enables investments that wouldn't have happened otherwise – remains unclear. According to a relatively recent study by the European Investment Fund, nearly half of the underlying venture capital funds supported by VentureEU had already raised money and reached their first closing before receiving investment from the fund-of-funds (European Investment Fund, 2023). This suggests that VentureEU may be helping these funds grow, rather than launching them.

On the basis of these considerations, a reform strategy, with timelines aligned with the 2025-2030 CMU work program and the next Multiannual Financial Framework, should be tailored along three mutually reinforcing pillars: data transparency, structural optimization of the vehicle, and eventual consolidation into a sovereign-scale platform.

The first strand involves improving the vehicle's *data transparency*. Beginning in Q1 2026 ESMA should collect the quarterly reports it already receives from VentureEU funds-of-funds and their underlying vehicles, convert them into machine-readable formats and publish them through the European Single Access Point starting from Q2 2026. Open, comparable data demonstrably lowers

the due-diligence costs that deter large limited partners from cross-border commitments (Asdrubali, 2023).

The second strand addresses the vehicle's *structural features* and should take effect between 2026 and 2028, in the form of three targeted adjustments.

First, FoFs should be allowed to recycle early distributions for a certain time horizon, with the expectations that increasing reinvestment rate increases total deployment without requiring more public spending (Bertoni, Colombo, Quas, & Tenca, 2019).

Second, the Commission should seek Council endorsement for a multilateral withholding-tax exemption for pension funds investing through VentureEU, echoing the Canadian Venture Capital Action Plan, which raised foreign-LP participation by one-quarter after tax clarification (Office of the Auditor General of Canada, 2016).

Third, manager remuneration should incorporate an “impact coefficient” so that carried interest partially depends on specific ventures such as deep-tech, female-founder or cohesion-region deployment³⁵. Indeed, mission-linked incentives have proved more effective than “simple” quotas in steering public capital (Mazzucato & Penna, 2016). Taken together, these changes would come into force in Q3 2028, once the requisite contract amendments will have been signed and ESMA will have finalized accompanying reporting templates.

The final strand, envisaged for the triennium 2028-2030, is *institutional consolidation*. Academic evidence highlights the role of economies of scale and reputational signaling in public venture finance (Bottazzi & Da Rin, 2002). Merging VentureEU with InvestEU's Equity Window might create a European Sovereign VC Platform with an extremely vast array of economic resources in deployable capital. Governance might mirror the European Fund for Strategic Investments: an independent investment committee, transparent scorecards and minority co-investment rights for national promotional banks. Such consolidation can address the persistent deficits of fund size, follow-on capacity and pan-European syndication. The unified platform could be operational by the first quarter of 2030, just in time for the next Multiannual Financial Framework and deliver a substantial impact in the depth and resilience of Europe's venture-capital market.

In conclusion, while VentureEU has laid important groundwork for integrating and scaling Europe's venture capital ecosystem, its long-term success hinges on few, targeted structural reforms, enhanced transparency, and institutional consolidation. However, it becomes essential to implementing these measures in alignment with the upcoming financial programming cycle in order to strengthen capital deployment and advance Europe's strategic autonomy in innovation finance.

³⁵ Officially listed as part of the official aims of the VentureEU initiative

Title of the initiative	Proposed action(s) by thematic area	Timeline
Pan-European "Venture Capital Funds-of-Funds" Programme (Venture EU)	Data transparency: ESMA to gather VentureEU reports and releasing them on ESAP in machine-readable form, cutting LP due-diligence costs.	(1) ESMA collection start - Q1 2026 (2) ESAP publication start - Q2 2026
	Structural optimisation: insert a re-investment clause, secure an EU-wide withholding-tax carve-out for pension LPs, and hard-wire an impact-linked carry to steer capital to deep-tech and cohesion regions.	(1) Full applicability of the terms - Q3 2028
	Institutional consolidation: merge VentureEU with InvestEU's Equity Window to form an European Sovereign VC Platform governed by an independent investment committee.	(1) Merger blueprint - Q4 2028 (2) Platform operational - Q1 2030

Figure 10: Proposed Policy Measures for the Future Development of VentureEU

3.2.7 – CMU Initiatives: Further Reforms

As repeatedly asserted throughout previous chapters, one of the novelties of the CMU – and, arguably, a reason explaining why its potential is often underestimated – is that it foresees and prioritizes gradual, market-shaping reforms, rather than disruptive endeavors. Nevertheless, while the former delivers stronger long-term outcomes, the latter tends to achieve greater public visibility and, ultimately, broader recognition and appreciation.

Therefore, as demonstrated by the CMU Policy Matrix, there are several underappreciated reforms – often either technical or sector-specific in nature – that hold significant potential to deepen capital markets, reduce structural fragmentation, reducing transaction costs, enhancing cross-border investment flows, and improving investor confidence across the Union. These, accordingly, will be analyzed in following paragraphs.

3.2.7.1 – The European Long-Term Investment Fund (ELTIF) 2.0

Europe's revised ELTIF framework, in force since January 2024, has been presented as the Union's most known efforts to channel household wealth into long-term, sustainability-orientated assets. The reform's declared mission is to "democratize" access to illiquid investment while safeguarding retail protection and systemic stability, yet the regime remains an evolving experiment rather than a settled achievement. Regulation 2023/606 removes the former €10.000 entry ticket and the 10% retail portfolio cap, thereby positioning ELTIFs as the mass-market counterpart to institutional private-markets funds (Aïdan & Bozier, 2025). The illiquid-asset threshold has been updated at 55%, and the eligible universe extends to STS securitizations, EU Green Bonds and shareholder loans, giving managers a far broader array for their portfolio construction (Scope Fund, 2024). Delegated Regulation 2024/2759 simultaneously introduces optional liquidity windows that mirror interval-fund mechanics, provided funds uphold a minimum 15% cash buffer and observe strict redemption gates (Delabye, 2022).

Households clearly necessitates European-sponsored vehicles that can finance renewable-energy grids or scale-up equity while spreading risk across a diversified pool of long-dated projects. Yet two main obstacles – notably, *liquidity uncertainty* and *fragmented tax treatment* – still keep ELTIFs at the margin of most advisers' model portfolios.

The current framework lets managers offer “liquidity windows” that operate sporadically over the course a year, so investors can exit without forcing fire-sales of private-equity stakes. The trouble is that a static 15% cash buffer can vanish quickly if many savers rush for the door together. A smarter answer might imply making exit costs to move with market conditions. By the end of 2026 ESMA should roll out a standard toolkit that all funds must adopt or publicly explain why they do not. Two features are crucial: “swing pricing,” which adjusts the fund price down a little when daily redemptions pass five per cent, and “flexible redemption fees” that rise when selling illiquid assets would hurt remaining investors.

Secondly, it is essential to ensure a coherent tax treatment. Historically, even the best-run fund have struggled if cross-border investors lose a portion of their return to unfamiliar withholding or wealth taxes. Recent comparisons find that a German resident buying a French ELTIF might unwillingly have to renounce to 1.4% a year. In response, the Commission might issue a soft-law Recommendation, by mid-2026, urging Member States to treat ELTIF distributions no worse than domestic UCITS income. Second, tax authorities could agree upfront how a cross-border ELTIF will be taxed, cutting months of paperwork. To keep pressure on policymakers, the PRIIPs factsheet should, from 2027, display a simple “total-cost” figure that details every layer of tax costs.

3.2.7.2 – The European Green Bond Standard (EUGBS) Regulation

The EU Green Bond Standard (hereinafter: *EUGBS*) has replaced a fragmented array of national labels with a single, *optional* “gold badge.”

Issuers that adopt it are compelled to channel at least 85% of proceeds into activities already classified by the EU Taxonomy³⁶; the remaining 15% may finance transition projects awaiting final criteria. Annual allocation and impact reports, verified by ESMA-supervised reviewers, anchor the framework in hard data and give supervisors power to fine and de-label. Early pricing evidence shows investors value the new certainty, yet three policy gaps could limit the label’s reach (Koch, 2023).

First, data must become *publicly searchable*. ESMA already receives allocation and impact reports, but the (indirect) costs associated with their research remain high, as they sit in PDFs on scattered websites. Converting these files to machine-readable form and hosting them on the European Single Access Point by Q2 2026 would let analysts compare projects at a glance and reduce verification costs that now keep smaller investors on the sidelines. Academic work on sustainable-finance disclosure finds that open datasets crowd in institutional buyers and tighten pricing (Badenhoop, 2022).

Second, the static 15% “flexibility pocket” should be replaced by a dynamic allowance. As Taxonomy criteria expand, the pocket could shrink automatically, preserving environmental integrity while still

³⁶ Economic activities that have already been reviewed and officially classified by the EU as environmentally sustainable.

letting hard-to-abate sectors – such as steel, cement, aviation – benefit the label during the transition. A Commission delegated act, potentially applicable from Q2 2028, might introduce this allowance. Complementary measures, such as Council call for equal tax treatment with domestic sovereign paper, would reward compliance costs and broaden demand. Together these refinements can move the label from a high-purity niche toward a deep, liquid market capable of funneling the hundreds of billions required each year to deliver the EU Green Deal.

Below, the Matrix synthesizing the policy proposals for Paragraphs 3.2.7.1 and 3.2.7.2:

Title of the initiative	Proposed action(s) by thematic area	Timeline
European Long-Term Investment Funds (ELTIF 2.0)	Union-wide liquidity-risk toolkit: A mandatory ESMA rule-set that makes ELTIFs apply swing-pricing and flexible exit fees when redemptions surge, protecting remaining investors without freezing withdrawals.	(1) Publication of ESMA Standardized Toolkit - Q4 2026
	Fiscal level-playing-field: A Commission-led push for Member States to tax ELTIF payouts no less favorably than domestic funds, paired with advance cross-border tax rulings and a “total-cost” figure in fund factsheets.	(1) Commission Recommendation - Q2 2026
European Green Bond Standard (EUGBS) Regulation	Machine-readable disclosure via ESAP: Conversion of all EU Green-Bond allocation and impact reports into standard XML files hosted on the Single Access Point, so analysts can compare projects instantly at lower cost.	(1) Publication on ESAP - Q2 2026
	Dynamic flexibility pocket: An automatic rule that shrinks the Green-Bond’s 15 % non-taxonomy allowance as new taxonomy criteria are adopted, keeping the label strict while still financing hard-to-abate sectors during transition.	(1) Commission delegated-act consultation - Q1 2027 (2) Adoption & effect - Q2 2028

Figure 11: Proposed Policy Measures for the Future Development of ELTIFs and of EUGBS

3.2.7.3 – The “FASTER” Directive: The Natural “Brother” of the Parallel CMU Initiatives

The new “FASTER” Directive – i.e., Faster and Safer Relief of Excess Withholding Taxes Directive – streamlines withholding-tax relief across the EU by introducing two Union-wide channels – “relief-at-source” and a “50-day quick refund” – supported by a single electronic tax-residence certificate³⁷. Although designed as an operational infrastructure, the measure resolves a cost that hinders several headline files of the Capital Markets Union.

First, venture-capital vehicles such as EuVECA, EuSEF and the EU-backed VentureEU fund-of-funds currently apply a 20/30 basis-point discount to expected returns to reflect year-long refund delays (Arnold, Claveres, & Frie, 2024). When treaty rates are applied up-front, that discount vanishes, raising net internal rates of return and making European funds more competitive with their U.S. peers.

Second, Basic PEPP life-cycle products struggle to keep fees below the 1% cap because unrecovered dividend tax absorbs a sizeable share of gross margin (EFAMA, 2025). Relief at source removes this leakage and allows greater equity allocations without breaching the fee ceiling.

Third, predictable 50-day refunds help STS securitizations: arrangers can model cash flows without the large tax buffers now required, lowering credit-enhancement costs.

³⁷ Reference: [COM\(2023\) 324 - final](#)

In sum, FASTER supplies the fiscal infrastructure that lets Europe’s venture-capital, pension and securitization reforms deliver competitive after-tax returns across all twenty-seven markets. The table that follows summarizes these links:

Table 1: Effects of the “FASTER” Directive on Parallel CMU Initiatives

CMU Initiative	Pre-FASTER Withholding Tax Drag	Effect after FASTER Enforcement
Venture-capital funds (EuVECA, EuSEF, VentureEU)	20-30 bp haircut to gross IRR caused by months-long refund delays	Treaty rate applied at source or 50-day refund removes the discount and lifts net returns
Basic PEPP life-cycle pensions	Dividend tax erodes the tight 1 % fee cap, curbing equity weights	Elimination of leakage allows higher equity allocations within the cap
STS Securitizations	Large tax buffers inflate credit-enhancement costs and spreads	Predictable refunds cut buffers, lowering enhancement costs and tightening spreads

3.3 – Towards the Allocation-Retention Nexus

Europe now possesses an impressive legal toolkit for market-based finance – revised prospectus rules, EuVECA 2.0, VentureEU, ELTIF 2.0, the Green-Bond Standard, PEPP and the FASTER tax channel – yet the distance between regulatory promise and market penetration remains wide.

Uptake is de facto hampered wherever three types of factors are absent: reliable liquidity management, neutral tax treatment and machine-readable disclosure. The evidence presented in this chapter shows that once these micro-foundations are in place, volumes scale rapidly and price and activity gaps with the United States narrow (Arnold, Claveres, & Frie, 2024). Conversely, products that keep their legal passport but lack operational clarity, such as Basic-PEPP or most EuVECA funds, attract little capital despite generous policy rhetoric.

This pattern underscores a fundamental inversion in the CMU agenda: the marginal gain now lies less in adding new directives than in enforcing, supervising and digitally wiring the statutes already on the books. Implementation quality will determine whether household savings finance the Green Deal, deep-tech start-ups and SME growth or remain trapped in deposit accounts. The allocation-implementation nexus therefore becomes the central policy challenge: how to align supervisory incentives, data standards and fiscal coordination so that private capital is matched with the highest-value investment opportunity across the Union. The next chapter turns to this question, examining concrete governance and economic mechanisms that can tighten the link between enacted law and the real flow of European savings into productive enterprises.

Chapter 4 – The “Allocation-Retention” Nexus

The “Capital Markets Union Policy Matrix” and the policy proposals delineated throughout Chapter 3 shared a common objective: *moving the analysis on the Capital Markets Union away from academic-based discussion and towards a more policy-oriented design*. Nevertheless, this objective has hitherto been pursued through a deliberate “microeconomic” approach; stated differently, each initiative has been treated independently and within its immediate policy domain.

Accordingly, this framework – despite yielding a significantly high level of clarity, depth and precision – inevitably carries the risk of overlooking the transformative potential that arises when those domains, in practice, will function as interdependent components of a future, fully-implemented Capital Markets Union – shaped in part by the reforms introduced in Chapter 3.2, in part by the remaining initiatives that constitute the Policy Matrix. Accordingly, this chapter departs from this “compartmentalized” view, adopting a more “macroeconomic” perspective to examine how the initiatives and the reforms advanced in Chapter 3, when applied collectively, could activate what will be defined as the “*allocation–retention nexus*” – thereby enhancing the efficiency of capital allocation (*RQ.1*) and increasing the capacity of European markets to stimulate the retention and the reinvestment of domestic savings within the Union’s economy (*RQ.2*).

The academic foundations of this chapter have already been established in the *Literature Review* of Chapter 1. On this basis, from a theoretical perspective, *capital allocation* refers to the distribution of resources in accordance with consumer preferences and societal needs. In the policy realm of the Capital Markets Union, it refers to the degree to which different sources of financing manage to flow towards projects with the highest risk-adjusted returns.

On the other hand, *capital retention* can be broadly associated to the share of European savings reinvested in European productive ventures or assets, regardless of their specific nature – i.e., equity, corporate bonds, venture capital or private equity – rather than flowing out from the Old Continent or remaining in low-risk and low-return financial instruments. Nevertheless, it is necessary to specify that retention is not the same as “home bias” in a normative sense. Indeed, while the classic home-bias idea posits that investors hold disproportionately domestic assets despite awareness on diversification gains (Coeurdacier & Rey, 2013), for European policymakers, the policy challenge is more complex and subtle: increase the *desired* retention of domestic savings – which in turn depends on a variety of different factors, such as market infrastructures’ quality and information – without encouraging inefficient and unfair concentration risk. The chapter is divided in three main paragraphs, and each of them will provide an answer to one of the three sub-research questions that guided this thesis.

4.1 – Capital Allocation and Retention within the Capital Markets Union

The relation between capital allocation and retention within the framework of the Capital Markets Union is enshrined within a set of mutually reinforcing channels.

First, *information and transparency*: when investors can more easily discover, compare, and choose investment opportunities, they are more likely to direct capital toward them. The European Single Access Point, in this sense, seeks to respond to this necessity, providing a centralized portal for financial and sustainability disclosures, reducing search costs and mitigating information asymmetries, thereby directly addressing the “geography of information” problem (Portes & Rey, 2005).

Second, expanding *intermediation channels and product access* enables European savings to be mobilized more effectively toward European initiatives such as the “Important Projects of Common European Interest” (i.e., *IPCEIs*) in sectors like hydrogen, microelectronics, batteries, and cloud infrastructures, as well as strategic value chains targeting SMEs. Targeted European instruments – such as revised ELTIFs, pan-European venture and growth funds, and an updated retail investment framework as envisioned in the CMU – aim to broaden the range of investment vehicles, especially when combined with transparent, standardized company and project data accessible through the European Single Access Point. In turn, this is intended to reduce the European traditional and excessive reliance on banks as financing channels. Deeper, more diversified market-based channels make it easier to direct savings into cross-border industrial projects of European significance while keeping the associated value creation within the Single Market.

Third, *cross-border integration and legal harmonization* are expected to enhance both allocation and retention by reducing the perceived risk of investing across EU borders. Strong legal and institutional quality underpins investor protection and market development. Harmonization of rules and supervisory convergence within the CMU framework can therefore remove residual barriers, making cross-border capital flows within the EU less costly and more attractive.

Fourth, appropriate allocation and strengthened retention also hinge upon the availability of appropriate *long-term instruments*. Policies such as revised European Long-Term Investment Funds, the development of a pan-European venture capital and growth fund-of-funds, and the establishment of an SMEs Initial Public Offering Fund have been designed to incentive the allocation of household and institutional savings into critical long-term projects, particularly in the above-mentioned sectors of strategic European significance such as hydrogen, microelectronics, and digital infrastructure.

These mechanisms collectively feed back through *investor confidence*. Greater transparency and improved market quality bolster trust and participation (Guiso, Sapienza, & Zingales, 2008), while reduced noise and opacity help limit herding behaviors and the flight to perceived “safer” non-EU

assets (Gelos & Wei, 2002). Because confidence affects flows disproportionately toward assets whose valuations are harder to arbitrage, these improvements can have particularly large effects on SMEs and young, innovation-driven firms, which are often more sensitive to sentiment and liquidity conditions (Baker & Wurgler, 2006). The expected overall result is therefore a “*virtuous cycle*”: improved efficiency fosters greater confidence, which increases capital retention, thereby enlarging market scale and further enhancing efficiency.

The conclusion is that allocative efficiency and capital retention must be inevitably envisioned as mutually reinforcing pillars and objectives of the CMU. More efficient allocation – intended as capital flowing to the most productive firms and projects – enhances growth and incentivizes investments, thereby increasing returns. Higher retention – intended as European capital remaining within the Union – expands the scale and depth of European markets. Together, they create a self-reinforcing equilibrium in which European savings are increasingly mobilized, employed, and reinvested within the EU economy, providing not only financial resilience but also the resources necessary for the green and digital transitions.

4.2 – RQ.1: The Capital Markets Union as a Potential Pathway towards more Efficient Capital Allocation

The first research question that the thesis seeks to address concerns the efficient allocation of capital in the European Union. Specifically, it seeks to examine whether – and eventually, to what extent – a potential “complete” implementation of the Capital Markets Union can enhance the efficiency of capital allocation in Europe by reducing market frictions and barriers and by channeling funds toward strategic sectors and SMEs.

Accordingly, a thorough response first requires a clear definition of its core elements.

Firstly, the concept of “*complete*” implementation of the CMU, which represents the baseline assumption of the question. It refers directly to the “CMU Policy Matrix”, and, in its most straightforward sense, it implies that every initiative should be able to be classified as “*Implemented*” under the “*Status*” column. From a more technical and focused perspective, it assumes that each CMU-related initiative is embedded within an active regulatory and/or operational regime, such that the objectives articulated in the relevant CMU policy documents or associated legislative texts have been effectively realized.

Secondly, the indicators that will be used to properly evaluate the concept of “allocative efficiency”. Broadly speaking, there are a variety of indicators that seek to measure the efficiency of capital allocation. In the European context, however, this thesis will restrict its focus on both (i) macro-level, productivity-based measures and (ii) financial integration metrics. At the macroeconomic level, the

incremental capital-output ratio (hereinafter: *ICOR*) and total factor productivity (hereinafter: *TFP*) growth are amongst the most frequently employed. While *ICOR* emphasizes the immediate relationship between investment volumes and output growth – thereby defining the amount of investments needed for “a unit of economic growth”³⁸ –, *TFP* highlights longer-term efficiency gains from better allocation of capital and labor – thus, reflecting how effectively an economic system is able to deploy its resources.

The following section sets out the formulas used to compute these two indicators:

$$ICOR_t = \frac{\text{Gross Fixed Capital Formation}^{39} \text{ as \% of } GDP_t}{\text{Real GDP Growth (\%)}_t}$$

Equation 1: Incremental Capital-Output Ratio (ICOR) Formula

A lower *ICOR* indicates that a given volume of investment produces higher growth, reflecting a more effective channeling of resources to productive sectors.

$$TFP_t = \frac{GDP_t}{K_t^\alpha \cdot L_t^{1-\alpha}}$$

Equation 2: Total Factor Productivity (TFP) Formula

Higher *TFP* signals that resources are being allocated to their most productive uses, often through dynamic reallocation from less efficient firms toward more innovative or competitive ones.

Both indicators, however, present some limitations: while *ICOR* is more sensitive to cyclical fluctuations and tends to neglect qualitative aspects of investments⁴⁰, *TFP* is residual-based, highly dependent on model assumptions, and more prone to short-term volatility. Despite these drawbacks, their combined analysis provides a balanced assessment: *ICOR* captures the quantitative efficiency of investment, whereas *TFP* reflects the qualitative dimension of productivity gains.

On the financial side, indicators typically capture the depth, breadth, and integration of capital markets. Common measures include “Stock market capitalization”, “Venture capital investment”, and “Cross-border portfolio equity holdings”. While not direct measures of efficiency, taken together they can reveal how effectively savings are being mobilized and directed toward productive uses and the development of market-based finance (Sanati & Spyridopoulos, 2024).

Indeed, higher stock market capitalization reflects improved firms’ – especially SMEs’ – ability to access to equity financing, while greater venture capital intensity signals stronger support in innovation-driven sectors and for medium- to high-risk ventures (EIB Economics Department, 2018). Similarly, the intra-EU share of portfolio equity assets indicates the degree of financial integration: a higher share suggests that investors diversify within the Union rather than remaining confined to

³⁸ “One unit of economic growth”: for the purpose of this thesis, it means a one-percent increase in the total value of goods and services produced in the economy (real GDP).

³⁹ Gross Fixed Capital Formation: captures the value of long-term investments in productive assets – i.e., infrastructure, machinery, buildings – that constitute the main channel through which savings are allocated to the real economy.

⁴⁰ *ICOR* does not account for differences in the productivity, sustainability, or strategic value of investments, but focuses narrowly on the quantitative relationship between capital formation and output growth.

domestic or extra-EU markets, thereby signaling a relatively more contained presence of frictions and the potential for more efficient allocation of capital within the Old Continent.

Finally, “hybrid indicators” – that actively link market functioning to real economic outcomes – conclude the picture, offering indirect but meaningful insights on the allocative efficiency of European capital markets. Therefore, as this introduction demonstrated, there is no single metric that suffices on its own, and only a combined, multi-dimensional approach can capture the complexity of capital markets.

4.2.1 – The Methodology behind Research Question 1

In order to assess whether – and, eventually, how – a fully implemented Capital Markets Union is able to improve the efficiency of capital allocation in the European Union, this section develops the mixed framework that will be employed throughout the following analysis.

The answer to the first research question will be provided using a *mixed-method framework*, that combines statistical techniques with qualitative reasoning. The framework has been created with the precise intent of being grounded in the CMU’s policy logic. Therefore, it deliberately focuses on the main channels through which CMU reforms have operated in the past and are expected to operate in the future.

This choice is also motivated by the frequent presence of collinearity across variables, and by the lack of consistent and harmonized time series across a series of relevant indicators, which hinders the possibility of creating a wide-ranging – along two dimensions: time and geography – econometric model. A further difficulty – which has been positively overcome – derives from the fact that both the concept of allocative efficiency and the CMU’s objectives are, by their nature, complex and difficult to measure directly. The efficiency of capital allocation is not a variable that can be readily observable in official statistics but must instead be inferred from proxies and composite indicators that capture markets’ underlying structures and outcomes. Accordingly, this methodology combines a series of complementary strategies.

First, a set of *allocative efficiency proxies* is selected, based on both theoretical and empirical considerations. Broadly, these proxies reflect how effectively savings are transformed into productive capital, how well investment flows support growth and innovation and seek to represent all the “economic agents” affected by the CMU.

Second, a “*Capital Markets Union Readiness Index*” (hereinafter: *CRI*) is constructed, aggregating a series of levers that correspond to the policy ambitions of the CMU: equity market depth, availability of venture capital, degree of risk sharing, and mobilization of household savings. *CRI* will be computed as the unweighted average of the z-values (i.e., standardized values) of the

above-mentioned variables, and will be analyzed along its geographical and longitudinal dimension. The standardization and CRI aggregation are as follows:

$$Z_{i,t} = \frac{X_{i,t} - \mu_X}{\sigma_X}$$

Equation 3: Standardization of observations into harmonized z-scores

$$CRI_{i,t} = \frac{Z_{i,t}^{Var1} + Z_{i,t}^{Var2} + Z_{i,t}^{Var3} + Z_{i,t}^{Var4}}{4}$$

Equation 4: Construction of the Capital Markets Union Readiness Index (CRI)

Third, *descriptive and comparative statistical techniques* are used to link CRI values with the performance of the efficiency proxies. The comparative analysis examines whether countries with higher CMU Readiness Index scores consistently display more favorable efficiency outcomes. By comparing median values of ICOR, equity share of liabilities, venture capital intensity, and stock market turnover across CRI scores, the analysis highlights systematic differences between more and less CMU-ready economies.

Finally, a *scenario-based simulation* will conclude the quantitative part of the framework. Each scenario produces a set of values for the variables and, consequently, for the index. Under the *pessimistic scenario (Scenario #1)*, indicators such as ICOR remain elevated, equity shares stagnate, and venture capital intensity shows little convergence, illustrating the persistence of inefficiencies. The *baseline scenario (Scenario #2)* assumes moderate progress, with gradual improvements in market depth and cross-border integration leading to modest declines in ICOR and incremental gains in liquidity and venture capital flows. The *optimistic scenario (Scenario #3)*, by contrast, aligns with the “fully-implemented CMU” assumption: equity financing expands significantly, venture capital becomes a more common source of SMEs’ funding, market liquidity deepens, and originally lower ICORs converges toward the levels currently observed in the most CMU-ready Member States. The table that follows summarizes the three different scenarios:

Table 2: Summary of the three different scenarios envisioned

#	Scenario	Underlying Assumptions
1	<i>Pessimistic Scenario</i>	Persistent frictions and limited reform progress
2	<i>Baseline Scenario</i>	Moderate progress with gradual CMU implementation
3	<i>Optimistic Scenario</i>	Complete Implementation of CMU Policies: comprehensive reform and full integration of EU capital markets

The analysis of this part of the framework will be complemented by the qualitative interpretation of policy indicators associated to the CMU. A narrower perspective on SMEs will be provided through the Q1-2025 SAFE⁴¹ Survey; indicators from the Association for Financial Markets in Europe are used to capture capital-market developments partially hidden in wide-ranging national account

⁴¹ SAFE: Survey on the Access to Finance of Enterprises

indicators; the European Commission’s CMU scoreboard provides harmonized indicators on equity, venture capital, and cross-border flows, offering an official benchmark of how effectively savings are channeled into productive investment across Member States. These sources will be systematically cross-referenced with the quantitative results, ensuring that observed market performance (ICOR and related proxies), reported financing conditions, and the formal policy trajectory are consistently aligned in the evaluation of how a complete CMU could enhance allocative efficiency.

4.2.2 – Data Sources, Variables and Hypotheses of Research Question 1

4.2.2.1 – Data Sources of Research Question 1

The empirical work relies on a set of complementary data sources – harmonized where needed – that provide coverage for the period from 2015 to 2024. The selected timeframe spans from the launch of the original CMU Action Plan in 2015, through the 2017 Midterm Review and the adoption of the 2020 CMU Action Plan 2.0, and concludes with the most recent available observations. Accordingly, this period therefore captures both the evolution of European capital markets and the institutional context in which CMU reforms have been debated and implemented.

The following databases have been used to construct the country-year panel dataset of EU-27 and its Member States: (1) *Eurostat* (“National Accounts and Sectoral Balance Sheets”) for GDP, gross fixed capital formation (GFCF), and debt–equity structures; (2) *ECB Statistical Data Warehouse* for stock-market activity, market turnover, cross-border integration, and banking fragmentation; (3) *EIB Reports*, (4) *Invest Europe* and the (5) *OECD Entrepreneurship Finance Database* for venture capital-related data; and the (6) *SAFE Survey* for a narrower focus on SMEs’ reported financing difficulties. This is complemented by data from (7) AFME’s “*Capital Markets Union – Key Performance Indicators*” report, and European Commission’s “*List of Indicators to Monitor Progress towards CMU Objectives*”.

4.2.2.2 - Variables of Research Question 1

As repeatedly emphasized, the framework uses a series of stylized indicators that proxy for the core frictions the CMU was designed to address. These are: (a) *equity market depth* (measured as the value of listed shares relative to GDP); (b) *venture capital intensity* (venture capital investment as a share of GDP); (c) *cross-border risk-sharing* (the value of cross-border portfolio equity and debt securities assets relative to GDP); and (d) *households’ investments availability* (which simulates AFME’s “Households Market Investment” indicator). The table that follows summarizes these variables, listing their name, the corresponding indicator code, and a short explanation.

Table 3: Variables used in the analysis, including their names, codes, and concise explanations

Variable	Code	Explanation
Equity Market Depth	E	Measures the depth of European equity markets relative to GDP

Venture Capital Activity	V	Measures the extent of venture capital investment as a share of GDP
Cross-Border Risk-Sharing	RS	Measures the value of cross-border portfolio equity and debt securities assets relative to GDP
Households' Investments Availability	HInv	Simulates AFME's "Households Market Investment" indicator, capturing households' direct participation in capital markets

Together, these dimensions capture both the supply side of finance (depth and diversification of markets and ability to mobilize household savings) and the demand side (SME access, innovation financing, recovery from financial distress).

The choice on these proxies has been directly inspired by the CMU Action Plans and the Midterm Review. The 2015 Action Plan underlined the relative underdevelopment of European equity markets, noting that Europe's equity markets were less than half the size of those in the US relative to GDP. The 2017 Midterm Review reiterated the importance of strengthening venture capital and start-up financing, of reviving securitization markets to expand banks' lending capacity, and of removing national barriers to cross-border capital flows. The 2020 Action Plan placed further emphasis on sustainability and digitalization, highlighting the need to channel household savings into long-term, green and strategic assets while removing persistent bottlenecks in cross-border investment. Building on these dimensions, the corresponding variables are expressed through the following equations, which provide their formal definitions:

$$E_{\%} = \frac{\text{Total Value of Listed Shares}_t}{\text{Gross Domestic Product}_t}$$

Equation 5: Equity Market Depth (Listed Shares as Percentage of GDP)

$$V_{\%} = \frac{\text{Total Value of Venture Capital Investments}_t}{\text{Gross Domestic Product}_t}$$

Equation 6: Venture Capital Activity Intensity (Venture Capital Investments as Percentage of GDP)

$$RS_{\%} = \frac{\text{Cross Border Portfolio Equity Assets}_t + \text{Cross Border Debt Securities Assets}_t}{\text{Gross Domestic Product}_t}$$

Equation 7: Intra-EU Cross-Border Risk Sharing (as a Percentage of GDP)

$$HInv_{\%} = \frac{\text{HH Financial Assets}}{\text{Gross Domestic Disposable Income}_t}$$

$$HInv_{\%} = \frac{\text{Listed Equity Shares}_t + \text{Investment Fund Shares}_t + \text{Bonds}_t + \text{Life Insurance \& Pension Funds}_t}{\text{Gross Domestic Disposable Income}_t}$$

Equation 8: Households Market Investment Indicator (as a percentage of GDP)

4.2.2.3 – Hypotheses for Research Question 1

Building on the delineated framework and the selected indicators, the following hypothesis is formulated to guide the empirical analysis. The hypothesis explicitly relates the chosen indicators to the incremental capital-output ratio, which serves as the main dependent variable for assessing allocative efficiency. The table below summarizes the hypotheses, the indicators involved, their underlying rationale, and the expected direction of correlation with ICOR.

Table 4: Summary of hypotheses linking selected CMU indicators to allocative efficiency, expressed through the expected correlation with ICOR.

#	Hypothesis	Indicators Involved	Rationale	Metric (expected correlation with ICOR)
1	Countries with higher CRI scores display lower ICOR.	ICOR; CRI	CRI captures overall reduction of frictions (equity, VC, integration, savings mobilization).	Negative correlation between ICOR and CRI

4.2.3 – Quantitative Analysis of Research Question 1

Having clarified the conceptual foundations, the indicators selected for evaluating allocative efficiency and the relevant hypotheses, this paragraph will present systematically the empirical strategy through which this reasoning are operationalized. As specified, the unit of analysis is defined as the “country–year”, with all variables harmonized to this level of observation.

The first step of the procedure concerns the *measurement of allocative efficiency*. For this purpose, the incremental capital-output ratio ICOR is computed for each country (i.e., geographic dimension) and year (i.e., longitudinal dimension) by relating gross fixed capital formation as a percentage of GDP to the corresponding rate of real GDP growth. In order to provide a harmonized basis of measurement, every observation is converted into a z-score variable. The figure that follows reports post-standardization scores on a yearly basis:

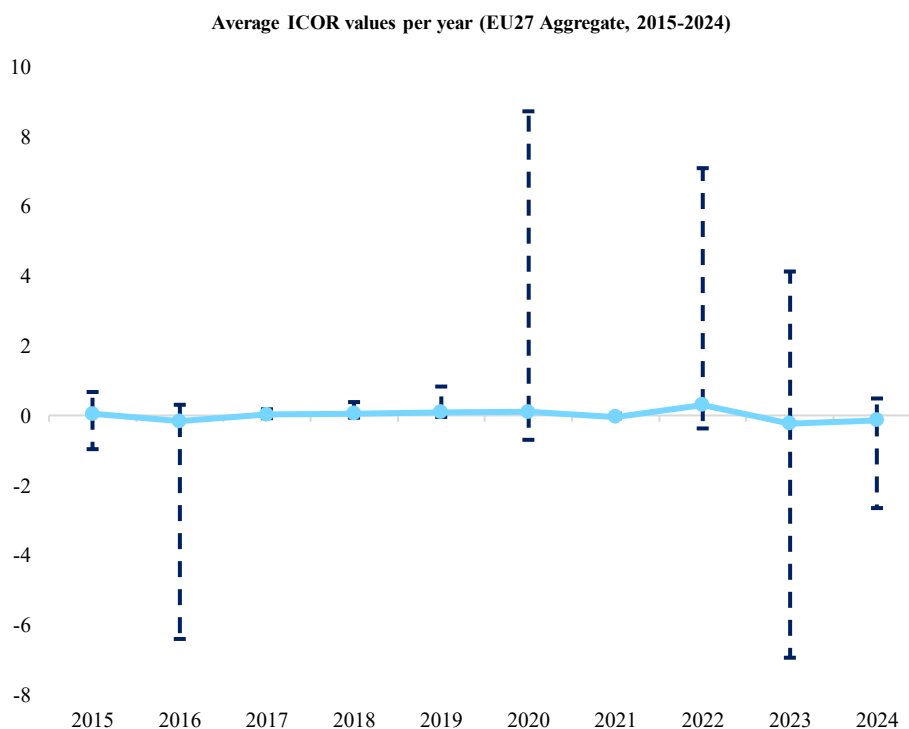


Figure 12: Average ICOR values for the EU-27, 2015–2024. The line shows the annual mean (expressed as z-scores), while vertical bars indicate the corresponding minimum and maximum values across Member States.

The graph illustrates the distribution of standardised ICOR values across EU Member States between 2015 and 2024. The solid line traces the annual average, which consistently hovers around zero, reflecting that the z-score transformation centers the distribution as expected. The vertical bars,

corresponding to the observed maximum and minimum values, reveal however that dispersion varies markedly across years.

In several years, the range expands significantly. In 2016, the lower bound falls to around -6.4 , while in 2023 it drops even further to -6.9 . These deep negative deviations indicate that one country in each year displayed highly inefficient capital allocation outcomes relative to the rest of the Union: 2016 is the case of Greece, 2023 of Cyprus. By contrast, in 2020 and 2022 the upper bounds peak at 8.7 and 7.1 respectively. In principle, this might signal either the presence of exceptionally efficient performers or that other Member States were underperforming to such an extent that the distribution became heavily skewed. In both years, the evidence supports the second interpretation, with Lithuania and Finland emerging as positive outliers, the former for 2020 and the latter for 2022.

The combination of a stable mean and extreme fluctuations at the margins suggests that the EU average remained broadly constant, while single countries diverging sharply (either positively or negatively) in particular years. Such patterns correspond to periods of macroeconomic turbulence – such as, in 2020, the COVID-19 crisis – or, in general, to periods wherein investment and output evolved asymmetrically across Member States. Under these conditions ICOR becomes especially sensitive, with recessions or investment shocks generating extreme values that reflect cyclical volatility rather than structural efficiency.

Overall, the graph underscores two important – though preliminary – conclusions. First, on aggregate and if proxied by ICOR, allocative efficiency in the EU remains relatively stable around its long-term mean. This, in turn, supports the idea that the CMU has not yet managed to provide significant effects on the efficiency of capital allocation. Second, the large swings at the extremes highlight the heterogeneity across Member States, suggesting that European capital markets still display significant differences.

The second step of the quantitative analysis consists in the construction of the policy levers that embody CMU ambitions. Four indicators are derived from the data sources of *Paragraph 4.2.2.1*: equity market depth; venture capital intensity; cross-border risk sharing; and households' investment availability. Together, these variables represent the channels through which CMU reforms are expected to reduce frictions and broaden the sources of non-bank financing. Since each of these levers is expressed in different units and exhibits different magnitudes, each observation will be associated to a standardized z-score, which seeks to ensure comparable values across years and countries and – in the following stage – successful aggregation of the variables themselves.

The following figure presents the relative ranking of EU Member States across the four policy levers, benchmarked against the EU-27 aggregate: green cells indicate rankings above the EU-27 baseline, while red cells denote positions below it.

	EU 27	AT	BL	BU	CR	CY	CZ	DN	ES	FN	FR	GE	GR	HN	IRL	ITA	LV	LT	LX	MA	ND	PL	PR	RO	SK	SN	SP	SW
Z_E	Yellow	Red	Green	Red	Red	Red	Red	Green	Red	Green	Green	Green	Red	Red	Green	Red	Red	Red	Green	Red	Green	Red	Red	Red	Red	Red	Red	Green
Z_V	Yellow	Red	Green	Red	Red	Red	Red	Green	Green	Green	Green	Green	Red	Green	Green	Red	Red	Red	Green	Red	Green	Red	Red	Red	Red	Red	Green	Green
Z_{RS}	Yellow	Red	Green	Red	Red	Red	Red	Red	Red	Red	Green	Red	Red	Red	Green	Red	Red	Red	Green	Green	Red	Red	Red	Red	Red	Red	Red	Red
Z_{HIn}	Yellow	Red	Green	Red	Red	Red	Green	Green	Red	Red	Red	Green	Red	Green	Green	Green	Green	Green	Red	Red	Green	Red	Red	Red	Green	Red	Green	Green

Figure 13: Country rankings across standardized values of CMU levers compared with the EU-27 aggregate

The results highlight a significant and consistent degree of cross-country heterogeneity in the performance of Member States across the four CMU levers.

With respect to *equity market depth*, smaller but highly developed financial centers such as Ireland, Sweden and Luxembourg consistently occupy the highest ranks, underscoring their ability to mobilize equity financing well above the EU average. At the opposite end of the spectrum, several Eastern European economies, notably Bulgaria and Latvia, remain in the lowest positions. This divergence suggests that, while some Member States have already consolidated sophisticated equity markets capable of supporting firms through stock issuance, others continue to rely more heavily on traditional bank lending and thus exhibit limited equity-based intermediation.

A similar pattern emerges in *venture capital intensity*, where Nordic countries again lead the distribution. Their high rankings indicate the presence of more mature ecosystems for start-up financing and innovation-driven investment, facilitated by both institutional investors and policy frameworks supportive of entrepreneurial activity. By contrast, many Southern and Eastern Member States perform markedly below the EU-27 benchmark, reflecting structural weaknesses in risk-capital provision, smaller pools of institutional investors, and persistent barriers that hinder the development of dynamic venture capital markets. Overall, this illustrates the uneven distribution of opportunities for high-growth – and, often, high-risk – firms within the Union.

Third, for *cross-border risk sharing*, Luxembourg and Ireland dominate the rankings. Their position reflects their well-established role as hubs of portfolio investment and as gateways for intra-European financial flows. Their strong performance highlights the extent to which continental cross-border financial integration remains concentrated in a limited number of Member States, while many others continue to operate in more fragmented markets.

Finally, the distribution of *household investment* is likewise characterized by wide divergence. Northern and Western European economies, including Finland, Luxembourg and Denmark, record high positions, signaling the effective mobilization of household savings into capital market instruments such as equities, funds, and pension schemes. At the other extreme, Southern and South-Eastern countries such as Greece, Bulgaria and Croatia display very low rankings, indicating that household wealth in these economies remains largely tied up in deposits or real assets rather than being channeled into productive financial instruments. This gap underlines the uneven capacity across Member States to harness household savings as a driver of market-based financing.

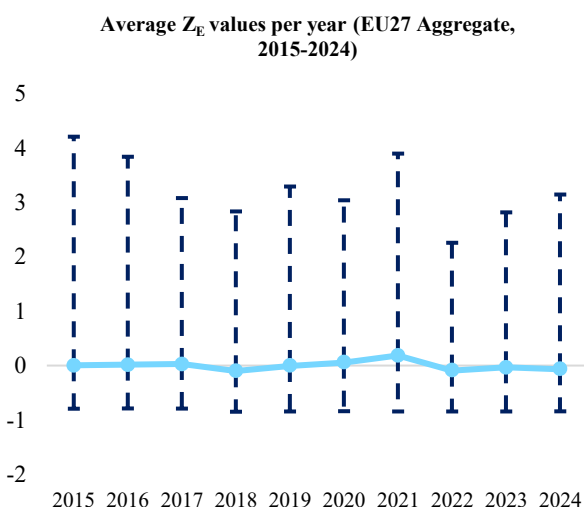


Figure 14: Average Z_E values for the EU-27, 2015–2024

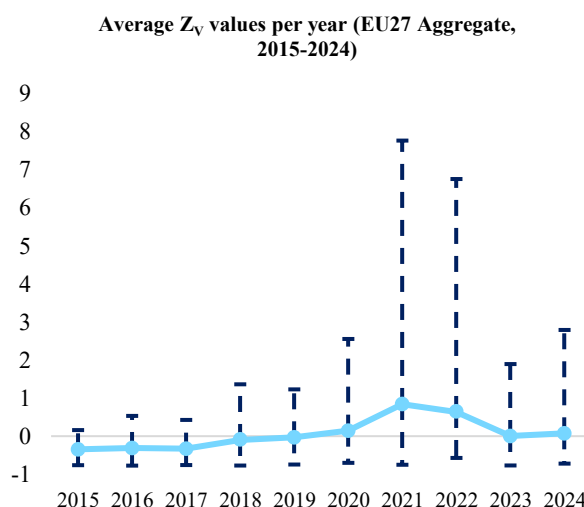


Figure 14: Average Z_V values for the EU-27, 2015–2024

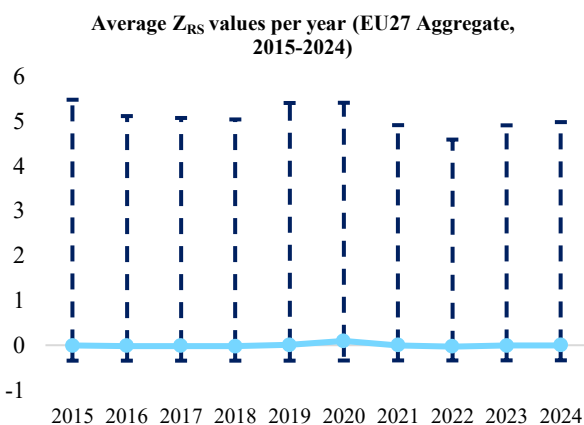


Figure 16: Average Z_{RS} values for the EU-27, 2015–2024

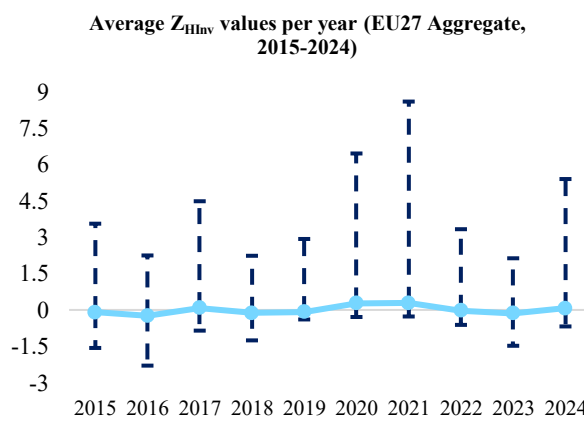


Figure 17: Average Z_{HInv} values for the EU-27, 2015–2024

The standardization of the four policy levers into z-scores allows for an assessment of the degree of dispersion within the Union. Examining the distributions between 2015 and 2024 reveals that the four indicators evolve differently, with distinct patterns of concentration and outliers.

For *equity market depth* (i.e., Figure 14), the distance between the highest and lowest observations is wide and persistent. Positive outliers reach values more than three standard deviations above the mean, particularly in 2015, 2016 and 2021, which suggests that a small group of Member States consistently maintains equity markets that are far more developed than the EU average. This group is

composed by Luxembourg, Ireland and Denmark. The lower tail of the distribution, by contrast, is more stable at around -0.8 , indicating that the weaker performers cluster together but do not diverge as sharply. However, this also indicates that the expected convergence in equity markets' depth is still not taking place.

The picture is different for *venture capital intensity*, where volatility is much greater. In the first half of the period the mean is negative, pointing to the fact that most Member States fall below the EU average in this domain. From 2020 onwards the average turns positive, driven by rapid growth in a handful of countries. This is particularly visible in 2021 and 2022, when maxima reach extraordinary values of 7.8 and 6.8 standard deviations, underscoring the dominance of a very small set of markets in the provision of venture capital. The simultaneous persistence of consistently negative minima further confirms that venture capital in the EU is highly concentrated and remains underdeveloped in large parts of the Union.

Cross-border risk sharing shows a markedly different profile. Here the averages remain consistently close to zero and the lower bounds are consistently tight, with minima hovering around -0.34 . This suggests that integration through cross-border portfolio investment is more stable than the other levers, but also highly skewed: a small number of Member States act as entrenched financial hubs, while the majority display limited deviations from the EU-wide baseline.

Finally, *household market investment* is the most dispersed of the four indicators. The averages oscillate between slightly negative and positive values, but the ranges widen dramatically in specific years, most notably 2020 and 2021. In those years, maxima soar to 6.5 and 8.6 standard deviations, reflecting that certain Member States succeeded in mobilizing household savings on a massive scale, while others did not. The lower tail, dropping below -1 in several years and even below -2 in 2016, reveals the structural weakness of household participation in financial markets in many economies, where savings remain tied, as said, to low-risk and low-return deposits or real estate rather than being channeled into market instruments.

Taken together, the evidence confirms the significant cross-country heterogeneity already visible in the country rankings, while also revealing the internal distribution of performance within each lever. The overall picture is one of fragmented readiness across the Union. Northern and Western economies consistently emerge as leaders across multiple dimensions, whereas Southern and Eastern countries tend to lag behind.

On this basis, a composite indicator, the Capital Markets Union Readiness Index can be calculated as the unweighted average of the four standardised levers (i.e., *Equation 4*). The CRI summarizes in a single measure the extent to which a national capital market structure aligns with the objectives of the CMU. The following table provides the values of the CRI that have emerged from the calculations.

For ease of interpretation, the resulting values – presented below in relation to both member states (i.e., table 5) and years (i.e., table 6) – are expressed on a 1-to-10 scale and will be rounded at the 2nd decimal digit:

Table 5: CMU Readiness Index scores (1–10) and rankings for the EU-27 Member States and for EU-27

EU27	AT	BL	BU	CR	CY	CZ	DN	ES	FN	FR	GE	GR	HN	IRL	ITA	LV	LT	LX	MA	ND	PL	PR	RO	SK	SN	SP	SW
4,49	3,91	4,77	3,44	3,68	3,44	3,51	5,92	4,95	5,64	4,69	6,91	3,35	4,00	6,81	4,19	3,68	4,23	7,23	4,01	4,95	3,81	3,84	3,41	3,50	3,52	4,25	5,45
11	17	9	26	21	25	23	4	7	5	10	2	28	16	3	14	20	13	1	15	8	19	18	27	24	22	12	6

Table 6: CMU Readiness Index scores (1–10) and rankings for each year of the selected time span (2015–2024)
Values calculated as the average of European member states

2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
4,24	4,06	4,34	4,30	4,44	4,81	5,14	4,88	4,21	4,41
8	10	6	7	4	3	1	2	9	5

The CMU Readiness Index highlights pronounced divergences across EU Member States, with a clear gap between highly integrated and financially advanced countries – such as the Netherlands, Luxembourg, and Germany – and structurally weaker capital markets – largely associable to countries in Southern and Eastern Europe. These differences confirm that the European financial landscape remains fragmented: despite a common policy framework, national institutional settings, investor bases, and regulatory capacities continue to play a decisive role in shaping readiness. When observed longitudinally, the average of European member states follows a modest upward trajectory, particularly between 2015 and 2021, coinciding with the adoption of the CMU 2.0 Action Plan and its renewed emphasis on capital market integration, SME financing, and sustainability. Nevertheless, this progress appears fragile, as the index shows a loss of momentum in 2022–2023 – that can be arguably attributed to changes in European policymakers’ agenda due to geopolitical shocks – before stabilizing again in 2024.

To assess whether higher levels of readiness translate into more efficient capital allocation, the CRI can be compared with ICOR across Member States, as in the following scatterplot:

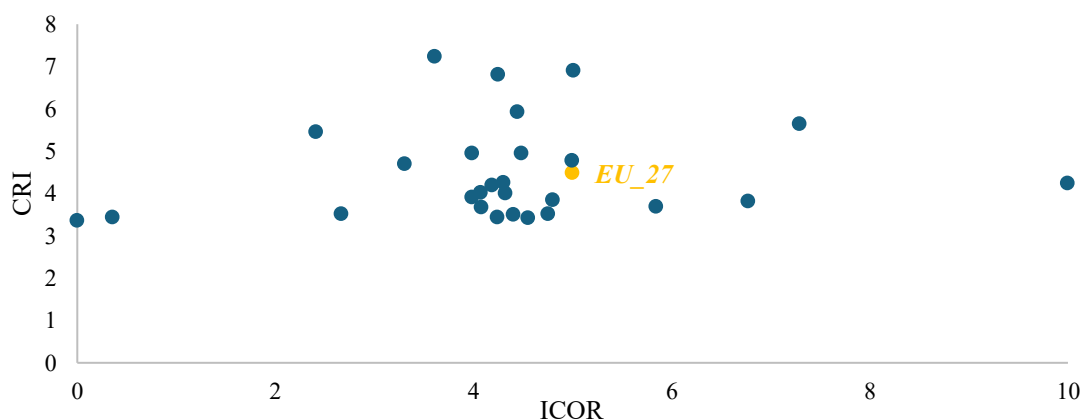


Figure 18: Scatterplot of ICOR and CMU Readiness Index (CRI) across EU Member States, illustrating the relationship between capital market readiness and allocative efficiency.

The scatterplot points to a *weak contemporaneous association* between CMU readiness index and ICOR, as a proxy of allocative efficiency. Most countries cluster near the EU-27 average (i.e., orange dot), but the *wide dispersion* in both axes indicates persistent cross-country heterogeneity. This broad picture is consistent with evidence that CMU development can improve the allocation of capital, but the effect is neither instantaneous nor uniform across institutional settings⁴² (Wurgler, 2000). Two mechanisms help explain the pattern.

First, the *non-linearity* of finance-growth links: at low levels of market development, improvements tend to raise efficiency, while at higher levels the marginal gains flatten, and may even turn negative if expansion amplifies misallocation – i.e., the “too-much-finance” result (Arcand, Berkes, & Panizza, 2015). Hence, a high CRI does not mechanically imply a low ICOR in a cross-sectional snapshot.

Second, the *integration and risk-sharing channel* embedded in CRI remains structurally weaker in Europe than in USA: incomplete cross-border smoothing means that shocks still translate into volatile ICOR even where market structures look readier. The classic benchmark shows extensive interstate risk sharing in USA, whereas euro-area risk sharing is markedly lower (Cimadomo, Giuliodori, Lengyel, & Mumtaz, 2023).

Timing also matters. CRI’s components of venture capital intensity and equity market depth primarily affect medium-run productivity and innovation. ICOR, instead, is highly cyclical (i.e., focusing on investment/output in the same year). A country can score high on CRI today and still display a high ICOR if the payoff from VC-led innovation and equity financing has not yet materialized. The literature finds that venture capital raises patenting, firm creation and income over ensuing years, not quarters (Kortum & Lerner, 2000).

Overall, the figure suggests that *CMU readiness is a necessary but not sufficient condition* for lower ICOR. The cross-section mixes countries at different points of the financial-development curve, facing different shocks, and with payoffs arriving on different horizons.

Computed mathematically, the correlation between ICOR and the CMU Readiness Index is positive (i.e., $+0.39$), contrary to the initial hypothesis of a negative relationship.

This result suggests that higher levels of market readiness, as captured by the composite indicator, do not automatically translate into lower ICOR values in the short-term. A plausible explanation – as detailed above – lies in the different temporal nature of the two measures: ICOR is highly sensitive to cyclical output and investment fluctuations, whereas CRI reflects structural features of financial development that materialize their efficiency gains over a longer horizon. Countries with advanced capital markets may still register high ICOR in a given year if investment levels are strong, but growth

⁴² Precisely, deeper markets reallocate investment toward high growth uses, but with lags and conditional on institutions

is subdued, or if cyclical shocks temporarily distort the ratio. Thus, the positive coefficient should not be read as evidence against the effectiveness of CMU reforms, but rather as an indication that their benefits for allocative efficiency are indirect, lagged, and mediated by broader macroeconomic conditions. This further reinforces the necessity for a scenario-based analysis which will extend the temporal horizon and will ascertain the long-term behavior of ICOR as CRI varies under controlled conditions.

4.2.4 – Scenario-based analysis for Research Question 1

To operationalize the scenario analysis, the following table sets out the quantitative assumptions for each of the four CMU policy levers under the pessimistic, baseline, and optimistic cases:

Table 7: Scenario assumptions for EU-27 capital market indicators. The table reports baseline averages for 2015–2024 and projected values for 2034 under three scenarios: pessimistic (stagnation and persistent frictions), baseline (gradual progress), and optimistic (full CMU implementation and convergence toward U.S.-like levels).

Indicator	E	V	RS	HInv	ICOR
Current EU-27 Average (2015-2024)	0,46	0,046	1,95	0,009	0,12
Scenario 1 – Pessimistic					
Values for EU-27 in 2034	0,42	0,04	1,8	0,007	0,22
Δ	-9%	-13%	-8%	-22%	+83%
Scenario 2 – Baseline (Linear Trend)					
Values for EU-27 in 2034	0,55	0,08	2,2	0,015	0,1
Δ	+20%	+74%	+13%	+67%	-17%
Scenario 3 – Optimistic (Full-CMU Implementation and US-like values)					
Values for EU-27 in 2034	1,5	0,3	4	0,06	0,05
Δ	+226%	+552%	+105%	+567%	-58%

In the pessimistic scenario, Europe’s capital markets become gradually less integrated and financial deepening stalls or regresses. Equity market depth slides from 0.46 to 0.42 of GDP (–9%), reflecting improved difficulties in securing financing through equity channels. Simultaneously, the activity on venture capital markets slightly shrink – potentially, largely driven by the severe underdevelopment in Southern and Eastern member states rather than a reduction in the volumes of activity in the most developed countries – further constraining the economic space for innovative firms, further hampering productivity and digital growth (Arnold, Claveres, & Frie, 2024). Cross-border risk sharing further recedes causing a weaker shock absorption capacity through private channels (Cimadomo, Giuliadori, Lengyel, & Mumtaz, 2023). Lastly, also the households’ investment availability indicator follows a similar declining path.

Building on the conclusions drawn in paragraph 4.2.3 – which identified a positive relationship between CRI and ICOR – Scenario 1 seemingly suggests that inertia in advancing market depth and

integration, along with households' reluctance to invest and limited venture capital activity, would cause ICOR to nearly double.

Taken together, these dynamics reinforce the country-specific evidence presented in 4.2.3: countries with less developed and less integrated fragmented markets consistently experience allocative inefficiencies. This finding can be likewise applied to the European Union: without proper reforms – or, if the pursued ones do not materialize as expected – higher investments won't necessarily translate into efficient allocation of capital.

By contrast, the baseline scenario – which can be argued to be the most realistic, especially for the time-span considered – envisions modest yet tangible improvements in markets' structure. Equity market depth inches up to 55% of GDP (reflecting a +20% increase if compared to the 2014-2025 average), reflecting steady progress in institutional and regulatory infrastructure. The venture capital indicator nearly doubles to 0.080 (+74%), supporting a gradual strengthening of the European landscape. Recent IMF and EIB analysis identifies limited venture capital as constraining innovation in Europe: hence, higher intensity in this sector aligns with expectations for improved firm-level productivity and start-up scaling (Arnold, Claveres, & Frie, 2024) – ultimately translating into improvements in innovation.

Risk sharing rises to 2.20 (+13%), suggesting moderate gains in cross-border integration. Household participation grows to 0.015 (+67%). While still low if compared to the US benchmark, this would reflect measurable shifts in savings behavior and uptake of market products (Bobek, Mikuš, & Sokol, 2023). These changes would translate into a modest ICOR improvement to 0.10 (–17%).

Therefore, adopting a broader perspective, the baseline path suggests that coordinated yet incremental policy actions, such as targeted institutional strengthening and gradual liberalization, can yield moderate gains in allocative efficiency and financial integration.

Finally, the optimistic scenario corresponds to full CMU implementation and gradual convergence toward the more integrated USA's benchmark. In this case, EU capital markets de facto undergo a significant transformation, not only from a structural perspective, but also in terms of investment behaviors and patterns.

Equity depth would escalate to 1.50 of GDP (+226%), signaling a shift toward equity-dominant financing patterns – as currently observed in the US. Venture capital intensity rising to 0.30 of GDP (+552%) would align Europe with U.S. norms. However, this increase – limiting the analysis to the analyzed period – can be argued to be unrealistic due to its magnitude. Simultaneously, cross-border risk sharing increases to 4.00 of GDP (+105%), household investment availability to 0.060 (+567%).

A surge of this magnitude would likely halve ICOR to 0.05 (–58%), reinforcing the efficiency dividend from equity expansion. From an efficiency standpoint, the resulting ICOR improvement and sharp rise in the CMU Readiness Index under this scenario would correspond with the economic logic of full market liberalization and integration, unlocking higher productivity and resilience.

Evolution of the CRI under Scenario 1, Scenario 2 and Scenario 3

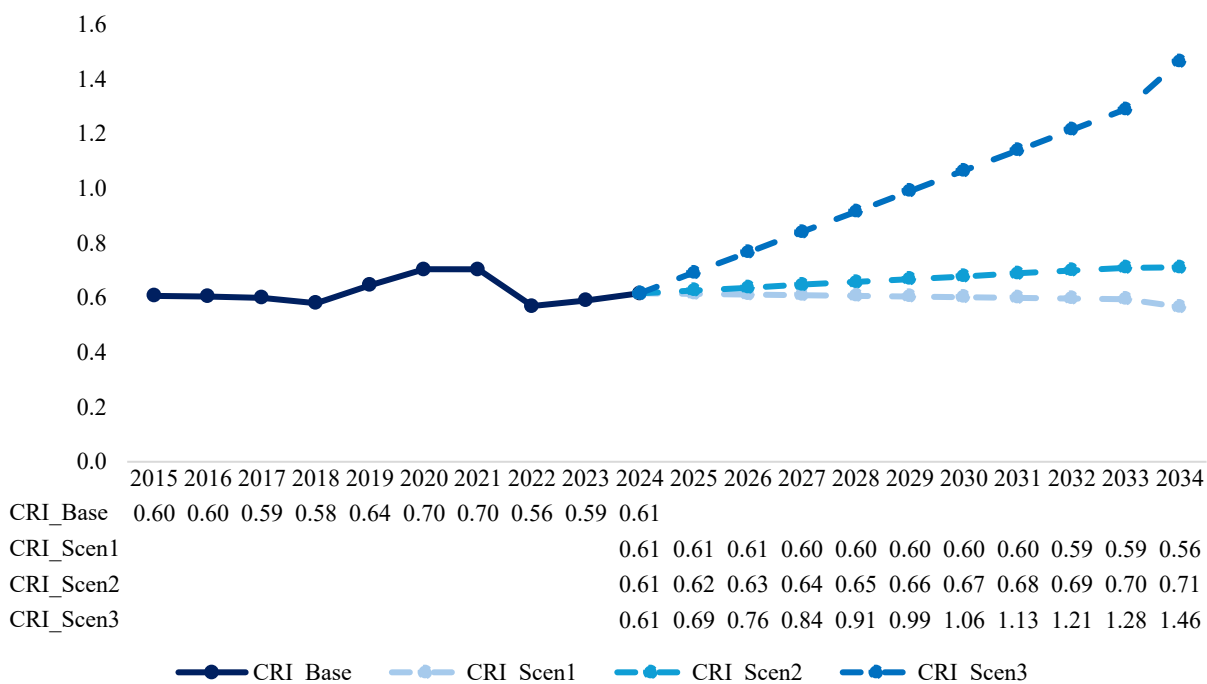


Figure 19: Evolution of the CMU Readiness Index under the three predicted scenarios (pessimistic, baseline and optimistic). The straight lines represent observed values, the dotted lines represent expectations on the basis of the assumptions made for the CMU policy indicators (levers).

Indeed, after having defined the expected changes on the CMU policy levers and on the ICOR proxy, it is interesting to note how the CRI behaves under the three scenarios.

The figure illustrates three distinct trajectories: under the pessimistic scenario, the index remains essentially flat, even showing a slight decline after 2030, signaling that the current structural fragmentation persists, and the reforms fail to deliver the expected outcomes.

The baseline scenario produces a modest but steady upward path, with the CRI rising gradually to around 0.71 by 2034. In turn, this reflects incremental improvements in market depth, venture capital intensity, and cross-border integration, but without closing the gap to global peers.

Interestingly, the CRI behaves similarly across the first and second scenarios, exhibiting comparable values. In turn, this suggests that incremental reforms and slow-but-steady progress are not sufficient to achieve comparable results to the US benchmark (i.e., scenario 3), which corresponds to the initial assumption of “complete” CMU implementation.

Lastly, the optimistic scenario exhibits a clear break from past trends: starting from the same 2024 level as the other cases, the CRI accelerates rapidly, surpassing 1.0 by 2030 and reaching 1.46 by 2034. This steep trajectory highlights the cumulative and mutually reinforcing effects of full CMU

implementation: (i) household mobilization, (ii) venture capital scaling, and (iii) genuine risk-sharing combine to lift the system onto a higher equilibrium. The divergence between the three lines therefore illustrates the stakes of policy choices. In the first scenario, stagnation locks Europe in its structural status quo. In scenario 2, incrementalism yields only limited convergence. Finally, the comprehensive reforms hypothesized in scenario 3 illustrates the transformative potential of full CMU realization: unlocking a structural transformation of European capital markets.

4.2.5 – Consolidating the Findings and Responding to Research Question 1

The results and assumptions outlined in paragraph 4.2.4 gain further explanatory weight when considered in light of the revised CMU initiatives discussed in Chapter 3. These initiatives constitute the EU’s actual policy levers through which to (a) reduce market fragmentation, (b) broaden non-bank financing, and (c) enhance capital allocation efficiency, as emphasized in the three CMU documents published by the Commission. Indeed, since the quantitative evidence from previous sections reveals an ambiguous link between the Capital Markets Union Readiness Index and the incremental capital-output ratio, the need for a qualitative inquiry emerges. The rationale is straightforward: allocative efficiency does not adjust instantly to structural reforms but is shaped by further factors, such as firm-level financing conditions, macroeconomic shocks, and institutional fragmentation. Drawing on evidence from the SAFE survey, the Commission’s CMU scoreboard, and the European Investment Bank’s analysis of resource misallocation, this section offers a more granular interpretation of how a “complete” CMU could influence capital allocation in Europe.

4.2.5.1 – The Transformative Potential of Revised CMU Initiatives (Paragraph 3.2)

Reception of securitization resurgence under the STS structure was for its part rooted in the rekindling of securitization as a primary tool to move risks away from banks and towards capital markets, with the purpose of freeing balance sheets up for new lending and supporting more productive investment. The impact varies by usage: partial uptake leaves fragmentation intact while large-scale use fortifies credit flows and banks’ lending capacity. Similarly, the revamped Prospectus Regulation is seeking to ease barriers for SMEs by lowering costs for them by cutting compliance costs and easing disclosure. Yet its real potential lies in harmonization among Member States: fragmented execution undermines its effectiveness, while consistent rules may enhance equity markets and provide greater liquidity. The European Single Access Point addresses information asymmetries as it consolidates disclosures and lowers costs of cross-border investment.

Fully implemented, it would become a European equivalent to the U.S. EDGAR system, improving transparency and integration.

On the household side, the Pan-European Personal Pension Product (PEPP) seeks to shift savings from deposits and real estate into capital markets. Strong uptake would mobilize liquidity at scale, reinforcing other reforms and expanding equity and venture participation.

Moreover, when combined with deeper equity markets, reforms such as EuVECA, EuSEF, and VentureEU can channel resources into high-growth firms and bolster innovation capacity.

Finally, technical reforms to withholding tax, insolvency, and supervision address persistent frictions that hinder cross-border flows. Their harmonization reduces transaction costs and legal uncertainty, complementing broader integration efforts.

Overall, the initiatives are mutually reinforcing: securitization expands available credit, prospectus reform deepens equity, ESAP improves transparency, PEPP mobilizes households, venture reforms expand risk capital, and technical harmonization removes barriers. Partial progress yields modest improvements, but full and coordinated implementation has transformative potential, driving Europe closer to the efficiency levels of more developed capital markets. This, in turn, would positively respond to Mario Draghi's and Enrico Letta's calls for more – in terms of quantity and quality – investments to finance Europe's current and future challenges

4.2.5.2 – Further Evidence from Surveys and Indicators

Firm-level survey data remain among the most direct indicators of whether reforms are translating into improved allocative efficiency. The SAFE survey conducted in Q1-2025 by the ECB confirms that SMEs continue to face tighter financing conditions than large firms, despite aggregate indicators pointing towards improved access. While 14% of firms reported a decline in interest rates on loans, only 2% of SMEs benefitted, compared to 31% of large companies (ECB, 2025/Q1, p. 10). This discrepancy underlines a central issue: systemic reforms such as lower policy rates or harmonized rules filter unevenly through financial systems, with the risk of reinforcing a dual structure in which large incumbents gain disproportionately.

The same survey also reports that while demand for bank credit remained stable, 39% of firms used external finance mainly for fixed investment or working capital (p. 17). Yet SMEs, particularly in less developed areas of Europe, were less likely than their larger peers to allocate financing to productivity-enhancing projects. This asymmetry is crucial for allocative efficiency reasoning: if innovative firms with higher marginal returns on capital are unable to access funding on reasonable terms, ICOR will remain high regardless of average improvements in credit conditions. In this sense, SAFE results help explain why cross-sectional data shows little correlation between CRI and ICOR – reforms may improve systemic readiness, but firm-level frictions persist.

The European Investment Bank's analysis of misallocation reports that dispersion in marginal products of capital is roughly twice as high in Europe as in the United States, and convergence to

U.S. levels would increase EU GDP by more than 30% (Gorodnichenko, Revoltella, Svejnar, & Weiss, 2018). In other words, the same aggregate capital stock yields much less output in Europe because resources are unevenly distributed across firms and sectors. This observation is unsurprisingly consistent with ICOR patterns: even if gross fixed capital formation increases, output growth remains modest when capital is misallocated.

Importantly, misallocation is not evenly distributed. The EIB Report finds that smaller and younger firms face consistently higher marginal products than incumbents, but they receive disproportionately less capital (Gorodnichenko, Revoltella, Svejnar, & Weiss, 2025). This reflects the same pattern highlighted by SAFE: Europe's financial systems still prefer large, low-productivity incumbents over riskier innovators. The reforms envisaged under the CMU – such as the Prospectus Regulation, VentureEU, or ESAP – are directly targeted at this structural inefficiency, but the misallocation evidence suggests that their effects are slow to materialize. This helps explain why the quantitative analysis found a positive correlation between CRI and ICOR in the short run: Member States with deeper markets often see higher investment volumes, but if misallocation persists, the productivity dividend is delayed.

The Commission's CMU scoreboard and AFME's Key Performance Indicators reports provide a complementary macro-level picture. Across the period 2015–2022, EU stock market capitalization lagged approximately 80% behind its US counterpart (AFME, 2024). This structural gap in equity market depth is mirrored in the CRI indicator for equity (i.e., *E*). The implication for allocative efficiency is straightforward: firms in weaker markets remain reliant on bank lending, while equity remains a minor channel.

The venture capital lever exhibits an even stronger difference (European Commission, 2024). Despite targeted initiatives such as EuVECA and VentureEU, Europe's VC ecosystem remains fragmented, concentrated in a handful of hubs (Sweden, Denmark, Germany) and largely absent elsewhere. From an allocative efficiency perspective, this means that high-growth SMEs remain underfunded.

The household lever is arguably the most interesting. In 2022, households in the EU held over €35 trillion in financial assets, but more than one third was in deposits, with only around 10% in equities or investment funds (AFME, 2024). This conservative savings pattern contrasts sharply with USA, where pension and mutual funds play a central role in channeling household savings into productive capital markets. The underdevelopment of the PEPP illustrates the challenge: while structurally promising, uptake remains marginal. This explains why HInv in the CRI remains close to zero and why ICOR does not improve despite high savings rates: Europe's vast household wealth is not mobilized for productive use.

Cross-border risk-sharing represents a further pivotal dimension where Europe continues to lag. Commission data indicates that less than one-fifth of European equity portfolios are invested in other Member States, compared to near-complete interstate diversification in the U.S. (European Commission, 2024). The SAFE survey further confirms that firms often perceive financing conditions as primarily determined by domestic banks, even in eurozone economies where cross-border credit should, in principle, be available.

The implications for ICOR are indirect but significant. In theory, deeper cross-border integration would allow capital to flow from surplus to deficit regions, equalizing marginal returns and lowering ICOR. In practice, fragmentation persists, so Member States with weaker financial systems continue to display high ICOR values, while hubs like Luxembourg and Ireland emerge as positive outliers.

4.2.6 – A Final Response on Research Question 1

Taken together, these strands of evidence determine why the CRI and ICOR are only weakly correlated in the quantitative analysis.

While the CRI measures the structural readiness of capital markets – including the depth of equity markets, the availability of venture capital, the scope of cross-border integration, and the mobilization of household savings –, ICOR captures the short-term efficiency of investment relative to output growth.

The SAFE survey reveals that SMEs still face binding credit constraints; the EIB shows that misallocation persists structurally; and CMU indicators underline that market depth, VC, and household mobilization remain underdeveloped compared to global benchmarks.

The result is a lagged relationship: *improvements in CRI are necessary but not sufficient to lower ICOR: gains materialize only over the medium to long-term and only with precise yet strong assumptions.*

Accordingly, quantitatively, ICOR remains broadly stable on average across the EU but highly heterogeneous across Member States, with extreme outliers reflecting cyclical shocks and/or structural inefficiencies. The CRI shows gradual improvement, particularly between 2015 and 2021, but its short-term correlation with ICOR is weak and even counterintuitive.

These findings converge on a common conclusion: *a fully implemented CMU has the potential to enhance allocative efficiency by lowering ICOR, but the transmission mechanism is long-term, contingent on institutional convergence, and dependent on mobilizing currently underutilized savings. This, in turn, explains why CMU is necessary for greater efficiency, but not sufficient on its own: its success depends on addressing persistent fragmentation at the national level.*

4.3 – RQ.2: Enhancing Capital Retention through the Capital Markets Union

The relationship between CRI and ICOR reinforces the argument that structural improvements in capital market depth and integration require time and institutional convergence before their effects can be observed in efficiency-related metrics. This observation provides the foundation for the second research question of this thesis: *can a fully implemented Capital Markets Union enhance the efficient retention of capital across the EU, and through which channels might such an effect be realized?*

The rationale for addressing this question lies in the persistent debate within the academic literature on the relationship between financial integration and allocative efficiency: recent European academia stresses that fragmentation in capital markets, together with heterogeneous insolvency and tax regimes, limits the Union's ability to mobilize savings effectively and reduces the scope of private risk-sharing. Against this background, the Capital Markets Union represents not only a regulatory project but also an empirical test case of whether institutional reforms can translate into measurable improvements in efficiency.

Within this context, *capital retention* serves as the key dependent variable, capturing the degree to which European savings remain invested within the Union rather than flowing abroad. In the model that will follow, explanatory variables are drawn directly from CMU policy dimensions, including the development of the investment fund sector, the mobilization of insurers and pension funds as providers of long-term finance, the evolution of household equity participation as a proxy for the emergence of a stronger equity culture, inflation and GDP growth. Capital retention is measured using cross-border portfolio flow data, thereby providing a direct measure of the extent to which European savings remain invested within the Union.

An OLS regression framework, estimated on quarterly Eurostat data, is employed to assess the statistical significance of these explanatory factors. In this way, the empirical investigation complements the qualitative and descriptive evidence by providing a systematic test of whether the mechanisms envisaged by the CMU agenda can be associated with measurable improvements in Europe's capacity to retain and allocate capital efficiently.

4.3.1 – The Methodology behind Research Question 2

The following section details how the second research question is examined, through a deliberately empirical and union-wide approach. Rather than inferring effects from descriptive indicators, the analysis estimates a regression in which the dependent variable captures capital retention directly and the explanatory factors proxy CMU transmission channels. The unit of observation is the EU-27 aggregate at quarterly frequency in the period from 2015 – which captures the year of introduction of the CMU – to the most recent vintage available from Eurostat, which is Q1-2025.

All series are sourced exclusively from *Eurostat* to ensure definitional consistency. Quarterly national accounts (chain-linked volume indices with 2015 as reference) are used for growth dynamics, while nominal aggregates at seasonally and calendar-adjusted frequency provide the denominator for ratio construction. Balance-of-payments data supply the flow concept needed to operationalize capital retention. Balance-sheet positions (where used to construct explanatory factors) are stock measures and are taken unadjusted at quarter-end. When normalized, they are divided by an annualized measure of nominal activity (rolling four-quarter sum of GDP) to place stocks on the same scale as flows and to keep the resulting ratios economically interpretable over time. Monthly indicators are converted to quarterly by simple arithmetic averaging before merging. Therefore, all series are aligned on quarter-end dates.

The econometric framework is Ordinary Least Squares (i.e., OLS); its choice has been guided by the fact that the main objective is to test whether the hypothesized channels exhibit statistically significant associations with the dependent variable in the data. Three assumptions are therefore explicit.

First, the model assumes *linear relationships* between the dependent variable and the explanatory factors. Scatterplots and partial-residual checks show that at quarterly frequency these links can reasonably be treated as linear.

Second, the regressors are considered *weakly exogenous*, meaning they are taken as given with respect to the error term. Although some feedback from capital retention back into the regressors is plausible, this assumption is acceptable for the purpose of documenting robust associations at the EU level.

Third, the specification is designed to *avoid multicollinearity*. Even if some drivers are conceptually close, the stepwise selection process ensures that the final set of regressors does not produce near-singularities in the estimation.

The estimation proceeds in two steps. First, the unrestricted model is fitted with all candidate CMU-linked drivers included alongside the dependent variable. Second, the model is estimated and reported, and its residual diagnostics are examined to validate the assumptions stated above. Model fit is summarized with the usual statistics (R-squared, adjusted R-squared, residual standard error, and the F-test for joint significance). Statistical significance is assessed at the 5 per cent level, with 1 and 10 per cent thresholds also noted for context.

The underlying database has been constructed on Microsoft Excel, while implementation happens in R. The following code lines reproduce the baseline estimation, the selection step, and the final output:

```
(1) model <- lm(CR ~ Var1 + Var2 + Var3 + Var4 + Var5, data = CapitalRetention_DB)
(2) model <- step(model_full, direction = "both", trace = TRUE)
(3) summary(model)
```

The coefficients are interpreted as showing how changes in each driver are linked to changes in capital retention, with their signs and size compared to what theory would predict. Since the model identifies associations rather than strict causality, the interpretation focuses on whether the results are economically reasonable and consistent with the policy logic of CMU.

4.3.2 – Variables and Hypothesis of Research Question 2

In this section, the first paragraph will be devoted to the analysis of the variables, while the second will formalize the expectations (i.e., hypotheses) for the results.

4.3.2.1 – Variables of Research Question 2

As described above, the variables included in the regression are designed to capture the main channels through which a fully implemented Capital Markets Union is expected to influence capital retention in the European Union.

The dependent variable is constructed from the financial account of the balance of payments. Specifically, *capital retention* is defined as the negative of residents' net acquisitions of foreign portfolio securities (equity and debt) divided by GDP.

$$CR_{TotalEconomy} = - \frac{Portfolio\ Investments, Assets_{Debt\ and\ Securities}}{GDP_t}$$

Equation 9: Capital Retention (CR) formula

The negative sign ensures that higher values represent higher retention (i.e., fewer portfolio outflows). This measure has two main advantages for the research question at hand. First, it is a direct, flow-based metric of whether European savings are deployed abroad rather than in EU-issued instruments. Second, at the EU-27 aggregate, intra-EU cross-border flows net out by construction, so the measure focuses on extra-EU leakages, which is where CMU's ability to keep savings within the Union should be most visible.

The independent variables are as follows:

$$InvFund_t = \frac{Investment\ Funds'\ Total\ Financial\ Assets_{stocks}}{GDP_t}$$

Equation 10: Relative size of the Investment Fund (InvFund) Sector

The first explanatory variable is the relative size of the investment fund sector, defined as the total financial assets of sector S124 (i.e., Non MMF Investment Funds) divided by GDP. Investment funds are expected to play a central role in CMU by mobilizing retail and institutional savings, pooling channeling them into capital markets. A larger and more developed fund industry provides investors with broader and more efficient vehicles for allocating capital within the EU, thereby reducing the likelihood of outflows and increasing domestic retention.

$$IP_t = \frac{Life\ Reserves_{FinCorp} + Pension\ Entitlements_{FinCorp}}{GDP_t}$$

Equation 11: Degree of mobilization of patient capital, measured as relative size of the Insurance and Pension entitlements for Financial Corporations

The second explanatory variable includes insurance companies and pension funds, natural long-term investors, into the analysis. By channeling long-term liabilities into investments in productive assets, they can provide stable and long-term sources of funding. Their importance is highlighted in CMU strategies, which explicitly call for unlocking institutional pools of capital to strengthen Europe's financial system. Accordingly, it is measured as the sum of insurers' and pension funds' liabilities in life reserves (F.62) and pension entitlements (F.63), divided by GDP.

$$HH_EQ_t = \frac{Equity\ \&\ Fund\ Share\ Assets_{HH}}{Total\ Assets_{HH}}$$

Equation 12: Proxy for households' equity investment culture, measured as the ratio between equity and fund share assets over total assets held

Household equity culture is proxied by the share of households' financial assets held in equity and investment fund shares (F.5) relative to their total financial assets. This ratio captures whether households predominantly opt for bank deposits and low-risk assets or whether they actively participate in capital markets (i.e., through the use of alternative instruments). Stronger and more shared equity culture suggests a higher propensity for savings to be channeled through equity and fund vehicles within the EU (i.e., one of the central ambitions of the CMU agenda).

$$\Delta GDP_t = \frac{RealGDP_t - RealGDP_{t-1}}{RealGDP_{t-1}}$$

Equation 13: Real GDP Growth, quarterly

Growth reflects the state of the economy and affects both the demand for capital and the confidence of investors. Although not a CMU mechanism, it is necessary to account for cycles when interpreting the results.

$$HICP_t = \frac{1}{3} \sum_{m=1}^3 HICP_{m,t}$$

Equation 14: Inflation Rate, quarterly

The inflation environment influences nominal asset values and the behaviour of investors. Moderate inflation can encourage domestic issuance and investment, while very high inflation might undermine stability.

4.3.2.2 – Hypotheses for Research Question 2

Building on the delineated framework and the selected indicators, the following hypotheses are formulated to guide the empirical analysis. The hypothesis explicitly relates the chosen indicators to the Capital Retention proxy. The table below summarizes the hypotheses, the indicators involved, their underlying rationale, and the expected direction of correlation with CR.

Table 8: Summary of hypotheses linking selected indicators to capital retention

#	Hypothesis	Indicators Involved	Rationale	Metric (expected correlation with CR)
1	Stronger development of the investment fund sector increases capital retention.	CR; InvFund	A deeper fund industry mobilizes household and institutional savings into EU-issued assets, reducing outflows abroad.	Negative correlation between CR and InvFund
2	Greater mobilization of insurers and pension funds (i.e., patient capital) raises capital retention.	CR; IP	Long-term investors provide stable financing and absorb savings domestically, in line with CMU objectives.	Negative correlation between CR and IP
3	A stronger household equity culture contributes to higher capital retention.	CR; HH_EQ _t	Households investing in equity and fund shares are more likely to keep savings within EU markets.	Positive correlation between CR and HH_EQ _t
4	Macroeconomic performance positively influences capital retention.	CR; ΔGDP; HICP	Stronger growth and moderate inflation improve domestic issuance and investment absorption capacity.	Negative correlation with ΔGDP and with HICP

4.3.3 – Quantitative Analysis of Research Question 1

The first passage on the analysis involves the construction of the relevant database using data downloaded from Eurostat and aggregated according to the above-mentioned formulas. The structure is as follows in order to ensure compatibility with the software:

Quarter_Year	CR	InvFund	IP	HH_Eq	ΔGDP	HICP
--------------	----	---------	----	-------	------	------

Following the construction of the database, using the codes described in paragraph 4.3.1, the model is imported and analyzed by the software R-Studio. The results are then exported in Latex format and imported on Overleaf in order to generate the following tables. The codes that have been used will be presented in Annex 5.

The first regression – hereinafter referred to as “*Baseline Model*” or “*Model 1*” – analyzed is structured as follows:

Regression 1: “*Baseline Model*” Regression Line

$$CR_t = \beta_0 + \beta_1 InvFund_t + \beta_2 IP_t + \beta_3 HH_Eq_t + \beta_4 \Delta GDP_t + \beta_5 HICP_t + \varepsilon_t$$

The emerging results are provided below:

Table 1: Baseline model

<i>Dependent variable:</i>	
CR	
InvFund	−2.423*** (0.152)
IP	−4.050 (2.727)
HH_Eq	0.639 (5.144)
ΔGDP	−4.941 (3.538)

HICP	-0.065*** (0.009)
Constant	6.502*** (0.621)
<hr/>	
Observations	41
R ²	0.980
Adjusted R ²	0.977
Residual Std. Error	0.359 (df = 35)
F Statistic	344.904*** (df = 5; 35)
<hr/>	
Note:	*p<0.1; **p<0.05; ***p<0.01

Figure 20: Baseline regression results of CR on key macroeconomic variables

The baseline regression shows a very strong and highly significant effect of the investment fund sector, with *InvFund* entering negatively and at the 1% level. Since the dependent variable CR is defined so that higher values indicate greater capital retention, the negative sign implies that an expansion of the fund sector reduces capital outflows and strengthens the Union's ability to absorb savings domestically, confirming the importance of the fund industry as an effective intermediation channel. Inflation (*HICP*) is also highly significant and negative, indicating that higher price growth is systematically associated with lower retention. This relationship can be interpreted in two complementary ways: on the one hand, inflation directly reduces the real value of returns, discouraging investors from holding domestic assets; on the other hand, higher inflation may also reflect underlying macroeconomic instability, which pushes investors to seek safer or more predictable opportunities abroad. The institutional capital variable (*IP*) and household equity culture (*HH_Eq*) both carry the expected signs but are not statistically significant, suggesting that, while their direction of influence is consistent with theoretical expectations, their impact is not measurable in this specification. Real GDP growth (ΔGDP) is also not significant, pointing to the fact that cyclical output dynamics alone do not explain variations in capital retention at the Union level.

The model as a whole is nevertheless very strong, with an R^2 of 0.980 and an *Adjusted R²* of 0.977, a residual standard error of 0.359, and an F-statistic of 344.9 significant at the 1% level, confirming both its explanatory power and internal consistency.

However, since household equity culture did not appear significant in the baseline model, the following step consisted in refined its measurement to capture more dynamic effects. Specifically, it has been considered the possibility that changes in households' portfolio behaviors may influence capital retention only when expressed as differences over time, rather than as a slowly moving level variable. To test this, the indicator was differenced by one quarter and by two quarters, respectively, and then reintroduced into the regression framework. The corresponding specifications in R are:

```
(4) retention$HH_Eq_diff <- c(NA, diff(retention$HH_Eq, lag = 1))
(5) retention$HH_Eq_diff1 <- c(rep(NA, 2), diff(retention$HH_Eq, lag = 2))
```

Therefore, the second regression – hereinafter referred to as “*HH_Lag1 Model*” or “*Model 2*” – analyzed is structured as follows:

Regression 2: HH_Lag1 Model” Regression Line

$$CR_t = \beta_0 + \beta_1 InvFund_t + \beta_2 IP_t + \beta_3 HH_Eq_diff_t + \beta_4 \Delta GDP_t + \beta_5 HICP_t + \varepsilon_t$$

Corresponding results are provided below:

Table 2: HH.Eq Differenced by 1Q

<i>Dependent variable:</i>	
CR	
InvFund	-2.437*** (0.135)
IP	-5.312** (1.967)
HH_Eq_diff	4.084 (2.902)
ΔGDP	-4.578 (2.961)
HICP	-0.065*** (0.009)
Constant	6.645*** (0.613)
Observations	40
R ²	0.981
Adjusted R ²	0.978
Residual Std. Error	0.349 (df = 34)
F Statistic	352.958*** (df = 5; 34)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Figure 21: Regression with household equity differenced by one quarter

As specified above, the rationale for this action was that flows into equity by households may matter more for capital retention than the stock of accumulated holdings. However, the coefficient on *HH_Eq_diff* is positive but not statistically significant, suggesting that short-run fluctuations in household equity allocation do not systematically influence retention at the EU-27 level. The rest of the model remains stable: *InvFund* is again highly significant and negative, *HICP* remains significant and negative, and *IP* gains significance at the 5% level. ΔGDP continue to be non-significant.

One potential explanation for the increased significance of *IP* is that once the noise introduced by household-level fluctuations is reduced, the role of institutional investors as providers of long-term, stable financing becomes more visible in the aggregate data. Insurers and pension funds have been shown to act countercyclically and provide a steady demand for securities even during periods of market stress (Timmer, 2016), which aligns with the CMU’s emphasis on mobilizing patient capital. Moreover, academic work highlights that institutional depth tends to be a stronger predictor of financial stability and capital absorption than household behavior, particularly in bank-based financial systems like the EU’s. These findings suggest that as households’ impact proves weak in the short run, the structural importance of institutional investors becomes more pronounced. Finally, Table 2

reports an R^2 of 0.981 and an *Adjusted R²* of 0.978, indicating that the model explains nearly 98% of the variation in capital retention. This is a very high level of explanatory power, and the small gap between R^2 and *Adjusted R²* confirms that the inclusion of the differenced household equity culture variable does not overfit the model but leaves its overall fit essentially unchanged compared to the baseline.

Finally, the last model – hereinafter referred to as “*HH_Lag2 Model*” or “*Model 3*” – analyzed is structured as follows:

Regression 3: HH_Lag2 Model” Regression Line

$$CR_t = \beta_0 + \beta_1 InvFund_t + \beta_2 IP_t + \beta_3 HH_Eq_diff1_t + \beta_4 \Delta GDP_t + \beta_5 HICP_t + \varepsilon_t$$

Associated results are provided below:

Table 3: HH.Eq Differenced by 2Q

	<i>Dependent variable:</i>
	CR
InvFund	-2.363*** (0.138)
IP	-3.482** (1.701)
HH.Eq.diff1	-6.443* (3.687)
ΔGDP	-2.054 (3.344)
HICP	-0.068*** (0.009)
Constant	6.670*** (0.605)
Observations	40
R^2	0.982
Adjusted R^2	0.979
Residual Std. Error	0.344 (df = 34)
F Statistic	363.696*** (df = 5; 34)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Figure 22: Regression with household equity differenced by two quarters

In this third and final regression, household equity culture is lagged further, using the difference over two quarters, in the attempt to test whether households’ portfolio behaviors might affect capital retention with further delay. In this case, *HH_Eq_diff1* remains negative and marginally significant at the 10% level (which was not in the previous two models), implying that larger increases in household equity holdings two quarters earlier are weakly associated with lower current retention. This counterintuitive result suggests that household participation may operate differently than expected, potentially because increases in equity culture also coincide with greater diversification into foreign assets. *InvFund* and *HICP* remain strong and significant, *IP* stays significant at the 5% level, while ΔGDP again remains insignificant. Compared with the baseline and the one-quarter

difference specification, the two-quarter lag produces a shift in the household equity culture variable from being statistically irrelevant to becoming – though weakly – significant, although with a sign opposite to theoretical expectations. At the same time, the importance of institutional capital (IP) becomes more stable, while the fund sector and inflation continue to be the main variables in terms of explanatory power.

Turning to the model diagnostics, Table 3 shows an R^2 of 0.982 and an *Adjusted R²* of 0.979, with a residual standard error of 0.344. These values are slightly stronger than in the baseline and the one-quarter difference model, confirming that the specification with the two-quarter lag achieves the best overall fit. The very high explanatory power, coupled with the stability of key variables across specifications, supports the robustness of the results even though the effect of household equity culture remains ambiguous.

4.3.4 – Conclusions on Research Question 2

The regression results with both the lagged and differenced specifications of household equity culture provide useful insights. Across all models, the investment fund sector and inflation appear as the most robust determinants of capital retention. Institutional investors (i.e., *IP*) become significant only when household equity culture is “manipulated”, underlining their importance in mobilizing long-term savings. The different treatments of *HH_Eq* show that while its level can be deemed as “theoretically-central”, it does not exert a stable or significant effect in the data, and its influence may be either delayed or confounded by households’ foreign diversification. Indeed, the two-quarters-delayed version of household equity culture becomes marginally significant at the 10% threshold, suggesting that changes in household portfolio behavior may influence capital retention with some delay. Adopting a broad perspective, the evidence suggests that household participation is a slow-moving structural factor, whose influence may only become visible over longer horizons, consistent with the broader CMU narrative.

The hypotheses tested yield mixed but informative results. The expectation that a stronger investment fund sector would improve capital retention is clearly, consistently and strongly supported, as this channel remains robust and significant in all specifications. The mobilization of insurers and pension funds, while not uniformly significant, gains explanatory power once household dynamics are adjusted for, confirming their role as patient capital providers. The hypothesis concerning household equity culture is only partially validated, as the indicator fails to show consistent effects and becomes significant only under specific lag structures, suggesting that its impact is weaker and more indirect than expected. Finally, macroeconomic controls behave in line with the results of prior literature: inflation consistently influences retention, while GDP growth does not emerge as a decisive factor.

Therefore, based on the empirical evidence, the answer to the second research question is *cautiously affirmative*. A fully implemented CMU can indeed enhance the efficient retention of capital across the EU, but the results demonstrate that this occurs primarily through institutional and structural channels rather than household-level dynamics. The consistently strong and highly significant role of the investment fund sector highlights that deepening market-based intermediation is the most effective way to ensure that European savings are absorbed. Similarly, the recurrent significance of inflation indicates that macroeconomic stability is a necessary condition for better retention to materialize. Institutional capital gains importance once household behavior is adjusted for, underscoring that long-term investors are a central pillar in the system. By contrast, household equity culture emerges as weaker and unstable, with its effects only partially visible when lagged and even then, operating counter to theoretical expectations.

Thus – as expected – the findings suggest that the *CMU's success in improving capital retention will depend less on short-run changes in household portfolios and more on the sustained development of deep, liquid, and stable institutional markets*.

4.4 – RQ.3: The Capital Markets Union in Advancing Equity-Oriented Financing

The results of the analysis indicate that a fully implemented Capital Markets Union can create the conditions for a gradual rebalancing of SME financing away from its traditional reliance on bank credit and towards greater use of equity instruments. However, it must be specified that this conclusion rests less on immediate behavioral changes by households and more on the structural strengthening of institutional and market channels, which consistently emerged as the most significant drivers of both allocative efficiency (in Research Question 1) and Capital Retention (in Research Question 2).

European SMEs have historically depended on banks for external finance, a feature rooted in relationship lending and reinforced by fragmented national capital markets. While this model offers stability, it exposes smaller firms to cyclical credit rationing and limits their ability to scale through high-risk but potentially high-rewards (in terms of returns and productivity) projects. Academic studies confirm that equity-based finance supports innovation and growth more effectively than debt for SMEs (Beck, Demirgüç-Kunt, & Maksimovic, 2008). However, persistent – including thin market liquidity, high issuance costs, and cultural preferences for debt – have slowed the emergence of equity as a viable alternative (De Sury D'Aspremont & Spitzer, 2024).

The evidence from Research Questions 1 and 2 suggests that the CMU can address these obstacles by reinforcing institutional investors and fund-based intermediation. The investment fund sector proved to be the main determinant of capital retention, thus reflecting its potential to channel household and institutional savings into productive assets. Similarly, insurers and pension funds

gained significance once household effects were adjusted for, underscoring their capacity to provide stable, long-term capital – precisely the type of financing SMEs require to reduce dependence on bank lending. These findings align with broader literature that identifies institutional depth as a crucial condition for the development of SME equity markets (Beck, Demirgüç-Kunt, & Maksimovic, 2008). By contrast, the limited and unstable influence of household equity culture suggests that retail investors on their own are unlikely to be the main drivers of the transition. Household participation may increase over time as financial literacy and investor protection improve, but in the short- to medium-term, institutional pools of capital will remain the backbone of any potential equity change. This underscores the importance of CMU measures such as adjusting Solvency II to encourage equity investment, expanding pan-European fund distribution channels, and supporting SME Growth Markets with mechanisms that enhance liquidity.

The empirical results also show that macroeconomic stability, particularly low and predictable inflation, is a precondition for retention and allocation into domestic markets. This implies that the CMU's ability to foster SME equity finance will be reinforced by, but cannot substitute for, a stable macroeconomic environment.

Taken together, the findings suggest that a *fully-realized CMU can indeed facilitate a transition to more equity-oriented SME financing, but the path will have two main characteristics.*

First, it will be gradual. Second, it will be largely mediated by institutions rather than households.

Success depends on deepening fund markets, mobilizing patient capital from insurers and pensions, and reducing fragmentation that currently prevents SMEs in many Member States from accessing equity on competitive terms. In this sense, the CMU is not a guarantee of change but a necessary framework: it creates the structural conditions under which SMEs can complement bank lending with equity finance, thereby diversifying funding sources and improving resilience.

Conclusions

The analysis conducted throughout this thesis has sought to determine whether the Capital Markets Union, within its current framework and objectives, has the potential to strengthen Europe's financial markets by enhancing allocative efficiency, incentivizing capital retention, and expanding market-based financing possibilities for SMEs. The evidence gathered offers a cautiously affirmative answer: the CMU is indeed capable of making progress singularly and collectively on each of these dimensions, but only if its implementation is accompanied by deeper institutional reforms, greater macroeconomic stability, and a sustained political commitment to integration that goes beyond incremental adjustments.

On allocative efficiency, the findings suggest that the CMU can, over time, direct capital more effectively toward productive uses by lowering fragmentation and enabling cross-border risk-sharing. Yet the results also show that progress to date has been partial and uneven. The Capital Markets Union Readiness Index has improved over time, mostly driven by improvements in areas such as market depth and accessibility. However, this has not translated into decreases in the cost of capital across the Union. Efficiency remains constrained by divergences in legal and institutional frameworks, by the persistence of investor home biases, and by the structural underdevelopment of equity markets. Gains in allocative efficiency emerge gradually and are most visible when institutional capital – such as investment funds, insurers, and pension schemes – plays a decisive role in pooling resources and overcoming national barriers. This implies that the CMU has the potential to enhance allocative efficiency, but only if considered a step within a longer-term process of institutional convergence and regulatory harmonization. From a policy perspective, this implies that efforts to standardize insolvency or tax law, reduce transaction costs, and expand financial literacy are not optional factors to add, but rather prerequisites to achieve the efficiency gains promised by the CMU.

The second dimension, capital retention, highlights more clearly the channels through which the CMU is already beginning to have an impact. The econometric analysis demonstrates that the development of a competitive and resilient fund industry is strongly correlated with the ability to keep European savings within the Union. Insurers and pension funds are emphasized as important actors, with their capacity to provide long-term capital to support productive investment. At the same time, macroeconomic instability remains a strong deterrent, pushing capital abroad when conditions deteriorate. Household behavior, on the other hand, remains relatively and consistently marginal: weak financial literacy, low risk appetite, and historical reliance on bank deposits rather than alternative financial instruments limit the ability of individual investors to influence retention outcomes. The conclusion is therefore that the CMU can incentivize capital retention, but this depends above all on the deepening of institutional investment channels and on maintaining macroeconomic

credibility. Policy recommendations should thus point to the need for more competitive pan-European fund structures, simplified cross-border distribution rules, and stronger supervisory frameworks to ensure investor confidence. In this context, future academic research may continue to investigate how different institutional investor categories can be mobilized and effectively employed to act as anchors of capital within Europe.

The third research dimension narrowed the focus on SMEs, which remain heavily dependent on bank lending and therefore vulnerable to credit rationing and cyclical shocks. The evidence suggests that a fully realized CMU can provide a gradual pathway toward more equity-oriented financing for SMEs, but again the shift will not be driven primarily by households. Retail participation in equity remains too limited and fragmented to supply sufficient capital at scale. Instead, institutional pools of capital – from venture funds, private equity or pension vehicles – should act as the primary drivers of equity financing. Policies at the national and European level might target the reduction of issuance costs, the enhancement of liquidity in SMEs’ markets, and the promotion of instruments tailored to smaller firms.

Overall, these findings allow for a broader conclusion on the central research question. The CMU, in its current form, has demonstrated ready to act in three ways: (1) enhance allocative efficiency, (2) incentivize capital retention, and (3) expand equity financing for SMEs. However, so far, it can only do this partially and only over the medium- to long-term. Its achievements are, however, consistently limited by persistent fragmentation, national divergences, and the political reluctance to cede sovereignty in areas such as taxation, insolvency, and supervision. Yet even within these boundaries, progress has been slow, but evident: institutional investors are playing a growing role in absorbing domestic savings, capital markets are slowly deepening, and new frameworks for retail participation are being introduced. The answer to the overarching question is therefore that the CMU can strengthen Europe’s financial markets, but its effectiveness depends critically on the Union’s willingness to pursue deeper integration and to embed the project within a broader, pan-European economic governance framework. Without such commitment, the CMU risks remaining a potentially useful yet incomplete tool, unable to resolve the systemic imbalances that continue to undermine Europe’s financial autonomy.

Looking forward, an important consideration emerges that goes beyond the three specific sub-questions. To what degree does the Capital Markets Union foster the effective allocation of both private and public capital in support of shifting EU policy priorities such as the green and digital transitions, demographic resilience, and defense? The current analysis has focused on aggregate indicators of efficiency, retention, and financing structures, but it has not investigated the sectoral

dimension of allocation and the sectoral consequences of improved retention. The Union's ability to meet its climate commitments, to achieve digital sovereignty, and to respond to new security threats will, arguably, largely depend on whether its financial markets can channel sufficient capital into these transformative sectors. This requires additional research that moves beyond aggregate efficiency to examine whether investment funds, insurers, and pension pools are capable of directing capital flows into renewable energy, digital infrastructure, and defense innovation. Such research share the potential to provide policymakers with guidance on how to align the CMU more explicitly with the Union's strategic agenda.

In sum, the CMU should be conceived not as a narrow regulatory initiative but as a cornerstone of Europe's future economic resilience. For policymakers, the imperative is to complete its institutional foundations: harmonize legal frameworks, deepen supervisory convergence, promote financial literacy, and strengthen institutional investor channels. For academics, the CMU offers fertile ground to study how finance and governance interact in shaping member states' and Europe's trajectory of integration, resilience, and strategic autonomy. Only by pursuing these parallel tracks of policy reform and academic inquiry can the CMU fulfill its promise of creating a more efficient, inclusive, and strategically oriented European financial system. Stated differently, a system that is capable of financing not just growth, but also the Union's most pressing societal and geopolitical objectives.

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Annexes

a. Annex 1

Borrowing activity in euro area secured and unsecured markets

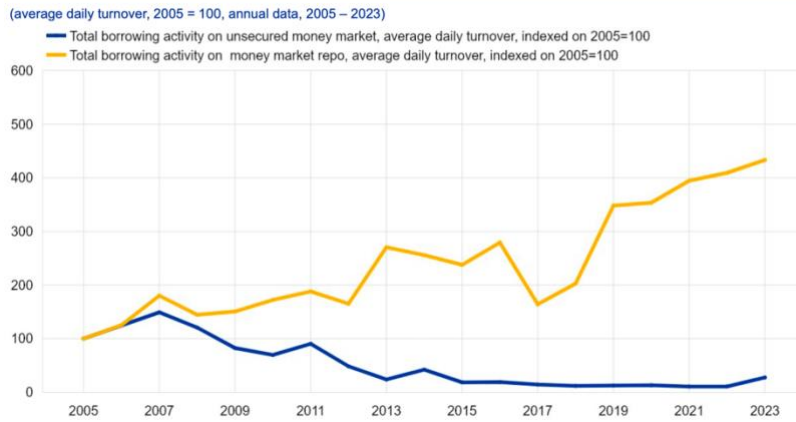


Figure 23: Borrowing activity in euro area secured and unsecured markets
Source: ECB Report on "Financial integration and Structure in the Euro Area" (2025)

Geographical counterparty breakdown for secured and unsecured borrowing transactions

(percentages of total transactions, annual data, 2003 – 2023)

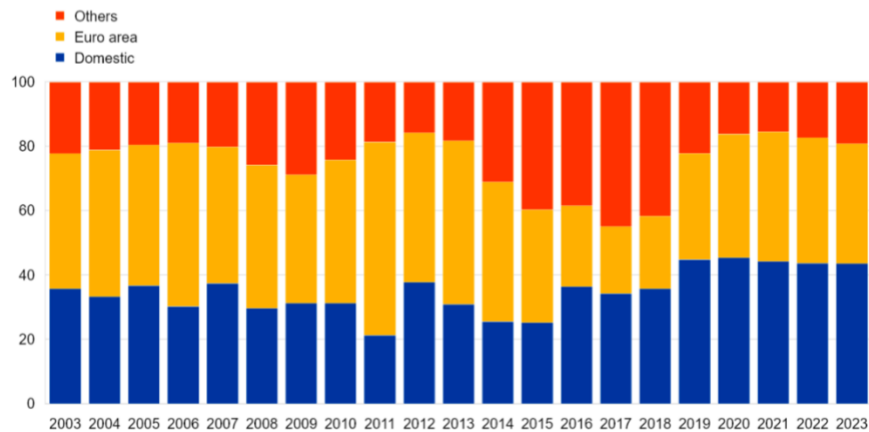


Figure 24: Geographical counterparty breakdown for secured and unsecured borrowing
Source: Source: ECB Report on "Financial integration and Structure in the Euro Area" (2025)

Dispersion of euro area ten-year sovereign bond yields

(percentages, monthly data, January 1990 – November 2024)



Figure 25: Dispersion of euro area ten-year sovereign bond yields
Source: ECB Report on "Financial integration and Structure in the Euro Area" (2025)

Share of MFI holdings of debt securities issued by euro area and EU corporates and sovereigns

(percentages of total holdings, excluding the Eurosystem, quarterly data, Q3 1997 – Q2 2024)

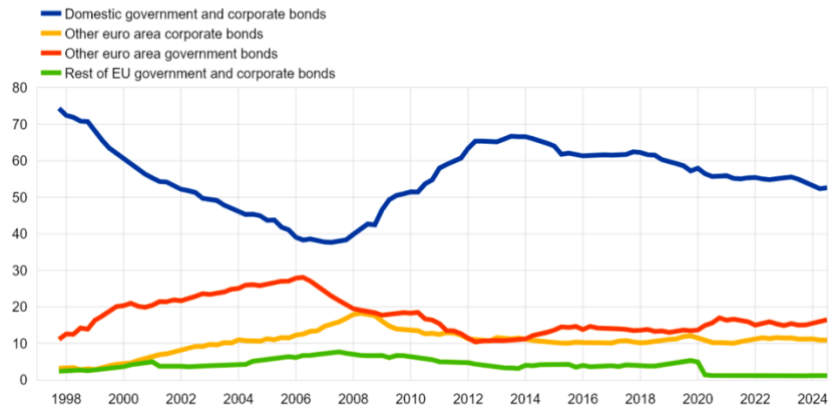


Figure 26: Share of MFI holdings of debt securities issued by euro area and EU corporates and sovereigns
Source: ECB Report on "Financial integration and Structure in the Euro Area" (2025)

Equity market segmentation

(monthly data, January 1995 – November 2024)

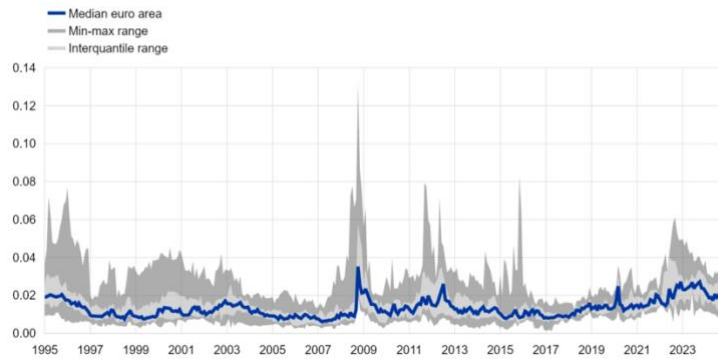


Figure 27: Equity market segmentation
Source: ECB Report on "Financial integration and Structure in the Euro Area" (2025)

b. Annex 2

Financing of the euro area economy

(ratio to nominal GDP (left-panels), percentages (right-panels); top row = annual data: 1999 - 2023, bottom row = quarterly data: Q3 2019 – Q2 2024)

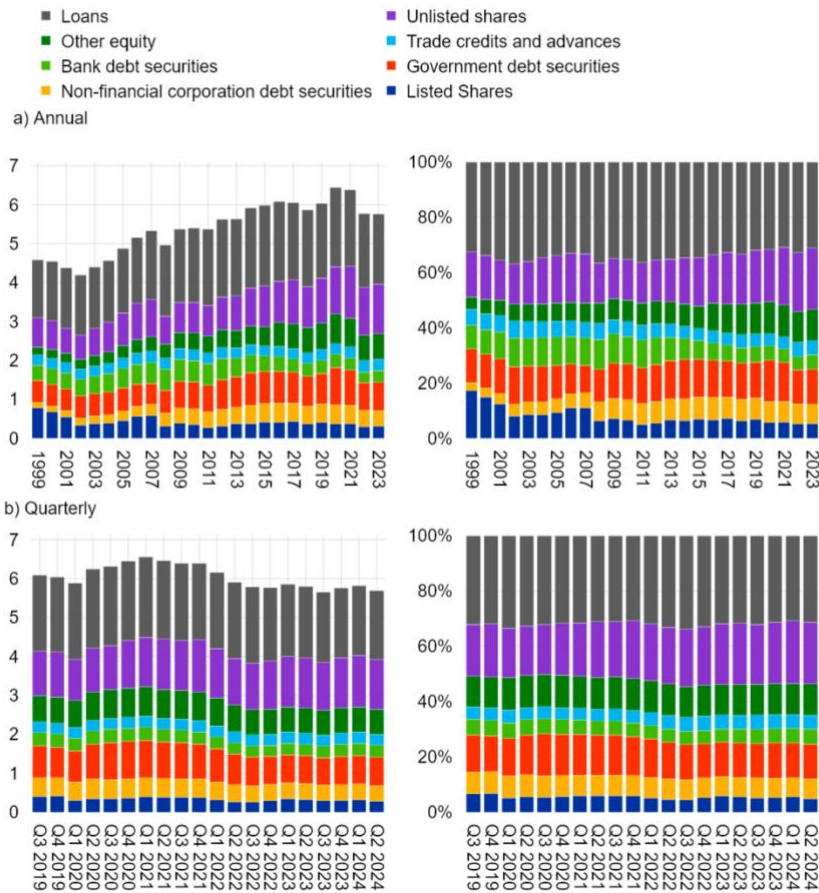


Figure 28: Financing of the euro area economy

Source: ECB Report on "Financial integration and Structure in the Euro Area" (2025)

c. Annex 3 – Final Columns of the “CMU Policy Matrix – Pre”

Title of the initiative	Functional description of the outcome	CMU Action Plan Reference	Revision History
Simple, Transparent & Standardized (STS) Securitisation Framework	<p>(1) Regulation (EU) 2017/2402 created a single EU rulebook for securitization, harmonising due-diligence, risk-retention, and transparency requirements across all Member States, and introduced the “Simple, Transparent and Standardized (STS)” label to support safer and more liquid markets.</p> <p>(2) Regulation (EU) 2017/2401 amended the CRR to provide preferential capital treatment for STS securitizations, lowering capital charges and aligning prudential rules with the new framework.</p> <p>(3) COM(2025) 825–826 launches the revision of the securitization framework, aiming to streamline STS criteria, improve access for synthetic and green securitizations, and align rules with evolving Basel and CMU priorities.</p>	<p>(1) Action Plan 1.0 - Paragraph 5 (table: Action 5)</p> <p>(2) Mid-term Review 2017 - Paragraph 2.3 (table: Action 6)</p> <p>(3) Action Plan 2.0 - Paragraph 2.1 (Action 6)</p>	<p>(1) 2017: Adoption of Regulation (EU) 2017/2402, creating a “general framework for securitization and creating a specific framework for [STS] securitization”</p> <p>(2) 2019: Entering into force of Regulation (EU) 2017/2402</p> <p>(3) 2020: Pandemic-driven quick fix, extending the STS framework to synthetic and NPLs</p> <p>(4) 2025: Consultation opened to easing reporting requirements and providing further capital relief</p>
Modernization of Prospectus & Listing Rules (i.e., “Prospectus Regulation” and “Listing Act”)	<p>(1) Regulation (EU) 2017/1129 transformed the former Directive into a directly applicable norm and thereby removed State-specific transposition layers, formerly 28.</p> <p>(2) Regulation (EU) 2024/2809 replaces and complements the previous Regulation: it raises the tap issue exemption from 20% to 30%, replaces the simplified secondary prospectus with a 50-page EU Follow-on Prospectus, and reforms the Growth Prospectus into a SME-focused Growth Issuance Prospectus with a €50 million cap.</p>	<p>(1) Action Plan 1.0 - Paragraph 2 (table: Action 2)</p> <p>(2) Mid-term Review 2017 - Paragraph 2.2 (table: Action 2)</p> <p>(3) Action Plan 2.0 - Paragraph 2.1 (Action 2)</p>	<p>(1) 2017: Adoption of Regulation (EU) 2017/1129, on “the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market”</p> <p>(2) 2019: Entering into force of Regulation (EU) 2017/1129</p> <p>(3) 2024: Adoption of Regulation (EU) 2024/2809, on “amending Regulations (EU) 2017/1129, [...] to make public capital markets in the Union more attractive for companies and to facilitate access to capital for small and medium-sized enterprises”</p> <p>(4) 2025-2026: Follow-on Prospectus template and Growth Issuance Prospectus will apply from 3 March 2026 after ESMA finalises technical standards on incorporation by reference and XBRL tagging (to be provided by September 2025)</p>
Establishment of the European Single Access Point (ESAP)	<p>(1) Regulation (EU) 2023/2859 empowers ESMA to oversee the European Single Access Point, an open-data platform whereby national collection bodies receive, validate, and forward public filings, which must be submitted in machine-readable formats with standardized metadata.</p> <p>(2) Directive (EU) 2023/2864 and Regulation (EU) 2023/2869 update 16 directives and 19 regulations, so that all the major EU disclosure regimes, such as the Prospectus, CSRD, SFDR, MAR, and UCITS, are obliged to send their data into the ESAP system.</p>	<p>(1) Action Plan 2.0 - Paragraph 2.1 (Action 1)</p>	<p>(1) 2023.1: Adoption of Regulation (EU) 2023/2859, on “establishing a European single access point providing centralised access to publicly available information of relevance to financial services, capital markets and sustainability”</p> <p>(2) 2023.2: Adoption of Directive (EU) 2023/2864, on “amending certain Directives as regards the establishment and functioning of the European single access point”</p> <p>(3) 2023.3: Adoption of Regulation (EU) 2023/2869, on “amending certain Regulations as regards the establishment and functioning of the European single access point”</p> <p>(4) 2024.1: Entering into force of Regulation (EU) 2023/2859</p> <p>(5) 2024.2: ESAs (ESMA, EBA and EIOPA) transmitted to the Commission the “Final Report on the Implementing Technical Standards for ESAP”</p> <p>(6) 2026-2030: Phased application, progressively incorporating all the major disclosure regimes</p>
Pan-European Personal Pension Product (PEPP)	<p>(1) Regulation (EU) 2019/1238 creates a fully harmonised EU framework for the Pan-European Personal Pension Product (PEPP), replacing national patchworks with a single cross-border regime. Accordingly, it sets a single EU passport, default “Basic PEPP” with cost cap, portability service, key information document. EIOPA is entrusted to maintain the public register and withdraw passports in case of breaches.</p> <p>(2) Delegated Regulation (EU) 2021/473 sets out the risk-mitigation techniques required for a Basic PEPP, allowing life-cycle investment strategies or capital-protection guarantees.</p>	<p>(1) Action Plan 1.0 - Paragraph 4 (table: Action 4)</p> <p>(2) Mid-term Review 2017 - Paragraph 2.1 (table: Action 5)</p> <p>(3) Action Plan 2.0 - Paragraph 2 (Action 9)</p>	<p>(1) 2019: Adoption of Regulation (EU) 2019/1238, “[o]n a pan-European Personal Pension Product (PEPP)”</p> <p>(2) 2021: Adoption of Delegated Regulation (EU) 2021/473 on “regulatory technical standards” for risk-mitigation and cost caps</p> <p>(3) 2022: Entering into force of Regulation (EU) 2019/1238; EIOPA registration portal opens</p> <p>(4) 2026: Tax incentive mapping study (due)</p> <p>(5) 2028: Report on PEPP adoption (due)</p>
Pan-European Covered Bonds Framework	<p>(1) Directive (EU) 2019/2162 establishes the harmonised “European covered bond” label, ensuring passportability and automatic eligibility under UCITS (Undertakings for Collective Investment in Transferable Securities), LCR Level 1 (Liquidity Coverage Ratio – highest quality liquid assets), and CRR (Capital Requirements Regulation) rules, while enforcing structural safeguards like dual recourse and minimum over-collateralisation across all Member States.</p> <p>(2) Regulation (EU) 2019/2160 amends the CRR (Capital Requirements Regulation) to align prudential treatment with the new framework introduced by Directive 2019/2162; it also boosts transparency through harmonised disclosure templates, improves investor confidence, and facilitates the growth of green and social covered bonds under a unified regime.</p>	<p>(1) Action Plan 1.0 - Paragraph 5 (table: Action 5)</p> <p>(2) Mid-term Review 2017 - Paragraph 2.3 (table: Action 6)</p> <p>(3) Action Plan 2.0 - Paragraph 2 (Action 6 - Reference only)</p>	<p>(1) 2015: Launch of Commission consultation on covered bonds; 128 responses confirmed broad support for a minimum-harmonisation approach</p> <p>(2) 2019: Adoption of the Covered Bonds Directive (EU) 2019/2162 and accompanying Regulation (EU) 2019/2160</p> <p>(3) 2021: Transposition of Directive (EU) 2019/2162 deadline</p> <p>(3) 2022: Entering into force of Regulation (EU) 2019/2160</p> <p>(4) 2023: European Commission’s “Call for advice to the European Banking Authority on the performance and review of the EU covered bond framework”, whose underlying data has to be provided by member states by July 2024. Final report has to be delivered by June 2025</p> <p>(5) 2025: Performance report on the CBD not yet released to the public</p>
Review and Expansion of the EuVECA (European Venture Capital Fund) and EuSEF (European Social Entrepreneurship Funds) Regulations	<p>(1) Regulation (EU) 2017/1991 modernizes the former EuVECA and EuSEF regimes. It lifts the previous €500 million AuM (assets under management) cap, so fully authorised AIFMs (alternative investment fund managers) can dispose of the passports. Moreover, the minimum initial commitment per investor drops to €100,000, with a specific rule that prevents retail clients from committing more than 10% of their portfolio. Eligible assets have been expanded to cover any unlisted company valued below €500 million, thereby including both funds back scale-ups and start-ups. Accordingly, it introduces a two-month approval deadline, caps national supervisory fees, lets labelled funds use the standard AIFMD cross-border passport without extra paperwork, preserves the 70% qualifying-asset test for investor protection. Finally, ESMA is entrusted to running a real-time public register and delivering a lean, scalable pan-EU vehicle for venture-capital and social-impact investment.</p>	<p>(1) Action Plan 1.0 - Paragraph 1.2 & Paragraph 1.4 (table: Action 1)</p> <p>(2) Mid-term Review 2017 - Paragraph 2.1</p>	<p>(1) 2013: Adoption of Regulation (EU) 345/2013 and Regulation 346/2013, creating the original EuVECA and EuSEF cross-border fund labels.</p> <p>(2) 2017: Adoption of Regulation (EU) 2017/1991, better known as the “2017 upgrade”, on the modernization of former EuVECA and EuSEF Regulation</p> <p>(3) 2018: Entering into force of Regulation (EU) 2017/1991</p> <p>(4) 2018.2: ESMA launches its real-time EuVECA/EuSEF public register.</p>
Pan-European “Venture Capital Funds-of-Funds” Programme (Venture EU)	<p>(1) VentureEU initiative aims to increase the volume and scale of venture capital available across Europe. With a public commitment of €410 million, the programme aims to unlock a total of €2.1 billion in combined public and private investment, ultimately mobilising around €6.5 billion for innovative start-ups and scale-ups. The EU anchors up to 25% of each fund-of-funds, de-risking the structure and crowding in private limited partners. In return, each fund-of-funds is required to invest at least twice the EU ticket in underlying venture capital funds, with 70% of total capital committed to EU-based companies. The programme is implemented through six independently managed fund-of-funds, selected and overseen by the European Commission and the European Investment Fund. Funding is drawn from key EU programmes such as Horizon 2020, COSME, and EFSI. VentureEU ultimately supports research, innovation, and high-growth entrepreneurship across the Union.</p>	<p>(1) Action Plan 1.0 - Paragraph 1.2 (table: Action 1)</p> <p>(2) Mid-term Review 2017 - Paragraph 2.1 & Paragraph 5 (Action 2 - mentioned as “follow-up action”)</p>	<p>(1) 2016: Beginning of the “Design phase”, with an EIF call for expressions of interest to set up VentureEU</p> <p>(2) 2018: VentureEU is officially launched and initial agreements worth €410 million are signed; six fund managers selected to raise additional private capital</p> <p>(3) 2024.1: Final closes reached across all vehicles, with cumulative commitments growing to €1.84 billion; new successor funds launched, confirming catalytic effect</p> <p>(4) 2024.2: InvestEU mid-term evaluation highlights strong leverage but recommends streamlining ESG reporting, piloted in the 2025 reporting cycle</p> <p>(5) 2025.1: EIF corporate review scheduled for July 2025 to assess a potential VentureEU top-up (i.e., additional resources)</p> <p>(6) 2025.2: Expected Commission’s decision on a possible second-generation “Scale-Up Window” to be launched in 2027</p>
European Loan-Originating Funds Framework - Part of AIFMD II	<p>(1) The Loan-Originating Funds (LOF) Directive introduces an EU-wide passport for credit funds, granting cross-border marketing rights to managers that comply with harmonised safeguards. The framework is designed to channel long-term private capital into SMEs and infrastructure, with Commission estimates forecasting up to €120 billion in additional non-bank lending by 2030. Key prudential tools - such as a 5% loan retention, borrower concentration caps, and a 175% leverage ceiling - aim to align incentives and limit systemic risk. For supervisors, the directive delivers the first EU-level dataset on loan exposures outside the banking sector, feeding directly into ESRB macro-prudential monitoring. While compliance costs may rise initially, industry anticipates long-term savings as legal certainty improves and cross-border operations standardise. The LOF regime ultimately broadens access to finance, strengthens financial stability, and brings private credit into the EU’s regulatory fold.</p>	<p>(1) Action Plan 1.0 - Paragraph 1.4 (table: Action 1)</p> <p>(2) Mid-term Review 2017 - Paragraph 4.6 (Action 7)</p>	<p>(1) 2016: Beginning of the “Design phase”, with an ESMA call for expressions of interest to set up VentureEU</p> <p>(2) 2024.1: Adoption of Directive (EU) 2024/927, formally entered into force in April 2024</p> <p>(4) 2024.2: ESMA opens consultations on Regulatory Technical Standards covering loan-tap templates, liquidity tools, leverage metrics and credit-risk policies. Final RTS to be delivered to the Commission by Q4 2025</p>
Undertakings for Collective Investment in Transferable Securities (UCITS) - Part of AIFMD II	<p>(1) Directive 2024/927 modernizes UCITS by mandating a core set of liquidity-management tools (swing pricing, anti-dilution levies, redemption gates and side pockets), strengthening delegation oversight through uniform “substance” tests and immediate notifications for extra-EU outsourcing, standardising supervisory reporting with harmonised ESMA templates, and introducing a cross-border depository passport - together establishing a fully harmonised risk-management and operational framework for EU retail funds.</p>	<p>(1) Action Plan 1.0 - Paragraph 1.4 (table: Action 1)</p> <p>(2) Mid-term Review 2017 - Paragraph 4.6 (Action 7)</p>	<p>(1) 2020: Commission opens targeted consultation on aligning UCITS with AIFMD, focusing on delegation and liquidity-risk tools</p> <p>(2) 2024.1: Adoption of Directive (EU) 2024/927 adopted, formally entered into force in April 2024</p> <p>(3) 2024.2: ESMA opens consultation on drafts of Regulatory Technical Standards covering liquidity-management tools, leverage metrics, loan-tap templates and credit-risk policies. Final RTS to be submitted to the Commission by Q4 2025.</p>
Cross-Border Distribution of Funds (CBDF) Package	<p>(1) Directive (EU) 2019/1160 modernises the UCITS and AIFMD passports by introducing an EU-wide pre-marketing concept with a two-week home-supervisor notice, enforcing 10- and 20-day host-notification clocks for UCITS and AIFs, abolishing local-ajudicatory mandates and exit fees, requiring electronic filings and streamlined de-notification, and clarifying reverse-solicitation safeguards. Together, these measures contribute to stripping gold-plating (i.e., “eliminating national add-ons”), enhancing investor protection and delivering a genuinely friction-free route for cross-border fund sales.</p> <p>(2) Regulation (EU) 2019/1156 completes the package by imposing uniform, plain-language marketing-communication standards with PRIIPs risk-and-cost metrics, obliging ESMA to host a free central database of national rules, fund passports and complaints, standardising hedged-share-class and liquidity-tool warnings, and embedding harmonised supervisory-reporting templates that will flow into ESAP.</p>	<p>(1) Action Plan 1.0 - Paragraph 4.1 and Paragraph 4.2 (table: Action 4)</p> <p>(2) Mid-term Review 2017: Paragraph 4.6 (table: Action 7)</p>	<p>(1) 2018: Commission tables the original proposal for CBDF with COM(2018)-92 and COM(2018)-110</p> <p>(2) 2019: Adoption of Directive (EU) 2019/1160 and Regulation (EU) 2019/1156</p> <p>(3) 2021.1: End of the transposition phase and complete applicability of both Directive 2019/1160 and Regulation 2019/1156</p> <p>(4) 2021.2: ESMA published comprehensive Guidelines on marketing communications, spelling out how risk, cost and performance claims must be presented</p> <p>(5) 2022: ESMA’s Guidelines enter into force in February</p> <p>(6) 2023: Release ESMA’s first CBDF monitoring report, mapping the number of passports, typical approval times and common breaches</p> <p>(7) 2025: In August, publication of the report on the application of Directive 2019/1160</p>

Title of the initiative	Functional description of the outcome	CMU Action Plan Reference	Revision History
MiFIR Review - EU Post-Trade Consolidated Data	<p>(1) Directive (EU) 2024/290 amends MiFID II (Directive 2014/65/EU) to strengthen investor protection and align conduct rules with the consolidated tape regime. It bans payment for order flow (PFOF), narrows best-execution obligations to benchmarking against consolidated tape, and clarifies that systematic internalisers cannot be used for retail equity execution. Firms must disclose execution sources and data use in reports. ESMA is tasked with issuing guidelines on best-execution monitoring and enforcing PFOF compliance.</p> <p>(2) Regulation (EU) 2024/791 amends MiFIR (Regulation 600/2014) to establish a binding framework for EU consolidated tapes in equities, bonds, and derivatives. All trading venues and systematic internalisers must transmit post-trade data in ISO 20022 format with synchronised microsecond timestamps to a licensed, exclusive consolidated tape provider (CTP). The CTP must publish composite data on a fair, open basis with capped user fees (€15,000 annually for professionals; free delayed access for retail users). At least 20% of gross tape revenues must go to data contributors. ESMA oversees technical compliance, sets performance standards for CTPs, and publishes quarterly dashboards on data quality and reliability.</p>	<p>(1) Action Plan 1.0 - Paragraph 1.1, Paragraph 2, Paragraph 4.1 and Paragraph 6 (table: Action 2 - indirect reference)</p> <p>(2) Mid-term Review 2017 - Paragraph 4.2 (table: Action 3)</p> <p>(3) Action Plan 2.0 - Paragraph 2 (Action 14)</p>	<p>(1) 2018: End of the transposition phase and complete applicability of both Directive 2014/65 (MiFID) and Regulation 600/2014 (MiFIR)</p> <p>(2) 2020.1: Commission opened a public consultation to relaunch the project, embedding a compulsory EU post-trade consolidated tape</p> <p>(3) 2020.2: Adoption of Directive (EU) 2020/1504</p> <p>(4) 2024: Formal relaunch of the project: adoption of Directive (EU) 2024/290 and Regulation (EU) 2024/791</p> <p>(5) 2025.1: End of transposition phase - in September - for Directive (EU) 2024/290</p> <p>(6) 2025-2027: ESMA to authorize the winning bonds-tape provider (i.e., Ediply), the winning equity-tape provider and the winning derivatives-tape provider</p> <p>(7) 2028: Statutory review of fee caps, deferral calibrations and overall tape performance scheduled, aligned with the broader CMU stock-take</p>
European Long-Term Investment Funds (ELTIF 2.0)	<p>(1) Regulation (EU) 2023/606 overhauls the ELTIF regime to expand retail participation and investment flexibility. It removes the €10,000 entry threshold and 10% portfolio cap for retail investors, lowers the required allocation to eligible assets from 70% to 55%, and broadens the investable universe to include STS securitisations, EU Green Bonds, master-feeder structures, and funds-of-funds. It also introduces optional liquidity mechanisms - such as redemption windows and secondary-transfer systems - while aligning retail suitability checks with MiFID II, making long-term assets more accessible to individual savers.</p> <p>(2) Delegated Regulation (EU) 2024/2759 complements Regulation 2023/606 by laying out regulatory technical standards on redemption policies, liquidity management tools, transfer request matching, and permitted use of derivatives for hedging. It requires quarterly, PRIIPs-aligned fact sheets disclosing net performance, leverage, liquidity risks, and ESG metrics. For private-credit portfolios, managers must submit loan-level data to ESMA from 2026 to support supervisory oversight and feed into the EU-wide risk dashboard, further enhancing transparency and investor protection in long-term investment products.</p>	<p>(1) Action Plan 1.0 - Paragraph 1.4 (reference only), Paragraph 3.1, Paragraph 3.2 and Paragraph 4.2 (table: Action 3)</p> <p>(2) Action Plan 2.0 - Paragraph 1 (Action 3)</p>	<p>(1) 2015: Adoption of Regulation (EU) 2015/760, known as "ELTIF Regulation"</p> <p>(2) 2020: Since the adoption of Regulation 2015/760, barely 30 ELTIFs totalling about €2.4 billions of Assets under Management in just four Member States, with minimal cross-border marketing, rigid retail thresholds, tight illiquid-asset rule and no liquidity windows</p> <p>(3) 2023: Adoption of Regulation (EU) 2023/606</p> <p>(4) 2024: Adoption of Delegated Regulation (EU) 2024/2759</p> <p>(5) 2025.1: ESMA publishes a guidance package that fixes the practical rules for the new liquidity-window "matching" mechanism and for fund-of-funds look-through tests - rules to be enforceable from February after a one-month adaptation period</p> <p>(6) 2025.2: From June, the Commission begins its first review of the ELTIF 2.0 regime, analyzing about 117 registered funds until it has either a full year of data or €25 billion in assets, then feeding the findings into the 2026 CMU report</p>
European Crowdfunding Service Providers (ECSP) Framework	<p>(1) Regulation (EU) 2020/1503 establishes a harmonized EU framework for EU Crowdfunding Service Providers, replacing fragmented national regimes with a single license and conduct rulebook. It enables cross-border offers up to €5 million per project, requires a Key Investment Information Sheet, and sets investor safeguards such as cooling-off periods, knowledge checks, and investment caps. The regime lowers licensing costs, increases deal sizes, and facilitates peer-to-peer secondary transfers.</p> <p>(2) Directive (EU) 2020/1504 amends MiFID II to exempt Crowdfunding Service Providers from its full scope when operating under Regulation 2020/1503. This legal carve-out avoids regulatory overlap and ensures platforms aren't classified as multilateral trading facilities, provided secondary trading is limited to bulletin-board-style interactions. It maintains investor protection while enabling cross-border expansion without broader licensing burdens.</p> <p>(3) Delegated Regulation (EU) 2024/358 supplements Reg. 2020/1503 by setting technical standards for credit scoring, offer pricing, and internal risk management. It improves transparency by standardizing borrower evaluation, pricing, and default tracking - enhancing investor trust, ESMA supervision, and integration into the European Single Access Point system.</p>	<p>(1) Action Plan 1.0 - Paragraph 1.1 (Action 1)</p> <p>(2) Mid-term Review 2017 - Paragraph 4.3 (reference only)</p>	<p>(1) 2018: Commission tables the original proposal for ECSP with COM(2018)-113</p> <p>(2) 2020: Adoption of Reg. (EU) 2020/1503 and Dir. (EU) 2020/1504</p> <p>(3) 2021: Entering into force of Regulation (EU) 2020/1503 and ESMA delivers the first batch of six regulatory and four implementing technical standards to guide implementation</p> <p>(4) 2022: Second RTS package adopted in July - including templates for the Key Investment Information Sheet, business-continuity requirements and reporting standards</p> <p>(5) 2023: In November, end of the transition period: all platforms operating under national rules must obtain an ECSP license for cross-border activity</p> <p>(6) 2024: Adoption of Del. Reg. (EU) 2024/358 refining disclosure and risk-management rules on credit scoring and offer pricing</p> <p>(8) 2025.1: In January, publication of ESMA's first Crowdfunding Market Report, recording €1 billion raised and 121 authorized platforms</p> <p>(9) 2025.2: From July, platforms may adopt the revised KIIS format on a voluntary basis; it becomes mandatory in January 2026</p>
European Green Bond Standard (EUGBS) Regulation	<p>(1) Regulation 2023/2631 sets the EU Green Bond Standard. It obliges issuers that opt for the label to devote the full 100% of net proceeds to EU-taxonomy-aligned activities, while permitting a narrowly defined 15% "flexibility pocket" for projects whose technical screening criteria are not yet finalized. It mandates a pre-issuance factheet, yearly allocation reports and at least one impact report, all drafted with the Commission's standard templates. Issuers must secure an external reviewer; reviewers are required to register and operate under direct ESMA supervision pursuant to detailed RTS and ITS. National competent authorities may levy fines and order corrective disclosures for misuse, while ESMA is empowered to suspend or withdraw a reviewer's registration. Any sovereign, agency, corporate or securitisation vehicle may adopt the label, as long as it chooses not to label any asset that may still use the disclosure templates to harmonize their reporting without claiming EUGB status.</p> <p>(**) The Green-Bond regime is intentionally self-contained: the label, disclosures, reviewer regime and sanctions sit in Regulation (EU) 2023/2631, which is directly applicable. All other instruments (RTS, ITS, ESMA guidelines) are secondary measures mandated by that Regulation rather than separate "parent" acts</p>	<p>(1) Action Plan 1.0 - Paragraph 3.3 (Reference only)</p> <p>(2) Mid-term Review 2017 - Paragraph 4.5 (Action 4)</p> <p>(3) Action Plan 2.0 - *</p> <p>* Several references to the Green Transition, but no direct reference to the EUGBS</p>	<p>(1) 2016: European Commission to set up an High-Level Expert Group on Sustainable Finance</p> <p>(2) 2018.1: Final Report by the High-Level Expert Group on Sustainable Finance, urging the Union to "introduce an official EU Green Bond Standard"</p> <p>(3) 2018.2: Through COM(2018)-97, the Commission publishes an official "Action Plan [for] Financing Sustainable Growth"</p> <p>(4) 2021: Through COM(2021)-391, the Commission formally proposes a Regulation on "European Green Bonds"</p> <p>(5) 2023: Adoption of Regulation (EU) 2023/2631, "on European Green Bonds and optional [sustainability] disclosures"</p> <p>(6) 2024: Entering into force of Regulation 2023/2631</p> <p>(7) 2026: In June, ESMA acquires powers of full inspection, sanction and withdrawal powers, signaling the end of the 18-month transition period; only external reviewers that ESMA has formally registered or recognised may certify European Green Bonds</p>
DLT (Distributed Ledger Technology) Pilot Regime for Market Infrastructures	<p>(1) Regulation 2022/858 on the DLT Pilot Regime empowers national competent authorities to license three new types of market infrastructure: DLT Multilateral Trading Facilities, DLT Settlement Systems and integrated DLT Trading & Settlement Systems. Each of these enjoy an EU passport to operate across borders. Operators can request narrowly tailored exemptions from MiFID II/MiFIR, the CSDR and the Settlement Finality Directive wherever traditional rules such as physical certification or central-bank-money settlement clash with distributed-ledger mechanisms. To contain systemic risk, the Regulation caps the aggregate value of tokenised instruments admitted per operator at €6 billion for stand-alone trading or settlement platforms and €9 billion for fully integrated venues, and requires detailed business plans, risk assessments and "transition strategies" back to conventional systems. ESMA coordinates supervision by issuing convergence guidelines and Q&As, maintaining a public register of authorised DLT infrastructures, and compiling annual monitoring reports ahead of a full review in 2026. A built-in sunset clause obliges the Commission, within five years of application, by March 2028, to propose making the regime permanent, extending it, or letting it lapse.</p>	<p>(1) Action Plan 1.0 - Paragraph 4.3 (Reference only)</p> <p>(2) Mid-term Review 2017 - Paragraph 4.3 (table: Action 2)</p>	<p>(1) 2020: Through COM(2020)-596, the Commission proposed the draft Regulation, unveiling the Digital-Finance Package</p> <p>(2) 2022: Adoption of Regulation (EU) 2022/858</p> <p>(3) 2023.1: Entering into force of Regulation (EU) 2022/858</p> <p>(4) 2023.2: In July, ESMA publishes first Q&A and authorisation templates on DLT Framework</p> <p>(5) 2025: ESMA issues interim report on market uptake and recommends technical tweaks</p>
Faster & Safer Tax Relief of Excess Withholding Taxes (FASTER Framework)	<p>(1) Council Directive 2025/50 on withholding-tax relief creates two Union-wide channels. The relief-at-source mechanism allows payers to apply the correct treaty rate immediately when the investor holds a valid digital EU Tax-Residence Certificate (eTRC) through a Certified Financial Intermediary. The quick-refund route obliges Member States to return any excess tax no later than 50 calendar days after the record date. The eTRC is a single electronic form issued within 24 hours of request and recognised across all twenty-seven Member States for the entire calendar year. Certified Financial Intermediaries - banks, brokers, central securities depositories and eligible platforms that opt in - must follow harmonised due-diligence rules, submit standard XML reports and record entitlement changes on a permissioned distributed ledger. ESMA keeps a public EU register of these entities. A robust abuse prevention rule authorises to withdraw a CFI's status, refuse relief for mis-representation and exchange data automatically through Eurofisc.</p> <p>(**) The Directive's overarching objective is to deepen the Capital Markets Union by easing cross-border portfolio investment and standardising compliance obligations, while giving tax administrations the real-time transparency needed to safeguard public revenues.</p>	<p>(1) Action Plan 1.0 - Paragraph 6.2 (table: Action 6)</p> <p>(2) Mid-term Review 2017 - Paragraph 2 and Paragraph 4.6 (table: Action 7)</p> <p>(3) Action Plan 2.0 - Paragraph 3 (Action 10)</p>	<p>(1) 2017: Publication by the Commission, in November, of the "Code of Conduct on Withholding Tax", a non-binding document which calls for voluntary commitments by Member States and should be considered as a compilation of approaches to improve the efficiency of current withholding tax (WHT) procedures"</p> <p>(2) 2023: Through COM(2023)-324, the Commission unveils "FASTER" Directive obliging every Member State to provide either relief-at-source or a 50-day quick refund for excess withholding tax on EU dividends and interest</p> <p>(3) 2024: Adoption of Council Directive (EU) 2025/50</p> <p>(4) 2027: End of the transposition phase - in December - of Council Directive (EU) 2025/50</p>
Directive on Harmonisation of Certain Aspects of Insolvency Law	<p>(1) Directive (EU) 2019/1023 establishes EU-wide preventive-restructuring frameworks that let viable debtors renegotiate debts before formal insolvency. It grants a four-month (extendable) stay on enforcement, majority voting on plans, and court confirmation to bind dissenting creditors. Entrepreneurs who fail honestly receive a maximum three-year debt discharge, giving them a rapid "second chance." The Directive mandates early-warning tools and requires Member States to train judges and practitioners for swift, efficient procedures.</p> <p>(2) COM(2022) 702, the Commission's proposal for a Directive, aims at introducing a targeted harmonization of corporate insolvency rules to reduce legal uncertainty and support cross-border investment. It focuses on aligning national regimes in key areas such as avoidance actions, asset tracing, pre-pack sales, creditors' committees, and directors' duties in the run-up to insolvency. Insolvency practitioners would gain access to bank accounts and national asset registers to recover misappropriated assets more effectively. A common framework for pre-pack proceedings enables the advance sale of viable businesses to preserve value. Therefore, COM(2022) 702 picks up after formal insolvency starts, harmonizing liquidation tools such as avoidance actions, asset tracing, pre-pack safeguards and creditors' committees.</p> <p>(*) Together, the two instruments create an end-to-end framework: Directive 2019/1023 stabilises firms before failure, while COM(2022) 702 makes outcomes predictable once failure occurs. Thus 2019/1023 is the preventive pillar, COM(2022) 702 is the liquidation pillar.</p>	<p>(1) Action Plan 1.0 - Paragraph 6.1 and Paragraph 6.2 (table: Action 6)</p> <p>(2) Mid-term Review 2017 - Paragraph 4.4 (table: Action 6)</p> <p>(3) Action Plan 2.0 - Paragraph 3 (Action 11)</p>	<p>(1) 2019: Adoption of Directive (EU) 2019/1023</p> <p>(2) 2021: End of the transposition phase for Directive 2019/1023, except for the extension for some complex provisions (ex: restructuring plans and discharge of debt)</p> <p>(3) 2022: Through COM(2022)-702, the Commission tables the proposal for a Directive harmonising key aspects of formal insolvency procedures, complementing Directive 2019/1023 on preventive restructuring, addressing areas left unaddressed in the 2019 framework</p> <p>(4) 2026: Expectations on a political agreement to transpose the Communication into a formal Directive</p>
Strengthening ESAs Mandate for Supervisory Convergence - Focus on ESMA	<p>(1) Regulation (EU) 2019/2175, known as "ESAs Review Omnibus", reinforces ESMA's supervisory-convergence mandate by introducing a mandatory annual Union-wide work programme, a strengthened peer-review mechanism, an accelerated breach-of-EU-law procedure and direct powers to issue formal opinions to national competent authorities. It also confers on ESMA, for the first time, direct authorisation and ongoing oversight of data-reporting service providers (Approved Publication Arrangements and Approved Reporting Mechanisms), a regime that became operational in January 2022.</p> <p>(2) Regulation (EU) 2024/791, known as the "MiFIR Review" further amends MiFIR to widen ESMA's direct-supervision perimeter to include Consolidated Tape Providers and empowers the Authority to levy supervisory fees on those entities, assigns ESMA a coordinating role in setting cross-border commodity-derivatives position limits, and establishes a Union-level market-abuse database fed by suspicious-transaction and order reports, thereby enhancing real-time surveillance and consistency of enforcement across Member States.</p>	<p>(1) Action Plan 1.0 - Paragraph 6.2 (table: Action 6)</p> <p>(2) Mid-term Review 2017 - Paragraph 3 and Paragraph 4.1 (Action 1)</p> <p>(3) Action Plan 2.0 - Paragraph 3 (Action 16)</p>	<p>(1) 2019: Adoption of Regulation (EU) 2019/2175</p> <p>(2) 2020: Entry into force of Regulation (EU) 2019/2175</p> <p>(3) 2024.1: Adoption and entry into force of Regulation (EU) 2024/791</p> <p>(4) 2024.2: Publication of ESMA's position paper on "Building more effective and attractive capital markets in the EU"</p>

Title of the initiative	Functional description of the outcome	CMU Action Plan Reference	Revision History
<p>Financial Competence Framework - Joint Action EU & OECD/INFE</p>	<p>(1) The "Financial competence framework for adults in the European Union". It sets out over 540 learning outcomes across four domains - i.e., knowledge, skills, attitudes, and behaviours - on topics like budgeting, saving, investing, fraud prevention, pensions, and sustainability. Designed for flexible use by Member States, regulators, industry, and non-profits, it includes mapping tools to align adult training and financial education initiatives. The framework also supports future regulatory initiatives, such as the MiFID II/MiFIR retail-investor reforms, which may introduce minimum competence or education requirements, while promoting EU-wide benchmarking and policy coherence. Early adopters such as Finland, Portugal, and Romania are already integrating it into national strategies, with broader rollout expected by 2026.</p> <p>(2) The "Financial competence framework for children and youth in the European Union" targets learners aged 6 to 18. It defines age-appropriate outcomes across the same four domains, extending the coverage to money habits, digital payments, risk awareness, ethical choices, and basic investing. It guides the integration of financial education into school curricula and youth programmes, supporting consistent early learning. Applicable for use by education ministers, schools, NGOs, and industry partners, the framework helps build financial literacy from a young age and supports long-term goals of the Capital Markets Union.</p>	<p>(1) Action Plan 2.0 - Paragraph 2 (Action 7)</p>	<p>(1) 2021: "Launch of the joint European Commission/OECD-INFE project to develop a financial competence framework in the EU" - through a live online event, in April</p> <p>(2) 2022: In January, publication of the "Financial competence framework for adults in the European Union"</p> <p>(3) 2023: In September, publication of the "Financial competence framework for children and youth in the European Union"</p> <p>(4) 2024: Early adopters' roll-out (Finland, Romania and Portugal)</p> <p>(5) 2026: Expected Commission's report on implementation progress, gaps and good practices across the EU</p>
<p>Cross-Border Shareholder Rights & Digitalization of Corporate Actions</p>	<p>(1) Directive (EU) 2017/828, known as Shareholder Rights Directive II, amends the original 2007 directive to strengthen long-term shareholder engagement. It introduces new rules on transparency for institutional investors, asset managers, and proxy advisors. The directive requires listed companies to disclose director pay policies and related-party transactions. It enhances shareholder rights, including say-on-pay and oversight of corporate governance. The goal is to align company decisions more closely with the long-term interests of investors and stakeholders.</p> <p>(2) Implementing Regulation (EU) 2018/1212 lays down technical standards to operationalise the SRD. It specifies minimum requirements for shareholder identification, information transmission, and the facilitation of voting and other rights across borders, introduces standardized formats and deadlines throughout the chain of intermediaries. It plays a key role in reducing delays and data inconsistencies in cross-border shareholder engagement. The rules apply directly and uniformly across all Member States.</p> <p>(3) Directive (EU) 2025/25 updates EU company law to further digitalise interactions between companies and public authorities. It amends existing directives to allow for fully online formation of companies, submission of documents, and access to registers. The directive enhances cross-border interoperability by promoting standardised, machine-readable formats for filings and disclosures. These changes aim to cut administrative burdens and modernise corporate governance in a digital single market.</p>	<p>(1) Mid-term Review 2017 - Paragraph 2 and Paragraph 3 (table: Action 7)</p> <p>(2) Action Plan 2.0 - Paragraph 3 (Action 10)</p>	<p>(1) 2017: Adoption of Directive (EU) 2017/828</p> <p>(2) 2018.1: Adoption of Implementing Regulation (EU) 2018/1212</p> <p>(3) 2018.2: End of the transposition phase for Directive 2017/828, in June</p> <p>(4) 2023.1: Commission holding targeted consultations on SRD II performance, on definition of "shareholder", on CSD coordination, and fragmentation in digital practices</p> <p>(5) 2023.2: Publication of ESMA's Report on "Implementation of the SRD2 provisions on proxy advisors and the investment chain"</p> <p>(6) 2024: Adoption of Directive (EU) 2025/25</p> <p>(7) 2026: Expected Commission's proposal (according to CMU Action Plan 2.0 - Action 12) clarifying the EU definition of "shareholder" and further harmonizing digital shareholder engagement</p> <p>(8) 2027: End of the transposition phase for Directive 2025/25</p>
<p>Reform of the Central Securities Depositories Regulation (CSDR): Establishment of a Single EU Settlement Passport, Revised Settlement Discipline Regime, and Roadmap to T+1 Settlement</p>	<p>(1) COM(2022)-120 proposes targeted amendments to Regulation (EU) 909/2014, the Central Securities Depositories Regulation (CSDR), to address key obstacles in the EU settlement system. It seeks to enhance cross-border access by allowing central securities depositories (CSDs) to operate throughout the EU under a single authorization. It recalibrates the settlement discipline regime, softening rules around mandatory buy-ins while maintaining penalties for settlement fails. The proposal also expands CSDs' ability to offer banking-type ancillary services and introduces clearer requirements for third-country CSDs accessing EU markets.</p> <p>(2) SWD(2022)-75 represents the full Impact Assessment Report supporting COM(2022)-120, evaluating policy options, impacts, and costs of modernizing the CSRD. It lays out the rationale for reforms aimed at improving settlement discipline, cross-border access, and supervisory convergence.</p> <p>(3) SWD(2022)-76 represents the Executive Summary of the Impact Assessment, providing a concise overview of the analysis and key findings. It highlights the preferred policy choices and their expected benefits for EU capital markets.</p>	<p>(1) Action Plan 1.0 - Paragraph 6.1 (Reference only)</p> <p>(2) Action Plan 2.0 - Paragraph 3 (Action 13)</p>	<p>(1) 2022: Commission tables the proposal for the Central Securities Depository through COM(2022)-120, and related texts SWD(2022)-75 and -76</p> <p>(2) 2025.1: Proposal for a regulation to shorten settlement cycle for EU securities (from 2 day to 1 - "T+1" regime) from the European Commission</p> <p>(3) 2025.2: In June, Trilogues agreement on a future Regulation based upon COM(2022)-120, expected in Q4 2025</p>
<p>European Investment-Protection & Facilitation Framework ("Retail-Investment Strategy" package)</p>	<p>The package consists of two draft legal texts:</p> <p>(a) COM(2024)-278: PRIIPs-amending Regulation and on Key Information Documents</p> <p>(b) COM(2024)-279: Omnibus Directive, amending articles from: MiFID II, IDD, UCITS, AIFMD, Solvency II</p> <p>All six new retail-protection tools are articles inside those texts:</p> <p>(1) Best-interest duty & inducement curb (COM (2024) 279 – Art. 24b MiFID II / Art. 29b IDD) – obliges all distributors to act solely for the client and bans commissions on execution-only sales; core to rebuilding investor trust</p> <p>(2) Revamped PRIIPs Key-Information Document (COM (2024) 278 – Arts. 8a-8c PRIIPs Reg.) – adds performance-vs-benchmark tables and a traffic-light cost block</p> <p>(3) Value-for-Money test (COM (2024) 279 – Art. 16a MiFID II / Art. 30a IDD) – empowers EIOPA to set costs and return yardsticks</p> <p>(4) EU product-comparison dashboards (COM (2024) 279 – Art. 16c MiFID II / Art. 30c IDD) – requires free online tools letting investors filter UCITS, PEPP, ELTIF and simple insurance products by cost, risk and past returns</p> <p>(5) One-stop digital portal (COM (2024) 279 – Art. 16d MiFID II / Art. 30d IDD) – enforces a 90-day resolution deadline with harmonised reporting</p> <p>(6) EU Investor-Information Hub (COM (2024) 278 – Arts. 26b-26d PRIIPs Reg.) – establishes a single repository with API access to all KIDs and factsheets, interconnected with BRIS for seamless product transparency</p>	<p>(1) Action Plan 1.0 - Paragraph 4.1 and Paragraph 4.2 (table: Action 4)</p> <p>(2) Mid-term Review 2017 - Paragraph 2 (table: Action 5)</p> <p>(3) Action Plan 2.0 - Paragraph 2 and Paragraph 3 (table: Action 8 and Action 15)</p>	<p>(1) 2021: Open public consultation on "A Retail-Investment Strategy for Europe", 109-question survey addressed to citizens, firms and authorities</p> <p>(2) 2022: Targeted consultation on specific retail-investor protection rules, 98 detailed MiFID II/IDD/PRIIPs questions plus cost-benchmark annex</p> <p>(3) 2023: Commission published COM(2024)-278 and COM(2024)-279, launching its "Retail-Investment Package"</p> <p>(4) 2025: Trilogues negotiations expected to begin in Q4</p>
<p>Post-Trade Barrier-Removal Roadmap ("Giovannini Barriers")</p>	<p>(1) The European Post Trade Forum (EPTF) Final Report, published on 22 May 2017, reassesses barriers to post-trade integration across the EU. It finds that thirteen of the original fifteen Giovannini barriers remain unresolved and adds five new ones reflecting digital-age challenges, such as 2022 adoption of fragmented cybersecurity resilience. The report sets out thirty four detailed recommendations, each ranked by urgency and assigned to a responsible actor, including EU bodies, national regulators, or industry groups.</p>	<p>(1) Action Plan 1.0 - Paragraph 6.1 (table: Action 6)</p> <p>(2) Mid-term Review 2017 - Paragraph 2 (table: Action 7)</p> <p>(3) Action Plan 2.0 - Paragraph 3 (Action 13 - reference only)</p>	<p>(1) 2017: European Post-Trade Forum Report released</p> <p>(2) 2018: Release of the 2018 "Post-Trade Progress Scoreboard" as "Annex 3" to the EPTF Report</p> <p>(3) 2025: Between April and June, European Commission to hold targeted consultation on integration of EU capital markets, including with respect to Post-Trade Barriers</p> <p>(4) 2026: Expected publication of the next scoreboard to accompany future CMU progress report</p>
<p>Conflict-of-Laws Rules on the Third-Party Effects of Assignment of Claims</p>	<p>(1) COM(2018)-96 proposes harmonized European Union rules on which national law applies to the third-party effects of claim assignments. As a general rule, the applicable law is that of the assignor's habitual residence at the time of assignment. For securitization and factoring transactions, parties may opt for the law governing the assigned claim. High-value assignors, such as receivables platforms, may register a public notice allowing all future assignments to follow a chosen law. The scope covers monetary and contractual claims, while excluding financial instruments, consumer claims, and insolvency matters. The proposal also clarifies how priority between multiple assignees is resolved and protects good-faith acquirers, fixing the applicable law at the time the assignment contract takes effect.</p> <p>(2) COM(2018)-89 proposes a clear rule on which national law governs the ownership effects of transactions in securities held through intermediaries. It adopts the so-called place-of-account rule, meaning the law of the country where the securities account is maintained will govern who owns the securities, how they can be used as collateral, and how priorities are resolved. This rule applies regardless of where the securities issuer is located or where the trade is executed. The aim is to reduce legal uncertainty in cross-border securities transactions, improve investor protection, and align European Union rules with global standards.</p>	<p>(1) Action Plan 1.0 - Paragraph 6.1 (table: Action 6)</p> <p>(2) Mid-term Review 2017 - Paragraph 2 (table: Action 7)</p>	<p>(1) 2018: European Commission tables the draft Regulation on the law applicable to the third-party effects of assignments of claims (COM(2018)-96) together with a complementary Communication clarifying the securities-law carve-out (COM(2018)-89)</p> <p>(2) 2019: European Parliament adopts its first-reading position, broadly supporting the "law of the assignor's habitual residence" rule and securitisation opt-in</p> <p>(3) 2024: During its January-June term, the Belgian Council Presidency revives the dossier and restarts technical discussions in the JHA working party</p> <p>(4) 2026: Council is expected to reach a general approach, opening the way to trilogue negotiations and potential adoption of the Regulation in 2027</p>
<p>Commission Recommendation on Private Placements</p>	<p>(1) Regulation (EU) 2017/1129, known as the Prospectus Regulation, sets out the rules on when a prospectus is required for offering securities to the public or admitting them to trading on a regulated market. In the context of private placements, it plays a key role by providing exemptions from the obligation to publish a prospectus, such as when securities are offered to qualified investors only, or to fewer than 150 non-qualified investors per Member State. These exemptions lower regulatory burden for issuers engaging in private placements, making it easier and cheaper for mid-caps to access funding without going through a full public offer process.</p> <p>(2) The European Commission's Study on Identifying Market and Regulatory Obstacles to the Development of Private Placement of Debt in the EU examines the structural and legal barriers preventing the growth of a pan-European private placement market. The study highlights key challenges such as inconsistent documentation standards, limited investor access, tax and regulatory frictions (e.g., withholding tax procedures), and a lack of transparency. It provides recommendations to harmonize market practices and reduce cross-border barriers, with the goal of fostering a more integrated and accessible private placement market for corporate issuers across the EU.</p>	<p>(1) Action Plan 1.0 - Paragraph 1.5 (Reference Only)</p> <p>(2) Mid-term Review 2017 - Paragraph 2 (table: Action 2)</p> <p>(3) Action Plan 2.0 -</p>	<p>(1) 2017.1: Adoption of Regulation (EU) 2017/1129, on "the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market"</p> <p>(2) 2017.2: Publication of EC's Study on "Identifying market and regulatory obstacles to the development of private placement of debt in the EU" (publicly-available in February 2018)</p> <p>(3) 2020: Commission report shows 12 Member States (including: DE, FR, NL, IE) have either created or adapted PP regimes; others streamlining tax certificates.</p>
<p>Solvency II – Lower Capital Calibrations for Infrastructure & Long-Term Equity Investments</p>	<p>(1) Delegated Regulation (EU) 2016/467 amends the Solvency II level-2 rulebook to carve out a new asset class of "qualifying infrastructure projects". It sets eligibility filters (public-interest service, predictable long-dated cash-flows, robust contractual covenants, investment-grade profile) and then cuts the standard equity shock from 39% to 30% under the Solvency Capital Requirement (SCR), giving insurers a powerful, targeted capital incentive to finance EU transport, energy and digital-infrastructure projects, thereby lowering project funding costs and accelerating delivery timelines.</p> <p>(2) Delegated Regulation (EU) 2019/981 extends that favourable calibration to "qualifying infrastructure corporates," whose consolidated business model mirrors project-style cash-flows, and simultaneously inserts a dedicated "long-term equity" sub-module that applies a 22% discount to certain listed equity investments. It also aligns Solvency II incentives with STS securitisation and introduces granular reporting on asset duration.</p> <p>(3) Directive (EU) 2025/02 amends the Solvency II framework directive itself to embed these lower calibrations in level-1 law and future-proof them: it introduces a wider "long-term assets" category, mandates that sustainability and climate-transition factors be considered when applying the higher charges, streamlines proportionality thresholds, and empowers the EIOPA to update calibrations swiftly via delegated acts, while adding new macro-prudential and reporting tools so supervisors can track the sector's growing infrastructure and long-term-equity exposure.</p>	<p>(1) Action Plan 1.0 - Paragraph 3.1, Paragraph 4.2 and Paragraph 5 (table: Action 3 and Action 4)</p> <p>(2) Mid-term Review 2017 - Paragraph 2 (table: Action 4 and Action 6)</p> <p>(3) Action Plan 2.0 - Paragraph 1 (Action 4)</p>	<p>(1) 2016: Adoption and entry into force of Delegated Regulation 2016/467, in April</p> <p>(2) 2019: Adoption and entry into force of Delegated Regulation 2019/981, respectively in June and July</p> <p>(3) 2021.1: Publication by the Commission of the "Summary Report of the Public Consultation on the review of prudential rules for insurance and reinsurance companies (Solvency II)", with Consultations held between July and October 2020</p> <p>(4) 2021.2: Through COM(2021)-581, the Commission proposes the backbone of the political agreement that will become Directive (EU) 2025/02 (the "Solvency II Omnibus Directive")</p> <p>(5) 2024: Adoption of Directive 2025/02, advancing Solvency II to support long-term investment and sustainability</p> <p>(6) 2027: End of the transposition phase for Directive 2025/02</p>
<p>SME IPO Fund (InvestEU Equity Window)</p>	<p>(1) The InvestEU Equity Window, managed by the European Investment Fund (EIF) on behalf of the European Commission, is part of the broader InvestEU program and aims to expand access to equity financing across the European Union, particularly for innovative and high-growth companies. In the context of private placements, it supports the development of private capital markets by investing in equity funds and co-investment platforms that target mid-caps, scale-ups, and unlisted firms. This helps address equity financing gaps and encourages institutional investment in non-listed corporate debt and hybrid instruments.</p> <p>(2) The SME IPO Sub-Window, a dedicated facility within the InvestEU Equity Window, is also managed by the EIF and was designed in coordination with the Commission's Directorate General FISMA. It focuses on helping small and medium-sized enterprises transition toward public capital markets by supporting the full pre-IPO journey, improving market visibility, and facilitating access to private capital ahead of listing. The sub-window co-invests up to 25 percent of each IPO's free float, provides post-listing price stabilization bids for 30 days, and backs specialized small-cap equity funds. With a target of mobilizing €3.75 billion and enabling at least 500 SME listings by 2030, the initiative strengthens the ecosystem for SME capital-raising across both private and public markets.</p>	<p>(1) Action Plan 1.0 - Paragraph 2</p> <p>(2) Mid-term Review 2017 - Paragraph 3 (Reference only)</p> <p>(3) Action Plan 2.0 - Paragraph 1 (Action 2)</p>	<p>(1) 2021: From December 2021 to November 2022 the Commission and the EIF co-designed the dedicated SME-IPO sub-window under the InvestEU Equity Window and conducted stakeholder consultations with EU growth-market operators, small-cap fund managers and exchanges</p> <p>(2) 2023: On 7 March 2023 the SME IPO Fund was formally launched on the InvestEU Digital-Finance Platform, with the EIF opening the first Call for Expressions of Interest to intermediaries</p> <p>(4) 2025: As from Q2 2025 the first EIF-supported flotations are expected to price on Euronext Growth and Nasdaq First North, benefitting from cornerstone injections and post-listing stabilisation bids supplied by the Fund</p> <p>(5) 2027: A mid-term performance review will be carried out under Regulation (EU) 2021/523 (InvestEU Regulation) to assess deployment, market impact and policy additionality</p> <p>(6) 2030: (Formal target) The initiative aims to have mobilised at least €3.75 billion and facilitated > 500 SME listings across EU growth markets by year-end 2030</p>

Title of the initiative	Functional description of the outcome	CMU Action Plan Reference	Revision History
CRR “Infrastructure-Supporting Factor”	<p>(1) Regulation (EU) 2017/2395 introduced Article 501a into the Capital Requirements Regulation (CRR), establishing the Infrastructure-Supporting Factor. It allowed reduced capital requirements for qualifying infrastructure loans, aiming to lower bank lending costs for strategic sectors while preserving financial stability.</p> <p>(2) Regulation (EU) 2019/876 (CRR II) refined Article 501a by setting clearer eligibility criteria, including risk features, contractual safeguards, and cash flow predictability. It aligned EU rules more closely with Basel standards while supporting sustainable infrastructure investment.</p> <p>(3) Regulation (EU) 2024/1623 further updates Article 501a as part of Basel III implementation, adjusting capital treatment of infrastructure and green assets. It clarifies eligibility for preferential treatment and balances global standards with EU priorities.</p> <p>(4) Directive (EU) 2024/1619 amends CRD IV to enhance supervision of banks using favorable capital treatment. It strengthens governance, risk management, and oversight, ensuring sound evaluation of infrastructure exposures under Article 501a.</p>	<p>(1) Action Plan 1.0 - Paragraph 3.1 and Paragraph 5 (table: Action 3)</p> <p>(2) Mid-term Review 2017 - Paragraph 4.1 (table: Action 3)</p>	<p>(1) 2015: Launch, in September, of the Commission consultation on lowering CRR risk-weights for infrastructure lending.</p> <p>(2) 2017: Adoption of Regulation (EU) 2017/2395 inserting Article 501a (“Infrastructure-Supporting Factor”). The regulation entered into force on 24 December 2017 and became applicable on 1 January 2018.</p> <p>(3) 2019: Adoption of Regulation (EU) 2019/876 (CRR II) extending Article 501a to infrastructure corporates. The regulation entered into force on 27 June 2019 and applied from 28 June 2021.</p> <p>(4) 2021: Publication, in December, of the EBA’s first monitoring report on the Infrastructure-Supporting Factor, confirming prudent risk performance.</p> <p>(5) 2024: Adoption of Regulation (EU) 2024/1623 (CRR III) and Directive (EU) 2024/1619 (CRD VI). Both are in force since 9 July 2024 and mandating a Commission recalibration review of Article 501a.</p> <p>(6) 2025: Scheduled delivery, by mid-2025, of the Commission’s Basel III output-floor review to decide whether to retain, adjust or replace the Infrastructure-Supporting Factor (not published yet)</p> <p>(7) 2026: Planned adoption of a Macro-Prudential Review Package (amendments to CRR/CRD and possibly a new Regulation for NBFIs); trilogues might conclude in 2027 with phased application from 2029</p>
Review of the EU Macro-Prudential Framework (Art. 513 CRR)	<p>(1) COM(2024)-91 represents the Commission’s review of the EU macro-prudential framework under Article 513 of the Capital Requirements Regulation (CRR), aiming to modernize systemic risk tools for both banks and non-bank financial intermediaries (NBFIs). It proposes a simplified buffer structure, merging G-SII and O-SII requirements into a unified CET1-based Systemic Importance Buffer with harmonized calibration. The proposal also introduces borrower-based measures - like LTV and DSTI floors and maturity caps - into EU law, with ESRB coordination and cross-border reciprocity. Liquidity risk enters the macro-prudential scope through ESRB-recommended buffers for open-ended funds. Activation of buffers would be tied to objective indicators, while EBA, ESMA, and ECB would deliver joint templates to improve systemic data collection</p>	<p>(1) Action Plan 1.0 - Paragraph 6.3 (table: Action 6)</p>	<p>(1) 2018: ESRB issues advice on the design of macro-prudential tools beyond banking; Commission launches targeted stakeholder workshops</p> <p>(2) 2022: Original Article 513 CRR deadline for the Commission review postponed due to COVID-19 priorities and Basel III negotiations</p> <p>(3) 2024.1: Publication of COM(2024)-21 report and Staff Working Document; public consultation on reform options opens the same day</p> <p>(4) 2024.2: Consultation closes; 147 responses from NCAs, industry, academia and NGOs feed into impact-assessment work</p> <p>(5) 2025: Commission publishes legislative roadmap and requests EBA/ESRB technical advice on borrower-based reciprocity and NBF1 metrics</p> <p>(6) 2026: Planned adoption of a Macro-Prudential Review Package (amendments to CRR/CRD and possibly a new Regulation for NBFIs); trilogues might conclude in 2027 with phased application from 2029.</p>
MiFID II “Quick-Fix” (SME Research & Investor Information Relief)	<p>(1) Directive (EU) 2021/338, adopted as part of the EU’s Capital Markets Recovery Package, introduced targeted amendments to the Markets in Financial Instruments Directive (MiFID II) to support post-COVID economic recovery, particularly in capital markets access and SME financing. It complements the application of the Infrastructure-Supporting Factor by improving the broader regulatory environment in which infrastructure finance operates. Specifically, the directive helps facilitate investment flows into infrastructure and long-term projects by removing regulatory frictions and enhancing investor engagement. Among its key measures, the directive allows bundled payments for research on issuers with a market capitalization of €1 billion or less, lightens product-governance rules for plain-vanilla bonds, reduces cost-benefit disclosure requirements by half for professional clients, and raises flexibility on position limits for commodity derivatives. These adjustments improve market functioning and indirectly support the goals of Article 501a CRR by helping channel more institutional capital toward infrastructure and other long-term assets. These measures revive analyst coverage by allowing brokers to fund SME research through execution commissions, reversing the decline seen between 2018 and 2020. They also reduce issuance costs and improve market depth by easing disclosure, product-governance, and position-limit rules for professional investors and emerging commodity contracts.</p>	<p>(1) Mid-term Review 2017: Paragraph 4.2 (table: Action 3)</p> <p>(2) Action Plan 2.0: Paragraph 1 (Action 1)</p>	<p>(1) 2020: Publication, on 2 June, of the Commission’s COVID-19 Recovery Package containing the proposal for a “MiFID II Quick-Fix” to revive SME research and streamline investor-information duties.</p> <p>(2) 2021: Adoption of Directive (EU) 2021/338 on 16 February; the amending text was published in the Official Journal and entered into force twenty days later.</p> <p>(3) 2022: Expiry, on 28 November, of the transposition deadline for Member States; by December all twenty-seven jurisdictions had implemented the Quick-Fix provisions.</p> <p>(4) 2024: Launch, in the fourth quarter, of the Commission’s post-implementation evaluation, accompanied by ESMA technical advice on SME-research rules within the forthcoming “Listing Act”.</p> <p>(5) 2026: Scheduled incorporation of the evaluation results into the MiFID/MiFIR “Wholesale Package”, with a decision on whether to establish a permanent EU regime for bundled SME-research.</p>
Investment-Firm Prudential Regime (IFR/IFD)	<p>(1) Regulation (EU) 2019/2033, known as the Investment Firms Regulation (IFR), establishes a dedicated prudential framework for investment firms that are not systemically important credit institutions. It introduces a new categorization system, distinguishing large systemic firms (which remain under CRR) from medium and small investment firms (which fall under IFR). The core of the regime is a tailored capital calculation based on firm-specific risk proxies, known as K-factors, which measure risks to customers, markets, and the firm itself—such as client assets under management, daily trading flows, and counterparty risk exposure. The regulation also sets simplified liquidity and concentration risk requirements, and mandates consistent public disclosures to improve transparency across the sector.</p> <p>(2) Directive (EU) 2019/2034, known as the Investment Firms Directive (IFD), complements the IFR by defining the governance, internal control, and supervisory framework applicable to non-bank investment firms. It includes requirements on board structure, risk management systems, and remuneration policies tailored to the scale and complexity of each firm. The directive strengthens the supervisory toolkit of national authorities by introducing new powers to monitor investment firms’ activities, assess internal capital adequacy, and manage cross-border risks. It also lays down transitional arrangements and provisions for group supervision, ensuring that investment firm groups with complex structures remain subject to appropriate oversight within and across Member States.</p>	<p>(1) Mid-term Review 2017: Paragraph 4.2 (table: Action 3 - Priority Actions 2 and 3)</p> <p>(2) Action Plan 2.0: Paragraph 1 (Action 4)</p>	<p>(1) 2016: Conclusion of the Commission’s 2015-16 consultation and impact study comparing bank-style capital rules with investment-firm risks, providing the analytical base for legislative work</p> <p>(2) 2017: Publication of the draft Investment Firm Review package, proposing a dedicated IFR/IFD prudential framework</p> <p>(3) 2019: Adoption and entry into force, on 27 November, of Regulation (EU) 2019/2033 and Directive (EU) 2019/2034, thereby establishing the EU Investment-Firm Prudential Regime</p> <p>(4) 2021: Regime starts to apply on 26 June; first COREP / FINREP-light reports submitted for the Q3-2021 reference date</p> <p>(5) 2024: EBA and ESMA issue a Discussion Paper outlining targeted amendments (commodities K-factor calibration, crypto-asset treatment and proportional disclosure)</p>
EU Taxonomy & Sustainable-Finance Disclosure (SFDR)	<p>(1) Regulation (EU) 2019/2088 (SFDR) establishes harmonized disclosure rules for financial market participants and advisers on how they integrate environmental, social, and governance (ESG) risks in investment decisions. It requires transparency on sustainability objectives, ESG integration, and the adverse impacts of investment decisions. Products are classified based on their sustainability characteristics, with specific disclosure rules for each. The regulation applies to entities like asset managers, insurers, and pension funds.</p> <p>(2) Regulation (EU) 2020/852 (EU Taxonomy) creates a common classification system to determine whether an economic activity is environmentally sustainable. It defines six environmental objectives and sets conditions for alignment, including substantial contribution, no significant harm, and compliance with social safeguards. It applies to sustainable financial products and companies subject to sustainability reporting. The taxonomy ensures consistency and prevents greenwashing.</p> <p>(3) Delegated Regulation (EU) 2023/2486 defines the technical screening criteria under the Taxonomy Regulation. It specifies sector-specific thresholds and conditions that activities must meet to be considered environmentally sustainable. It also outlines how to assess whether an activity does not significantly harm other environmental objectives. This regulation operationalizes the taxonomy framework and enhances comparability of green investments across the EU.</p>	<p>(1) Mid-term Review 2017: Paragraph 4.5 (table: Action 4)</p>	<p>(1) 2019: Adoption and entry into force in December 2019 of Regulation (EU) 2019/2088 (SFDR), laying down sustainability-related disclosures for financial-market participants</p> <p>(2) 2020: Adoption and entry into force in July 2020 of Regulation (EU) 2020/852 (Taxonomy Regulation), establishing the EU classification system for environmentally sustainable economic activities</p> <p>(3) 2021: SFDR Level-1 obligations start to apply in March 2021; in July 2021 the three ESAs transmit the first draft regulatory-technical standards, later endorsed by the Commission.</p> <p>(4) 2022: As of January 2022, the Taxonomy climate-mitigation and climate-adaptation criteria become mandatory for corporate KPIs and for SFDR product-level alignment disclosures</p> <p>(5) 2023: Adoption and entry into force in December 2023 of Commission Delegated Regulation (EU) 2023/2486, setting the technical-screening criteria for water, circular-economy, pollution-prevention and biodiversity objectives.</p> <p>(6) 2024: The four additional Taxonomy objectives enter into application in January 2024; mid-year the ESAs publish their first Green-Washing Progress Report, and in September 2024 the Commission opens an SFDR “re-cast” consultation that proposes binary “Sustainable” / “Transition” product labels and a streamlined PAI regime.</p>
European Secured Notes (ESN) Framework	<p>(1) EBA Report on the European Secured Notes sets out a 94-page prudential and structural blueprint for SME- and infrastructure-backed ESNs by detailing dual-recourse mechanics, asset-eligibility and granularity criteria, coverage-ratio and liquidity-buffer tests, investor-protection safeguards, proposed preferential CRR/Solvency-II risk weights, and policy choices between a single EU regulation or harmonised national frameworks bearing an EU label.</p> <p>(2) The European Commission’s “Feasibility Study on European Secured Notes – Final Report” assesses the market, legal and economic viability of an ESN label by quantifying SME and infrastructure funding gaps, surveying banks and institutional investors on demand, modelling potential issuance volumes and funding-cost savings, benchmarking ESNs against covered bonds and securitisations, and analysing legal options, cross-border spill-overs, implementation timelines, supervision models and macro-prudential effects.</p>	<p>(1) Mid-term Review 2017 - Paragraph 2 (table: Action 6)</p> <p>(2) Action Plan 2.0 - Paragraph 1 (Action 6 - Reference only)</p>	<p>(1) 2017: In October, the Commission issues the “Call for advice to the EBA on European Secured Notes”</p> <p>(2) 2018.1: Publication, in July, of the Commission’s feasibility study, considering the extent to which the existing supervisory and prudential treatment of covered bonds may be adapted to ESNs and the (argued high) potential for ESNs to develop as an asset class</p> <p>(3) 2018.2: Publication, in July, of the EBA technical report, that endorses ESN concept, concluding that the supervisory and prudential treatment of covered bonds can be partially adapted to ESNs, provided tailored safeguards are introduced</p> <p>(4) 2024: Initial deadline for the Commission to write a report on ESNs or even propose a legislative initiative</p> <p>(5) 2025: Between Q2 and Q3, report and legislative proposal are expected, but still have not been released</p>
European Cross-Border FinTech Testing Framework (“EU Sandbox”)	<p>(1) The European Digital Finance Platform (DFP) serves as an EU-wide hub for dialogue, knowledge-sharing, and collaboration between innovators, supervisors, and policymakers in the digital finance space. It hosts a variety of resources including research, regulatory updates, event listings, and stakeholder engagement tools. The platform supports a more coordinated approach to digital finance policy and aims to foster an inclusive, innovation-friendly ecosystem across the Union.</p> <p>(2) The EU Sandbox (Cross-border testing service) is a supervised environment that enables innovative financial firms and RegTech/green-finance projects to test novel products and services across multiple Member States simultaneously. It provides a single application point, coordinated supervisory oversight, and structured feedback. The sandbox is designed to reduce regulatory fragmentation, support the safe scaling of digital solutions, and contribute to the development of EU-level guidance on innovation.</p>	<p>(1) Mid-term Review 2017: Paragraph 4.3 (table: Action 2)</p>	<p>(1) 2019: In February, taking place of Round 1 of the Global Financial Innovation Network (GFIN) Cross-Border Testing Pilot</p> <p>(2) 2020: Launch of the “Digital Finance Strategy for the EU” through COM(2020)-591</p> <p>(3) 2022.1: Official launch, in April, of the “European Digital Finance Platform”</p> <p>(4) 2022.2: Launch of the first edition of the “European Forum for Innovation Facilitators (EFFIF) – Procedural Framework for Cross-Border Testing”, a non-binding rulebook coordinating EU regulators for cross-border FinTech sandbox tests</p> <p>(5) 2023.1: Launch of the “European Sandbox”, the platform for cross-border testing services, simultaneously publishing the Cohort 1 of the “Call for applications”</p>

d. Annex 4 – Full Representation of the “CMU Policy Matrix – Post”

Title of the initiative	Proposed action(s) by thematic area	Timeline
Simple, Transparent & Standardised (STS) Securitisation Framework	Proportionality: merge ESMA-EBA templates and shift private STS reporting to a quarterly cycle, cutting fixed compliance costs that disproportionately burden small originators.	(1) Adoption: Q3 - 2026 (2) Report: Q3 - 2029
	Risk-sensitivity: halve the senior-tranche risk-weight floor to 5 %, apply asset-class-specific p-factors, and grant short-dated AAA STS notes HQLA status, aligning capital charges with empirical performance.	(1) Full Applicability: Q2 - 2027
	Green integration: introduce an optional “STS-Green” label linked to EU Taxonomy metrics and test tokenised green STS notes in an ESMA-led DLT sandbox to mainstream sustainable securitisation.	(1) Adoption: Q3 - 2026 (2) Report: Q1 - 2031
	Supervision: empower ESMA with responsibilities in STS practices and interpretation	(1) Full Applicability: Q1 - 2027
Modernization of Prospectus & Listing Rules (i.e., “Prospectus Regulation” and “Listing Act”)	Pan-European Prospectus Builder Platform: develop a public drafting hub with pre-validated templates, automated error checks and tagging.	(1) Adoption: Q4 - 2026
	Due-Diligence Safe Harbour for Prospectuses: offer issuers that use the official template and keep data feeds current a rebuttable presumption of due diligence.	(1) ESMA draft guidance: Q4 - 2026 (2) Adoption: Q2 - 2027 (3) Full applicability: Q4 - 2028
	Disclosure Backbone Regulation: merge prospectus, periodic and sustainability reporting into one EU data standard.	(1) Proposal: Q2 - 2027 (2) Adoption: Q2 - 2028
	Smart-Prospectus & DLT Integration: tie machine-readable prospectus data to tokenised securities; automate settlement in a dedicated sandbox.	(1) Sandbox launch: Q1 2028 (2) Legislation: Q4 2029 (3) Full applicability: Q2 2031
Establishment of the European Single Access Point (ESAP)	Harmonized Semantic Layer for ESAP Data: empower ESMA to promulgate binding semantic-tagging standards, or fund an open-source EU ontology, to ensure that disclosures are fully comparable across Member States.	(1) ESMA consultation launch: Q1 - 2026 (2) Guideline adoption: Q4 - 2026 (3) Mandatory semantic tagging: Q3 - 2027
	Voluntary Advance Submission and Safe Harbor for Solvency II Reports: authorize insurers to upload quantitative templates on a voluntary basis beginning in 2027 and extend a regulatory safe harbor that shields early filers while taxonomies are refined.	(1) ESAP opt-in gate opens: Q1 - 2027 (2) Safe harbor effective: Q1 - 2027 (3) Validation feedback: Q4 - 2028
	Balanced ESAP Funding Model: pair a modest levy on filers with a usage surcharge on commercial data re-packagers, thereby financing system upgrades without compromising free public access.	(1) Commission proposal: Q3 - 2026 (2) Legislative adoption: Q2 - 2027 (3) Fee structure in force: Q1 - 2028
	Investor Dashboards and Customized Alerts: deploy curated, plain-language dashboards and portfolio-based notifications to alleviate information overload documented in behavioral-finance research.	(1) Prototype dashboard: Q4 - 2026 (2) Pilot rollout: Q2 - 2027 (3) Full deployment: Q1 - 2028
Pan-European Personal Pension Product (PEPP)	Proportionality: allow a single, pre-approved investment path to qualify as “simple and suitable,” removing the need for individual suitability assessments and significantly reducing onboarding costs for small savers.	(1) Commission consultations: Q1 - 2026 (2) ESMA/EIOPA draft: Q4 - 2026 (3) Legislative amendment: Q2 - 2028 (4) Full applicability: Q1 - 2031
	Neutrality: introduce a “best-available-treatment” rule requiring Member States to apply the same tax benefits to PEPP as to comparable national products, enforced via Council recommendation and fiscal conditionality.	(1) Council recommendation on tax parity: Q4 - 2027 (2) Fiscal linkage in Stability and Growth Pact disbursements: Q1 - 2028
	Engagement: require employers without pension schemes to auto-enroll new hires into Basic PEPP with opt-out, and launch an EU pension dashboard to centralize entitlements and support personalized alerts.	(1) Pension dashboard pilot: Q2 - 2027 (2) Legislative inclusion of auto-enrolment: Q2 - 2028 (3) Implementation phase begins: Q1 - 2029 (4) Full coverage achieved: Q1 - 2032
Review and Expansion of the EuVECA (European Venture Capital Fund) and EuSEF (European Social Entrepreneurship Funds) Regulations	Scale: lower the EuVECA qualifying-asset test from 70 % to 60 %; use ESMA’s AIFMD data to evidence impact; mimic the diversification latitude that has helped U.S. SBIC funds scale and outperform.	(1) Data-gathering start - Q4 2025 (2) Commission amendment - Q3 2027 (3) Legal effect - Q1 2029
	Accessibility: introduce a “Retail EuVECA” capped at a 2 % total-expense ratio and backed by a PRIIPs-style KID; distribute through digital-only and semi-professional MiFID channels to replicate the Basic-PEPP uptake pattern.	(1) Legislative text tabled - Q3 2027 (2) ESMA disclosure templates - Q2 2028 (3) Retail launch - Q1 2029
	Additionality: require a “positive innovation test” (≥ 50 % of assets to Net-Zero or cohesion-region ventures), extend national VC tax credits to EuVECA/EuSEF, and deploy an InvestEU cornerstone window for first-time teams.	(1) Council recommendation & InvestEU window - Q1 2028 (2) Revised rules effective - Q1 2029 (3) Review - Q4 2032
Pan-European “Venture Capital Funds-of-Funds” Programme (Venture EU)	Data transparency: ESMA to gather VentureEU reports and releasing them on ESAP in machine-readable form, cutting LP due-diligence costs.	(1) ESMA collection start - Q1 2026 (2) ESAP publication start - Q2 2026
	Structural optimisation: insert a re-investment clause, secure an EU-wide withholding-tax carve-out for pension LPs, and hard-wire an impact-linked carry to steer capital to deep-tech and cohesion regions.	(1) Full applicability of the terms - Q3 2028
	Institutional consolidation: merge VentureEU with InvestEU’s Equity Window to form an European Sovereign VC Platform governed by an independent investment committee.	(1) Merger blueprint - Q4 2028 (2) Platform operational - Q1 2030
European Long-Term Investment Funds (ELTIF 2.0)	Union-wide liquidity-risk toolkit: A mandatory ESMA rule-set that makes ELTIFs apply swing-pricing and flexible exit fees when redemptions surge, protecting remaining investors without freezing withdrawals.	(1) Publication of ESMA Standardized Toolkit - Q4 2026
	Fiscal level-playing-field: A Commission-led push for Member States to tax ELTIF payouts no less favorably than domestic funds, paired with advance cross-border tax rulings and a “total-cost” figure in fund factsheets.	(1) Commission Recommendation - Q2 2026
European Green Bond Standard (EUGBS) Regulation	Machine-readable disclosure via ESAP: Conversion of all EU Green-Bond allocation and impact reports into standard XML files hosted on the Single Access Point, so analysts can compare projects instantly at lower cost.	(1) Publication on ESAP - Q2 2026
	Dynamic flexibility pocket: An automatic rule that shrinks the Green-Bond’s 15 % non-taxonomy allowance as new taxonomy criteria are adopted, keeping the label strict while still financing hard-to-abate sectors during transition.	(1) Commission delegated-act consultation - Q1 2027 (2) Adoption & effect - Q2 2028

e. Annex 5 – Latex Codes

```

\documentclass[12pt]{article}
\usepackage{booktabs}
\usepackage{threeparttable}
\usepackage{caption}
\usepackage[utf8]{inputenc}
\begin{document}
\begin{table}[!htbp] \centering
  \caption{Baseline model}
  \label{tab:regression_results1}
\begin{threeparttable}
\begin{tabular}{@{\extracolsep{5pt}}lc}
\hline
\hline \hline
& \multicolumn{1}{c}{\textit{Dependent variable:}} \hline
\cline{2-2}
\hline \hline & CR \hline
\hline \hline & CR \hline
InvFund &  $-\$2.423^{***}$  \hline
& (0.152) \hline
& \hline
IP &  $-\$4.050$  \hline
& (2.727) \hline
& \hline
HH\_Eq & 0.639 \hline
& (5.144) \hline
& \hline
 $\Delta$ GDP &  $-\$4.941$  \hline
& (3.538) \hline
& \hline
HICP &  $-\$0.065^{***}$  \hline
& (0.009) \hline
& \hline
Constant &  $6.502^{***}$  \hline
& (0.621) \hline
& \hline
\hline \hline & CR \hline
\hline \hline & CR \hline
Observations & 41 \hline
R2 & 0.980 \hline
Adjusted R2 & 0.977 \hline
Residual Std. Error & 0.359 (df = 35) \hline
F Statistic &  $344.904^{***}$  (df = 5; 35) \hline
\hline
\hline \hline & CR \hline
\textit{Note:} & \multicolumn{1}{r}{ $^{*}p < 0.1$ ; \hline
 $^{**}p < 0.05$ ; \hline
 $^{***}p < 0.01$ } \hline
\end{tabular}
\end{threeparttable}
\end{table}
\begin{table}[!htbp] \centering
  \caption{HH\_Eq Differenced by 1Q}
  \label{tab:regression_results2}
\begin{tabular}{@{\extracolsep{5pt}}lc}
\hline
\hline \hline
& \multicolumn{1}{c}{\textit{Dependent variable:}} \hline
\cline{2-2}
\hline \hline & CR \hline
\hline \hline & CR \hline
InvFund &  $-\$2.437^{***}$  \hline
& (0.135) \hline
& \hline
& \hline
IP &  $-\$5.312^{**}$  \hline
& (1.967) \hline
& \hline
HH\_Eq\_diff & 4.084 \hline
& (2.902) \hline
& \hline
 $\Delta$ GDP &  $-\$4.578$  \hline
& (2.961) \hline
& \hline
HICP &  $-\$0.065^{***}$  \hline
& (0.009) \hline
& \hline
Constant &  $6.645^{***}$  \hline
& (0.613) \hline
& \hline
\hline \hline & CR \hline
\hline \hline & CR \hline
Observations & 40 \hline
R2 & 0.981 \hline
Adjusted R2 & 0.978 \hline
Residual Std. Error & 0.349 (df = 34) \hline
F Statistic &  $352.958^{***}$  (df = 5; 34) \hline
\hline
\hline \hline & CR \hline
\textit{Note:} & \multicolumn{1}{r}{ $^{*}p < 0.1$ ; \hline
 $^{**}p < 0.05$ ; \hline
 $^{***}p < 0.01$ } \hline
\end{tabular}
\end{table}
\begin{table}[!htbp] \centering
  \caption{HH\_Eq Differenced by 2Q}
  \label{tab:regression_results3}
\begin{tabular}{@{\extracolsep{5pt}}lc}
\hline
\hline \hline
& \multicolumn{1}{c}{\textit{Dependent variable:}} \hline
\cline{2-2}
\hline \hline & CR \hline
\hline \hline & CR \hline
InvFund &  $-\$2.363^{***}$  \hline
& (0.138) \hline
& \hline
IP &  $-\$3.482^{**}$  \hline
& (1.701) \hline
& \hline
HH\_Eq\_diff1 &  $-\$6.443^{*}$  \hline
& (3.687) \hline
& \hline
 $\Delta$ GDP &  $-\$2.054$  \hline
& (3.344) \hline
& \hline
HICP &  $-\$0.068^{***}$  \hline
& (0.009) \hline
& \hline
Constant &  $6.670^{***}$  \hline
& (0.605) \hline
& \hline
\hline \hline & CR \hline
\hline \hline & CR \hline
Observations & 40 \hline
R2 & 0.982 \hline
Adjusted R2 & 0.979 \hline

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Residual Std. Error & 0.344 (df = 34) \\
F Statistic & 363.696$^{***}$ (df = 5; 34) \\
\hline
\hline \[-1.8ex]
```

```
\textit{Note:} & \multicolumn{1}{r}{{}^{*}}p$<$0.1;
{}^{**}}p$<$0.05; {}^{***}}p$<$0.01} \\
\end{tabular}
\end{table}
\end{document}
```