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The mobilisation of capital in Germany

On three questions around private investments



Update

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The need for capital mobilisation in Germany appears in a threefold manner these days – this study investigated them in three distinct chapters along some key questions

Overview of contents

Mobilising private capital for projects of federal and entrepreneurial interest

Four guiding questions in focus:

- A**
- Which effective mechanisms can **capital markets provide in supporting public financing and crowding in private capital?**
 - How does the **German ecosystem compare to that in other countries**, both in the EU and beyond?
 - What **role can investment banks** play in this effort, e.g. by supporting companies access to market-based funding options?
 - How should **German and EU-level initiatives be designed** to close persistent funding gaps, attract venture/ growth capital and deepen capital markets?

Two perspectives analysed:

- A.1** Government backed funding, i.e. releasing the debt brake *pp. 5 – 22*
- A.2** Strengthening and supporting the start-up and scale-up ecosystems *pp. 24 – 41*

B **Stabilising the pension system** – Germany's pay-as-you-go pension system faces **growing demographic and fiscal pressures**. Political initiatives have so far fallen short: the "Generationenkapital" was scrapped, and the new coalition's child pension scheme appears at most to be a modest step.

*How can the **system be stabilised** to allow **broader participation in capital market returns**?*

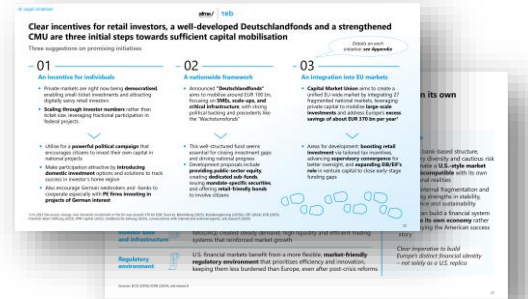
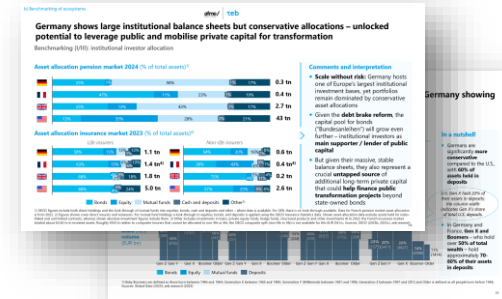
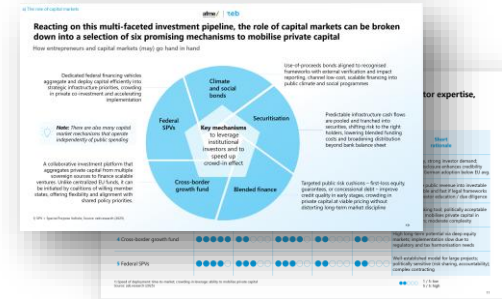
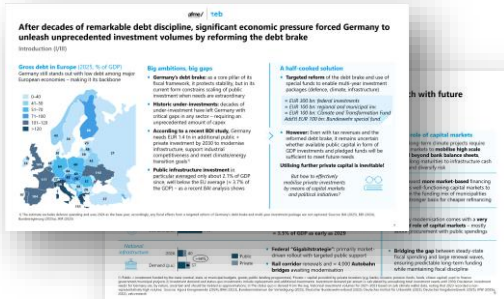
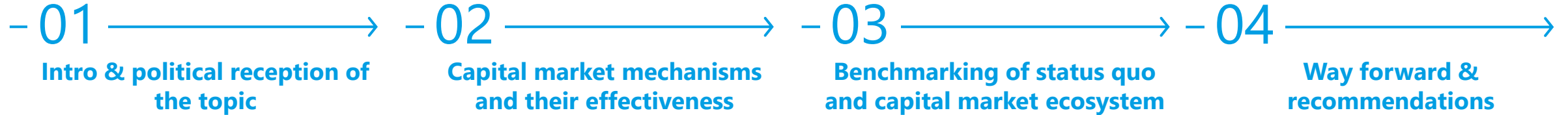
pp. 42 – 56

C **Boosting equities and fund holdings** – compared to other advanced economies, German house-holds hold a disproportionately high share of low-yield savings accounts, **while equity and fund ownership remain limited**.

- How was the **development over the past few years** and how successful were **past initiatives**?
- Can targeted tax incentives help, and what are **effective incentive structures**?

pp. 57 – 67

Reading guide – study chapters will follow a consistent overarching structure



Outlines the topic's background and highlights its political relevance and public reception

Explains the topic's key capital-market mechanisms and evaluates their functional effectiveness

Benchmarks current market structures and assesses strengths, gaps, and improvement levers

Derives a clear way forward and formulates actionable, impact-oriented recommendations.



A.1 Mobilising capital for Germany's investment backlog

Executive Summary of Chapter A.1

The enormous investment backlog in Germany poses a multifaceted challenge for politics and the economy. The debt brake reform was only a first step towards a future-ready leading industrial country that cannot assure sustained, long-term GDP growth alone.

a **Effective mechanisms:** Capital markets can support Germany's public financing by creating scalable structures that crowd in private capital while retaining expert-based governance and disciplined allocation. Instruments such as blended-finance vehicles, infrastructure project and green bonds, securitisation platforms and public-private funds help transfer risk to those best able to bear it and attract long-term institutional investors. These mechanisms accelerate delivery by enabling upfront financing, creating predictable deal flow and embedding professional asset-management practices that ensure alignment with strategic priorities. A transparent governance framework and stable regulation further enhance investor confidence and reduce friction in mobilising capital at scale.

b **International comparison:** Germany's ecosystem benefits from large institutional balance sheets and strong public intermediaries, yet it remains more conservative and fragmented than its Anglo-Saxon peers. In the U.S. and the UK, deep, liquid and innovative capital markets enable faster mobilisation of private capital, although these systems also face volatility and permitting challenges. With France, Germany shares a state-led development-bank architecture, but both countries struggle with administrative complexity and cautious investor behaviour, limiting broader crowd-in effects. Overall, Germany trails global leaders in market depth, equity culture and financing agility, but its institutional capacity gives it significant latent potential.

c **Including banks:** Investment banks act as multipliers by originating and structuring investable projects, transforming risks into institutional-grade exposures and building vehicles that bridge public ambitions with private-capital requirements. They help companies navigate market-based funding options – such as green bonds, structured notes and hybrid instruments – and provide advisory capabilities that raise credit quality and investor readiness. As portfolio managers and arrangers, banks can channel institutional capital into public-interest projects while ensuring professional oversight and long-term stewardship. Their position at the intersection of government, corporates and investors makes them essential orchestrators of scalable transformation finance.

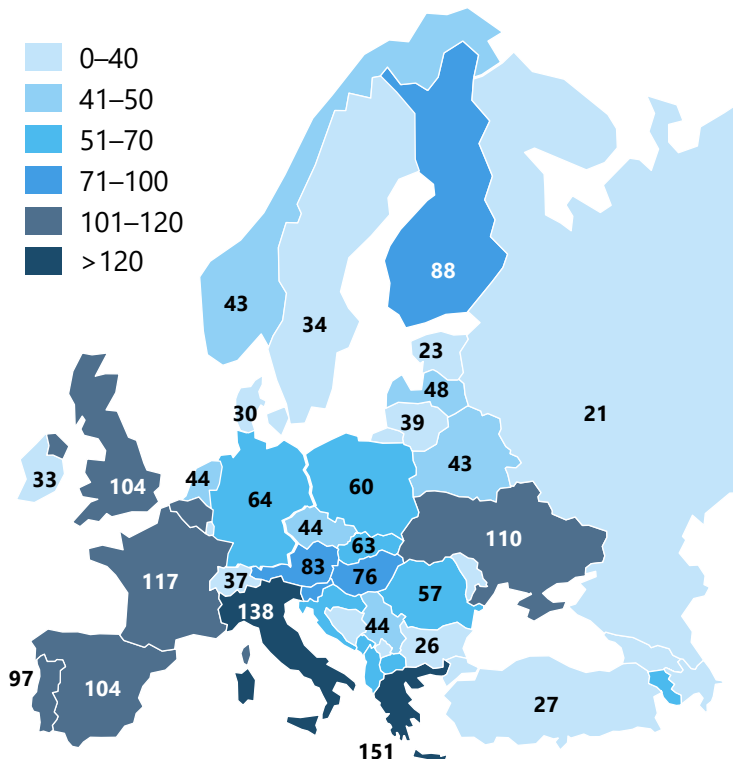
d **Designing initiatives:** German and EU initiatives should prioritise simplicity, scale and cross-border operability, thereby reducing fragmentation and accelerating permitting and project preparation. Vehicles like the proposed "Deutschlandfonds" (Germany Fund) should be structured with clear mandates, blended-finance features and transparent governance to close funding gaps while attracting both retail and institutional investors. At the EU level, a strengthened Capital Markets Union should harmonise insolvency rules and create pan-European investment channels that deepen liquidity and broaden the investor base. By combining national instruments with European-scale platforms, policymakers can unlock long-term capital to ensure a coherent financing architecture for the German green and digital transitions.

After decades of remarkable debt discipline, significant economic pressure forced Germany to unleash unprecedented investment volumes by reforming the debt brake

Introduction (I/III)

Gross debt in Europe (2025, % of GDP)

Germany still stands out with low debt among major European economies – making it its backbone



Big ambitions, big gaps

- **Germany’s debt brake:** as a core pillar of its fiscal framework, it protects stability, but in its current form constrains scaling of public investment when needs are extraordinary
- **Historic under-investments:** decades of under-investment have left Germany with critical gaps in any sector – requiring an unprecedented amount of capex
- **According to a recent BDI study,** Germany needs EUR 1.4 tn in additional public + private investment by 2030 to modernise infrastructure, support industrial competitiveness and meet climate/energy transition goals¹⁾
- **Public infrastructure investment** in particular averaged only about 2.1% of GDP since, well below the EU average (≈ 3.7% of the GDP) – as a recent BAI analysis shows

A half-cooked solution

- **Targeted reform** of the debt brake and use of special funds to enable multi-year investment packages (defence, climate, infrastructure)

≈ EUR 300 bn: federal investments
 ≈ EUR 100 bn: regional and municipal inv.
 ≈ EUR 100 bn: Climate and Transformation Fund
 Add’l EUR 100 bn: Bundeswehr special fund

- **However:** Even with tax revenues and the reformed debt brake, it remains uncertain whether available public capital in form of GDP investments and pledged funds will be sufficient to meet future needs

Utilising further private capital is inevitable!

But how to effectively mobilise private investments by means of capital markets and political initiatives?



¹⁾ The estimate excludes defence spending and uses 2024 as the base year; accordingly, any fiscal effects from a targeted reform of Germany’s debt brake and multi-year investment package are not captured; Sources: BAI (2025), BDI (2024), Bundesregierung (2025a), IMF (2025)

This decision caused various echoes in the political landscape and raised four central questions on the efficient mobilisation of further capital of private origin

Introduction (II/III)

Echoes in the press ...

CDU Wirtschaftsrat calls on Klingbeil to mobilise private capital as well

Entrepreneurs miss measures for **more private capital in the draft law on the 500 billion euro special fund** and demand improvements from the Ministry of Finance.

(Der Tagesspiegel, August 28, 2025)

If properly designed and implemented, the public **"Deutschlandfonds"** can play a decisive role in enabling the necessary instruments in infrastructure and the transformation of the economy in a timely and efficient manner and at low capital costs.

(Friedrich-Ebert-Stiftung, July 2025, zeb translation)

Higher government spending alone will not fix Germany, warns IMF

(Financial Times, November 26, 2025)

... and voices of politicians

"With the special fund – EUR 500 billion – we are initiating the greatest modernisation of our country in decades. [...] We are bringing **massive private and public investment** together"

(Lars Klingbeil, [Minister of Finance](#), June 2025, zeb translation)



"Germany is using its balance sheet and its capacity to borrow."

(Christine Lagarde, [President of the ECB](#), May 2025)

"The necessary resources for that **cannot be financed solely from the current budgets** of the federal government, the federal countries and the municipalities."

(Friedrich Merz, [German Chancellor](#), March 2025, zeb translation)

How can the capital markets support?

We aim to provide guardrails and inspiration along the following guiding questions:

- a) With which mechanisms can capital markets effectively **mobilise private capital** for strategic investment?
- b) How does Germany's **capital market ecosystem compare** with its EU and global peers?
- c) What role can **investment banks** play in expanding market-based funding access for companies?
- d) How can **German and EU initiatives** close funding gaps, attract capital and deepen cross-border markets?

Historic public and private capital mobilisation in Germany does not match with future investment needs in every major sector

Introduction (III/III)

Investments today and demand p.a. (EUR bn)^{1,2)}

Net zero



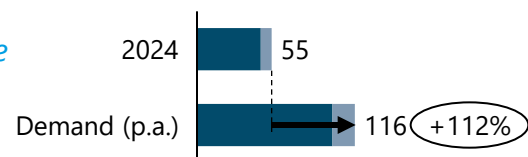
General remarks

- **329 bn in annual investment by 2030** to keep Germany on track for its net-zero targets
- **Large share** of capital for climate transition is mobilised **via private investors** (80%)

Specific role of capital markets

- Large, long-term climate projects require capital markets to **mobilise high scale capital beyond bank balance sheets**, match long maturities to infrastructure cash flows, and diversify risk

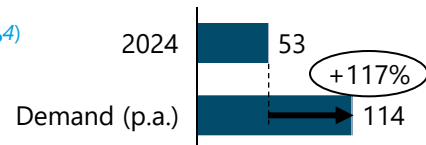
Municipal infrastructure



- **Investment needs** especially in broader transport infrastructure, housing and schools
- **Substantial incremental capex** over the next years to close critical infrastructure gaps

- Shift toward **more market-based** financing requires well-functioning capital markets to broaden the funding mix of municipalities and a stronger basis for cheaper refinancing

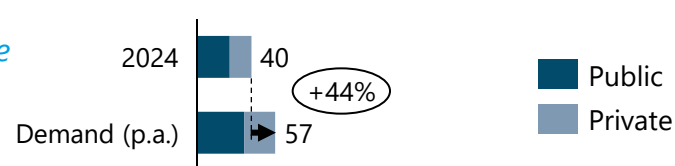
Defence and resilience⁴⁾



- NATO raised its defence spending goal from **2% to 3.5% of GDP** by 2035
- Germany reached 2% in 2024 and targets **≈ 3.5% of GDP as early as 2029**

- Military modernisation comes with a **very limited role of capital markets** – mostly about procurement with public spendings

National infrastructure



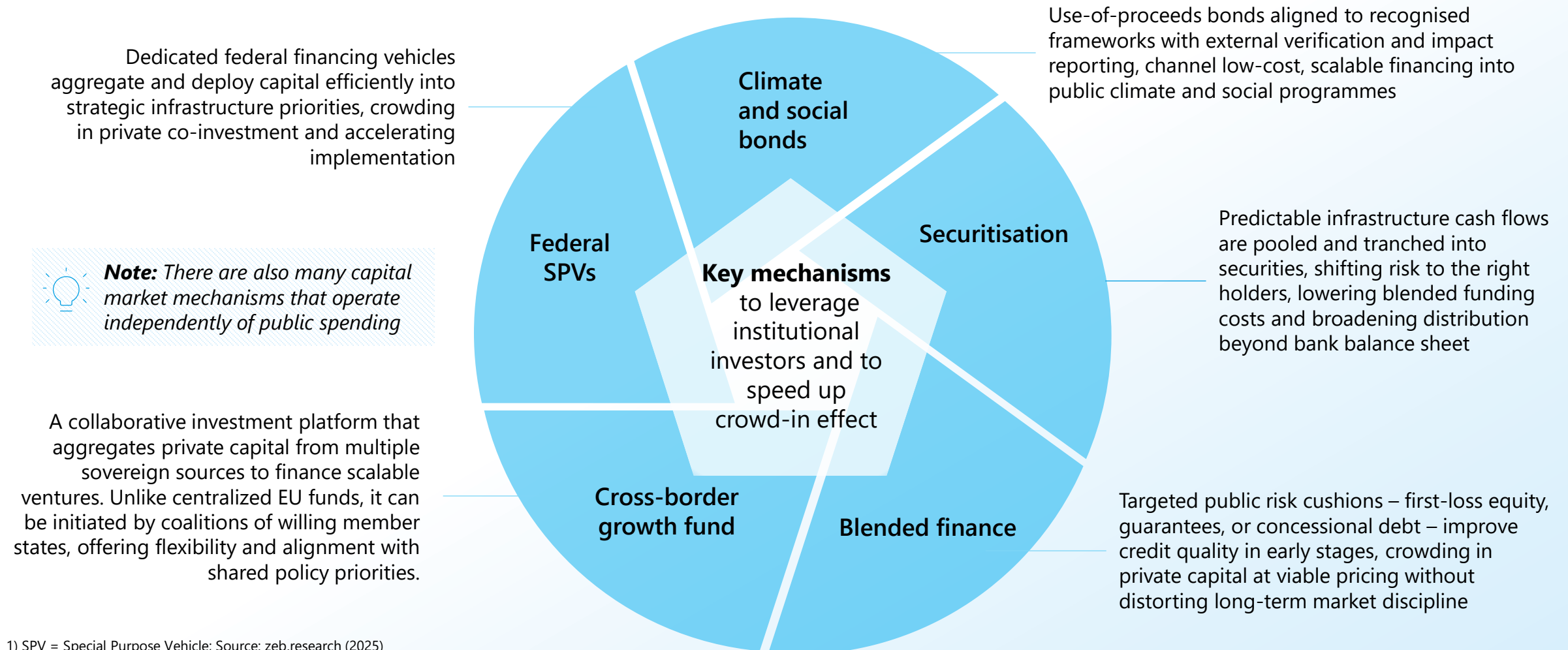
- **Federal "Gigabitstrategie"**: primarily market-driven rollout with targeted public support
- **Rail corridor** renewals and **≈ 4,000 Autobahn bridges** awaiting modernisation

- **Bridging the gap** between steady-state fiscal spending and large renewal waves, ensuring predictable long-term funding while maintaining fiscal discipline

1) Public = investment funded by the state (central, state, or municipal budgets, grants, public lending programmes), Private = capital provided by private investors (e.g. banks, insurers, pension funds, funds, citizen capital) used to finance government/municipal projects 2) Investment demand and status-quo investments include replacement and additional investments. Investment demand per annum is calculated by annualising total investment needs until 2030; Disclaimer: investment needs for Germany are, by nature, uncertain and should be treated as approximations; 3) The status quo is derived from the avg. historical investment volumes for 2021–2023 based on zeb climate wallet data, noting that 2023 recorded a non-representatively high volume; 4) Note that increased defence spending (apart from the procurement of traditional armaments) is not entirely government-funded. This private spending exceeds the strict NATO target of 3.5%, namely the overall 5% target including critical infrastructure with dual-use functions, which is also funded by the private sector, but difficult to quantify. Sources: Agora Energiewende (2024), BNA (2023), Bundesministerium der Verteidigung (2025), Deutscher Bundeswehrverband (2025), Deutsches Institut für Urbanistik (2023), Deutsches Vergabernetzwerk (2025), KfW (2025a, 2022), zeb.research

Reacting on this multi-faceted investment pipeline, the role of capital markets can be broken down into a selection of five promising mechanisms to mobilise private capital

How entrepreneurs and capital markets (may) go hand in hand



1) SPV = Special Purpose Vehicle; Source: zeb.research (2025)

The five mechanisms, applied to leverage institutional investors and private sector expertise, differ in their overall effectiveness in funding state-owned projects

Overall assessment of effectiveness

Mechanism / Assessment Dim. ¹⁾	Capital volume	Speed to output	Crowding-in effect	Regulatory simplicity	Implementation feasibility	Short rationale
1 Climate and social bonds	●●●●○	●●●●●	●●●●○	●●●●○	●●●●○	Quick to deploy, strong investor demand; standardised disclosure enhances credibility and scalability. German adoption below EU avg.
2 Securitisation	●●●●○	●●●●○	●●●●○	●●●○○	●●●○○	Converts stable public revenue into investable products; scalable and fast if legal frameworks exist; needs investor education / due diligence
3 Blended finance	●●●○○	●●●○○	●●●●●	●●●○○	●●●○○	Powerful de-risking tool; politically acceptable when targeted; mobilises private capital in strategic sectors; moderate complexity
4 Cross-border growth fund	●●●●●	●●○○○	●●●●○	●●○○○	●●○○○	High long-term potential via deep equity markets; implementation slow due to regulatory and tax harmonisation needs
5 Federal SPVs	●●●●○	●●●○○	●●●○○	●●○○○	●●○○○	Well-established model for large projects; politically sensitive (risk sharing, accountability); complex contracting

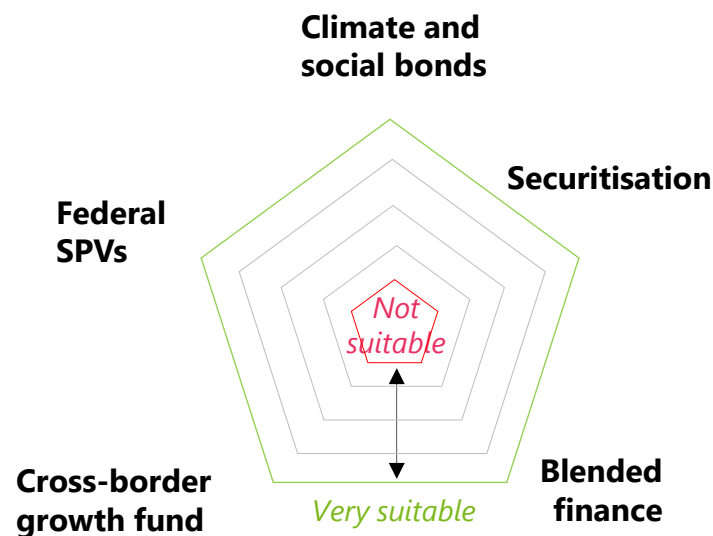
1) Speed of deployment: time-to-market; crowding-in leverage: ability to mobilise private capital
Source: zeb.research (2025)



Applied to the four investment categories, the five mechanisms have different priorities

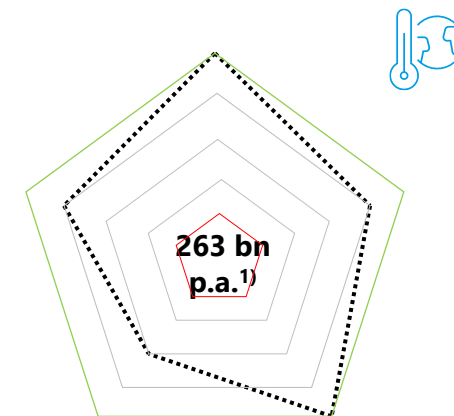
Specific assessment: market mechanisms in federal investment areas (I/II)

Assessment logic of mechanisms



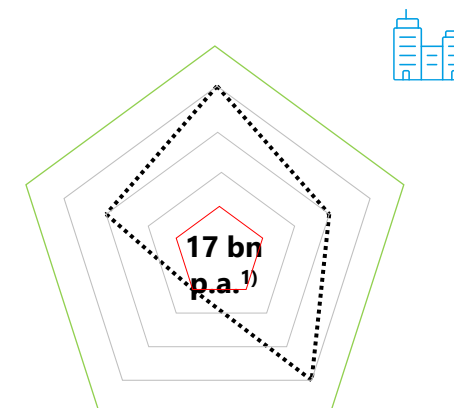
Net zero

- **Climate & social bonds (5/5):** aligned with ESG mandates, benefit from deep investor demand, and can be deployed quickly at scale
- **Securitisation (4/5):** aggregates distributed low-carbon assets into investment-grade products, scale is still constrained by standardisation
- **Blended finance (5/5):** Materially de-risks emerging technologies and mobilises private capital that would otherwise not enter
- **Cross-border growth fund (3/5):** added complexity and longer set-up times despite offering diversification
- **Federal SPVs (4/5):** structural clarity, risk separation, and political backing for large climate transition projects



Municipal infrastructure

- **Climate & social bonds (4/5):** for larger municipalities with strong credit profiles, but less accessible to smaller cities
- **Securitisation (3/5):** can bundle fragmented assets, yet faces legal, data and scale limitations at the local level
- **Blended finance (4/5):** Esp. useful for municipalities as public risk-sharing improves project bankability and investor confidence
- **Cross-border growth fund (1/5):** absent foreign investor appetite for heterogeneous local projects and regulatory hurdles
- **Federal SPVs (3/5):** Helpful for aggregation and expertise pooling, but constrained by governance complexity and political coordination

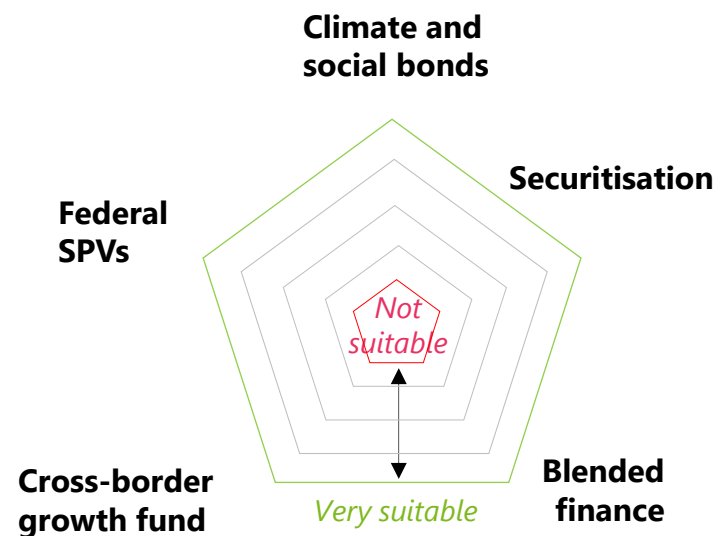


1) Estimated annual private-capital needs through 2030; Sources: ECB (2024), European Commission (2025a, 2025b), G20/OECD (2024), OECD (2025a), PRI (2025), Universität Ulm (2024)

Applied to the four investment categories, the five mechanisms have different priorities

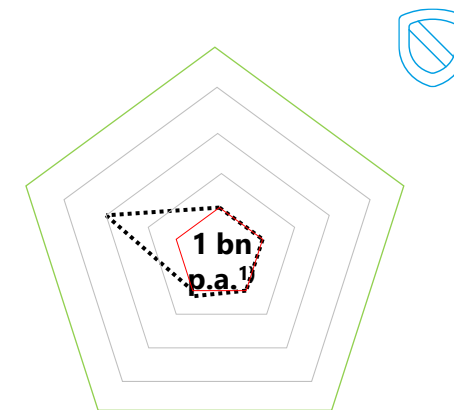
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Assessment logic of mechanisms



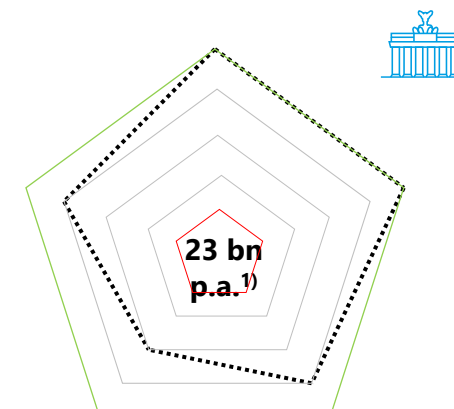
Defence and resilience

- **Climate & social bonds (1/5):** defence projects are so far generally ineligible under ESG frameworks and lack mandate compatibility
- **Securitisation (1/5):** defence assets are neither standardised nor suitable for packaging into marketable securities – no financial outcome
- **Blended finance (1/5):** defence investments are politically sensitive and rarely structured for private co-investment
- **Cross-border growth fund (1/5):** national security constraints and low political acceptability of foreign capital involvement
- **Federal SPVs (3/5):** allow controlled mobilisation of private capital for dual-use infrastructure while maintaining state oversight and security



National infrastructure

- **Climate & social bonds (5/5):** strong alignment with energy transition, transport, and resilience themes attractive to institutional investors
- **Securitisation (5/5):** mature, cash-generating assets can be easily pooled into investment-grade, scalable products
- **Blended finance (4/5):** public capital absorbs early-stage or policy risk, crowding in private investors at scale
- **Cross-border growth fund (3/5):** moderately effective due to investor interest, though regulatory differences and governance slow deployment
- **Federal SPVs (4/5):** highly useful for aggregating projects, improving bankability and aligning long-term national priorities with private capita

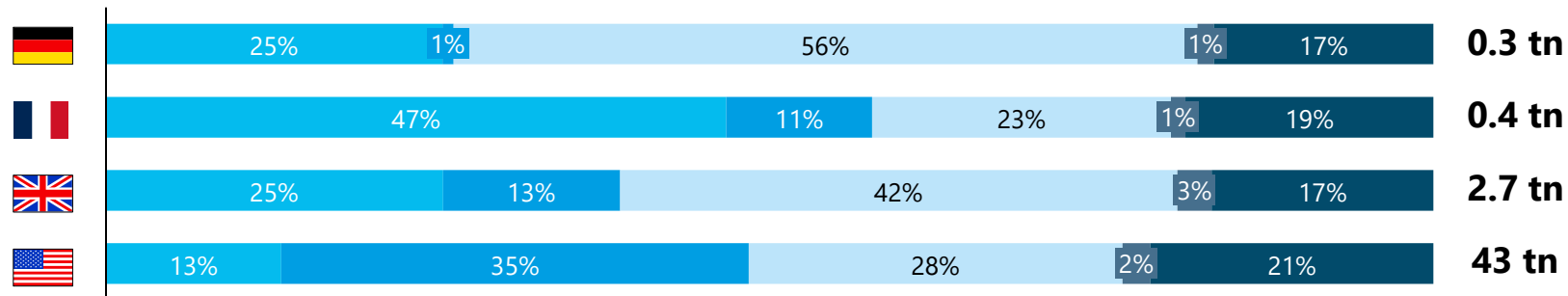


1) Estimated annual private-capital needs through 2030; Sources: ECB (2024), European Commission (2025a, 2025b), OECD (2025b), PRI (2025)

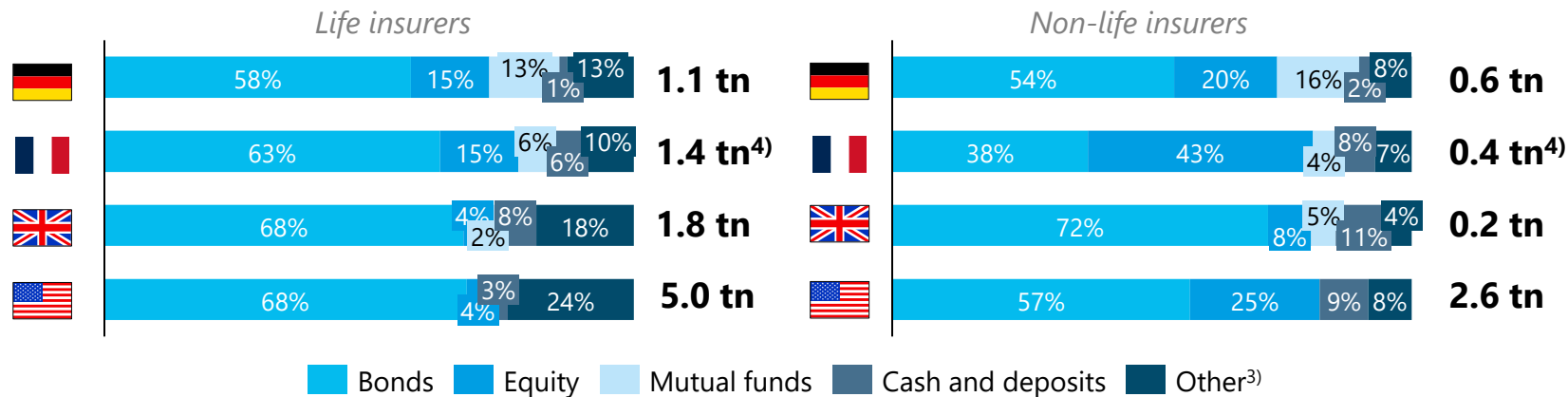
Germany shows large institutional balance sheets but conservative allocations – unlocked potential to leverage public and mobilise private capital for transformation

Benchmarking (I/III): institutional investor allocation

Asset allocation pension market 2024 (% of total assets)¹⁾



Asset allocation insurance market 2023 (% of total assets)²⁾



Comments and interpretation

- **Scale without risk:** Germany hosts one of Europe’s largest institutional investment bases, yet portfolios remain dominated by conservative asset allocations
- Given the **debt brake reform**, the capital pool for bonds (“Bundesanleihen”) will grow even further – institutional investors as **main supporter / lender of public capital**
- But given their massive, stable balance sheets, they also represent a crucial **untapped source** of additional long-term private capital that could **help finance public transformation projects** beyond state-owned bonds

1) OECD figures include both direct holdings and the look-through of mutual funds into equities, bonds, cash and deposits and other – where data is available. For GER, there is no look-through available. Data for French pension market asset allocation is from 2022. 2) Figures shown cover direct insurers and reinsurers. For mutual fund holdings a look-through to equities, bonds, and deposits is applied using the OECD Insurance Statistics data. Shown asset-allocation data exclude assets held for index-linked and unit-linked contracts, whereas shown absolute investment figures include them. 3) Other includes investments in loans, private equity funds, hedge funds, structured products and other investments 4) In 2023, the French insurance market totaled about €2.65 tn in invested assets. Roughly €0.8 tn relates to composite insurers that cannot be allocated to non-life or life; the OECD composite split (non-life vs life) is not available for this EUR 0.8 tn.; Sources: OECD (2025b, 2025c), zeb.research

Similar conservative investment patterns appear in private portfolios – with Germany showing significantly higher deposit shares than the U.S.

Benchmarking (II/III): idle deposits of individuals

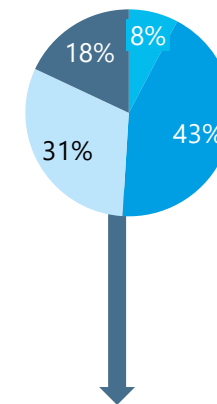
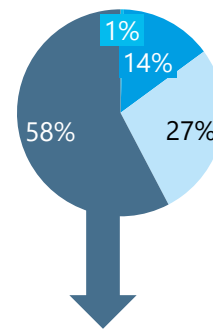
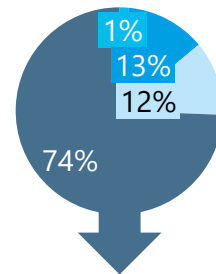
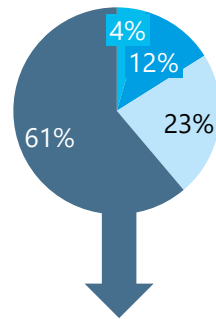
Germany 

France 

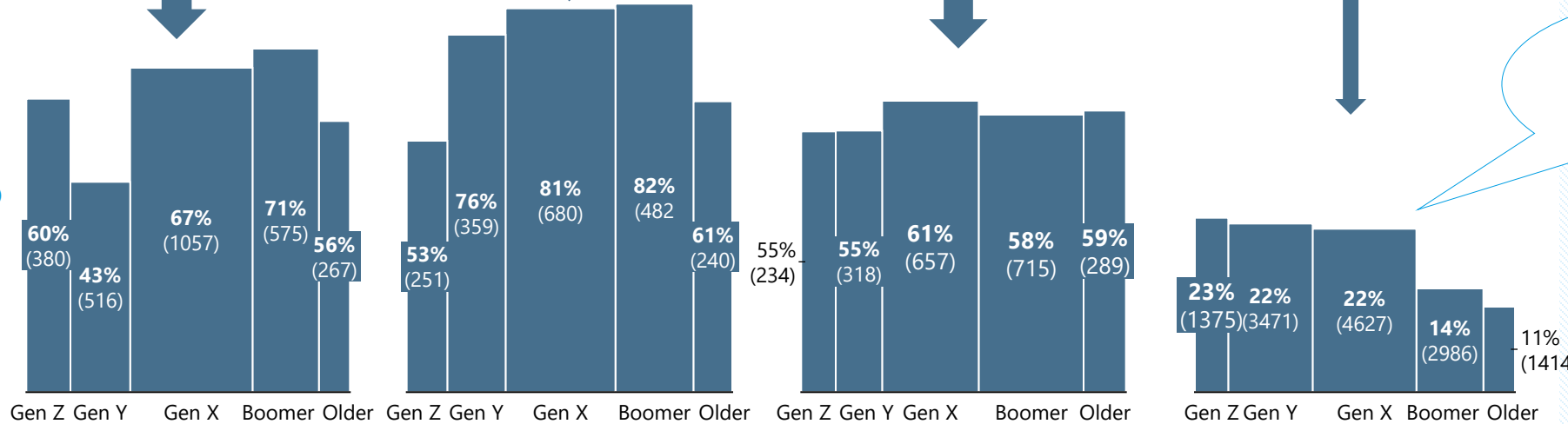
UK 

U.S. 

Liquid asset allocation private investment 2024



Generational¹⁾ share (%) / volume (EUR bn)



 Bonds  Equity  Mutual funds  Deposits

In a nutshell

- Germans are significantly **more conservative** compared to the U.S., with **60% of assets held in deposits**

U.S. Gen X hold 22% of their assets in deposits; the column width indicates Gen X's share of total U.S. deposits.

- In Germany and France, **Gen X and Boomers** – who hold over **50% of total wealth** – hold approximately **70-80% of their assets in deposits**

1) Baby Boomers are defined as those born between 1946 and 1964, Generation X between 1965 and 1980, Generation Y (Millennials) between 1981 and 1996, Generation Z between 1997 and 2012 and Older is defined as all people born before 1946; Sources: Global Data (2025), zeb.research (2025)

Along four assessment dimensions, a benchmarking of the capital market ecosystem reveals a clear levels of maturity

Benchmarking (III/III): ecosystems – overview

Assessment framework – with cross-references to mechanisms

Institutional and policy architecture

How well a country's public institutions, rules and strategies enable collaboration between government and private investors

Innovation

Ability to create and scale new financing solutions that de-risk and attract private capital



Capital-market depth

Size, diversity and sophistication of domestic financial markets and the availability of instruments to finance long-term projects

Pipeline and bankability

Quality, transparency and readiness of investment projects, including permitting, standardisation and visibility to potential investors

Overall capital mobilisation maturity¹⁾

Very high – the U.S. combine unparalleled capital-market capacity, a vast municipal-bond ecosystem and strong federal programmes (*IJA, IRA, DOE-LPO*). Fragmented coordination of 50 state and political polarisation remain the main barriers.



High – the UK hosts one of the world's deepest capital markets, with ecosystems supported by the *UK Infrastructure Bank*. Yet, shifting policy signals and regulatory uncertainty, esp. in energy and utilities, undermine investor confidence.



High – France benefits from strong state coordination, an active public investment bank (*Bpifrance*), and a mature sustainable-finance market. However, centralisation and risk-averse regulation still constrain diversity and speed of private long-term engagement.



Medium – Germany has powerful public financing institutions, but conservatism and fiscal rigidity limit large-scale private participation. Strengthening SPV frameworks, streamlining permitting and mobilising insurance and pension funds would significantly improve the situation.



1) Abbreviations: IJA = Infrastructure Investment and Jobs Act, IRA = Inflation Reduction Act, DOE-LPO = U.S. Department of Energy - Loan Programs Office; Sources: An assessment by zeb.research (2025), detailed sources / background on following two slides

Anglo-Saxon markets are exceptionally deep and innovative, but policy volatility and permitting bottlenecks limit consistency and speed of private capital mobilisation

Benchmarking III: ecosystems – deep dive per country (I/II)

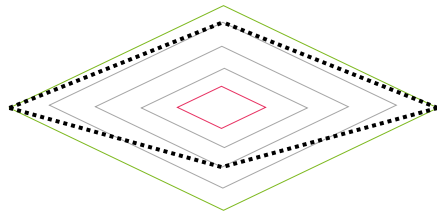


Institutional and policy architecture

Strong **federal stimulus** (IIJA, IRA) combined with **powerful state agencies**; DOE Loan Programs Office (LPO), U.S. DFC, and **Green Banks** crowd in capital; federalism leads to uneven execution

Innovation

LPO and new national Green Bank offer **guarantees and first-loss capital**; ESG backlash complicates some climate finance in certain states; **defence sector well integrated with private markets**



Capital-market depth

Deepest global capital market; municipal-bond market (≈ USD 4 tn outstanding) is the backbone of sub-national infrastructure finance. **Huge VC and PE pools** active in clean-tech

Pipeline and bankability

Massive volume, but **coordination issues** and **permitting bottlenecks**

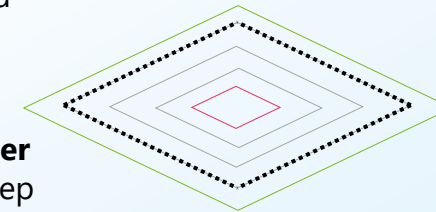


Institutional and policy architecture

Mature PPP/PFI legacy (though politically constrained), UK Infrastructure Bank (UKIB) now central for crowd-in; **treasury's Green Book** ensures investment discipline but can slow approvals

Innovation

Active green-bond and infrastructure-fund sectors; UKIB, British Business Bank and Catapult **networks foster innovation finance**. Deep aerospace/dual-use capital markets



Capital-market depth

Exceptionally deep institutional investor base (pensions, insurers) and active infrastructure-fund market; **deepest VC/PE market**

Pipeline and bankability

National Infrastructure & Construction Pipeline transparent; challenges in **local capacity and regulatory stability**

IIJA = Infrastructure Investment and Jobs Act, IRA = Inflation Reduction Act, DOE-LPO = U.S. Department of Energy - Loan Programs Office, U.S. DFC = U.S. International Development Finance Corporation, PPP = public-private partnership, PFI = Private Finance Initiative, UKIB = UK Infrastructure Bank; Sources: CBO (2025), HM Treasury (2025), NIC (2025), OECD (2025d), ONS (2025), U.S. Department of Energy (2025), U.S. Census Bureau (2025)

France and Germany rely on state-led architectures and development banks, yet administrative fragmentation and cautious investors constrain broader crowd-in

Benchmarking III: ecosystems – deep dive per country (II/II)

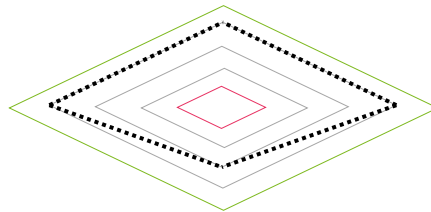


Institutional and policy architecture

Highly **centralised system** with clear direction under France 2030; *Bpifrance* acts as a powerful investment and guarantee vehicle; **strong coordination** for industrial and green policy

Innovation

Bpifrance actively leverages EU and private funds; strong **ESG bond and VC ecosystems**; defence sector fully integrated with state-backed champions



Capital-market depth

Large **life-insurance and asset-management** base, robust sovereign and **bond markets**; Paris' financial centre active in sustainable finance taxonomy

Pipeline and bankability

Solid pipeline of **energy, transport and defence innovation** projects ("*France 2030*"). Public administration often leads; **PPP use limited** after past controversies

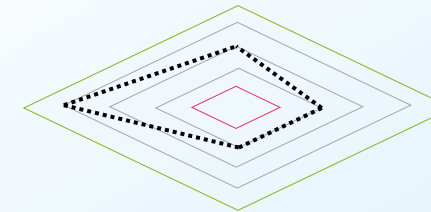


Institutional and policy architecture

Strong public development banking via KfW and **solid infrastructure policy** architecture; however, **fiscal-rule rigidity** and **fragmented governance** limit rapid crowd-in

Innovation

KfW offers strong **blended-finance** and **guarantee tools**; institutional investors **remain risk-averse**



Capital-market depth

Deep banking system and insurance sector, but **limited use of capital-market vehicles**, FI-driven investments; green bond sovereign issuance yet growing

Pipeline and bankability

Projects exist but **permit delays and procurement complexity** impede scaling. Largest outstanding ESG government bond volume in EU

Banks play multiple intermediation roles simultaneously – originators, structurers, risk transformers and managers connecting institutional capital to public transformation

Banks as intermediaries in private-public financing

Origination



Public sector
–
Public utilities
–
Association partners
(savings banks)

Forms of financing

- Loan financing
 - Promotional loans
 - Capital market products
 - Off-balance sheet financing
-
- Debt mezzanine
 - Equity mezzanine
 - Fund models
-
- Direct investments
 - Platform solutions
-
- Funding advice
 - Debt capital markets
 - Risk management



Investment bank

Debt capital

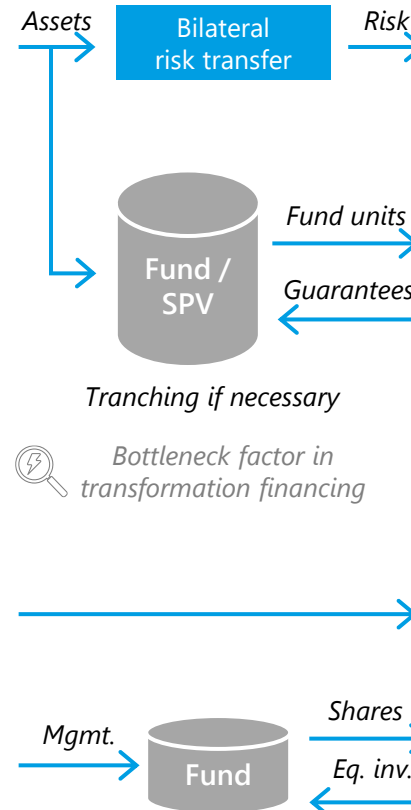
Mezzanine

Equity

Advisory

Asset management

Secondary markets



Investors



Savings banks
–
Insurances
–
Pension fund
–
Funding institutions
–
Private investors
–
Other

Key aspects

Illustrates how investment banks act as intermediaries between the public sector and private investors to finance projects of strategic or public interest:

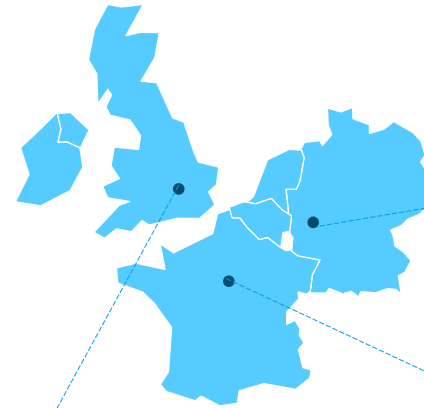
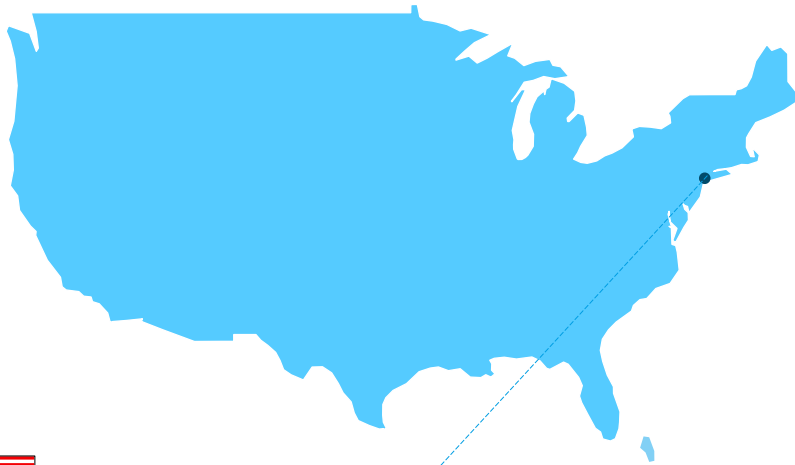
- **Origination:** public entities initiate projects and seek financing. Banks structure and provide different forms of financing
- **Investment bank:** aggregates, structures and manages these investments, bundles them into funds or SPVs, offers advisory and risk-management services and acts as a bridge to capital markets
- **Institutional investors:** provide long-term capital – through fund units, guarantees or asset purchases, they take on exposure to the underlying public projects

Investment banks play a pivotal role in applying previous outlined mechanisms to help companies access market-based sources of funding

Selection of successful bank-led projects

U.S. precedents for capital mobilisation

European precedents for capital mobilisation



Note: Banks' contribution goes beyond issuing green debt: they are lead originators of corporate green debt, act as primary dealers for sovereign green bonds, support liquidity in carbon markets etc.



Morgan Stanley



In 2020, **Morgan Stanley** issued **USD 1 bn social bond** to expand access to affordable housing across the US. The bond helped finance approx. 500 housing projects, creating around **57,000 affordable units**.

Bank of America as one of the world's largest sustainable bond issuers, with around **USD 15 bn in cumulative green and social issuances since 2013**.



In 2024, the National Wealth Fund (NWF) **partnered with Barclays and Lloyds** to deliver **GBP 1 bn** for social housing retrofits, with each bank providing GBP 500 m in loans backed by up to GBP 750 m in NWF guarantees to crowd in private capital.



Deutsche Bank issued **24 green bonds** and **6 green structured notes** in 2024, adding **EUR 600 m** to its green liability pool, which stood at EUR 6.6 bn at the end of 2024.



bpifrance

In 2024, Bpifrance provided **EUR 5.16 bn in innovation financing** to over 5,500 French companies, including EUR 970 m in structural innovation aid via loans and grants.

Given the U.S. capital market's unique historical roots, Europe should build on its own strengths and shape a model suited to its economic landscape

Design alternatives

Large, unified national market



The U.S.' unified economic and regulatory framework enabled companies to **raise funds seamlessly across state borders**, helping its national capital markets grow deep and highly developed

Historically fragmented banking sector



While restrictions on nationwide banking **historically limited the role of large universal banks** and pushed firms early toward public equity and debt markets, bank assets today are concentrated in large banks

Risk-taking and entrepreneurial culture



A strong **tradition of risk-taking, innovation and founder-driven business** building encouraged equity financing, venture capital formation and active participation in capital markets

Institutional investor base and infrastructure



Large pension funds and less fragmented exchanges (NYSE, NASDAQ) created steady demand, high liquidity and efficient trading systems that reinforced market growth

Regulatory environment



U.S. financial markets benefit from a more flexible, **market-friendly regulatory environment** that prioritises efficiency and innovation, keeping them less burdened than Europe, even after post-crisis reforms

Conclusion

- Europe's bank-based structure, regulatory diversity and cautious risk culture make a **U.S.-style market model incompatible** with its own institutional realities
- Reduce internal fragmentation and leveraging strengths in stability, governance and sustainability
- The EU can build a financial system **suited to its own economy** rather than copying the American success story

Clear imperative to build Europe's distinct financial identity – not solely as a U.S. replica

Clear incentives for retail investors, a well-developed Deutschlandfonds and a strengthened CMU are three initial steps towards sufficient capital mobilisation

Three suggestions on promising initiatives

Details on each initiative: **see Appendix**

01

An incentive for individuals

- Private markets are right now being **democratised**, enabling small-ticket investments and attracting digitally savvy retail investors
- **Scaling through investor numbers** rather than ticket size, leveraging fractional participation in federal projects



- Utilise for a **powerful political campaign** that encourages citizens to invest their own capital in national projects
- Make participation attractive by **introducing domestic investment** options and solutions to track success in investor's home region
- Also encourage German neobrokers and -banks to cooperate especially with **PE firms investing in projects of German interest**

02

A nationwide framework

- Announced "**Deutschlandfonds**" aims to mobilise around EUR 100 bn, focusing on **SMEs, scale-ups, and critical infrastructure**, with strong political backing and precedents like the "Wachstumsfonds"



- This well-structured fund seems essential for closing investment gaps and driving national progress
- Development proposals include **providing public-sector equity**, creating **dedicated sub-funds**, issuing **mandate-specific securities**, and offering **retail-friendly bonds** to involve citizens

03

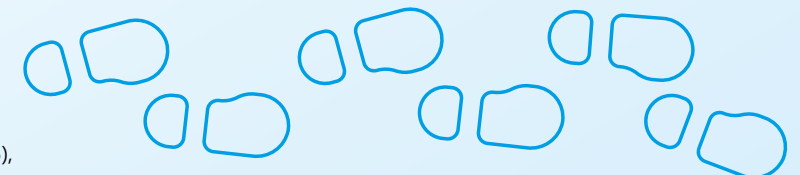
An integration into EU markets

- **Capital Market Union** aims to create a unified EU-wide market by integrating 27 fragmented national markets, leveraging private capital to mobilise **large-scale investments** and address Europe's **excess savings of about EUR 370 bn per year**¹



- Areas for development: **boosting retail investment** via tailored tax incentives, advancing **supervisory convergence** for better oversight, and **expanding EIB/EIF's role** in venture capital to close early-stage funding gaps

¹) In 2023 the excess savings over domestic investment in the EU was around 370 bn EUR; Sources: Bloomberg (2025), Bundesregierung (2025b), CEP (2024), ECB (2025), Friedrich-Ebert-Stiftung (2025), KfW Capital (2025), Süddeutsche Zeitung (2025), conversations with internal and external experts, zeb.research (2025)





A.2 Mobilising capital for Germany's investment entrepreneurship

Executive Summary of Chapter A.2

Germany's current challenge lies in translating its renowned engineering excellence into a dynamic, equity-based innovation ecosystem capable of producing globally competitive start-ups and scale-ups that will fuel a sustained GDP growth after years of stagnation.

- a** **Effective mechanisms:** Capital markets should act as accelerators for Germany's underpowered start-up ecosystem by expanding their access to equity-based financing, strengthening late-stage funding and reducing systemic overreliance on bank lending. Cross-border VC syndication, public-private co-investment platforms and specialist scale-up funds help diversify funding sources and bring global expertise into domestic deal flow. These mechanisms also enable faster execution, as international investors introduce higher standards of due diligence and market discipline. By embedding these structures in a predictable regulatory environment, Germany can bridge the gap between its engineering legacy and the equity-driven innovation model needed for globally competitive companies.
- b** **International comparison:** Compared with the equity-centric ecosystems of the U.S. and the UK, Germany remains structurally bank-centric, which limits the availability of risk capital for start-ups and scale-ups. The U.S. offers a full-spectrum capital market – from angel financing to deep IPO and secondary markets – while the UK leads in Europe due to its strong financial infrastructure, exit optionality and global investor base. France, through consistent policy reforms and state-led VC instruments, has leapfrogged Germany in late-stage financing and unicorn generation. Although Germany still benefits from strong fundamentals, research clusters and industrial depth, its market maturity and risk appetite lag behind European frontrunners and global leaders.
- c** **Including banks:** Investment banks can help compensate for Germany's structural equity shortage by acting as connectors between young companies and market-based funding channels. Through advisory services, private placements, venture debt, structured growth financing and co-investment with VC funds, they can ease the transition from traditional Mittelstand-style financing to modern equity-driven growth capital. Banks also play an important role in validating business models, improving transparency and facilitating investor access – particularly for international financiers who are unfamiliar with the domestic market. By embracing a more entrepreneurial mandate, German banks can become catalysts rather than bottlenecks in the development of a vibrant innovation ecosystem.
- d** **Designing initiatives:** Of crucial importance are initiatives that directly address the shortage of early- and late-stage equity capital, limited exit pathways and persistent market fragmentation. The EU Savings & Investment Union and – one level below – for instance the Franco-German scale-up funds (FIVE) should prioritise simplicity, cross-border participation and predictability to unlock continental-scale financing. National reforms should focus on tax incentives for equity, streamlined employee participation schemes and Baltic-style regulatory agility to lower barriers for founders and investors alike. If executed coherently, these initiatives can create deeper, more liquid European capital markets and position Germany as a competitive hub for high-growth companies rather than a conservative outlier.

Germany, once synonymous with invention and “Made in Germany”, now struggles with a paralysing gap between its rich engineering heritage and underpowered innovation

Introduction (I/III)

Germany: an innovation engine ...

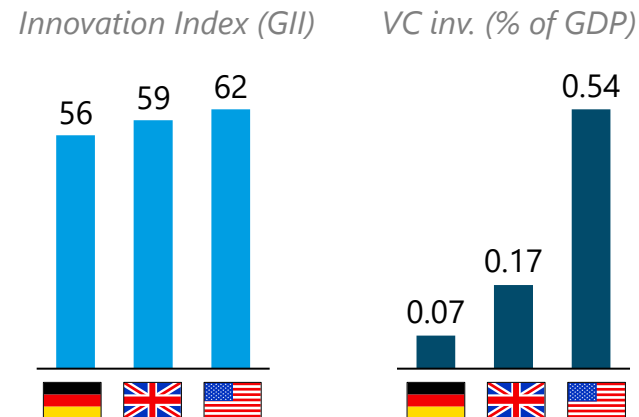
- **20th century breakthroughs** in automotive, automation, materials and medical tech made “**German quality**” a global brand for trust
- **World-class institutes** and **strong university research** turned ideas into global industries
- **An intense patent culture** and **talent** used to sustain a reliable pipeline of innovation



... is losing ground!

- Stagnation in **start-up founding**
- No vivid entrepreneurial **culture**
- “**Caution over capital**”

But: innovation isn't the problem, ...



... the ecosystem is!

- In terms of **scale**, Germany's **risk capital is roughly on par with the EU average**, measured by annual VC investments
- Yet given Germany's **strong innovative capacity**, current VC volumes remain disappointing, therefore **lacking sufficient risk-capital depth**

Consequence: a start-up exodus ...

- **One in four** German start-ups might leave **over lack of capital**
- Talent, intangible property and value creation **move abroad**
- Increase in **insolvencies and liquidations**
- An ecosystem that fails to **turn ideas into global growth**
- **Missed transformation goals:** required capital for climate/infrastructure transformation needs to be sourced from private entities

... that can be solved!

- **Big capital pools** (especially by institutional investors), low exposure to PE/VC
- **Simplification and digitalisation** of start-up regulations to **cut bureaucracy** and speed up company formation
- Unleashing of growth capital through **public-private co-investment** funds

As Germany's start-up landscape comes under fire in media and founder circles, four questions emerge how to mobilise capital efficiently and build a competitive ecosystem

Introduction (II/III)

Voices from the press and investors

Number of start-up insolvencies rises to a record high

(Handelsblatt, July 17, 2024, zeb translation)

Germany's stagnant economy dents investment in consumer start-ups

(Financial Times, March 13, 2025)

Funding gaps threaten the growth of German scale-ups

(Startup Insider, November 20, 2024, zeb translation)

German tech leaders cautiously optimistic about new coalition agreement's start-up measures: 'A good starting point, but we need action'

(Sifted, April 10, 2025)

"In Europe, there is a lack of growth capital for direct VC investments. It is not money that is lacking in Germany and Europe. Compared with the sums that are on the table for other types of expenditure, the amounts invested in the VC market are almost pitiful."

(Klaus Hommels, **VC Investor** at Lakestar, March 2023, zeb translation)



"Germany is still investing far too little in start-ups. For our ecosystem to realise its full potential, we need better access to capital"

(Verena Pausder, **Chairwoman of the German Start-ups Association**, September 2025, zeb translation)

"We can have a thriving ecosystem delivering great companies. But today it's cumbersome, it's very complicated, a lot of red tape." (Frank Thelen, **founder and investor**, September 2025)

How can capital markets support?

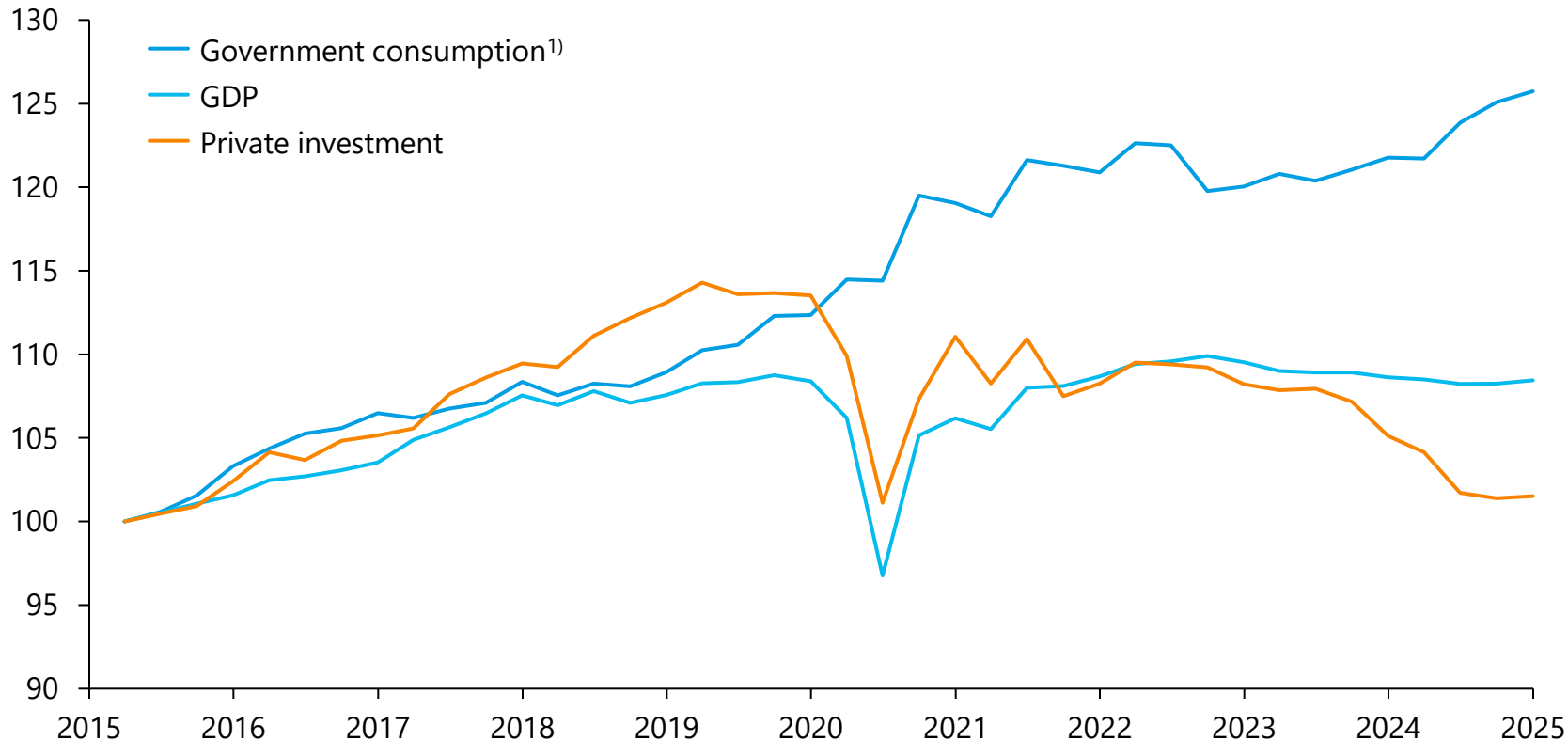
We aim to provide guardrails and inspiration along the following guiding questions:

- a) With which mechanisms can capital markets effectively **mobilise public and private capital** for strategic investment?
- b) How does Germany's **capital market ecosystem compare** with its EU and global peers?
- c) What role can **investment banks** play in expanding market-based funding access for companies?
- d) How can **German and EU initiatives** close funding gaps, attract capital and deepen cross-border markets?

The growing gap between government spending and private investment shows a clear trend – investors are increasingly unwilling to commit capital to Germany’s future growth

Introduction (III/III)

Structure of German economic development (2015–2025, Index 2015=100, constant prices)



Comments and interpretation

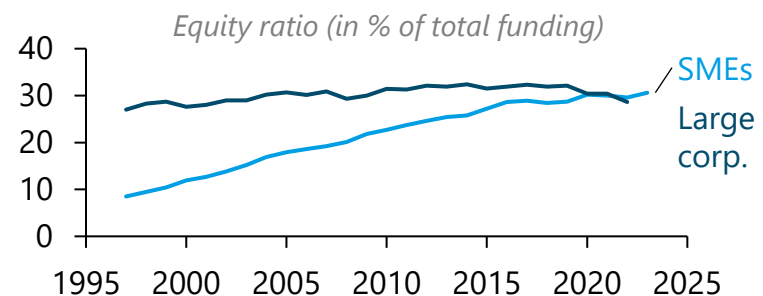
- Prior to 2020, government consumption and private investment followed a stable, **parallel growth trajectory**, indicating a balanced contribution to economic expansion
- Starting in 2020, **a clear divergence** emerges as government consumption continues to rise while private investment weakens and overall economic activity stagnates
- Falling private investment and weak growth expectations reflect a broader **loss of confidence in the German economy**, making it harder to attract both domestic and international capital

1) Government final consumption expenditure refers to the value of goods and services produced by government itself - net of own-account capital formation and sales - plus spending on goods and services provided to private households as social transfers in kind for their consumption. It excludes government investment (gross fixed capital formation) 2) Private investment is defined as total gross fixed capital formation minus general government gross fixed capital formation; Sources: Destatis (2025a, 2025b, 2025c), zeb.research

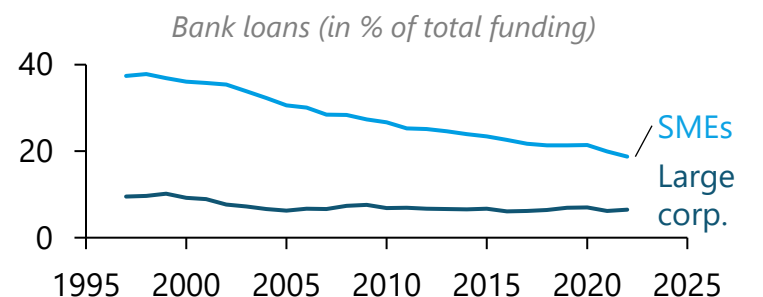
Germany's weakening investment landscape undermines IPO activity and SME debt financing – making it essential to broaden access to capital markets

Facts and figures on Germany's corporate finance

Composition of corporate funding sources



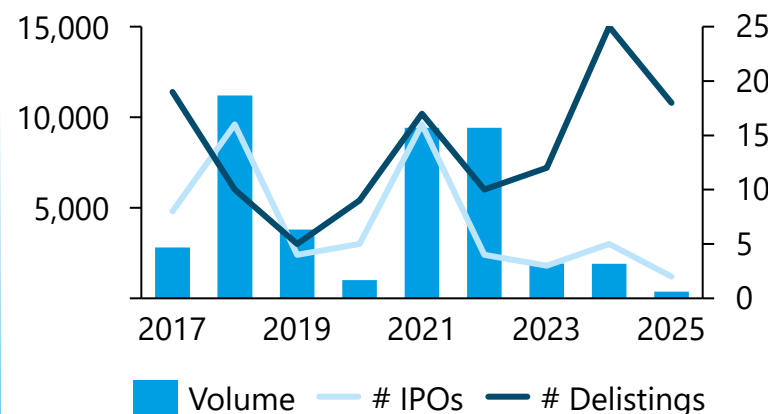
- SME **equity ratio increased** significantly to \approx 30% in 2023, reflecting a stronger **preference for equity-based self-financing**



- Firms increasingly **prioritise financial stability**, reducing their willingness to take on bank debt

IPO proceeds and number of delistings

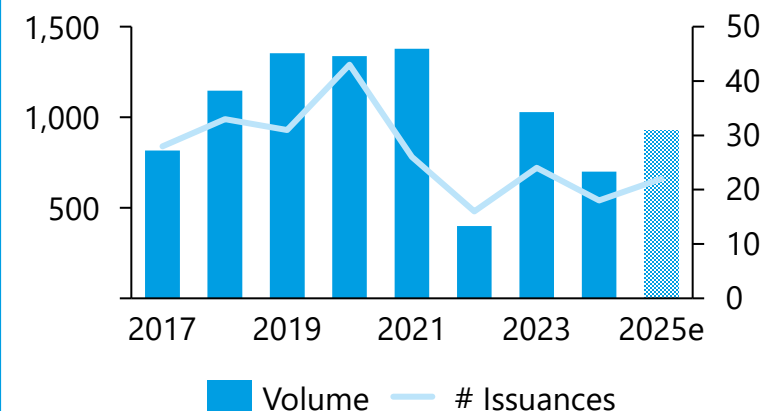
Left axis shows IPO volume in mEUR, right axis shows number of IPOs and delistings



- **Listing gap:** fewer companies go public than leave the stock market, underlining the risk-averse investment climate
- **High regulatory requirements** make stock exchanges less attractive as capital collection points compared to private equity

SME bond market¹⁾

Left axis shows volume of issuances in mEUR, right axis shows number of issuances

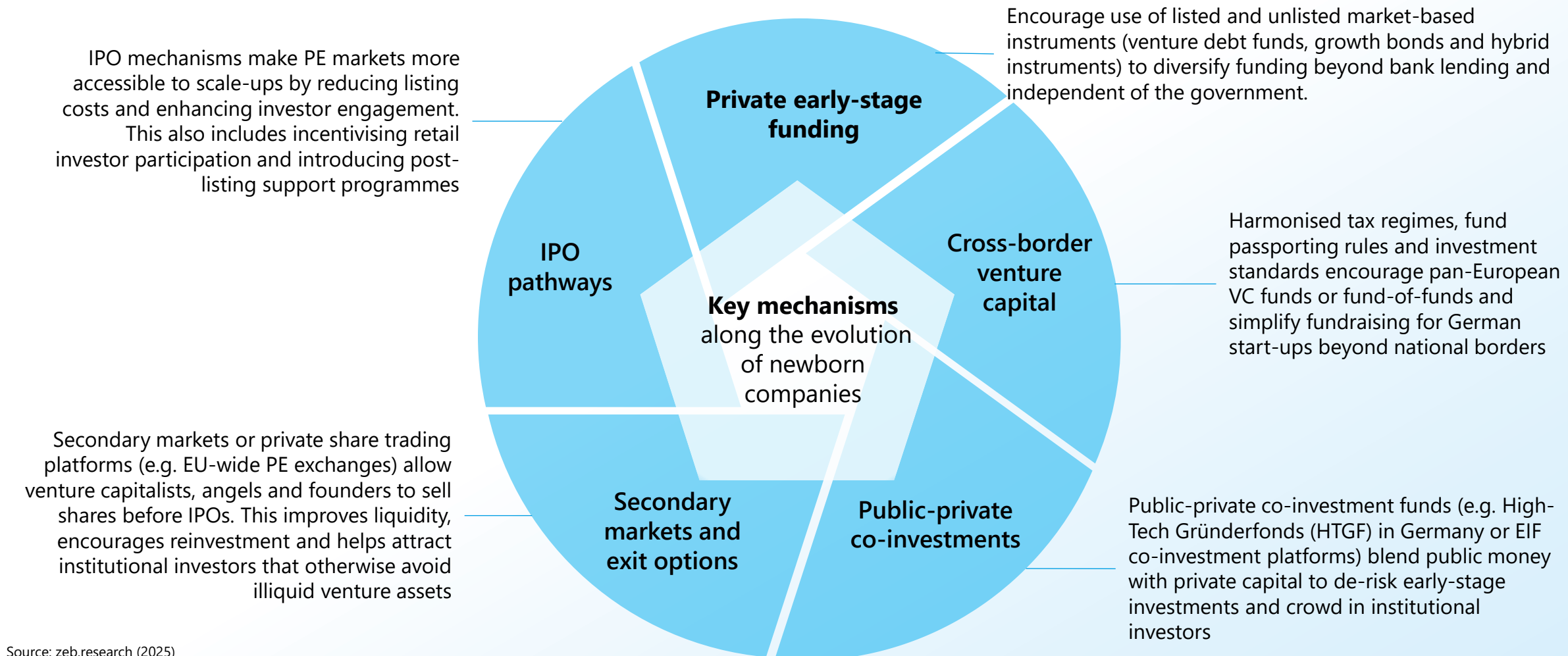


- Over the last decade, both the **number of issuances and their total volume have declined** significantly
- SMEs still rely much more on bank loans than on bonds and the trend of **loan-to-bond transitions is evolving only slowly**

1) 2025 values are estimated by annualising the H1 2025 figures; Sources: Bond Guide (2025), Bundesbank (2025b), IfM Bonn (2024), KfW (2025c), PwC (2025c, 2021), zeb.research

Overall, there are five promising, partly existing mechanisms to strengthen Germany's start-up and scale-up ecosystem through German and EU capital markets

How entrepreneurs and capital markets (may) go hand in hand



Source: zeb.research (2025)

Cross-border VC integration and public-private co-investment stand out as the most immediately impactful and realistic mechanisms

Assessment of effectiveness along key dimensions

		Mechanism / Assessment dim.	Capital volume	Accessibility for start-ups	Scalability potential	Implementation feasibility	Short Rationale
Company journey ↑ Stock launch Selling shares Seed and growth		IPO pathways	●●●●●	●●○○○	●●●●○	●●●●○	Provide strong capital mobilisation through access to large equity pools, accessibility moderate since IPO readiness remains a hurdle; good scalability due to broad applicability and solid feasibility as reforms are technically achievable
		Secondary markets and exit options	●●●○○	●●●●○	●●●●○	●●○○○	Moderately mobilise capital by improving investor confidence, while accessibility rises through easier ownership transfers; offer solid scalability via digital infrastructure but moderate feasibility in light of regulatory complexities
		Public-private co-investments	●●●●○	●●●●●	●●●○○	●●●●●	Effectively mobilise capital and are highly accessible for start-ups lacking other financing; scalability limited by public budgets, but feasibility excellent due to proven national and EU vehicles and models
		Cross-border venture capital	●●●●●	●●●●○	●●●●●	●●●○○	Excel in capital mobilisation and scalability by accessing vast EU-wide investor pools; improve accessibility for start-ups through easier cross-border fundraising, but feasibility depends on EU coordination and policy alignment
		Market-based funding	●●●○○	●●●○○	●●●●○	●●●○○	Can mobilise capital efficiently by unlocking institutional investors but remains moderately accessible due to start-ups' limited readiness; strong scalability once frameworks mature, moderate feasibility given regulatory needs

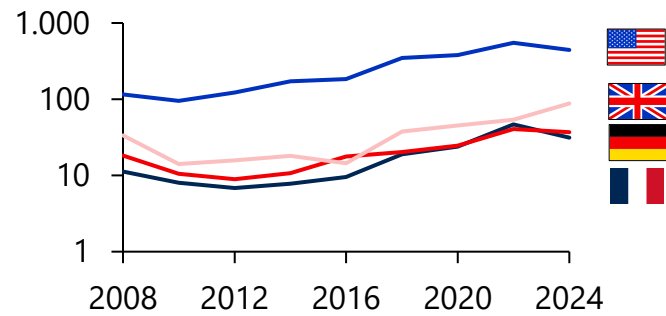
●●○○○ 1 / 5: low
 ●●●●● 5 / 5: high

Source: zeb.research (2025)

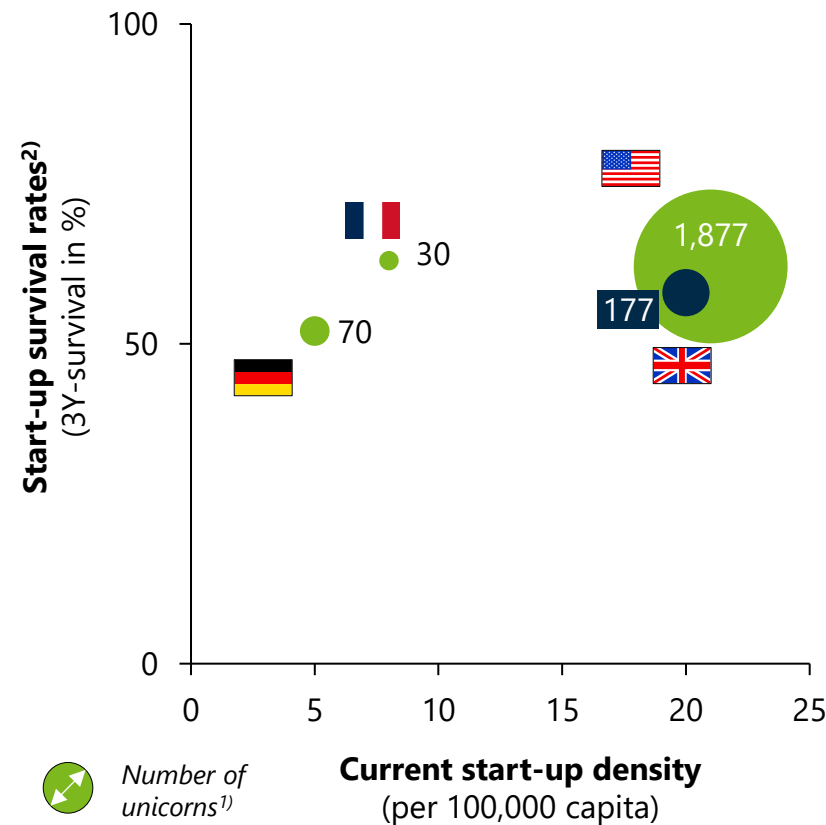
Germany's distance to equity-centric U.S./UK markets is revealed in its bank-centricity – still strongly relying on banks and the Mittelstand

Benchmarking: corporate financing (I/III)

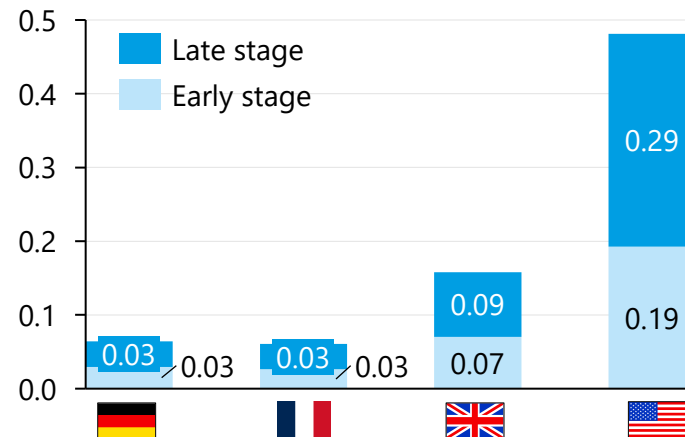
VC investments per capita (EUR, 2008–2024)



Entrepreneurship density and success



Early vs. late-stage VC (% of GDP)



Additional remarks

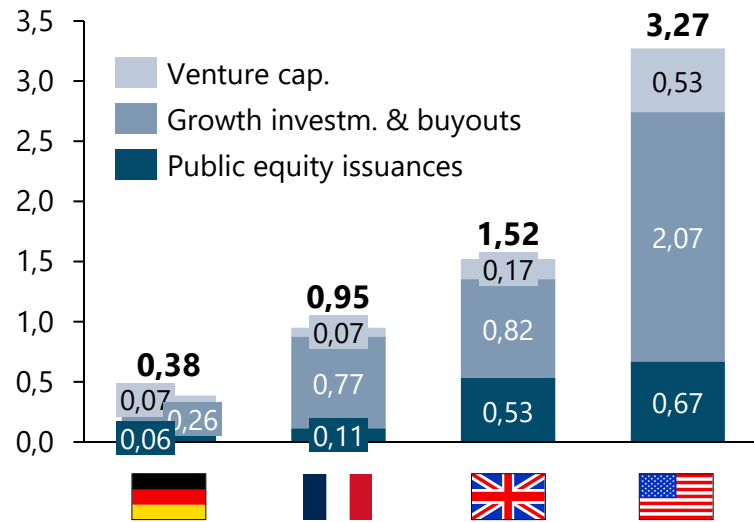
- Compared to the U.S., Germany has fewer USD 100 m+ and USD 250 m+ financing rounds and **significantly fewer large domestic institutional investors** (pension funds) putting huge pools to work in venture
- Since 2000, Germany has produced around 70 unicorns - fewer than India (~125), but well ahead of Japan (~11) and Australia (~13) - **positioning Germany as a mid-tier unicorn market outside the top hubs**
- Germany sees **fewer IPOs and more M&A exits**; a non-deep public market for tech scale-ups means **less ability to monetise large valuations** domestically
- Germany has **many quality start-ups and sector strengths** (deep tech, industrial software), but **larger deal sizes** and gigascale follow-on funding are **more common in U.S. hubs**

1) Unicorn defined as start-ups that have achieved a USD 1 bn+ valuation or exit since the year 2000; 2) Start-up survival rate is shown for 2018–2021; Sources: Dealroom (2025), IfM Bonn (2022), Insee (2025a, 2025b), OECD (2025e, 2025f, 2025g), Startupblink (2025), Somerset Council (2025), US Department of Labor (2025a), zeb.research

The hesitant German and French capital markets are still far behind the Anglo-Saxon depth – the EU Savings & Investment Union aims to address this asymmetry

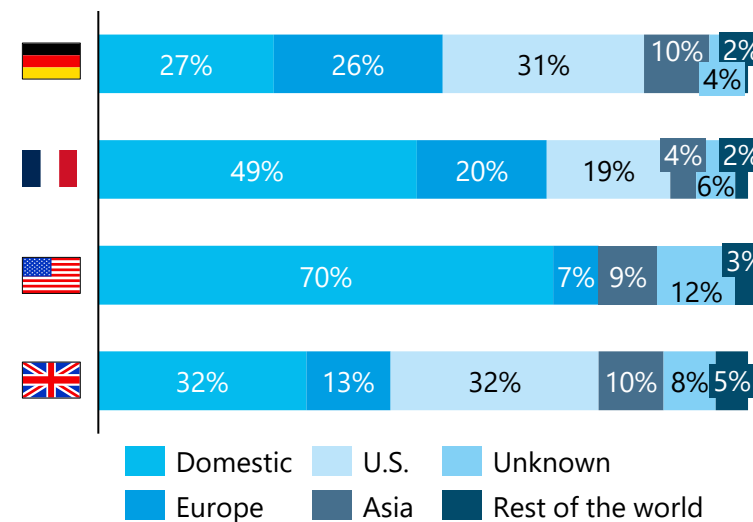
Benchmarking: corporate financing (II/III)

Private/Public equity issuance (to GDP, %)



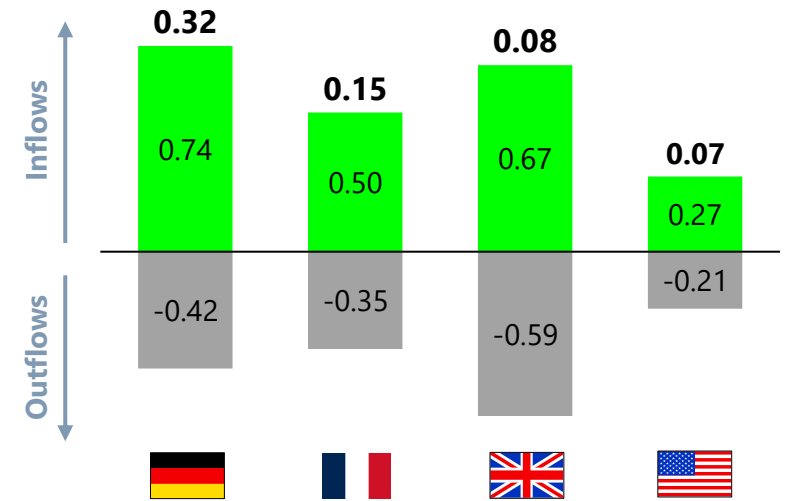
Germany **operates most hesitantly in issuing and leveraging private equity** (VC, GC, buyouts), differing from the U.S. ecosystem even in relative numbers by a **factor of ten**

Share in deal volume by funding source (%)



Germany relies heavily on **foreign capital for VC funding**, with just over a **quarter sourced domestically**, whereas the U.S. ecosystem is largely self-financed

VC inflows and outflows (2020–24, % of total domestic investments)

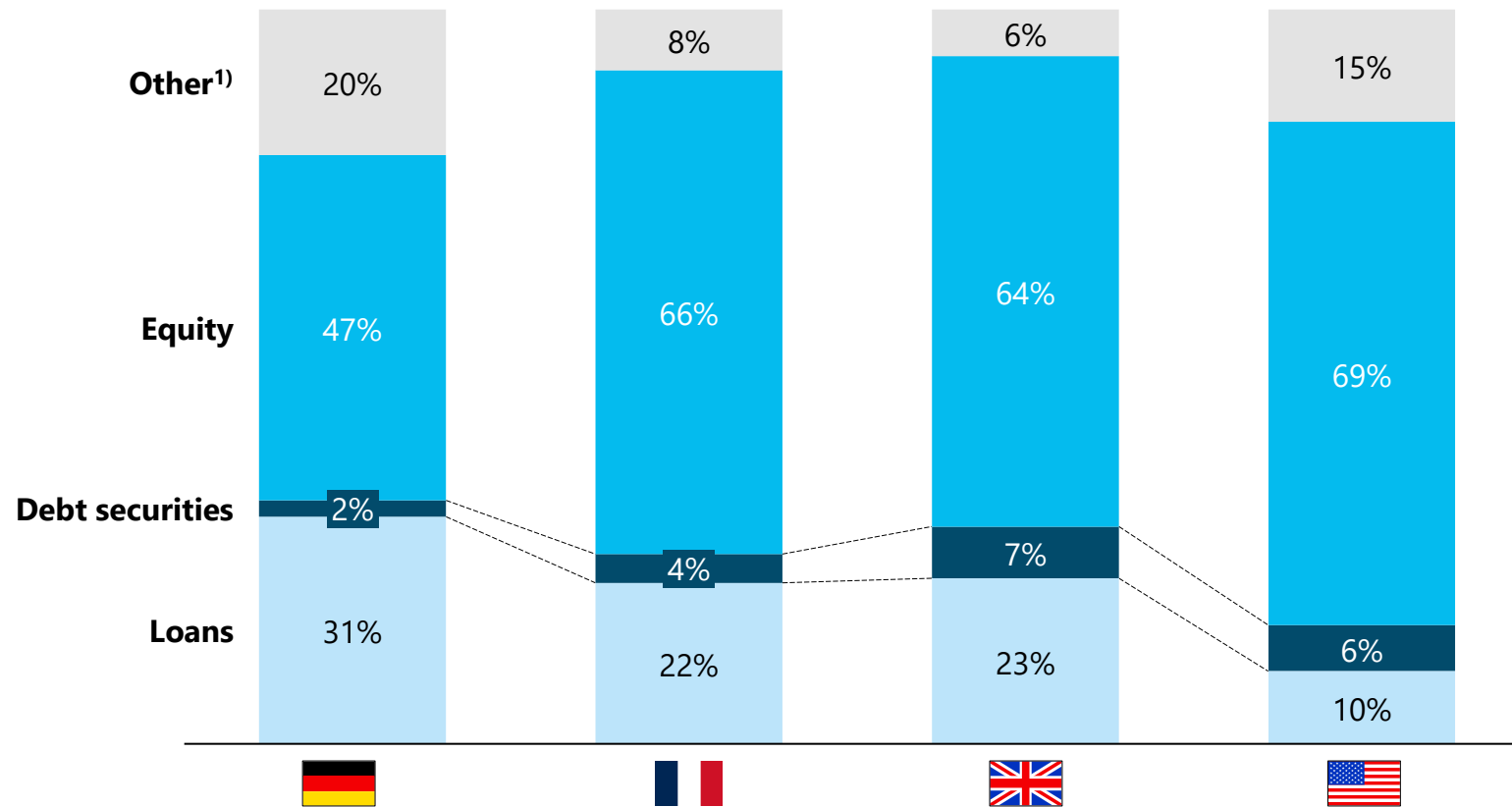


Germany exhibits a net-**positive capital balance**, with significantly higher inflows than outflows, underscoring the **ecosystem's reliance on international investors**

Germany's corporate financing remains heavily bank-driven, with far less reliance on capital markets than its international peers

Benchmarking: corporate financing (III/III)

Financial structure of firms 2024 (in % of total assets)



Comments and interpretation

- **Loans** make up the **largest share of corporate financing** in bank-driven **Germany (31%)** – around three times the loan share in the U.S.
- **Capital-market-based financing dominates in the U.S.** and is also prevalent in the UK, although the UK still exhibits a higher loan share than the U.S.
- Banking corporate wallet data reveals that in Germany the **security business is less relevant** than other banking services (*see Appendix*)

1) Other includes insurance, pension & standardized guarantee schemes and other accounts receivable/payable; Sources: OECD (2025h), zeb.research

Stepping up one level – assessing the mobilisation maturity of a country’s entrepreneurship ecosystem in three dimensions of structural, institutional and market-based readiness

Benchmarking: ecosystems – overview

Assessment framework – with cross-references to mechanisms

Market depth and investor diversity

Measures the size, liquidity and sophistication of the domestic capital market including VC/PE as well as the diversity of active investor types (angels, institutional investors, family offices, retail investors)

Dimensions
of start-up
ecosystems

Instit. and reg. framework

Assesses how effectively a country’s legal, tax and regulatory environment supports capital formation and investment in start-ups – includes investor protection, fund regulation efficiency, tax incentives, ...

Cross-stage capital flow and exit infrastructure

Evaluates how smoothly capital transitions across start-up stages (from seed to growth to IPO/M&A) and how well exit markets function

Overall capital mobilisation maturity

Very high – global benchmark combining vast market depth, innovation-oriented regulation and highly efficient capital recycling; unmatched investor diversity and seamless transition from venture to IPO define full maturity



Very high – Europe’s most mature ecosystem with deep and liquid markets, flexible regulation and efficient exits; strong tax incentives and investor culture ensure seamless capital flow across all growth stages



High – rapidly improving capital markets supported by active public policy (*Bpifrance, PACTE reforms*); growing investor diversity and better late-stage funding, though private-sector depth still trails leading ecosystems



Medium – a strong industrial and innovation base but underdeveloped private capital markets; solid regulatory stability yet limited investor incentives and weak late-stage/exit dynamics constrain full capital mobilisation



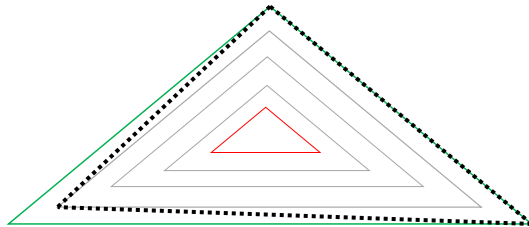
While the U.S. remains the benchmark with full-spectrum capital market maturity, UK leads in Europe due to its strong financial market infrastructure and exit channels

Benchmarking: ecosystems – deep dive per country (I/II)



Market Depth & Investor Diversity

Unmatched capital market depth, abundant institutional and retail participation, and mature **IPO/NASDAQ ecosystem**



Instit. & Reg. Framework

Highly developed and **innovation-oriented legal environment**, efficient capital markets regulation (**SEC, JOBS Act**)

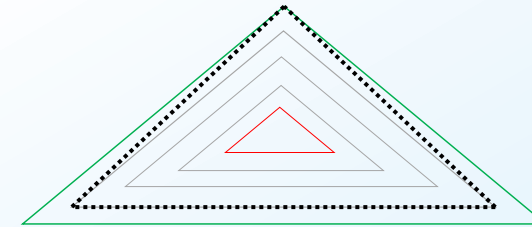
Cross-Stage Capital Flow & Exit Infrastructure

Fully **integrated funding ladder** and **vibrant exit environment** (IPO, M&A, secondary markets)



Market Depth & Investor Diversity

Highly **liquid markets**, deep investor base, strong VC/PE presence; **London** remains **Europe's financial hub**



Instit. & Reg. Framework

Investor-friendly tax reliefs (EIS, SEIS), efficient regulatory frameworks, **clear IPO rules**

Cross-Stage Capital Flow & Exit Infrastructure

Well-functioning **venture-to-public pipelines**, active M&A market, and **strong exit culture**

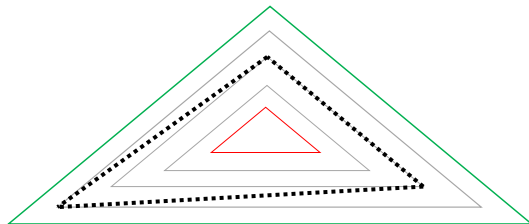
France shows rapid improvement thanks to proactive policy reforms, whereas Germany has strong fundamentals but still underperforms in market depth and late-stage financing

Benchmarking: ecosystems – deep dive per country (II/II)



Market Depth & Investor Diversity

Strong **state-backed funds** and growing VC sector; still **less deep private capital markets**



Instit. & Reg. Framework

Improved via reforms (e.g., PACTE law), **supportive public schemes**, but some **regulatory friction remains**

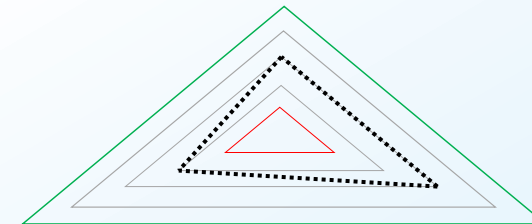
Cross-Stage Capital Flow & Exit Infrastructure

Improving late-stage VC and exit markets, though still **less dynamic than Anglo-Saxon peers**



Market Depth & Investor Diversity

Solid VC and PE base but still relatively small, **limited retail investor activity**, and **modest IPO volume**



Instit. & Reg. Framework

Generally **stable regulation** but **complex bureaucracy** and **limited investor tax incentive**

Cross-Stage Capital Flow & Exit Infrastructure

Strong **early-stage public co-funding**, but **limited late-stage** and exit opportunities; few IPOs

Deep Dive on Franco-German FIVE initiative: see Appendix

Germany can further reignite its start-up and scale-up culture by adopting and learning from Baltic-style agility

A brief digression: learning from the Baltics

In a nutshell

The Baltics turned their size and agility into policy advantages:

They combined ...

- ... simple digital lawmaking
- ... targeted public co-investment
- ... permissive equity tax rules
- ... flexible secondary markets
- ... regulatory sandboxes

– which together improved liquidity, talent attraction and scaling opportunities for young companies.

Germany can adapt those building blocks at scale to reduce founder flight, improve exits and increase growth finance.

What the Baltics did ...



Low-friction cross-border entrepreneurship and capital flow: Estonia has enabled e-residents to found >31,800 Estonian companies (about 1 in 5 new)

Public fund-of-funds models actively used across Baltics: Latvia's development finance institution ALTUM deploys public funds to create and anchor VC funds

Employee equity friendliness: Baltic tax and ESOP regimes (Latvia, Estonia) are start-up-friendly (e.g. taxation occurs on sale rather than at grant/exercise)

"Funderbeam" platform: used to regulate secondary marketplaces for early-stage shares, reducing "illiquidity tax" that so often kills early-stage investor appetite

Quick rule adaptation: Lithuania runs sandboxes and innovation hubs, enabling firms to test products with regulatory clarity and low time-to-market.

... and what Germany can learn



Launch a digital company onboarding scheme + easier entrepreneur visa package for strategic founders, + tax/admin clarity for remote founders

Expand KfW/EIB programmes into a co-investment mandate for pre-seed/seed VCs, publish procurement rounds to ensure market discipline

Extend deferred taxation to more option forms, publish standard option documentation templates, offer a central registry to simplify tax reporting

Pilot a regulated, EU-compliant secondary platform; offer accreditation rails for investors; subsidise compliance tooling for SMEs to onboard

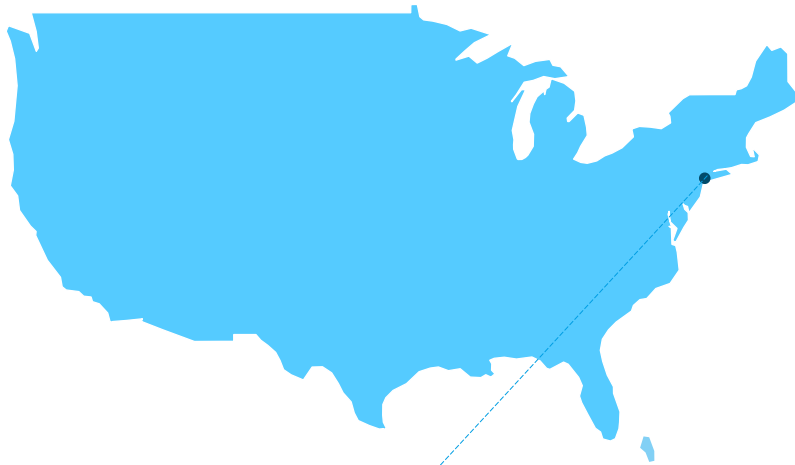
Expand federal sandboxes with fast-track approvals, clear exit criteria and a sandbox liaison within BaFin/BfArM; offer temporary waivers

Prime examples across all benchmarking countries already exist to fuel the entrepreneurial spirit – now it takes broadening and scaling

Selection of successful bank-led projects

U.S. banks' assistance for entrepreneurial jump starts

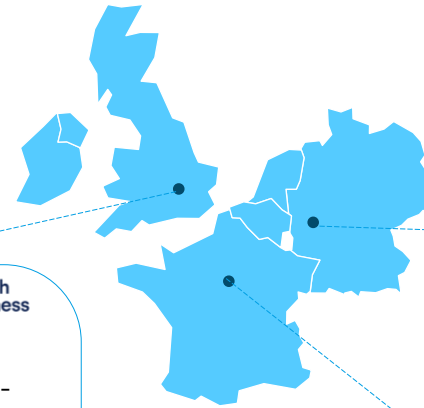
European banks' assistance for entrepreneurial jump starts



J.P.Morgan **Morgan Stanley**



In 2021, J.P. Morgan, Goldman Sachs and Morgan Stanley led Rivian's **USD 13.7 bn IPO** – one of the largest U.S. listings in a decade – overseeing the deal's **pricing, underwriting and placement with global institutional investors** as the electric vehicle maker debuted on the NASDAQ.



In 2024, British Patient Capital's total fund and co-investment commitments reached **GBP 2.3 bn in venture and venture growth capital**, and the funds it has backed have subsequently **raised another GBP 13.4 bn from third-party investors** – demonstrating a significant "crowding-in" effect of private capital.



KfW Capital has invested in **132 venture capital funds**, reaching more than 2,400 start-ups. As the **advisor** to the EUR 1 bn "**Wachstumsfonds Deutschland**", KfW Capital mobilises public and private capital to strengthen growth financing and foster innovation across Germany's VC ecosystem.



Between 2013 and 2023, Bpifrance invested **EUR 10.5 bn in venture capital** – 44% directly into 500 start-ups and 56% via 180 partner funds. Over 80% of **partner funds** reporting that Bpifrance's participation helped them reach or exceed target fund sizes and **attract additional private investors**.

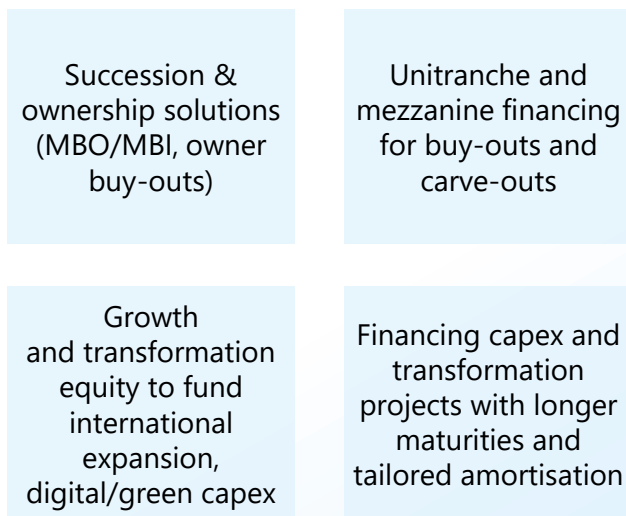
The access of the German “Mittelstand” to capital markets is shrinking – MPCM is a prime example to lead a reversal

Deep dive: Mittelstand and private markets

Challenges of the Mittelstand

- **Pillar of the German economy:** in 2023, 3.44 million SMEs accounted for 99.2% of all enterprises in Germany and about 53.1% of total employment
- **Substantial investment** required to navigate the digital/green transitions in the German SME segment
- **Succession wave and risk of market exits:** 532,000 SMEs plan a succession by end-2028 – roughly 106,000 successions per year
- **German banks have been tightening corporate credit access** in 2025 due to heightened economic risks and lower risk tolerance
- Small and mid-caps receive **less analyst coverage and index inclusion**, while passive strategies concentrate flows on large caps, hence SMEs become undervalued and overlooked in equity and debt markets

Private equity ↔ Private debt



Central role of private markets to support the Mittelstand

Case study: Mittelstand and private markets

- In November 2025, Hamburg-based Münchmeyer Petersen & Co. (MPC) announced the creation of **Münchmeyer Petersen Capital Markets (MPCM)**
- MPCM to **acquire Warburg Research** incl. their analyst team
- **Mission:** bringing more Mittelstand companies back to the capital market and improving visibility and research coverage
- **Offering:** in-depth analysis plus tailored equity and debt financing solutions (ECM/DCM) for medium-sized companies
- **Investor access and liquidity:** dedicated SME research, roadshows/corporate access, and liquidity support to broaden the shareholder base

While reforming Germany's debt brake will provide a short-term GDP boost, state-led spending alone cannot deliver sustained growth

Outlook A.1 and A.2

- Germany's reform of its constitutional **debt** which enables higher public spending, may give the economy a **welcome short-term boost**
- But on its own, it does **not guarantee sustained long-term GDP growth**

Here's why - and why private investment is essential for durable prosperity

Why boosted public spending is likely a 2–3 year stimulus, not a growth engine

Effects of government spending (based on Keynesian theory):

State spends more on the investment categories

Increases aggregate demand

Employment stabilizes or rises

Companies receive more orders

GDP ticks up

Four reasons why this effect is real, but temporary

I. Public spending faces diminishing returns

- Early projects tend to address the most urgent bottlenecks, later ones bring less productivity gain per Euro spent
- Once the "low-hanging fruit" is picked, add'l spending creates more debt than efficiency

II. Capacity and bureaucracy limit impact

- Germany faces complex planning and permitting processes and slow public procurement systems
- This creates spending inefficiencies and bottlenecks, reducing the long-term multiplier

III. State spending does not create innovation

- Most sustainable growth comes from: new technologies, new business models and productivity gains
- Governments can only enable these, not create them

IV. Debt eventually acts as a drag

- Even if debt is justified temporarily, higher long-term debt leads to reduced fiscal flexibility and rising interest costs
- This limits sustained GDP acceleration beyond the initial stimulus window

Sustained prosperity requires private capital for federal projects and a stronger start-up ecosystem - only private-driven innovation and risk-taking can replace declining industries

Outlook A.1 and A.2

A.1 Why private investment in government projects is essential

Today, **private investment** in Germany is **decoupled** from rising government spending



This trend **threatens sustainable growth!**

Government projects need: Long-term capital, risk appetite, innovation and execution speed



These come mainly from **the private sector!**

When private capital is attracted into public-centric missions...

...you get (mostly):

- Faster project delivery and exportable expertise
- Better cost control
- Technological innovation
- Increased productivity

but without it tends to:

- Projects overrun
- Technologies lag
- Debt rises
- Productivity stagnates

Always beware of crowd-out effect

Inflated short-term GDP, weak long-term growth

A.2 Why Germany's start-up ecosystem is vital to real prosperity

Today, Germany's start-up ecosystem is **underscaled**, underfunded, risk-averse, and **overregulated**



The most **powerful driver** of sustained GDP growth is **new, productive companies**

Yet start-ups are critical because they...

- **...create new markets, not just serve existing ones.** This is where exponential growth comes from, fuelling long-term GDP growth.
- **...replace declining industrial sectors.** Some traditional industries in Germany are under structural pressure. Startups can fill that vacuum and transform the value chain.
- **...attract global talent and capital.** A strong start-up scene brings high-skill immigrants, foreign investment, global relevance and knowledge spillovers. No amount of government spending can replicate this effect on GDP.

Long-run prosperity depends on scaling its start-up engine



B

Mobilising capital to stabilise the pension system

Executive Summary of Chapter B

Germany's retiring baby boomers, shrinking workforce and uncertain economic future make it essential to rapidly scale a funded, capital-market-based third pillar to complement the overstretched pay-as-you-go system.

Possible ways to reconnect pensions to capital markets – Germany moved away from funded pensions in the Weimar/Adenauer eras and now relies heavily on pay-as-you-go. Introducing a mandatory or semi-mandatory funded component within Pillar III can help re-establish long-term asset accumulation and can reduce pressure on public finances, given demographic changes and a modest outlook for Germany's economic growth.

pp. 44 - 46

Options for incentives to address the pension gap – expanding and modernising state subsidies, tax exemptions and matching contributions for equity-based retirement savings (e.g. tax-free equity accounts, contribution bonuses for low/middle incomes) will support higher participation. These instruments outperform conventional savings accounts and offer an alternative to today's fragmented Riester logic with greater return potential.

pp. 47 - 48

Behavioural design as a potential lever – introducing automatic enrolment with opt-out, default investment strategies (lifecycle/ETF models) and payroll-based contributions, especially for young workers and SMEs, may help increase coverage. Evidence from Sweden suggests participation rates above 85% when enrolment is automatic versus below 40% when voluntary.

pp. 49 - 51

Approaches to strengthen structural solutions – current German initiatives appear insufficient and fragmented. A consolidated reform, inspired by Switzerland's tax-incentivised third pillar and Sweden's state-managed funded schemes, would help build EUR 300–500 bn+ in assets over two decades and might contribute to stabilising the pension system.

p. 52

Opportunities in the digital investment trend for state-backed private pension plans – building on the recent proposal of the German Ministry of Finance. Despite outperformance of individual ETF saving plans in many scenarios, limited exit options, life expectancy of 85 years and a fairly unusual taxation via income tax leave space for improvement.

pp. 53 - 55

In the early years of modern German history, the pension system used to be much closer to the capital markets – gradually abolished in the Weimar and Adenauer eras and never revived

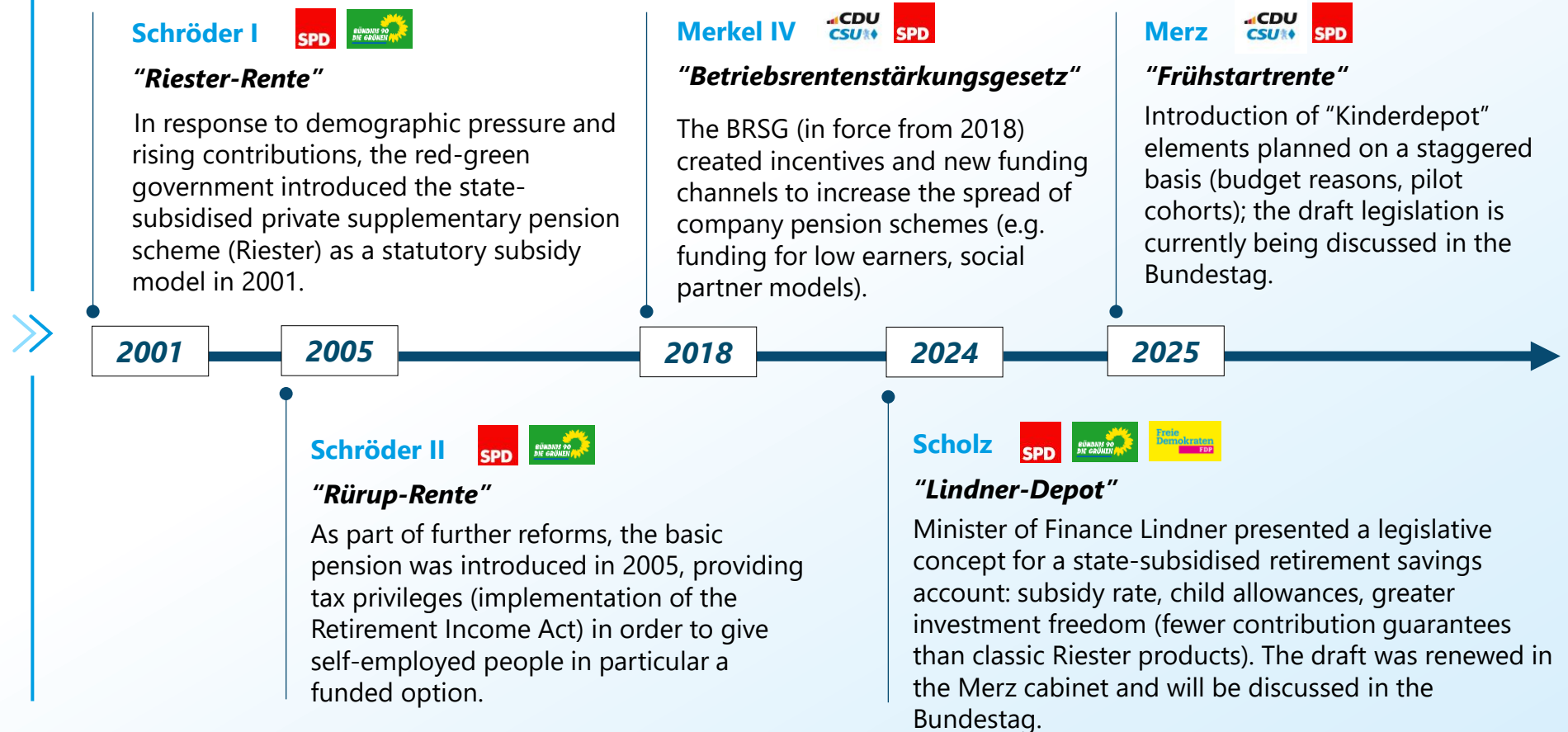
Introduction (I/II)

Prequel

- **Bismarck (1889):** "Gesetzliche Invaliditäts- und Altersversicherung". No pay-as-you-go, but **fully-funded plans**.
- **Stresemann (1923):** hyperinflation largely puts a gradual **end to fully-funded pension**, only remaining in residual forms under the "Reichsversicherungsordnung".
- **Adenauer (1957):** major pension reform enshrined the "**Generationenvertrag**" as the dominant financing principle.

Capital coverage was finally pushed back in practice – for decades, until the system became malfunctioning.

A brief history of Germany's pension reforms in the 21st century



State subsidies for high-yield investments to strengthen private pension provision in order to close the growing pension gap

Introduction (II/II)



Today's situation

- **Demographic change** – by 2030, 29% of the German population will be over 65 years old.
- **Germany's pension level ("Rentenniveau") of currently 48%** jeopardises the standard of living in old age.¹⁾
- Rising poverty in old age – **19%** of people in Germany aged 65+ are considered at **risk of poverty in 2025**.
- **Existing products** for old-age provision are **inadequate**
 - Unequal access to company pension schemes
 - Low returns and high costs of the Riester pension
- People's **lack of private provision** is still present in a society characterized by largely conservative investment behaviour.



The urgency to act: a collection of public opinions

Reduce old-age poverty risk by strengthening private savings, especially for low- and middle-income groups.

Close the widening pension gap by enabling higher long-term returns through targeted support for high-yield investment products.

Enhance financial resilience of the workforce as demographic pressure increases and statutory pensions lose purchasing power.

Promote equitable access to private pension schemes by simplifying eligibility and improving employer incentives.

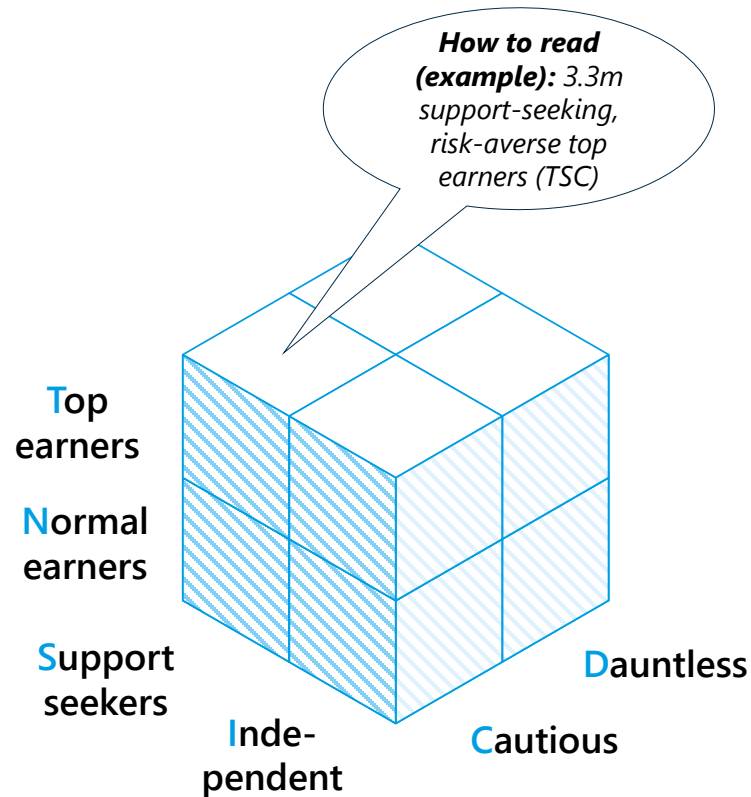
Shift investment behaviour toward long-term asset building, counteracting conservative saving habits that limit accumulation.

1) "Rentenniveau" = standard pension (net of social contributions, before tax, for an average earner with 45 contribution years) ÷ average employee earnings (net of social contributions, before tax). A statutory floor ("Haltelinie") keeps the level at 48% until 2031. Standard pension (45 years of contributions at average earnings) is €1,835.55 brutto per month as of July 1, 2025 (45*40.79 Euro); Source: BMAS (2025), Bundesregierung (2025d), Destatis (2026d), RKI (2024), zeb.research (2025)

Both top earners and ordinary savers tend to invest more independently – risk appetite is increasingly evident among customers under 40

Segmentation and determination of potential

Segmentation¹⁾ of savers / investors



Potentials by segment

	# Savers	% <40 y	Share of savings
NIC	19.0 m	37.4%	>40 years: 8.3%
NSC	14.3 m	40.7%	<40 years: 12.5%
NID	7.3 m	50.5%	
NSD	5.5 m	51.4%	
TIC	3.7 m	39.0%	>40 years: 16.6%
TSC	3.3 m	38.3%	<40 years: 25%
TID	2.4 m	48.8%	
TSD	1.7 m	49.4%	

Interpretation and remarks

Largest customer group (NIC) of 19 million customers can be categorised as **normal savers who make risk-averse investments independently.**

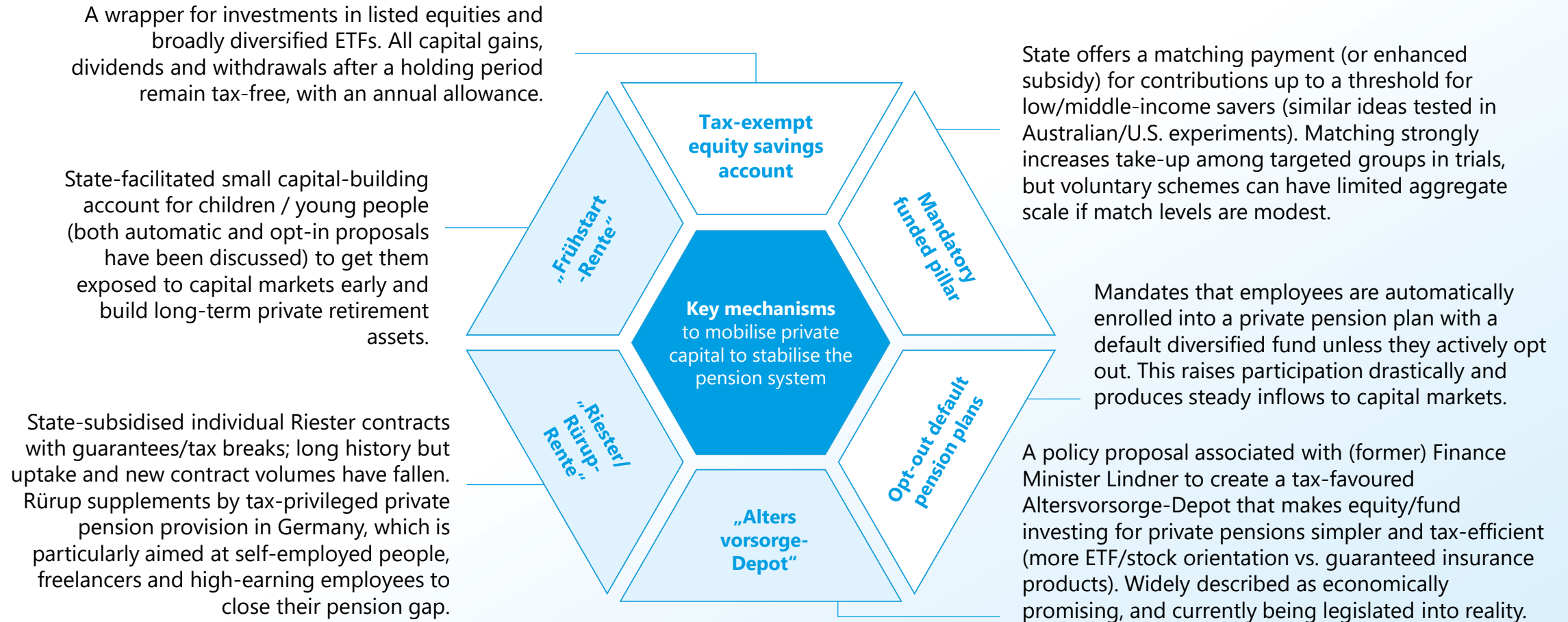
Second-largest group (NSC) is cautious as well and **also seeks for advice.**

- **Heterogeneous investment behaviour** across the population
- **“German Angst”** still present
- Generally, customers tend to organize their investments independently
- More **risk-tolerant investment** behaviour can increasingly be observed among **clients under the age of 40**
- Product range must nonetheless **cover all channels/demands**

1) Based on a b4p survey (2024): Top earners (EUR 5,000 or more), normal earners (income below EUR 5,000), support-seekers (strongly agree, somewhat agree to need external advice), independent (less agree, strongly disagree), cautious (risk-averse, more than 50% security-conscious), dauntless (risk-takers, 50% security-conscious), age range: 14–69 years; Sources: Best for planning (2024), zeb.research

Three existing German proposals and three further mechanisms inspired by other countries may be taken into consideration to privately stabilise the pension system

How state and capital markets (may) go hand in hand



German initiatives fall behind approved concepts from other countries – especially current mini reforms for children retiring from 2090 onwards do not tackle the issue seriously

Overall ranking of effectiveness

Mechanism / Assessment dim.	Scale of capital volume	Coverage of population	Fiscal costs	Feasibility	Prevention of failure / misuse	Short rationale
1 Opt-out automatic enrolment	●●●●●	●●●●●	●●●○○	●●●○○	●●●○○	Converts latent non-savers into regular significant contributors, proven to be feasible, requires good default investment governance
2 Mandatory partial funded pillar	●●●●●	●●●●○	●●○○○	●●○○○	●●●●○	Mandatory funded share generates universally-covering sustained inflow at scale, harder to implement politically due to transitional costs and obligations
3 Tax-exempt equity savings account	●●●●○	●●●●○	●●○○○	●●●○○	●●●○○	Simple, universal, low-friction, appealing to middle-income households, boosts long-term retail equity saving, but volatile in the short term
4 "Altersvorsorge-Depot"	●●●●○	●●○○○	●●●●○	●●●○○	●●●○○	Substantial flows if designed with generous incentives, many complexities, not yet politically contested, flexibility significantly constrained
5 "Riester- & Rürup-Rente"	●●●○○	●●●○○	●●●○○	●●○○○	●●●○○	Built a large stock over time but is losing traction, outdated and is inefficient at channeling new savings into equities
6 "Frühstart-Rente"	●○○○○	●○○○○	●●○○○	●●●●●	●○○○○	Very limited flow / lacking ambition, restrained to some future generations retiring in 2090+, capital might be spent at a young age

Source: Assessment by experts at zeb.research (2025)

●●○○○ 1 / 5: low
●●●●● 5 / 5: high

In Switzerland, tax incentives for third-pillar investments have been in place for 38 years: established products have become an integral part of the range offered by FS providers

Benchmarking: CH

General conditions

- **Pillar 3a**, or “tied pension provision”, has been tax-privileged **since 1987**
- **Annual maximum contribution** of CHF 7,056 for employees and CHF 35,280 for self-employed persons, **deductible from income tax**
- Capital gains tax-free during the savings phase and **payout at a greatly reduced tax rate**
- **Strictly regulated use**: earliest possible regular withdrawal five years before retirement age; **early withdrawal only for certain purposes** (such as buying a home) and with tax disadvantages

Product categories, market examples and relevance



Securities account

- Investment in pension funds and securities in sub-asset classes possible
- Relatively low costs of 0.4 to 0.8% on volume
- Often digital and with a choice of investment focus (e.g. ESG, ETFs)



Capital-forming life insurance

- 3a pension policy combines life insurance with retirement provision
- Types: unit-linked or as guaranteed retirement capital
- High cost share of insurance reduces savings share and thus return opportunities

Takeaways

- Around CHF 150 bn (which equals 18% of the Swiss GDP) in pillar 3a in 2024 (relation of banks to insurance companies approximately 2:1), while only 4% of German GDP in Riester/“Fondssparplan”
- Around 75% of the working-age Swiss population have a pillar 3a account
- 61% of 18- to 30-year-olds have already been saving for their pension via pillar 3a in 2024

Sweden's reforms on mandatory funded components created large managed funds that materially expanded domestic capital markets

Benchmarking: SE

General conditions

- Private pension provision **closely linked to the state**: 16% of gross income is paid into pay-as-you-go, while 2.5 % must be paid into funded pension
- **ISK** (Investeringssparkonto): tax-privileged custody account used to manage selected funds and **simplify taxation**
- Instead of paying taxes on profits and carrying forward losses, investors here **pay taxes on the amount deposited** (2024: <1%)
- **Full access to their capital at all times**, no need to wait until retirement for payout
- Since its **introduction in 2012**, the number of savers with an **ISK** has risen steadily to around **two thirds of working society**

Product categories, market examples and relevance



Securities account

- ISK as a tax-favoured securities account for retail investors
- An average ISK account contains around EUR 37,800 (approx. 80% of an average annual income in Stockholm)
- Note that ISK goes beyond saving plans for pensions only!



Capital-forming life insurance

- As of 2024, about 1.5 million individuals held private endowment insurance
- Sold as pension / retirement-oriented products (wrappers), where individuals or companies pay premiums which are invested (by the insurance company)

Take aways

- Sweden demonstrates that a broad-based hybrid system with both mandatory pension components and additional funded private savings is both feasible and attractive
- High level of participation and sizeable capital-market investment
- Combining retirement security and capital-market development, without fully privatising pensions

The U.S. system leads to high inequality of outcomes and strong market dependency due to lack of guarantees and collective risk pooling – rather enforcement than mobilisation

Benchmarking: U.S.

General conditions

- Characterised by a **strong reliance on private capital markets** and **individual responsibility**
- Comparatively **limited state-backed guarantees**
- **Limited mandatory coverage beyond social security:** participation in occupational plans depends on employer offering and employee opt-in
- **Tax-advantaged private retirement savings** introduced in the late 1970s / early 1980s (IRAs in 1974, 401(k) plans since 1978)
- Private retirement assets **exceed USD 40 trillion (2024)**; the majority is invested in capital markets

Product categories, market examples and relevance



Securities account

- Securities-based retirement accounts (DC plans and IRAs) are at the core of the system
- Low explicit costs (especially for passive strategies)
- High flexibility and wide investment choice
- Strong exposure to capital market performance and timing risk



Capital-forming life insurance

















- Voluntary and comparatively small market share
- Fixed, variable or indexed annuities available
- Guarantees exist but are costly, complex and rarely used as default solutions
- Limited pooling of longevity risk

Takeaways

- The U.S. pension system prioritises freedom and market efficiency over security, resulting in a strong necessity for private investments
- However, there's a high exposure to financial market volatility and individual risk
- Efficient in capital accumulation but structurally exposes retirement outcomes to market volatility and individual decision-making quality

Balancing security and returns – how private savings can complement the state pension in Germany, learning from different countries

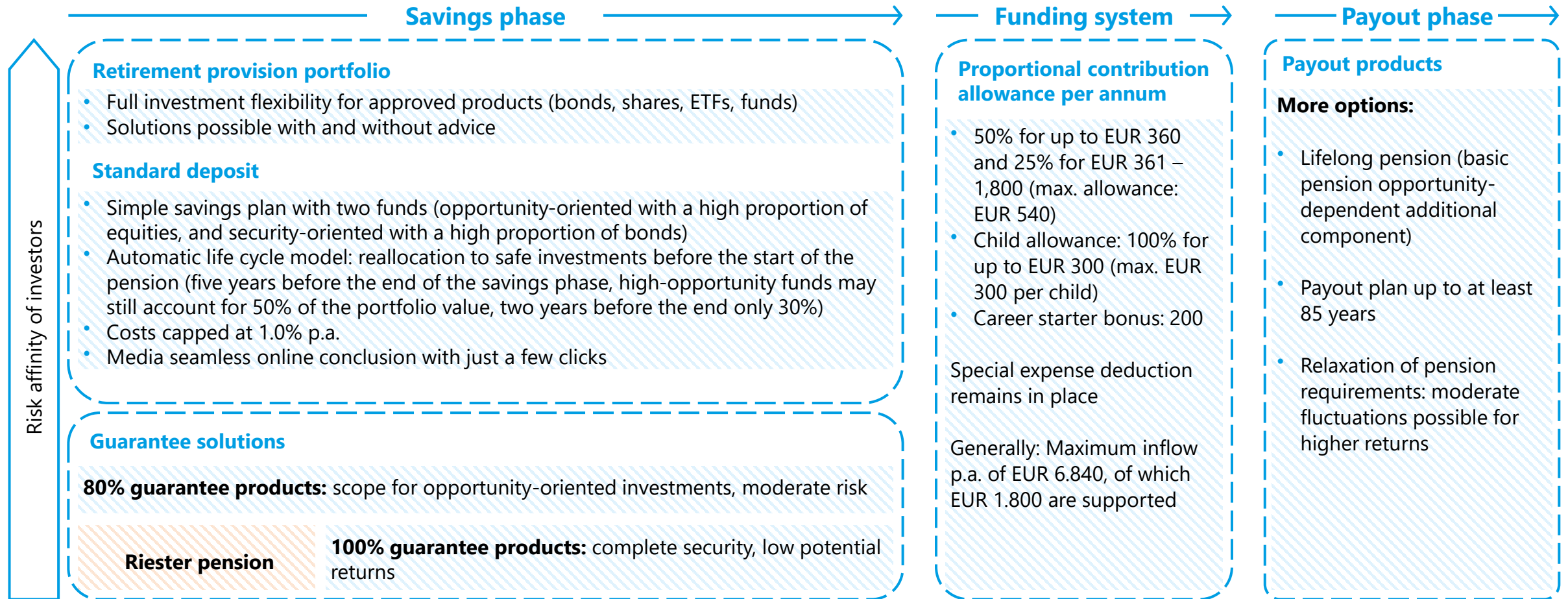
Comparison and conclusion



				Learnings for 
Personal responsibility	 <p>Voluntary pillar 3a saving; tax-deductible and generally locked until retirement</p>	 <p>ISK: simple, tax-simplified account with self-directed fund/ETF investing</p>	 <p>High indiv. responsibility: personal contributions determine outcomes</p>	<ul style="list-style-type: none"> • Encourage more personal saving through simple incentives and default participation mechanisms. • Make participation easy, digital, and intuitive to drive mass adoption. • Strengthen funded saving as a driver of long-term domestic investment. • Prioritise a small set of transparent, standardised retirement-saving products – balancing security and return potential.
Adoption in population	 <p>~57% of employees contribute to both pillar 2 and pillar 3a</p>	 <p>Very widespread: about 35% of the Swedish population held an ISK account in 2023</p>	 <p>56% of civ. workers participated in employer-sponsored retirement plans</p>	
Domestic cap. market orientation	 <p>Swiss-tilted allocations are common in provided 3a fund/ETF solutions</p>	 <p>No mandated home bias; allocation depends on saver choice</p>	 <p>Equity-heavy private pensions: 38% of 401(k) assets in equity mutual funds</p>	
Simplicity and clarity of the system	 <p>Clear rules with annual contribution caps and standardised tax treatment</p>	 <p>Low-friction setup plus simple, predictable taxation</p>	 <p>Simplification: auto-enrolment req. for most 401(k)/403(b) plans from 2025</p>	

Source: Federal Statistical Office (2025), Finpension (2025), ICI (2025b), Swedish Investment Fund Association (2024), US Department of Labor (2023)

The planned reform requires new solutions for retirement savings accounts as well as guarantee and payout products – these must be developed by providers

The way forward: a new approach of the German government



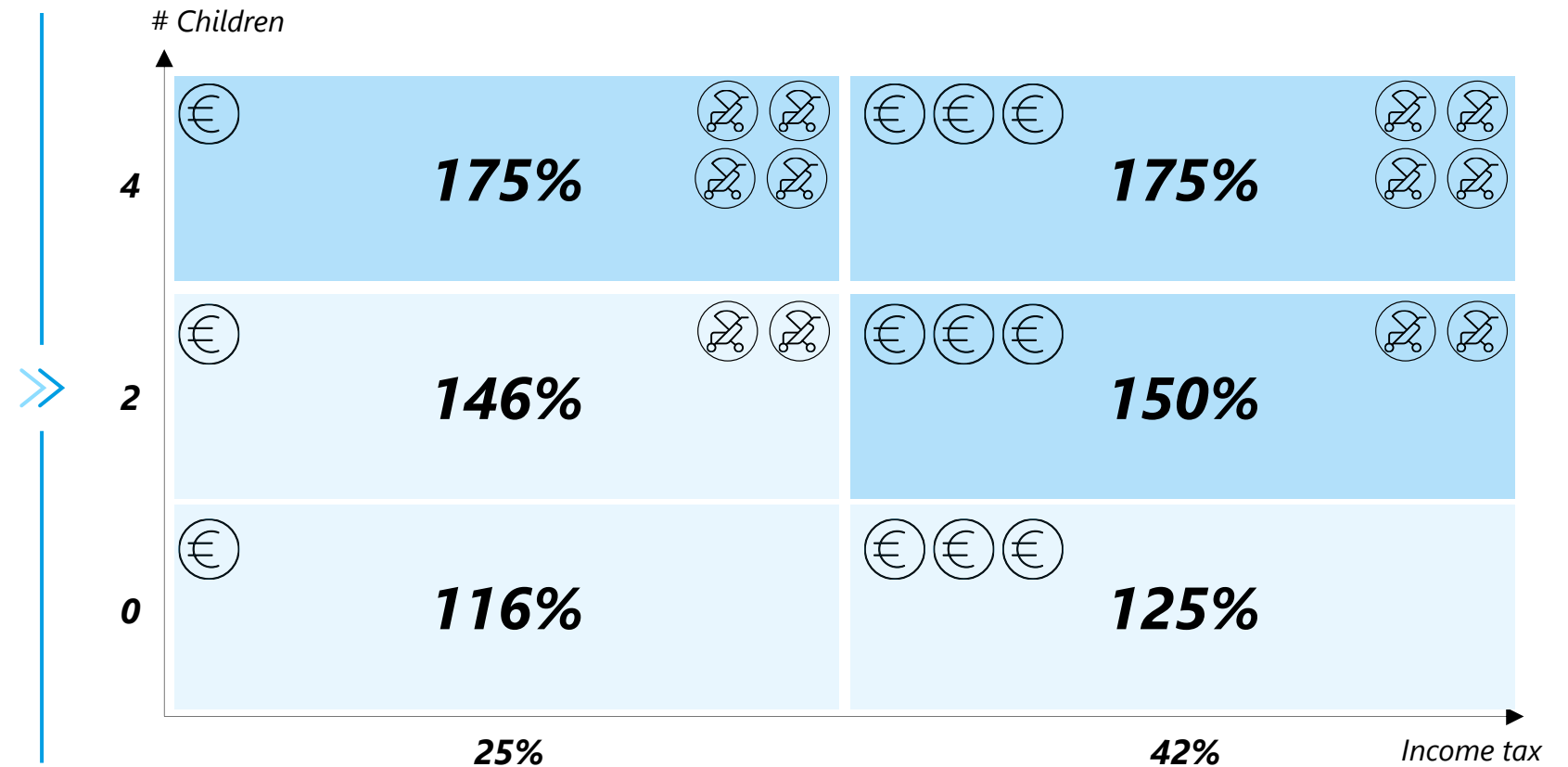
 = Previous products for state-subsidised private pension provision  = New products for state-subsidised private pension provision

Current proposal for private pension supplement prefers families with many children, slight advantage for higher-income families – most scenarios will outperform individual saving plans

The way forward: a new approach for the German government

Ratio of Altersvorsorgedepot (AVD) compared to individual ETF saving plans under different circumstances

- Born in 1990, retirement in 2060
- 7% return on the selected ETFs according to MSCI World long-term yield
- Calculation is based on the maximum payment rate p.a., which still receives state subsidies¹⁾
- Beyond this, the state cover is redundant or even disadvantageous
- The assumption is that savers are fully rational and reinvest tax savings into a new ETF depot
- Product costs are calculated using a maximum rate of 1.0% permitted for providers
- The benchmark is 0.2% for ETF custody accounts outside government shells
- A retirement age and payout starting age of 70 are assumed to reduce complexity

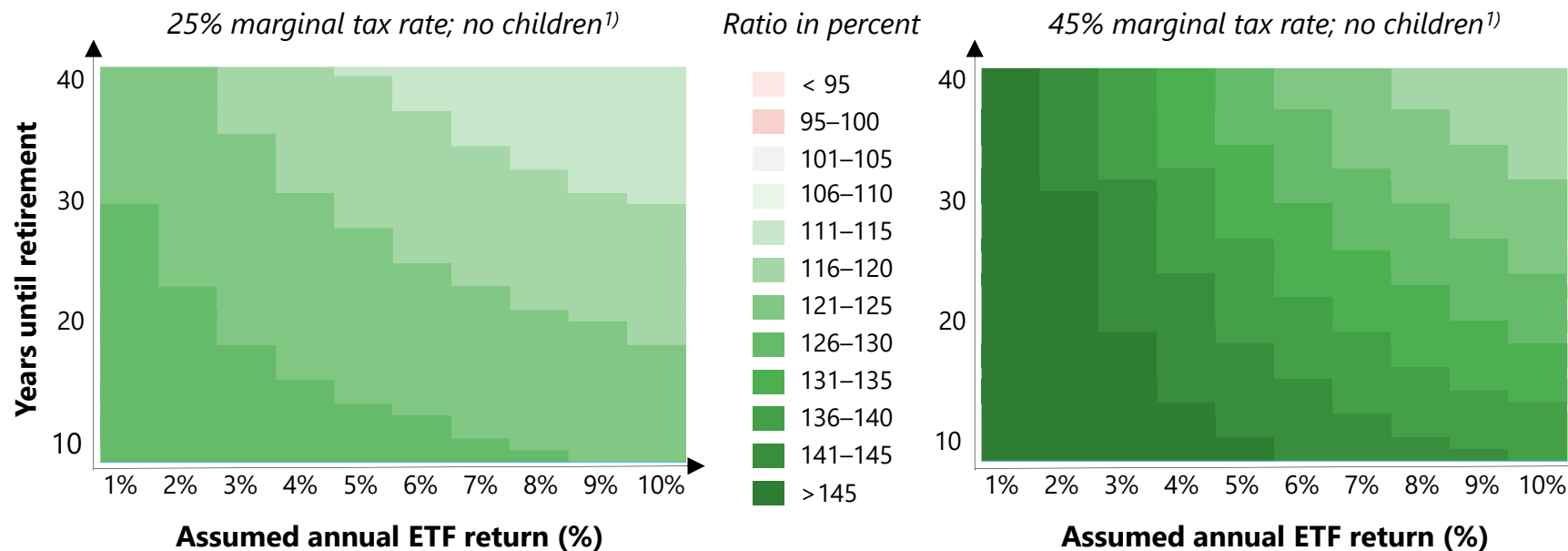


Sources: Bundesministerium der Finanzen (2025c), zeb.tool AVD Calculator (2026)

Macroeconomic scenario analysis shows that AVD outperforms a standard ETF savings plan in every case - yet there are important drawbacks to consider

Scenario analysis (I/II): AVD vs. ETF saving plan

Ratio: AVD to ETF savings plan with varying parameters – ROE (%) and saving timespan (yrs)



➡ In no scenario does the ETF portfolio outperform the AVD; higher assumed returns and longer time to retirement only narrow the gap

➡ High-income earners are consistently much better off than with an ETF savings plan – more so than low-income earners

The AVD is advantageous in most cases compared with an ETF savings plan, but...

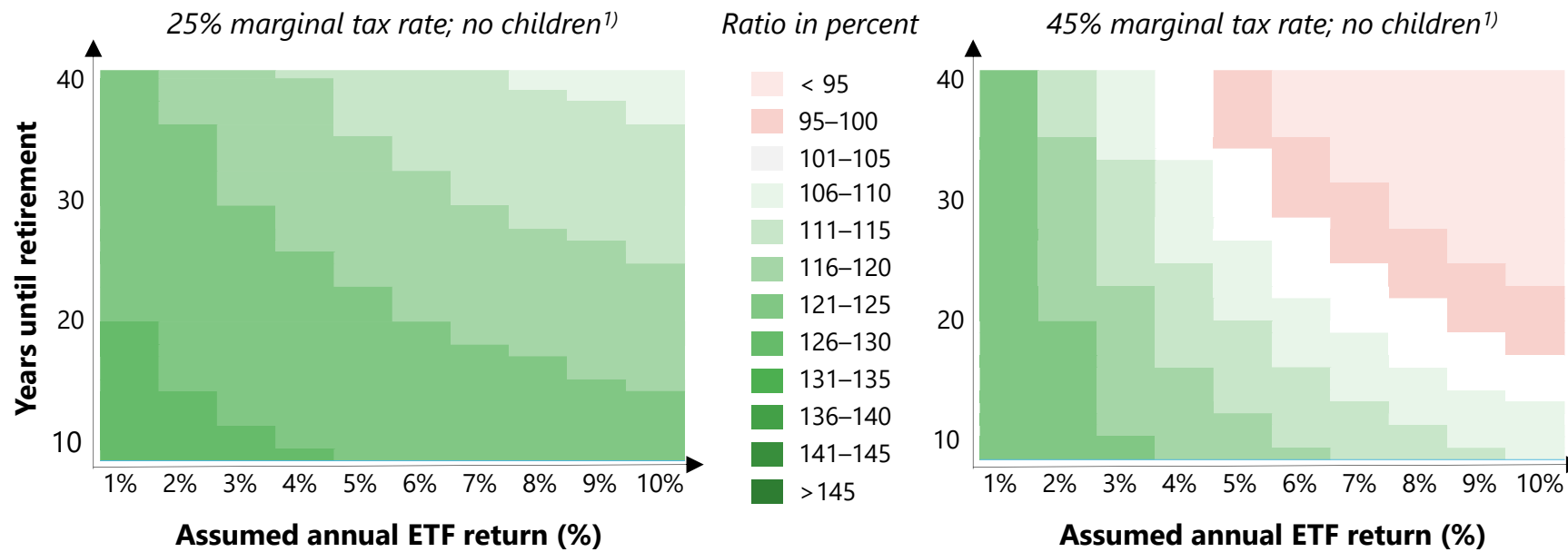
- ...the product is **not very flexible**, because the full payout is only reached at age 85, which restricts access to funds beforehand (or lifelong pension)
- ...for an **early exit**, one has to **forfeit a large share** of the accumulated value
- ..only assuming **perfectly rational reinvestment** of tax savings - rational "homo oeconomicus" case -, the AVD looks that **attractive (see next slide)**

1) The calculation assumes that even low-income earners contribute the full EUR 1,800 per year to the private AVD and are taxed at a 25% marginal rate. Source: Bundesministerium der Finanzen (2025c), zeb.tool AVD Calculator (2026)

Turning to a more realistic scenario of people spending their (external) tax refunding rather than immediately reinvesting, the general outperformance disappears

Scenario analysis (II/II): AVD vs. ETF saving plan

Ratio: AVD to ETF savings plan with varying parameters – ROE (%) and saving timespan (yrs)



➡ Given the relatively low effects of the tax reclaiming procedure of the yearly deposit inflow, the redshift remains modest

➡ Without permanently “fuelling” the high-income deposit with tax refunds, redshift appears in the long run

Without strict reinvestments of tax benefits, a massive “redshift” occurs...

- ...in particular for the **high-income segment** profiting from substantial refunds
- ...to some degree also for the lower-income segment, particularly as this group is **more dependent on immediate consumption** of the tax benefits
- ...such that, ironically, the **“consumption scenario” inverts the tax privileges** of the “homo oeconomicus scenario”

1) The calculation assumes that even low-income earners contribute the full EUR 1,800 per year to the private AVD and are taxed at a 25% marginal rate. Source: Bundesministerium der Finanzen (2025c), zeb.tool AVD Calculator (2026)



C

Mobilising capital to boost equity and fund holdings

Executive Summary of Chapter C

Compared to other advanced economies, German households have got a disproportionately high share of low-yield savings accounts, while equity and fund ownership remain limited.

Despite very high financial assets per household, a large share of these assets remains in low-yield, liquid savings, representing a latent pool of capital that could be mobilised for higher-return investments. There has been incremental growth in capital-market participation, but still only a minority invests in equities or funds. Cultural preferences, risk aversion, inequality and a lack of financial literacy remain major structural barriers.

p. 58

Equity/fund investments remain concentrated among higher-income/high-wealth households. They are furthermore unequally distributed between genders, regions (east vs. west) and age groups. Gen Z is likely to become the wealthiest generation of all times (by nominal numbers), making a sophisticated support in investment decisions crucial – especially given their responsibility to close the pension gap through private capital gains.

pp. 59 - 61

Germany's efforts to shift savings toward capital-market investments have had only modest success despite past campaigns. Government IPOs and tax incentives, financial education programs, and digital channels like ETF savings plans improved access and literacy, but structural barriers and limited behavioural change kept overall adoption low.

p. 62

Targeted, well-designed tax or incentive schemes (particularly those that lower entry barriers, reward long-term commitment and encourage younger cohorts) will help shift investment behaviour. Incentives need to be simple, transparent, and well-communicated. Otherwise, there is a risk that many remain on the sidelines. They must be designed to avoid favouring only high-income/wealthy households, which would promote inequality.

pp. 63 - 64

An integrated incentive framework combining tax advantages, defaults, matching, pension integration, long-term orientation and education to mobilise German household capital.

p. 65

Germany is a nation of savers, not investors – and this mindset now threatens individual economic security

Introduction

Status quo

- **Situation:** a large share of German households' wealth sits in low-yield savings or deposits rather than equity/fund investments
- **Relevance:** low returns, inflation risk, missed opportunities for higher returns – and domestic capital underutilised for growth
- **Complication:** Germany is lacking promising initiatives to change its citizens' investment behaviour

Why past initiatives have had only limited impact

Risk aversion and liquidity preference

German households prefer liquidity and low-risk savings, even if returns are minimal. Over decades, various crises (e.g. dot-com crash, Telekom shares) have reinforced scepticism.

Inequality and income dependence

Equity/Fund ownership is skewed toward higher-income/wealthier households. Middle and lower-income households often lack the means, or perceive the risk as too high.

Lack of financial literacy and trust

Many may lack an understanding of how equity/fund investment works, or fear market fluctuations. Public and private pension schemes remain more familiar and trusted.

Insufficient incentives and structural support

While some pension products or savings schemes exist, uptake has been limited; the structure of incentives were not sufficiently attractive, or too complex.

But what could work?

This chapter examines ...

... the historical development of investment activities.

... the success of past political incentives.

... how targeted tax incentives can help.

... which incentive structures will be effective.

... why Germans should turn from savers to investors

... and why all this matters for Germany's overall economic prosperity.

Investment behaviour did not significantly change in the past two decades – the rise of neobrokers during the pandemic brought some dynamics into the market

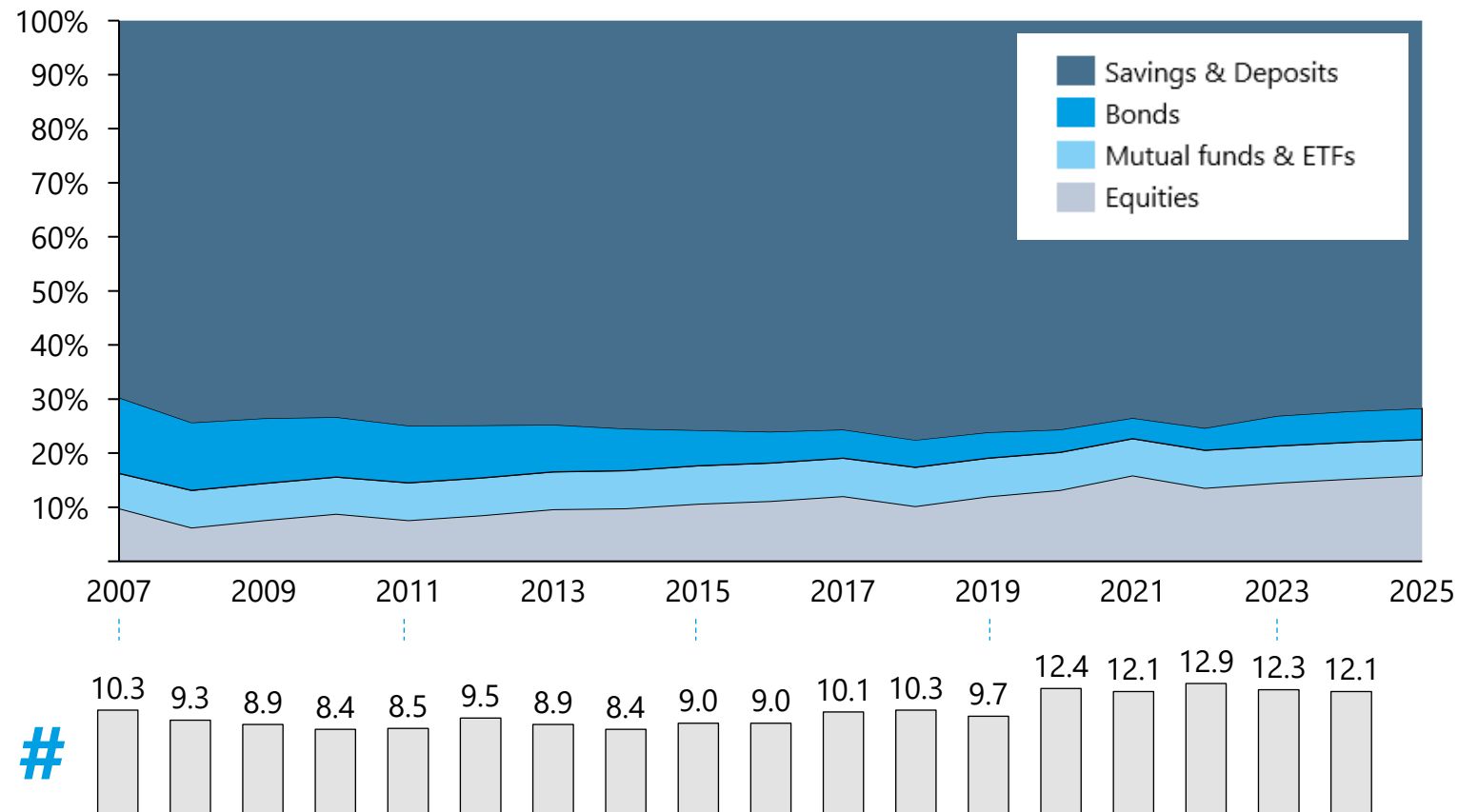
Historical development (2007–2025)

Historical background

Loss of trust – a risk-averse, sceptical population

- Wave of equity and mutual funds investment in Germany in the late 1990s turned back after the **dot-com crash**.
- Households **withdrew substantially** from stocks in 2001/02.
- Also, **misleading advice** in the 1990s media (e.g. Telekom shares) **diminished Germans' trust** into capital markets.
- After the COVID-19 pandemic, the **ETF boom** rebuilt trust via small-ticket investments maintaining broad diversification.
- This increase of equity holders can be mainly tracked back to **Gen Z and Millennials**.

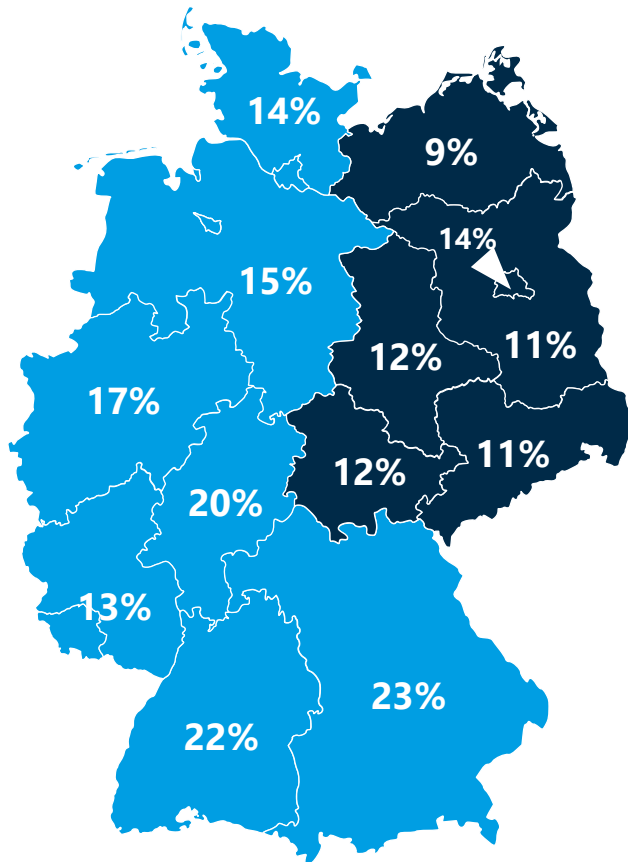
Share of asset classes in German households (in %) and # of retail investors (in m)



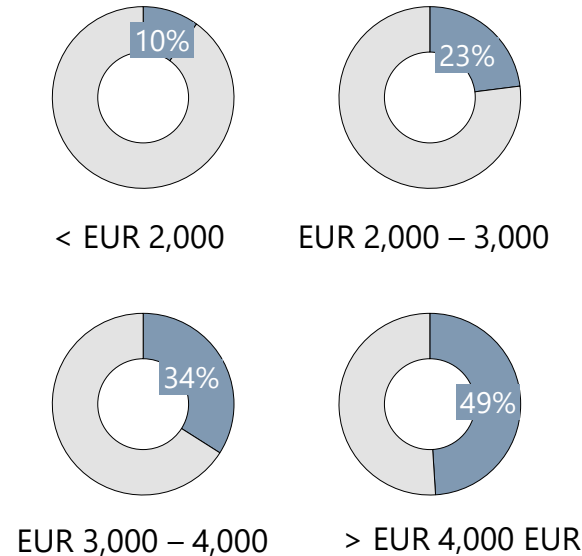
Younger generations are breaking the pattern – but many inequalities and heterogeneities are persistent and will have to be addressed by future political measurements

Current situation

Share of investors by region ...



... and by monthly net income (2024)



investors by gender (2024)



Background and additional remarks

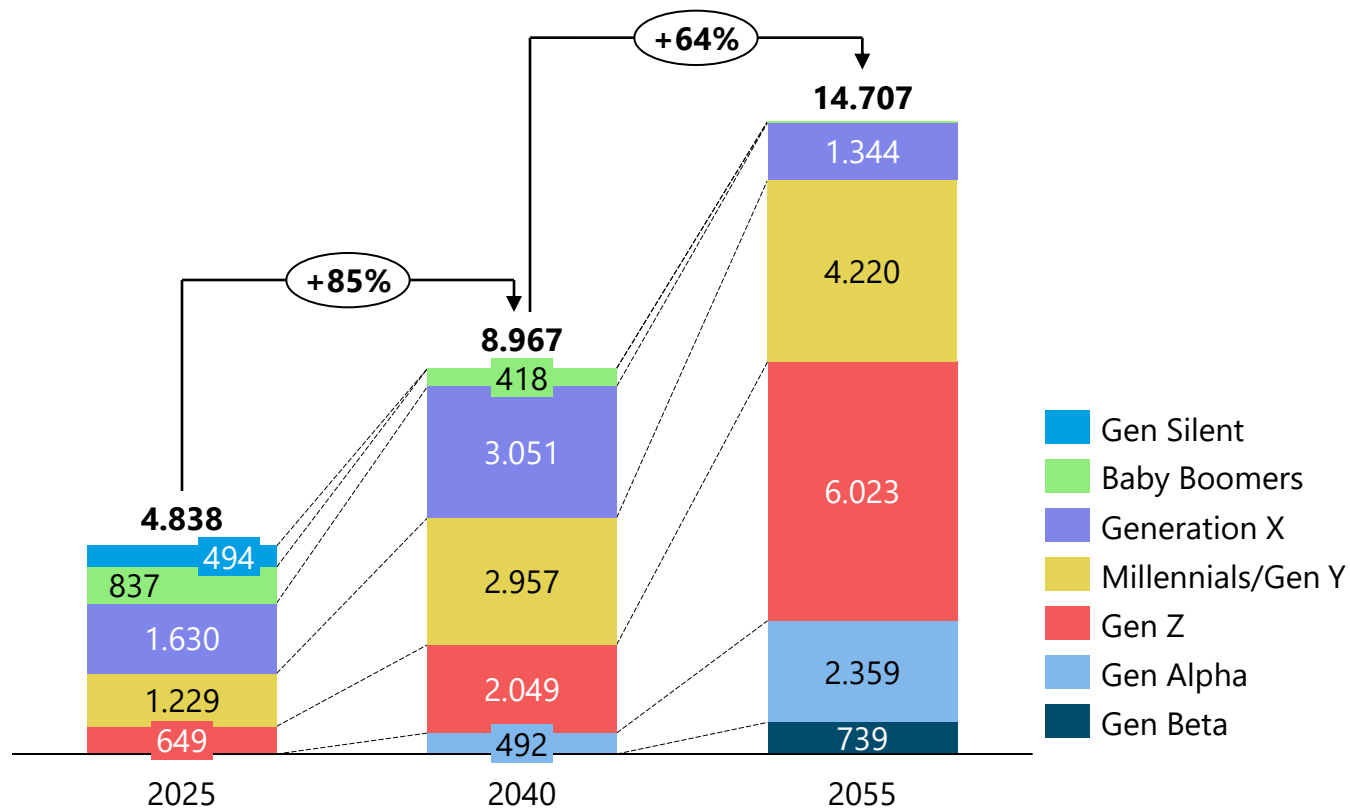
On an individual level (population aged 14+), around 17% of German adult people held stocks, equity funds or ETFs in 2024.

- **Age gap:** 3.7 m investors are in the age band of 14–39 y: they have doubled since 2015. This fastest-growing group of investors is mainly incentivised by the self-advised, low-fee business model of neobrokers.
- **Salary gap:** while only one in ten Germans with net incomes below 2,000 EUR per months is active on the capital markets, nearly half of earners beyond 4,000 EUR net income do invest.
- **Gender gap:** investments / capital market maturity is still under a male supremacy.
- **East-west gap:** income and age differences associated with historical scepticism towards capital markets according to a SAFE study.

Intergenerational wealth transfer will equip the capital market-friendly Gen Z with unprecedented investment volumes

Outlook (2025–2055)

Prognosis of liquid wealth by generation (EUR bn¹⁾)



Background and additional remarks

A large share of **privately held wealth** (real estate, business equity, financial assets) will have **changed hands**.

- Germany's wealth is **highly concentrated in older cohorts**, meaning even modest inheritance dispersion creates massive capital inflows for younger generations.
- This transfer happens **through inheritances, inter-vivos gifts** (already tax-optimised and accelerating) and **business successions**.
- **The combination is critical:** Large inherited sums × higher market participation = structural capital inflow.
- By 2055, this trend will likely result in a **cultural normalisation of equity investing**.

1) Nominal numbers, be aware of inflation and other influence factors for the interpretation

Gen Beta: 2028–2042, Gen Alpha: 2013–2027, Gen Z: 1997–2012, Millennials/Gen Y: 1981–1996, Gen X: 1965–1980, Baby Boomers: 1950–1964, Gen Silent: before 1950

Sources: Global Data (2025), zeb.demographics (2025)

Despite policy efforts and market innovations, Germany's shift from traditional savings to capital-market investing remains modest

What policy and markets achieved - and what's still missing



Government initiatives

- **Asset-building schemes (Vermögenswirksame Leistungen):** employer-linked saving; state bonus nudges lower/middle incomes into funds/ETFs
- **Employee share ownership incentives:** tax benefits to encourage direct equity participation by employees



Moderate effect – helps participating employees, but doesn't scale without broad employer uptake + defaults



Financial education

- **National Financial Education Initiative (since 2023):** federal initiative to coordinate financial education and reduce fragmentation
- **Stock market simulation programs (e.g., Planspiel Börse):** large-scale school/young-adult competitions with virtual portfolios



Indirect effect – raises literacy/confidence; conversion to investing remains limited without easy next steps



Distribution & product innovation

- **ETF savings plans and low-cost brokers:** app-first onboarding makes investing accessible for first-time investors. Strong driver of regular investing habits and ETF adoption.
- **Finfluencers/YouTube (e.g. Finanzfluss):** large reach via simple, actionable education (ETFs, diversification, long-term mindset) and peer-like trust



Strong effect – reduces friction and boosts adoption, but penetration remains uneven across the population

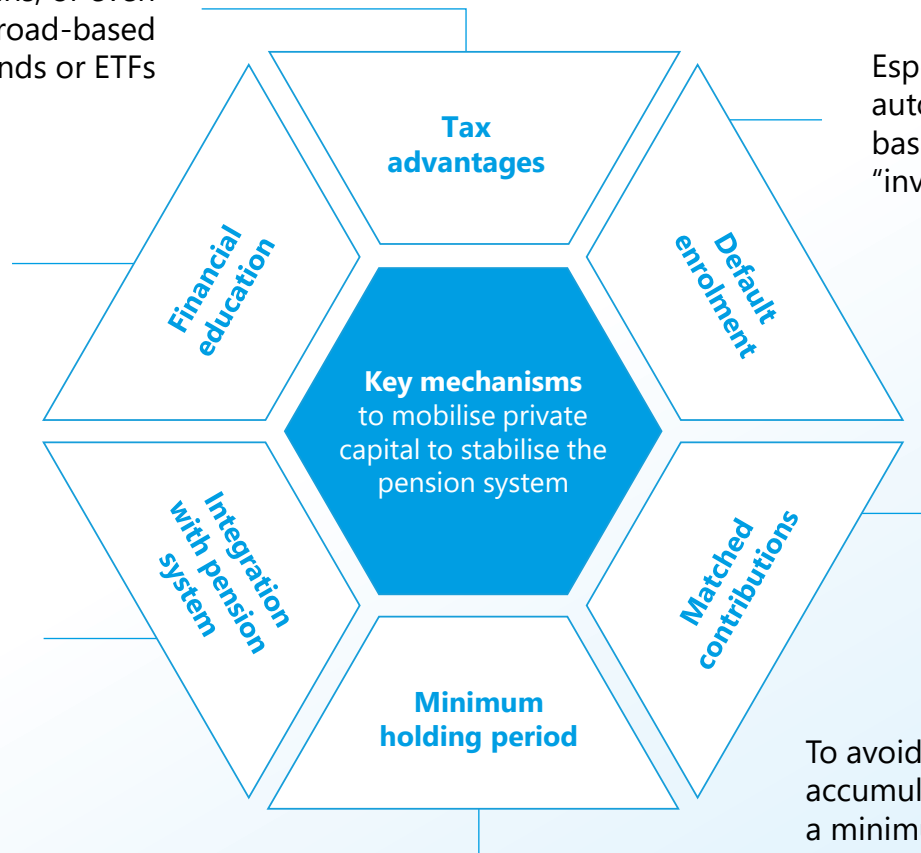
From saver nation to investor nation – six levers to unlock Germany’s household capital for long-term wealth creation and economic growth, overcoming investment inertia

A look on promising initiatives for the future

For example, a savings plan or account that gives tax breaks (on dividends, capital gains, or even contributions) if invested in broad-based equity/mutual funds or ETFs

Combine incentives with education campaigns; encourage easy, low-fee, easy-access investment vehicles

Tax-favoured equity/fund investment to be positioned as part of private pension provision (Chapter B), complementing state pension



Especially for young people – encourage or require automatic participation (unless opted-out) in a basic investment/savings plan to build a long-term “investment habit”

Especially for low- to middle-income households, e.g. a “starter premium” or matching contributions for investing in equity/fund products. Lowers entry barrier and encourages participation

To avoid speculation and emphasise long-term wealth accumulation, offer incentives only if funds are held for a minimum period (e.g. 5–10 years)

Ranking recommends a combined approach – defaults and tax advantages create momentum, matching ensures inclusion, and pension integration provides structure

Overall ranking of effectiveness

Mechanism / Assessment dim.	Behavioural impact	Fiscal efficiency	Inclusiveness	Simplicity	Controllability	Short rationale
1 Tax advantages	●●●●●	●●●●○	●●●○○	●●●●○	●●●●○	Immediate, clear financial upside makes equities more attractive than deposits and scales well
2 Matched contributions	●●●●○	●●●○○	●●●●●	●●●●○	●●●○○	Reduces entry barriers and motivates low- and middle-income households to start investing
3 Integration with pension system	●●●●○	●●●●○	●●●●○	●●●○○	●●●●○	Embeds equity investment into a trusted, long-term savings framework
4 Default enrolment	●○○○○	●●●●○	●●●●●	●●●●●	●●●○○	Leverages inertia to drive mass participation with minimal active decision-making but acceptance due to opt-outs
5 Minimum holding period	●●●○○	●●●●○	●●●○○	●●○○○	●●●●●	Promotes long-term behaviour but adds complexity and reduces flexibility, lowering adoption in society
6 Financial education	●●○○○	●○○○○	●●●●●	●●○○○	●●○○○	Builds confidence and access, but changes behaviour only gradually on its own

●●○○○ 1 / 5: low
●●●●● 5 / 5: high

Source: Assessment by experts at zeb.research (2025)

Turning from savers to investors is not just a personal financial strategy – it is a national imperative, connecting Chapter C to Chapter A & B

Rationale behind a new investment mentality

Why Germans should turn from savers to investors

Low-yield savings threaten long-term wealth

Current situation: German households hold a disproportionately high share of their wealth in low-yield savings accounts and deposits
Why a new investment mentality matters: conservative approach means Germans miss out on higher returns from equities and funds, leading to lower wealth accumulation over time (inflation further erodes the real value of these savings)

Underinvestment hampers economic growth

Current situation: Germany faces a significant investment gap, especially in infrastructure, climate transition, and innovation. Public funds alone are insufficient to meet these needs
Why a new investment mentality matters: When households invest in equities and funds, they provide capital that fuels business growth, innovation, and job creation - essential for maintaining competitiveness

Demographic pressures demand higher returns

Current situation: Germany's aging population is putting pressure on the pay-as-you-go pension system. Without higher returns from capital market investments, future retirees face increased risks of old-age poverty
Why a new investment mentality matters: Shifting to capital-market-based retirement savings helps closing the pension gap, provide higher returns, and reduce the burden on public finances

Influence on German economic prosperity

- 1 **Unlocking domestic capital for growth:** turn household savings into productive investments
- 2 **Reducing reliance on foreign capital:** Increase domestic investment to strengthen economic sovereignty and resilience as Germany relies heavily on foreign investors for venture capital
- 3 **Building a culture of innovation and risk-taking:** shift from saving to investing to foster a culture that values entrepreneurship, innovation, and long-term wealth creation
- 4 **Enhancing financial security for citizens:** utilise higher returns from investments to help individuals build wealth, secure retirement, and withstand economic shocks, reducing inequality and improving financial well-being

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CONCLUSION

partners for change

In summary, this comprehensive study on the role of private capital in Germany provides three main findings

Three key findings of Chapter A-C

A

Mobilising private capital for public investment need and a vivid start-up culture

Germany faces a significant investment backlog, especially in infrastructure and climate transition, which cannot be met by public funds alone. The study suggested that scalable capital market mechanisms (such as blended finance, green bonds, and public-private funds) are essential to crowd in private capital, accelerate project delivery, and ensure long-term economic growth – especially by fuelling a promising start-up culture in Germany. Effective governance, regulatory stability, and innovative financial vehicles are critical to unlocking this latent potential.

B

Strengthening the pension system through capital markets

With demographic pressures straining Germany's pay-as-you-go pension system, the study highlighted the urgent need to expand funded, capital-market-based retirement savings. International best practices – like automatic enrolment, tax-advantaged equity accounts, and matching contributions – can boost participation and returns, helping to stabilise the pension system and reduce old-age poverty risks. A consolidated reform, inspired by successful models in Switzerland and Sweden, would build substantial assets over time and enhance financial resilience.

C

Boosting equity and fund ownership among households:

German households hold a disproportionately high share of assets in low-yield savings, with limited participation in equities and funds compared to other advanced economies. The study found that targeted tax incentives, simple investment products, and integrated financial education are needed to shift savings behavior and mobilise household capital for higher-return investments. Overcoming cultural risk aversion and structural barriers is vital for fostering an investor mindset and supporting long-term economic prosperity.

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About AFME and zeb



The **Association for Financial Markets in Europe (AFME)** is the voice of all Europe's wholesale financial markets, providing expertise across a broad range of and capital markets issues.

We represent the leading global and European banks and other significant capital market players. We advocate for deep and integrated European capital markets which serve the needs of companies and investors, supporting economic growth and benefiting society.

We aim to act as a bridge between market participants and policy makers across Europe, drawing on our strong and long-standing relationships, our technical knowledge and fact-based work.



As a **leading strategy, management and IT consultancy**, zeb has been offering transformation expertise along the entire value chain in the financial services sector in Europe since 1992.

We have five offices in Germany – Frankfurt, Berlin, Hamburg, Munich and Münster (HQ) – as well as 10 international locations. Our clients include European large-cap and private banks, regional banks, insurers as well as all kinds of financial intermediaries.

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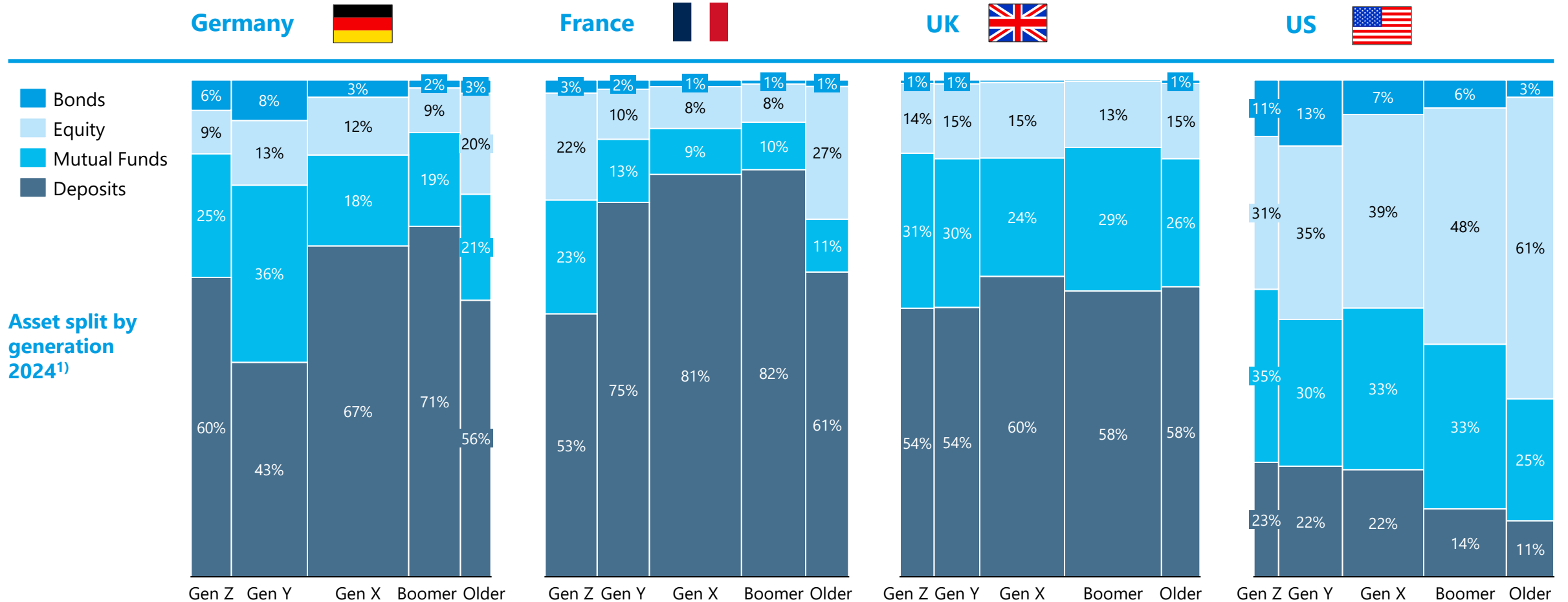
Taunusanlage 19
60325 Frankfurt
Germany

APPENDIX

A.1

Besides huge deposit shares, capital markets activity are distributed on equities and mutual funds – the latter being more attractive in Germany and UK

Benchmarking: Asset classes by generation



1) Baby Boomers are defined as those born between 1946 and 1964, Generation X between 1965 and 1980, Generation Y (Millennials) between 1981 and 1996, Generation Z between 1997 and 2012 and Older is defined as all people born before 1946; Source: Global Data (2025)

A.1 The democratisation of private markets enables a persuasive political campaign – renew your country with your own capital and benefit in two ways

Deep Dive: Private markets for retail investors

Democratise access to private markets

- **Banks and neobrokers** are lowering barriers to private-markets products, enabling “**small-ticket**” investments
- **Retail appetite is growing**, especially among younger investors who combine **digital convenience** with a desire for **tangible impact**



- **However:** even German neobrokers cooperate with Swedish and U.S. infrastructure product providers – need to incentivise German-centric investment products

Utilise the momentum and enable fractional participation in projects of federal interest instead!

Connect investment to national purpose

- **Idea:** Mobilise “Volksvermögen” (national wealth) by linking investments to national progress – addressing both visibility of investments in own country and a future-proof financial situation

“Build the country with your own equity – and benefit physically and financially!”

- “German climate bonds”
- “Regional infrastructure funds”
- “Defence & resilience notes” (where appropriate)

Scale via investor numbers, not ticket size

Retail investors allocate on avg. only 10–15% of their portfolios to alternatives – just for the sake of diversification – but the aggregate potential is enormous!

What Germany and the EU can do

- Offer retail **tax incentives** tied to investment in domestic infrastructure, e.g.:
 - Tax credits for investing **above a certain threshold in German projects**
 - Reduced tax rates on gains **from long-term German infrastructure funds**
- Introduce **region-based investment** options, allowing citizens to invest in **visible projects in their own state or municipality**
- **Gamify impact visibility:** real-time dashboards showing carbon emissions saved, kilometres of rail modernised, energy generated – e.g. visible via neobroker apps

*The “**Deutschlandfonds**” model is already going in the right direction – **deep dive on the next slide!***

A.1

The German government aims to use the “Deutschlandfonds” to unlock significant private capital - a well-designed fund is essential for closing the investment gaps

Deep Dive: “Deutschlandfonds”

In a nutshell: rationale

- Germany needs to make substantial investment in public infrastructure, essential public services and the transition towards climate neutrality - the “**Sondervermögen**” (special fund) can help make these investments, but it **is not sufficient**
- A proposed “Deutschlandfond” (Germany fund) would **efficiently pool private capital** and channel it into public investments at interest rates only slightly above government bonds
- **Planned approach & scale:** press reports indicate ≈ EUR 10 bn in federal capital/guarantees aimed at mobilising ≈ **EUR 100 bn overall**, focused on SMEs, scale-ups and energy/critical infrastructure

Evolution and success so far

- **Coalition agreement (April 2025):** The German coalition explicitly commits to establishing a “Deutschlandfonds” as a public anchor to crowd-in private capital
- **Coalition committee (November 2025):** Leading politicians confirm the Deutschlandfonds as a central “docking station for private capital”
- **Positive precedent – “Wachstumsfonds”:** KfW Capital’s Wachstumsfonds (growth fund) closed at EUR 1 bn with 20+ institutional investors and a majority of private capital, strengthening Germany’s VC ecosystem; it is planned to serve as a key pillar of the Deutschlandfonds

Areas for development and expectations

Key proposals from the Friedrich-Ebert-Stiftung for structuring the fund to minimise its cost of capital:

- 1) Provide the **fund’s equity through public-sector financing** so its own capital comes from the state at minimal cost
- 2) Create **dedicated sub-funds** aligned with specific uses of capital and policy objectives
- 3) Have each sub-fund issue **mandate-specific securities** tailored to its purpose and target investor base
- 4) Issue **bonds for institutional investors** to raise debt efficiently and tap underused channels (e.g. German pension markets)
- 5) Offer “**Deutschlandfonds-Schatzbriefe**” **directly to citizens** to involve the public and broaden the fund’s financing base

A.1

A strengthened EU Capital Markets Union would provide the regulatory frame, scale and cross-border investment channels to efficiently mobilise private and institutional capital

Deep Dive: European Capital Markets Union

In a nutshell: rationale

- The EU's plan is to build a single, integrated capital market that turns 27 fragmented national markets into **one unified EU-wide market**
- The CMU aims to fully **leverage** EU capital markets to mobilise large-scale private finance and boost funding for growth and innovation by tapping the EU's annual **savings surplus** over domestic inv. **of EUR 370 bn** (2023)
- The integration of capital markets would **strengthen the EU's banking sector** by boosting cross-border financial activity, expanding the investor base for market-based funding
- **Scaling innovative European firms:** deeper capital markets would unlock full potential – today only $\approx 20\%$ of EU corporate liabilities are financed via listed equity and bonds (U.S.: $\approx 45\%$)

Evolution and success so far

- Over the past decade, the European Commission has advanced numerous legislative and policy measures including **three CMU action plans** – to build a single EU capital market
- The EU has made **solid progress** in sustainable finance and SME market access: Europe now accounts for over half of global green bond issuance, and the market-finance share for EU corporates has roughly doubled from 7,8% (2022) to 14,1% (2024)
- **Progress** in developing and integrating EU capital markets **remains limited**, held back by a low degree of advancement on key transformative reforms.
- **ELTIF 2.0 as a success story for the CMU:** the revision of the regulation in January 2024 triggered a high record in new ELTIF launches in 2024

Areas for development and expectations

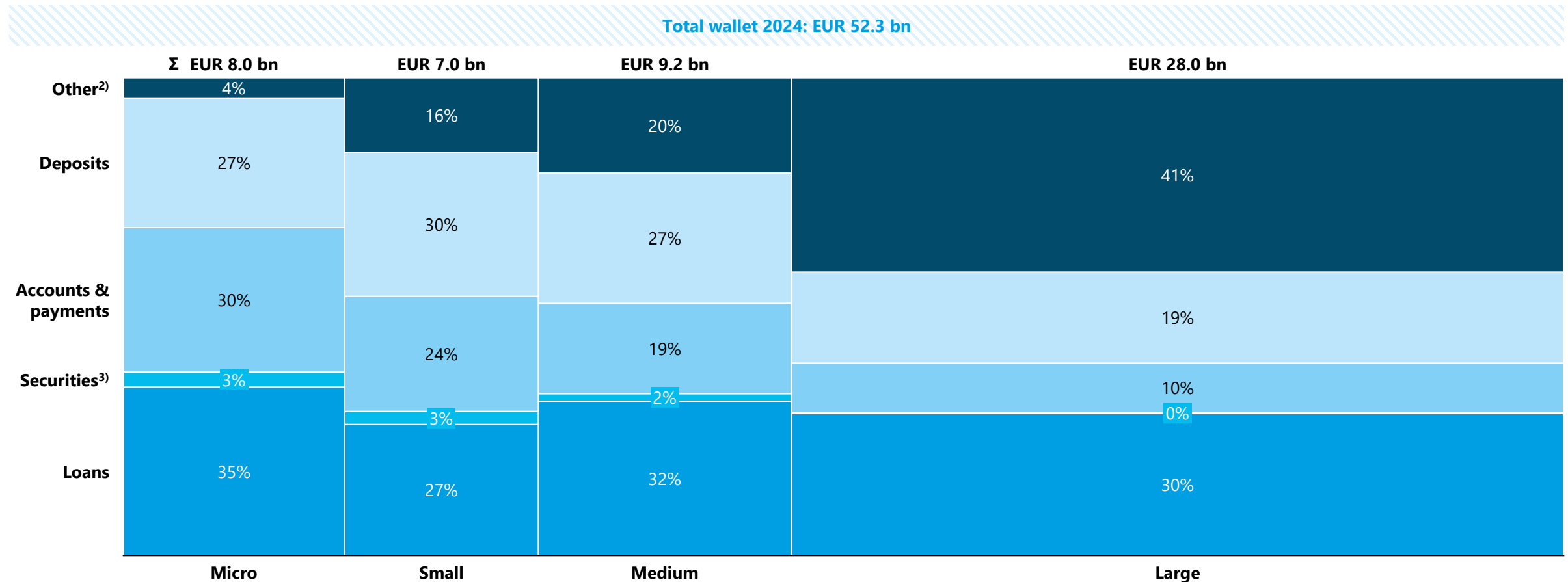
- **Retail savings & investment push (EU savings product):** Leverage successful national schemes to tackle low retail participation in market-based products (households still hold roughly 34% of financial assets in cash & deposits and only 17% in market-based securities); use tailored tax incentives to nudge households; design the product to be simple, flexible, low-fee and suited to varied risk tolerances
- **Advance toward an integrated supervisory ecosystem:** greater supervisory convergence - via more centralised EU oversight - to support uniform rule implementation, bolster market confidence and support cross-border investment
- **Expansion of EIB/EIF's catalytic role in venture capital:** use of targeted, counter-cyclical investments to crowd in private capital and close early/late-stage funding gaps

More on venture capital in Chapter A.2.

A.2

The zeb.CorporateWallet shows corporate financing at different firm sizes and services

German banking: corporate wallet per segment/service 2024¹⁾



1) Figures show the total wallet of corporate banking business of banks in Germany based on the zeb.Wallet Model; zeb can support with individual, regional and bank-specific analyses; micro companies: turnover < EUR 0.5m, small: EUR 0.5m–5m, medium: EUR 5m–50m, large > EUR 50m; 2) Incl. insurances, guarantees, leasing, foreign trade finance, derivatives; 3) Incl. fees & commissions, e.g. purchase/sale of shares and custody of securities; excl. issuances (as hardly relevant for the majority of German banks, market share of US/intern. banks: ≈ 80% in equity business, according to Bloomberg); Sources: zeb (2025), zeb.research

A.2

FIVE is a promising example to pool capital and create a genuine cross-border platform with enough critical mass to anchor Europe's next generation of technology champions

Deep Dive: Franco-German FIVE initiative

In a nutshell: rationale

- **Address Europe's scale-up financing gap:** The FIVE initiative responds to chronic shortages in late-stage venture capital that push high-growth European firms to seek funding outside Europe – *6 out of 10 VCs perceive scale-up financing as insufficient*
- **Strengthen EU competitiveness:** By mobilising private capital at scale, FIVE aims to retain technological champions in Europe and reinforce the continent's strategic autonomy in innovation-intensive sectors
- **Franco-German leadership:** France and Germany position themselves as the political and economic engine to accelerate broader EU reforms in capital markets and investment mobilisation

Evolution so far

- **16 July 2025** – German Finance Minister Lars Klingbeil met French Finance Minister Éric Lombard at Schloss Genshagen, where they jointly announced the *Financing Innovative Ventures in Europe (FIVE)* initiative
- **Establishment of a joint taskforce:** A Franco-German expert group, led by **Jörg Kukies and Christian Noyer**, was created to deliver concrete proposals to strengthen scale-up financing by end-2025
- Taskforce complements the European Commission's start-up and scale-up initiative by providing **concrete recommendations** to strengthen implementation and to promote the European innovation ecosystem

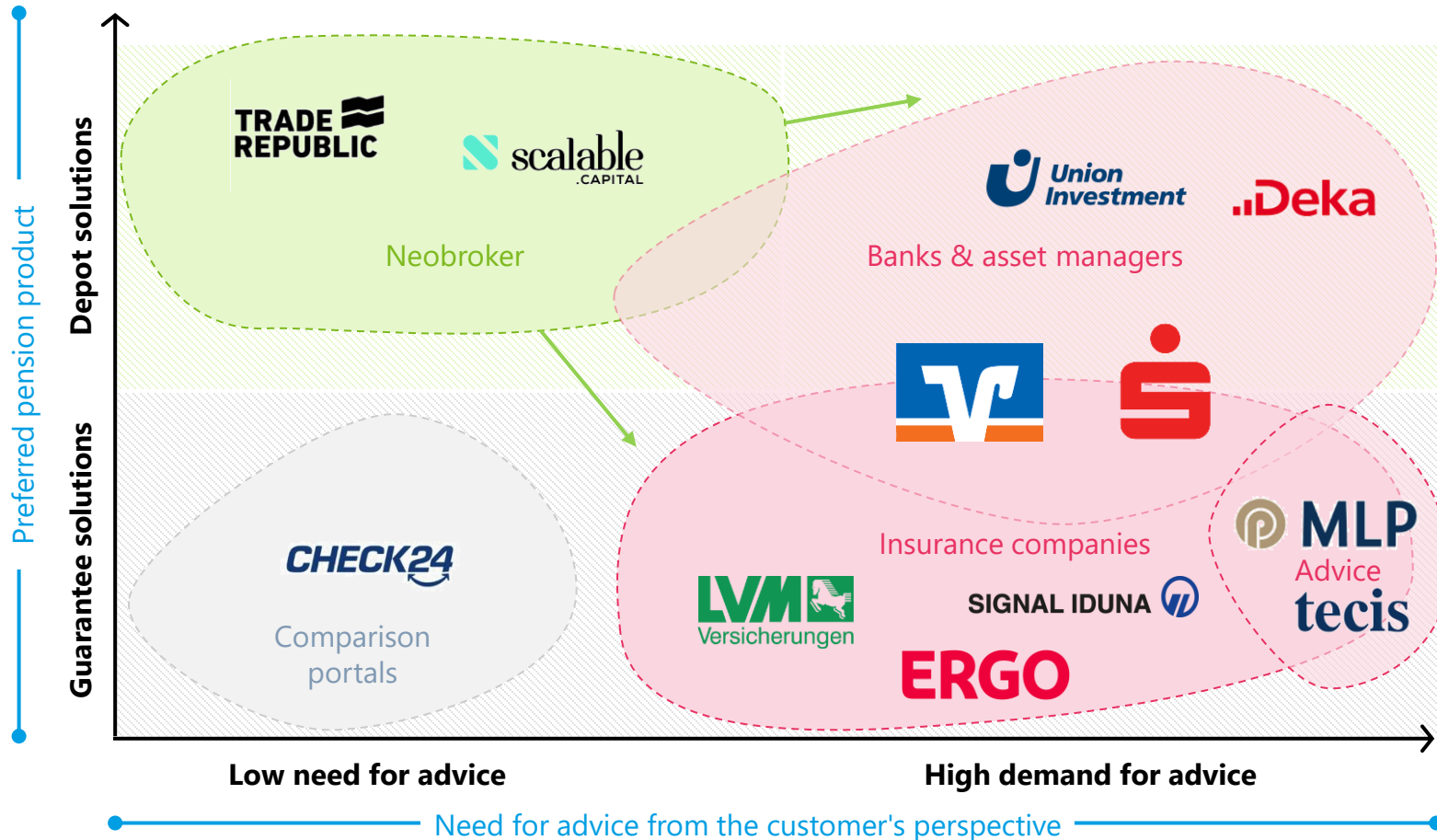
Expectations for the FIVE taskforce

- Enhancing the **attractiveness of European stock exchanges** as listing venues for scale-ups – status quo: 92 IPOs in 2024 vs. 176 in the U.S.
- Assessing ways to support the **development of trading platforms** for shares of private companies and private equity funds, building on proven models
- Strengthening European **public financing instruments for innovative companies**, in close coordination with national actors, with the aim of mobilising and crowding in private institutional capital
- Examining options to enable EU **retail investors to gain access to venture capital** and private equity opportunities – status quo: ELTIFs provide one of the main channels, with **≈ 211** funds across Europe

B Neobrokers are pioneering, capturing market share and showing traditional institutions how it's done – self-advised GenZ as involuntary role models for active participation

Market overview

illustrative



Possible future market structure

- Neobrokers might become **primary financial hubs**
- Classical institutions rather play the role **infrastructure & relationship banks**, less relevant for retirement planning
- Among asset managers, the **large-scale ETF providers will be clear winners** of this shift of market shares
- Insurance may **shift from “product”** to embedded & platform-based with risk of disintermediation by FinTechs and asset managers

Status Quo

- Neobrokers have shifted retail investing for retirement security **from “advised & expensive” to “self-directed & cheap”**
- Classical banks **losing relevance in securities & savings** for younger clients

Source: zeb.research (2025)

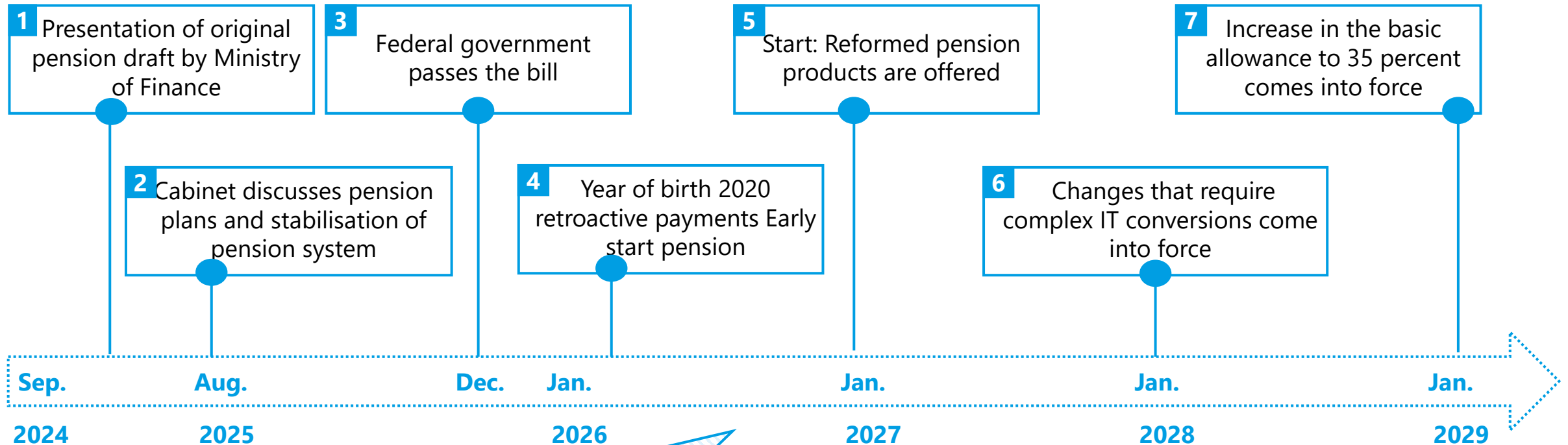
Green box = market-readiness for future pillar III investors Pink box = still in need for action

B

Reformed pension products to be offered from 2027 - the law was passed in December 2025

Pension Reform Act - chronological sequence

illustrative



Once the law comes into force, providers of pension products will have to have them certified. This process may initially lead to a limited choice of products.

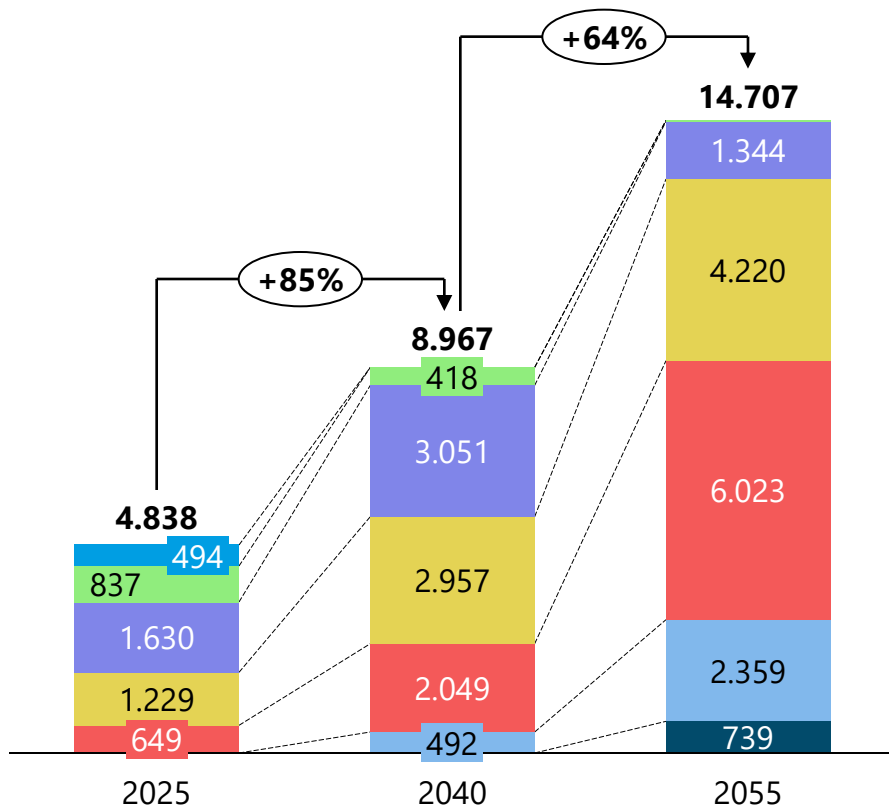
1) Payouts of the early start pension can begin retroactively to January 1, 2026



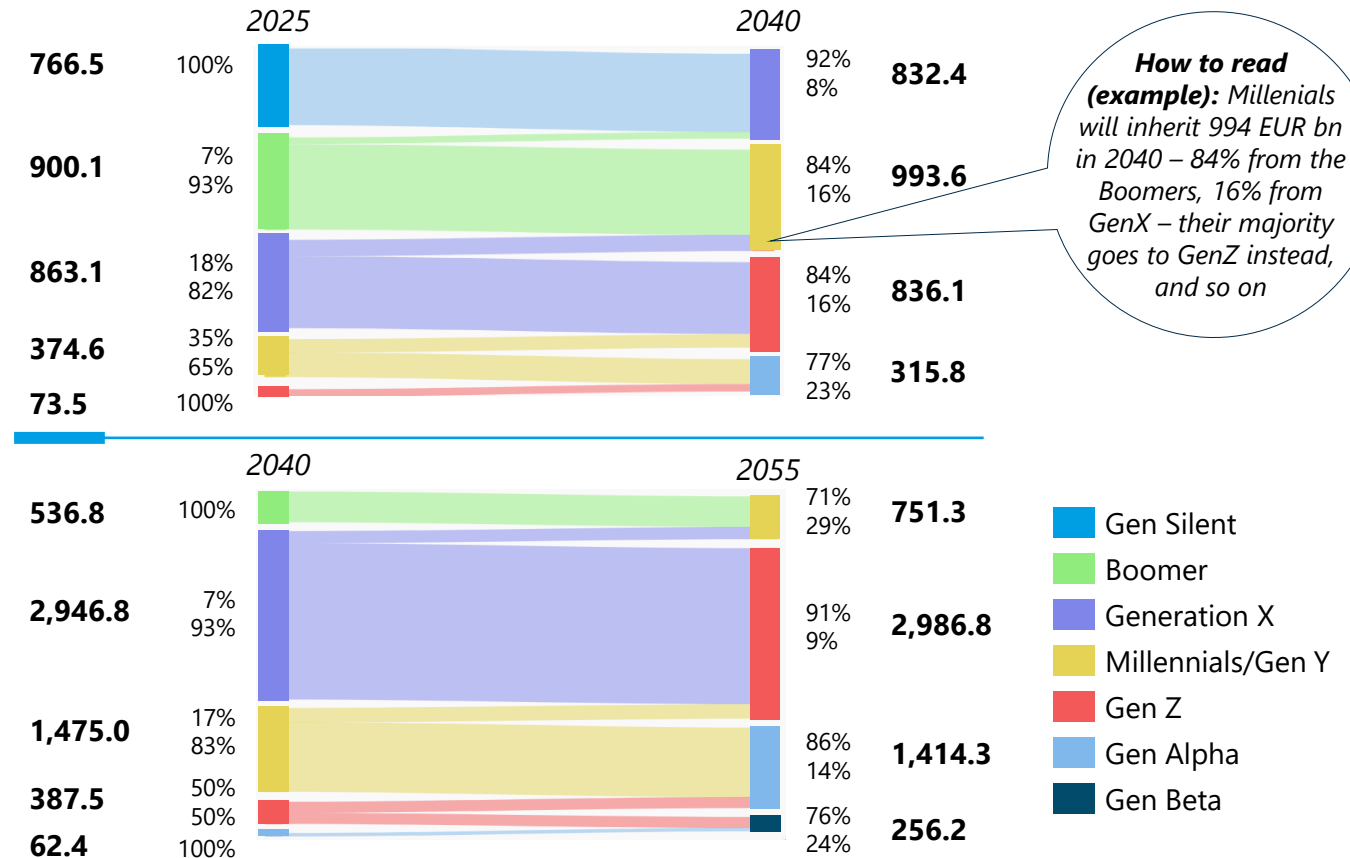
Intergenerational wealth transfer will equip the capital market-friendly GenZ with unprecedented investment volumes

Add-on: bequest of liquid wealth

Prognosis of liquid wealth by generation (Bil. EUR¹⁾)



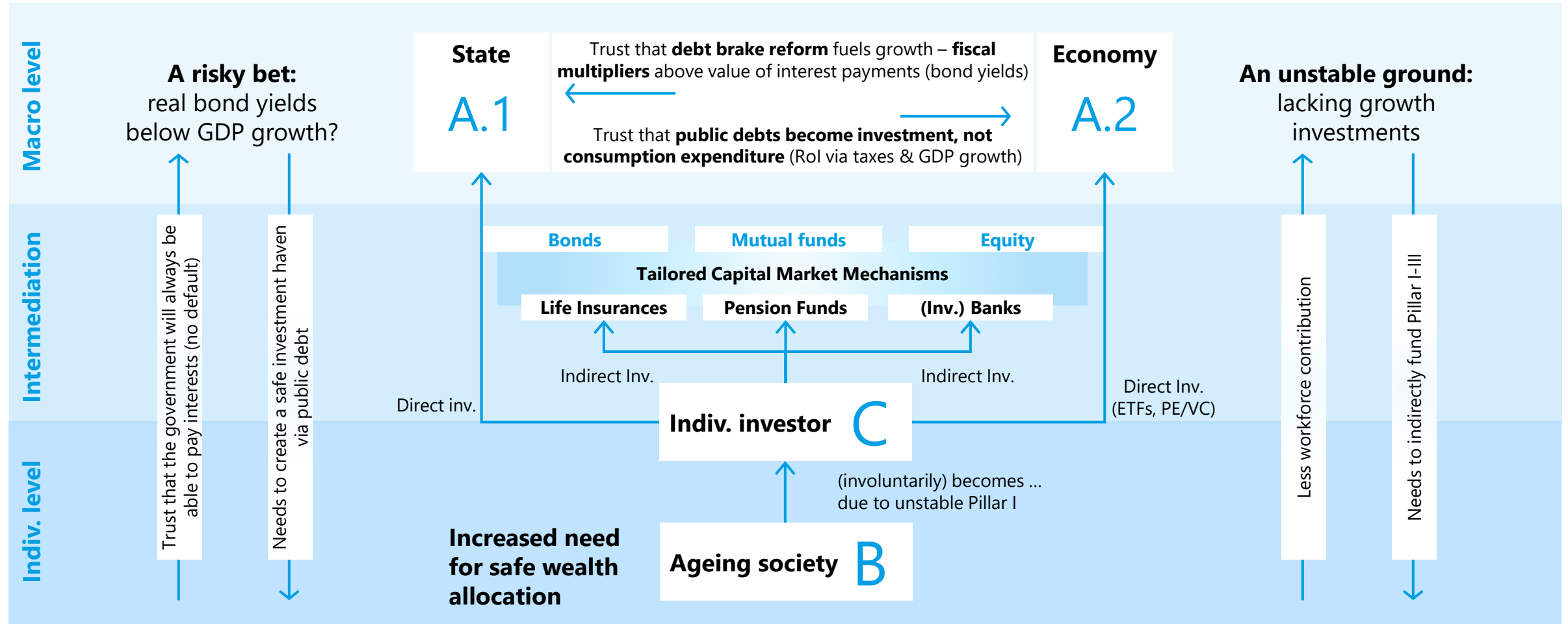
thereof bequest until 2040 / from 2040 to 2055 (Bil. EUR)



1) Nominal numbers, be aware of inflation and other influence factors for the interpretation
 Gen Beta: 2028 - 2042, Gen Alpha: 2013-2027, Gen Z: 1997 - 2012, Millennials/Gen Y: 1981 - 1996, Gen X: 1965 - 1980, Baby Boomer: 1950 - 1964, Gen Silent: before 19504
 Sources: zeb.demographics, Global Data (2025)

The topics of the study were closely intertwined with macroeconomic decisions and expectations as well as the individual's urge to act

Wrap-up: Chapters A–C



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Abbreviations (1/4)

Abbreviation	Explanation
addt'l	additional
AFME	Association for Financial Markets in Europe
AVD	Altersvorsorgedepot
BaFin	Bundesanstalt für Finanzdienstleistungsaufsicht
BAI	Bundesverband Alternative Investments e.V.
BDI	Bundesverband der Deutschen Industrie e. V.
BfArM	Bundesinstitut für Arzneimittel und Medizinprodukte
bn	billion
cap.	capital
capex	capital expenditure
CDU	Christian Democratic Union

Abbreviation	Explanation
CMU	Capital Markets Union
DCM	Debt Capital Markets
Dim.	Dimension
DOE-LPO	U.S. Department of Energy – Loan Programs Office
ECB	European Central Bank
ECM	Equity Capital Markets
EIB	European Investment Bank
EIF	European Investment Fund
EIS	Enterprise Investment Scheme
ELTIF	European Long-Term Investment Fund
Eq.	Equity

Abbreviations (2/4)

Abbreviation	Explanation
ESG	Environmental, Social and Governance
ESOP	Employee Stock Ownership Plan
esp.	especially
EU	European Union
ETF	Exchange-traded fund
FI	Financial Institution
FIVE	Franco-German Initiative for Venture capital Expansion
GBP	British Pound Sterling
GC	Growth Capital
GDP	Gross Domestic Product
GII	Global Innovation Index

Abbreviation	Explanation
HTGF	High-Tech Gründerfonds
IJJA	Infrastructure Investment and Jobs Act
IMF	International Monetary Fund
Instit.	Institution(s)
Inv.	Investment(s)
IPO	Initial Public Offering
IRA	Inflation Reduction Act
ISK	Investeringssparkonto
JOBS	Jumpstart Our Business Startups Act
KfW	Kreditanstalt für Wiederaufbau
M&A	Mergers and Acquisitions

Abbreviations (3/4)

Abbreviation	Explanation
MBI	Management Buy-In
MBO	Management Buy-Out
MPC	Münchmeyer Petersen & Co.
MPCM	Münchmeyer Petersen Capital Markets
NATO	North Atlantic Treaty Organisation
NWF	National Wealth Fund
NYSE	New York Stock Exchange
OECD	Organisation for Economic Co-operation and Development
p.a.	per annum
PACTE	Plan d'Action pour la Croissance et la Transformation des Entreprises
PE	Private Equity

Abbreviation	Explanation
PFI	Private Finance Initiative
PPP	Public-Private Partnership
reg.	regulatory
SEC	Securities and Exchange Commission
SEIS	Seed Enterprise Investment Scheme
SME	Small and Medium-sized Enterprises
SPV	Special Purpose Vehicle
tn	trillion
U.S.	United States
UK	United Kingdom
UKIB	United Kingdom Infrastructure Bank

Abbreviations (4/4)

Abbreviation	Explanation
U.S. DFC	United States International Development Finance Corporation
USD	United States Dollar
VC	Venture Capital