



Boosting growth by investing at scale in Europe's most innovative companies for a sovereign, sustainable and equitable future.

Findings, Opportunities and Recommendations
Proposed by an Independent Expert Group

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Summary

Purpose

Over the past three months, a Group of independent experts have worked together to collect and analyze relevant industry data in order to develop the findings, opportunities and recommendations that are set out in this report. Europe now has an extraordinary opportunity to significantly scale investment in Europe's innovative companies. This is one of the pathways to boost economic growth and will also help build a more sovereign, sustainable and equitable future for European citizens.

This report should be viewed as a resource that could be used in the policy discussions concerning the next EU Multi-annual Financial Framework [MFF] and the Capital Markets Union (CMU) as well as the upcoming reports on the Single Market and the Competitiveness of Europe. The independent experts involved have acted strictly in a personal capacity. Their biographies can be found in "The Group" section below. This report proposes a set of recommendations for a range of institutions including European and national governments and their sovereign funds, pension funds, insurance companies and asset managers, corporations and corporate venturing arms and financial services firms.

Outline

The size of the European technology sector has grown almost 50x over the past two decades. Building on this achievement, the Group recommends that by scaling the level of capital invested in funds managed by independent and specialized growth equity and venture capital managers, there is the potential to generate up to an additional € 1 trillion of investment opportunity in Europe's technology companies over the next five years.

This presents an extraordinary opportunity for two reasons. Strategically, this investment would preserve and enhance Europe's sovereignty as funding would be available to back essential solutions in the fields of computing, healthcare, biology, energy transition, climate change, space and defense, amongst others. Financially, this would generate returns for European taxpayers, savers, and pension plan holders, helping support our welfare systems and building a more sustainable economy and equitable society.

Main Findings

1. Tech talent, start-ups and scale-ups are now a key force of innovation for Europe and offer a solid base to further build talent, companies and investment for our future.
2. Europe's venture capital investors are closing the start-up investment gap and their capacity to invest across sectors, geographies and stages still has the potential to grow significantly.
3. The performance of European venture capital and growth equity funds is attractive and competitive when compared with US venture and other asset classes.
4. European capital markets have yet to live up to the promise of a single investment market and remain under-developed, falling short of their potential to be a significant source of finance for enterprises and returns for investors.
5. The European share of corporations with the highest profitability, R&D investment or market capitalization is declining and indicates a structural weakening of our competitiveness.

Key Opportunities

6. Europe can enhance R&D investment, especially through private investments in its [deep] tech scale-ups, both in volume and in quality.
7. Europe's growth equity funds can attract and deploy significantly more capital with the potential to provide financial returns and keeping high quality technology companies under European ownership.
8. European pension funds, public retirement funds, insurance companies and asset managers can invest significantly more in venture capital and growth equity to deliver better returns to pensioners and savers.
9. European savers can invest more in financial assets and across European borders to generate additional returns for their savings and to reduce dependence on public pension systems. Europe's highly developed financial services sector can help them do so.
10. European corporations can engage more with Europe's [deep] tech scale-ups and technology investment ecosystem, taking advantage of rapid developments to raise their R&D investments and competitiveness.

The Recommendations

11. Governments should at least maintain current research funding levels and engage more effectively with [deep] tech scale-ups to raise R&D investment levels by the private sector.
12. European governments and sovereign funds should pool capital from across Europe, maintain investment levels in venture capital, increase investment in growth equity and channel more investment through independent fund managers to harness private sector capacity and capability.
13. European pension funds, insurance companies and asset managers should significantly increase the amount of capital committed to venture capital and growth equity to improve their financial returns.
14. The banking and financial services sector should support the revitalization of the Capital Markets Union, a key missing component of the European Single Market, by promoting cross-border capital flows, investment in sectors and companies with high growth potential and developing a "Savings and Investment Union".
15. European corporations should invest more proactively in externally-generated innovation and further develop their corporate venturing activities to better compete against their US and Asian counterparts.

Main findings

1. **Tech talent, start-ups and scale-ups across Europe are now a key force of innovation for Europe, and offer a solid base to further build talent, companies and investment for our future.**

Europe is no longer playing catch up with the US when it comes to the formation of new tech start-ups. In fact, Europe is starting to outpace the US. Atomico's latest annual "State of European Tech 2023" report ([Link](#)) estimates the total number of tech start-ups and scale-ups at 45,000. There is a growing community of tech start-ups and scale-ups in Europe contributing to the transformation of Europe into a more digital, sustainable and productive economy.

The European tech workforce has also increased significantly from just over one million employees five years ago to more than 2.3 million at the end of 2023. As there are significant disparities across Europe, linked to the different levels of maturity of national technology ecosystems, there is potential for the creation of more high quality jobs as regional ecosystems further develop.

Atomico's report also tracks the flow of talent between jobs and countries in the tech industry and finds that Europe is today a net beneficiary of such flows. Europe attracts more inbound tech talent from abroad than it loses to other countries.

2. **Europe's venture capital investors are closing the start-up investment gap, and their capacity to invest across sectors, geographies and stages can still grow significantly.**

There are an estimated 4,000 independent investment fund managers across Europe. These have invested equity in, and manage, the 45,000 tech companies reported above. In the next five years, some 25,000 more tech start-up investments are expected to be added. In 2023, growth was particularly strong in climate tech but other deep tech verticals are also developing.

Europe's venture capital investors are closing the gap for start-up funding with the US, although it remains much harder to secure follow-on funding for growth and is where the gap is widening. In 2023, VC firms invested € 35 billion in European start-ups, broadly matching the investments made in the US. Europe is also the only continent where investment activity grew in 2023 compared with 2020.

3. **The performance of European venture capital and growth equity funds is attractive and competitive when compared with US venture and other asset classes.**

European venture capital and growth equity fund managers have developed their returns over the past two decades and in the past 10 years the performance of European venture capital has matched or exceeded US venture capital benchmarks, according to the latest reports of specialist Cambridge Associates.

Europe's venture capital investment performance is all the more impressive as the global venture capital or growth equity (VC/GE) asset class overall has outperformed stock markets on average over a long period of time. Since 1970, the global VC/GE asset class has delivered an average 18% net return per year compared to 11% for the MSCI World Equity Index, a premium averaging 7% points per annum.

4. European capital markets have yet to live up to the promise of a single investment market and as a result they remain under-developed, falling short of their potential to be a significant source of finance for enterprises and returns for savers.

Europe's solid growth of tech start-ups, investment and returns occurred despite the continued under-development and fragmentation of European capital markets. According to the IMF, listed equity in the Euro Area accounts for 68% of GDP, well short of the US which stands at 170% of GDP. Furthermore, new capital raisings are falling further behind. Between 2015 and 2023, the ratio of capital raised in Initial Public Offerings (IPOs) to GDP was 60% lower in Europe than in the US and China. In the last three years this gap has reached -80% according to Assonime, Italy's listed companies' association.

The fact that German vaccine makers Biontech and Curevac, as pandemic success cases, chose the US's NASDAQ for their public listing instead of a German or European stock exchange, clearly points to a more favourable investor environment, even in the biotech sector which is less behind on the US.

The key reason is fragmentation as Europe's stock markets are predominantly domestic affairs. The average amount of shares held by national investors hovers consistently around 60%. Intra-EU investment accounts for just 20%.

Furthermore, according to the IMF, only 20 percent of Euro area households hold stocks or investment fund units, and only one-third invest in voluntary pension and insurance schemes. Both sharply contrast with the United States, where over half of households have retirement accounts and one-fifth have life insurance.

5. The European share of corporations with the highest profitability, R&D investment and market capitalization is declining and indicates a structural weakening of competitiveness.

According to McKinsey, the European share of large global corporations in the top decile for economic profit, coined as "superstars", dropped by about half between 1995 and 2016 to only 16 percent, while it remained constant for the US and rose sharply for Asian firms. This matters as superstar corporations show more than double the R&D intensity of median firms. About two-thirds of global R&D investment is concentrated in just 250 corporations.

The 2023 industrial R&D investment Scoreboard, published by the European Commission, indicates that the share of EU companies in the top 2 500 R&D investors has fallen significantly over the past 10 years from 2012 to 2022. It shows that only 82 new EU companies entered the Scoreboard, while China had 657 new companies in the 2022 Scoreboard and the US 634 new companies, Japan only 52 and Rest of the World (RoW) 276. The EC Scoreboard considered the emerging gap in corporate R&D investment in the EU vs US and China as a wake-up call.

According to Visual Capitalist, the NASDAQ's top 10 companies by market capitalisation have invested a massive \$222 Billion in R&D in 2022 alone ([Link](#)). Dutch semiconductor giant ASML was the only European corporation on that short list with \$3.3 Billion invested in R&D in 2022.

Another McKinsey analysis of the top 100 companies by market capitalisation created in the past 30 years, showed 18 Chinese new corporate entrants in the list, 13 from the US and none from Europe.

Europe needs corporate competitiveness and renewal. We need many ambitious growth tech companies for the best to become the next ASMLs.

Key Opportunities

6. Europe can enhance R&D investment, especially through private investments in its [deep] tech scale-ups, both in volume and in quality.

According to the US National Science Foundation, R&D expenditure in the US increased by 89% from 2011 to 2021, double France's growth of 44% and almost a third more than Germany's growth at 60% in that same decade. In the US, it was almost exclusively the business sector driving this remarkable R&D investment growth, accounting for a staggering 87% of the increased R&D over the period. China is also accelerating its R&D investment. According to the OECD, China's total R&D investment surpassed Japan's in 2009 and the combined R&D expenditure of the European Union (EU-27) countries in 2013.

As global challenges mount, the race to develop and invest in innovation is accelerating. This is especially true in the frontier technologies that are emerging now – AI, integrated circuits, quantum computing, synthetic biology – which will drive the high growth industries of tomorrow. Deep tech, as a category, focuses on companies with leading edge or bleeding edge technologies which require a substantial amount of capital investment to support high levels of R&D, talent development as well as the rapid scaling of operations as commercial use cases for these technologies are developed, commercialised, and adopted. These frontier technologies are also critical for the “sovereignty” of Europe, as developments here will impact major European industries - aerospace, automotive, defence, electronics, energy, financial services, healthcare and pharmaceuticals. In short, deep tech innovation will be essential in protecting and developing the welfare and security of Europe's citizens.

Europe has a strong base of deep tech talent and many emerging deep tech start-ups and scale-ups. It is critical that these companies will be able to raise the growth capital they require to be competitive in global markets. In AI, Europe has more AI talent than the United States, 108,000 AI operators in Europe vs. 87,000 in the US. In the past few months, two leading European AI scale-ups have raised significant amounts of private capital: France's Mistral reportedly raised €385 million and Germany's Aleph Alpha secured circa €500 million. While Aleph Alfa was backed by German investors and corporate partners, Mistral's latest round was led by two US tech growth investors. Microsoft also invested \$16m in Mistral AI although, by comparison, it has invested \$12 billion in OpenAI.

7. Europe's growth equity funds can attract and deploy significantly more capital with the potential to provide financial returns and keeping high quality technology companies under European ownership.

Europe has developed an impressive pool of tech start-ups and the best are progressing towards the growth phase. There are an estimated 4,000 growth stage tech enterprises in Europe. This number is expected to double in the next five years, requiring a capital investment of between €200 billion and € 1 trillion, assuming that these 8,000 companies raise, on average, between €25 and €125 million in the next few years. Where will this investment come from?

Tech growth company investments in 2022 represented less than 20% of European capital deployments compared with more than 40% in the US. In absolute terms this means that in 2022 alone, according to Pitchbook data, €250 billion of growth capital was deployed in the US compared with € 60 billion in Europe. A funding gap of €190 billion in just one year. Also in 2023, up to mid-September, scale-up investments stood at €108 billion in the US but just at €25 billion in the EU, again more than 4 times less.

The reason for the shortfall is that Europe simply lacks growth equity funds managing more than €500 million and especially those managing more than €1 billion. Such larger funds are needed to finance tech growth companies typically with syndicated financing rounds of € 50 million and above. According to the Banque de France, the biggest European venture capital fund is still smaller than the 10th US venture capital fund, in terms of the amount raised over the period 2019 to 2023.

This opportunity was seized in the past mainly by US and other large foreign investment funds. However, since the pandemic, the share of total capital invested by US investors in European growth equity has fallen from a peak of 39% in 2021 to just 25% in 2023. The share of Asian investors has declined in that same period from 11% to 7%. This provides further opportunity for European growth equity funds to step in.

Growth equity funds also hold potential for better returns and earlier liquidity, often at lower risk, than venture capital. This represents an attractive investment opportunity for long term institutional investors such as pension funds or insurance companies to finance the transition towards green energy, technological and defence sovereignty and digital capabilities and equitability.

Furthermore, increased Europe's growth investment will pull the accelerated development of tech start-up investments and also push the number and quality of companies that could be listed on the stock markets. This is essential to renew and expand the investment opportunities on the capital markets.

8. European pension funds, public retirement funds, insurance companies and asset managers can invest significantly more in venture capital and growth equity to deliver better returns to pensioners and savers.

The Oliver Wyman report commissioned in 2019 by the British Business Bank ([Link](#)), the UK's sovereign economic development bank, concluded that a 22-year-old person entering a pension fund scheme with an average 5% allocation to VC/GE assets could achieve a 7-12% increase in their total retirement savings, assuming an average working life and a premium over listed equities.

According to Wall Street Journal ([Link](#)), similarly, the California Public Employees' Retirement System, Calpers, one of the largest pension funds in the world, admitted that its under-allocation to the venture capital and private equity category during the past "lost" decade, damaged pensioners to the tune of a 2-4% yearly return.

However, the current share of European pension fund allocations to venture capital funds fluctuates between a meagre 0.1 and 0.3% of total pension fund assets, according to data from Invest Europe. European pension fund allocations could therefore be scaled 20 to 30 times to better optimise performance for their pension savers. This can be achieved by allocating more capital across borders as most funds are currently committed on a national basis. There is therefore ample room, and investment opportunities, to support increased allocations.

Atomico's head of research estimated, following the publication of the annual State of European Tech ([Link](#)) report, that there is a one trillion-dollar allocation gap to fund innovation in Europe. He assesses that European assets managers have, on average, allocated 8% of their assets under management to venture capital or growth equity. In the US, the share is 16%. In absolute terms this equates to \$1.1 trillion dollars for the US and just \$200 billion for Europe. And, unfortunately, the majority of the \$200 billion is not even invested in Europe. This results in a one trillion-dollar funding gap in Europe.

9. European savers can invest more in financial assets and across European borders to generate additional returns for their savings and to reduce dependence on public pension systems. Europe's highly developed financial services sector can help them do so.

Research by the IMF shows that US households save much more in financial assets, including equities, investment funds, and private pension schemes. This increases the number and size of available pools of capital for investment.

The Banque de France analysed that the EU is still lagging dramatically behind the United States: in the third quarter of 2023, equity financing only represented 84% of euro area GDP versus 173% in the United States.

In comparison, households in Europe place some 30% of their savings on bank accounts, versus 10 % for US households. There is an opportunity for European banks to allocate more of these deposits to mutual funds or investment platforms offering a broader range of financial assets, including venture capital and growth equity funds.

As public pension systems in Europe will be under increasing pressure to pay out pensions due to demographic shifts, private pension funds and life insurance companies will become a more important source of funding for capital markets and, potentially, for alternative assets including venture capital and growth equity.

The median insurer or pension fund currently invests nearly half of its equity allocation to domestic equities. The debt portfolios of pension funds display even more home bias. Building more independent, pan-European platforms of mutual assets would allow for greater geographical diversification which would reduce risk and enhance returns.

10. European corporations could engage more with Europe's tech scale-up and investment ecosystem and take advantage of its rapid development to raise their R&D investments and competitiveness.

The frontier or deep tech technologies that are emerging now – AI, Quantum, Synthetic Biology – will form the backbone of the high growth industries of tomorrow and will drive growth in the economy. These will be led by profitable superstar companies, often new ones, as set out in the McKinsey report. Europe's life sciences sector does have credible superstars with Roche, Sanofi, NovoNordisk and others, who do spend significantly on R&D and who do partner very actively with tech companies and investors to renew innovation pipelines.

European corporations are under-represented in the global corporate venturing scene. So, there is ample room for European corporations to set up new activities or to further develop their corporate venturing programmes, co-investing more proactively with independent funds and being more engaged in building partnerships with, and making acquisitions from within, Europe's start-up, scale-up and innovation investment ecosystems. This is particularly relevant in deep tech where corporations have to rely more on external innovation. These programmes would be more effective if executed across Europe, not just nationally.

This development would also be in the interests of tech companies and their investors. Research by Global Corporate Venturing using Pitchbook data shows that venture capital investments with corporate co-investors outperform those without corporate involvement. Investments with corporate backing are also less likely to fail.

Recommendations

Overview

The Group proposes below a set of recommendations respectively addressed to:

- European and national governments and agencies providing research funding,
- Europe's institutions and their sovereign funds facilitating investment,
- Pension funds, insurance companies and asset managers planning investment allocations,
- Corporations seeking ways to stay/become more competitive, and
- Financial services firms considering new services and products.

Collectively the recommendations call for higher levels of indirect investment, through funds and platforms managed by independent providers, in Europe's tech start-ups and scale-ups. This would enhance market conformity and harness private initiative. In addition, a pooling from across Europe, of both financial assets and investment opportunities would increase the scale of the investment opportunity and lead to greater diversification. This would create an improved environment for venture and growth equity investment strategies and lead to better returns.

The performance of Europe's independent funds is already competitive. If more capital is independently managed, pooled across Europe and scaled, €1 trillion of investment in European tech companies can be unlocked in the next five years. This would require a combined and sustained effort by a range of actors alongside the institutions addressed in the recommendations below.

Investing in European tech companies would preserve and enhance Europe's sovereignty as funding would be available to back essential solutions in the fields of computing, healthcare, biology, energy transition, climate change, space and defense, amongst others. This would also generate returns for European taxpayers, savers and pension plan holders, helping support our welfare systems and building a more sustainable economy and equitable society.

Recommendations

11. Governments should keep up at least current research funding levels while engaging more, and more effectively, with tech scale-ups so as to raise R&D investments by the business sector.

As deep tech innovation is accelerating, Europe should keep funding research and development at least at current levels. However, as tech start-ups and scale-ups grow in number and attract higher levels of funding from external investors, this represents a highly relevant target group which public R&D investment can leverage.

The growing tech start-up and scale-up community deserves particular attention for future research funding. This requires appropriate funding instruments which are faster to arrange, less bureaucratic to administer and which operate with more flexibility. In return, lower levels of public funding will be required as more private funding is attracted. Blended instruments, offering a mix of research grants and funding which is co-invested alongside private sector investors, belongs in the research funding toolbox.

The success of the European Innovation Council (EIC) or similar programmes at national or regional level, attracting wide-spread interest and securing blended and leveraged funding with simplified mechanisms, demonstrates the importance of adapting instruments.

The EIC's €10 billion budget for deep tech startups using blended instruments has been a success story. The portfolio of EIC supported companies was valued at nearly €70 billion at the end of 2023, an increase of over €20 billion in just over a year. The EIC Fund provides equity investments alongside the EIC's non-dilutive grants as the blended financial instrument. In just one year, the leverage created by the EIC Fund was over €3.5 of additional private investment for every euro of EIC Fund investment, according to the 2023 EIC Impact Report. ([Link](#))

Finally, regulations should consider not only consumers but also our competitiveness, not only our larger corporations but also our start-ups, encouraging innovation when possible. A deeper dialogue by policy makers with tech entrepreneurs will allow for the specificities of certain sectors to better facilitate innovation working to deliver value to our citizens and planet.

12. European governments and sovereign funds should pool capital from across Europe, maintain investment levels in venture capital, increase investment in growth equity and channel more investment through independent fund managers to harness private sector capacity and capability.

The performance and economic impact of European venture capital and growth equity funds shows that additional sovereign investment can generate attractive returns for taxpayers while delivering other significant economic benefits, such as high-quality job creation.

The indirect investment approach, dispersing governmental or sovereign capital across selected independent funds, is another success story. The European Investment Fund (EIF), as part of the EIB group, and many national sovereign funds and promotional banks have addressed a huge market gap over a long period, responding to downturns with additional actions such as the EIF's ESCALAR initiative in the pandemic. These investment activities should be continued to allow pension funds and insurance companies to progressively engage more.

It now is particularly opportune to increase capital commitments to larger tech growth equity funds. Such funds are best placed to meet the tech growth investment gap as well as provide follow-on investment to the most promising companies funded at earlier stages. This would allow significant amounts of capital to be invested in deep tech or tech growth companies. It would help ensure that Europe's most promising tech companies are not acquired (mainly by non-European corporations) before their full potential has been realized.

As examples, the European Tech Champions Initiative (ETCI) raised by the EIF and the NATO Innovation Fund, already have the backing of several European sovereign funds. More such platforms are needed, ideally raised and operated by independent managers, so that markets are not distorted.

Although not well known, the InvestEU platform acts as a risk adjustment mechanism, facilitating significant investment by multilateral institutions such as the EIB group and the EBRD and by national promotional and sovereign funds. The resources of InvestEU should be increased and used with more flexibility. In particular it could be opened up to attract private capital, especially from pension funds or insurance companies. There were recent calls in the German media for the German Federal State to offer such a risk-adjustment mechanism to attract more investment into tech companies ([Link](#)). These risk adjustments mechanisms are likely to be most efficient at the EU level.

In addition, to attract more private capital, there are significant opportunities to work together with independent asset managers raising capital for platforms which offer a broader mix of investment strategies, including venture capital, growth equity and listed equities, and which target a range of tech verticals and investments across Europe or internationally.

This should lead over time to more crossover funds being established, that act as cornerstone shareholders in Europe's best tech companies accompanying them from private markets to public

listings. Crossover investors bring experience and networks to tech companies seeking to list on a stock market and can promote good governance. According to research by Deutsche Boerse and Dealroom, almost 25% of the latest European tech listings were backed by such crossover investors. As traditional investor silos break down, private and public investor groups are expected to become more interlinked with more crossover funding and investment activity taking place.

Sovereign investors can also act as cornerstone investors. The Dutch global payments' specialist, Adyen, has been backed by Temasek, Singapore's sovereign wealth fund, since 2014. Adyen went public in 2018 but Temasek still holds over 5% of the company. Temasek, a successful model, is one of the world's largest sovereign investors with a global portfolio of assets worth over €264 billion, of which 12% is invested in Europe. It is owned, but not managed, by the Singapore Government, with a mandate to invest with full commercial discretion and flexibility.

Although we support continued and increased investment by sovereign funds, to ensure properly functioning financial markets, two important qualifications need to be made. Firstly, sovereign investors should be present only for as long as is necessary and should taper off investment levels as more private capital enters the market. As outlined in this report, there is potentially plenty of pension and insurance capital in Europe that could replace sovereign investment. Secondly, government entities and sovereign funds should invest on fully commercial market terms, *pari passu* with private investors, to effectively "crowd in" more private capital.

Finally, as part of their mandate, EU sovereign investors, should provide more information to the market on their investment activity and financial performance. Greater transparency and better access to private markets data would help build confidence in the asset class.

13. European pension funds, insurance companies and asset managers should significantly increase the amount of capital committed to venture capital and growth equity to improve their financial returns.

The case has been made for a 5% allocation of pension fund and insurance company assets to venture capital and growth equity investments, up from a minimal allocations today. A 5% allocation would increase returns to pensioners and insurance policy holders.

It makes commercial and investment sense for pension funds, insurance companies and asset managers to raise their allocation to the venture capital and growth equity asset classes. As we have set out, there is a € 1 trillion investment opportunity.

This can be first encouraged at a national level where pension funds and insurance companies may commit on a voluntary basis to allocate more capital across Europe. This approach was successfully demonstrated by the Tibi initiative in France which raised € 13 billion of institutional funding ([Link](#)). In addition, the German Growth Fund, managed by KfW, quickly raised € 1 billion of institutional capital ([Link](#)).

Should pension funds and insurance companies decide to commit capital at a greater scale, they should ideally do this via pooled funds or investment platforms which are structure to make a large number of direct investments in funds and underlying companies. Furthermore, these investments should be made over a number of years (vintages) and should be pan-European or international in scope.

This represents an opportunity for existing asset management platforms, that are already serving pension funds and insurance companies, to raise new cross-border pooled funds for venture capital and growth equity investment. These funds could be raised in partnership with experienced growth equity or venture capital fund management teams. The recent LIFTS initiative in the UK is a good case

study in how pension funds (Phoenix) can team up with private sector managers (Schroders and ICG) to raise large funds for investment in technology and life sciences companies. ([Link](#))

14. The banking and financial services sector should support the revitalization of the Capital Markets Union, a key missing component of the European Single Market, by promoting cross-border capital flows, investment in sectors and companies with high growth potential and developing a “Savings and Investment Union”.

Fragmentation and underdevelopment remain the two main unresolved problems of the European capital markets. If fund managers generally were to invest more in equities and in more cross-border than domestic opportunities, it would help unlock more capital which could be deployed more efficiently generating better returns. In turn, this could attract the most successful companies nurtured by the venture capital and growth equity investors to list on the stock markets to raise new capital at more attractive conditions which would extend the tech investment flywheel to the stock market and facilitate an “Investments and Savings Union”.

But this requires a unified approach to avoid a fragmentation of rules and their interpretation both for investors and companies. The powers of the European Securities & Market Authority (ESMA) should be strengthened to make it a real financial market supervisory body at EU level, on the model of the SEC in the US. To progress in this direction, the so-called 28th state approach could be adopted, allowing supervised entities to be submitted on a voluntary basis to a European regulation (not filtered by national rules) and to ESMA’s supervisory powers. An example of such an approach could be related to the approval of a prospectus, allowing European companies to submit the publication of a prospectus for ESMA approval which would then be valid for offers in all EU countries.

Furthermore, the strict requirements for (re-)insurance funds in the EU under Solvency II to commit funding to venture capital, growth equity and private equity should be revised. This can be achieved in a way that does not lower protections for policyholders and beneficiaries and, such easing, would improve long-term returns for policy holders.

15. Finally, European corporations should invest more proactively in externally-generated innovation and further develop their corporate venturing activities to better compete against their US and Asian counterparts.

European corporations are recommended to step-up their external innovation efforts, including partnerships with tech companies, co-investments in tech companies, investing in thematic funds and targeted acquisitions. This is particularly valid at the growth equity stage when tech companies are more developed, with products in the market and management teams which are capable of managing corporate partnerships.

All opportunities and associated recommendations advocated in this report could serve to enhance the competitiveness of European corporations. Increased R&D investment, especially in deep tech companies, would be sensible and this can increasingly be achieved by co-investing in tech scale-up companies with specialized venture capital and growth equity investors.

European corporations could also raise more capital for corporate investment and initiatives in financial markets, as their international competitors do. Better functioning capital markets would, in turn, facilitate higher levels of corporate venturing.

Selected Reports

By **author**, in alphabetical order

- **Atomico**, State of European Tech 2023, [Link](#)
- **Banque de France**, From a Capital Markets Union to a genuine Financing Union for Transition, [Link](#)
- **Dealroom**, 2023 European Deep Tech Report, [Link](#)
- **Deutsche Börse & Dealroom.co**, The Impact of Crossover Investors – Bridging Private and Public Markets, , 2023, [Link](#)
- **European Commission**, The 2023 EU industrial R&D investment scoreboard, [Link](#)
- **European Investment Fund (EIF)**, The scale-up financing gap, [Link](#)
- **IMF**, A Capital Markets Union for Europe, [Link](#)
- **Lakestar**, The financing gap, December 2021, [Link](#)
- **Lazard**, 2024 European Venture & Growth Outlook, [Link](#)
- **Pitchbook**, 2023 Annual European Venture Report, [Link](#)
- **Philippe Tibi**, Financing the Fourth Industrial Revolution – Solving the financial grid-lock for technology companies, July 2019, [Link](#)
- **U.S. National Science Board / Foundation (NSB/NSF)** - The State of U.S. Science & Engineering 2024, [Link](#)
- **Olivier Wyman**, The Future of Defined Contribution Pensions – Enabling access to venture capital and growth equity, Sept 2019, [Link](#)

The Group

Here is the Group of independent experts with their LinkedIn, in alphabetical order:



[Timo Bartell](#)

Deputy Head Asset Management of RAG-Stiftung and Managing Director of RSI Capital. Experienced asset manager with a demonstrated history of working in the Investment Management industry. Skilled in Portfolio Management, Interest Rate Derivatives, Hedge Funds, Foreign Exchange (FX) Options, and Asset Management. Strong business development professional with a Master of Business Administration (M.B.A.) focused in EMBA from ESSEC & Mannheim Business School.



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Serial biotech and medtech entrepreneur with a focus on bioprocessing and a specialization in COGS and CAPEX optimization. Global approach as well in US, Europe and Asia and as in Emerging countries. Extensive network including entrepreneurs, venture fund, advisors, NGO's, Governmental bodies, grants bodies, equipment manufacturers and big pharma. Joined Tech Tour in February 2025 as growth strategy advisor and also as expert on lead investment facilitation.



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Guillaume is Managing Director and Head of Public Affairs at a world-leading private investment company headquartered in Paris. He has previously worked in strategic advisor roles with government officials, investors groups and sovereign wealth funds, business and trade associations. He graduated from the London School of Economics and Political Science, and from Grenoble Ecole de Management.



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Senior policy advisor and programme manager of venture capital at the Dutch Ministry of Economic Affairs, Directorate-General for Entrepreneurship and Innovation. He worked for both industry and contract research organisations before changing career and becoming a senior policy advisor for the Dutch government in 2001. He has been on the college of Applied Physics before moving to the University of Leiden and Erasmus University Rotterdam studying political economy.



[Janke Dittmer](#)

General Partner and head of European HealthTech at Gilde Healthcare, one of Europe's leading healthcare investors. Prior to Gilde, he was a Venture General Manager within Philips' Corporate Venturing unit and an Engagement Manager at McKinsey. He also cofounded a Nanotech company in the Silicon Valley after serving as a Fellow at the Lawrence Berkeley National Lab. He earned a PhD in Physics from the University of Cambridge. He was a founder of the International Venture Club and serves on the VC council of Invest Europe.



Stefano Firpo

Economist between business, banking and public policy. First at the European Central Bank, then at IntesaSanpaolo on the implementation of the Basel regulations and supported management on the merger of Banca Intesa and Sanpaolo IMI. Then at Italy's Ministry of Economic Development, serving 5 Ministers as head of the technical secretariat and then for 4 years as director general for industrial policy. Returned to public service in the Draghi government as Chief of staff of Minister of Digitalisation. Now Director General of Assonime, the association of Italian Listed Companies.



Lars-Frølund

A deep tech investment expert and board executive. His expertise lies at the intersection of mission-driven innovation (incl. defense and security), grant and venture capital investments into deep tech ventures, and the geopolitical/strategic aspects of technological capacity building in innovation ecosystems at the national and international level. Was instrumental in launching the NATO Innovation Fund of which he remains the government affairs advisor. Also sits on the EIC Board.



Rob Genieser

Rob is a Managing Partner since 2010 at ETF Partners, Europe's leading fund in Europe backing technology entrepreneurs focused on delivering sustainability. Prior to this, Rob was a Managing Partner at Vertex, one of the most prestigious investment firms out of Asia, where he led European and North American investment activities. Before that, Rob was a Managing Director of JP Morgan (and Hambrecht & Quist), focusing on advising high-tech growth companies globally. Rob was also with Bain & Co. in San Francisco. He holds an AB and MBA from Harvard University.



Anne Glover

Anne co-founded Amadeus in 1997 with Hermann Hauser. Anne has been a venture capitalist for over 30 years. Early in her career Anne lived in the USA, working in manufacturing with Cummins Engine Company and in consulting with Bain & Co, before returning to the UK to join Apax Partners in 1989 to invest in early-stage companies. A former Chair of the BVCA and Invest Europe, Anne was appointed Non-Executive Director of the Court of the Bank of England in 2018 and in 2019 became a member of the Investment Committee of Yale Corporation.



Catherine Lewis La Torre

Catherine is a Non-Executive Director of Alantra, an international financial services firm listed in Madrid. She was previously CEO of British Patient Capital (BPC), the venture and growth equity investment arm of the British Business Bank (BBB), the UK's economic development bank. Catherine also served as CEO of BBB between 2020 and 2022. Prior to this she spent 25 years in the private equity industry including with Fondinvest in Paris, Proventure in Helsinki and CINVEN in London. Catherine is a graduate of the London School of Economics, B.Sc. (Econ), Master of Public Administration.



[Rolf Kjærgaard](#)

Former head of communications and CEO of the Danish Growth Fund (now EIFO), arguably the most successful sovereign fund in the Union. In those roles for over 20 years, Rolf developed key initiatives in Denmark and Europe relating to innovation, investment and leadership, also in public-private partnerships aligning company and investor goals with national and policy objectives. Rolf is passionate about aligning bold ambition and impact and turning vision into reality.



[James Mawson](#)

James leads Global Corporate Venturing, the London-based leading global media group covering corporate venturing with data, news and events. James was also editor of Private Equity News, of Dow Jones and The Wall Street Journal in London. Previously, James freelanced for the BBC, the FT and the Economist and was a foreign correspondent in CE Europe; and was international editor for FT Business.



[Massimo Portincaso](#)

Massimo is the Founding CEO of Arsenale BioYards, an integrated bio-manufacturing platform. He is also Founding Managing Partner of Deepwave Ventures, on the Board of Officinae Bio and on the Advisory board of Zero Farms, and Hello Tomorrow, an organization dedicated to unlocking the power of deep tech to solve the toughest global challenges. He is also as an advisor to several venture funds. A former Managing Director and Partner at BCG, where he co-led the Deep Tech Mission. A renown author, his work has been featured extensively.



[Olivier Rousseaux](#)

Olivier Rousseaux is Director Venture Development at imec, responsible for the creation of deeptech ventures relying on some of imec's most disruptive innovations. His background is a mix of technology, business and entrepreneurship. He has served as Strategy Consultant for the Boston Consulting Group and held various executive business positions His academic background also covers business and technology: he holds a PhD in Electronics.



[Jean Schmitt](#)

Prior to founding Jolt Capital, a leading European deep tech growth fund, Jean was Managing Partner at Sofinnova Partners, running its IT practice. Before being an investor, Jean was the founder CEO of 4 companies with successful exits. Jean graduated from Telecom ParisTech and has a post-graduate degree in AI. He is senior lecturer at Telecom ParisTech and HEC Paris, and Board Member of the French association of Private Schools. Jean is on the board of several companies



[Robert-Jan Smits](#)

President of the Executive Board of the Eindhoven University of Technology since May 2019, he served from 2010 to 2018 as director-general of research and innovation (RTD) at the European Commission (EC). Known as a main architect of both Horizon 2020 and Horizon Europe and for developing Plan S, promoting scientific publications to be available in Open Access. Robert-Jan was also instrumental in the creation of the Risk Sharing Finance Facility (RSFF), a 10 billion debt financing instrument in partnership between the EC and the European Investment Bank (EIB).



[Patrik Sobocki](#)

Patrik focuses on Deep Tech and with a particular interest climate and health. Prior to joining Industrifonden, Patrik held the position as business franchise leader with IMS Health including responsibilities for M&A. He has a serial entrepreneurial background, building and scaling two tech companies in the healthcare industry that both were successfully exited. Prior to that he held leadership roles with GSK and AstraZeneca. In his spare time Patrik loves all kinds of racket sports, turned a passionate foodie and loves to discuss how technology can solve global challenges.



[Philippe Tibi \(FR\)](#)

Philippe Tibi developed his career in the technology and capital markets, in Paris and London, including running the equity markets, investment banking and UBS group in France until 2012. Before that Philippe chaired Amafi, an association representing 120 banks. Recently, Philippe Tibi was commissioned by France's Minister of Economy and Finance, to propose transformations in the tech ecosystem. His recommendations were announced by President Macron and implemented. Philippe teaches at Ecole Polytechnique and is Visiting Professor in China, Athens and Rome.



[William Stevens](#) - Convener of the Independent Expert Group

William was the youngest Secretary General of the European Venture Capital Association (now Invest Europe), where he developed many initiatives with its dynamic membership including a European Nasdaq. After a short stint as an investment banker in the US, William developed Tech Tour as a collaborative membership platform, supporting every year over 1,000 European tech companies with venture capital, corporate and governmental partnerships. In the past 8 years, 80% of its entrepreneur alumni raised funding or over €12M / company. Tech Tour now launches Mission Groups.



[Iva Tchetinova](#) - Support to the Independent Expert Group

Iva is a venture capital associate at Tech Tour (TT) and developing the European Innovation Council (EIC) Scaling Club's digital sector groups: next-generation computing, AI and digital security, and new space. She also leads the TT Growth50, showcasing 50 potential unicorns. With degrees from ESADE in Spain and Ivey Business School in Canada, Iva commenced her professional journey at EY. TT, functioning as a collaborative membership platform, annually facilitates the scaling endeavors of over 1,000 European tech.

For contact, please e-mail [William Stevens](mailto:william@techtour.com) at william@techtour.com

Relevant data points

See below 38 relevant data slides, illustrating the findings, opportunities and recommendations.



Scale Investments in our future

Relevant data points

8 April 2024

List of data points

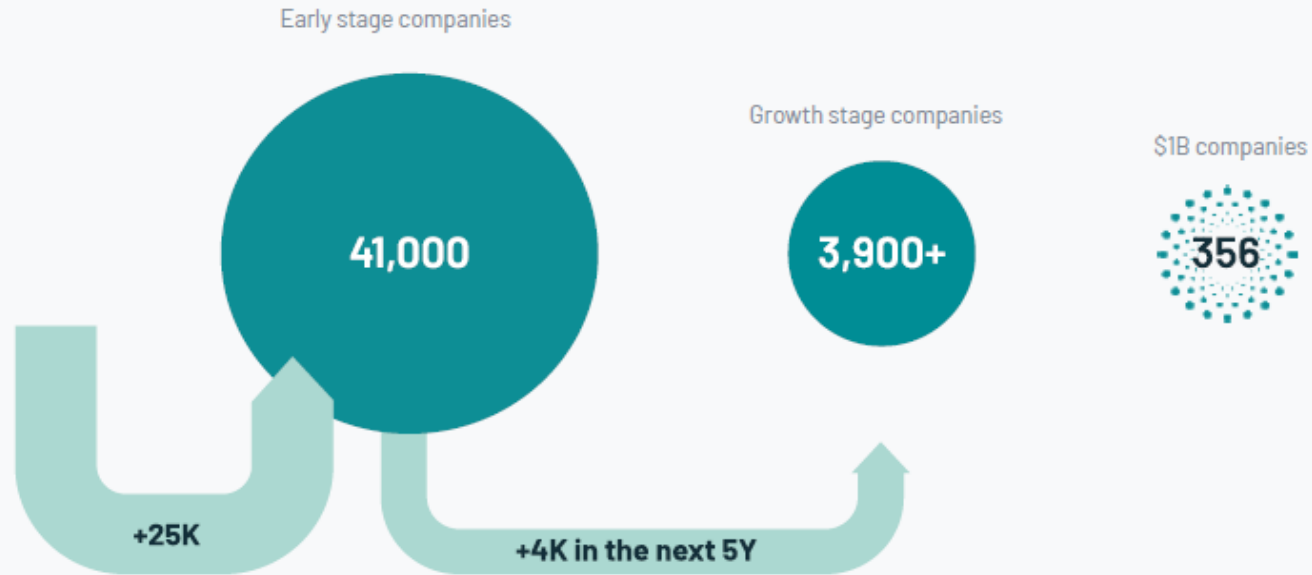
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Main Findings

1. Tech talent, start-ups and scale-ups are now a key force of innovation for Europe and offer a solid base to further build talent, companies and investment for our future.
2. Europe's venture capital investors are closing the start-up investment gap and their capacity to invest across sectors, geographies and stages still has the potential to grow significantly.
3. The performance of European venture capital and growth equity funds is attractive and competitive when compared with US venture and other asset classes.
4. European capital markets have yet to live up to the promise of a single investment market and remain under-developed, falling short of their potential to be a significant source of finance for enterprises and returns for investors.
5. The European share of corporations with the highest profitability, R&D investment or market capitalization is declining and indicates a structural weakening of our competitiveness.

#1 - European tech companies keep growing

Snapshot of unique companies headquartered in Europe by stage



Notes:

Data as of 30Sep 2023. Based on historical analysis of conversion rates: 15% of Seed stage companies convert A on average and 33% of Series A convert to Series B (for the majority of those converting, it takes place within 2 years); these rates have been applied to the current cohort of Seed and Early stage companies for illustrative purposes.

Sources: **atomico** Powered by



crunchbase

Source:

Atomico

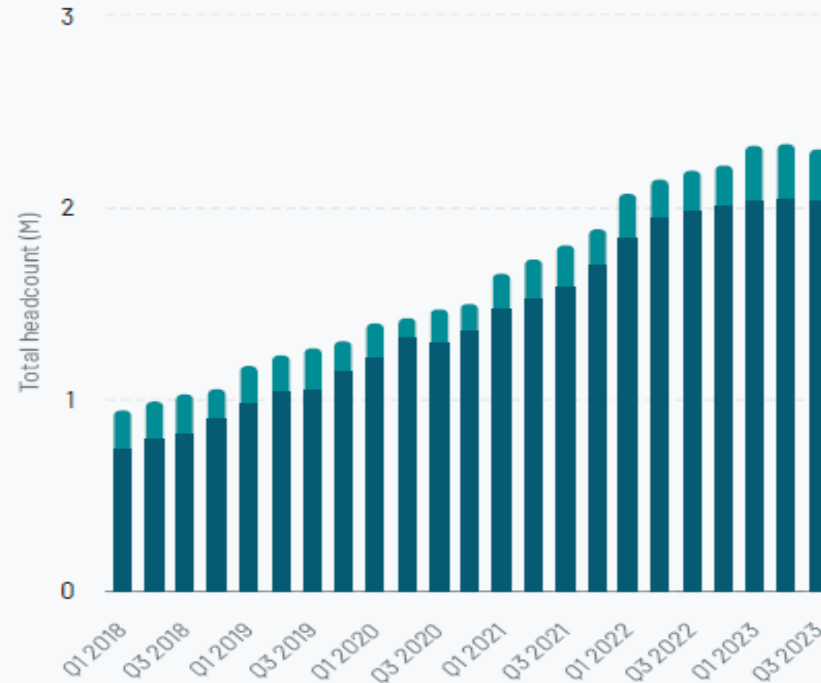
Courtesy:

Atomico – State of European Tech Report 2023

#2 - European tech employment keeps building

Total European tech industry employees by quarter, 2019 to 2023YTD

- New joiners to tech industry
- Tech industry headcount



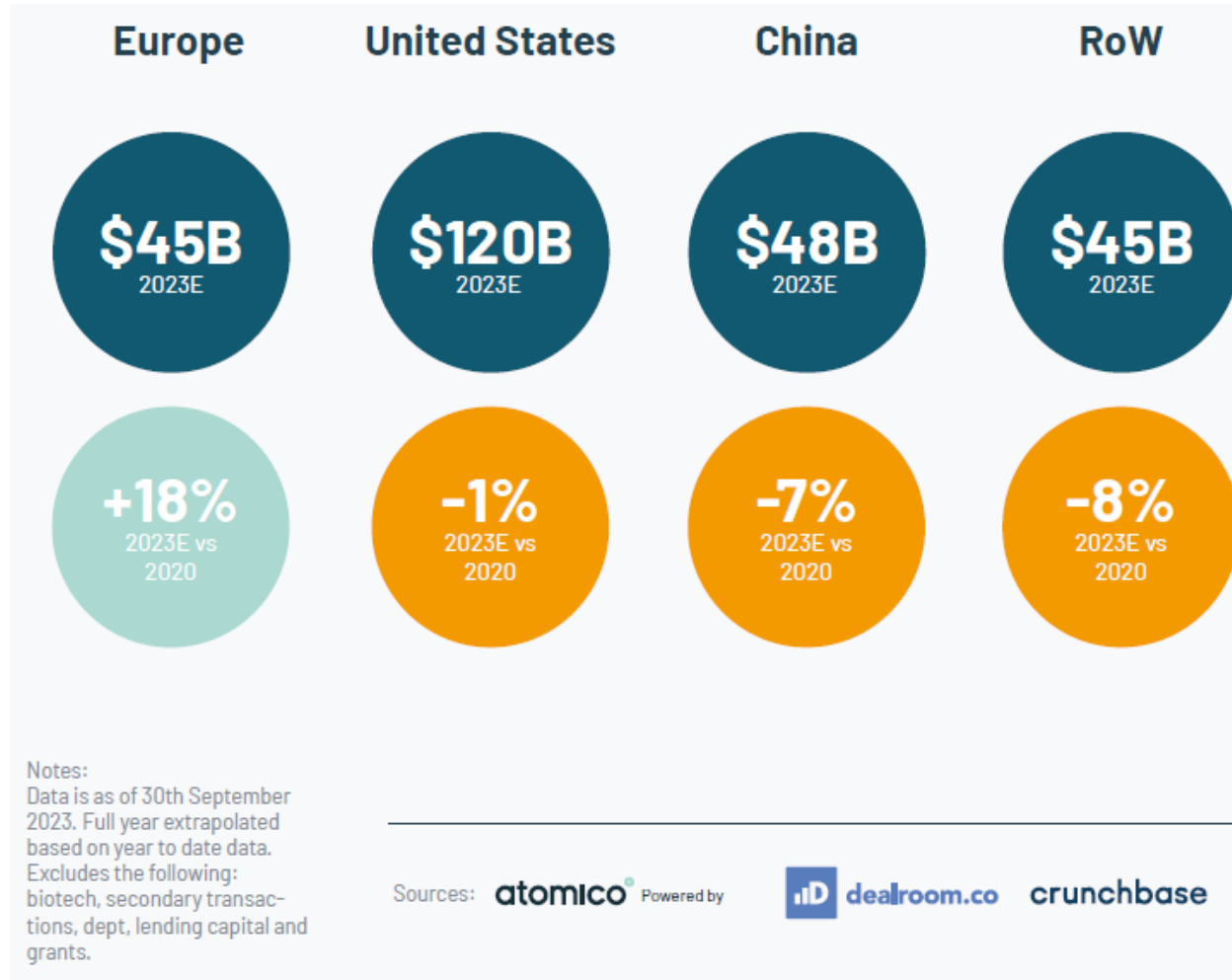
Notes:
To adjust for lags in reporting, we compare snapshots of data at different points in time, which allows us to estimate future growth of current figures by extrapolating differences between time points. Data is as of 20 September 2023, thus Q3 is incomplete.

Sources: **atomico** Powered by **revelio labs**

Source:
Atomico
Courtesy:
Atomico – State of European Tech Report 2023

#3 - European tech investment is strong and resilient

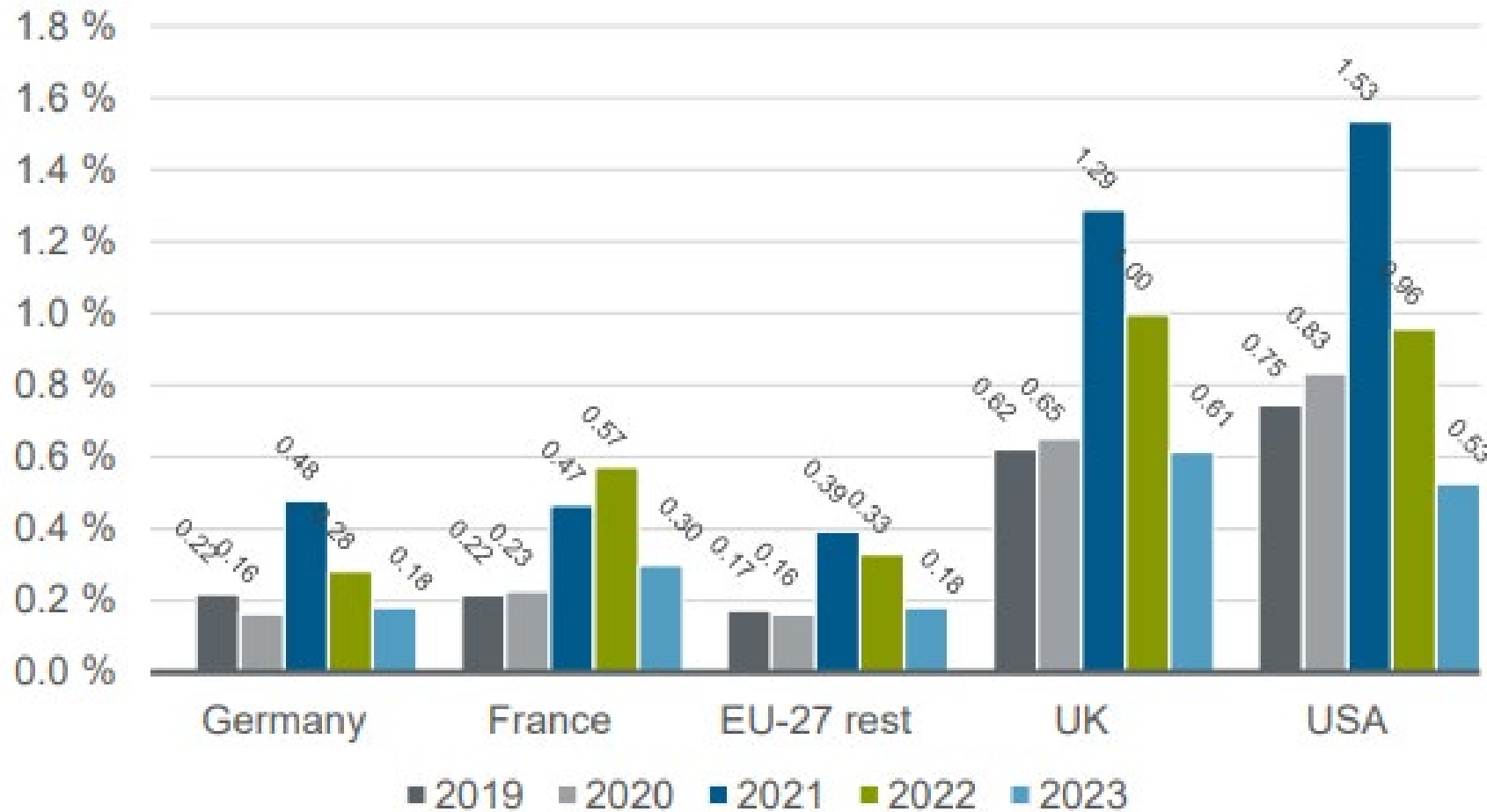
Capital invested and change in % by region, 2020 versus 2023



Source:
Atomico
Courtesy:
Atomico – State of European Tech Report 2023

#4 - EU tech investments hold but remain behind US & UK

Deal volume in per cent of GDP

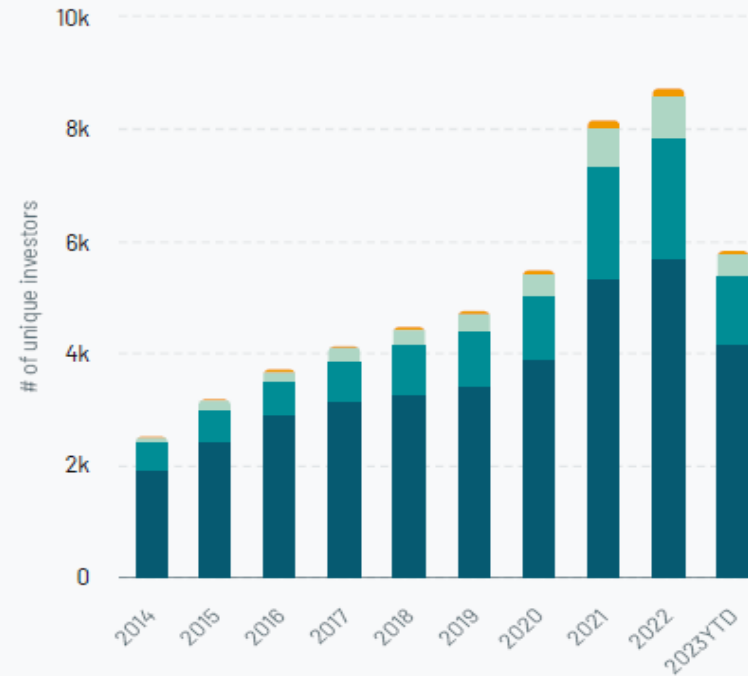


Source:
Dealroom, IMF & KfW Research
Courtesy:
KfW Capital

#5 - European investors base is solid

Number of unique investors investing in European tech by investor HQ region, 2014 to 2023

- Other
- Asia
- North America
- Europe



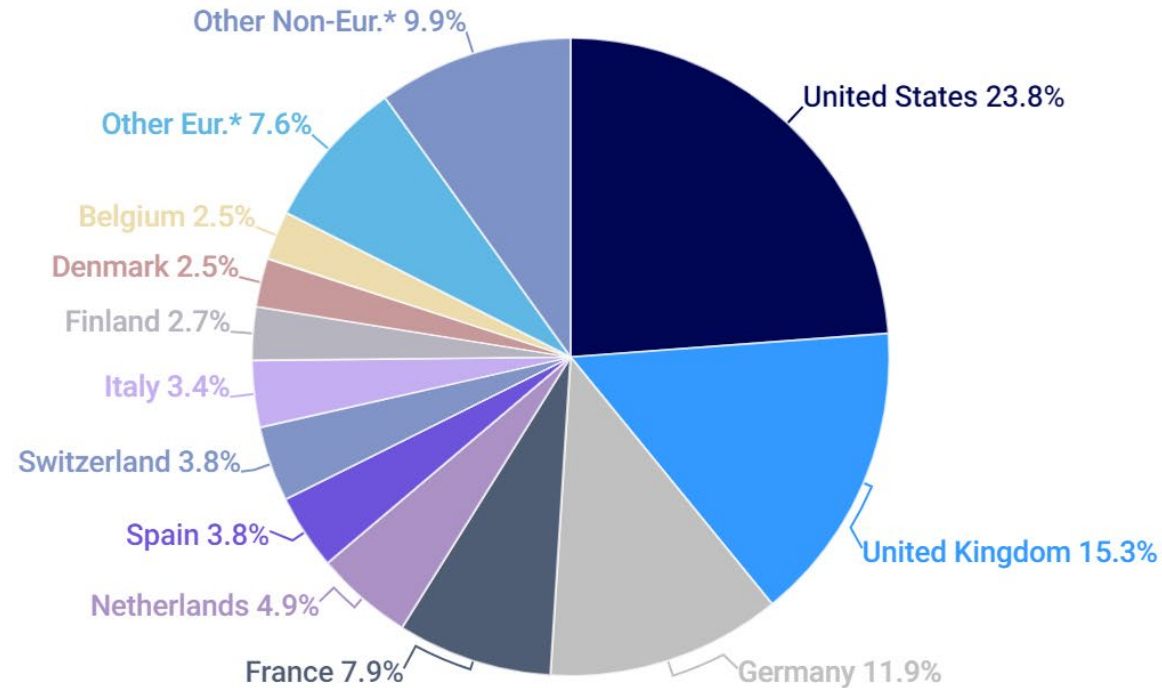
Notes:
Data is as of 30 September 2023. Excludes the following: biotech, secondary transactions, debt, lending capital, and grants. Other includes investors with HQ countries in rest of the world.

Sources: **atomico** Powered by **dealroom.co** **crunchbase**

Source:
Atomico
Courtesy:
Atomico – State of European Tech Report 2023

#6 - non-EU investors back half of Europe's potential unicorns

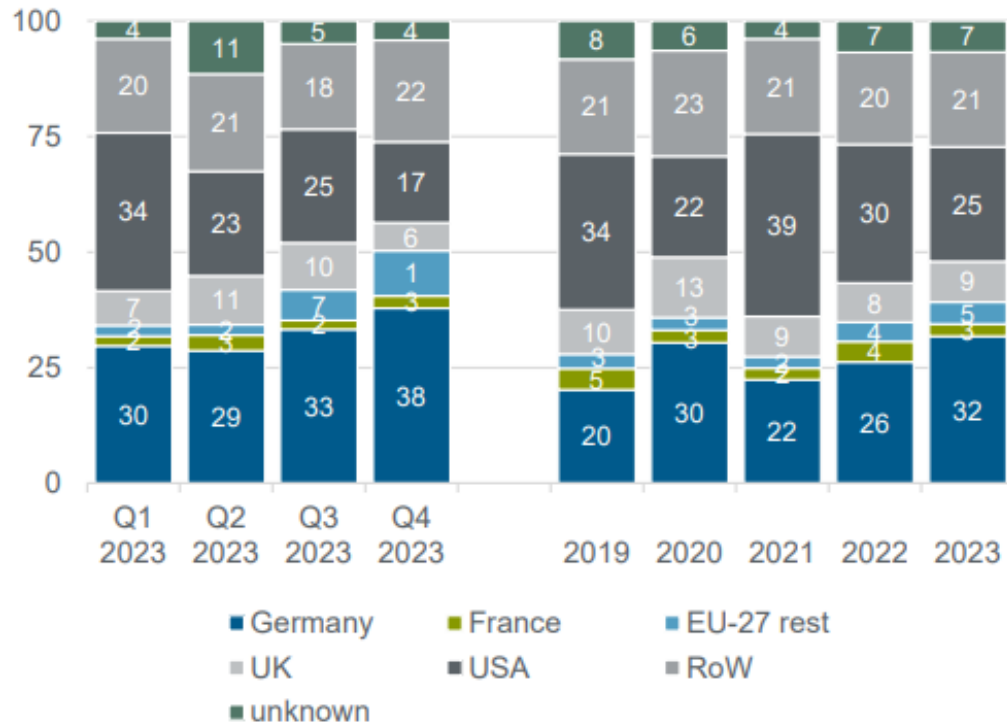
Breakdown of # of Investors, by Country



Source:
Dealroom & Tech Tour
Courtesy:
Tech Tour,
TT Growth 50 Europe 2024 Data Report

7 - Foreign investors' share slows yet is solid - Case: Germany

Volume by investor origin (in per cent)



Since the global VC market began to cool off in early 2022, the share of venture capital invested in the German market by investors domiciled outside Germany has fallen. This development marked a temporary peak in Q4 2023. The share of funds from US investors in particular, which had temporarily risen to 39% of the market in the boom year 2021, dropped again in Q4 2023 to now 17%. By comparison, the share of funds from domestic investors grew to 38% (33% in the previous quarter).

There are three likely reasons for these developments. First, the German VC market grew on the investor side in the past years. Fundraising by German investors peaked in 2022, which likely contributed to an expansion in the supply of domestic funds in the year 2023. Second, US investors are very often involved in large financing rounds. But these have become increasingly absent in a cooling market. Third, in the current market situation some international (crossover) investors are concentrating on portfolio business in the domestic market while reducing their own exposure in the European tech sector. Thus, the developments we are observing are also partly driven by strategic decisions.

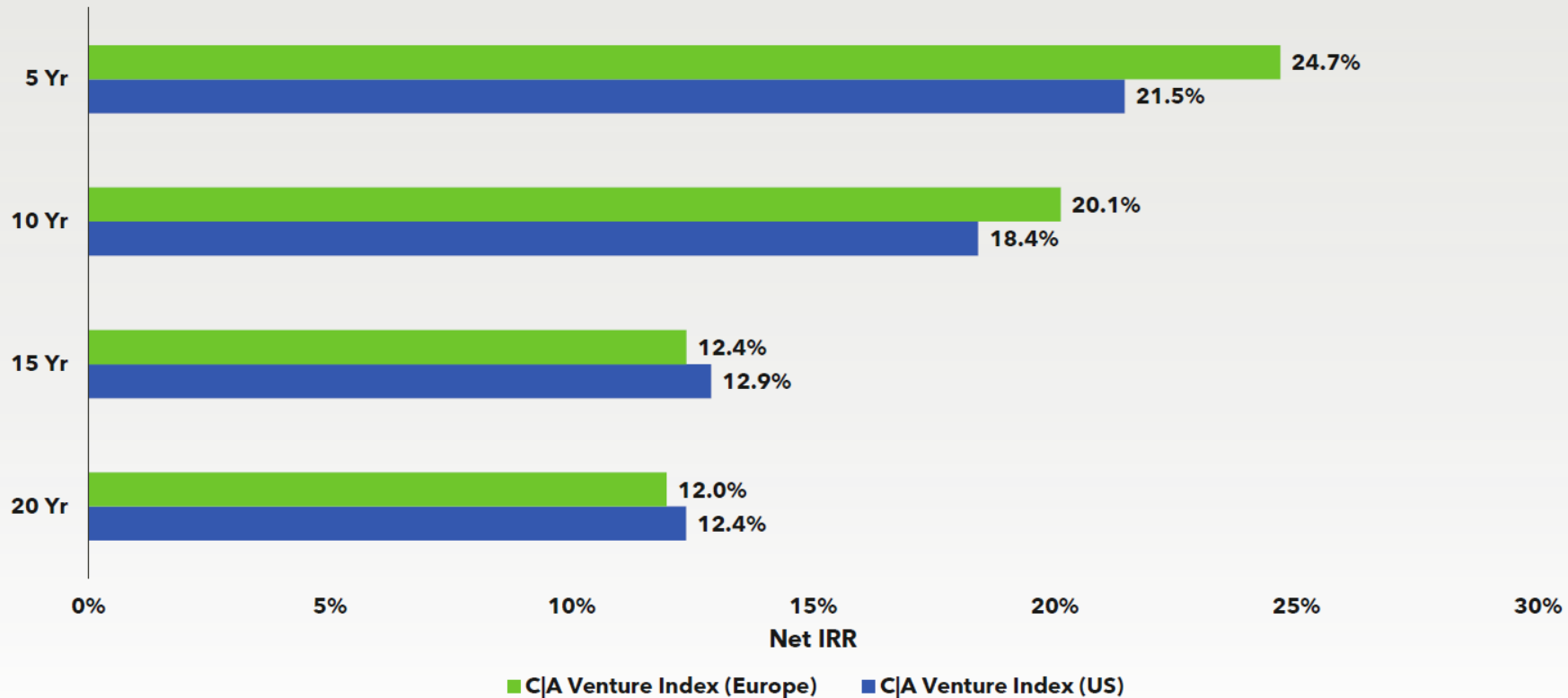
Source: Dealroom.co, KfW Research (current as at 15 January 2024).

Source:
Dealroom & KfW Research
Courtesy:
KfW Capital

#8 - Long-term investment returns in Europe match US

Recent European Venture Returns Competitive with US

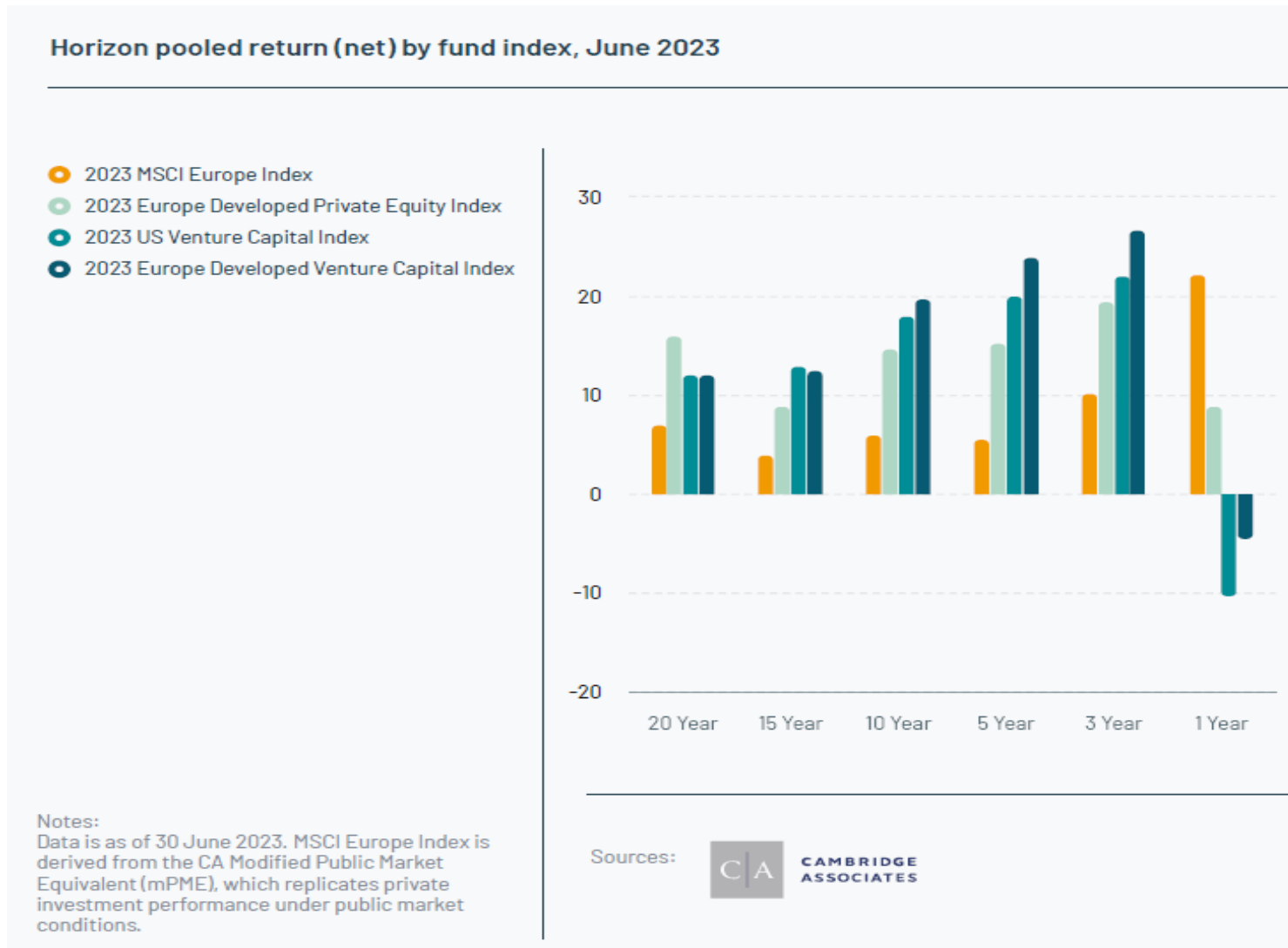
Despite historical challenges, European Venture Returns Rival US Returns



Data as of 3/31/2023. CJA Venture Index denotes an aggregation of Cambridge Associates pooled horizon return, net of fees, expenses, and carried interest. Private and Confidential. Not Approved for Further Distribution or Use with the General Public. See Important Disclosures at End.

Source:
Cambridge Associates (CA)
Courtesy:
Slide supplied by Top Tier Capital Partners

#9 - Long-term VC returns in Europe top the charts

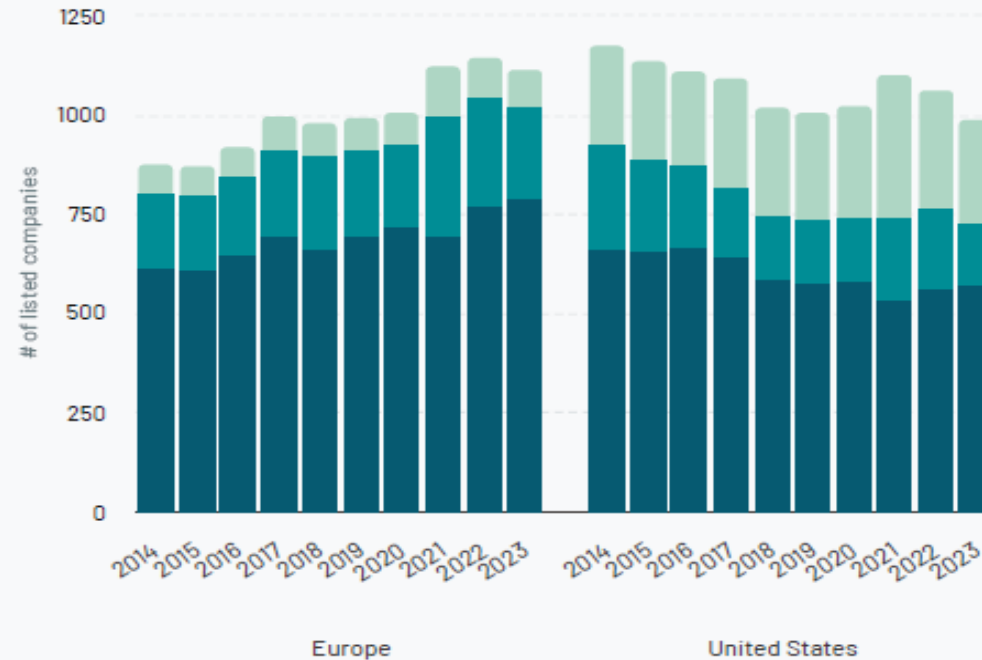


Source:
Cambridge Associates (CA)
Courtesy:
Atomico – State of European Tech Report
2023

#10 - Number of listed companies rises but is under-capitalised

Count of public tech companies in Europe and the US, 2014 to 2023

- \$1,000M+
- \$100-1,000M
- Sub \$100M

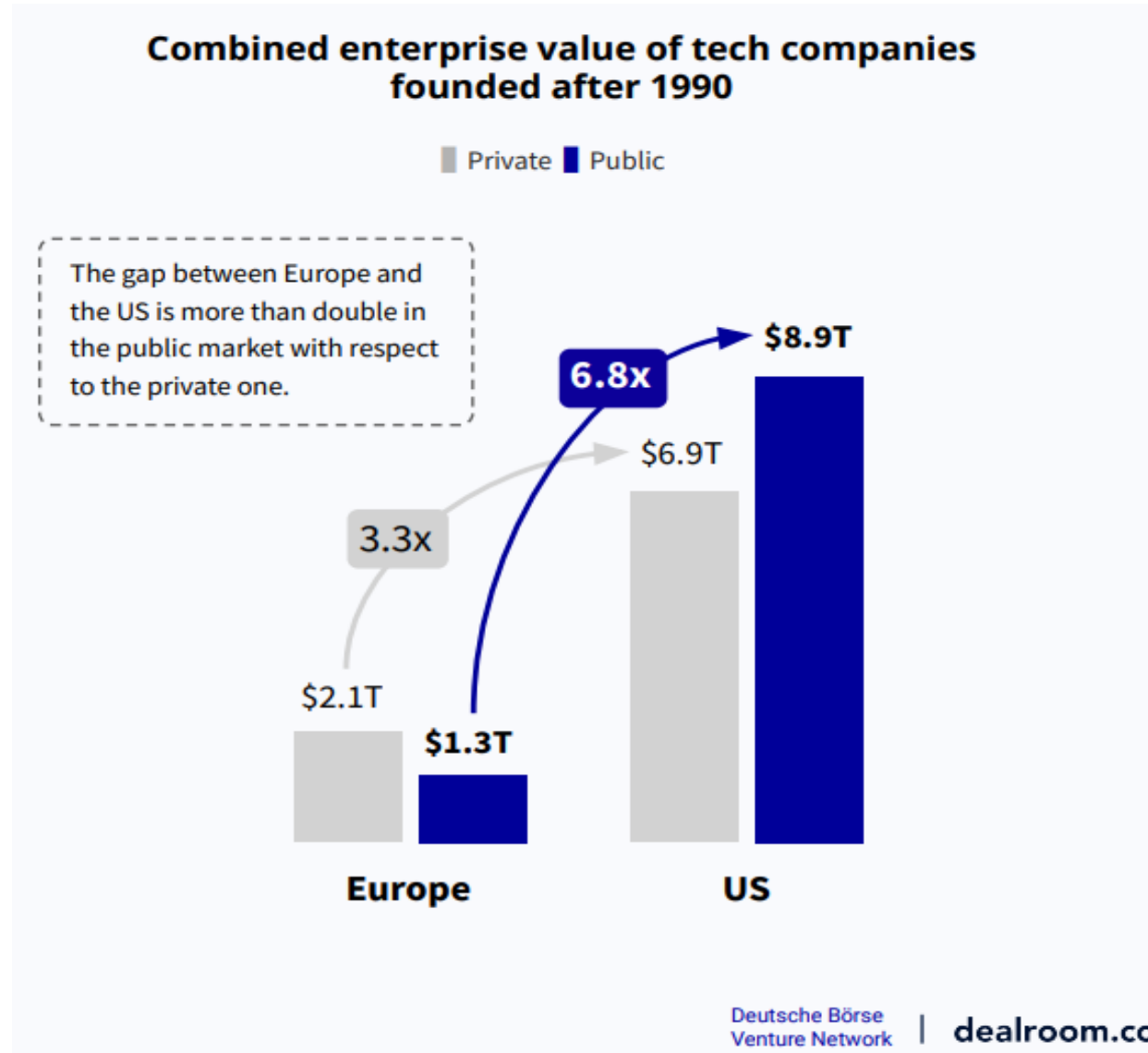


Notes:
S&P Capital IQ Platform, as
of date 30 September 2023,
for illustrative purposes
only.

Sources: **S&P Global**
Market Intelligence

Source:
S&P Global
Courtesy:
Atomico – State of European Tech Report
2023

#11 - The gap between private & public markets

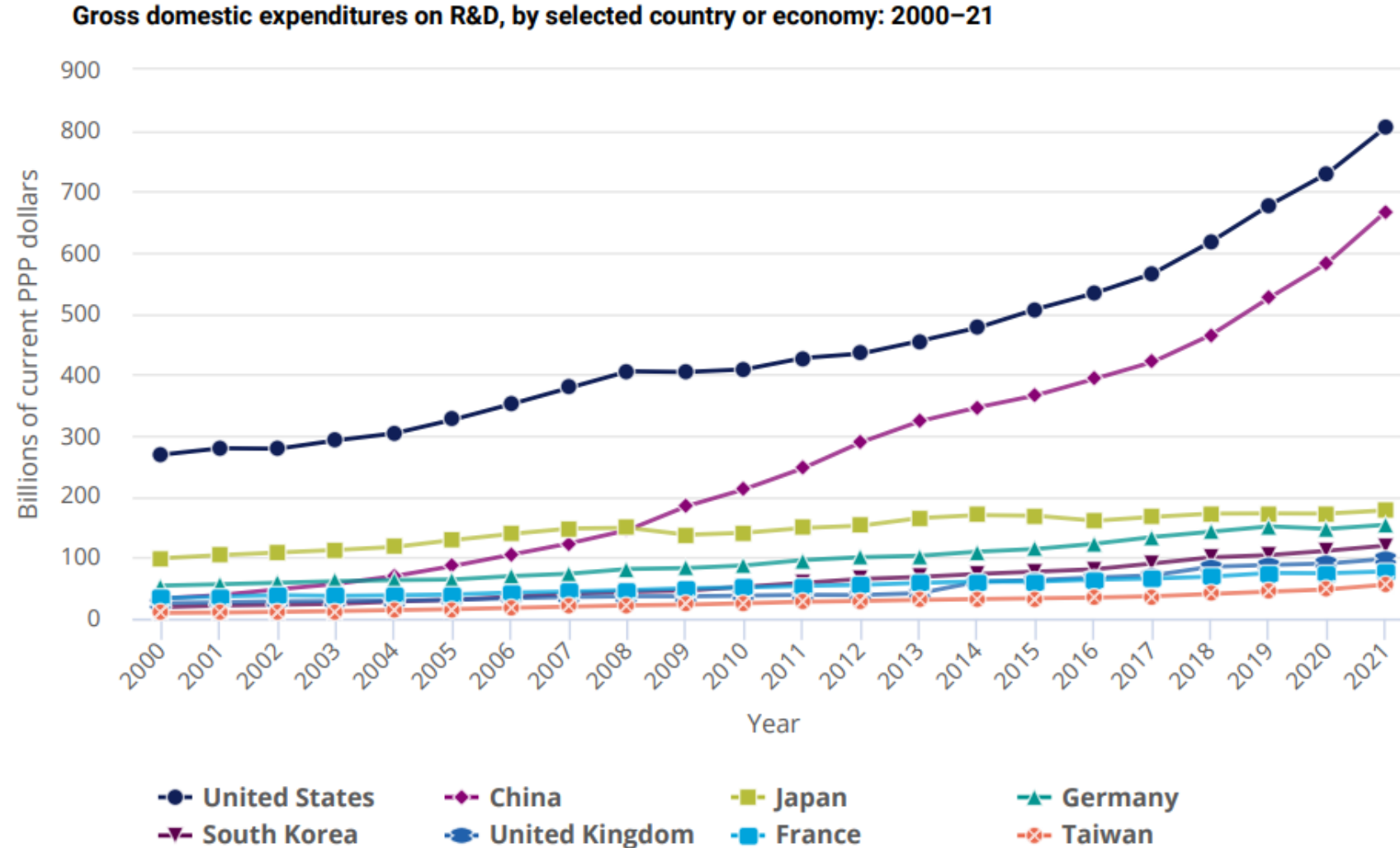


Source:
Dealroom
Courtesy
Deutsche Boerse Venture Network

Key Opportunities

6. Europe can enhance R&D investment, especially through private investments in its [deep] tech scale-ups, both in volume and in quality.
7. Europe's growth equity funds can attract and deploy significantly more capital with the potential to provide financial returns and keeping high quality technology companies under European ownership.
8. European pension funds, public retirement funds, insurance companies and asset managers can invest significantly more in venture capital and growth equity to deliver better returns to pensioners and savers.
9. European savers can invest more in financial assets and across European borders to generate additional returns for their savings and to reduce dependence on public pension systems. Europe's highly developed financial services sector can help them do so.
10. European corporations can engage more with Europe's [deep] tech scale-ups and technology investment ecosystem, taking advantage of rapid developments to raise their R&D investments and competitiveness.

#12 - The R&D investment gap with the US and China is widening ...

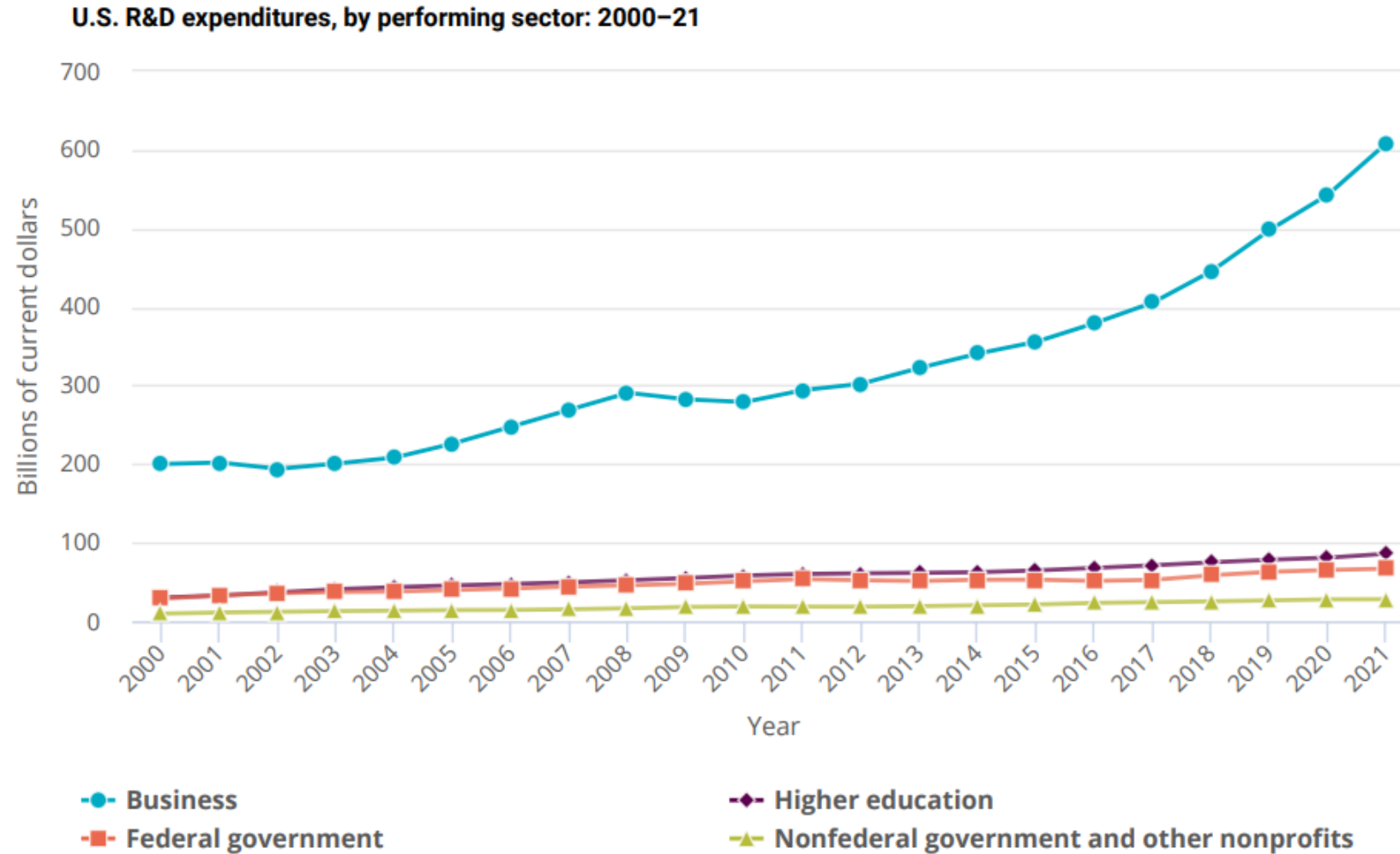


Note(s): PPP is purchasing power parity. Data are for the top eight R&D-performing countries or economies.

Source(s): OECD, MSTI, September 2023 release. *Indicators 2024: R&D*

Source:
US National Science Board / Foundation (NSB/NSF) - in The State of U.S. Science & Engineering 2024

#13 - as US R&D private investment is mainly driving fast growth



Note(s): Some data for 2021 are preliminary and may be revised later.

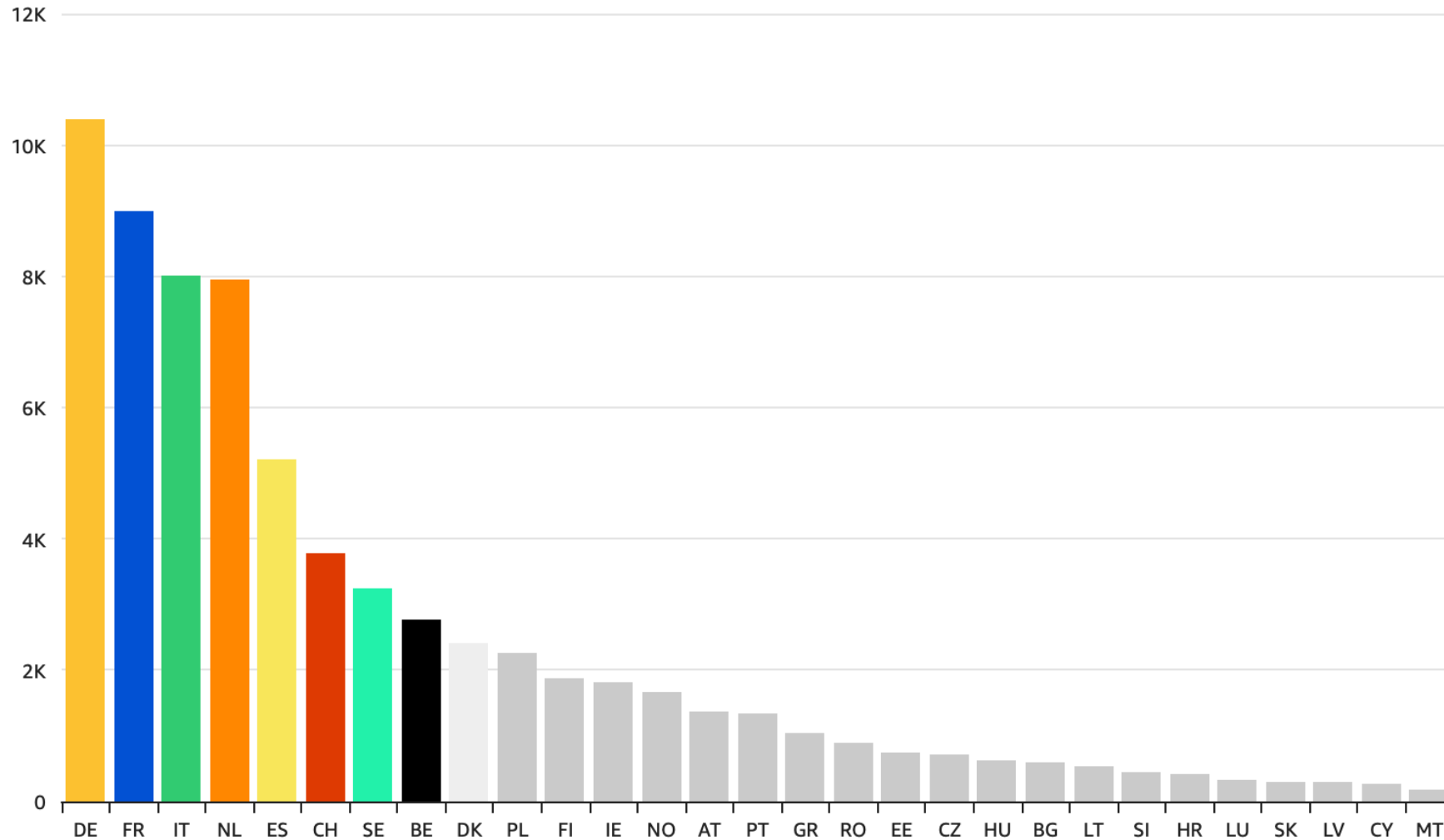
Source(s): NCSES, National Patterns of R&D Resources (2021–22 edition). *Indicators 2024: R&D*

Source:

US National Science Board / Foundation (NSB/NSF) - in The State of U.S. Science & Engineering 2024

#14 - Europe has many deep tech companies

Total No. of European DeepTech Companies
companies with less than 2000 employees



Source:
Jolt Ninja database
Courtesy:
Jolt Capital

15 - Deep-tech growth investment returns hold promise

Deeptech investing is demanding, requiring :

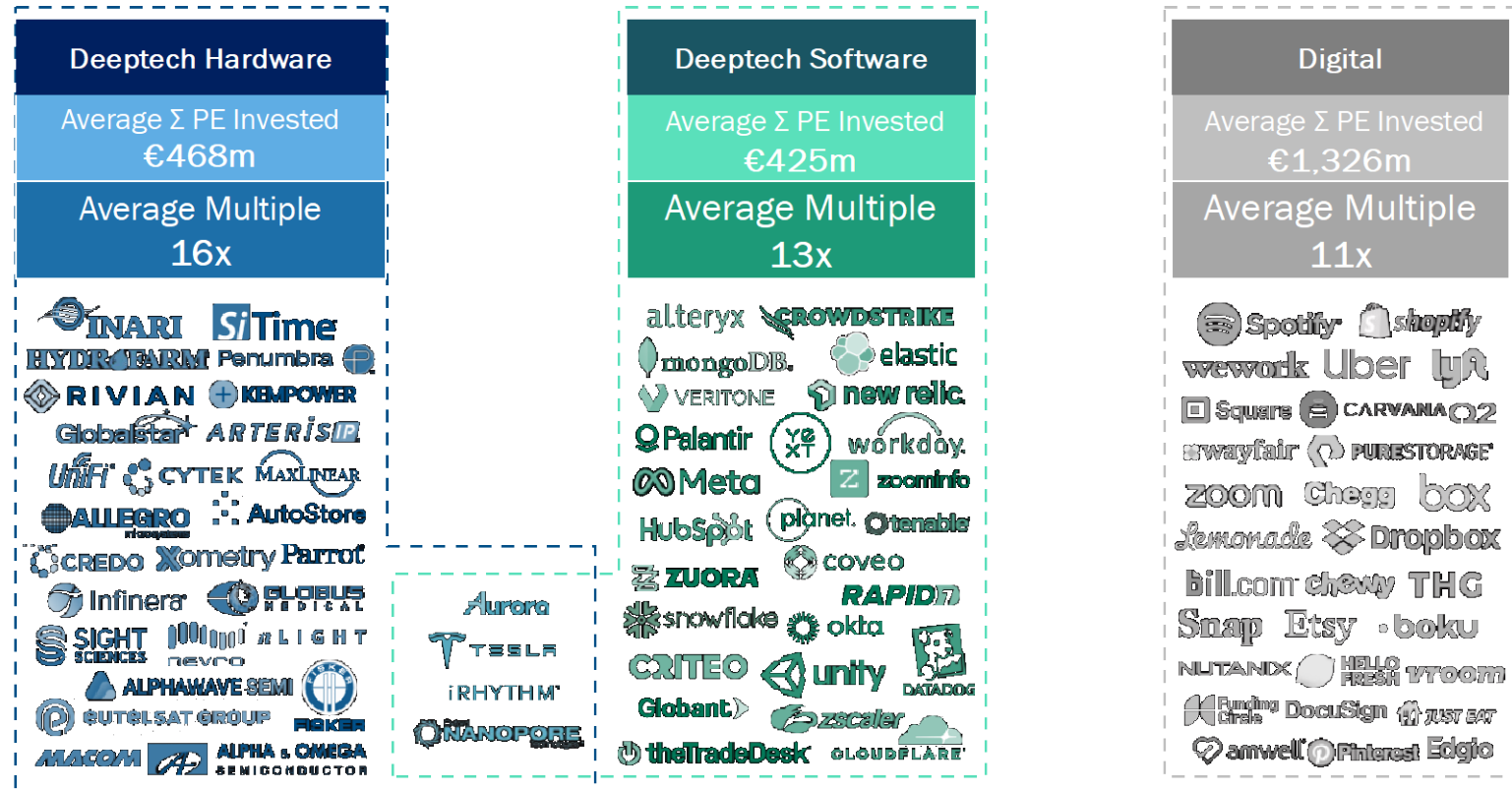
- Specialized teams
- Access to an extensive deal flow
- Worldwide industry networks

Deeptech has significant unique benefits:

- 3x less capital intensive than digital
- Better multiples : 14x compared to 11x in digital (IPO value/PE invested)
- Less competition than in digital
- 50% of the top 50 most valuable publicly listed companies are deeptech

Growth equity exhibits an optimal risk/return:

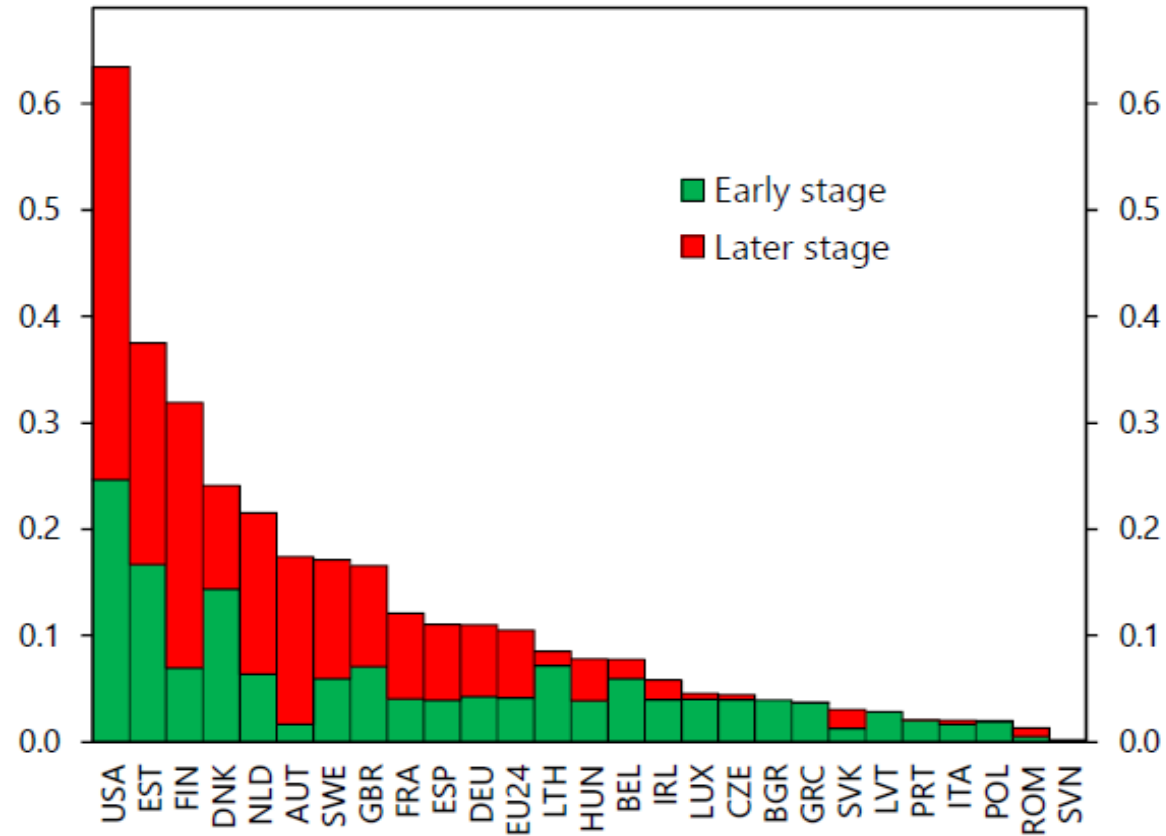
- Closely matching buyout (similar IRR and DPI)
- Less risky than venture (better DPI)
- Decorrelated from interest rate risk (no leverage)



Source:
Jolt Ninja database
Courtesy:
Jolt Capital

#16 - European VC and growth markets hold growth potential

Figure 5. Venture Capital Investments
(Percent of GDP)



Source. OECD and IMF staff calculations.
Note. Latest available is 2021, except 2019 for the US.

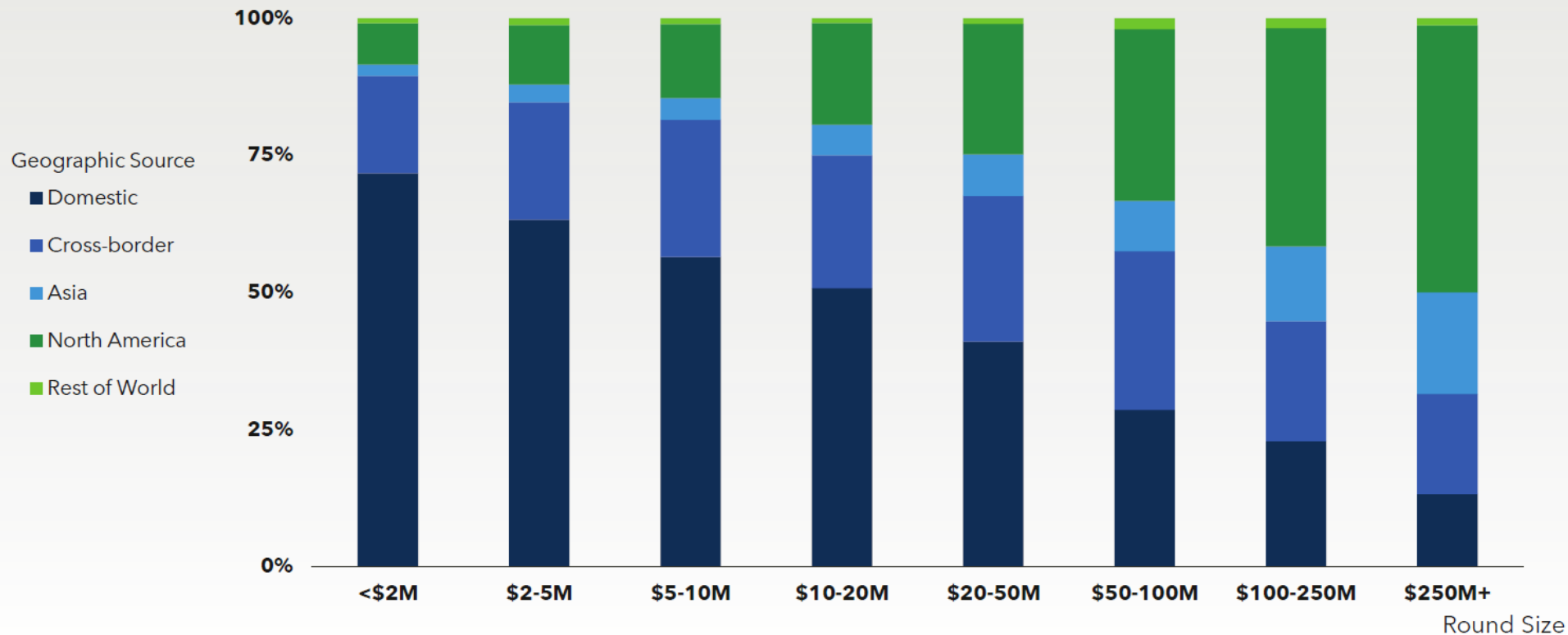
Sources:
OECD and IMF

#17 - Europe lacks growth capital / investors

Domestic EU VCs Own the Earliest Stages of Innovation

International VC more important at Later Stages

Share of capital invested (%) in Europe, 2017 to 2021



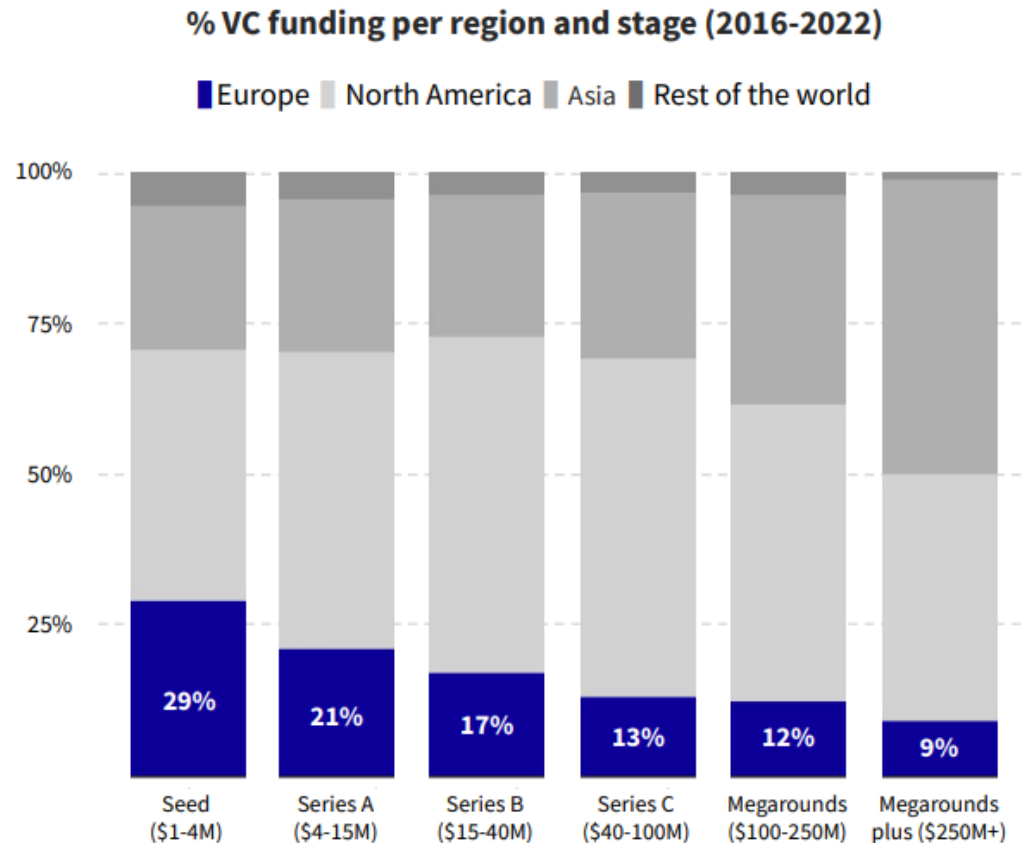
Source: Atomico's State of European Tech 2021. Private and Confidential. Not Approved for Further Distribution or Use with the General Public. See Important Disclosures at End.

Source:
Atomico – State of European Tech
Report 2021

Courtesy:
Top Tier Capital Partners

#18 - Europe lacks growth capital / investors

Europe has a considerable late-stage funding gap. More funding from crossover investors could reduce the gap and bridge private and public markets.



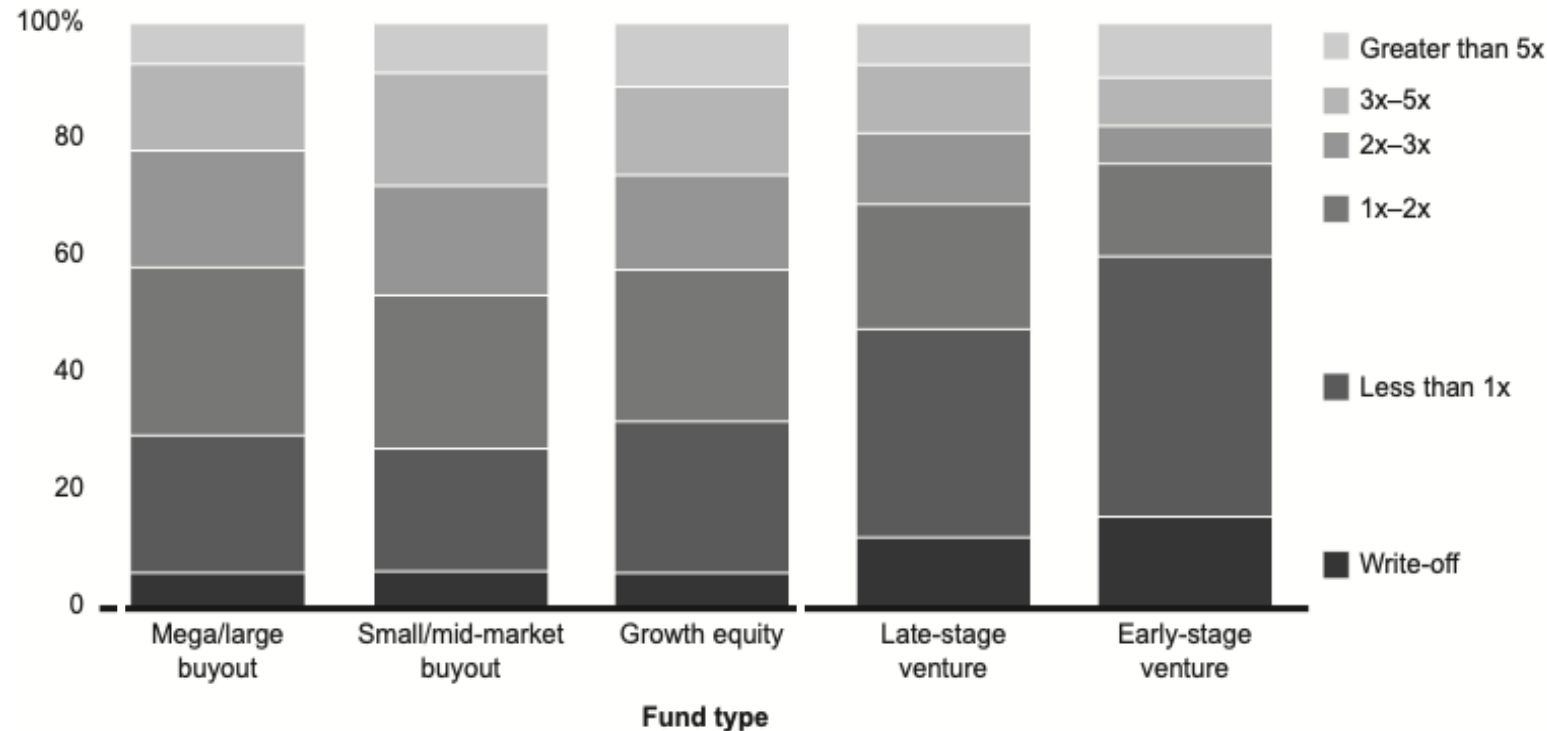
Source:
Dealroom
Courtesy
Deutsche Boerse Venture Network

#19 - The attractiveness of growth equity funds (1/2)

Bain: Private Equity Report (2019)

Growth equity's distribution of returns is similar to that of buyouts

Distribution of gross returns, by deal count



Notes: Analysis includes 28,000 fully realized deals invested globally; gross returns are returns before fees, expenses and carried interest; data as of June 30, 2018
Source: State Street Global Exchange Private Equity Index

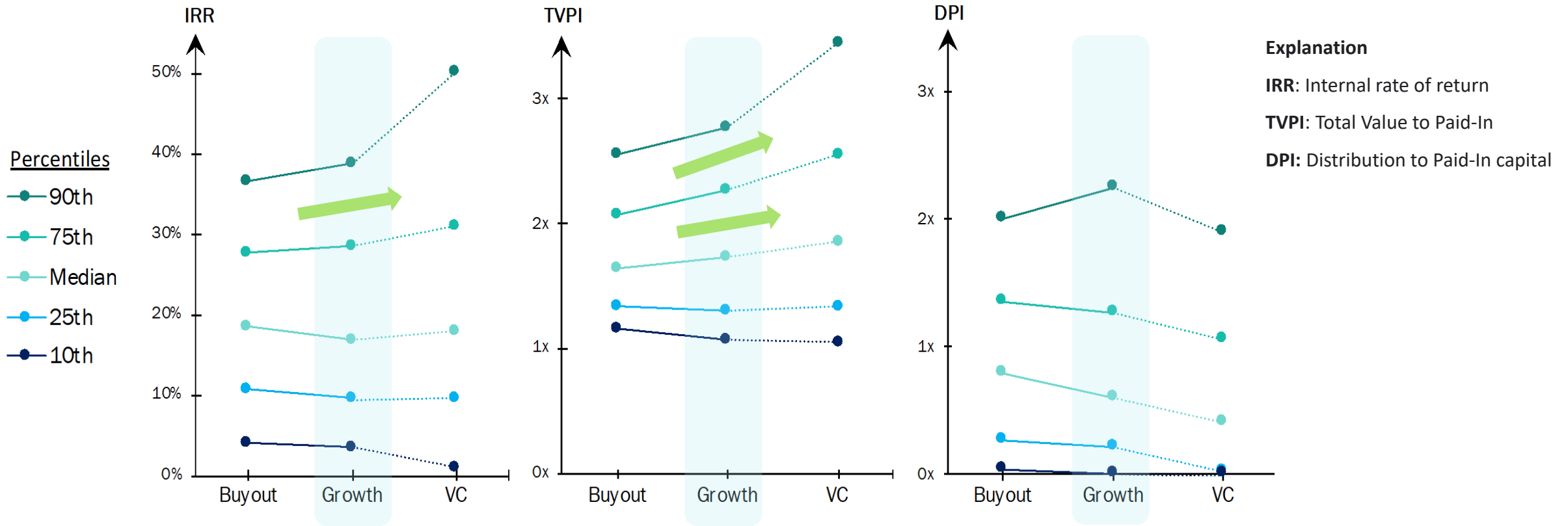
Growth equity: Buyout-like returns, less leverage

- Growth equity straddles the space between buyout & venture but has a risk/return profile much closer to buyout.
- Growth equity targets companies at an inflection point, which need capital to scale a proven business model.
- Growth equity offers buyout-like performance, without the need for heavy leverage to magnify returns.
- A look at the distribution of deal returns, as tracked by the State Street Global Exchange Private Equity Index, shows that growth equity performance is very close to that of buyout funds, with much lower rates of capital impairment than venture capital

Source:
Bain Private Equity
Courtesy:
Jolt Capital

#20 - The attractiveness of growth equity funds (2/2)

Growth equity's risk/return performance very closely matching buyout but less risky than venture.



Source: Pitchbook 2023

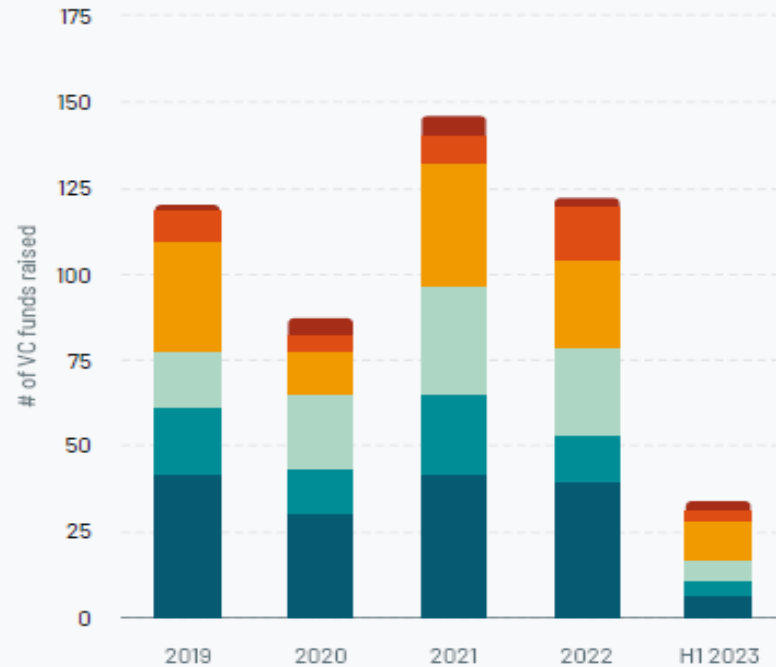
Source:
Pitchbook
Courtesy:
Jolt Capital

PE stage analysis: 1415 funds, with vintages between 2010 & 2020, in Europe & North America, Across Buyout, Growth, & Venture

#21 - Number of larger fund-raising drop

Number of VC funds raised, 2019 to H1 2023

- > €500M
- €250 - 500M
- €100 - 250M
- €50 - 100M
- €25 - 50M
- < €25M

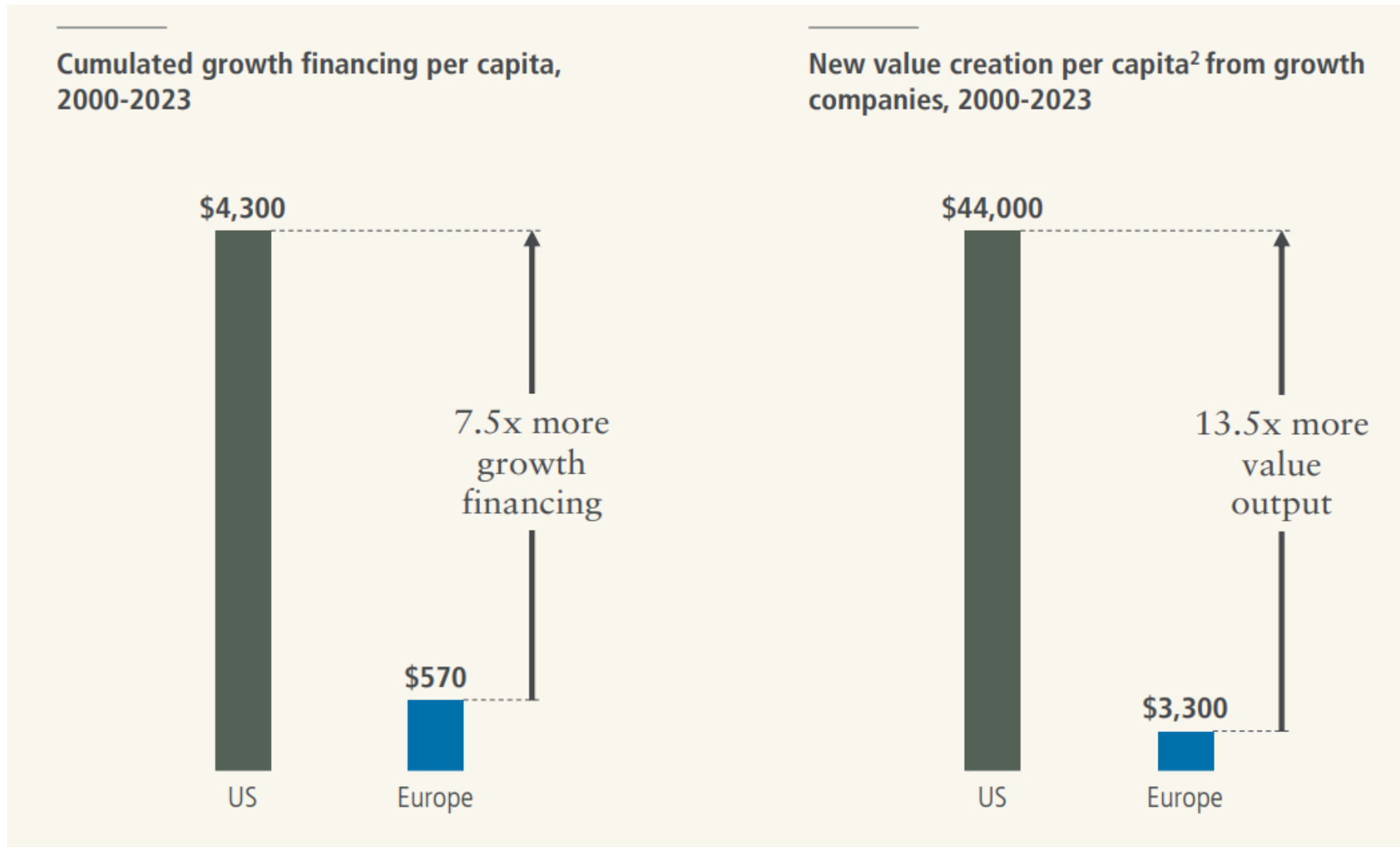


Notes:
H1 2023 figures are preliminary. Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023. Data is final closing only.

Sources: **INVEST EUROPE**

Source:
Invest Europe
Courtesy:
Atomico – State of European Tech Report 2023

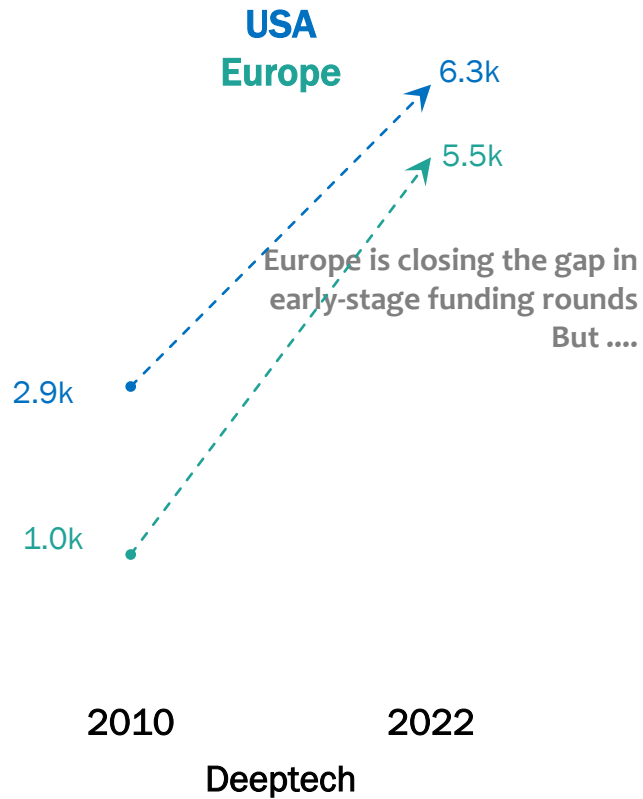
#22 - Europe's growth capital opportunity



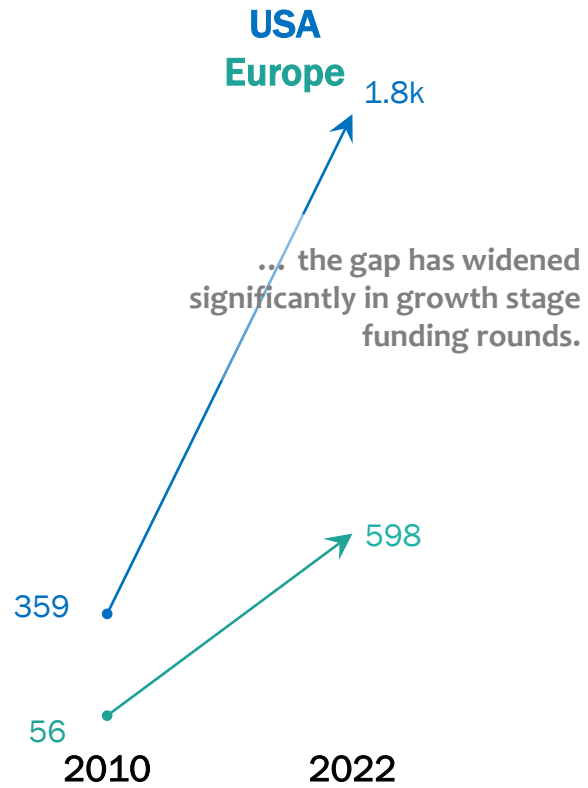
Source:
Pitchbook, 2023 Annual European
Venture Report

#23 - Europe lacks deep-tech growth capital

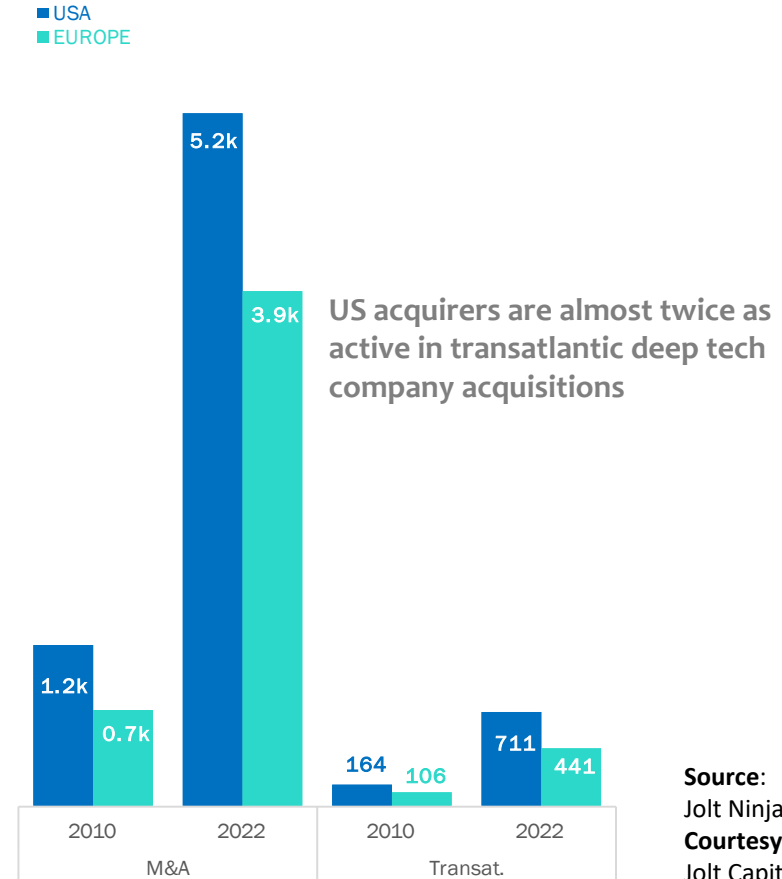
Deep Tech Fundraisings
VC rounds



Deep Tech Fundraisings
Growth rounds



Number of Acquisition
Total vs Transatlantic

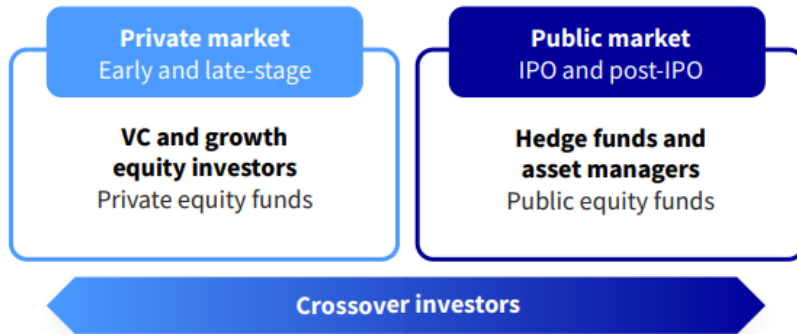


Source:
Jolt Ninja database
Courtesy:
Jolt Capital

#24 - The relevant role of crossover investors

What is a crossover investor?

A crossover investor is a **hybrid fund or investment vehicle** active in both, **private and public markets**.



Crossover investors tend to make the **initial investment in late-stage ventures** that have already achieved a certain level of maturity and validation.

Often, the initial investments are one of the **last private market rounds** followed by backing the company at **public listing and post-IPO**.

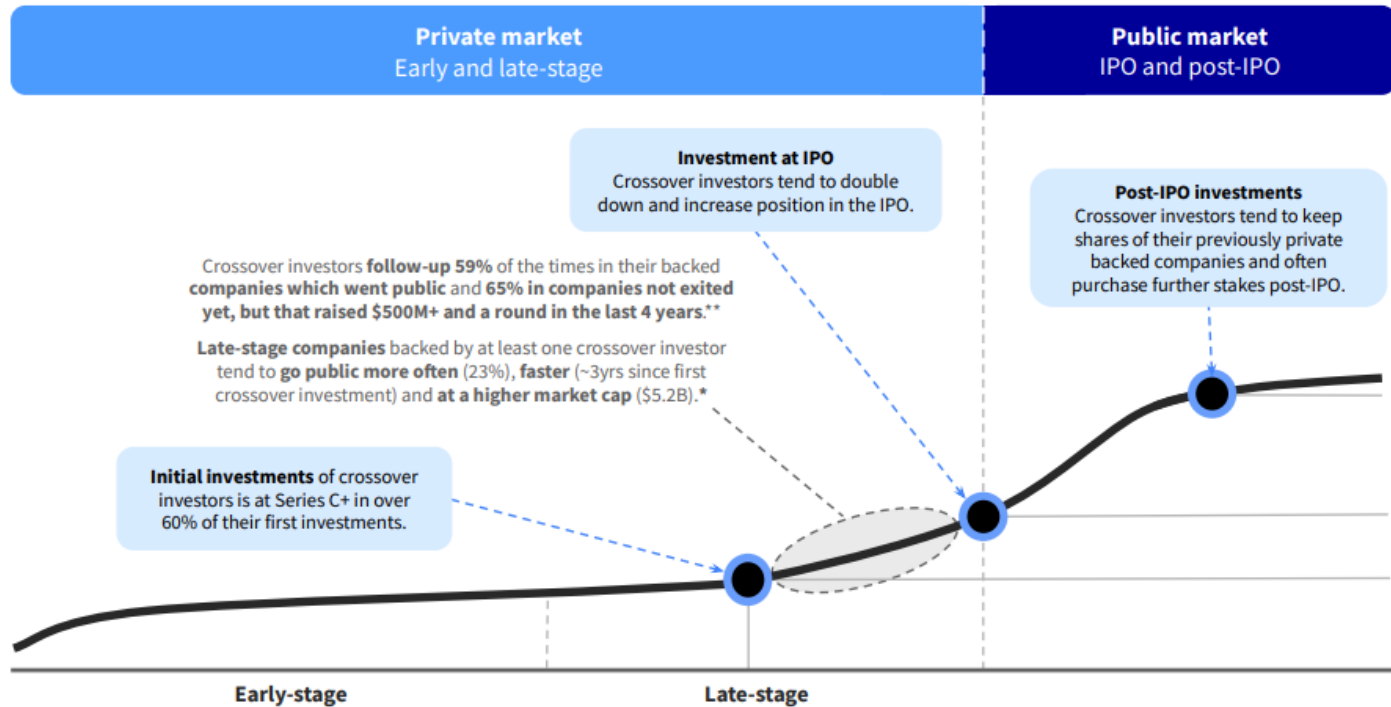
Selected crossover investor characteristics

Investment mandate	Mostly late-stage private markets and (post-)IPO in public markets
Target companies	Mainly fast-growing tech companies on a strong path to profitability and with IPO potential
Favorable terms and structures	Varies widely, commonly flexible in: <ul style="list-style-type: none">• Ownership %• Board seat(s)• Equity (preferred) or debt structures• Primary or secondary offerings
Investment horizon	Often long-term partnering from last private round to public markets and beyond
Crossover investment rationale	Gaining company insights pre-IPO and expecting valuation uplift post-IPO
Value-add for portfolio companies	Significant capital pools, global IPO-prep experience and complementary network to venture investors

Source:
Dealroom
& Deutsche Boerse Venture Network

#25 - The investment path of crossover investors

Crossover investors can play a key role in supporting the growth of private companies on their road to IPO and beyond.



The ideal company journey supported by crossover investors

Crossover investors strategies vary widely, but on average they tend to **start backing companies around Series C+** and follow-up with their **support towards an IPO.**

Furthermore, crossover investors tend to **increase their holding at IPO** and aim to benefit from the valuation uplift at IPO.

Once the company is public the journey is not over in many cases and the companies become **part of the crossover investor's public portfolio**, with no constraints on the time horizon.

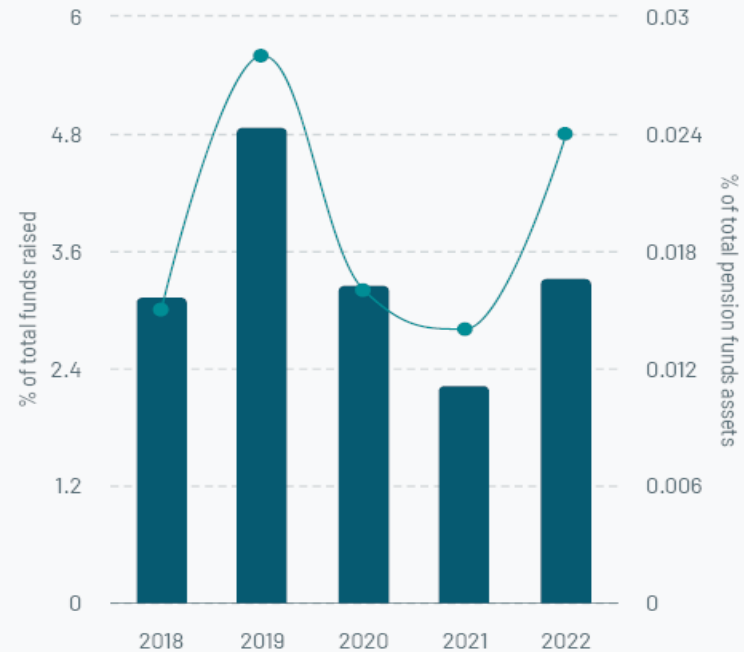
Often these holdings make up a **sizable part of their public portfolio.**

Typically, funding of **early-stage companies** tends not to come from crossover investors but **from traditional VCs** and other private market investors. However, in **2022 the share of early-stage funding** (Seed & Series A) **by crossover investors has increased to 31%**, due to late-stage crunch.

#26 - Share of VC pension funding is very small

European pension funds committed to VC funds as a share of total funds raised and total European pension funds assets (%) per year, 2018 to 2022

- % of total funds raised
- % of total pension funds assets



Notes:
Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023. The data shows incremental amounts in each year for venture funds, not only final closing.

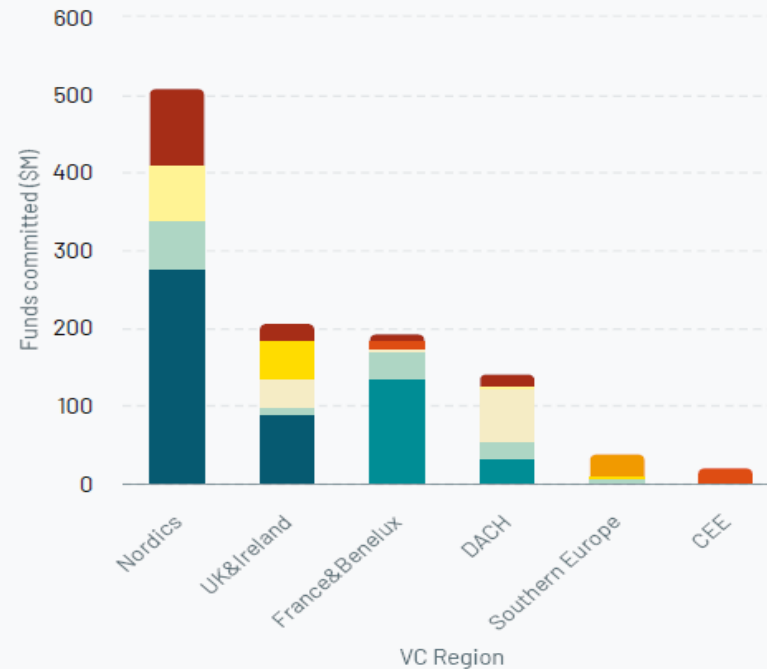
Sources: **INVEST EUROPE**

Source:
Invest Europe
Courtesy:
Atomico – State of European Tech Report 2023

#27 - Domestic VC pension funding dominates

Pension funds committed (\$M) to VC funds by LP region and fund location, 2023

- RoW LPs
- CEE LPs
- Southern Europe LPs
- UK&Ireland LPs
- Rest of Europe LPs
- DACH LPs
- North America LPs
- France&Benelux LPs
- Nordics LPs



Notes:
Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023

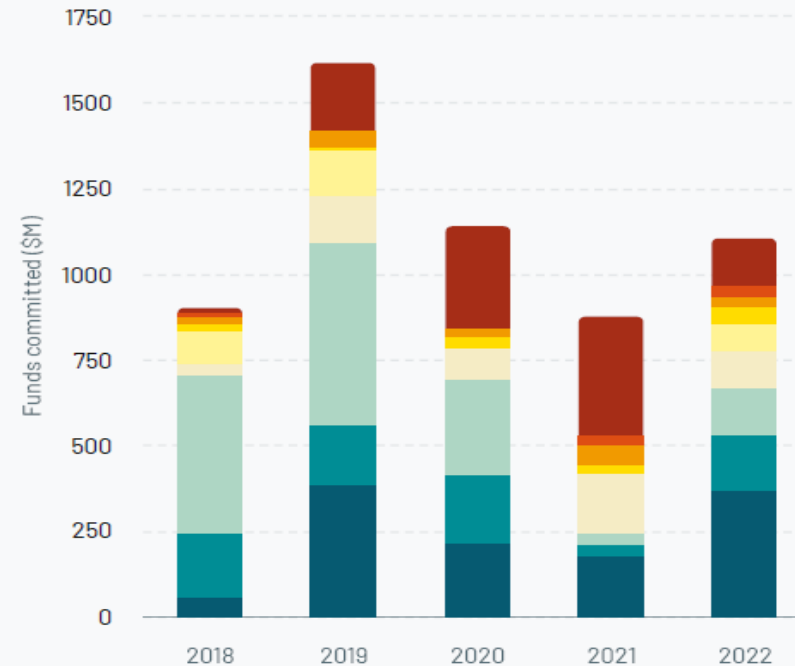
Sources: **INVEST EUROPE**

Source:
Invest Europe
Courtesy:
Atomico – State of European Tech Report 2023

#28 - Nordic Pension funds' commitments rise

Pension funds committed (\$M) to VC funds by LP region per year, 2018 to 2022

- RoW LPs
- CEE LPs
- Southern Europe LPs
- UK&Ireland LPs
- Rest of Europe LPs
- DACH LPs
- North American LPs
- France&Benelux LPs
- Nordics LPs



Notes:
Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023.

Sources: **INVEST EUROPE**

Despite representing one of the biggest ecosystems in Europe, pension funds in the UK and Ireland only represent 5% of pension funds committed to European VC in 2022.

To put this further into scale, in 2022 UK & Irish pension funds committed a total of less than \$200M to European Venture funds, while Irish and UK tech companies themselves raised \$31B in that year, a sum several hundred times higher.

Statement:

Atomico – State of European Tech Report 2023

Source:

Invest Europe

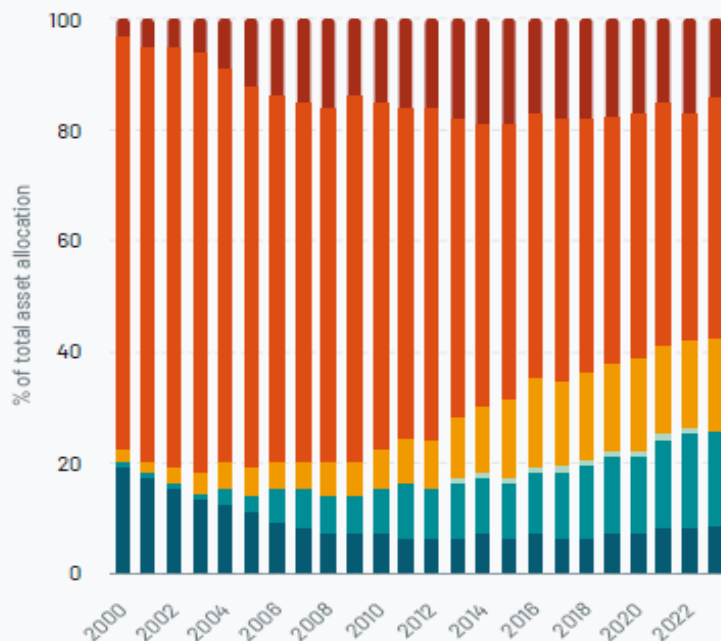
Courtesy:

Atomico – State of European Tech Report 2023

#29 - Allocations to VC and PE decreased (Venture Capital & Private Equity)

Share of AUM by alternative asset class based on manager HQ region, 2000 to 2023

- Real Estate
- Private Equity
- Private Debt
- Natural Resources
- Infrastructure
- Venture Capital



Notes:
Data is as of 30 September 2023. Numbers may not add up to 100 due to rounding.
2023 data is as of 31 March 2023.

Sources: PREQIN

In fact, today, just 8% or \$218B of European asset manager AUM allocated to alternative assets is allocated to venture capital. In 2000, at the peak of the dotcom period, this stood at 19% and then subsequently declined consistently to fall below double-digit levels in 2008. It has hovered in the mid-to-high single-digit allocation range ever since.

To put this in a broader context, at 8%, European asset manager allocation to venture capital in 2023 is half of the US average of 16% (equivalent of \$1,100B) and significantly lower than the global average of 21% (equal to \$2,776B). For the US as well as global AUM allocation, the share held by VC has risen steadily over the last decade since hitting lows of 10-11% in 2013.

Statement:

Atomico – State of European Tech Report 2023

Source:

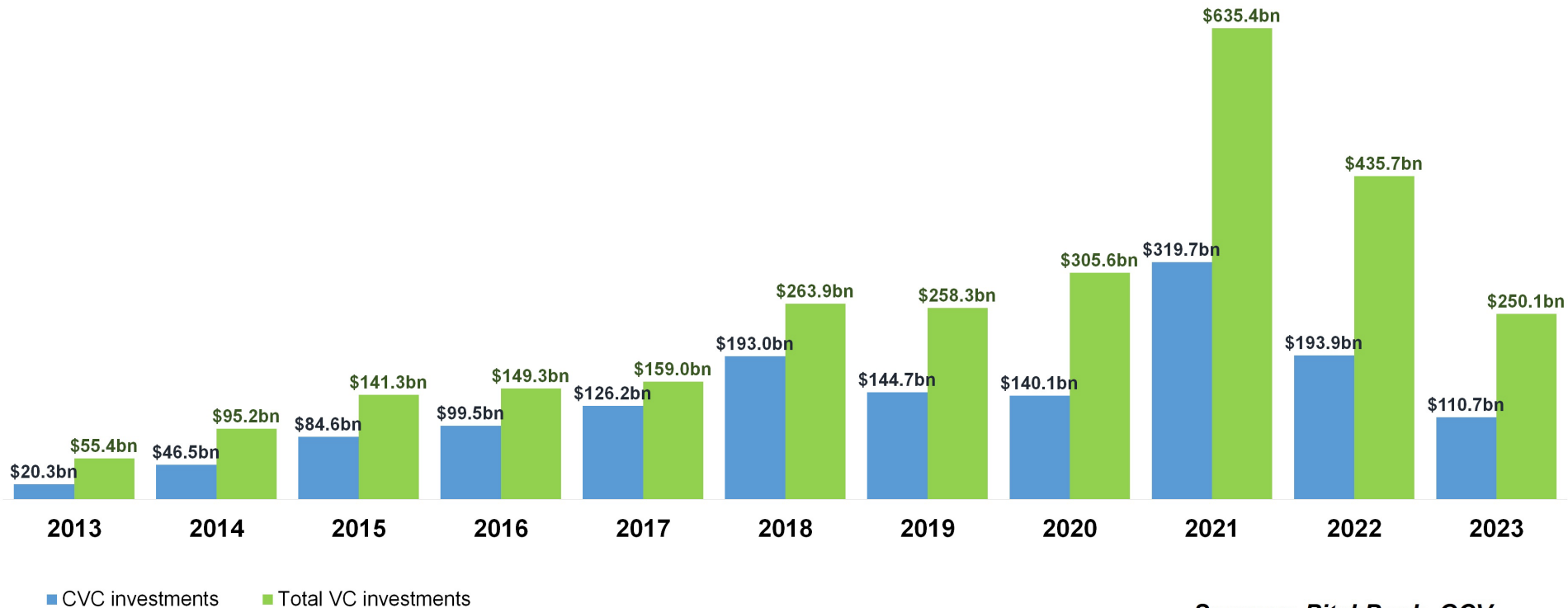
Preqin

Courtesy:

Atomico – State of European Tech Report 2023

#30 - Corporate venture capital (CVC) is a key investor participant

Corporate vs total VC investments by total \$ value 2013-23

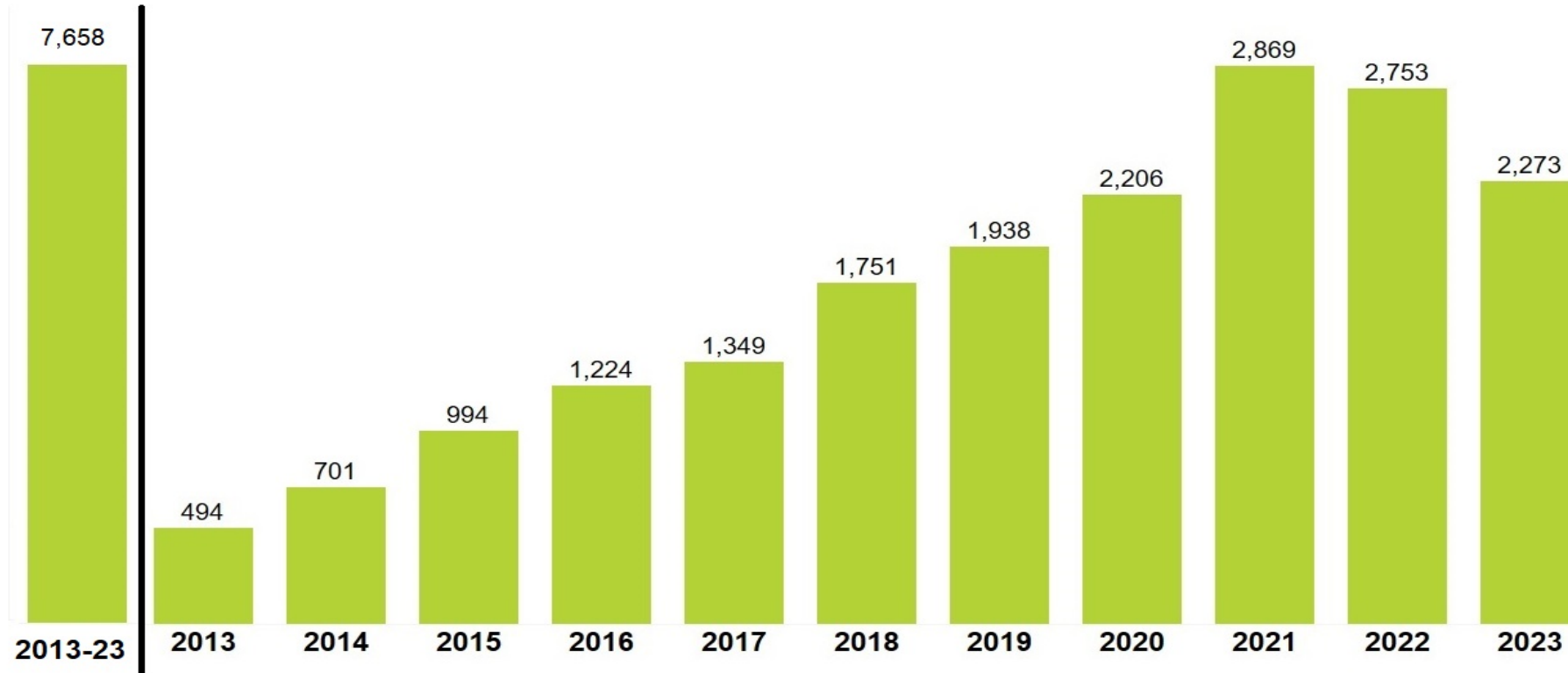


Sources: PitchBook, GCV

Sources:
Pitchbook
Global Corporate Venturing (GCV)

#31 - Corporate Venture Capital programmes

Active corporate investors 2013-23



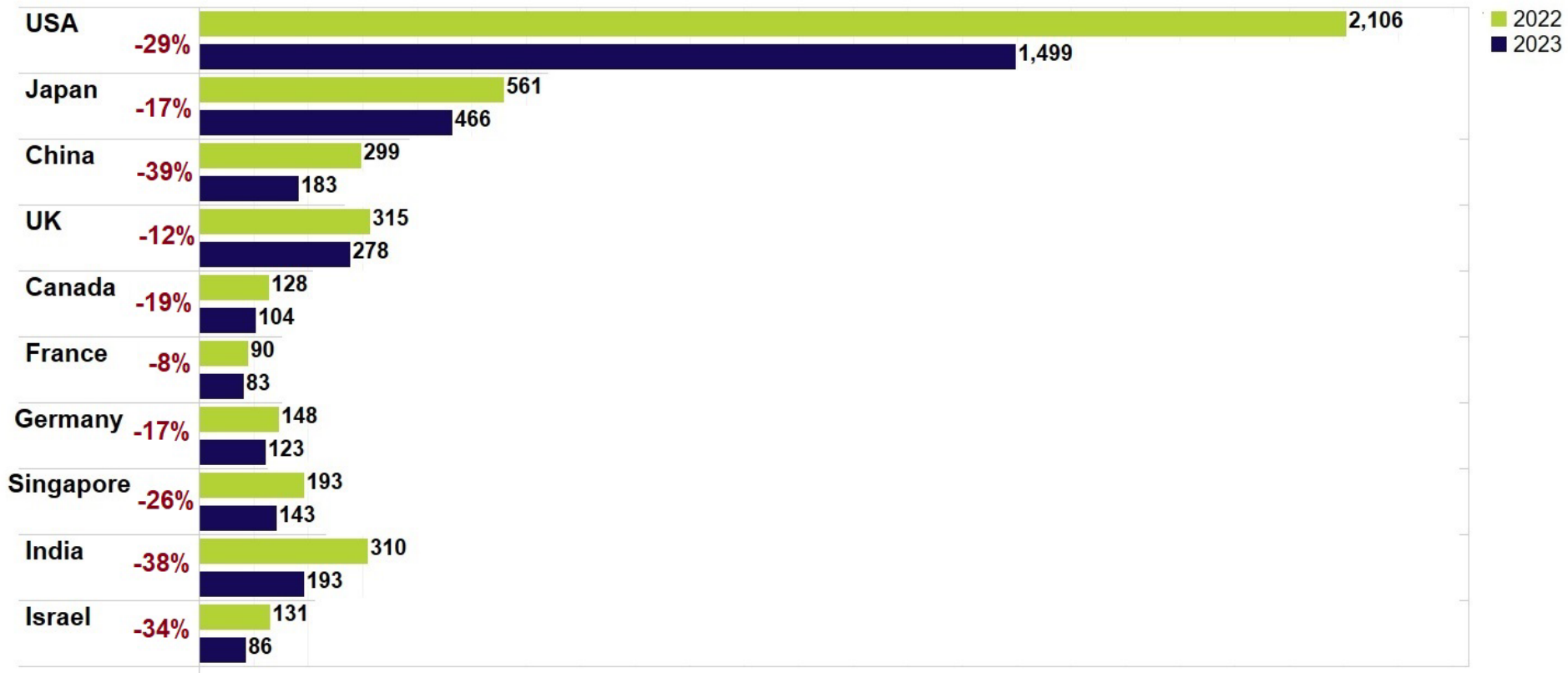
Source: GCV

* Active investor is defined as any investor having participated in at least one minority stake deal during the specific period.

Sources:
Global Corporate Venturing (GCV)

#32 - EU Corporate venture capital (CVC) trails

Corporate-backed rounds by major geography 2022 vs 2023

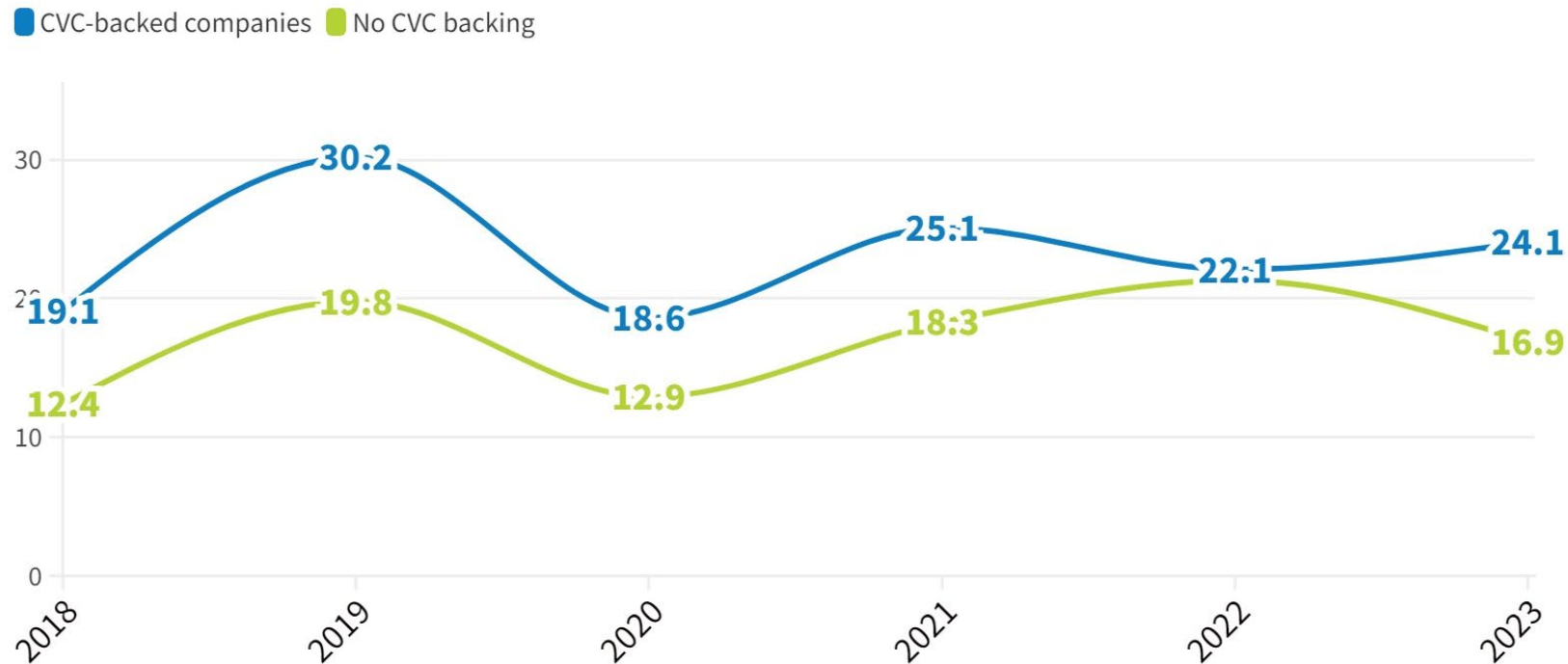


Source: GCV

Sources:
Global Corporate Venturing (GCV)

#33 - Corporate VC (CVC) supports returns

Exit size/EBITDA multiples (x) for exited companies 2018-23 (\$m)



Source: PitchBook

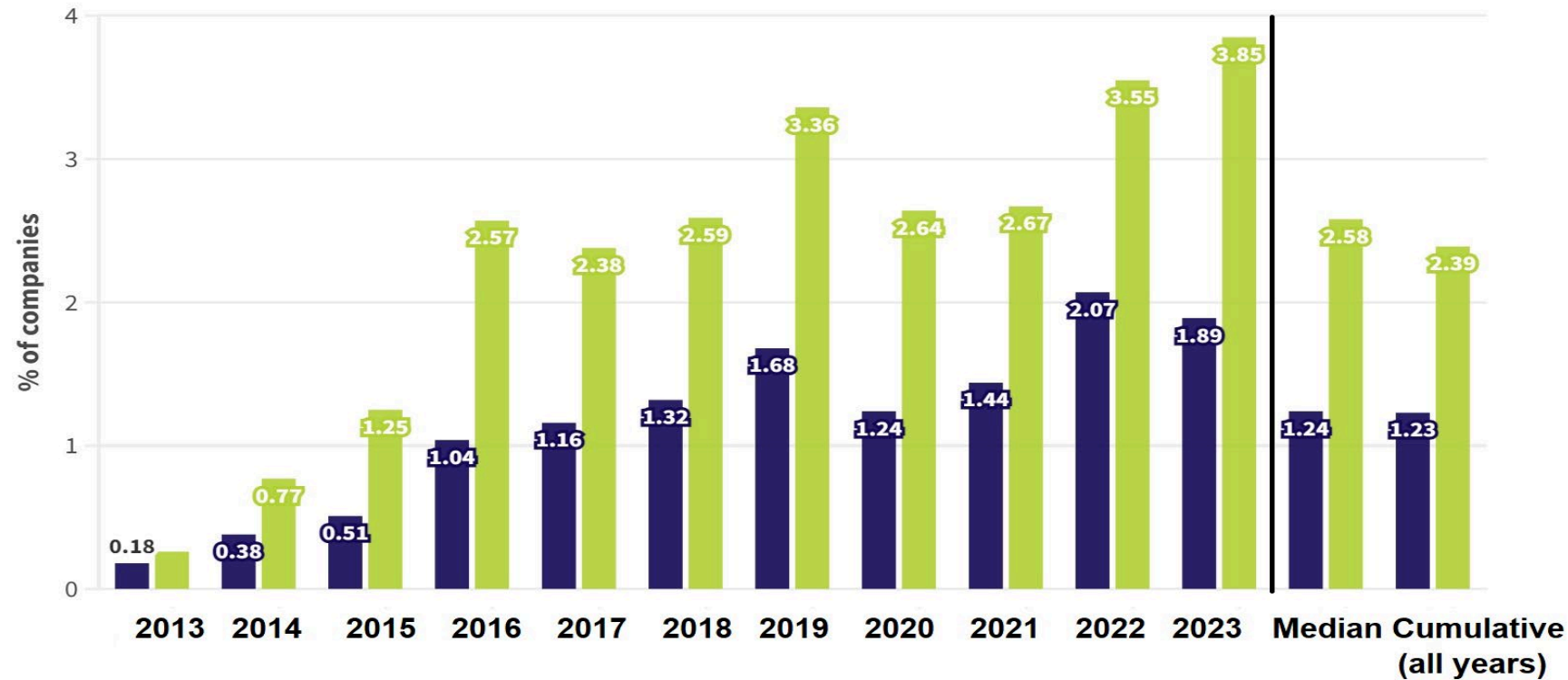
* Sample size: CVC-backed exited companies: 335 No CVC backing: 477

Sources:
Pitchbook
Global Corporate Venturing (GCV)

#34 - Investments with corporate backing are less risky

Companies gone bankrupt as % of companies raising deals in the specific year 2013-23

■ CVC-backed companies ■ No CVC backing



Source: PitchBook

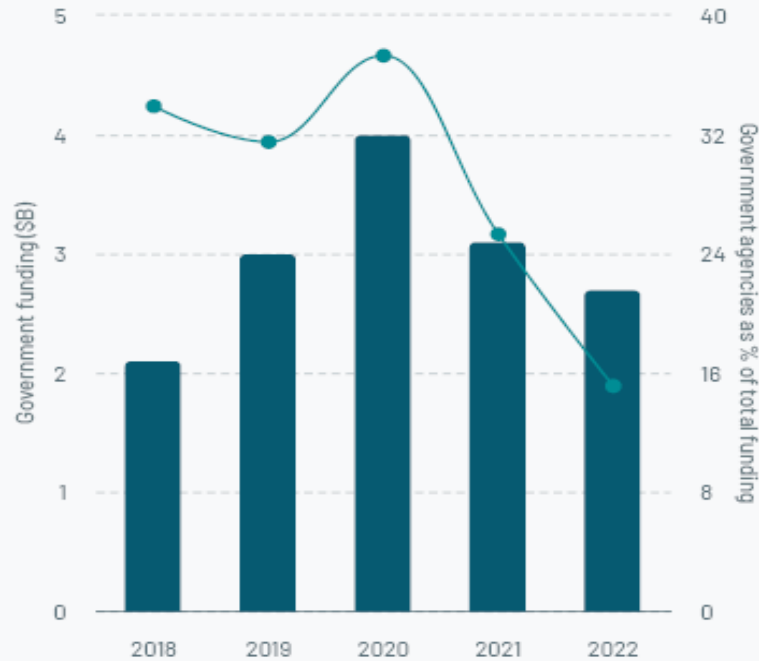
* Sample: Exited CVC-backed companies: 1519, No CVC backing 3176

Sources:
Pitchbook
Global Corporate Venturing (GCV)

#35 - Share of government funding drops

Government funding (\$B) and share of government funding (%) per year, 2018 to 2022

- Government funding (\$B)
- Government agencies as % of total funding



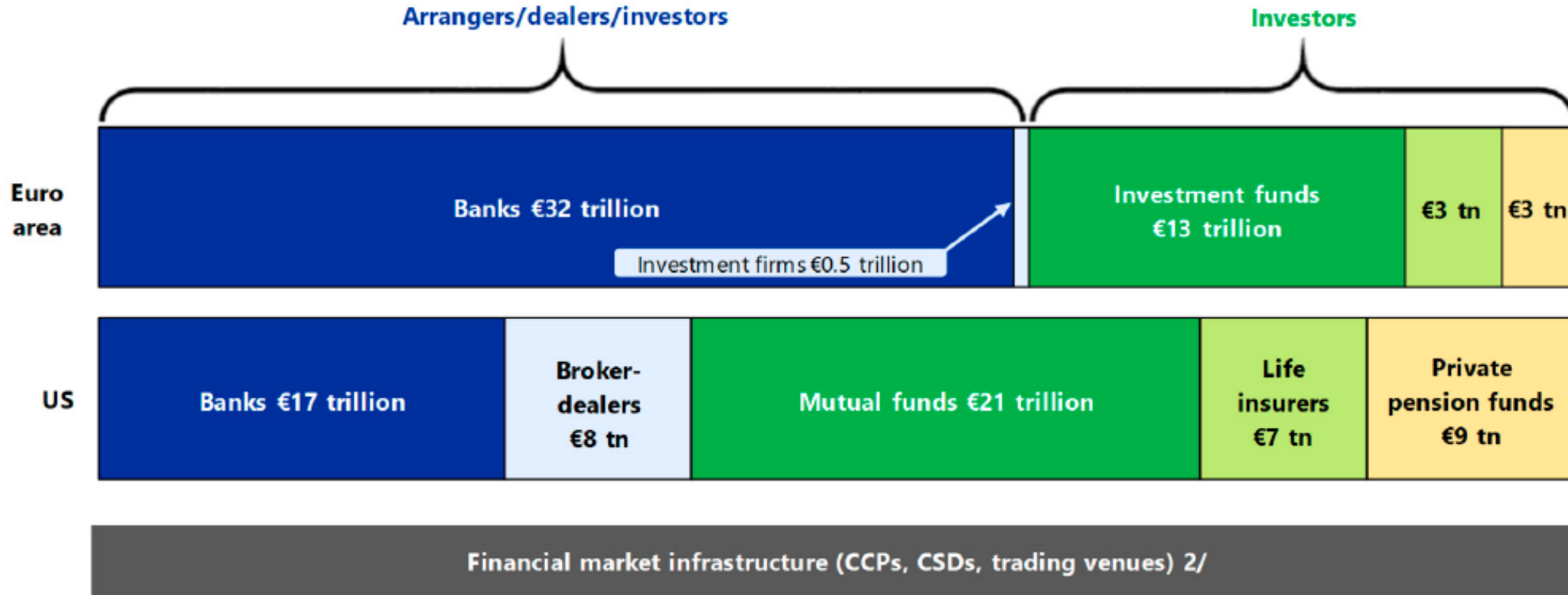
Notes:
Taken from the European Data Cooperative, developed by Invest Europe. EDC data converted at EUR:USD of 1:1.0917, the rate on 30 June 2023. The data shows incremental amounts in each year for venture funds, not only final closing.

Sources: **INVEST EUROPE**

Source:
Invest Europe
Courtesy:
Atomico – State of European Tech Report 2023

#36 - Structure of the financial markets: Euro Area vs. US

Total capital market assets in the euro area amount to two times GDP and two-thirds of banking sector assets



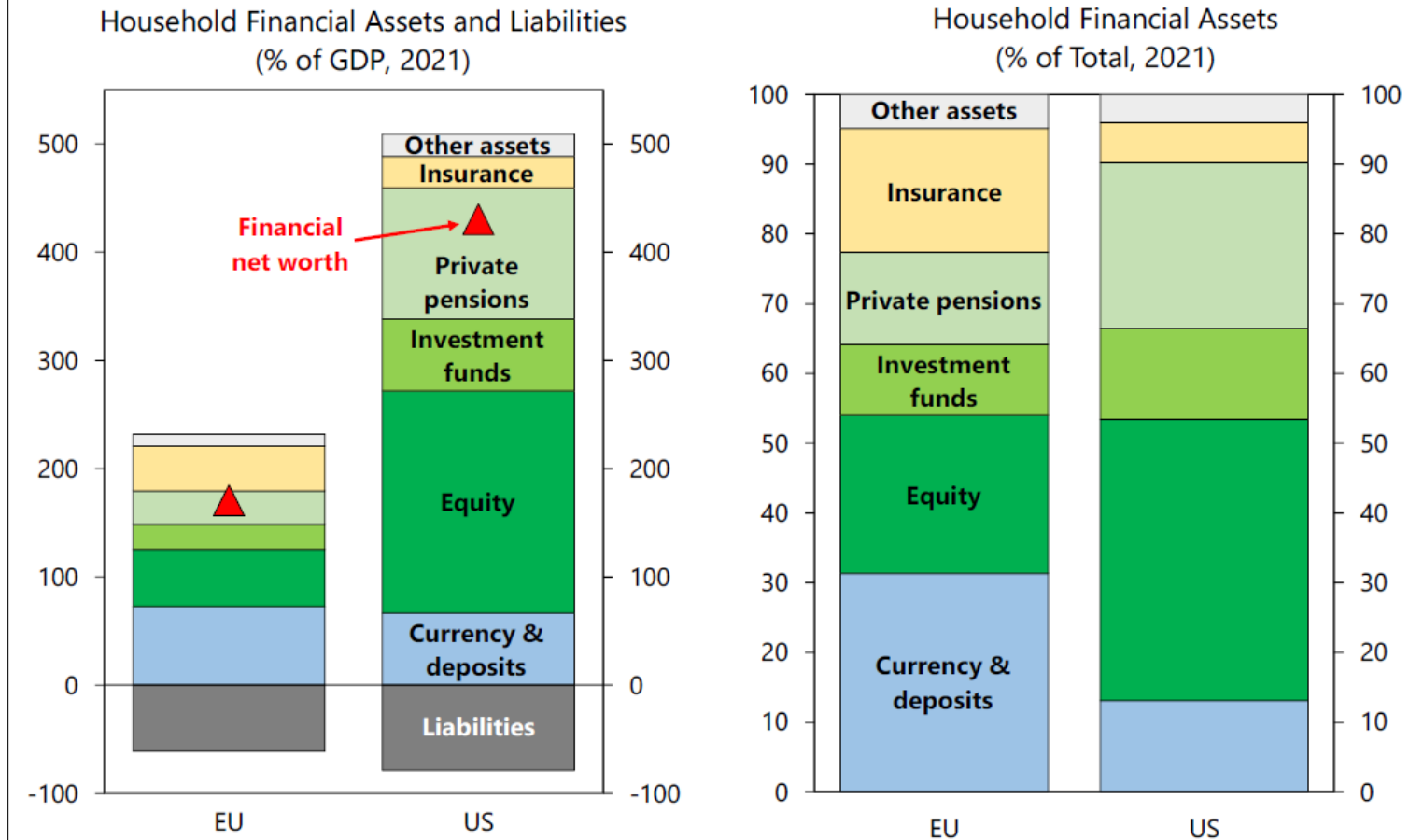
Sources: European Banking Authority (2015); ECB, flow of funds statistics; US Board of Governors of the Federal Reserve System, Flow of Funds Accounts of the United States; & IMF staff calculations.

1. Investment firm assets are as of end-2015, based on data from the European Banking Authority (categories 1-4, 8, and hedge funds and private equity funds. US broker-dealers include holding companies and funding corporations.
2. CCP = central counterparty; CSD = central securities depository.

Sources:
EBA, ECB, Federal Reserve and IMF Staff
Calculations

#37 - European savers should invest more in capital markets

Figure 2. Household Balance Sheets



Source: OECD and IMF staff calculations.

European capital markets are relatively small, resulting in a greater dependence on banks.

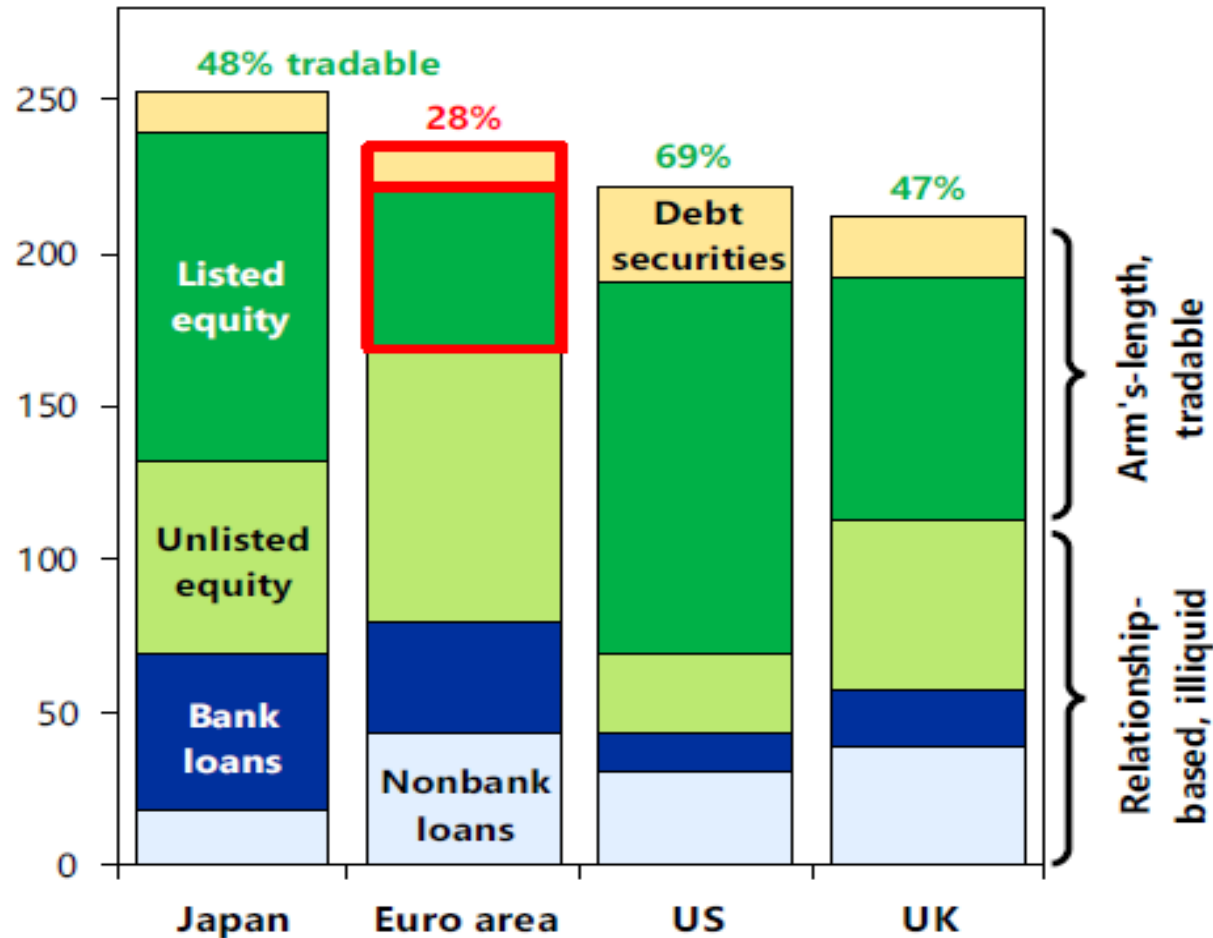
Banks account for a much larger part of the financial system in Europe than in the US (Figure 1). A less generous public pension system in the US compared to Europe results in US households saving more in financial assets-including in equities, investment funds, and private pension schemes – more of their savings to bank deposits (over 30%) than the US (just over 10%), limiting the availability of market funding further (Figure 2, right).

Sources:
OECD and IMF

#38 - EU companies use less market-based finance

(Percent of GDP)

Euro area firms rely less on market-based finance



Sources: Haver Analytics; and IMF staff calculations.

Sources:
Haver Analytics and
IMF staff calculations

Recommendations

11. Governments should at least maintain current research funding levels and engage more effectively with [deep] tech scale-ups to raise R&D investment levels by the private sector.
12. European governments and sovereign funds should pool capital from across Europe, maintain investment levels in venture capital, increase investment in growth equity and channel more investment through independent fund managers to harness private sector capacity and capability.
13. European pension funds, insurance companies and asset managers should significantly increase the amount of capital committed to venture capital and growth equity to improve their financial returns.
14. The banking and financial services sector should support the revitalization of the Capital Markets Union, a key missing component of the European Single Market, by promoting cross-border capital flows, investment in sectors and companies with high growth potential and developing a “Savings and Investment Union”.
15. European corporations should invest more proactively in externally-generated innovation and further develop their corporate venturing activities to better compete against their US and Asian counterparts.



Scale investments in our future

Thank You

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