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Accelerating Europe

Part 1 of 3

The State of European
Innovation and Why It Matters

February 2025



The opportunity in Europe right now is unprecedented

If we take bold, positive action in the next decade we will realize trillions of dollars of additional value and millions more jobs in European tech. We know what our strengths are and where we need to change to unlock the region's full potential.

Europe needs to seize the moment, set the terms and build a world where technology drives prosperity, trust fuels growth, and ambition shapes the future.

I'm optimistic because there are a few essential ingredients any ecosystem needs to thrive - experienced talent, capital and mindset.

Europe has always had exceptional talent and our early-stage flywheel is spinning. The region is home to 35,000 early-stage startups, more than any other globally.

New founders are building with more experience and ambition than ever, supported by a strong pipeline of early-stage capital.

The success of this ecosystem-building means Europe's scaleup potential has never been greater. But to take this even further, Europe must address a \$375bn growth capital funding gap which until now has left European startups half as likely to raise growth rounds as their US counterparts. Increased investment from European pension funds and major insurers, together with the next generation of growth investors, could help to address this gap and yield significant, long-term value for the European economy.

Capital alone won't deliver long-term returns, though. It needs to be accompanied by a positive, long-term mindset and high tolerance for risk. We once wondered when the first billion dollar companies would emerge: now we have 350 of them. Then it was \$10bn, then \$100bn and we've seen Arm, ASML and Spotify break those ceilings. Europe's founders will always rise to meet the next level of ambition, no matter the scepticism or the challenges ahead of them. We need to create the right conditions to allow them to flourish.



Tom Wehmeier
Partner & Head of Intelligence

atomico^o

This report is the first part of a trilogy

Accelerating Europe

About the state of European growth and the relationship with innovation, competitiveness, entrepreneurship and venture capital: challenges and opportunities



EU Framework Programmes

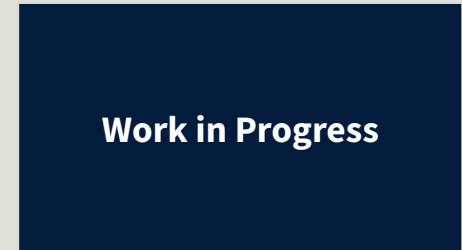
A data-driven deep dive into the EU's Framework Programmes and their impact on startups, innovation and value creation



Coming 3 March 2025

Tech transfers

A deep-dive into the university spinout ecosystem in Europe



Coming late 2025



Dealflow.eu is the premier platform connecting EU startups with investors, corporates, and ecosystem enablers. Backed by the European Commission, it combines deep expertise in venture capital with a mission to empower EU innovations. With more than 600 investors and 200 corporates in their network, Dealflow.eu has been facilitating more than 1,000 introductions and has supported Europe's most promising deep tech startups.

Dealflow.eu has also launched Ventures.eu, a fund dedicated to investing in the best EU-backed founders.



Dealroom.co is a global intelligence platform for discovering and tracking the most promising companies, technologies and ecosystems. Clients include many of the world's foremost organizations such as Accel, Index Ventures, McKinsey, BCG, Deloitte, Google, AWS, Microsoft, Stripe.

Dealroom partners closely with local tech ecosystem development agencies and enablers, to create a comprehensive multi-dimensional blueprint of the tech ecosystem, including capital, talent, innovation, entrepreneurship and overall economic dynamism.

1 Macro picture for Europe

2 Big Tech and Power Laws

3 Rise of European venture & innovation

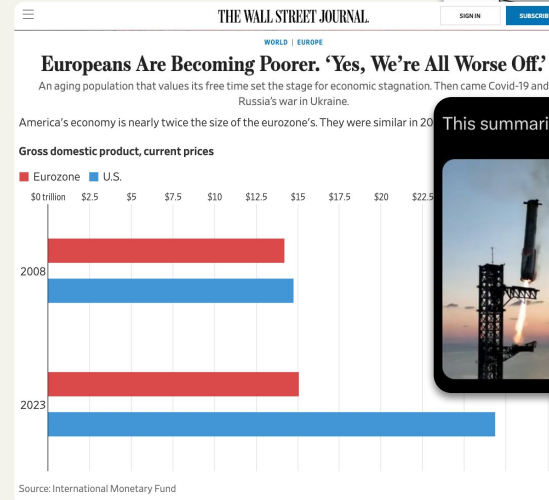
4 Unlocking growth & investment

Additional info

“America's economy is nearly twice the size of the eurozone's. They were similar in 2008.”

Or so wrote the Wall Street Journal last summer, echoing a broader sentiment – and a discussion that’s been going on for a few years now: is Europe sliding into a middle-tier economy?

Charts like the one on the right were shared widely, along with memes about bottle caps, USB plugs, delayed AI releases in Europe, and complaints about rude waiters. Euro *Doomerism* increasingly filled many folk’s social media timelines in 2024.



And yet, economists keep pointing out that this pessimism is way overblown.

Exchange rate impact, purchasing power, inflation, demographics, unsustainable fiscal policies and the US shale boom are distorting the picture.

“Instead of worrying about the US, Europe should focus on itself and avoid repeating past mistakes.”

Aslak Berg, Research fellow at [CER](#)

This quote seems like sage advice. Europe does face real challenges. In September 2024, the Draghi report came out, which did a good job giving a realistic assessment of the situation Europe is facing and proposing several short term and medium term reforms.



WHY EUROPE SHOULD NOT WORRY ABOUT US OUT-PERFORMANCE

Insight

Aslak Berg  

13 December 2023

 Download PDF

The US has had stronger growth but its out-performance is easy to ignore. Instead of worrying about the US, Europe should focus on itself and avoid repeating past mistakes.

The consensus on Europe's economic situation is often pessimistic, with the continent lagging the US. However, [media coverage often suffers from a lack of nuance](#) about how to compare the two economies.

bruegel

Improving economic policy



Home / Publications / Analysis

Analysis

The European Union's remarkable growth performance relative to the United States

The EU has outperformed the US on per-capita output growth; in terms of output per hour worked, some EU countries are as productive as the US

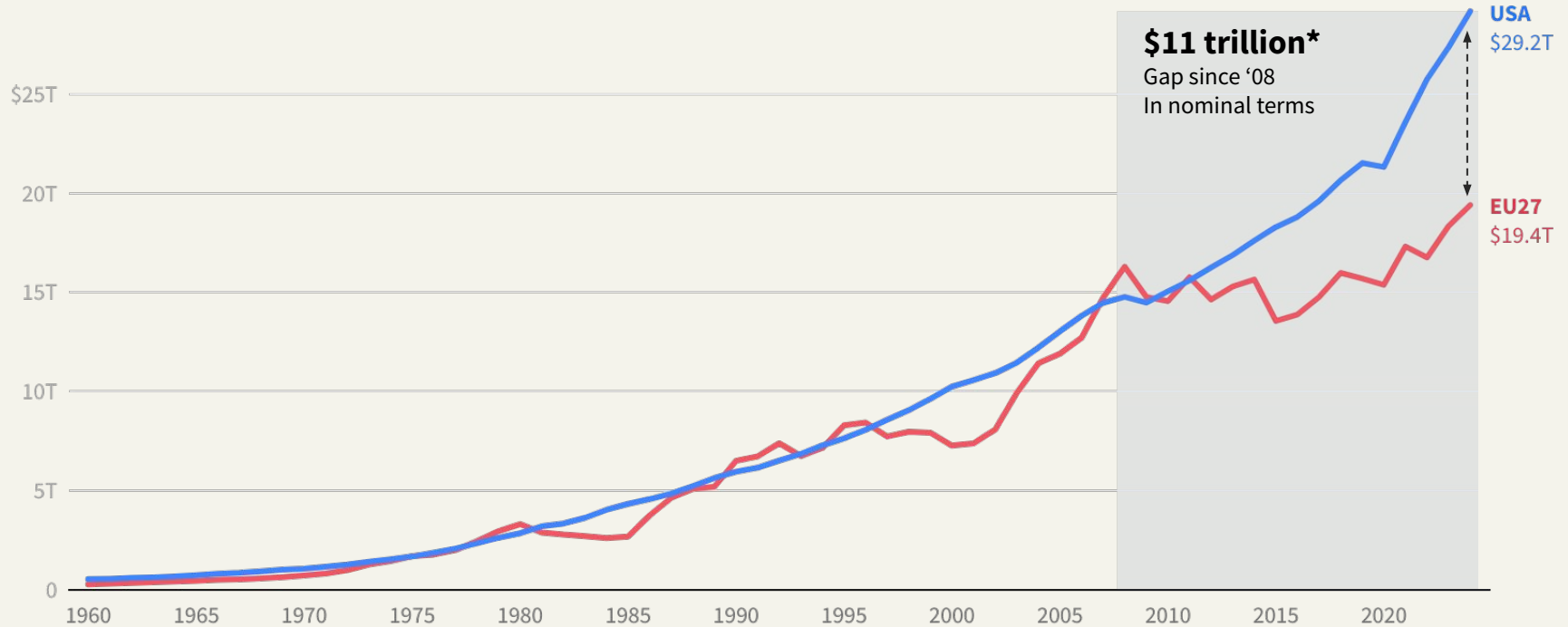
Publishing date 26 October 2023

Authors Zsolt Darvas

SHARE

Since 2008, a \$11 trillion* nominal GDP gap emerged; that deserves some unpacking

Gross domestic product, current prices (US\$), nominal



Currency exchange rate changes are most of the story. Since the 2008 Global Financial Crisis, the Euro weakened 34% relative to the Dollar

While this does impact consumer prices it didn't make Europeans suddenly 34% poorer—just as they didn't automatically become 36% richer between 1999 and 2008. Economic statistics account for these fluctuations using measures like Purchasing Power Parity, which can provide valuable context.

Exchange rate volatility also has a significant impact on year-over-year growth comparisons, which is why growth rates are often calculated using constant exchange rates.

Lastly, growth figures are typically adjusted for inflation. These adjustments are not arbitrary or misleading—they're essential for meaningful analysis.

USD to EUR Exchange Rate

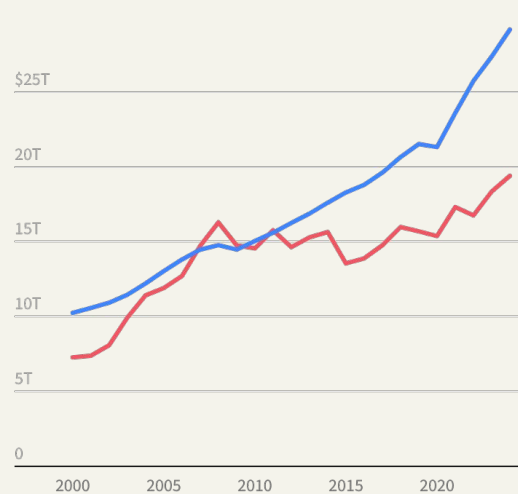


Comparing EU27 and US economies: nominal, FX-adjusted, and PPP perspectives

■ USA ■ EU27

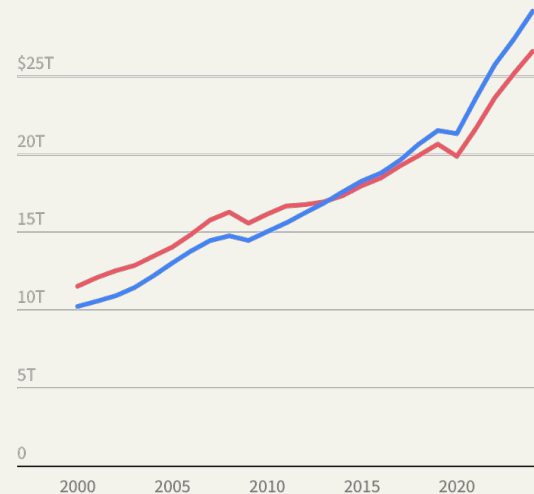
Nominal GDP, current prices (US\$)

Red line is converted to US\$ with a fluctuating exchange rate. Useful for comparing position on the global stage



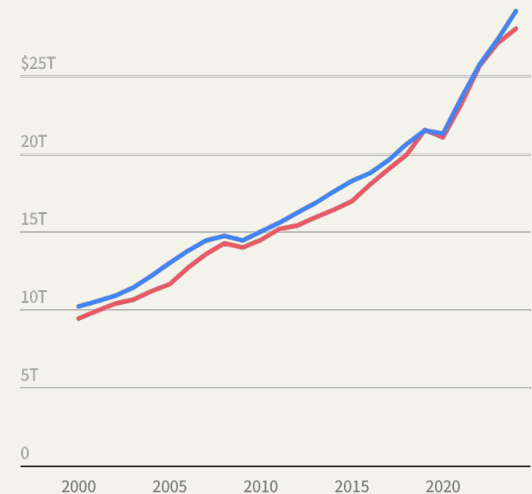
Nominal GDP, constant '08 FX rate (US\$)

Using a fixed exchange rate eliminates distortions caused by currency fluctuations but does not account for price level differences between countries



PPP adjusted GDP (US\$)

PPP accounts for cost-of-living differences and is useful for comparing living standards and real purchasing power across countries. Healthcare is a big item, for instance*



Source: Dealroom.co analysis based on World Bank, IMF, FRED and Eurostat.

Note: *PPP accounts for differences in price levels across countries by using a common basket of goods.

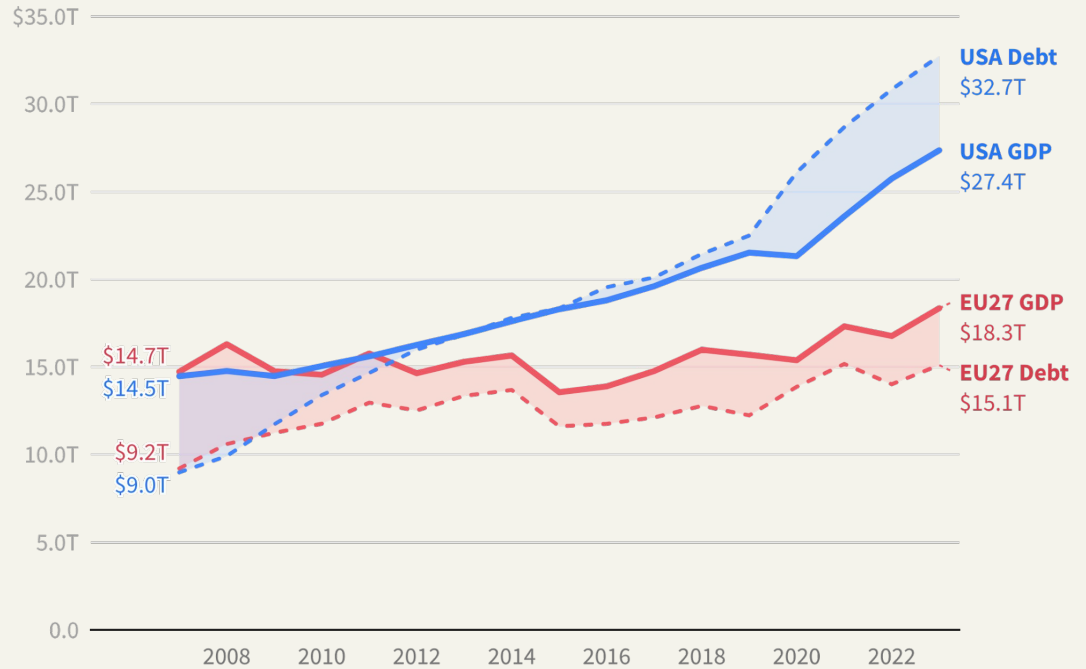
The basket of goods typically includes food, beverages, housing, utilities, transportation, healthcare, education, clothing, recreation, and miscellaneous household and personal items.

The US government added \$24 trillion in total debt since the GFC, while its GDP grew \$14 trillion/year during that time

Meanwhile, Europe has focused on financial stability.

It should be noted that GDP is an annual figure while debt represents a stock.

Nominal GDP and Government Debt, current rates, 2000 - 2023

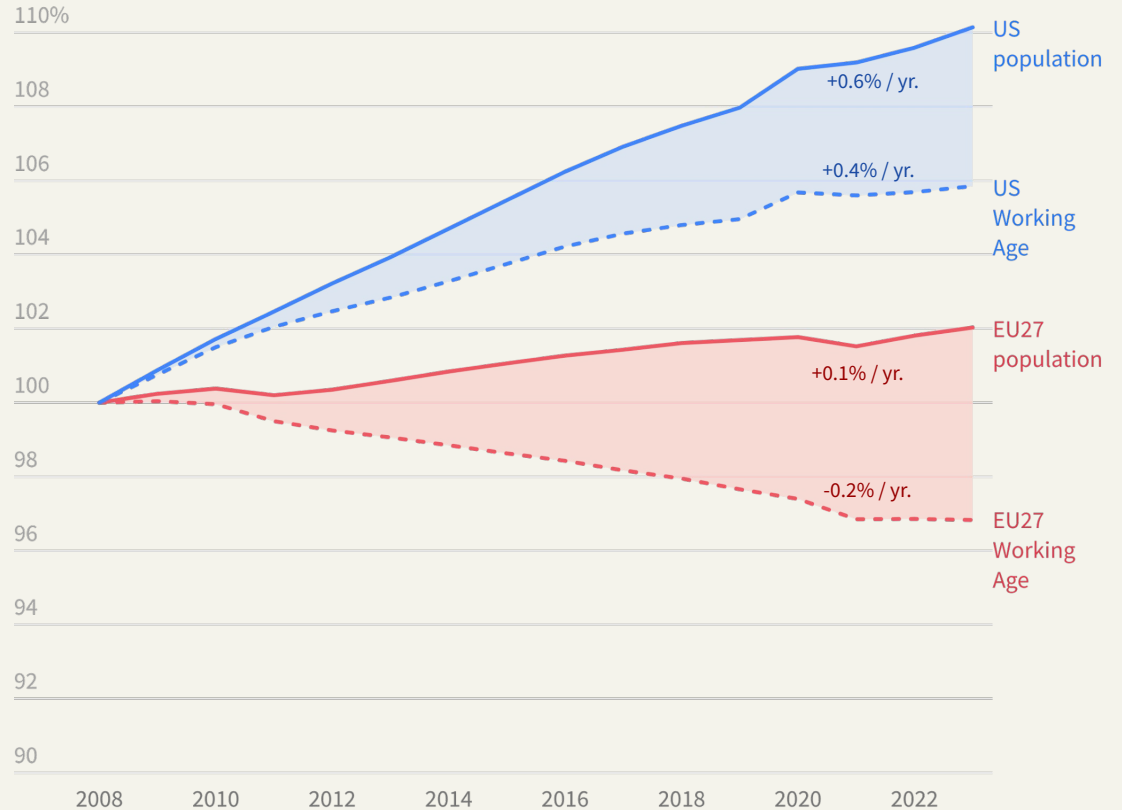


Europe's declining working age population is a drag on GDP growth and accounts for a 0.6% GDP growth gap

As per Draghi report: "The EU working age population has started declining over the past decade, mainly owing to declining birth rates. Positive net inward migration does not compensate for the EU's population decline. This decline stands in contrast to the US, whose population is expected to continue to grow during the next decades, albeit at a slowing pace."

Changes in retirement age and/or migration policy are ways to deal with this – both not the most popular. Persistence of these trends remains to be seen in light of changing immigration policy, especially in the US.

2008 - 2023 population trend (2008 = 100)



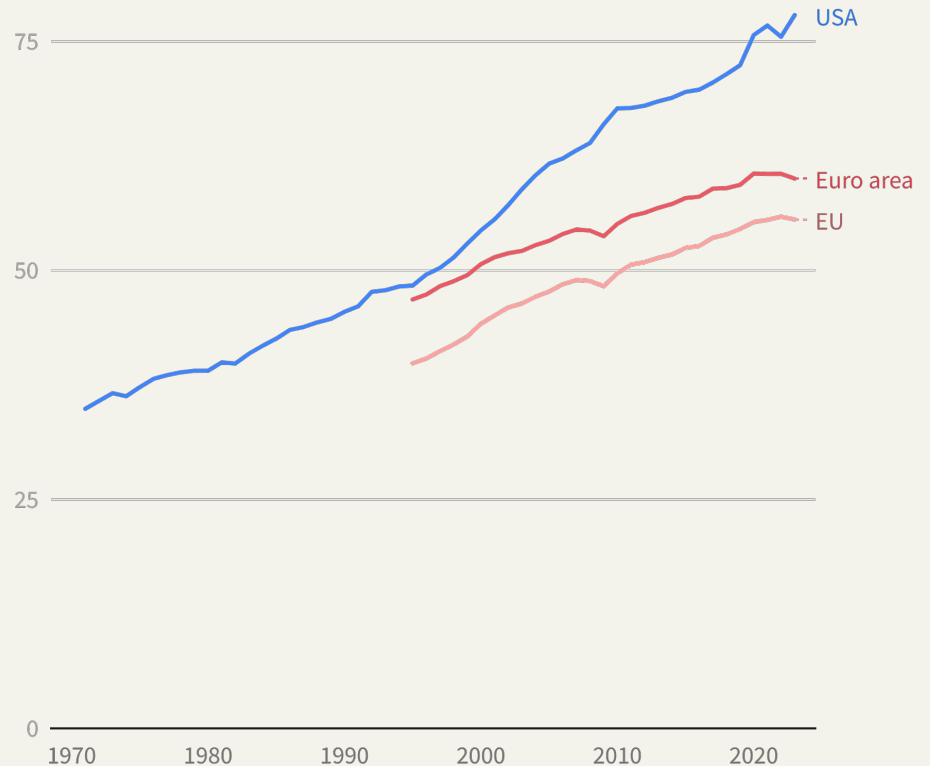
When you strip away all mentioned effects, you get to productivity: GDP per hour worked. And there's still a problem

Starting in 1995, the US experienced digital revolution resulting in a rise in productivity not seen in Europe. Then in 2009-2010 the US broke away again, in the aftermath of the GFC. Now the USA is diverging away again, while Europe is stagnating.

Given the timing of these break-out moments, it seems very plausible that the divergence was caused by both Europe's weaker tech sector and lower investment during times of crisis (GFC and Covid)

It is notoriously hard to really know why it's happening.

Productivity measured as GDP per hours worked, US dollars per hour, PPP converted, Constant prices, 2015 (from 1971 to 2023)



There have been marked slowdowns in productivity in Europe's most advanced countries.

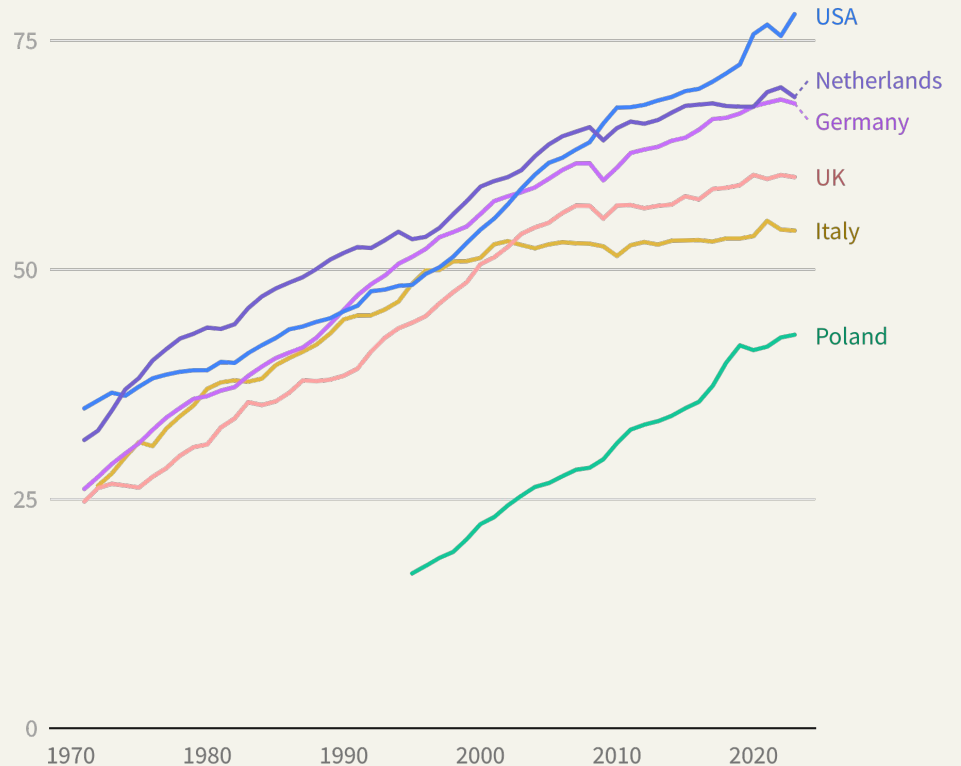
Europe's productivity puzzle becomes even harder to solve when looking on a country level, with multiple trends at play.

Netherlands used to be ahead of the US, but has fallen far behind since 2008. Most Eurozone countries doing poorly. The UK and Italy have dramatically stagnated.

Depending on political leanings, people will blame:

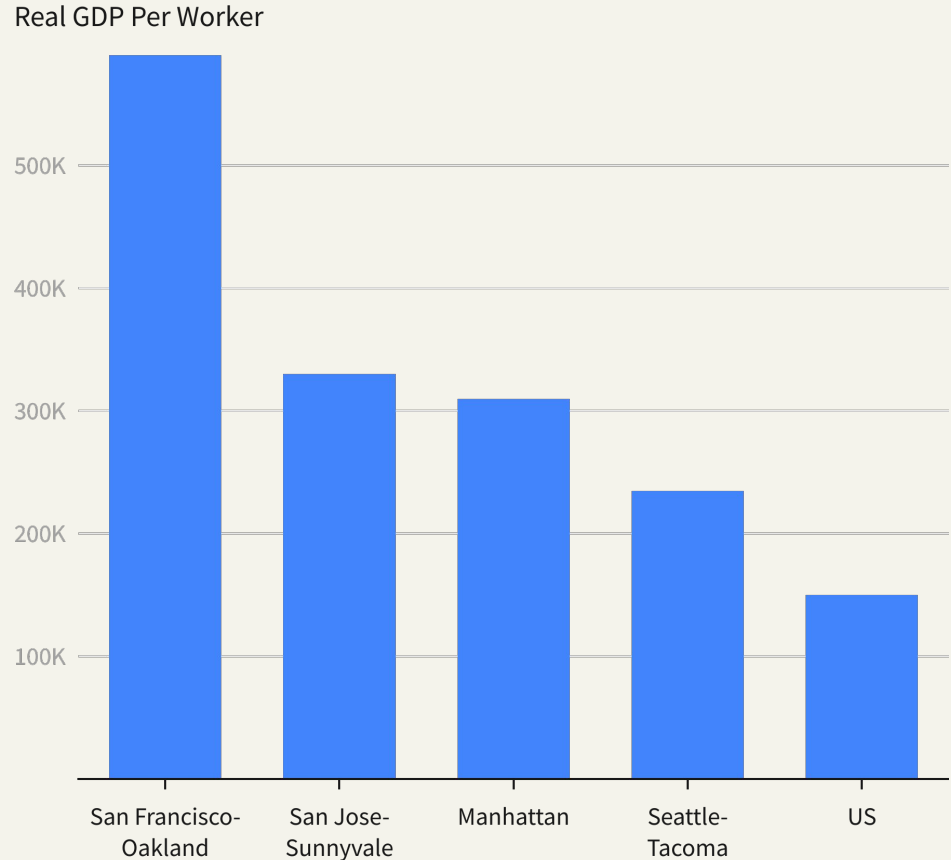
- Austerity
- Net-zero initiatives
- Excessive regulation
- Lack of technological adoption
- Culture

Productivity measured as GDP per hours worked, US dollars per hour, PPP converted, Constant prices, 2015 (from 1971 to 2023)



In San Francisco-Oakland, real GDP per worker is approaching \$600K

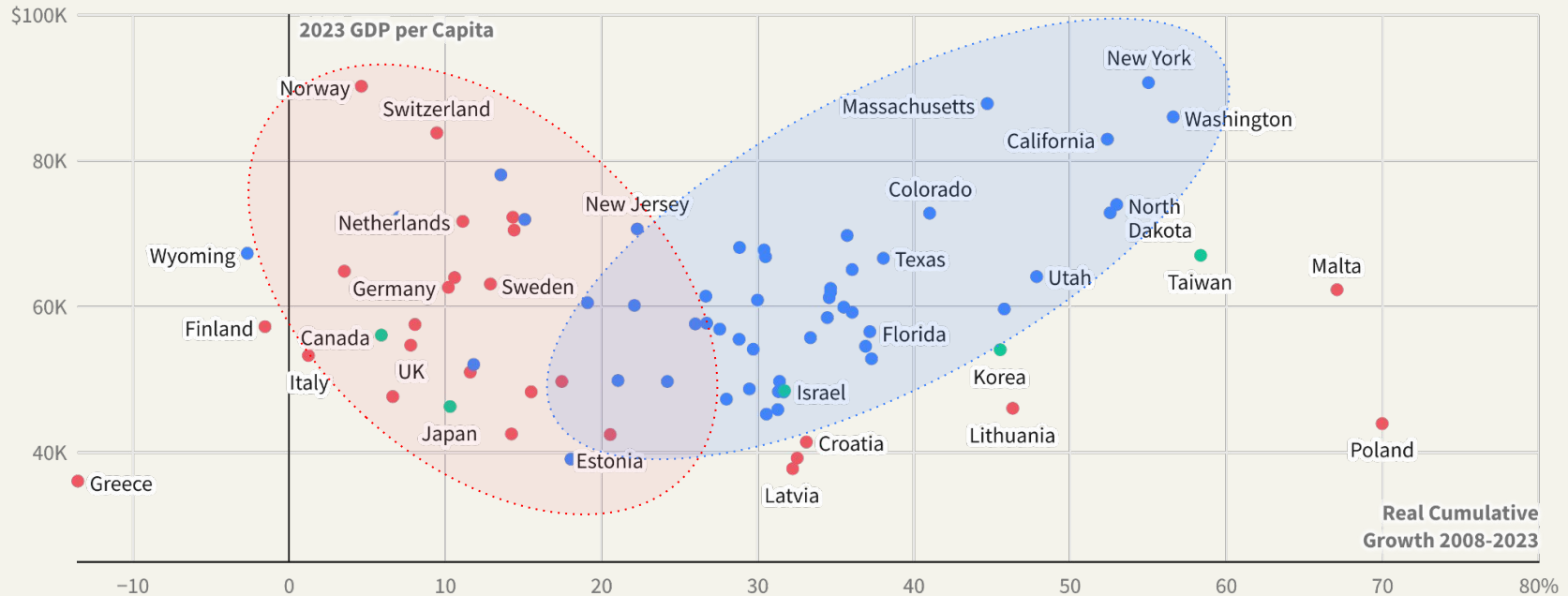
This data confirms that Silicon Valley's technology sector is a major driver of productivity gains. This is likely impacting the economy in two ways: the production of technology and the adoption of technology.



US tech hubs and shale oil & gas areas lead the way. But US across the board is pulling away from Europe

US states vs. Europe and other advanced economies. In US\$, PPP, Constant prices, 2017

● USA ● Europe ● Other advanced economies



Shale boom gave the US economy a \$0.5 trillion boost, plus a strategic advantage. Meanwhile, the EU27 remains highly energy dependent

“In 2010, the US had a **trade deficit in energy worth \$360 billion, which by 2022 had turned into a surplus of \$65 billion.**

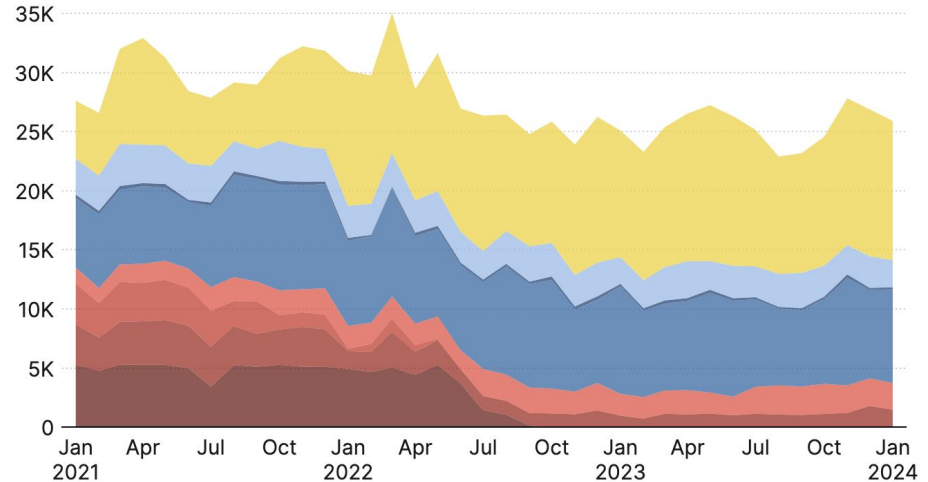
Using a back-of-the-envelope calculation, that change in the trade balance alone boosted US GDP by 1.8 per cent, even before accounting for the effects of increased employment and investment in the oil sector, and lower US electricity prices due to abundant natural gas.... But the rapid growth in shale oil and gas production is largely over. “

Aslak Berg, [CER](#)

Natural gas imports to the EU27

Million cubic meters per month

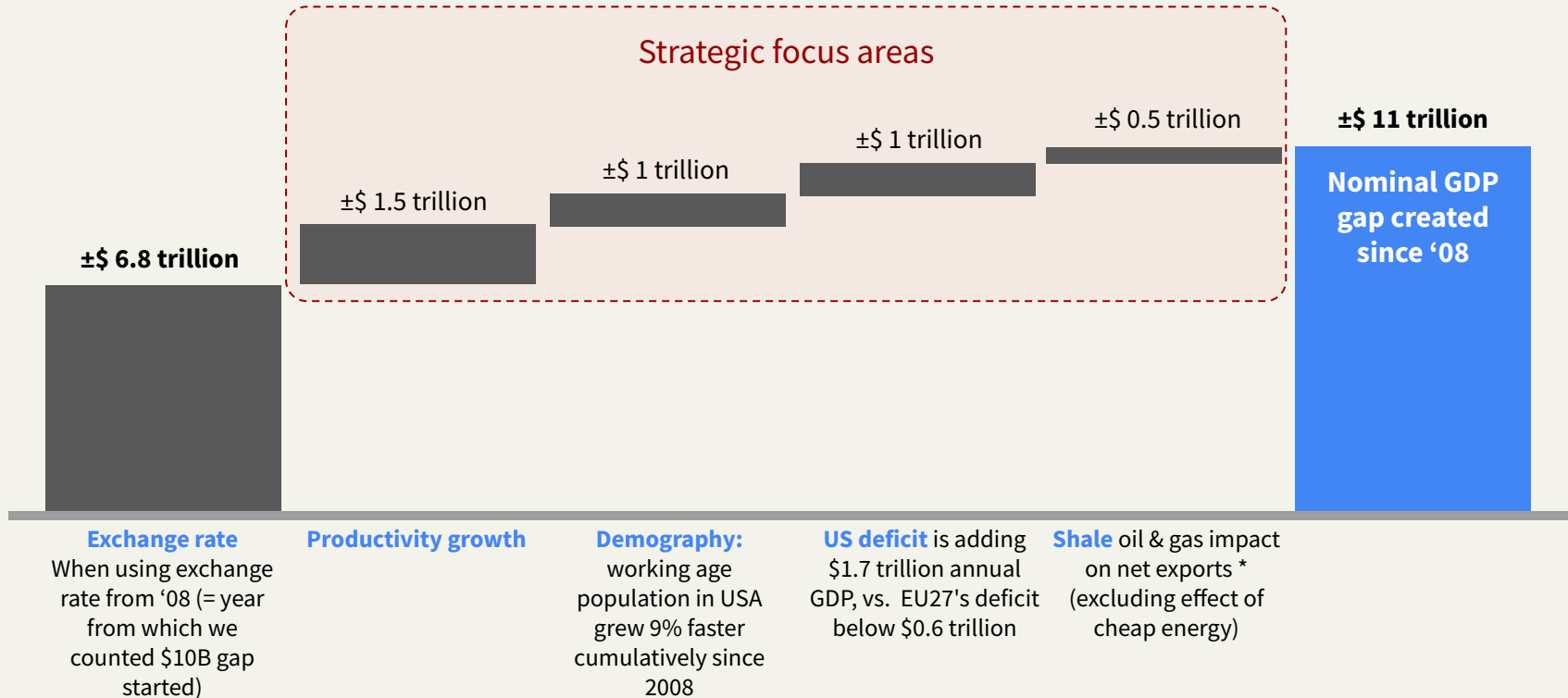
Legend: Nordstream (dark red), Ukraine transit (red), Yamal (orange), Turkey transit (light red), Norway pipelines (blue), Libya pipelines (dark blue), Algeria pipelines (light blue), LNG (yellow)



Source: ENTSOG

BROOKINGS

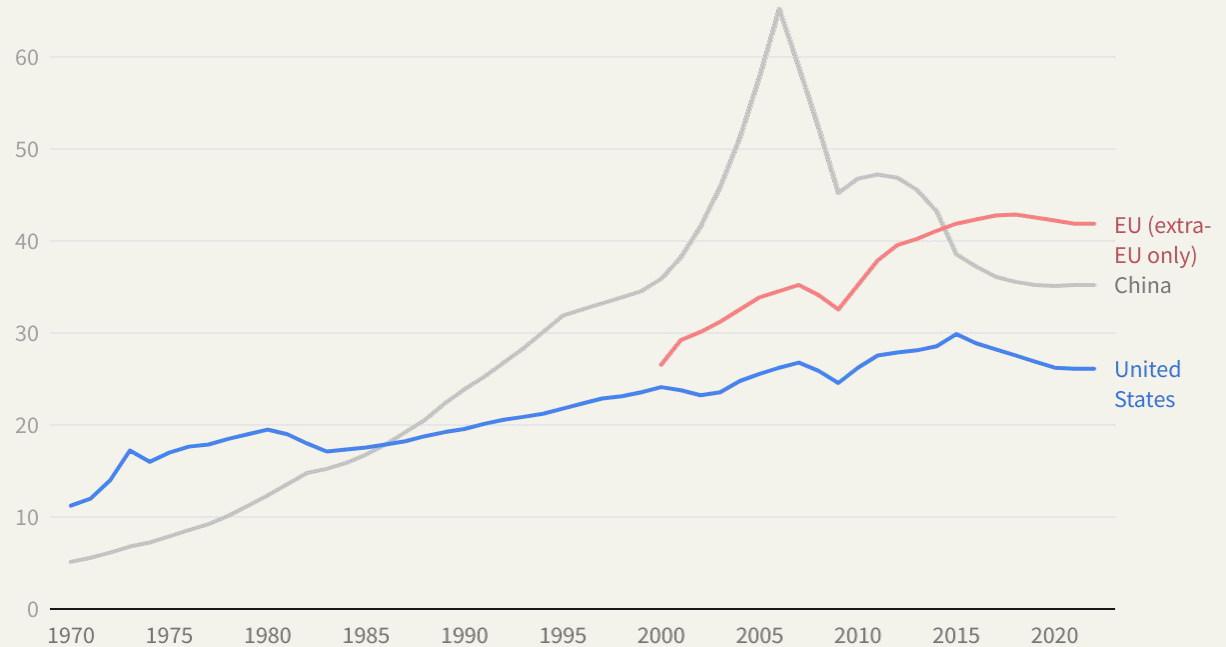
In summary, out of the \$11 trillion GDP gap, only 14% is about productivity, but the other 86% also deserves attention.



Looking ahead, there are storm clouds on the horizon in the form of de-globalisation

Europe's openness was an asset in a globalising world. But now it has become a vulnerability.

Trade Openness, Goods and Services (Sum of exports and imports as a percent of GDP)



Source: Eurostat, OECD, and IMF staff calculations.

“

I believe Europe has a real opportunity in front of it right now. The geopolitical climate is paving the way for us to excel in some very key areas - and we need to take advantage of this. We need to stop adopting American opinions and ideas about everything we do. We do not need to replicate everything, we are not America.”



Roxanne Varza
Director

STATION F

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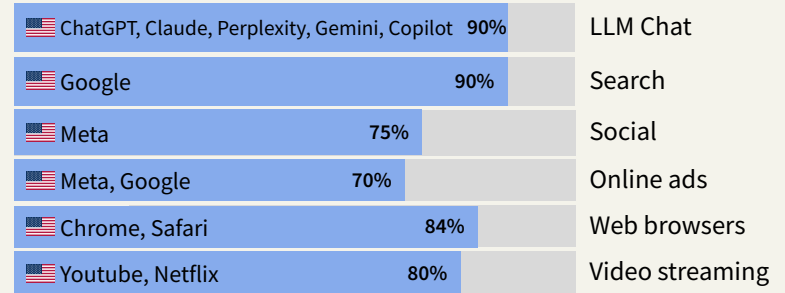
Additional info

US tech companies dominate key segments, although there are some notable exceptions

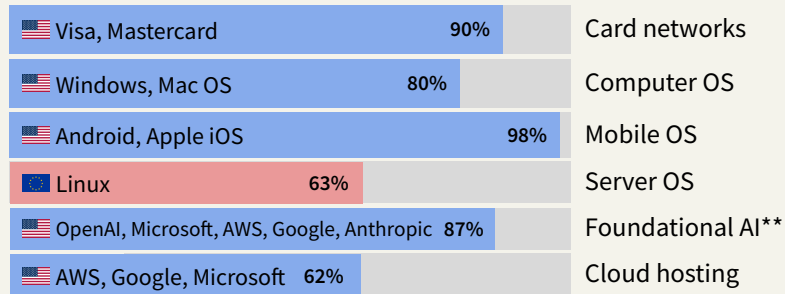
US tech companies have been dominating the field in several key waves, and been first and/or last mover.

Market share in **selected** key layers of technology*

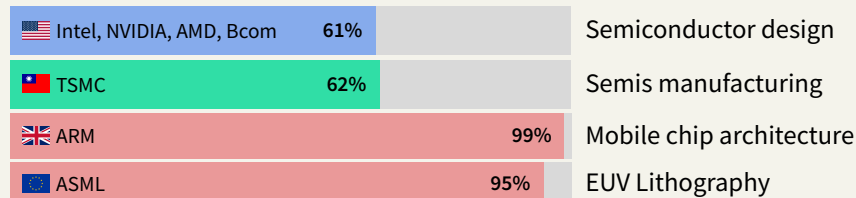
Application layer



Foundational layer



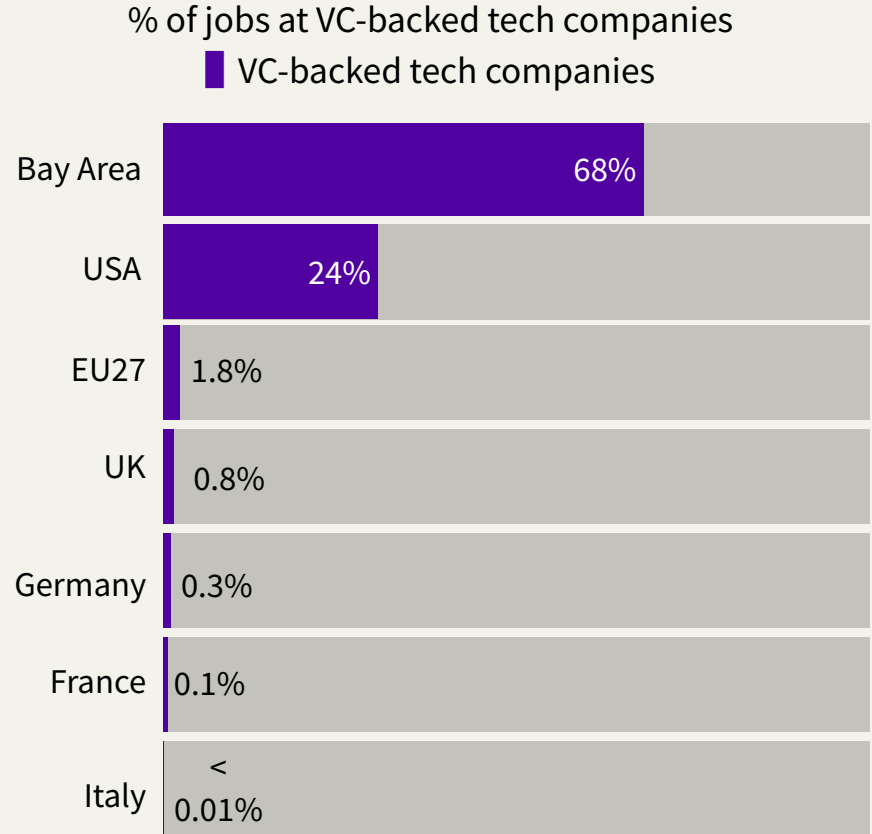
Compute layer



The US economy is way more tilted towards (VC-backed) entrepreneurship

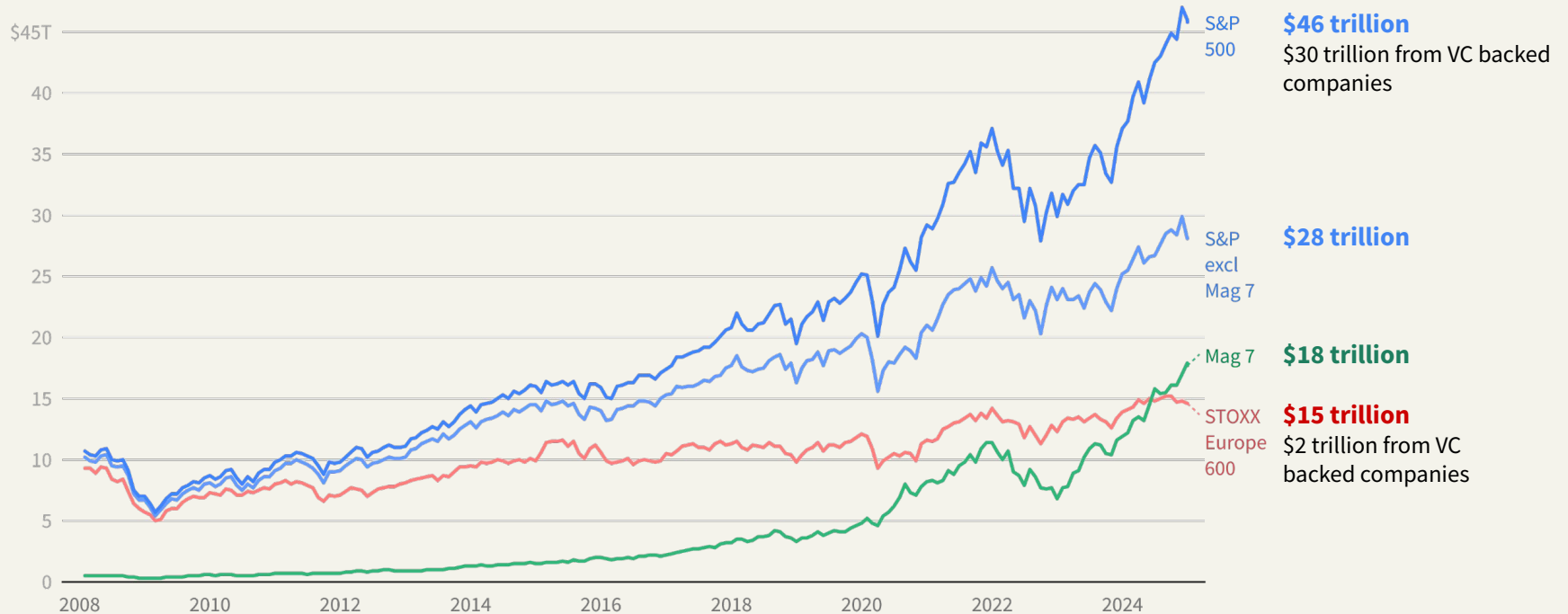
VC-backed companies are a major job creation engine. A quarter of all jobs in the US are at venture-backed tech companies. A lot of these jobs are well-paid high productivity jobs.

The EU-27 by comparison VC-backed companies account for under 2% of all jobs, but that percentage is increasing.



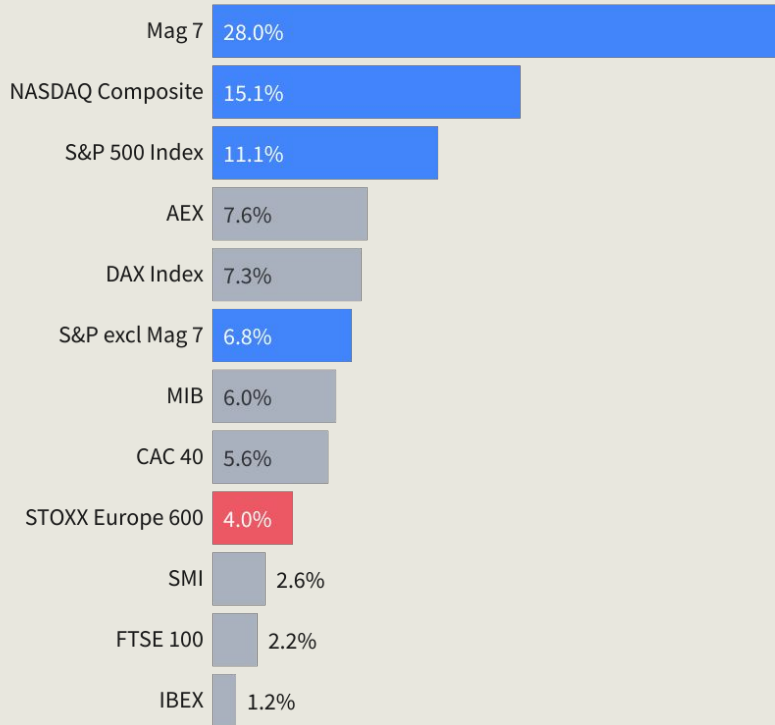
S&P 500 is worth \$46 trillion, of which \$30 trillion from VC-backed companies. The Stoxx Europe is worth \$15 trillion, of which \$2 trillion from VC-backed companies

Combined market cap in \$ trillions



US stock market performs better ...

Compound annual return 2014-2024



... but why is that the case?

- US is more tilted towards high-tech, which is higher risk and higher reward (beta)
- Overall US economy being geared for higher risk/higher reward (beta)
- Also, more aggressive monetary and fiscal policy in US
- Persistence of unrewarded and idiosyncratic risks in Europe (liquidity, regulatory headwinds)
- Markets underestimation of Power Law?



On the importance of having a strong tech sector:

"We think **tech is a top-tier policy** because it goes right to the heart of whether America is a strong country. If you look at what happened in the 20th century—a great century for America—the United States won on three fronts that fed into each other. **One, we were the technology leader. Two, we became the leading economic superpower. Three, we had the strongest military.**

They're all interconnected because if you're the top tech power, you're likely to be the top economy, and if you're the top economy, you can afford the best military.

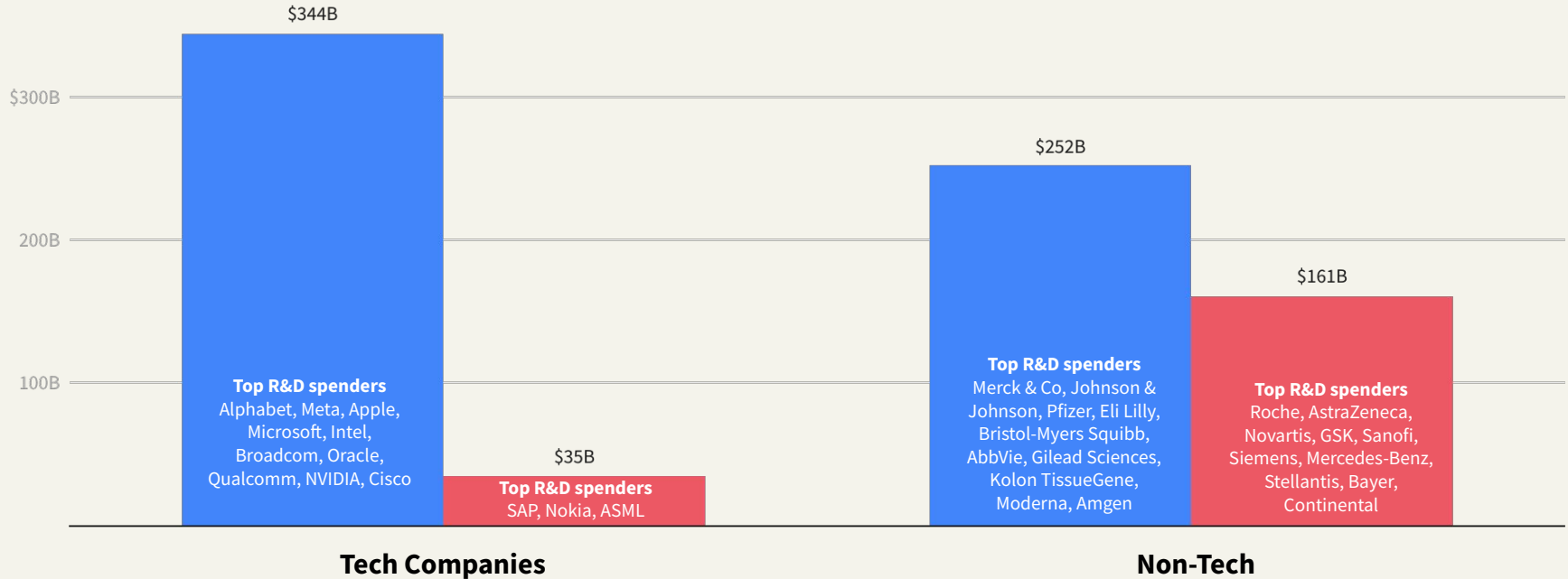
Especially for modern national security—since it's rooted in technology—you need to be the leader in tech if you want to protect your country and preserve your way of life."

Marc Andreessen in [post-election podcast](#)

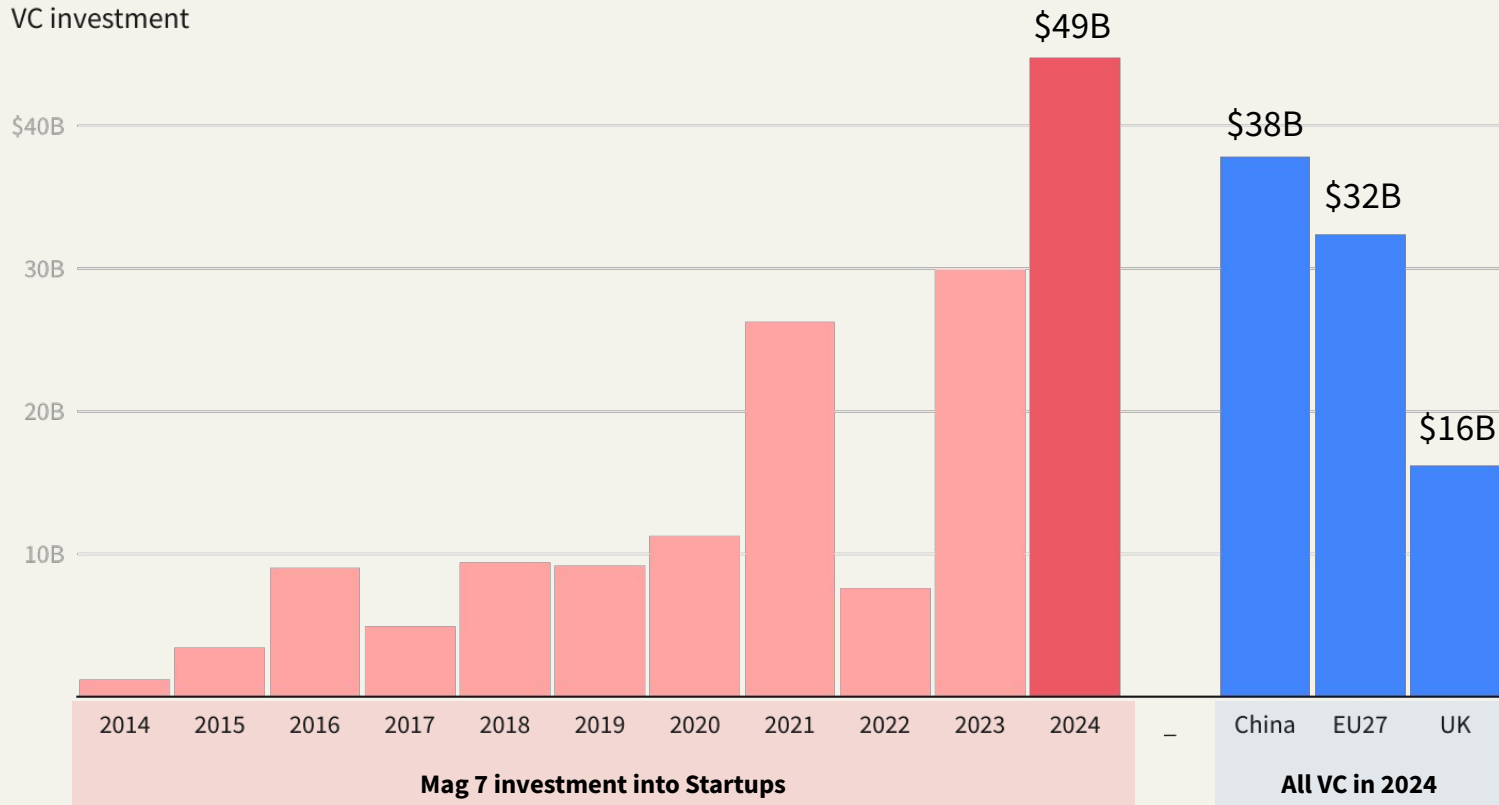
Global corporate R&D is now dominated by a few big US high-tech companies.

R&D expenditure in 2024

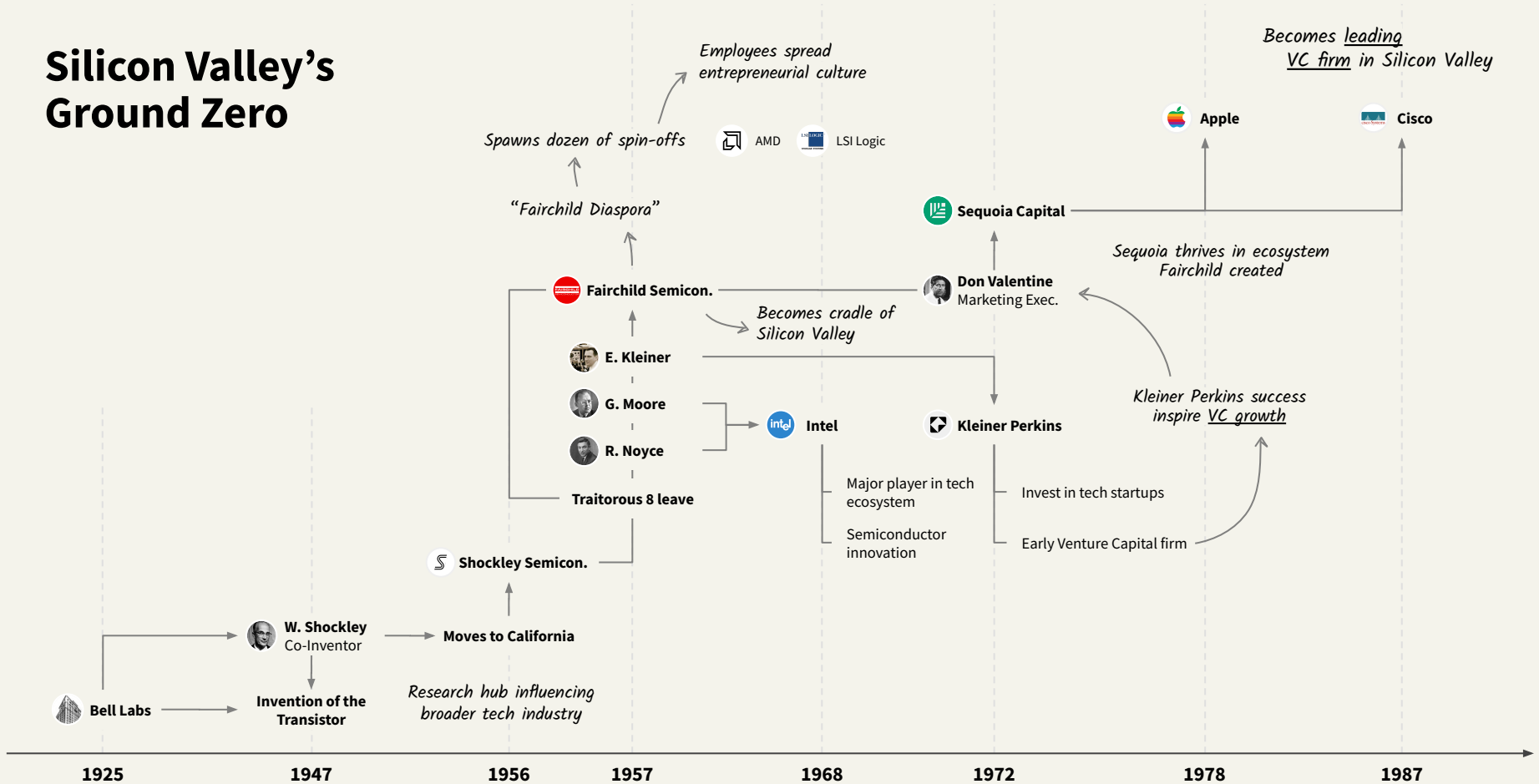
USA Europe










Mag 7 have invested \$49B in startups in 2024. More than all VC into China or EU27.



Silicon Valley's Ground Zero



All Mag 7 companies started with a simple idea, not a grand industrial strategy – and all had access to a vast pool of experienced venture capitalists

| | | | | | | | |
|------------------|---|---|---|--|---|---|---|
| |  |  |  |  |  |  |  |
| Company | Microsoft (1975) | Apple (1976) | Nvidia (1993) | Amazon (1994) | Google (1998) | Tesla (2003) | Meta (2004) |
| Initial vision | A computer on every desk and in every home | User-friendly personal computers | GPUs for gaming industry | Earth's biggest bookstore | Organize the world's information | Accelerate world's transition to sustainable energy | Connect college students |
| Beginnings | Developed Altair 8800 software in a modest office | Built Apple I in a garage; sold VW Microbus and HP calculator for funding | Started in a small office | Started online bookstore in a garage | Operated out of San Jose garage of Susan Wojcicki | Very rocky and scrappy start | Launched from a Harvard dorm room |
| Early VC backing | <u>Yes, 5 years after founding</u> | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> |

UK: Colossus

In the **1930s and 1940s**, the UK was a global leader in computing, pioneering foundational technologies. **Alan Turing** developed the theoretical groundwork for modern computers, while the **Colossus**, built at **Bletchley Park** during WWII, was the world's first programmable digital computer. Post-war, the UK continued innovating with the **Manchester Baby** (1948), the first computer to store programs electronically, and machines like the **Ferranti Mark 1** and **EDSAC**.

However, the UK failed to capitalize on these breakthroughs due to heavy government control and an emphasis on central planning. **Computers were seen as sensitive technology requiring strict oversight**, leading to a focus on nationalized industries and centralized solutions like **ICL (International Computers Limited)**. Unlike Silicon Valley, where private capital encouraged risk-taking, the UK's innovation remained confined to government labs and academia, limiting commercialization.

This top-down approach also discouraged private enterprise. Talented individuals moved to the U.S., where venture capital, like Sequoia Capital, fueled entrepreneurship. Without a thriving private sector or funding ecosystem, the UK missed its chance to build tech giants much earlier.

France: pioneer that fell behind

Europe started strong in the late 1940s, with **France independently inventing the transistor shortly after the U.S.** However, despite this early promise, Europe—particularly France—lost its lead due to several factors. In the 1950s, political priorities shifted (e.g., France focused on nuclear tech), and European efforts lacked the interdisciplinary, practical focus of the U.S., where **Bell Labs shared knowledge widely**, fostering innovation and production scale. By 1960, even Japan outpaced France in transistor output.

The 1960s saw the U.S. **leverage massive military demand** (e.g., Minuteman II, Apollo program) to drive integrated circuit (IC) development, while Europe's consumer-driven market prioritized cost over performance, leaving firms like Philips and Siemens focused on outdated tech like germanium transistors. In the 1970s, Japan caught up via government-backed consumer electronics (e.g., Sony radios), while Europe's focus on computers over semiconductors widened the gap.

In the 1980s and 90s, Europe's attempts at recovery—like France's microelectronics plan and the Mega Project with Siemens and Philips—faltering due to insufficient scale, reliance on foreign tech (e.g., Toshiba licenses), and competition from Asia's rising players (e.g., TSMC, Samsung). By 1991, Europe's global semiconductor production share dropped to 10%, down from 60% in 1979.

Today, Europe holds a 10% share, with strengths in niche areas (e.g., industrial, telecom), but it lags in high-end chips. The **2021 EU Chips Act** aims to double this to 20%, though historical challenges—production scale, market demand, and global competition—suggest a tough road ahead.

ASML: corporate innovation

In the 1980s, the Netherlands emerged as an unexpected powerhouse in advanced semiconductor manufacturing, thanks to ASML. Founded in 1984 as a joint venture between Philips and Advanced Semiconductor Materials International (ASM), ASML was initially a small player in the nascent field of photolithography tools, critical for producing ever-smaller semiconductor features. With backing from Dutch industrial policy, including public-private R&D programs like Eureka, ASML collaborated closely with academia and partners, creating breakthroughs like extreme ultraviolet (EUV) lithography. This technology, critical for modern chip fabrication, cemented ASML's dominance in the global semiconductor equipment market.

ASML's success illustrates how sustained investment in research and an ecosystem of innovation can drive industry leadership. By the 2000s, ASML was unrivaled, becoming the sole supplier of EUV lithography machines to giants like TSMC, Intel, and Samsung, enabling the production of cutting-edge chips used in everything from smartphones to AI.

TSMC: industrial strategy

Around the same time, Taiwan adopted a strategic focus on semiconductors as part of its industrial policy. The Taiwan Semiconductor Manufacturing Company (TSMC) was founded in 1987 as a state-backed initiative led by Morris Chang, who had worked at Texas Instruments. Unlike traditional semiconductor firms, TSMC pioneered the “pure-play foundry” model, focusing exclusively on manufacturing chips designed by others. This allowed fabless companies like Nvidia, Qualcomm, and AMD to thrive, fueling TSMC's rapid growth.

Supported by government funding and partnerships with institutions like ITRI (Industrial Technology Research Institute), TSMC developed cutting-edge manufacturing processes, becoming the world leader in advanced chip fabrication by the 2010s. Today, TSMC powers innovations in AI, 5G, and autonomous vehicles, and plays a strategic role in global supply chains.

Both ASML and TSMC demonstrate how targeted industrial strategies, public-private collaboration, and long-term investment in innovation can yield transformative global companies that underpin entire industries.

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"Why are the big tech companies here and not somewhere else?"

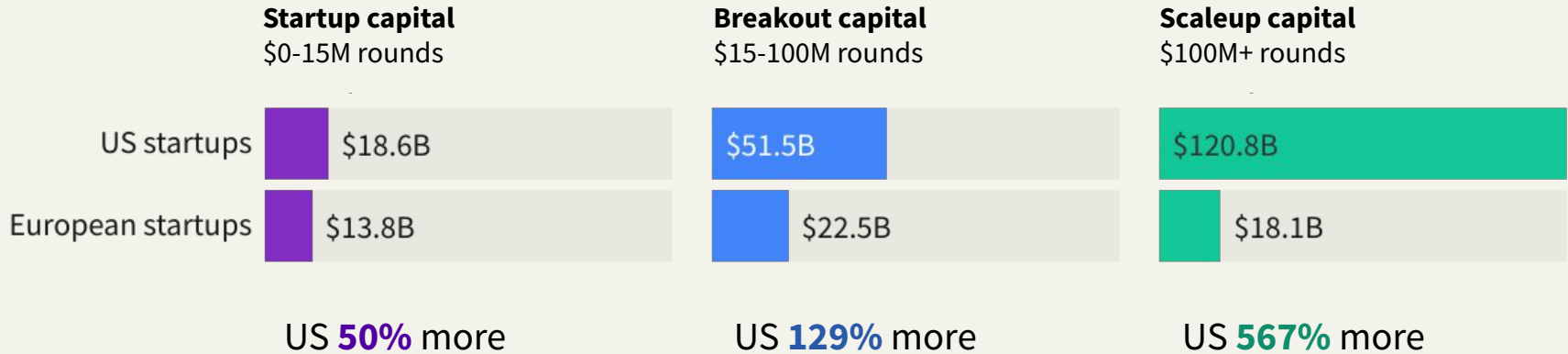
“There are a bunch of reasons for that, but the biggest one—eight of 10 points there—is that we have better risk capital. It’s not the banking system. We have a good banking system, but so does Europe.”

That risk-capital system that we have in this country is turning out to be very hard for other countries to duplicate.”

Jeff Bezos at the [2024 DealBook Summit](#)

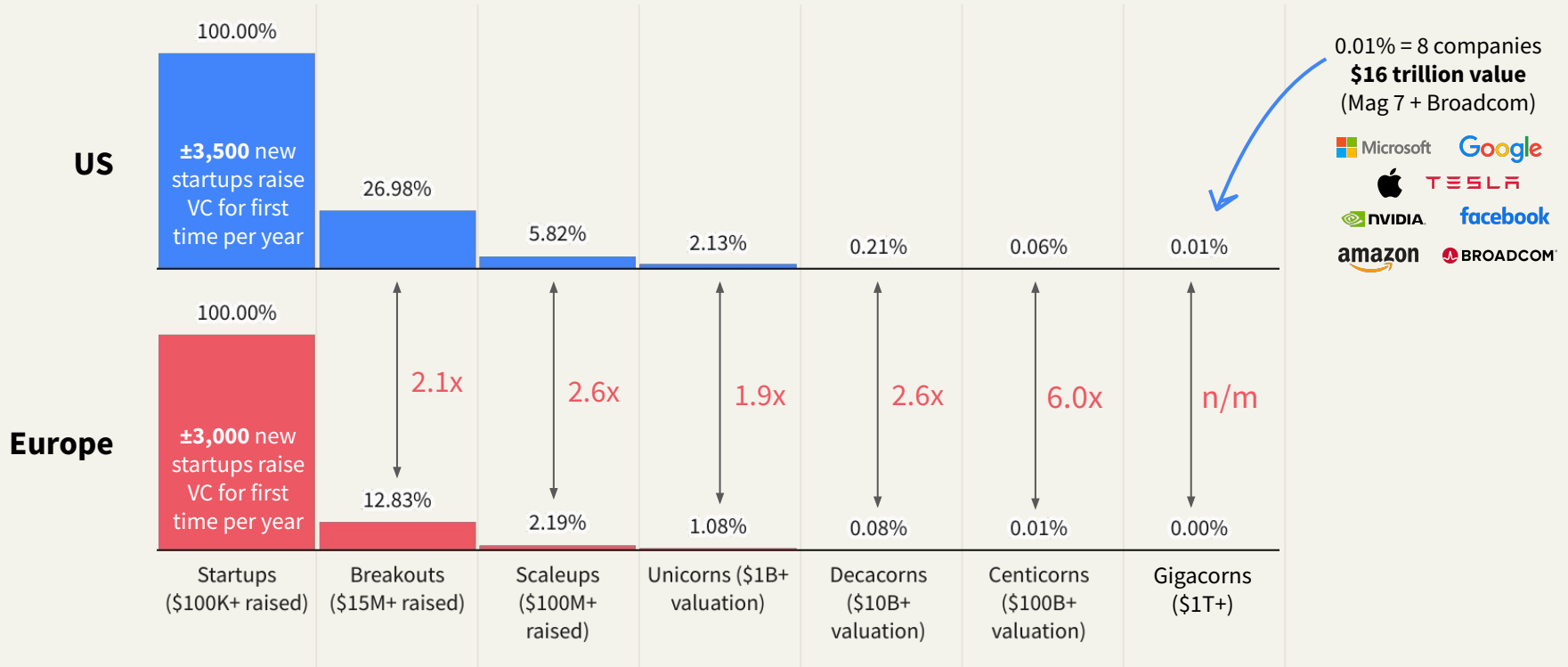
A significant VC investment gap at every stage; the gap growing at later stages

VC investment by stage, 2024



Far fewer European startups go beyond raising breakout and scaleup capital

Graduation rates between startup development stages



“

Europe doesn't have a startup or scaleup problem. Europe has a momentum problem. And we can only fix this on pan-European level.”



Andreas Klinger

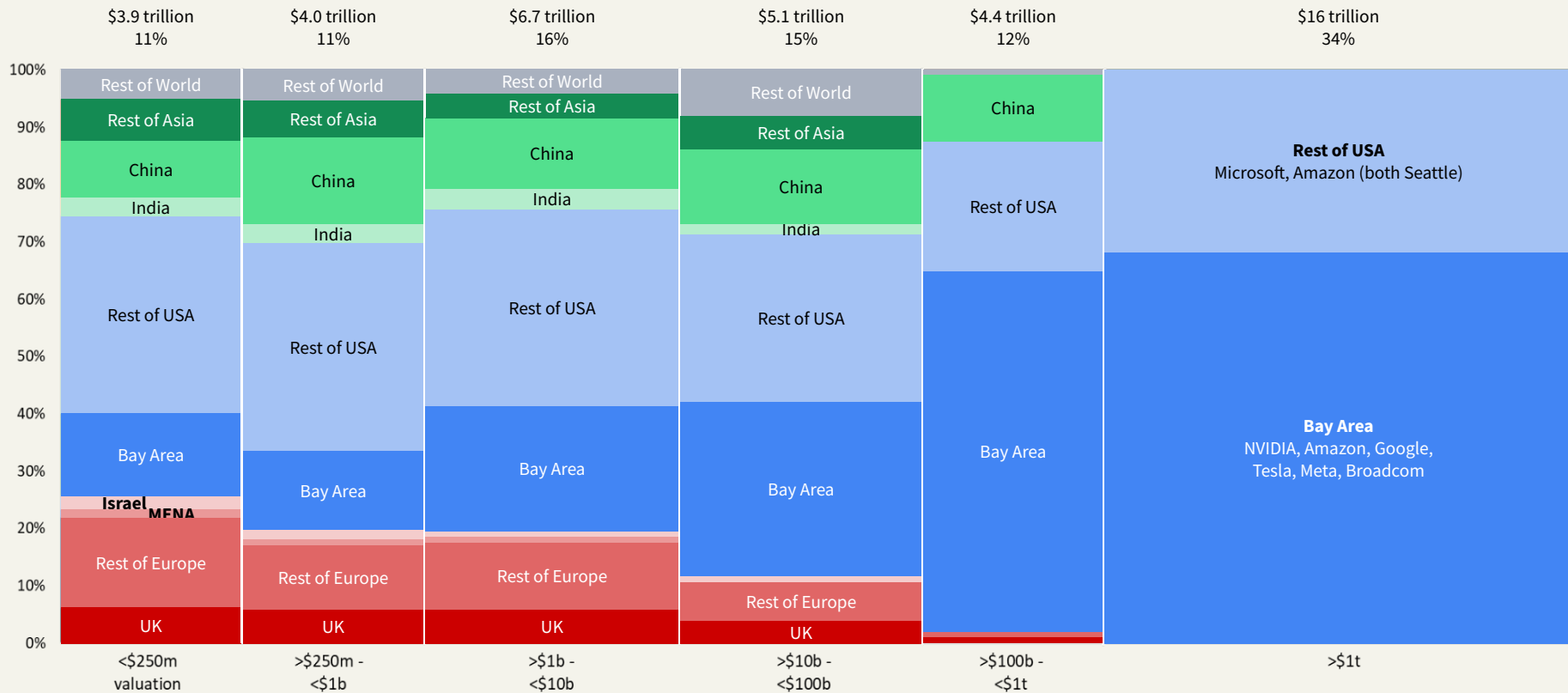
[EU INC](#)

Founder of Prototype Capital

EU INC

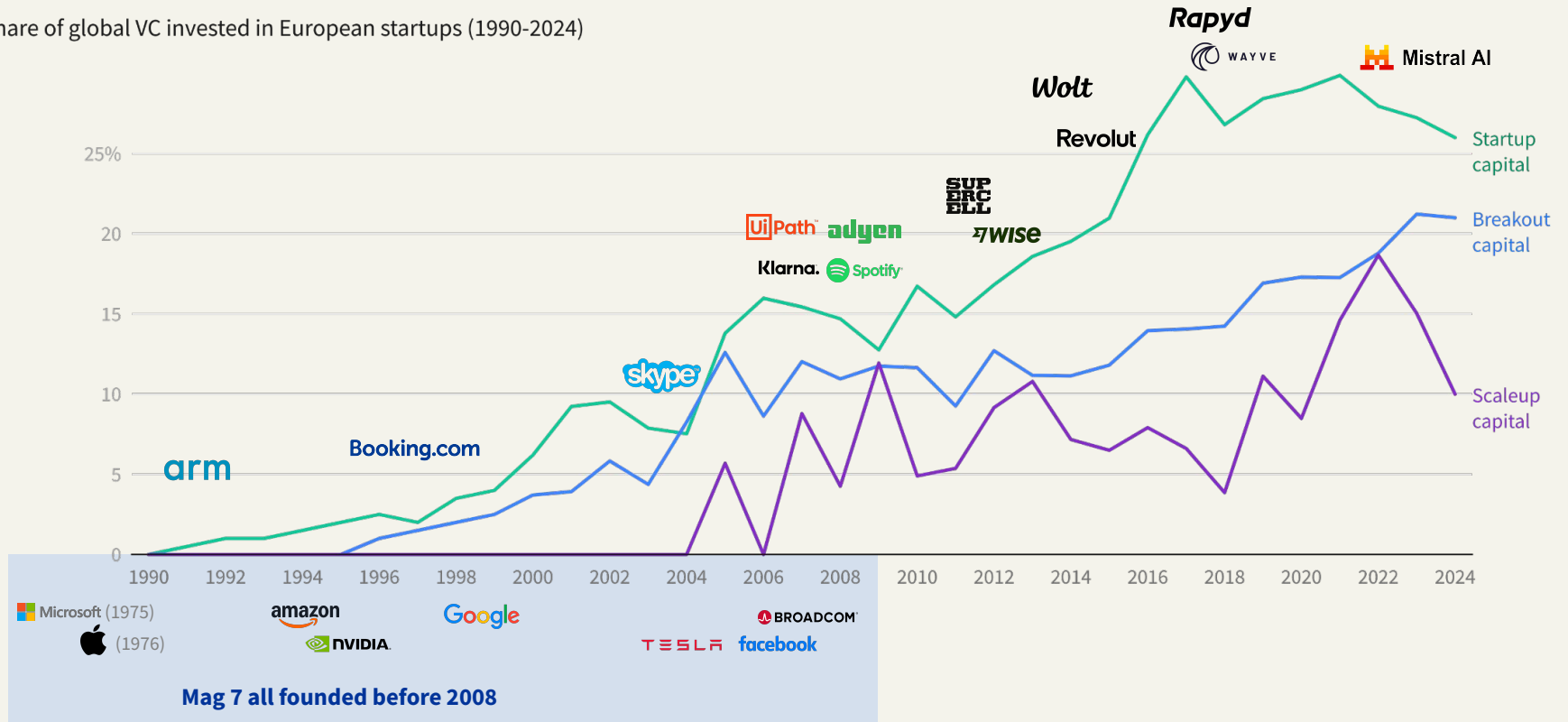
PROTOTYPE

The 0.01% of companies that reach \$1 trillion, create 34% of all enterprise value



In the 1990s and early 2000s, when the Mag 7 were created, European venture capital was still nascent. European VC is only starting to come of age

Share of global VC invested in European startups (1990-2024)



“

With 35,000 early-stage startups—more than any region globally—Europe's innovation ecosystem is flourishing. The data shows European startups achieve unicorn status at the same efficiency rate as US counterparts when adequately funded. Europe's sustainability focus is now yielding real returns—the UK's net-zero economy added comparable value in just one year to what the US gained from shale over an entire decade, with Europe investing twice as much as the US in the energy transition. Having invested globally, European founders match the caliber of talent anywhere in the world.

”



Paul Murphy
Partner

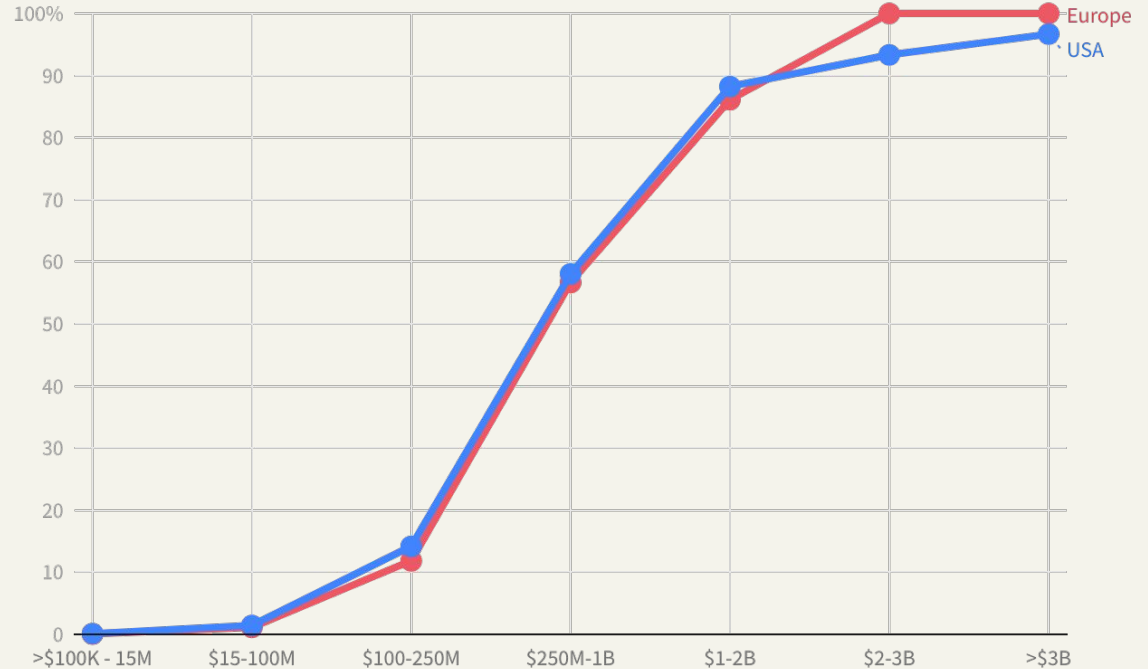
 **Lightspeed**

Europe produces unicorns at the same rate, per amount raised

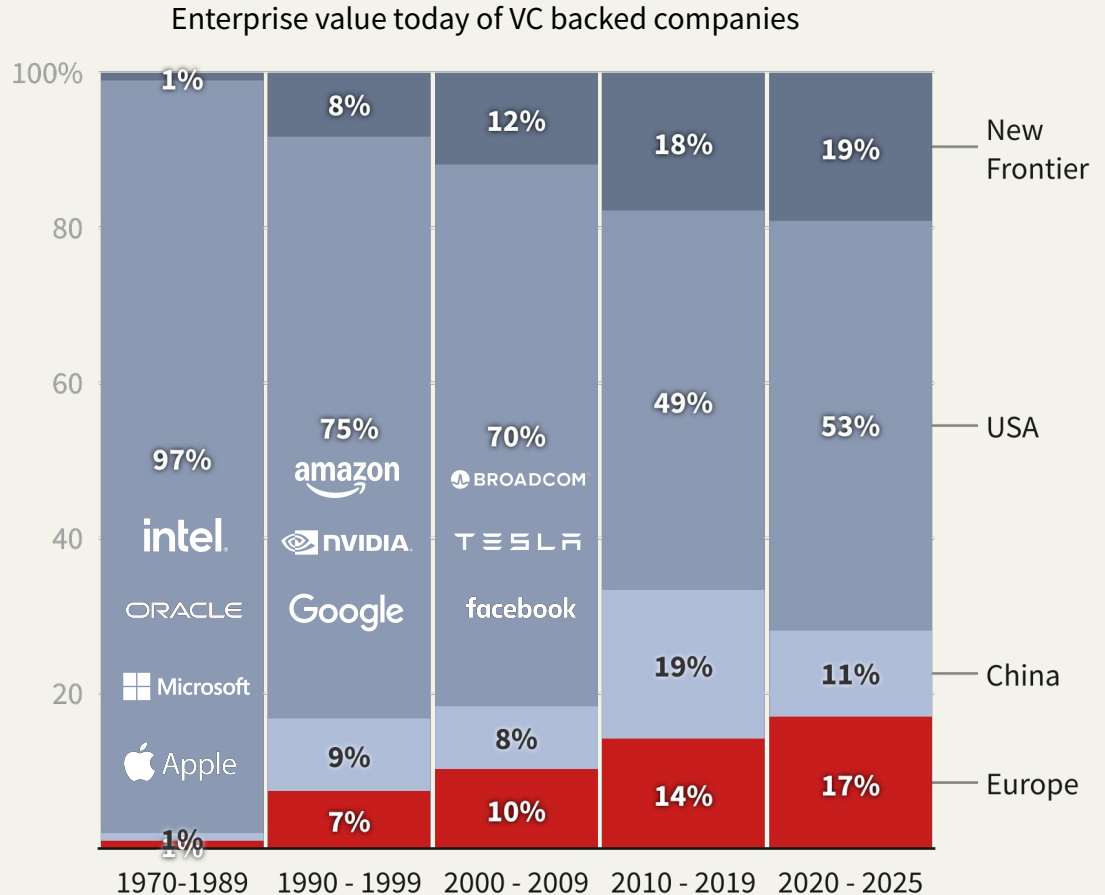
The unicorn conversion rate across funding stages is virtually identical between the US and Europe.

The difference is scale, not efficiency. The US startup ecosystem attracts significantly more venture capital in absolute terms. European startups demonstrate equal capital efficiency in turning those euros into unicorns.

% unicorn of startups by total amount raised



After a 30 year late start, Europe's younger generation of VC-backed startups are taking a growing share of global new enterprise value – around 18% over the last decade



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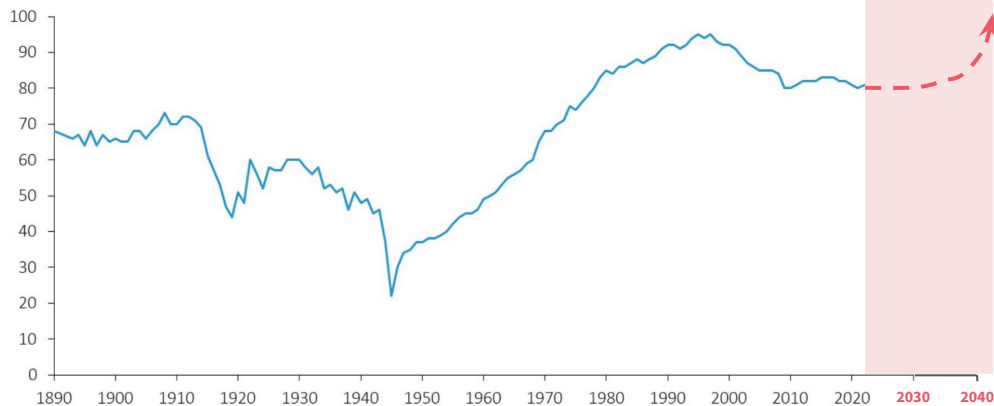
Additional info

North star: bending the productivity curve

FIGURE 1

EU versus US labour productivity 1890-2022

Index (US=100)



Note: The EU is proxied by backdating national accounting data from Germany, France, Italy, Spain, the Netherlands, Belgium, Ireland, Austria, Portugal, Finland and Greece. To build the labour productivity data, five different series were used: GDP, capital stock, employment, average hours worked, and population. Capital stock is built using two series of investment – construction and equipment. Investment and GDP are taken in volume and in national currency of 2010, they are then turned into \$2010 using a ppp conversion rate.

Source: Bergeaud, A., Cette, G., & Lecat, R., *Productivity Trends in Advanced Countries between 1890 and 2012*, *Review of Income and Wealth*, Vol. 62, No. 3, 2016, pp. 420-444

Key ingredients:

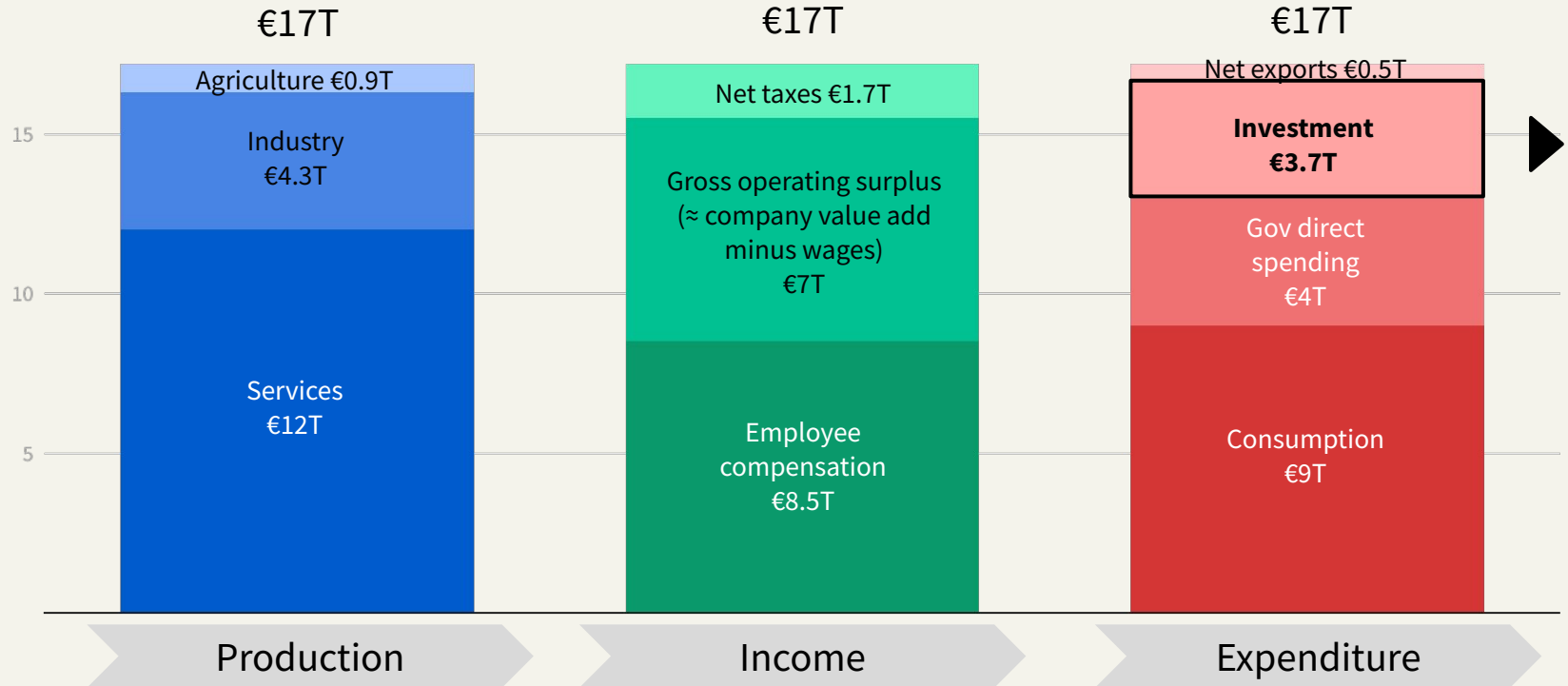
Lower internal barriers

Simplified regulation

Investment in strategic areas

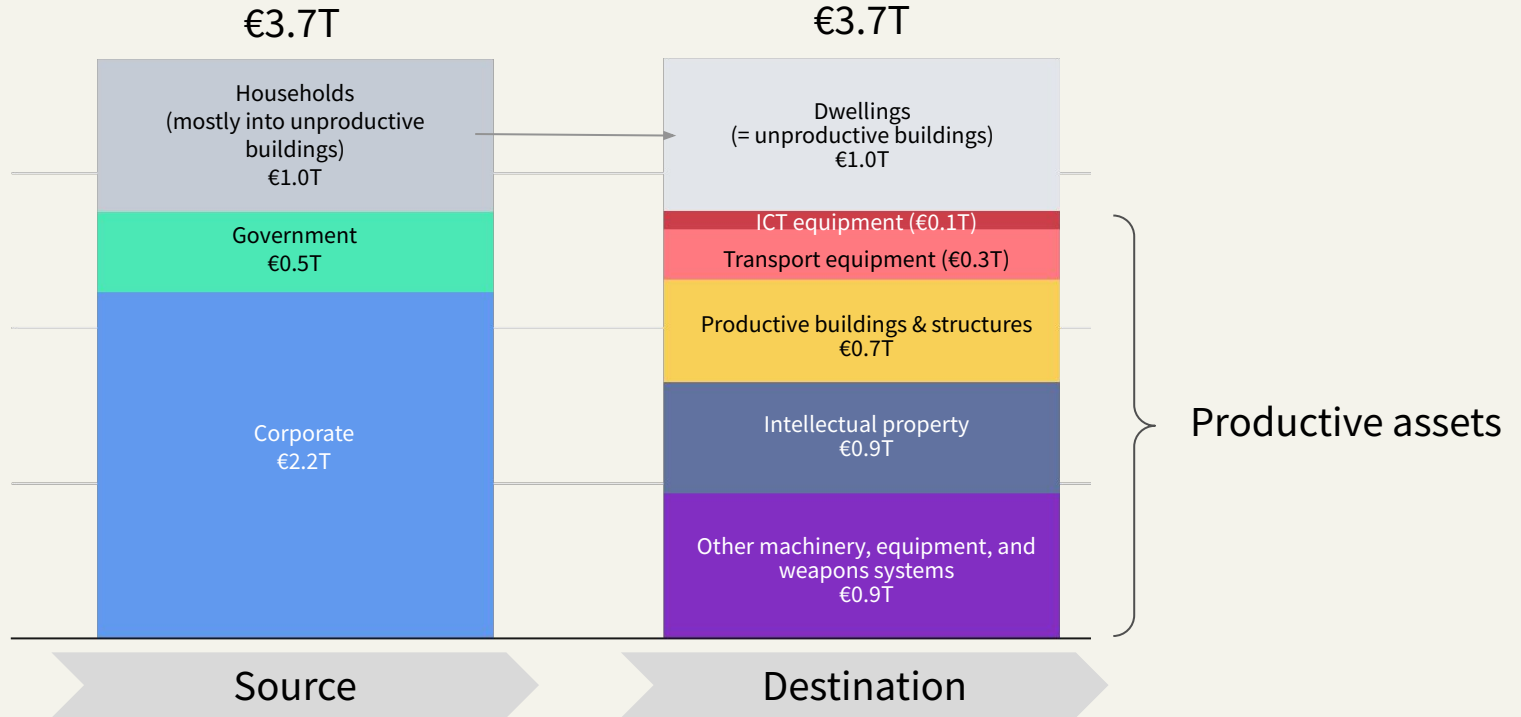
The EU27 is a €17 trillion economy, of which €3.7 trillion in annual investment

Composition of GDP



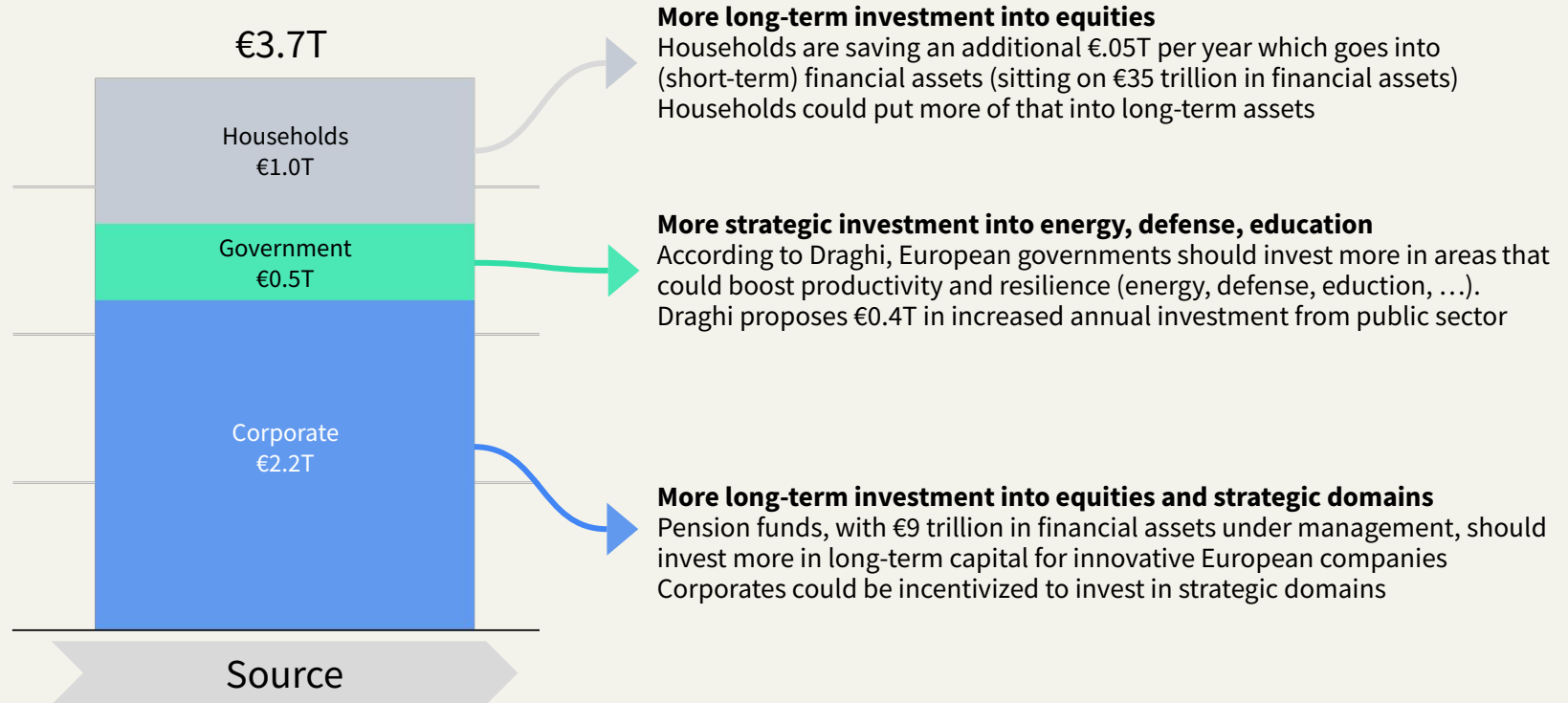
This €3.7 trillion annual investment shapes the economy for future years

EU 27 annual investment by source & destination



Several policies are underway aimed at increasing the overall level of investment, and allocating more of it towards strategic domains

EU 27 annual investment by source



“

It is now existential for Europe to get serious about enabling rather than hindering the creation of home-grown winners in critical sectors such as AI, defense, and energy. The continent has always had what it takes. But we need policies that accelerate public procurement with significant budgets for new players, modernize decaying infrastructure and build anew, attract skilled immigration, and unshackle the formation of deeply technical companies from our university inventions. ”



Nathan Benaich
General Partner

**AIR
STREET
CAPITAL.**

The Draghi report discusses “three transformations ahead for Europe” to make Europe more competitive and secure

Innovation & competitiveness

Lower barriers. Unleash entrepreneurship
Close innovation gap with the US and China

Cheap & abundant clean energy

Coordinate on decarbonisation to turn it into an opportunity for Europe

Resiliency & security

Reduce Europe’s exposure to geopolitical instability and de-globalisation

Draghi's industrial strategy rests on a series of building blocks

€ 800B/yr investment

Investment to rise by 5% of GDP, to levels last seen in the 1960s and 70s, amounting to ± €800B/year

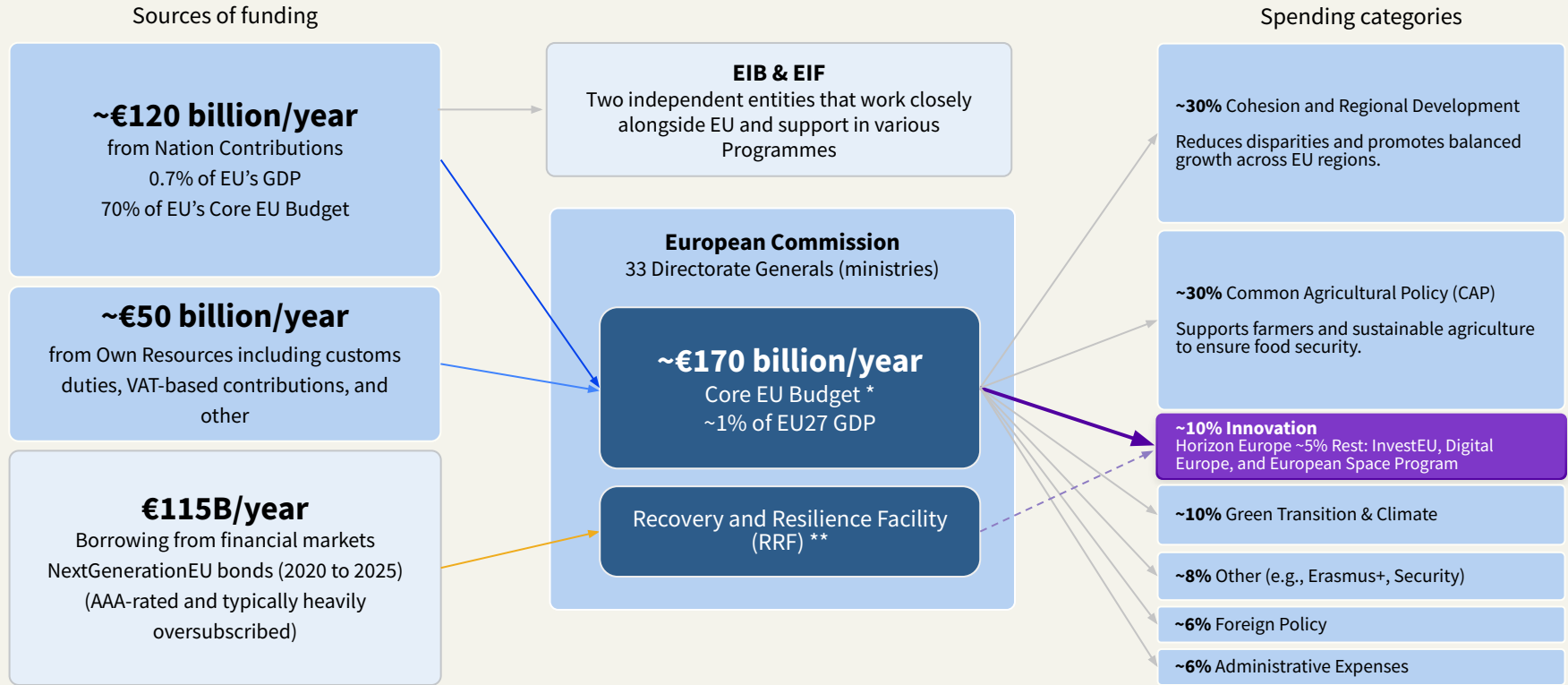
Industrial, competition & trade policies

Design industrial, competition, and trade policies to focus on sectors, foster innovation, ensure fair competition, and adapt to strategic needs

Full implementation of Single Market

Enabling scale for companies and reducing friction from markets including finance, energy, and transportation

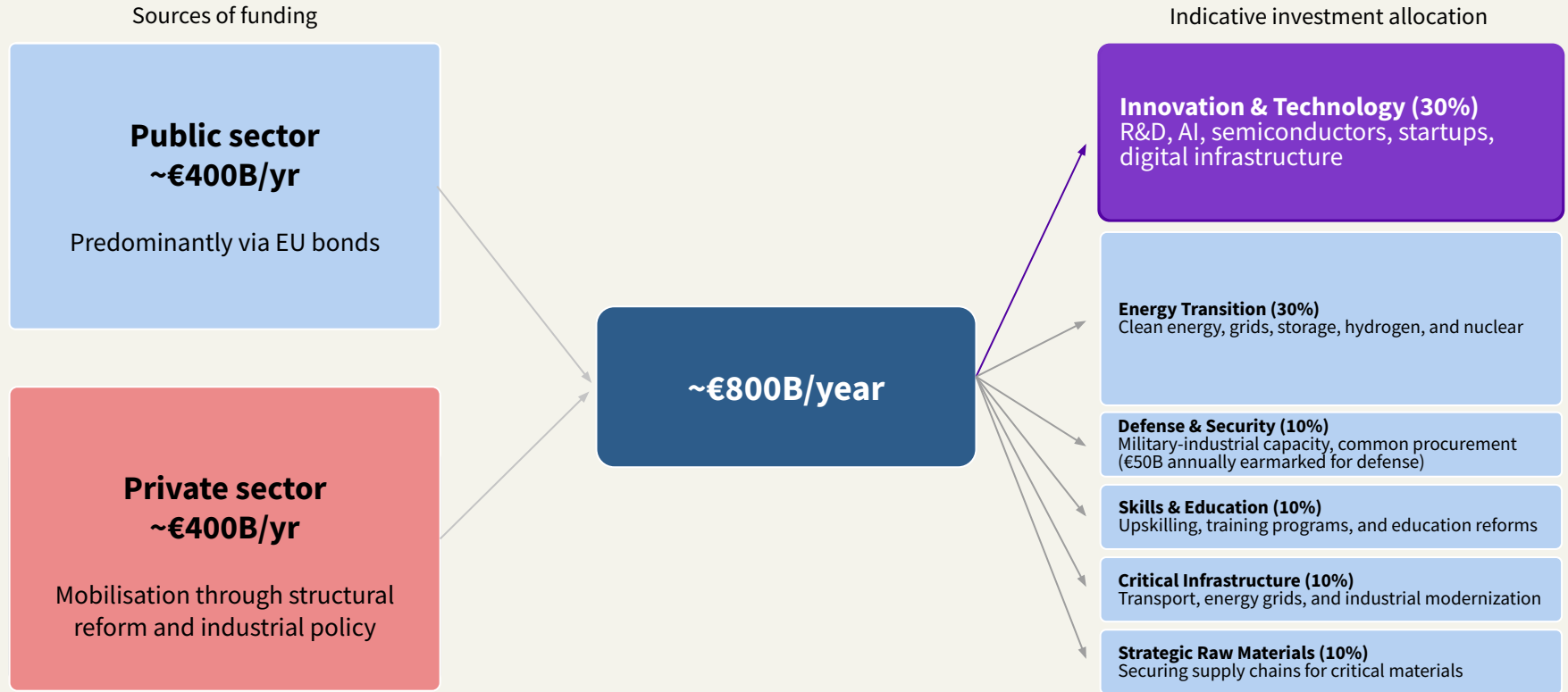
Today's core EU budget is 1% of GDP, of which 10% goes directly to innovation



* The EU budget operates on a seven-year framework, known as the Multiannual Financial Framework (MFF)

** Allocation of RFF in Appendix: Background and Methodology, but 57% directly to countries and €5B went to Horizon Europe and €6B to InvestEU.

Draghi suggests €800B/year strategic investment is needed, and has hinted at a 50/50% split between public/private sector.



Draghi report with some indicative interpretations by Dealroom. The % allocations are indicative interpretation by Dealroom.*
Historically, the private sector funds ~80% of productive investments, but Draghi report mentions that in this case up to 50% public sector commitment may be needed. It depends on the speed and depth of reforms.

There's an even bigger untapped pool of money. European corporates & governments spend €2 trillion per year on IT, mostly going to US vendors. If a fraction of this could be diverted to buying from European startups & scaleups, this would transform Europe's tech ecosystem.

€2 trillion / yr

Annual IT spending & Innovation related non-salary Capex by European corporates *



€20B

Annual European VC investment from European corporates

Conclusions from this report

Europe should focus on itself to face challenges ahead

Current narrative of economic catastrophe is overblown. Sense of urgency is good but panic counterproductive. Instead of worrying about the US, Europe should focus on itself.

Internal challenges include low productivity and innovation gaps, and external factors such as energy dependencies, security risks, and reduced global trade openness leaving Europe exposed.

Plenty of money in Europe, but structural reforms are essential to put this to work

Unlocking available capital and putting it to work effectively requires targeted reforms that encourage and fuel innovation.

After the introduction of the euro in 1999, which was highly innovative, subsequent regulations have arguably added friction, rather than reducing barriers to growth.

A fragmented market, diverse regulations, and inconsistent policies make it difficult for entrepreneurs to scale and compete globally.

The age of entrepreneurship is here

Europe is entering an era where entrepreneurship can lead the way in driving growth and innovation. By offering the right support, and sometimes just getting out of the way, Europe can cultivate a thriving entrepreneurial ecosystem, in its own image.

Fostering risk-taking and innovation will empower entrepreneurs to build global leaders and position Europe for long-term prosperity.

Now check out our first deep-dive report: the EU backed ecosystem

Accelerating Europe

About the state of European growth and the relationship with innovation, competitiveness, entrepreneurship and venture capital: challenges and opportunities



This report

EU Framework Programmes

Data-driven deep dive into EU framework programmes and their impact. EU-backed in this report refers to startups funded under the EU framework programmes



Coming 3 March 2025

Tech transfers

Deep dive into the university spinout ecosystem in Europe



Coming late 2025

- 1 Macro picture for Europe
- 2 Big Tech and Power Laws
- 3 Rise of European venture & innovation
- 4 Unlocking growth & investment

Additional info

What is the European Single Market

The Single Market means that a Greek company can sell olive oil in Finland without paying extra taxes at the border. In theory, it should also mean that professionals and service providers can work freely across the EU, but in practice, they often face significant bureaucratic and regulatory hurdles. For instance, while an architect can have their qualifications recognized in another EU country, the process can take months and require extensive paperwork.

The project started with coal and steel trading in 1951. They expanded this to all goods in 1957, but actual implementation took decades. For example, until the 1980s, trucks still had to stop at every border for paperwork checks.

Major changes came in 1993 when most internal border controls disappeared. **The euro's introduction in 1999** made trade easier between participating countries by eliminating currency exchange costs, though several EU members like Sweden and Denmark still use their own currencies.

However, **the Single Market remains incomplete**. Services, which make up about 70% of EU economies, still face significant barriers. Insurance companies often struggle to sell policies across borders, and construction firms face different building codes in each country. **Digital services face a patchwork of national regulations** - a Finnish streaming service needs separate licenses for each country it operates in.

What is the Capital Markets Union

The Capital Markets Union is the EU's attempt to make it easier for money to flow across borders, helping companies get funding from investors in other EU countries rather than relying mainly on their local banks. Think of a Portuguese scaleup being able to easily get investment from Swedish pension funds, or a Dutch investor buying bonds from Italian companies as easily as from Dutch ones. However, this vision is still far from reality.

The project launched in 2015 because the EU noticed a problem: European companies get about 75% of their funding from banks, unlike in the US where companies more often raise money directly from investors through stocks and bonds. This makes EU companies vulnerable when banks stop lending, as happened during the 2008 financial crisis.

Despite some progress, most barriers remain. Each EU country still has its own rules about bankruptcy, meaning investors need to understand 27 different systems. Tax systems treat investments differently in each country. Investment products that are legal in France might not be approved for sale in Germany.

Most investment still happens within national borders - German pension funds mainly invest in German assets, while French funds stick to French investments, limiting opportunities for both companies and investors.

Having 27 different legal systems makes it hard to truly operate as one market. The EU27 has three main approaches, each with different levels of political feasibility.

1. The "28th regime" approach - creating optional EU-wide systems that exist alongside national ones. This is often the most politically feasible because:
 - Countries keep their existing systems
 - Companies can choose whether to use it
 - It can be tested and improved over time
 - Examples: the PEPP for pensions, the Societas Europaea (SE), which allows large companies to operate across EU borders under a unified legal structure, and the potential new startup legal form
2. Targeted **harmonization** in specific areas where countries agree it's necessary:
 - Common rulebook for financial services
 - Standardized consumer protection in specific sectors
 - Unified patent court (which took decades to achieve)
 - This works when the economic benefits are clear and specific enough
3. The "**mutual recognition**" approach - countries keep their systems but agree to recognize each other's rules:
 - Professional qualifications (though still bureaucratic in practice)
 - Product standards
 - Some financial services licenses

“

Europe's future hinges on a modernized and unified approach to innovation. A new pan-european entity - EU Inc - will break down internal barriers unleash the finance, momentum and productivity to accelerate Europe. Europe can only stay competitive as a union - the EU Inc is the foundation to unleash the momentum in tech, finance and productivity.

”



Philipp Herkelmann
Co-initiator

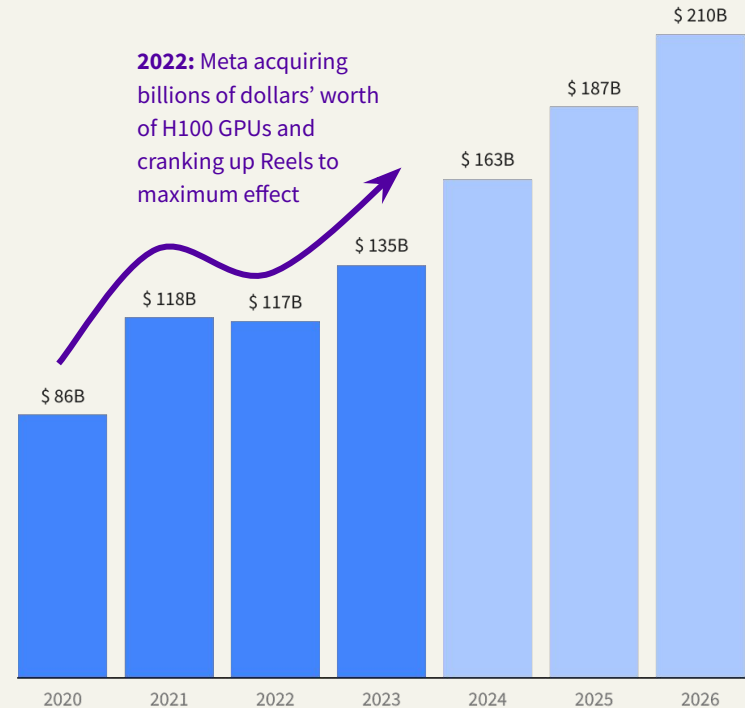
EU INC

Extreme operational leverage at Meta, resulting in high output per hours worked.

In 2022, with growth stalled and under intense pressure from **TikTok's explosive rise**, Meta made a bold and speculative investment, acquiring billions of dollars' worth of **H100 GPUs**. At the time, Meta was focused on improving **Reels**, its response to TikTok, alongside enhancing content ranking and feed optimization. Despite skepticism over its heavy capital expenditures and a falling stock price, Meta bet on its principle that unseen opportunities often emerge from long-term risks.

This gamble paid off in two ways. First, **Reels' success reignited growth**, driving tens of billions in additional revenue by capturing user engagement and ad spend. Second, as the AI boom accelerated, the H100 GPUs became critical for training and deploying large-scale AI models, positioning Meta as a leader in the AI revolution. What began as a defensive move evolved into a transformative advantage, driving massive productivity gains and unprecedented revenue growth through bold, forward-thinking investments.

Meta Annual Revenue

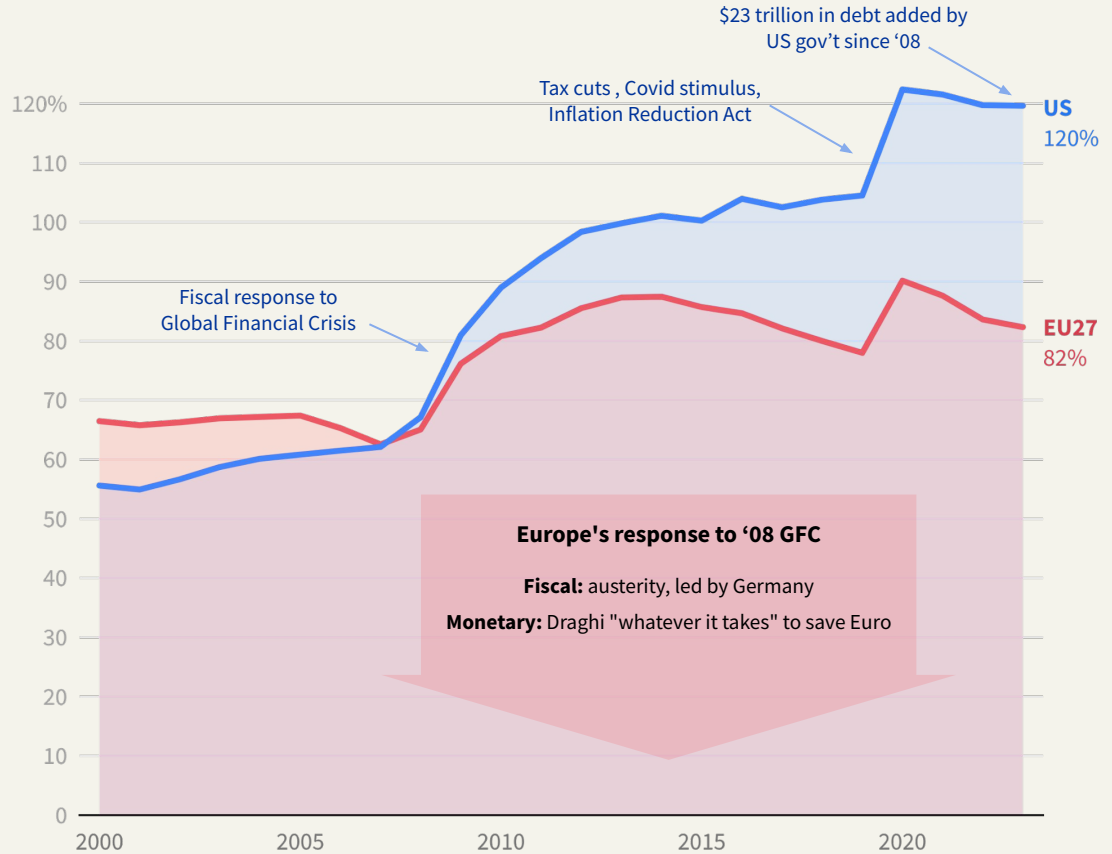


US doubled its Debt to GDP ratio, and only went up, never down, while Europe grew only modestly, with periods of reducing its ratio

The US responded to the '08 global financial crisis with massive stimulus, then cut taxes in '18 (also stimulus), shortly followed by massive Covid stimulus, followed by more stimulus (IRA). It's debt ballooned to 120%. Debt reduction is not in sight under the Trump administration. The EU responded to '08 global financial crisis with austerity, which was followed by stagnation and, relative to the US, little fiscal stimulus, as it focused on protecting the Euro as a currency with monetary intervention. Inflation in key Euro economies has been consistently lower, despite energy woes.

The strong dollar, despite deficits and inflation, reflects its dominant role in global transactions, liquidity, trust, its role as measure of account, status as reserve currency, and absence of better alternatives.

% Debt to GDP ratio



The average hours worked by European workers has been in decline, due to more paid holidays and more part-timers in the workforce.

CEPR [report](#) conclusions:

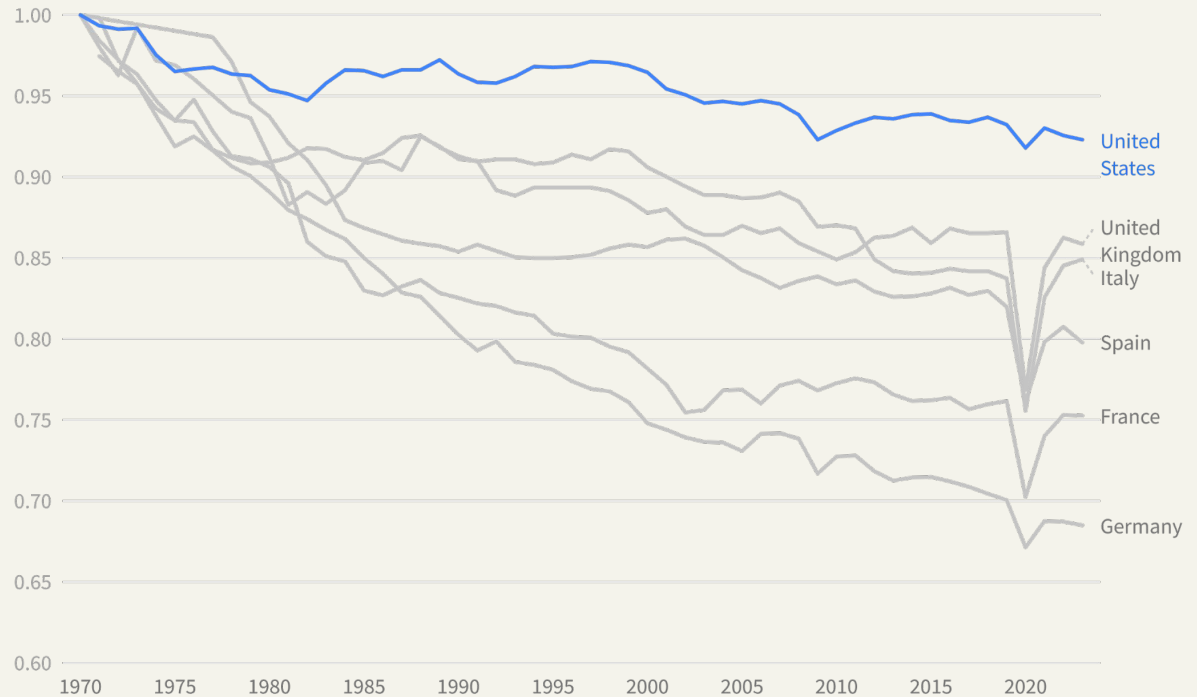
The decline in average hours worked is a long-term trend. It cannot be attributed to COVID-era work-from-home policies.

This reduction is evident across all demographic groups, though young men, particularly those with children, represent a significant portion of this decline.

Importantly, the decrease in actual hours worked largely aligns with worker preferences, though not completely.

Policy reforms targeting involuntary part-time workers and mothers with young children could potentially increase average working hours, but such measures would likely boost total hours by only 0.5-1.5% at most."

Average hours actually worked per worker (1970 = 100)

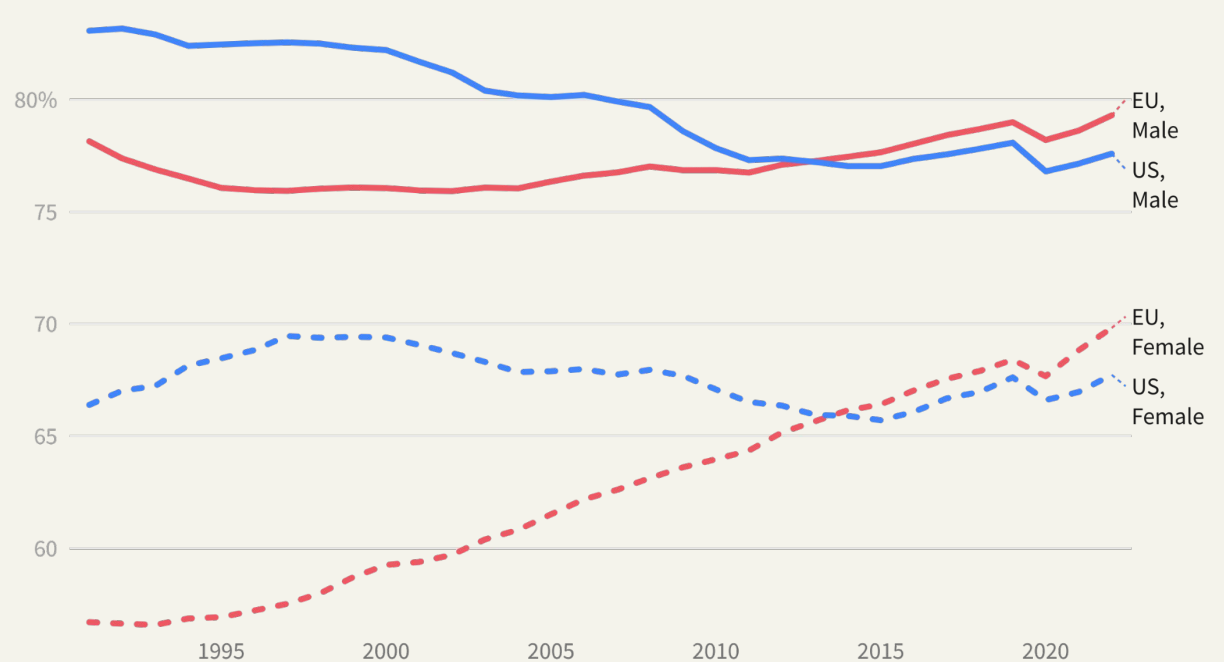


With part-time arrangements, more people have been able to join the workforce in the EU

Both male and female labour force participation has decreased in the US over the past two decades. In the meantime, more Europeans (especially women) were able to join the labour force.

Added part-time workers cause the average worked hours to decrease but lead to more overall work being done in these economies.

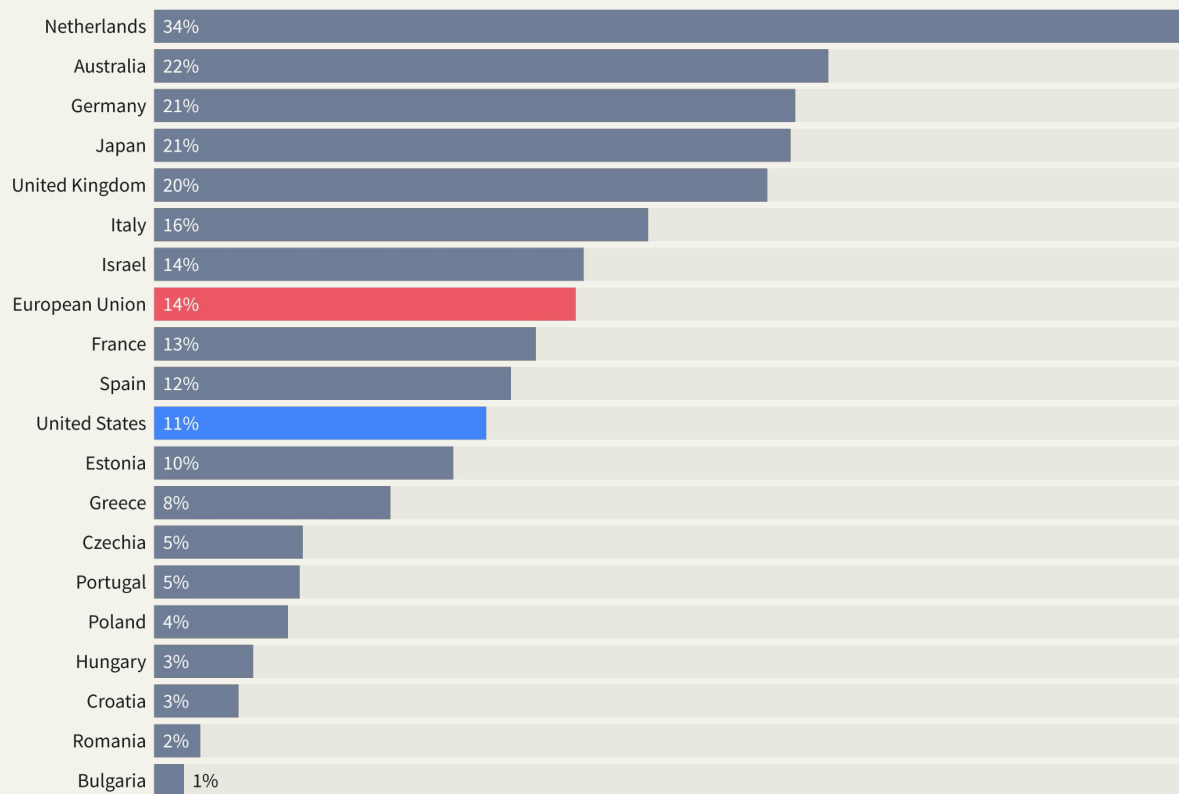
Labour Force Participation Rate over time



Part-time work is more common in the EU than in the US

While the aggregate part-time employment rates between the EU and US are comparable, higher rates in the EU are particularly driven by affluent Western European nations such as Germany and the Netherlands. At the same time part-time employment rates in Eastern Europe are actually lower than in the US.

Rate of part-time employment per country



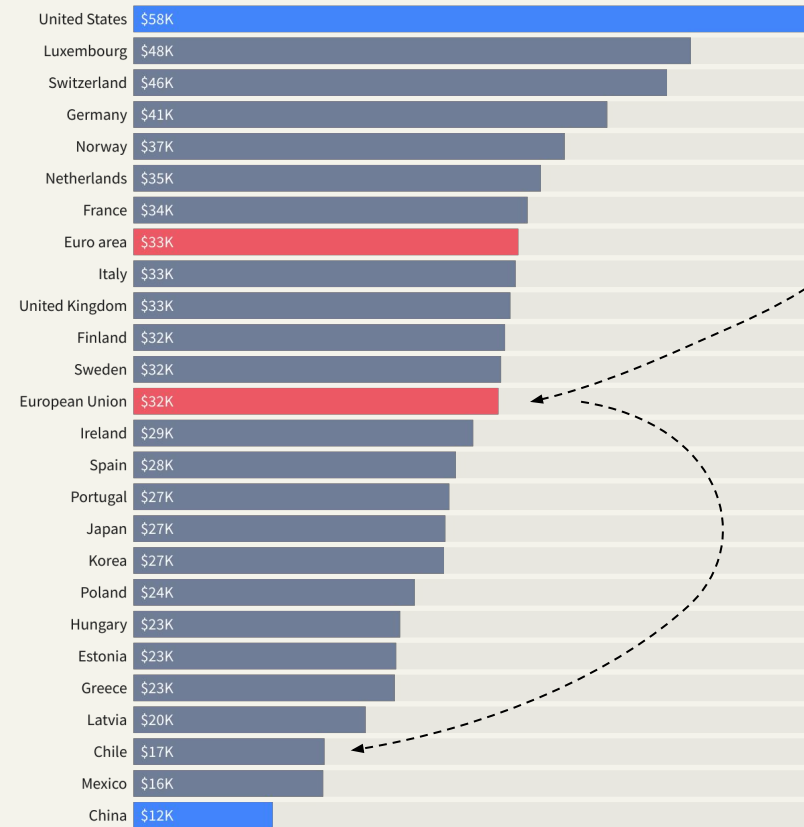
The gap in disposable income between EU27 and US is large (even PPP adjusted). It's as large as the gap between EU27 and Chile.

But that's not new. In fact, it's been that way for many decades.

Europe does have a bigger middle class. Moreover, [Research](#) by Charles I. Jones and Peter J. Klenow finds that economic well-being in their sample of Western European countries is similar to that of the U.S. when welfare estimates are broadened to include measures of leisure, mortality and inequality.

For example, they estimate that while per capita income in France is only 67% of the level in the U.S., the broader measure of welfare for France is 92% of the level of welfare in the U.S.

2022 Gross disposable income per capita of households, NPISH US dollars per person, PPP converted, Current prices



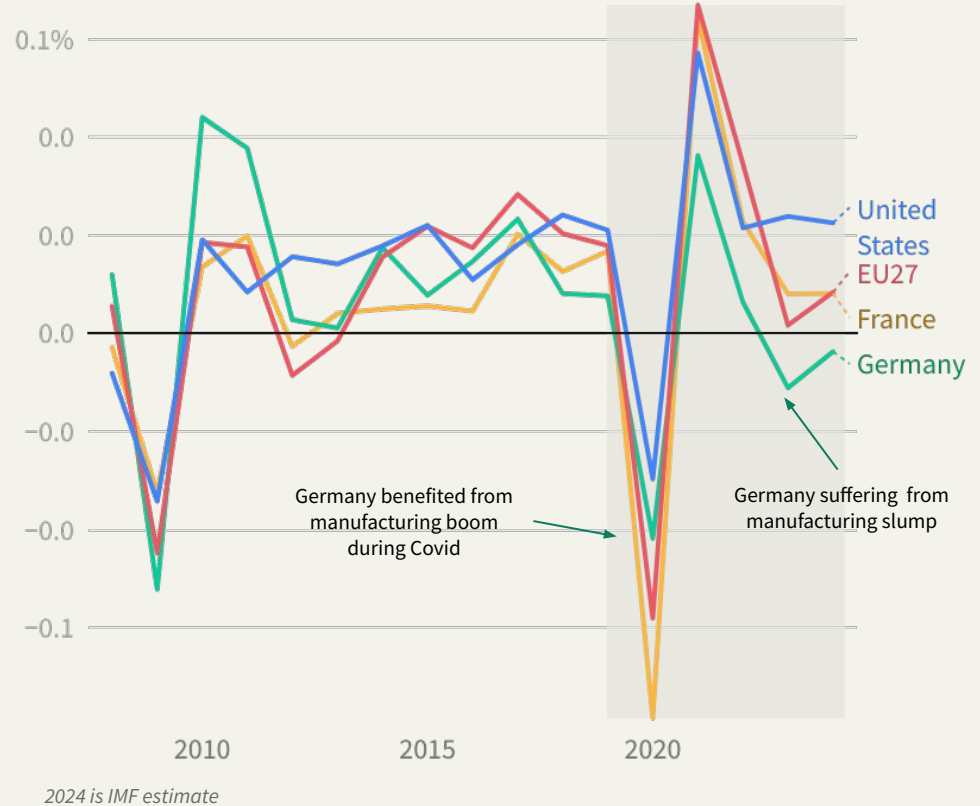
De-globalisation and general manufacturing slump are felt especially in manufacturing powerhouse Germany.

Germany's manufacturing economy is advanced, complex and highly diversified. Much of the current slowdown stems from global manufacturing headwinds and the broader trend of de-globalization.

At the same time, Germany's car industry has been leapfrogged by China in the EV market—a clear warning sign. To secure its future, Germany must prioritize bold investments in innovation and emerging technologies.

For a good overview, see this [Money & Macro video](#)

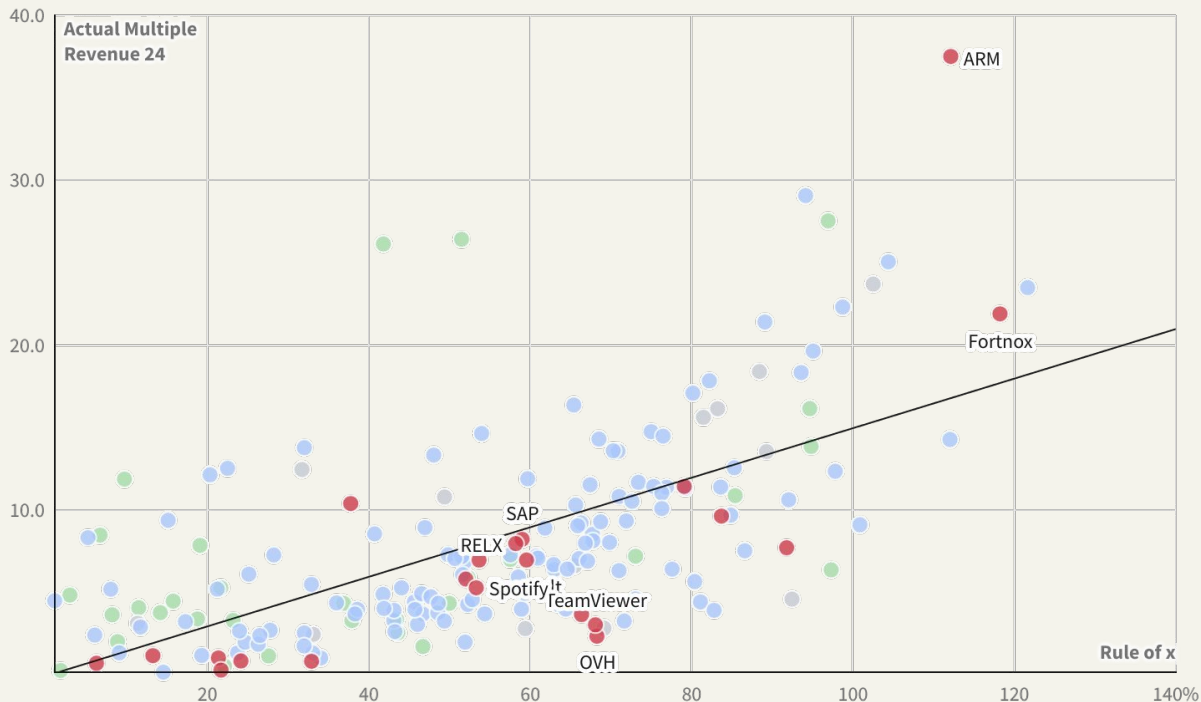
2008-2024 GDP per capita, YoY growth, PPP, Constant prices, 2017



Dealroom analysis shows European companies undervalued relative to US companies, adjusted for performance

Rule of X. Bessemer's Rule of X where X = 3

USA Asia Europe Rest of World



Rule of X: $3 \times 2024-26$ revenue CAGR + 2024 EBITDA margin. Share prices as of 18 Nov 2024. Analyst consensus estimates. R-square of 0.69. Example: a company growing 20% and EBITDA of 40% = Rule of X score of $3 \times 20\% + 40\% = 100\%$ which would imply a 15x revenue multiple.

“

Europe keeps hitting the snooze button on unlocking growth. Nations prioritize their interests over collective progress. What works isn't grand plans to 'fix everything by 2030,' but focused groups tackling single issues with a hacker mentality. I remain cautiously optimistic, but we've heard these 'wake-up calls' and 'vibe shifts' many times before, without the concrete strategies needed to turn declarations into reality.

”



Michael Jackson
Venture Partner



Power Laws are well evidenced and known, but their impact probably still not fully internalised by market. Bessembinder's pioneering research into the global public markets, demonstrates that 100% of returns came from 2.4% of companies

Of the US\$76 trillion shareholder wealth created by 63,785 firms from 1990 to 2020:

- The top 5 firms (0.008%) accounted for 10.3%
- The top 159 firms (0.25%) accounted for 50%
- The top 1,526 firms (2.39%) accounted for 100%
- The other 62,259 firms collectively matched US Treasury Bills.

In his research, 25,441 (39.9%) companies did generate (modest) positive wealth which just offset the wealth destruction of 36,818 (57.7%) companies.

It's a difficult number to comprehend. Only 2.4% of global listed companies account for all the market performance above a short-term government security.

Wealth Creation in the U.S. Public Stock Markets 1926 to 2019

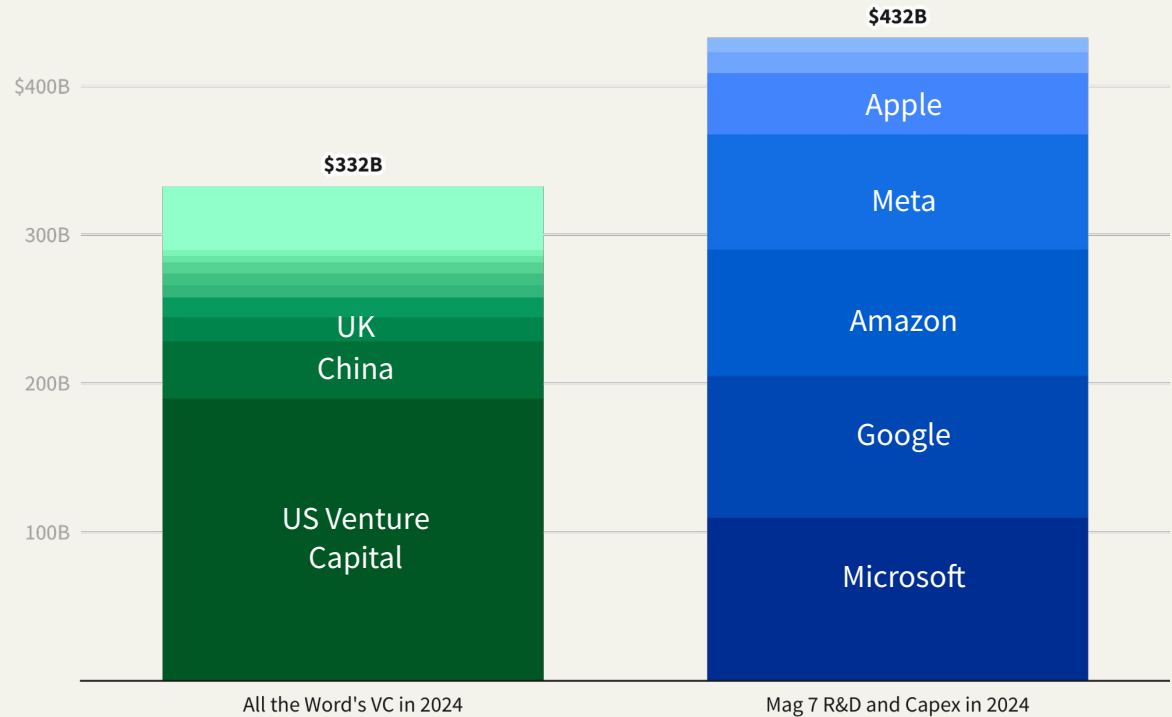
Hendrik Bessembinder*
Department of Finance, W.P. Carey School of Business,
400 E. Lemon Street
Arizona State University
Tempe, AZ 85287
hb@asu.edu

Initial Draft: February 2020
Current Draft: November 2020

Journal of Investing, forthcoming.

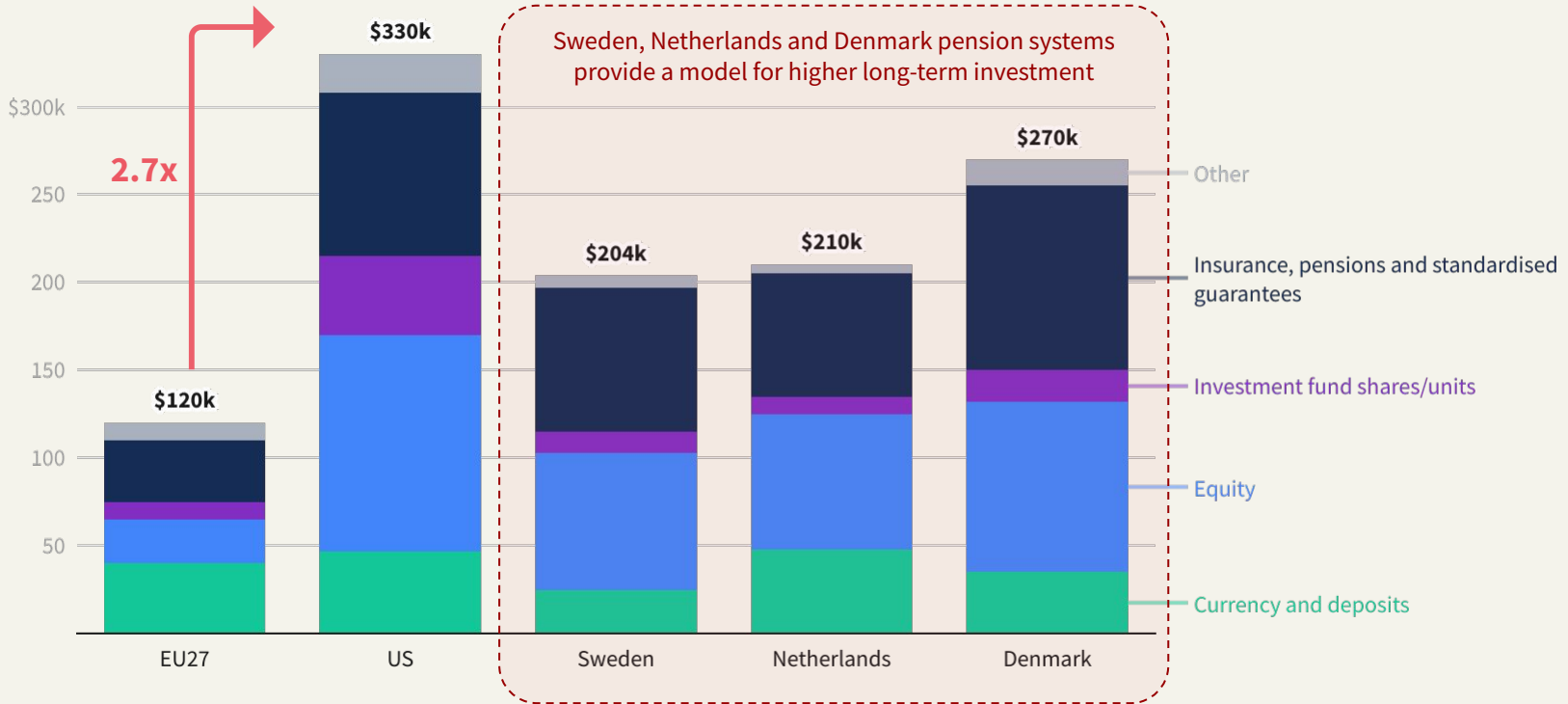
Mag 7 Capex and R&D is more than all venture capital in the world

Global VC vs. Mag 7 R&D and Capex in 2024



European households have a sufficiently high savings rate but prefer cash over long-term market investments; they end up with 2.7x lower financial assets

Per Capita Household Financial Assets in 2022



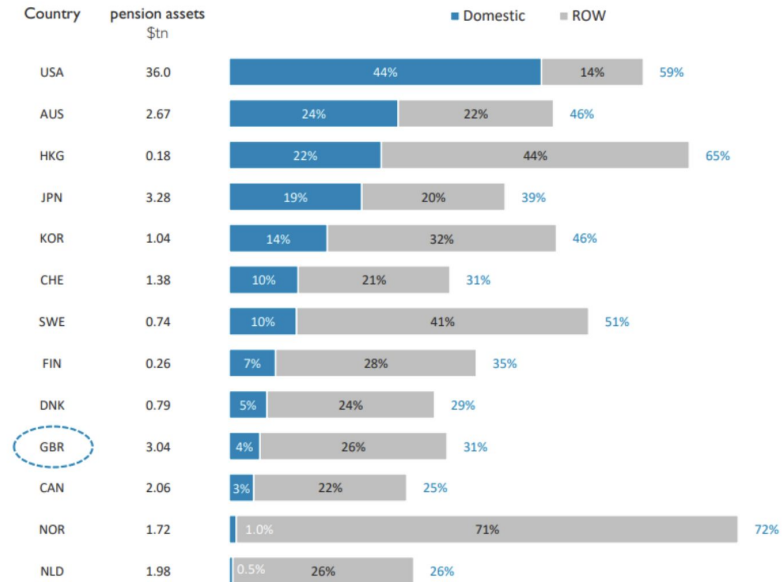
Europe's pension funds, with €9T under management, tend to invest less in equities, even less in domestic equities and only a tiny fraction in innovation

“European pension funds could go some way to fix this with their \$9 trillion in assets under management by **increasing their scant 0.01% allocation to venture capital.**

The Tibi Initiative, Germany's WIN (Growth and Innovation Capital for Germany) and UK's Mansion House proposals are all dedicated to making this theory reality.”

Niklas Zennstrom, Atomico

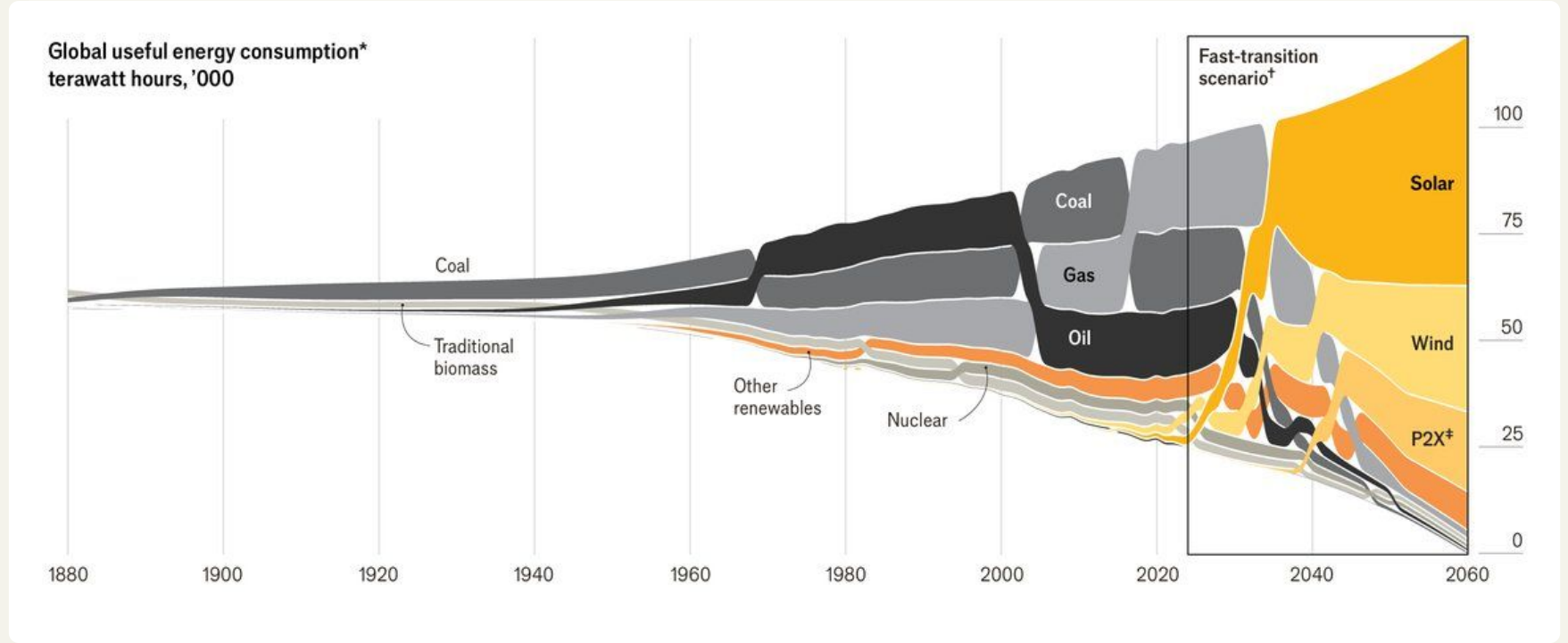
The allocation to domestic and international equities in different pension systems around the world



Source: New Financial analysis

Note: excludes UK and Canadian personal pension assets because of lack of data; Norway only includes data on the global and national public reserve funds

Cheap and abundant clean energy is on the horizon, unlocking new opportunities. The European Commission estimates that over €620B / year investment will be needed to meet the objectives of the Green Deal and RepowerEU



“

This report shows that an autonomous Europe is a wealthy and safe Europe only, if we allow our startups to grow into globally competitive tech giants. Europe is brimming with companies, talent and capital that just needs unlocking to kickstart our transformation into a global powerhouse: Technological power > Economic power > Geo-political power.

”



Lucien Burm



Further reading

- [The State of European Tech 2024 - Atomico](#)
- [The Future of European Competitiveness - Mario Draghi](#)
- [The Future of the Single Market - Enrico Letta](#)
- [A renewed vision for EU capital markets - New Financial](#)
- [EU Inc. - a pan European entity for Europe's startups](#)
- [eu/acc - and their 2025 survey](#)



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