

AI'S BAR MITZVAH MOMENT? FROM HYPE & HOPE TO BUSINESS MODELS!

Change is easy, making money off change is difficult!

THE AI BUZZ – THE LEAD IN

- In a world where AI enters almost every conversation, it takes effort to remember that its breakout moment was less than four years ago, when, on November 30, 2022, ChatGPT was unveiled to the public.
- Artificial intelligence has been around a lot longer, with a history tracing back to the birth of the computer age. I am old enough to remember IBM's Deep Blue, a machine powerful enough to evaluate two hundred million chess positions per second and beat the greatest chess players of its time.
- On the cultural front, we have seen variants of stories, where machines break free from human control and take over the world, in novels and movies, with Hal (the computer) in 2001: A Space Odyssey retorting "I'm afraid I can't do that" to Dave, his human controller, remaining one of my favorite movie lines of all time.

AI'S EXPLOSIVE EFFECT

- Notwithstanding its longer history, the effect on AI has been explosive in the last four years, manifesting in multiple developments.
 - The most successful company during this period, in terms of increasing market capitalization, **has been Nvidia**, the chip maker for the AI revolution.
 - After spending a decade talking about FANGAM, the big tech companies that had become part of our daily lives while carrying equity markets forward over the last decade, **it was the Mag Seven that became the stand-in for market dominance**, with Tesla and Nvidia replacing Netflix in the mix and accounted for 45% of the increase in market cap across all US stocks between 2022 and 2025, and have an aggregate market cap on August 16, 2026, of \$23.7 trillion.
 - It is not just markets that are besotted with AI, since **the massive investments in AI architecture, from data centers to large language models (LLMs) have carried the US economy**; it is estimated that these investments accounted for about 1% of the 2.5% in real GDP growth in 2024 and 2025. Almost every conversation of businesses now has an AI component, which if not restrained, can hijack the discussion.

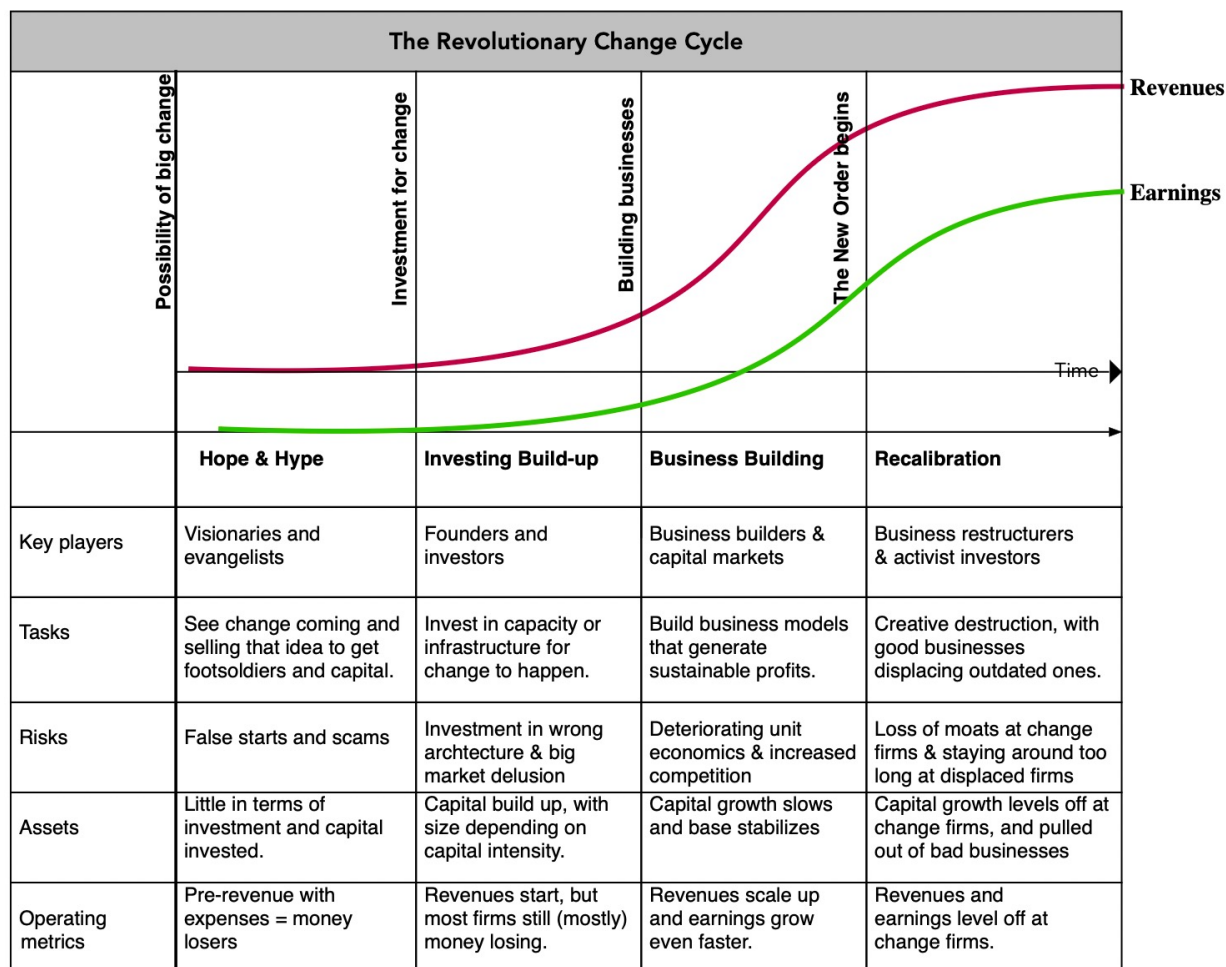
THE AI STORY: BEYOND BUSINESS AND MARKETS

- AI's effects were not restricted to business and markets, as **people were exposed to its reach in their personal and work lives**, with reactions ranging from
 - **awe, at its power to do tasks** that used to require skilled human labor, not just effectively, but in a fraction of the time, to
 - **dread, at the possibility of being made obsolete** by an AI agent.
- As the arc of the AI story has unfolded over the last four years, it seems to me that it has also **transitioned in the public consciousness from a mostly positive phenomenon early on to acquiring a negative tinge**, perhaps because of concerns that the genie is out of the bottle, and is not benign, and partly because some of its leading spokespeople are so unlikeable.

THE AI DEBATE: OFF THE TRACKS?

- The debate about AI, in my view, has gone off the track with **advocates and skeptics often talking past each other**, with advocates focusing on its "huge" potential market, and skeptics zeroing in on massive upfront investments as "too large", with each side claiming the high ground and labeling the other side as cultists (AI advocates) or Luddites (AI skeptics).
- This post is **not about proving one side right and the other wrong**, but about closing the loop and **making it a discussion of AI as a business**, recognizing that it is ground breaking, while also acknowledging that it has to be judged like every other business in history, not on potential usage, but on the prosaic details of business-building.
- I will be writing this as an AI novice, a very light user of ChatGPT (I still have only the free version) and acquainted with Claude only in passing (though my content has found its way into some of its bots). To be honest, I **am writing this post for an audience of one (me), with the purpose of clarifying for myself how to make sense of this space**, and if it does help you make sense of this disruption, it is a side benefit.

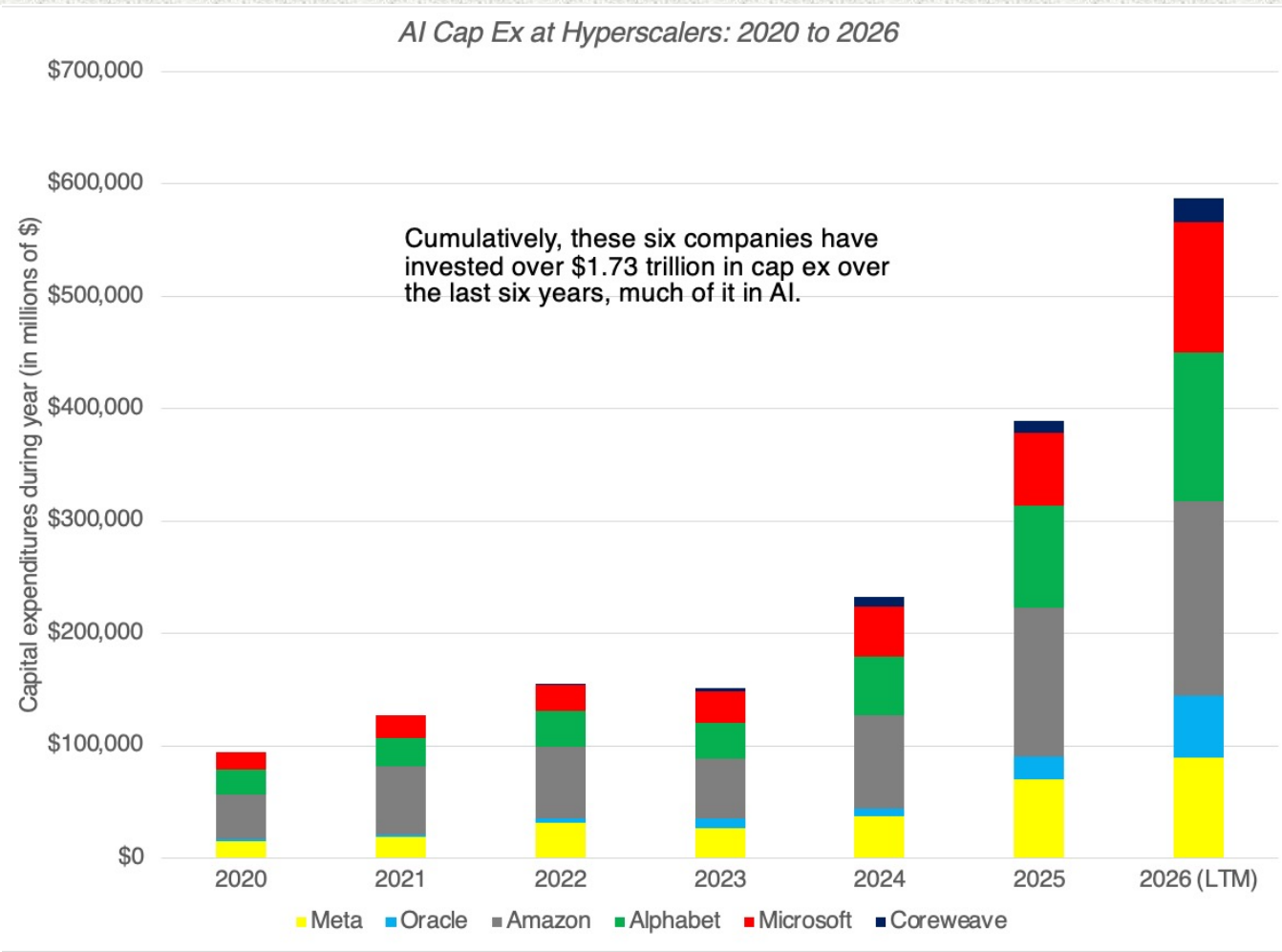
THE CYCLE OF REVOLUTIONARY CHANGE



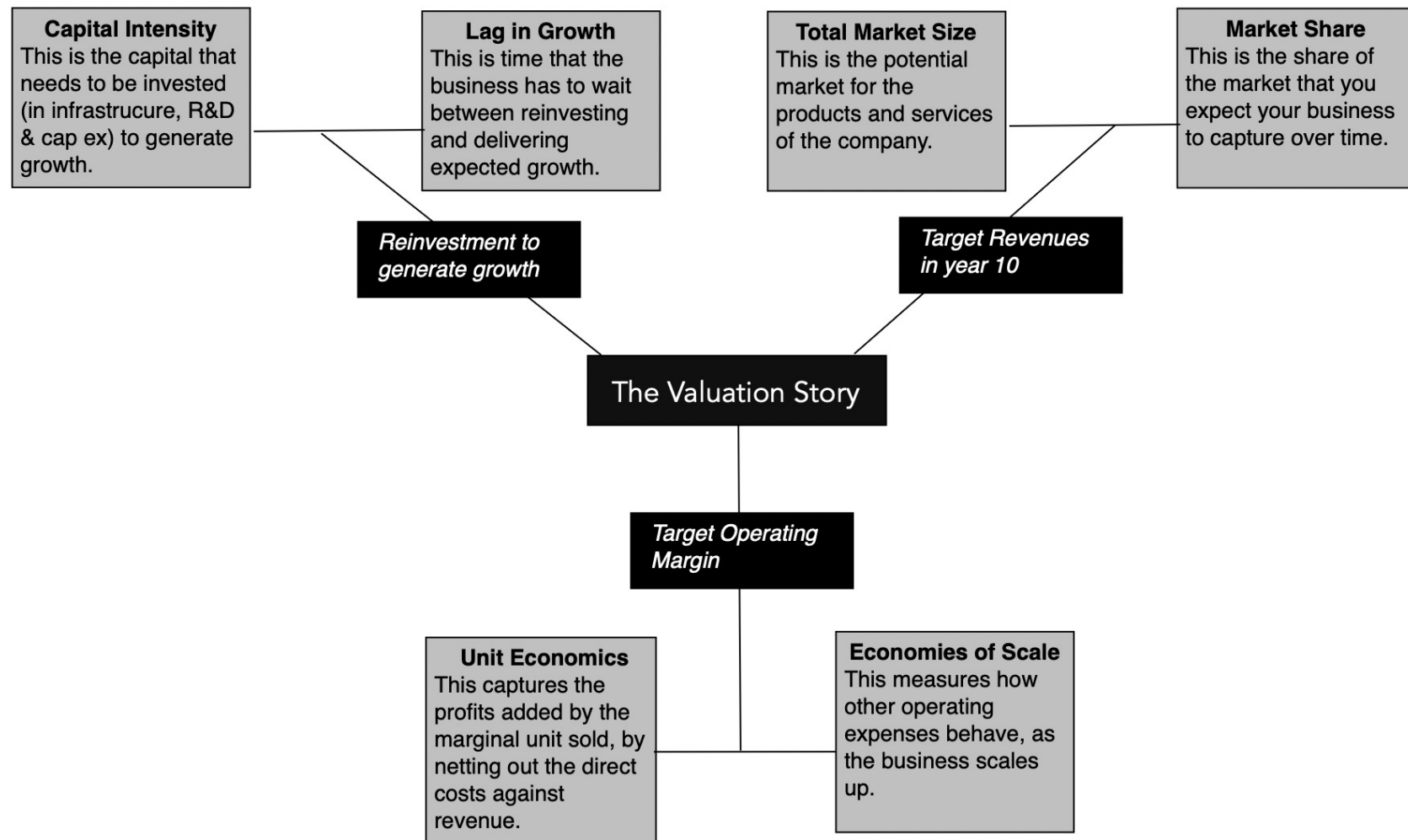
WHERE IS AI IN THE CYCLE?

- **ChatGPT**, as I noted at the start of this post, may have been low-tech AI, but it **got the hype cycle rolling**, and social media amplified and accelerated that rollout, and its broad reach meant that almost everyone has seen it at work.
- The hope that AI's popularity and reach would create a big market built up in parallel, with **capital flowing into firms in its sphere** (as well as wannabes that latched on to it, as a buzzword), pushing the market capitalizations of the companies building AI's architecture (computer chips, LLMs, power and water companies, cloud) into the trillions of dollars, funded with equity and debt.
- It was not just financial market participants that saw its allure, as **hyper scalers and new entrants invested hundreds of billions into AI cap ex**, partly because they believed in its promise, but partly out of a fear of missing out.

THE AI CAP EX (FROM JUST SIX COMPANIES).. ..



BUILDING A BUSINESS: THE DRIVERS OF VALUE



1. MARKET SIZE

- It is true that the value of a business is tied to how big a market there is for its products and services, but it is also true that this metric, **converted into an acronym (TAM) has become a gaming tool** in the hands of founders, venture capitalists and bankers.
- In my SpaceX valuation, where xAI is the primary AI business, I noted that bankers estimated a total addressable market (TAM) of \$22 trillion for xAI, which I **felt was more hallucination than estimate.**
- That said, **any discussion of AI as a business has to start with the total market question**, and it is worth starting that discussion with an examination of where we are right now in terms of revenues from AI products and services.

AI PRODUCT & SERVICE REVENUES: WHERE WE ARE RIGHT NOW.

Current Market for AI products & services (Estimates)

Ready reckoner

2

World*, revenues from AI services, mid-2026
Estimate, annualised

Korinek & McKelvey
Based on compute consumption

\$217.5bn

Exponential View
Bottom-up estimate of customer spending

\$175.0bn

Ramp/Bureau of Economic Analysis
National accounts and data on business spending

\$174.5bn

The Economist
Estimated revenues from frontier AI models

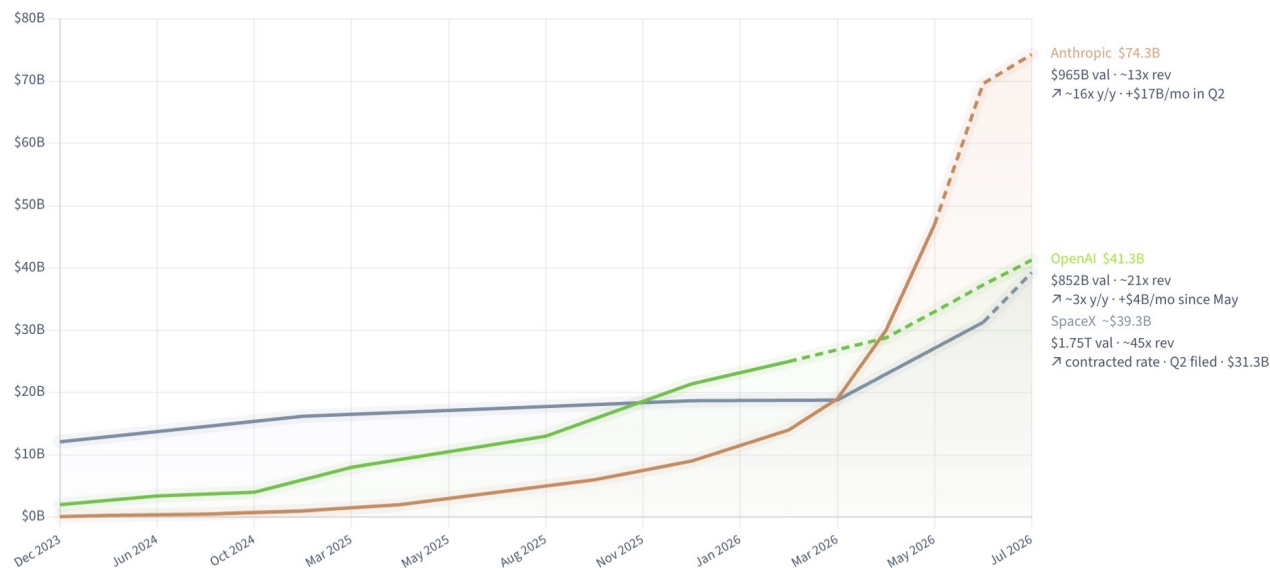
\$150.0bn

*Excluding China

Sources: BEA; "Measuring the AI economy", by A. Korinek and P. McKelvey, PII working paper, 2026; Ramp; "The state of the AI economy", by Azhar et al., 2026; press reports; The Economist

CHART: THE ECONOMIST

Annualized Revenue Run Rates at LLMs (OpenAI, Anthropic and xAI)



Source: Dealroom.co · public filings, company disclosures and press reports. Annualized run-rates, not recognised-period revenue. SpaceX is the consolidated business incl. xAI, on its filed (ASC 805-50 recast) history and reported through Q2 2026 (\$7.81B, 10-Q of 4 Aug); the Jul 2026 point is its contracted compute rate, which is not committed backlog — reported trailing revenue is \$23.0B.

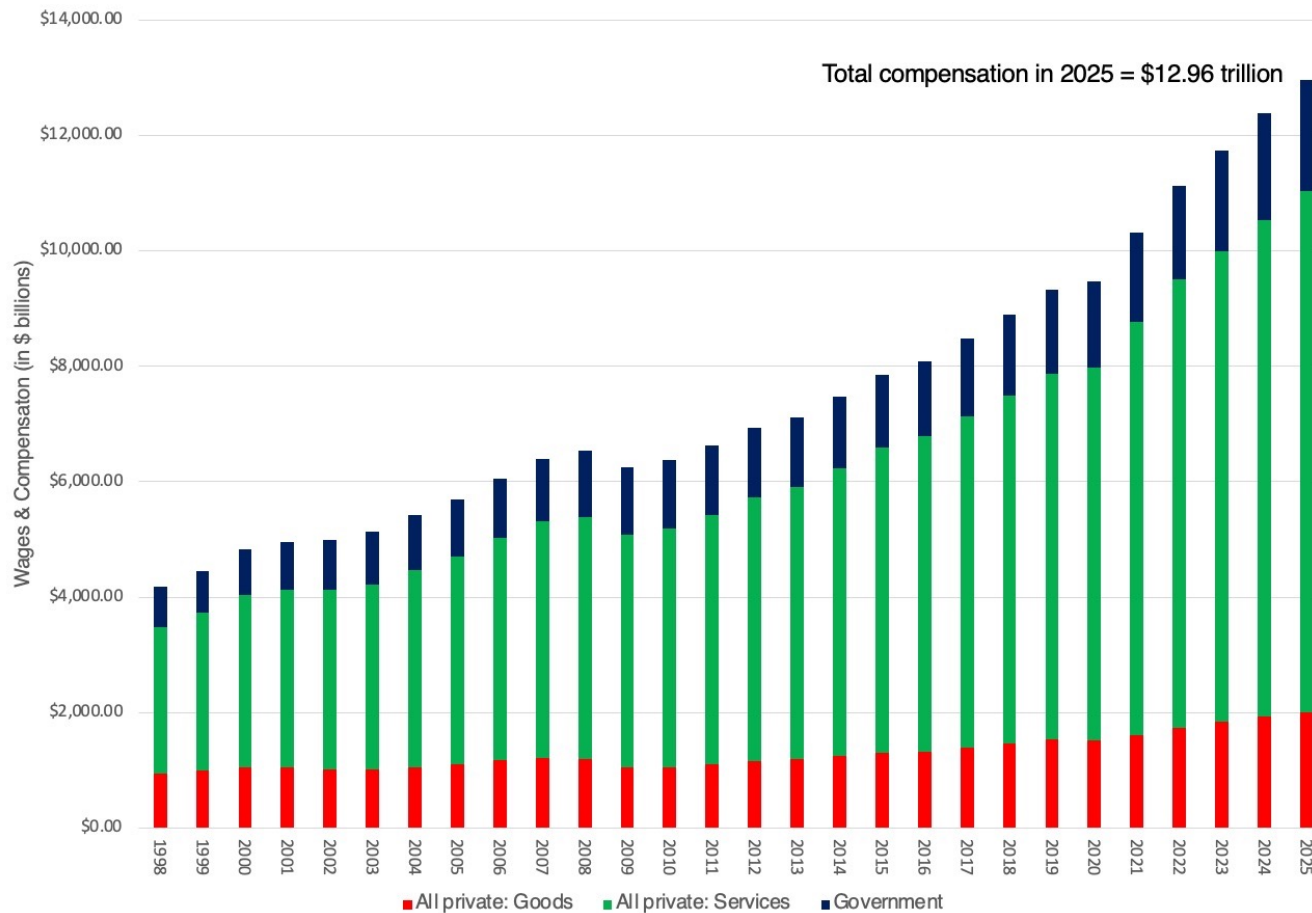
dealroom.co

THE LIMITS FOR TAM FOR AI: ALL OPERATING EXPENSES?

	Region													
Primary Sector	Africa and Middle East	Australia & NZ	Canada	China	Eastern Europe & Russia	EU & Environs	India	Japan	Latin America & Caribbean	Small Asia	UK	United States	Total	Sector %
Communication Services	\$118,779	\$26,242	\$50,216	\$562,129	\$5,425	\$496,421	\$35,615	\$287,012	\$93,403	\$168,636	\$65,364	\$1,266,926	\$3,176,168	4.89%
Consumer Discretionary	\$126,305	\$84,579	\$105,858	\$1,883,657	\$4,554	\$2,148,867	\$340,925	\$1,484,070	\$284,678	\$783,633	\$243,138	\$2,946,358	\$10,436,621	16.08%
Consumer Staples	\$150,547	\$131,397	\$223,676	\$505,649	\$14,384	\$1,077,046	\$80,480	\$534,913	\$373,895	\$576,408	\$346,545	\$2,419,208	\$6,434,148	9.91%
Energy	\$344,294	\$64,941	\$220,818	\$1,023,764	\$32,285	\$737,460	\$370,811	\$180,702	\$120,271	\$451,876	\$437,470	\$1,664,571	\$5,649,263	8.70%
Financials	\$233,397	\$98,902	\$308,988	\$776,239	\$12,485	\$1,371,247	\$311,434	\$477,144	\$232,961	\$412,210	\$306,247	\$2,247,659	\$6,788,911	10.46%
Health Care	\$44,988	\$57,427	\$23,245	\$484,704	\$3,826	\$635,067	\$53,815	\$219,063	\$26,986	\$86,797	\$108,002	\$3,688,118	\$5,432,038	8.37%
Industrials	\$201,666	\$102,996	\$141,955	\$3,236,871	\$7,168	\$2,607,529	\$199,864	\$1,614,495	\$205,432	\$1,051,198	\$325,948	\$2,477,922	\$12,173,044	18.75%
Information Technology	\$40,666	\$16,569	\$58,129	\$1,347,274	\$704	\$448,955	\$110,831	\$405,767	\$20,667	\$1,459,802	\$33,975	\$2,031,686	\$5,975,026	9.20%
Materials	\$186,032	\$120,577	\$127,349	\$1,527,683	\$18,108	\$1,129,060	\$267,297	\$491,461	\$194,765	\$536,489	\$131,049	\$550,579	\$5,280,450	8.13%
Real Estate	\$41,724	\$13,103	\$17,271	\$591,331	\$938	\$54,299	\$10,890	\$119,265	\$7,230	\$87,910	\$8,416	\$266,217	\$1,218,593	1.88%
Utilities	\$57,158	\$29,364	\$44,537	\$388,319	\$13,099	\$758,708	\$67,211	\$184,789	\$136,433	\$187,486	\$63,403	\$425,106	\$2,355,615	3.63%
Total	\$1,545,556	\$746,096	\$1,322,043	\$12,327,619	\$112,977	\$11,464,659	\$1,849,173	\$5,998,681	\$1,696,722	\$5,802,445	\$2,069,557	\$19,984,349	\$64,919,877	
Region %	2.38%	1.15%	2.04%	18.99%	0.17%	17.66%	2.85%	9.24%	2.61%	8.94%	3.19%	30.78%		

WAGES AND COMPENSATION FOR EMPLOYEES (US)

Aggregate Employee Compensation for US Workers

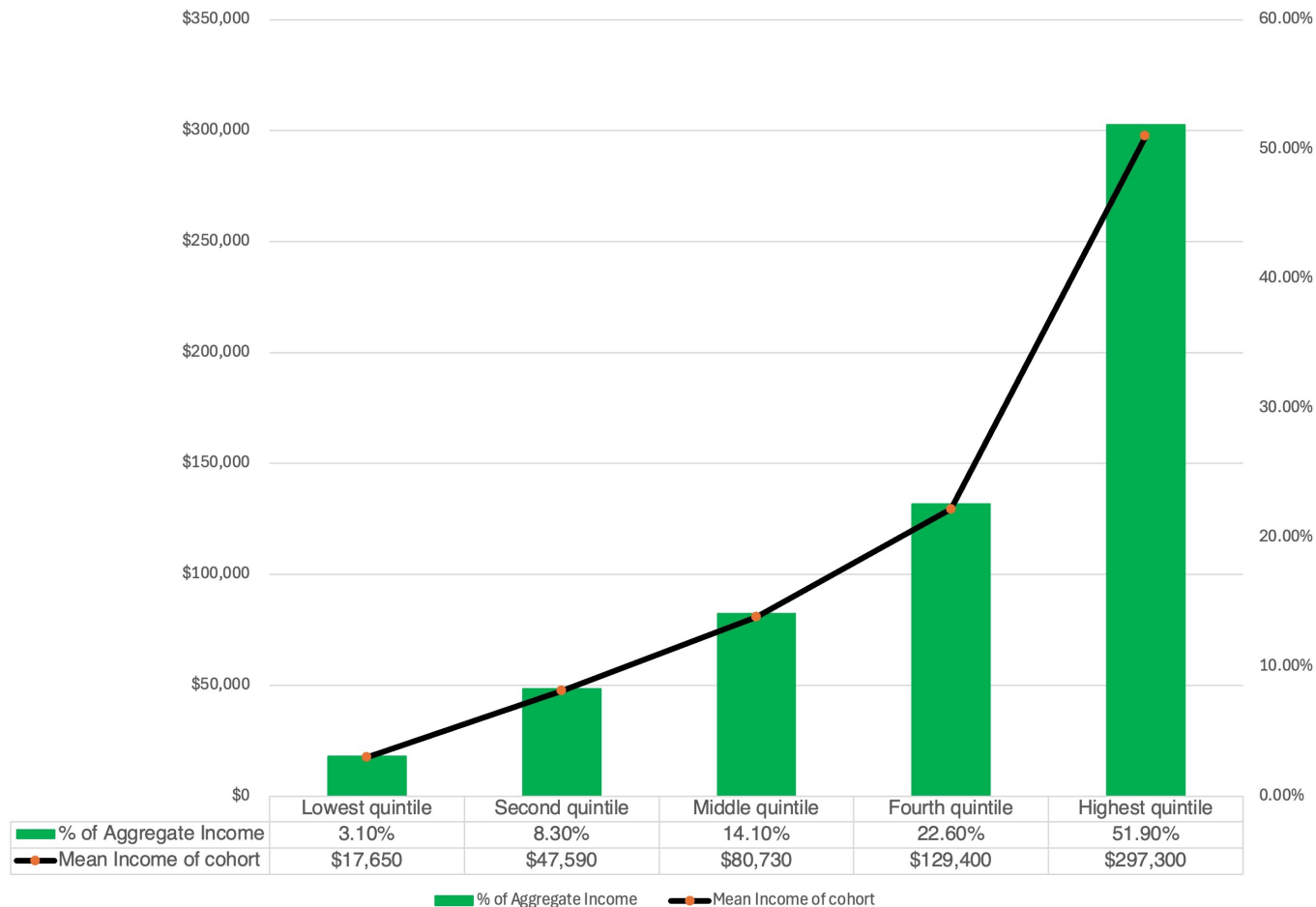


1. DISRUPTION: TOOL OR EMPLOYEE REPLACEMENT

Speed of Disruption		
Quick		Slow
Magnitude of Disruption	Replaces workers	Products High-powered and high-priced AI agents Potential Market Current employee compensation across companies Winners Current AI companies producing premium products Side costs Near-term employee displacement and job loss and no time to adjust
	Tools for work	Products AI tools, ranging from mass-market to premium Potential Market As an add-on, fraction of current employee costs Winners Current players start with a lead Side costs Low for now, as AI makes workforce more productive
		Products High-powered and high-priced AI agents Potential Market Future employee compensation across companies Winners Unclear as future entrants can learn from mistakes. Side costs Long-term employee displacement, with time to adjust.
		Products AI tools, ranging from mass-market to premium. Potential Market As an add-on, fraction of future employee costs Winners Open competition, with new entrants gaining access Side costs Long-term lower new hires, as AI makes workforce more productive

2. PRICING OF DISRUPTION

Income across quintiles: US workers in 2023



3. BREADTH OF AI DISRUPTION

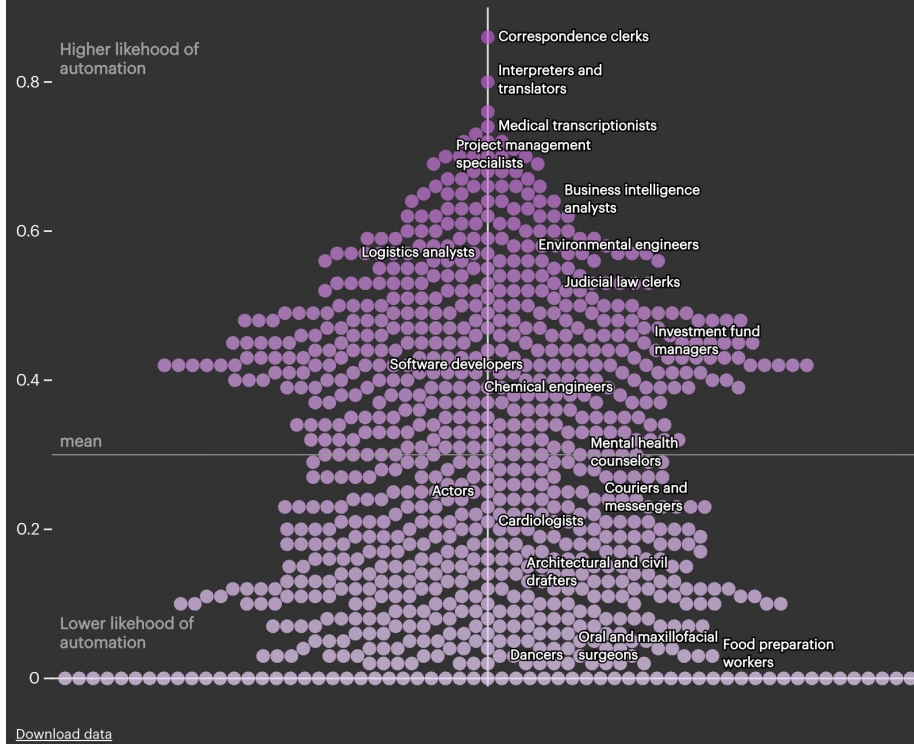
How vulnerable is a job to AI replacement?

The automation index captures the potential for automation through generative AI.

To explore, select a job category and click on the bubbles:

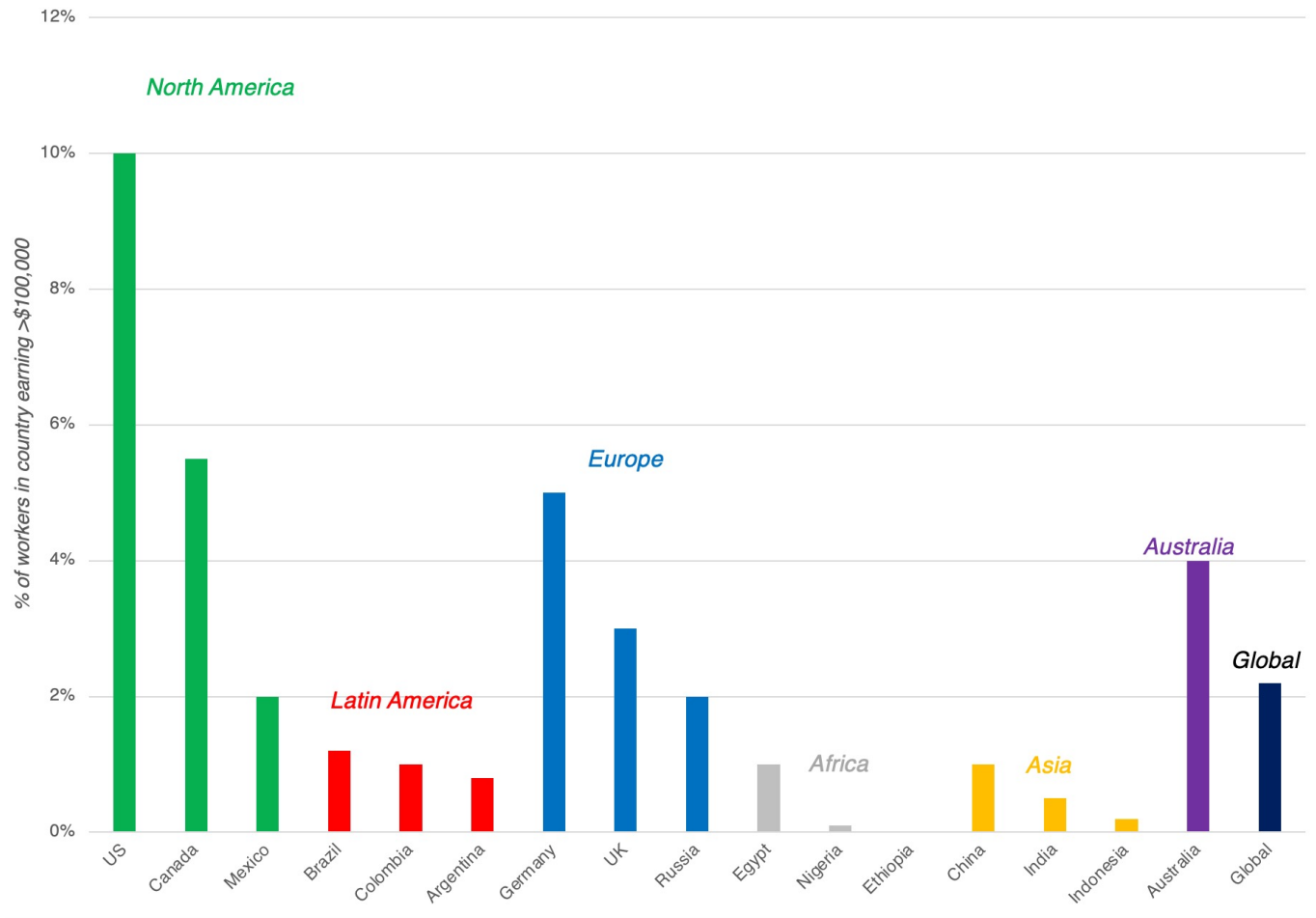
All

Automation score

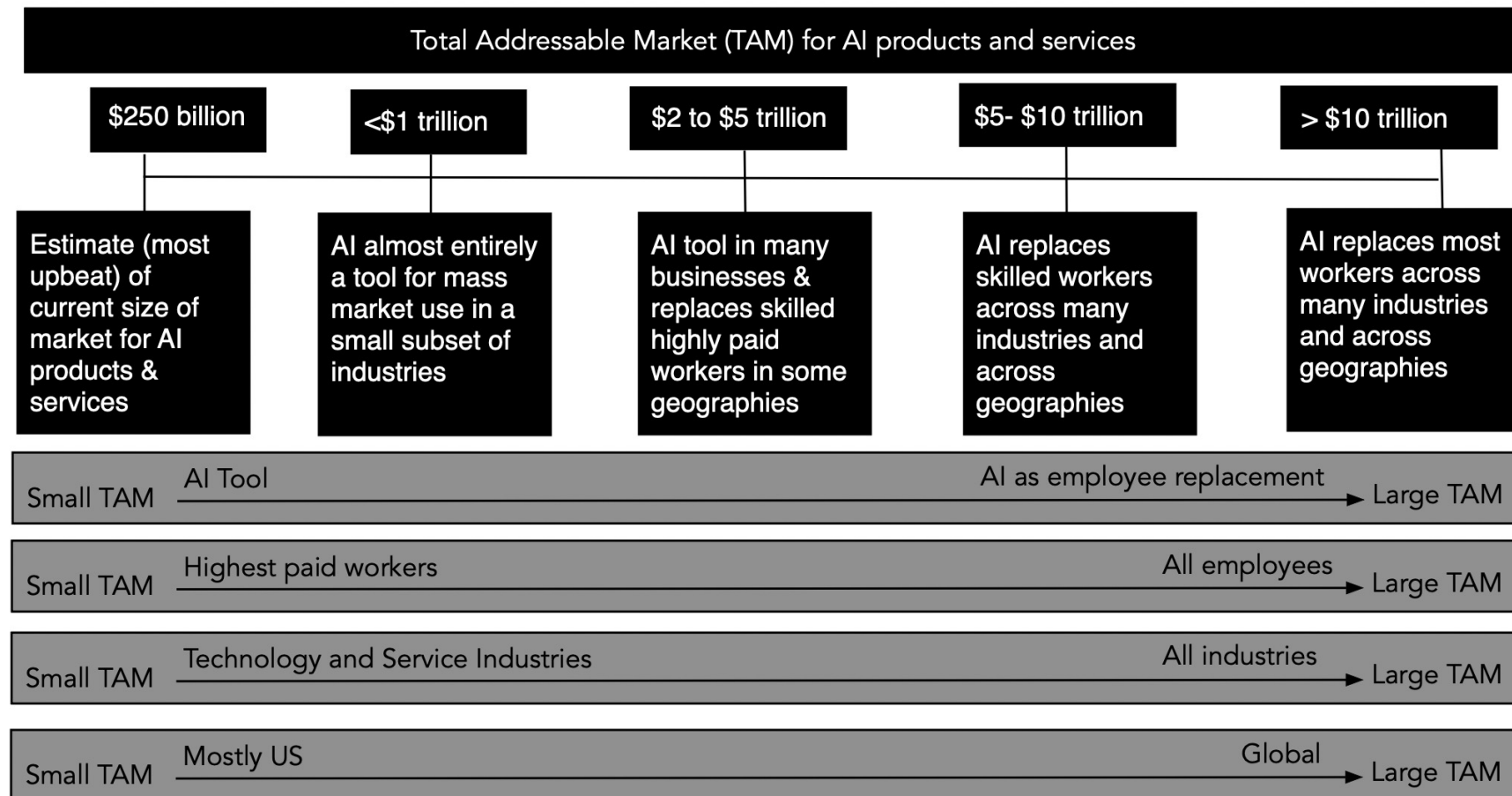


4. GEOGRAPHY OF DISRUPTION

An Income Comparison: High Income Earners, by Geography



DETERMINANTS OF TAM FOR AI...

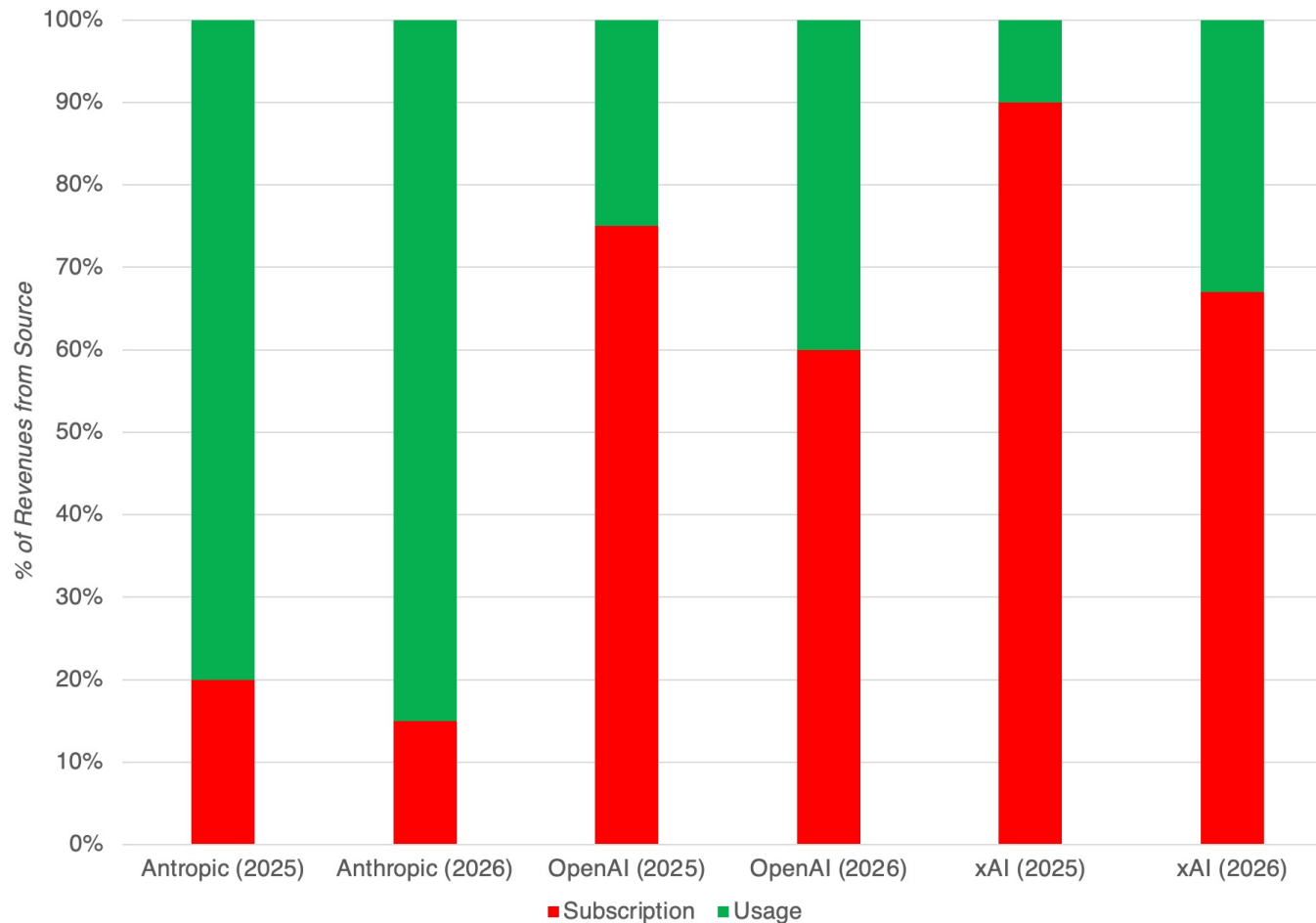


2. INDUSTRY ECONOMICS

- Accepting the premise that AI products and services will have a big market, in terms of revenues, is just the first step in structuring its business argument.
- I will focus on converting those revenues into profitability, by first looking at the **business models** that AI producers can consider adopting, with pluses and minuses, as well as **unit economics and economies of scale**, measuring what it will cost companies to produce the AI products that they are selling.

A1. BUSINESS MODELS: SUBSCRIPTION VS USAGE MODELS

AI Revenue Sources at Anthropic, OpenAI and xAI in 2025 & 2026

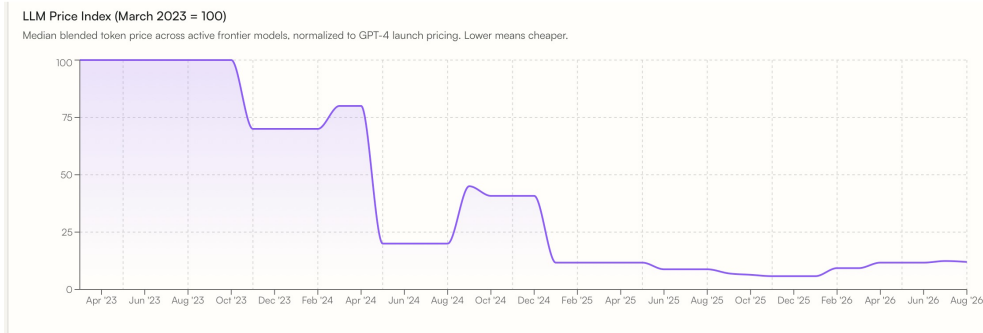


A2. OPEN VERSUS CLOSED MODELS

- There is an open and vigorous debate going on in AI circles as to whether the AI businesses should offer clients and customers open models (where clients can modify, adapt and build on the models) or closed models (where they are not allowed to do so).
- This debate is complicated because there are multiple forces that come into play including **how power in this space is concentrated** (with closed models giving its makers more power), **how much privacy** they offer (where the argument is that open models require less sharing of private data) and **how safe they are** (where it is posited that open models can be more easily hacked and turned into disinformation).
- All that said, there is clearly a business economics twist to this debate.
 - **Closed models give the companies that sell them more pricing power (higher margins) and perhaps are stickier** (making it difficult to switch away), because they are customized, but they require more resources to build and maintain (higher costs) and may work only with premium products.
 - As with subscription versus usage models, **you are likely to see divergence, with companies targeting the premium market more likely to stay with closed models and those building more workhorse applications trying their hand at open models.**

B. UNIT ECONOMICS — GOOD AND BAD NEWS

Average Cost per AI Token



Average Client Cost of accessing Frontier AI Product



- In **mass market AI**, where AI tools are basic and don't need power boosts, you should expect **costs for AI products to go down**.
- In the **premium market**, where you are building AI products either as tools on high-end tasks or as replacement for highly priced labor, **the costs will be tougher to reduce**, if each upgrade in product power puts demands on the inputs.

C. MOATS & COMPETITIVE ADVANTAGES

		Type of competitive advantage (moat)				
		<i>Brand Name</i>	<i>Switching Costs</i>	<i>Network Benefits</i>	<i>Cost Advantages</i>	<i>Legal Protection</i>
Moat Width	<i>Wide</i>	Top brand	Infinite	Global	Permanent	Full
	<i>Narrow</i>	Name brand	High	Local	Temporary	Partial
	<i>No Moat</i>	Generic	None	None	None	None
<i>Place in story</i>		<i>Margins</i>	<i>Customer Retention</i>	<i>Market Share</i>	<i>Profit margins</i>	<i>Pricing Power</i>

AI'S MOATS?

- In *mass market AI*, where products and services are standardized and basic, you should expect competitive advantages to flow **from unit costs being lower at a company than at its competitors**, either because of scale (with bigger companies having an advantage) or proprietary access to data.
- In *premium AI*, where products are customized, powerful and pricey, you should expect the winners to be companies that have the **technological know-how to craft these products**, while **bringing the costs of delivering power under control**. In addition, **products that are built around client data**, especially if the client is protective of that data, will **become stickier** and more difficult to displace, giving companies that make them more pricing power for a longer period.

THE PEOPLE ADVANTAGE?

- Does having the **people perceived as the smartest** in the AI space working for you give you a competitive advantage?
 - **At the moment, the answer seems to be yes**, and you saw this phenomenon at play when Jeff Dean, chief scientist at Google DeepMind (its AI entity), left the company in 2026 to create his own AI start-up, and the market reacted by knocking Alphabet's market cap down by 5.4% (more than \$100 billion).
 - In the same vein, the AI firms (especially Anthropic and OpenAI) have been **raiding universities** for their computer science and technology talent, with some AI-focused economists thrown into the mix and even a few philosophers.
- I think that the attention paid to these people hires and departures are **indicative of how young this industry** is, and how much its success will depend on building products right and marketing them to the right customers, and as it matures, I **expect this factor to fade in prominence**.

BRAND NAME?

- Is there a potential brand name advantage? Put simply, would you be willing to pay a premium price for a Claude agent over an AI agent crafted by a different company?
- The answer is still being worked out, because in addition to all of the business elements of this choice (product power, reliability), **trust** is a factor, since client companies are giving AI products access to secrets and data.
- It should come as no surprise then that **AI companies are all competing in the virtue space**, where each one puts itself out as more trustworthy and caring about public good than the next one.
- It may be cynical of me, but when I hear Dario Amodei or Sam Altman wax eloquent about how they plan to protect the world from the dark side of AI, I feel the urge to quote Shakespeare, and say "thou doth protest too much". Actions speak louder than words, and **trust will ultimately be based more on how these companies behave than on the philosophical treatises that they publish.**

CONSTRAINTS AND LIMITS: THE ORIGINS OF THE PUSHBACK AGAINST AI

- Real estate footprint and resource usage: AI, in terms of the investment footprint it is creating, is closer to the railroads in their early years than it is to any technology company. Like railroads, AI requires data centers that sprawl over huge areas, and unlike railroads, many of these areas have people living in them, whose lives will be altered by the presence of these centers.
- Data privacy and power: Earlier in this post, I pointed to privacy as one of the dividing lines in the choice between open and closed AI models, but that is a small part of a broader question, which is about data being accumulated by and mined at AI companies.
- People displacement: Going back to the discussion of the total market for AI, I noted that the best-case scenarios for AI, i.e., the scenarios where the market for AI products and services will be greatest, are also scenarios where there will be not just be significant job loss, but losses in high-paying jobs.
- Income equality and fairness: There is a suspicion that AI will make this divide wider, and that suspicion will only intensify with each AI company that goes public. SpaceX, when it went public at a market capitalization of close to \$2 trillion created a host of centi-millionaires (worth more than \$100 million) and the same phenomenon will play out when Anthropic and OpenAI hit the market.

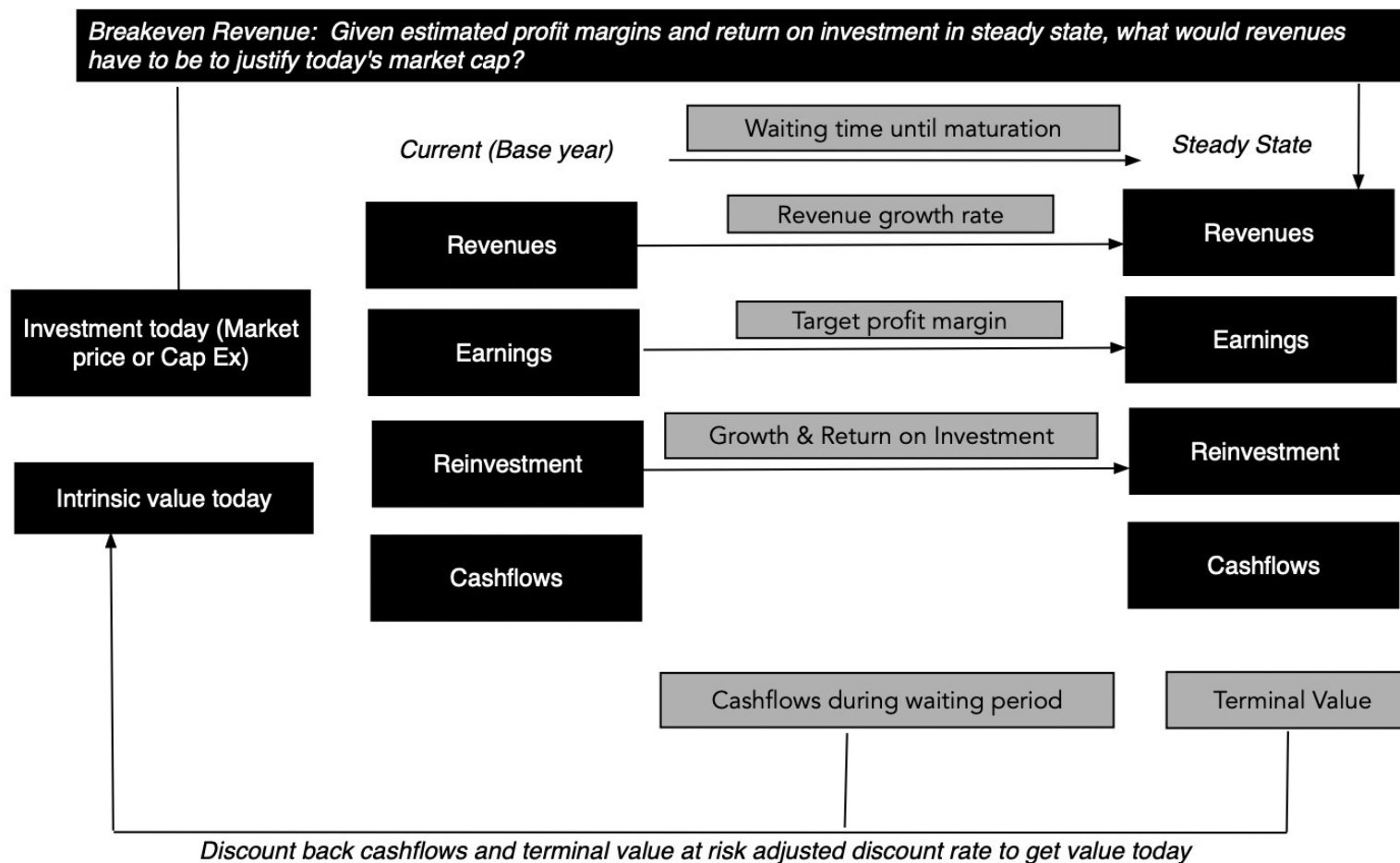
AND CONSEQUENCES FOR AI BUSINESSES...

- *Data centers will get more expensive to build, and power and water will be more tightly rationed, leading to companies having to spend both more on their upfront and capital expenditures, and as costs in generating AI products.*
- *As concerns about data mount, there will inevitably be scandals around the misuse of data, and those scandals will lead, as they did at social media companies, to tighter restrictions on the use of data and higher costs in acquiring and protecting that data.*
- *The worries about being replaced by AI agents will create counter movements, starting with system requirements that preserve jobs for humans (even if AI makes what they do obsolete) and in some countries, requirements that their employers continue to pay displaced employees for extended periods, in the event of layoffs.*
- *If AI creates its own cache of billionaires and centi-millionaires, the push towards wealth taxes, no matter what you may think about their effectiveness or fairness, will intensify, as will the creation of new tiers in the tax table for higher incomes, and perhaps for AI income.*

FROM MACRO TO MICRO: ZEROING IN ON COMPANIES..

- This post has focused on AI as a business, and if your interest is in valuing an enterprise in the space, whether publicly traded like SpaceX or Alphabet or privately owned, **you may wonder how it helps you in that endeavor.**
- There are two ways you can approach these valuations.
 - In the first, you can start with the market capitalization (actual in the case of publicly traded companies and estimated in the case of private businesses) and **examine what you would need in terms of end revenues and profit margins to justify the market capitalization.**
 - In the second, you can start with the company that you are valuing, and **lay out a roadmap for that company in terms of product choices (premium or mass market, open or closed) and estimate what it will be able to deliver** in terms of revenues, profits and cashflows over its lifetime.

1. BREAKEVEN REVERSE ENGINEERING...



WITH APPLICATIONS..

- With Anthropic, for instance, where the rumored pricing for the IPO is \$2 trillion, allowing the company premium pricing margins (after-tax operating margin of 30%) and above-average risk (cost of capital of 10%), the **company will have to generate close to \$1.2 trillion in revenues, if the AI market matures in ten years, and close to \$2 trillion, if the wait is 15 years.**
- In fact, you can **consider AI companies in the aggregate**, by adding up the market capitalizations of companies that are already public (or at least the portion of the revenues that come from AI) as well as the rumored pricing of companies like OpenAI and Anthropic, waiting to go public, and going through the same exercise. Using an aggregated market pricing of \$5 trillion (probably a conservative judgment, given the VC pricing of hundreds of companies in the space) attached to all AI product and service companies, and assigning a blended operating margin of 20% for the industry, the revenues that **you would need for the entire business to breakeven would be \$5 trillion, with a 10-year wait, and more than \$8 trillion, if the wait is 15 years.**

2. INTRINSIC VALUATION - A ROADMAP

- Product choice and market focus: If the AI market splits into premium and mass-market product market, the first step in valuing any company in this space will be to *make a judgment on which of these markets the company will target, and how much of its revenues will come each of the segments*.
- Unit economics and economies of scale at company: The choice of market segment matters because the unit economics and economies of scale you assume for the company will have to be consistent. AI companies that offer mass market products will charge lower prices, with a greater percentage of revenues coming from subscriptions, but will benefit more quickly from improving unit economics, as the cost of AI tokens continues to fall. In contrast, AI companies that target premium markets, will earn higher profit margins and have stronger moats, but struggle more with unit economics, as token usage increases with product power.
- Competitive advantages and moats: The types of competitive advantages (moats) that the company you are valuing will seek out, and lock in, if successful, will also vary depending on the targeted market, with cost advantages and scale working in the company's favor, with mass markets, and technological edges and product stickiness being more sought after, with premium products.
- Investment needed to deliver growth: While AI companies are more capital intensive than their tech counterparts, the additional reinvestment needed to deliver value can be altered by investments already made by a company. Companies that have built capacity in advance of growth will be worth more than companies that will have to reinvest contemporaneously to deliver growth, and companies that find ways to invest more efficiently will also have higher value.
- Regulatory constraints (current and in the future): To the extent that regulators and governments have a great deal at stake, the value of a company can be affected by where it operates geographically and the rules and regulations that govern AI products in that geography.

CONCLUSION

- I noted that I was writing this post for myself, because like many in this space, I was **finding myself pulled in a dozen different directions on AI, and desperately in need of a framework for thinking about the AI business.**
- This is my first try at trying to create a comprehensive framework, and I am sure that there are elements that I have missed and holes in my thinking, but it is a start.
 - I am clear eyed about what this AI framework will not and will do for me; **it will not tell me what the TAM for AI products and services will be or whether Anthropic is worth \$ 2 trillion, but it will allow me to determine that a \$22 trillion TAM for AI is fiction and that having your ARR grow 80% a year last year is not even close to being a rationale for why you should buy Anthropic at any price.**
- As you work your way through the framework, there will be room for significant disagreement on the reach of AI and its value as a business and **anyone who claims to have conviction that they know what's coming is being either ignorant or arrogant.**