Financial Stability Challenges in the Age of AI

Eighth annual AWG and MPAG workshop

June 2025

Presentation by Anton KORINEK

Economics of Transformative AI (EconTAI) Initiative
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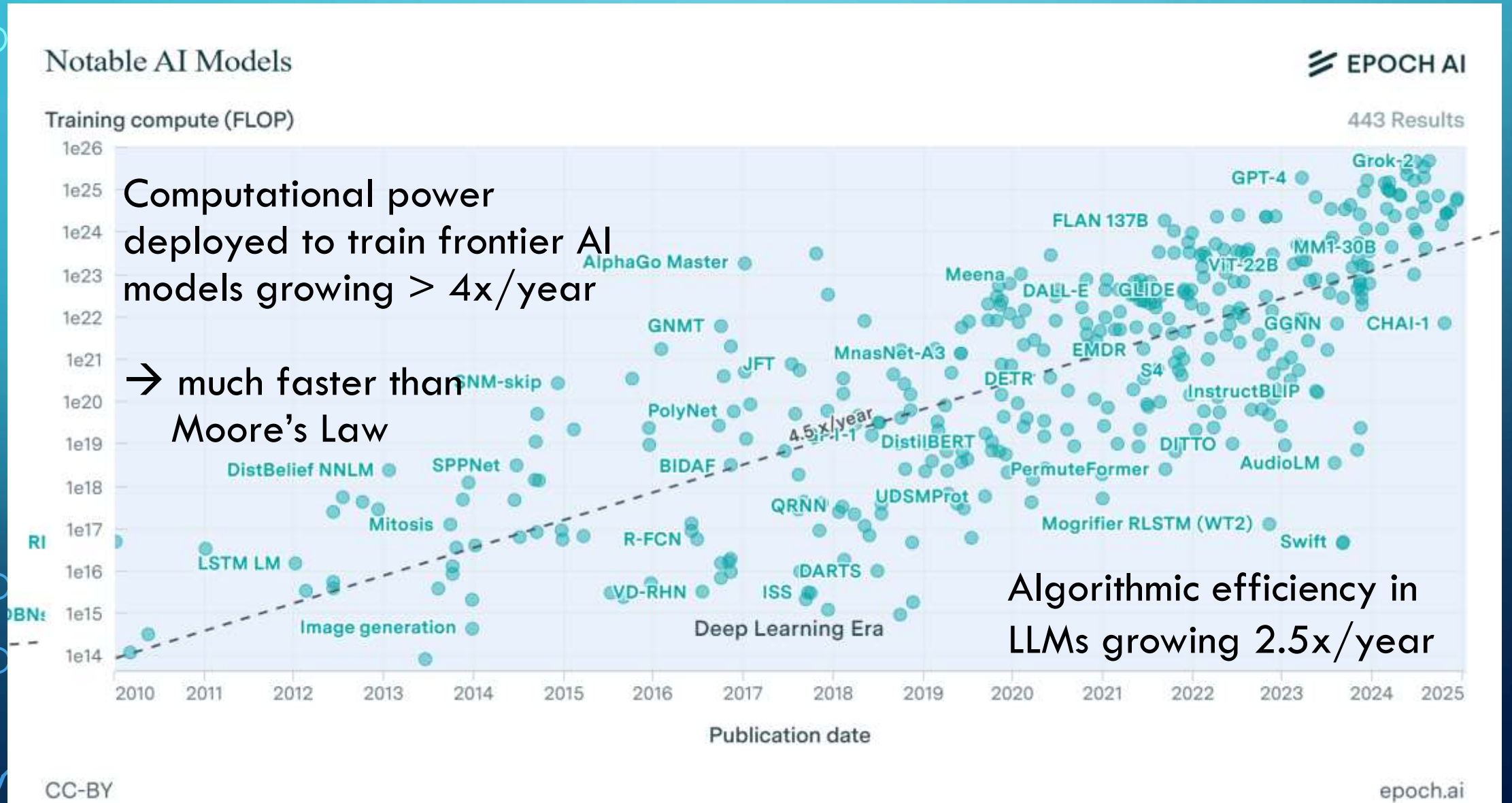
OVERVIEW

- The AI-takeoff transforming our economy
- Process risks
  1) Automated cybersecurity challenges
  2) Automated regulatory arbitrage

  } very important, but I won't cover it today
- Financial risks:
  3) Out-of-control algorithms
  4) Real disruptions triggering financial instability

SCALING LAWS: INTELLIGENCE = F(COMPUTE)



EVOLVING AI PARADIGMS

2010s: **Deep Learning** for specialized/narrow AI

2022: **LLMs** as general-purpose AI

2024: **Reasoning models**

2025: **AI agents**

LATEST PARADIGM:

AI AGENTS

AI Agents = AI systems that autonomously pursue goals

- by using cutting-edge LLMs for strategic planning
- and external tools (eg, web search, transactions, coding, ...)

expected to generate significant value 2025

NEXT UP: ARTIFICIAL GENERAL INTELLIGENCE

Declared goal of frontier AI labs: **Artificial General Intelligence (AGI)**

= AI systems that can perform essentially all economically valuable cognitive tasks

→ Our world is not currently prepared for that

→ To be better prepared, we need to engage in scenario planning (Scenario Planning for an A(G)I Future, IMF F&D Magazine)

AGI WON’T QUITE LOOK LIKE HUMAN INTELLIGENCE

Sam Altman

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Sam Altman

Posted 15 hours ago
June 10, 2025 at 11:12 PM

The Gentle Singularity

We are past the event horizon; the takeoff has started. Humanity is close to building digital superintelligence, and at least so far it's much less weird than it seems like it should be.

Robots are not yet walking the streets, nor are most of us talking to AI all day. People still die of disease, we still can't easily go to space, and there is a lot about the universe we don't understand.

And yet, we have recently built systems that are smarter than people in many ways, and are able to significantly amplify the output of

AI TAKE-OFF

= a phase of rapid, self-reinforcing progress in AI capabilities

- feedback loops imply a tipping point after which accelerating progress occurs
  - better AI models train even better descendant models
- could lead to transformative changes across the economy and society
- machines soon likely to outperform humans across cognitive tasks

SCENARIO PLANNING

Statements by leading CEOs AND researchers suggest we should include extreme/take-off scenarios in the mix

- business as usual
- baseline AGI scenario (~10 years)
- rapid AGI scenario (1-5 years)

ECONOMIC PARADIGM SHIFT UNDER AGI

Question: What will be different? Let's focus on the long arc of economic history:

The Malthusian Age: Technology … stagnant
Land … bottleneck
Labor … dispensable (reproducible)

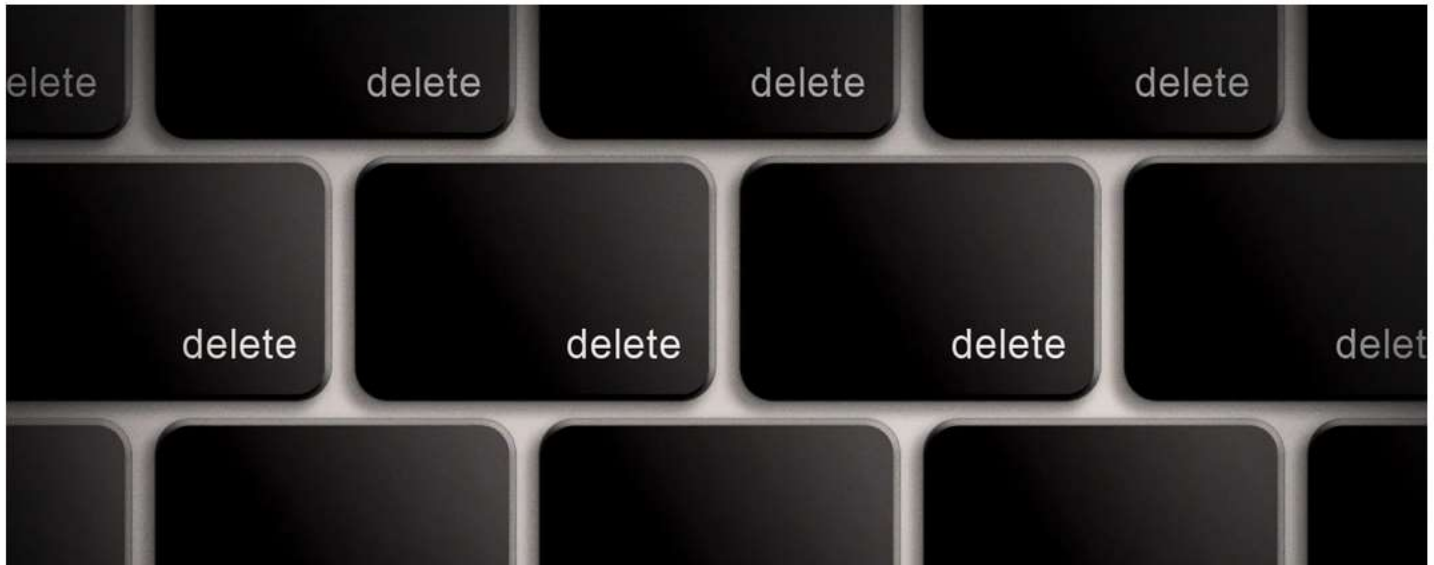
The Industrial Age: Technology … driving force
Labor … bottleneck
Capital … reproducible

The Age of AI: Technology … accelerating
Capital … reproducible
Labor … reproducible

→ "Economic Policy Challenges in the Age of AI," NBER WP 32980

Behind the Curtain: A white-collar bloodbath

Jim VandeHei, Mike Allen



Behind the Curtain: A white-collar bloodbath

Jim VandeHei, Mike Allen

Dario Amodei — CEO of Anthropic, one of the world's most powerful creators of artificial intelligence — has a blunt, scary warning for the U.S. government and all of us:

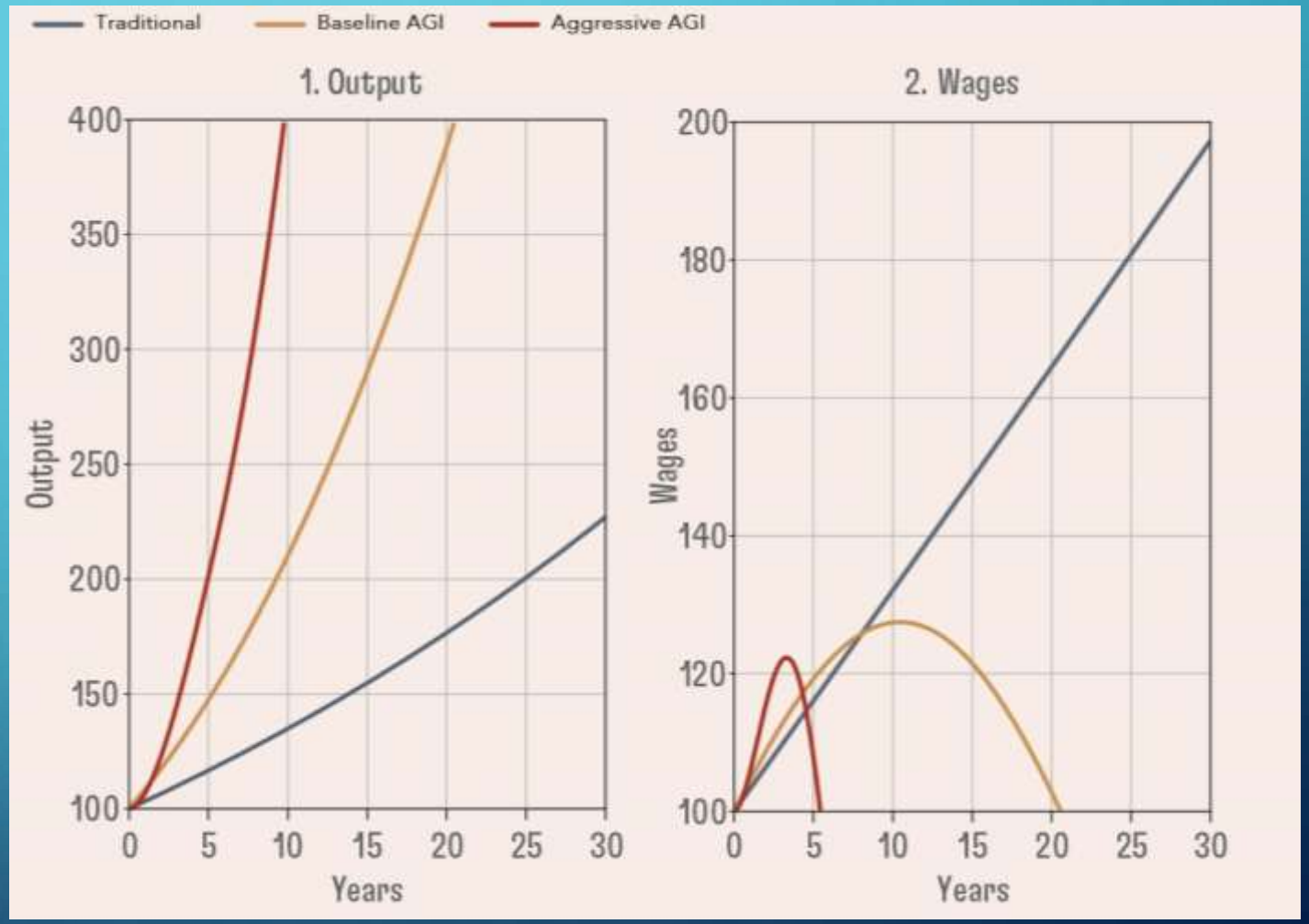
- AI could wipe out *half* of all entry-level white-collar jobs — and spike unemployment to 10-20% in the next one to five years, Amodei told us in an interview from his San Francisco office.

- Amodei said AI companies and government need to stop "sugar-coating" what's coming: the possible mass elimination of jobs across technology, finance, law, consulting and other white-collar professions, especially entry-level gigs.

SCENARIOS FOR OUTPUT & WAGES

Rapid advances towards AGI would

- turbo-charge growth
- but may depress wages



EVOLUTION OF TWO PARALLEL ECONOMIES

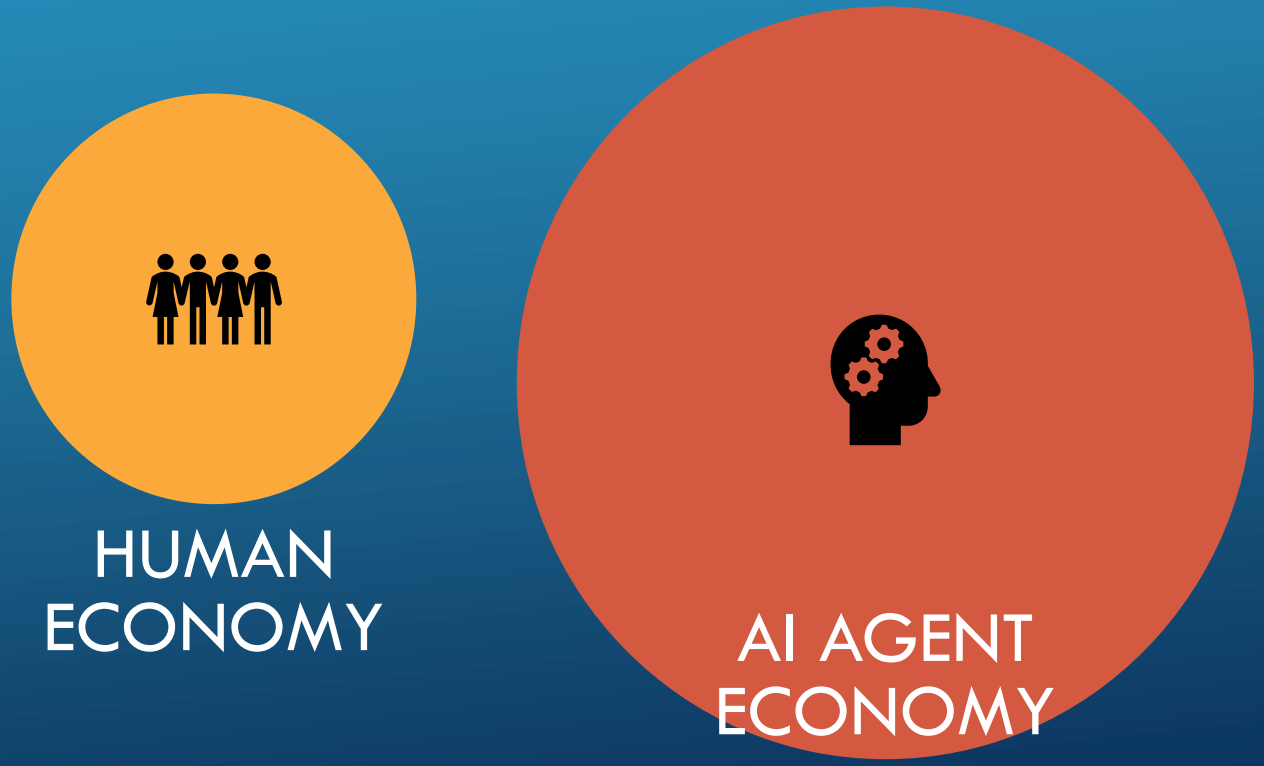
HUMAN ECONOMY

AI AGENT
ECONOMY

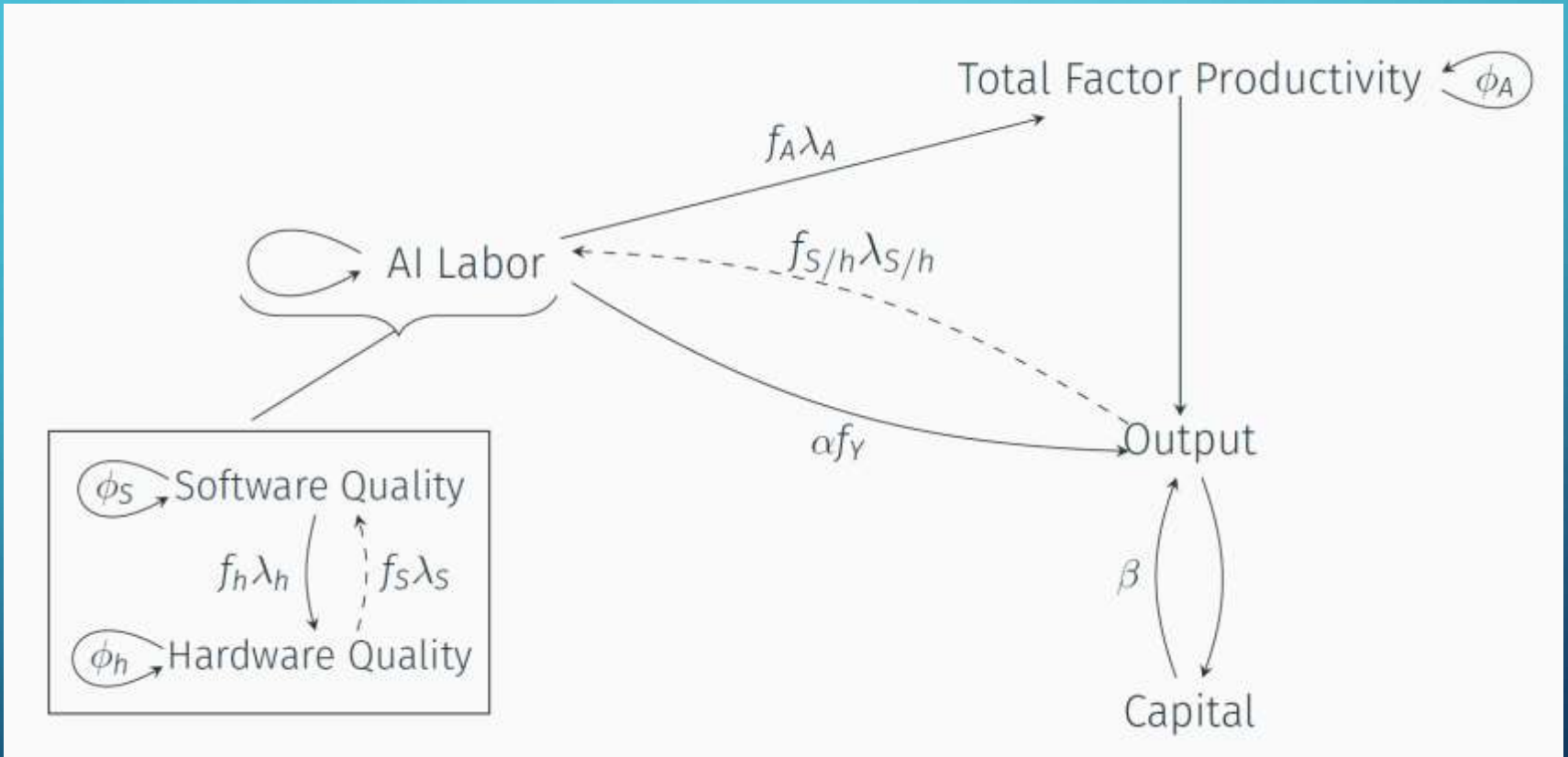
INITIAL SYMPTOMS OF TAKE-OFF

- significant resources flowing into AI sector (funding, chips, talent, energy, …)
  - financial implications
  - price and quantity implications for inputs & outputs
- rapid advances in AI capabilities

EVOLUTION OF TWO PARALLEL ECONOMIES



FEEDBACK LOOPS DRIVING A GROWTH TAKE-OFF



Source: "Is Automating AI Research Enough for a Growth Explosion?" (with T. Davidson, B.Halperin, and T. Houlden), June 2025

EVOLUTI

HUMAN
ECONOMY

AI AGENT
ECONOMY

SYMPTOMS OF TAKE-OFF OVER TIME

- rapid scientific progress in fields other than AI
  - in anything that benefits from intelligence
- relative devaluation of cognitive labor (price of intelligence → 0)
- relative increase in value of physical labor
  - but soon: self-replicating robotics
- rapid expansion of output, rise in interest rates

POTENTIAL FINANCIAL STABILITY CHALLENGES

AUTOMATING FINANCIAL INSTABILITY

- first example: 1987: automated portfolio “insurance”
- more recent experiences: flash crashes
- AI agents are:
  - faster
  - more opaque
- My prediction: risk of the next crash coming from the agent economy

A FINANCIAL SYSTEM FOR AI AGENTS

Infrastructure of the AI Agent Economy = a parallel payments system

- payment for LLMs via API keys
- Technical protocols for AI agents to communicate: MCP, Agent2Agent

Currently:

- API credits fully backed by $$
- Market size ~$10bn/quarter
  - growing fast (6x from 1 year; 600x from 3 yrs ago)
- Cost of API tokens shrinking → "exchange rate" is unstable

→ a parallel financial system for API credits is emerging

FINANCIAL IMPLICATIONS OF REAL DISRUPTIONS

If AI takes off:

Large redistributions affecting households, firms, and governments:

- Significant labor displacement, cognitive workers first, and widening inequality
- Sudden shifts in corporate revenues
- Reduced tax revenues straining government finances

FINANCIAL IMPLICATIONS OF REAL DISRUPTIONS

Compounding factors:

- Surging interest rates
- Terms-of-trade losses from growing “intelligence divide" across nations

→ debt sustainability problems
→ increased defaults among households, firms, governments
→ financial risks exacerbated by political discontent and instability

CRUNCH TIME

SCENARIO PLANNING: IT'S CRUNCH TIME

If you knew that AGI will be achieved within 1 – 5 years,

- What do you need to understand better?
- What should your organization do now to prepare?
- How would you prepare personally?

FURTHER RESOURCES

Follow my upcoming newsletter “The AI Economist”:

https://econofai.substack.com

Feel free to reach out:

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FURTHER READINGS

Available at https://www.korinek.com/research:

- The Economics of Transformative AI, NBER Reporter, Dec. 2024.
- Economic Policy Challenges for the Age of AI, forthcoming, MIT Press, 2025. NBER WP 32980.
- Scenario Planning for an A(G)I Future, IMF Finance & Development Magazine, Dec. 2023.
- Intelligent financial system: how AI is transforming finance, with Aldasaro, Gambacorta, Shreeti and Stein, BIS WP No 1194, June 2024