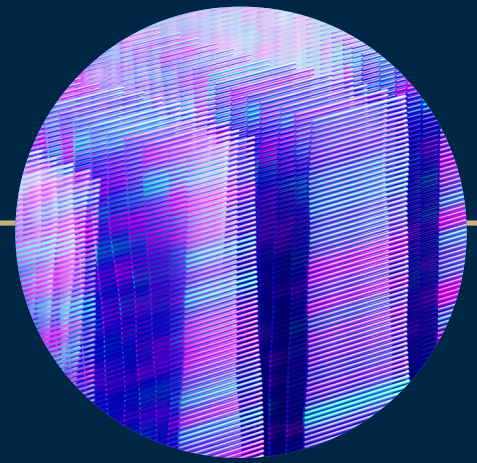


MARKET SIGHT LINES



AI and the Future of Work: Efficiency, Demand, and the Jevons Effect

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Artificial intelligence has revived a familiar concern: If technology can do more of the work, will the economy need fewer workers? AI can already draft, summarize, code, analyze, design, research, and respond to customers in ways not possible a few years ago. But history suggests the employment question is more complicated than a simple “machines replace people” framework. AI will likely eliminate some tasks, pressure some roles, and force workers and companies to adapt. But it may also lower the cost of intelligence, analysis, service, and production in ways that expand demand. Consider the Jevons paradox: When technology makes a valuable activity cheaper and more efficient, total usage can rise rather than fall. In this SightLines, we discuss how the Jevons paradox affects how AI impacts the labor force going forward.

THE TAKEAWAY: AI MAY REDUCE THE COST OF WORK — AND INCREASE DEMAND FOR IT

AI-driven automation may be disruptive, but history suggests productivity gains often create new demand, new use cases, and new forms of work. In summary:

- AI is likely to reshape work task by task, changing what people do more than simply eliminating entire job categories.
- The Jevons paradox may apply: When technology lowers the cost of useful work, demand for that work can expand.
- The original Jevons example was coal, but there are many other examples over history.
- For instance, spreadsheets automated calculation, but they also expanded demand for financial analysis, reporting, and advice.
- ATMs reduced routine teller work, but they also helped banks lower costs, expand branches, and broaden service.
- Better software tools have made developers more productive, while demand for software has continued to spread across the economy.
- AI's benefits will not be evenly distributed, and routine roles are likely to face more pressure than judgment-based work.
- For investors, we believe AI should be viewed not only as a cost-cutting tool, but as a demand-creating technology that can support new growth.

IN-DEPTH: WHAT HISTORY TELLS US ABOUT AI, JOBS, AND DEMAND

AI will likely reshape work, but past productivity waves suggest the full impact depends on how lower costs change demand, business models, and worker roles. Going deeper:

- AI is best understood as a task shock, not simply a job shock.
 - Most jobs combine tasks: analysis, communication, judgment, service, and accountability.
 - AI may automate parts of a job while increasing the value of human judgment and oversight.
- The Jevons paradox offers a useful counterweight to AI unemployment fears.
 - When efficiency lowers the cost of useful work, total demand can rise.
 - With AI, that may mean more analysis, coding, drafting, design, service, and research.
- The original Jevons example was energy, but the lesson applies more broadly.
 - Jevons observed that better steam engines increased, rather than reduced, coal use.
 - The same logic can apply when AI lowers the cost of cognitive work.
- Spreadsheets are a powerful modern example.
 - Excel automated calculation but expanded budgeting, forecasting, reporting, and analysis.
 - The job shifted from manual arithmetic toward interpretation, controls, planning, and advice.
- ATMs show how automation can reduce labor per transaction while expanding service models.
 - ATMs reduced routine teller work but lowered the cost of operating bank branches.
 - Teller employment initially held up as branches expanded, though the role later came under pressure.
- Software development shows how better tools can increase, not reduce, demand for skilled workers.
 - Better tools have made developers more productive for decades.
 - Yet demand for software keeps rising as more of the economy becomes digital.
- The transition will still be uneven.
 - Jevons works best when lower costs unlock large, expandable demand.
 - Routine roles may still face pressure where output is standardized or demand is limited.
- The investment implication is that, we believe, AI should be viewed as a technology that is labor-saving and demand-creating.
 - The first-order effect is efficiency: lower cost, faster workflows, and more automation.
 - The second-order effect may be expansion: more use cases, better service, and new growth.

WHAT WE THINK

The fear that AI will reduce the need for human labor is understandable, and in some areas, we will see a negative effect on the labor force. But history argues against a simple conclusion that efficiency automatically means fewer jobs. When technology lowers the cost of valuable work, demand often expands. That is the Jevons paradox. So, while AI may reduce the labor needed for many individual tasks, it may also increase the amount of analysis, service, software, research, personalization, and decision support the economy wants. In our view, the labor market impact of AI will depend less on automation alone and more on how companies use AI merely to cut costs but also create new demand.

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