
Is AI a Bubble That Is About to Burst? A Systematic Review of Financial and Economic Evidence

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ABSTRACT

Background: Extraordinary increases in equity valuations, expenditure, capital intelligence, and public attention have accompanied the rapid expansion of generative AI since 2022. Central banks, international financial institutions, and market analysts increasingly refer to a possible “AI bubble,” raising questions about whether the boom is sustainable or likely to end in a sharp correction.

Objective: To systematically review recent evidence and expert assessments on whether current AI-related investments and asset valuations exhibit characteristics of a financial bubble that is likely to burst in the near term.

Methods: A systematic search was conducted (January 2023–November 2025) across Google Scholar, SSRN, and websites of major financial institutions and research organizations (e.g., Bank of England, International Monetary Fund, Congressional Research Service, McKinsey Global Institute, Goldman Sachs Research, California Management Review), search terms combined concepts for AI with bubbles, market valuations, and macroeconomic impact. Eligible sources included empirical analyses, official reports, and analytical commentaries that (a) discussed AI in the context of asset valuations or macroeconomic outcomes and (b) provided explicit arguments regarding bubble-like or fundamental characteristics. Data were extracted on (i) valuation or investment metrics, (ii) productivity and growth estimates, and (iii) explicit bubble assessments. A narrative synthesis was performed because of heterogeneity in methods and outcomes. These source types and analytical categories, along with representative examples, are summarized in Table 1.

Results: Thirty-five sources met the inclusion criteria, grouped into four categories: (1) financial stability and bubble-risk assessments by central banks and international institutions; (2) macroeconomic modeling and productivity studies; (3) management and strategy reviews of AI and productivity; and (4) market and investment research on AI valuations. Central banks and the International Monetary Fund (IMF) highlight “stretched” valuations and the risk of a sharp market correction, explicitly comparing current AI exuberance to the late-1990s dot-com boom. Macroeconomic and consulting studies project sizable, long-run productivity and GDP gains from AI, although meta-analytic evidence finds no robust relationship between AI adoption and aggregate productivity to date. Primary market analyses acknowledge bubble-like features, rapid valuation growth, circular spending, and concentration, but argue that fundamentals and current earnings distinguish AI from prior purely speculative episodes.

Table 1: Overview of Sources Included in the Systematic Review on AI and Bubble Risk:

| Category | Type of Source | Representative Examples | Main Focus on “Bubble” | Main Focus on “Fundamentals / Real Economy” |
|---|---|--|--|--|
| Financial Stability & Bubble-risk Assessments | Central bank reports, IMF/IFIs, WEF statements, Congressional briefings | Bank of England (2025); Georgieva (2025); Gourinchas (2025); Brende (2025); Weinstock & Tierno (2025) | Warn of “stretched” valuations in AI-exposed tech equities; highlight parallels with the dot-com boom; emphasize risk of sharp corrections and potential financial-stability implications. | Note that AI investment is still a modest share of GDP; stress that long-run impact depends on productivity and diffusion; call for monitoring and macro-prudential safeguards rather than stopping AI investment. |
| Macroeconomic & Productivity Studies | Macro models, policy briefs, consulting reports, evidence-based management reviews | Guerrón-Quintana et al. (2024); McKinsey Global Institute (2023); Weinstock & Tierno (2025); Seydl & Linden (2024); Gruda & Aeon (2025) | Some note an “AI productivity paradox”: large investment, limited currently measurable aggregate productivity gains; highlight risk of expectations getting ahead of near-term data. | Project positive long-run contributions of AI to productivity and GDP (e.g., multi-trillion USD annual value; several-percentage-point GDP uplift); emphasize heterogeneity across sectors and long adoption lags. |
| Market & Investment Research | Investment bank research, wealth-management notes, institutional market commentary | Goldman Sachs Research (2025); FL Putnam (Hazen, 2025); J.P. Morgan Private Bank (Seydl & Linden, 2024); WisdomTree (2025); “AI bubble” (2025) | Acknowledge bubble-like indicators: rapid price appreciation, heavy concentration in a few mega-caps, circular AI spending, hype-driven capital flows into start-ups and thematic ETFs. | Argue that many leading AI firms have strong earnings, cash flow, and diversified businesses, unlike dot-com start-ups; frame AI as a “new technological revolution” in which some over-valued names will correct but the theme remains structurally intact. |
| Technology, Regional & Sectoral Perspectives | Regional economic analyses, industry interviews, sectoral case studies, business journalism | Melas-Kyriazi (2025); Edser (2025); Nenni (2025); De Vynck (in “AI bubble,” 2025); other sectoral/region-specific reports | Describe local mini-bubbles (e.g., in specific hubs like San Francisco or in certain AI application niches) with soaring valuations and unproven business models; industry leaders (e.g., Gelsinger) openly describe AI as a bubble. | Document real revenue growth in specific verticals (e.g., coding assistants, customer service, marketing); show that AI is already embedded in workflows and infra; anticipate a shake-out and consolidation rather than disappearance of AI. |
| Synthesis/Conceptual Analyses | Cross-cutting academic and policy synthesis pieces | Gruda & Aeon (2025); AI boom/bubble entries (2025); macro & management overviews that explicitly compare scenarios | Emphasize that sections of the market likely meet classic bubble criteria; predict that some AI-exposed assets will face significant repricing. | Support a hybrid view: AI as a general-purpose technology with real long-run value, co-existing with speculative excess; anticipate a pattern similar to the dot-com cycle (boom, bust, then sustained transformation). |

Conclusions: The evidence supports a hybrid view: segments of AI-exposed equity markets display speculative excess. They are vulnerable to correction, whereas AI, as a general-purpose technology, has credible long-run economic value. A complete collapse akin to a pure asset bubble appears unlikely; a pattern similar to the dot-com cycle, over-valuation, correction, and subsequent consolidation with lasting

productivity effects is more consistent with the available data. For policymakers, firms, and investors, the key challenge is not to bet for or against “AI” in the abstract, but to distinguish bubble-like exposures from durable, productivity-enhancing applications.

KEYWORDS: *Artificial Intelligence, AI, financial bubbles, asset valuations, productivity, macroeconomics, systematic review*

INTRODUCTION:

The commercialization of large language models and other generative AI systems in 2022–2023 triggered a surge in investment and valuations across technology firms that provide models, chips, and cloud infrastructure. Companies have announced unprecedented capital expenditure to build AI-specific data centers, while equity valuations for leading AI suppliers have reached historic highs (McKinsey Global Institute, 2023; “AI bubble,” 2025).

This expansion has raised concerns that AI may represent a new financial bubble. The Bank of England’s Financial Policy Committee has warned that valuations of AI-focused technology firms appear “stretched” and that the risk of a “sharp market correction” has increased (Bank of England, 2025). The International Monetary Fund (IMF) similarly notes “echoes” of the late-1990s dot-com boom, emphasizing surging AI-related valuations and the possibility of abrupt repricing (Georgieva, 2025; Gourinchas, 2025). The president of the World Economic Forum (WEF) has publicly listed AI as one of three potential financial-market bubbles, alongside cryptocurrency and sovereign debt (Brende, 2025).

At the same time, a growing body of work argues that AI, particularly generative AI, is a genuine technological revolution with substantial long-run productivity potential. McKinsey Global Institute (2023) estimates that generative AI could add between USD 2.6 and 4.4 trillion in annual economic value across sectors. Guerrón-Quintana, Mikami, and Nosal’s (2024) multi-sector macroeconomic model suggests that plausible improvements in generative-AI productivity could raise U.S. GDP by several percentage points over a decade. The Congressional Research Service (Weinstock & Tierno, 2025) and J.P. Morgan Private Bank (Seydl & Linden, 2024) likewise emphasize AI’s potential to boost productivity growth, even as they acknowledge uncertainty and distributional risks.

These mixed signals raise an essential question for policymakers, firms, and investors: *Is AI best characterized as a speculative bubble that is about to burst, a fundamental technological revolution, or a combination of both?* While commentary on “AI bubbles” is increasingly common, there has been limited effort to systematically synthesize empirical and analytical evidence across macroeconomics, financial stability, and productivity research.

METHODS:

The aim of this systematic review is therefore to summarize recent assessments of AI-related valuations and bubble risk from central banks, international organizations, and market analysts; to review quantitative evidence on AI’s macroeconomic and productivity impacts; and to integrate these findings to assess whether current AI developments exhibit the hallmarks of a financial bubble at imminent risk of bursting.

This study was designed as a systematic narrative review of recent literature and official reports addressing AI in the context of asset valuations, bubble risk, and macroeconomic effects. The review followed the general PRISMA logic for search and selection; however, due to the heterogeneity and non-traditional nature of many sources (e.g., central bank reports, consultancy analyses, market research), classical meta-analysis was neither feasible nor appropriate. The focus was placed on synthesizing arguments and evidence rather than estimating pooled effect sizes.

Searches were conducted between September and November 2025 using Google Scholar and SSRN for academic and working papers, official institutional websites (Bank of England, International Monetary Fund, World Economic Forum, Congressional Research Service, McKinsey & Company, Goldman Sachs Research, California Management Review), and major international newswire and financial outlets (e.g., Reuters, Associated Press) for primary reports of institutional warnings and market analyses. Search terms were combined to capture concepts related to AI and generative AI, including bubble, investment bubble, financial bubble, asset valuations, macroeconomic effects, productivity, economic impact, and AI boom. Reference lists of key articles were screened for additional relevant sources (“snowballing”). The timeframe covered January 1, 2023, to November 21, 2025, to capture the post-ChatGPT investment surge and the period during which central banks and international institutions began issuing explicit AI-bubble warnings.

Inclusion criteria required that sources (1) discussed AI (including generative AI) explicitly in relation to asset valuations, bubbles, or financial-stability risks and/or macroeconomic or productivity impacts relevant to valuation fundamentals; (2) were peer-reviewed articles, working papers, or research reports from recognized institutions (e.g., central banks, IMF, CRS, McKinsey, Goldman Sachs), or analytical commentaries and insights from established financial research outlets or top-tier management journals (e.g., California Management Review); and (3) were published in English. Exclusion criteria removed purely technical AI engineering papers without economic or financial analysis, opinion blogs and media commentary lacking substantive analytical or quantitative content, and documents focused solely on AI ethics, governance, or social impacts without discussion of valuations or macroeconomic outcomes.

Titles and, where available, abstracts or executive summaries were screened for relevance, and documents meeting inclusion criteria were retrieved in full text; because many relevant materials were institutional reports or “insight” pieces without standard abstracts, full-text screening was often necessary. In total, 35 documents were included and grouped into four analytical categories (as described in Section 3.1), with the caveat that some composite sources (such as the “AI bubble” overview page) synthesize multiple news and research items but were treated as single references.

For each included source, we manually extracted the publication year and source type (academic article, institutional report, consultancy analysis, financial research, newswire analysis), key quantitative indicators where available (valuation metrics, investment volumes, projected GDP or productivity changes), and explicit statements regarding the existence or non-existence of an AI bubble, the magnitude and timing of any expected correction, and distinctions drawn between speculative excess and underlying technological fundamentals. Because the review is conceptual and qualitative, no standardized risk-of-bias instrument was applied. Still, we explicitly distinguished between peer-reviewed academic work, official institutional reports, and market commentaries with potential commercial incentives.

Given the heterogeneity of sources and outcomes, we employed narrative thematic synthesis: first summarizing evidence within each of the four categories, then comparing and contrasting arguments about

bubble risk versus fundamental value, and finally mapping the overall picture onto historical patterns of technology-driven asset bubbles (e.g., internet/dot-com, railways), drawing on economic history and financial economics texts (e.g., Kindleberger & Aliber, 2011) for definitional context.

RESULTS:

Evidence Supporting an AI Bubble Narrative:

Multiple sources report that AI-exposed equities account for a substantial share of major indices and exhibit valuation multiples comparable to those seen in late-bubble phases of prior technology booms. The Bank of England notes that technology firms focused on AI show “stretched” valuations and that overall equity valuations are “comparable to the peak” of the 2000 dot-com bubble (Bank of England, 2025; Central Banking Newsdesk, 2025). Associated Press coverage of the Bank’s statement highlights that tech stocks, buoyed by AI optimism, account for roughly 40% of the S&P 500, with AI-related firms driving the recent gains (“Is there an AI bubble?” Associated Press, 2025). The “AI bubble” overview further summarizes that AI-related enterprises accounted for roughly 80% of U.S. stock-market gains in 2025 and that a leading AI chip manufacturer briefly reached a market value exceeding USD 5 trillion, larger than the GDP of most countries (“AI bubble,” 2025).

Evidence also points to rapid AI-related investment with limited demonstrable return. The Bank of England cites research suggesting that roughly 95% of current enterprise generative-AI investments are yielding no measurable returns, drawing on recent MIT findings in its bubble-risk assessment (Bank of England, 2025). Goldman Sachs Research (2025) notes that AI-related capital expenditure is massive and increasingly circular, with cloud providers, infrastructure companies, and model vendors buying capacity from one another, raising questions about underlying end-user demand and eventual monetization. Gruda and Aeon’s (2025) review in *California Management Review* finds no robust meta-analytic evidence that AI adoption to date has generated significant aggregate productivity gains, reinforcing the notion of an “AI productivity paradox” in which spending has outpaced measured benefits.

The IMF’s World Economic Outlook update describes “echoes” of the dot-com boom, citing surging AI valuations, booming investment, and consumption driven by capital gains, with the risk that markets could reprice sharply if expectations change (Georgieva, 2025; Gourinchas, 2025). Central-bank speeches and financial-stability reports (e.g., Weinstock & Tierno, 2025; Federal Reserve officials) similarly flag the possibility of market corrections if anticipated breakthroughs do not materialize, emphasizing downside risks to financial conditions. The WEF’s Brende (2025) explicitly labels AI as one of three potential bubbles, alongside crypto and sovereign debt, in comments made amid sharp declines in technology stocks.

Industry leaders and investors also acknowledge bubble-like dynamics. Former Intel CEO Pat Gelsinger describes the current AI environment as “of course” a bubble, characterized by hype, accelerated development, and leverage, though he believes it may not burst for “several years” (Edser, 2025; Nenni, 2025). Other venture and industry leaders interviewed by major outlets acknowledge speculative elements while maintaining long-term optimism about the technology’s prospects (e.g., Taneja, 2025; Melas-Kyriazi, 2025). Taken together, these strands support the conclusion that a significant share of AI-related equities and investments exhibit classic bubble features: rapid price appreciation, stretched valuations, circular financing, and high sensitivity to expectations.

Evidence Supporting Strong Fundamentals and Long-Run Value:

Despite near-term uncertainty, macroeconomic and consulting studies generally project positive long-run contributions of AI to productivity and growth. McKinsey Global Institute (2023) estimates that generative AI could add USD 2.6–4.4 trillion in annual economic value, equivalent to 15–40% of current global AI impact, primarily through automation and augmentation of knowledge work. Guerrón-Quintana et al. (2024) model a “Gen-AI economy” in which generative-AI services enhance customer-base management in a multi-sector setting; their simulations suggest that a 10% improvement in generative-AI productivity over a decade could raise U.S. GDP by approximately 5–6%, with heterogeneous sectoral effects. The Congressional Research Service (Weinstock & Tierno, 2025) concludes that AI is likely to increase aggregate productivity over the medium term, although estimates vary widely and distributional consequences are uncertain. J.P. Morgan Private Bank’s analysis (Seydl & Linden, 2024) similarly argues that AI could be a major driver of global growth, framing it as a “new technological revolution” rather than a purely speculative anomaly.

Several sources emphasize how the current AI boom differs from the late-1990s internet bubble. Many leading AI firms, such as major cloud platforms and semiconductor manufacturers, are highly profitable, diversified companies, in contrast to the pre-revenue dot-com start-ups that dominated the earlier bubble (Goldman Sachs Research, 2025; “AI bubble,” 2025). The absolute scale of AI investment, while large, remains a modest share of GDP compared with previous infrastructure booms such as railways or housing (Hazen, 2025). Moreover, enterprise AI adoption is increasingly embedded in core workflows (e.g., coding assistants, customer-service copilots), suggesting that AI is becoming infrastructural rather than purely speculative (Gruda & Aeon, 2025; McKinsey Global Institute, 2023). Central-bank commentary also notes that AI-driven investment currently accounts for less than 0.4% of U.S. GDP, implying that even a significant correction in AI-related valuations may be less systemic than the dot-com bust (Gourinchas, 2025; Georgieva, 2025).

Market research offers a nuanced assessment. Goldman Sachs’ “AI: in a bubble?” report concludes that, although valuations are elevated and circular spending is a concern, the U.S. tech sector is not yet in a full-fledged bubble, given the strength of earnings, balance sheets, and cash flows (Goldman Sachs Research, 2025). Similar assessments from Morgan Stanley and other institutions, as summarized in the “AI bubble” overview, argue that robust cash flows and healthy margins distinguish the current AI boom from earlier speculative episodes (AI bubble, 2025). These analyses support the view that underlying fundamentals are non-zero and potentially substantial, even if valuations in some segments have run ahead of near-term earnings.

Sectoral and regional accounts suggest that bubble-like and fundamental dynamics coexist across the AI landscape. Regional analysis of San Francisco’s AI ecosystem, for example, describes soaring valuations, significant venture inflows, and unproven business models, but also real revenue growth in verticals such as coding assistants and customer support (Melas-Kyriazi, 2025). Investment notes (Hazen, 2025; Streetwise Reports, 2025) emphasize that specific segments, particularly early-stage application start-ups and heavily leveraged infrastructure projects, may be more bubble-prone than others (FL Putnam, 2025; Boring Money, 2025). This pattern is consistent with the notion of “rolling mini-bubbles”: episodes of overvaluation and subsequent corrections in particular subsectors, even as the broader AI build-out and diffusion continue.

Table 2: Key Indicators of Bubble-like versus Fundamental Characteristics in the Current AI Boom:

| Dimension | Classic Bubble Pattern | Classic “Fundamental Tech” Pattern | Evidence in Current AI Boom | Overall Assessment |
|------------------------------------|--|--|--|--|
| Asset Valuations | Prices rise rapidly, decoupled from current earnings; extreme P/E multiples; high concentration in a few “story” stocks. | Valuations elevated but broadly supported by earnings, cash flow, or clear growth prospects; more dispersed leadership. | AI-exposed mega-cap tech and chipmakers trade at stretched multiples; AI accounts for a very large share of index gains; leadership highly concentrated in a few firms. | Bubble-like in select equities, especially top AI names and thematic plays. |
| Investment Intensity | Heavy capex and speculative spending into unproven projects; funding often circular; weak discipline on ROI. | Capex and R&D grow with observable demand; spending increasingly tied to clear business cases and payback periods. | Massive data-center and chip capex; cloud/model providers selling capacity to each other; early studies show many firms not yet realizing positive ROI from gen-AI projects. | Bubble-leaning, with signs of experimentation outrunning measured returns. |
| Productivity & Real-economy Impact | Little or no measurable productivity gain; asset price growth mostly narrative-driven. | Emerging, sector-specific productivity gains; over time, broad and persistent improvements in output and efficiency. | Case studies show task-level productivity gains (e.g., coding, customer support), but meta-analytic evidence finds no robust aggregate productivity uplift yet; macro models project substantial long-run gains. | Mixed: fundamentals are non-zero and likely meaningful, but not yet visible at scale. |
| Earnings & Cash Flow of Leaders | Many leading firms are pre-revenue or unprofitable; business models untested. | Leading firms are profitable, with diversified revenue streams and strong balance sheets. | Core AI leaders (major cloud and chip firms) are profitable and diversified; many smaller AI application start-ups are pre-profit with untested business models. | Hybrid: fundamentals strong at the core, weaker at the periphery. |
| Market Narrative | “This time is different”; belief in limitless growth; little focus on implementation risk or regulation. | Optimistic but tempered narratives; explicit recognition of adoption frictions, regulation, and competitive dynamics. | Narratives of “AI as fourth industrial revolution” are widespread; some sophisticated actors (central banks, IFIs) openly warn of bubbles; others frame AI as real but “overhyped.” | Hybrid: strong transformational narrative coexists with rising caution. |
| Policy and Regulatory Stance | Limited discussion of systemic risk until late in the cycle; regulatory surprise can trigger collapse. | Early recognition of both benefits and risks; active monitoring and macro-prudential preparation. | Central banks and IFIs are already flagging AI-valuation risks; regulators discussing guardrails, competition policy, and financial-stability implications. | More fundamental-friendly: monitoring is earlier and more explicit than in past bubbles. |
| Historical Analogy | Episodes like tulip mania or fringe commodity booms, where the underlying asset has little enduring economic role. | General-purpose technologies (railways, electricity, internet) that go through boom–bust cycles but permanently change production. | AI shares features with the dot-com era: revolutionary technology with over-exuberant valuations; most analysts expect a shake-out rather than disappearance. | Closest to “revolution wrapped in a bubble” pattern. |

DISCUSSION:

This systematic review finds strong evidence that AI-related assets exhibit both speculative and fundamental characteristics. On the speculative side, multiple high-credibility sources, central banks, the IMF, and the WEF, explicitly warn of stretched valuations and the risk of sharp corrections in AI-exposed equities (Bank of England, 2025; Georgieva, 2025; Brende, 2025). On the fundamental side, macroeconomic models and applied analyses converge on the expectation that AI will, over time, increase productivity and GDP, even if the magnitude and timing of these gains remain uncertain (Guerrón-Quintana et al., 2024; McKinsey Global Institute, 2023; Weinstock & Tierno, 2025; Seydl & Linden, 2024). Taken together, these findings are most consistent with a hybrid “revolution plus bubble” interpretation: AI appears to be a genuine general-purpose technology with credible long-run economic value; yet current valuations in some segments have likely overshot fundamentals and are vulnerable to corrections, and any eventual burst is more likely to resemble the dot-com cycle sharp repricing followed by lasting transformation than a pure speculative collapse. Table 2 summarizes how the current AI boom compares with classic bubble patterns and fundamental technology booms across key dimensions, including valuations, investment intensity, productivity effects, earnings, narrative, policy stance, and historical analogies.

The question of timing is inherently speculative, but the reviewed evidence suggests several considerations. Central Bank and IMF messaging indicates that a sudden correction is possible but not inevitable; both stress that AI-related spending still represents a modest share of GDP, implying that a bust may be painful for investors but not necessarily systemic (Georgieva, 2025; Weinstock & Tierno, 2025). Industry insiders such as Gelsinger argue that the bubble is real but unlikely to pop for “several years,” reflecting ongoing capacity build-out and experimentation (Edser, 2025; Nenni, 2025). Goldman Sachs Research concludes that the tech sector is not yet at classic bubble extremes, despite elevated valuations, and that strong earnings and cash flows provide some cushion against severe repricing (Goldman Sachs Research, 2025). At the same time, meta-analytic evidence that AI has not yet produced broad-based productivity gains (Gruda & Aeon, 2025) raises the possibility that disappointment about near-term returns could trigger a correction if expectations are too aggressive. Overall, the evidence supports a heightened risk of sectoral corrections, especially if interest rates remain high or flagship AI projects fail to deliver expected returns; however, there is little basis to claim that the entire AI complex is on the verge of collapse in the near term.

For policymakers and regulators, the key challenge is to manage the financial-stability risks of an AI-driven market correction while supporting genuine innovation. Practical steps include monitoring leverage and concentration in AI-exposed sectors; stress-testing financial institutions against scenarios involving sharp declines in technology valuations; and designing industrial and innovation policies that channel AI investment toward productive, socially beneficial use-cases rather than pure speculation.

For firms, the review underscores the importance of prioritizing AI projects with clear, measurable returns on investment and robust implementation plans, rather than engaging in AI initiatives primarily for signaling or narrative purposes (“we need AI because the market expects it”). Organizations should invest in complementary capabilities, such as data quality, process redesign, and workforce skills, to translate AI potential into real productivity gains, recognizing that technology alone is insufficient to generate value.

For investors, the evidence highlights the need to differentiate among the infrastructure, platform, and application layers of the AI stack, each with distinct risk–return profiles. Evaluating balance-sheet strength,

cash-flow generation, and realistic monetization pathways is critical, as is maintaining diversification and exercising caution with leverage in a sector where valuations may be prone to rapid sentiment shifts.

This review has several limitations. First, many key sources are institutional or market reports rather than peer-reviewed academic articles. While these documents are highly relevant for understanding bubble dynamics, they may reflect institutional perspectives and incentives. Second, the AI landscape is evolving rapidly; assessments from 2023–2025 may become outdated as new evidence on productivity, regulation, and profitability emerges. Third, the synthesis is qualitative: heterogeneity in methods and outcomes precluded meta-analysis, so conclusions depend on interpretive judgment in weighing different types of evidence. Fourth, despite a systematic search strategy, some relevant sources may have been missed, particularly proprietary investment research and non-English analyses. Future research could apply more formal quantitative methods, for example, panel econometrics on AI exposure and valuations, or a systematic study of firm-level AI spending and returns and extend coverage to non-U.S. markets.

CONCLUSIONS:

This systematic review indicates that AI is neither a transient speculative bubble nor a purely fundamental revolution, but a “revolution wrapped in a bubble.” Asset prices and investment flows in AI-exposed sectors show classic bubble-like features, stretched valuations, concentration in a few mega-cap names, and significant, circular spending, justifying the caution expressed by central banks and international financial institutions. At the same time, macroeconomic models and sectoral analyses consistently point to meaningful long-run productivity and GDP gains, suggesting that AI as a general-purpose technology will endure even if parts of the current market correct sharply.

The key question is therefore not whether AI will “burst,” but which AI assets and business models are most vulnerable to a correction, which rest on durable fundamentals, and how policy and capital can be steered toward the latter. Policymakers should balance innovation support with macro-prudential oversight; firms should prioritize AI use-cases with demonstrable ROI; and investors should differentiate carefully across the AI stack rather than taking indiscriminate positions. *As the cycle unfolds and some segments inevitably deflate, ongoing, evidence-based assessment will be essential to ensure that the inevitable shake-out strengthens, rather than derails, the long-term productive impact of AI.*

Statement on Use of AI-Assisted Tools:

Generative artificial intelligence (AI) was used only for language editing and correction of grammar and syntax. All ideas, concepts, interpretations, and conclusions presented in this manuscript are solely those of the author. The author carefully reviewed and approved all content and takes full responsibility for the integrity and accuracy of the work.

REFERENCES

1. AI boom. Wikipedia. 2025. Available from: https://en.wikipedia.org/wiki/AI_boom
2. Associated Press. Is there an AI bubble? Financial institutions sound a warning. AP News. 2025 Oct 8. Available from: <https://apnews.com/>
3. Bank of England. Financial Policy Committee (FPC) record – October 2025. 2025 Oct 28. Available from: <https://www.bankofengland.co.uk/financial-policy-committee-record/2025/october-2025>
4. Brende B. World Economic Forum chief warns of three possible “bubbles” in global economy. Reuters. 2025 Nov 5. Available from: <https://www.reuters.com/>
5. Central Banking Newsdesk. BoE warns of an AI bubble in equity markets. Central Banking. 2025 Oct 8. Available from: <https://www.centralbanking.com/central-banks/financial-stability/2086585/boe-warns-of-ai-bubble-in-equity-markets>
6. Edser A. Ex-Intel CEO Pat Gelsinger says, “of course,” we’re in an AI bubble, but it won’t end for several years. PC Gamer. 2025 Oct 14. Available from: <https://www.pcgamer.com/software/ai/ex-intel-ceo-pat-gelsinger-says-of-course-were-in-an-ai-bubble-but-it-wont-end-for-several-years/>
7. F. L. Putnam Investment Management Company. Is AI in a bubble? 2025 Nov 5. Available from: <https://flputnam.com/is-ai-in-a-bubble/>
8. Georgieva K. Press briefing: World Economic Outlook Annual Meetings 2025. International Monetary Fund. 2025 Oct 14. Available from: <https://www.imf.org/en/news/articles/2025/10/14/tr-10-14-25-press-briefing-transcript-world-economic-outlook-annual-meetings-2025>
9. Goldman Sachs Research. Top of Mind: AI in a bubble? Goldman Sachs Group. 2025 Oct 28. Available from: <https://www.goldmansachs.com/insights/top-of-mind/ai-in-a-bubble>
10. Gourinchas P-O. AI exuberance is like the dot-com boom. Times of India (reporting IMF commentary). 2025. Available from: <https://www.imf.org/>
11. Gruda D, Aeon B. Seven myths about AI and productivity: What the evidence really says. California Management Review Insights. 2025 Oct 16. Available from: <https://cmr.berkeley.edu/>
12. Guerrón-Quintana P, Mikami T, Nosal J. The macroeconomic implications of the Gen-AI economy. Boston College Working Papers in Economics No. 1080. Boston College Department of Economics; 2024. Available from: <https://ideas.repec.org/>
13. Hazen E. Is AI in a bubble? A look at both sides. F. L. Putnam Investment Management Company. 2025 Nov 5. Available from: <https://flputnam.com/is-ai-in-a-bubble/>
14. Kindleberger CP, Aliber RZ. Manias, panics and crashes: A history of financial crises. 6th ed. New York: Palgrave Macmillan; 2011.
15. McKinsey Global Institute. The economic potential of generative AI: The next productivity frontier. McKinsey & Company; 2023 Jun 14. Available from: <https://www.mckinsey.com/>
16. Melas-Kyriazi C. Even AI’s biggest champions worry we’re in a bubble. What does it mean for S.F.? San Francisco Chronicle. 2025 Oct 13. Available from: <https://www.sfchronicle.com/>
17. Nenni D. Former Intel CEO Pat Gelsinger says AI is a bubble that won’t pop for “several years.” SemiWiki. 2025 Oct 13. Available from: <https://semiwiki.com/>
18. Seydl J, Linden J. How AI can boost productivity and jump-start growth. J.P. Morgan Private Bank; 2024 Jul 16. Available from: <https://privatebank.jpmorgan.com/>
19. Streetwise Reports. Is AI in a bubble? A look at both sides. Streetwise Reports LLC. 2025 Nov 7. Available from: <https://www.streetwisereports.com/article/2025/11/07/is-ai-in-a-bubble-a-look-at-both-sides.html>
20. Weinstock LR, Tierno P. The macroeconomic effects of AI. CRS In Focus IF12762. Congressional Research Service; 2025 Apr 1. Available from: <https://crsreports.congress.gov/>
21. WisdomTree. The price of belief: Why quality still wins when markets forget gravity. WisdomTree Blog. 2025 Nov 18. Available from: <https://www.wisdomtree.com/>