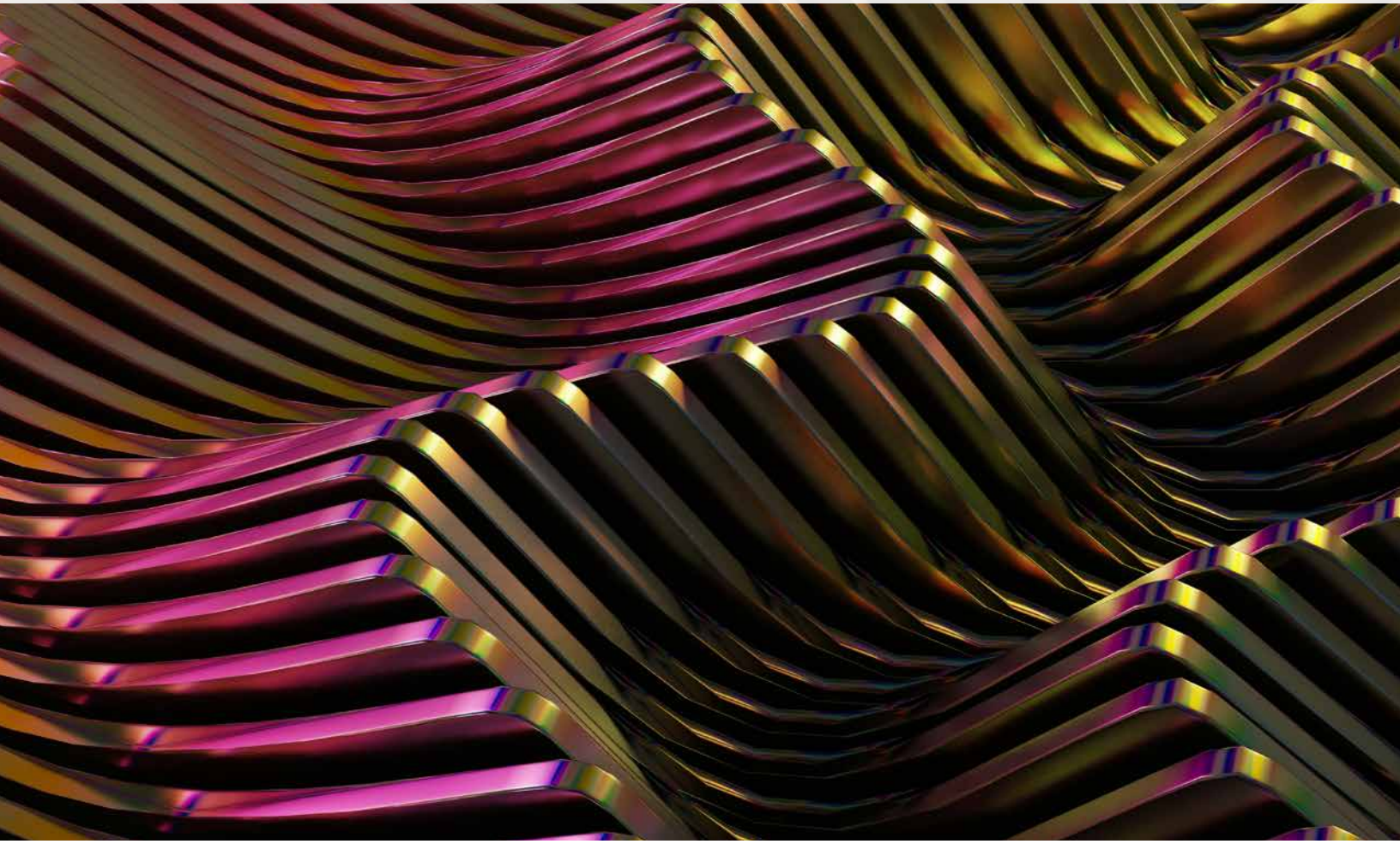
THE TECHNOLOGY ECONOMISTS



Point of View | February 2025

Assessing enterprise performance in the technology economy

Use the patented "technology intensity" methodology to create true business value and competitive advantage

By Dr. Howard Rubin, Jed Rubin, and Dan Cavey

IT spending serves as a bellwether of changing enterprise priorities and a tool for driving business growth and efficiencies. However, it is also the subject of media hype and misinformation, clouding leaders' ability to make the best decisions to drive business value from these investments.

Take artificial intelligence (AI) investment. With continual breathless media coverage of new startups, partnerships, and model capabilities, most leaders believe IT spending is surging due to this new enterprise imperative. However, that's not true.

In the banking and financial services sector, IT spending increased by 4% in 2024. However, IT inflation, which measures increases in staff compensation, hardware and software, cloud, SaaS, and other costs, increased by 4.8%. As a result, spending was in the red. For 2025, IT spending for banking and financial services is slated to increase by 7.5%, but IT inflation is projected to reach 6.2%, significantly diluting the impact of added investment.[1]

20% of the world's GDP: represented in The Technology Economists dataset, which spans 2,000 organizations across 20 industries.

These results show that AI has yet to impact IT spending in banking and financial services significantly, as leaders are more concerned with running and growing the business. Transformation initiatives, of which AI is one, held steady at 11% of IT spending in banking and financial services in 2024, down from the digitization push of 2021 and 2022, when it reached 12% of all spending.

Our team at The Technology Economists has spent 25 years assessing the technology intensity of thousands of corporations worldwide using a proprietary methodology with a patented formula.[2] We have developed a rich longitudinal data set that analyzes technology spending relative to a company's and industry's revenues and operating expenses. We help leaders go beyond the headlines and hype and understand the real trends impacting their businesses, competitors, and industries, slicing and dicing data to uncover new opportunities for accelerating or rationalizing IT investment.

How to compute the technology intensity of any enterprise

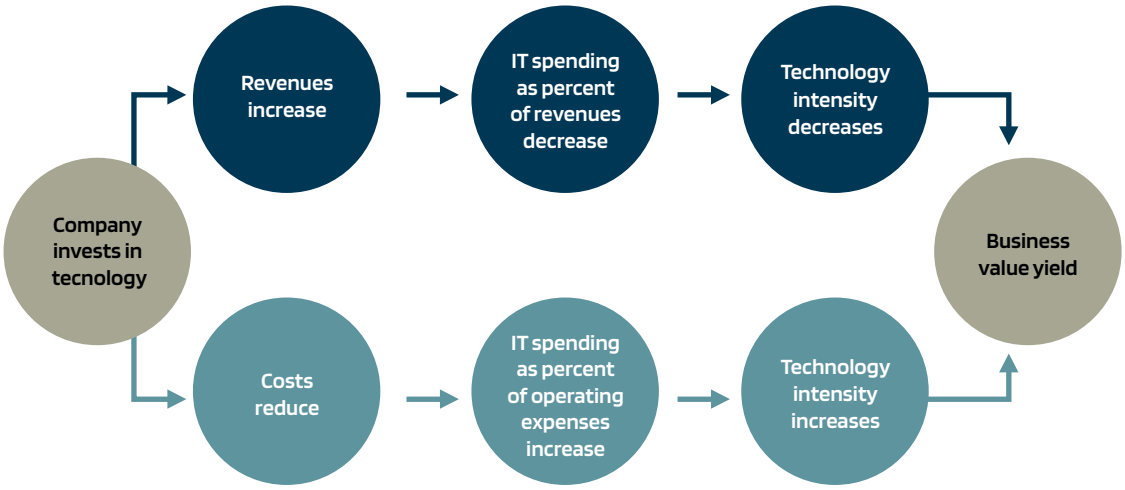
Anyone can calculate their company's technology intensity on a right triangle, as depicted below. This approach provides the right balance and shows how ratios change over time. See Figure 1 below.

You can also use our tool Ask Howard to easily input data and calculate your organization's technology intensity. You can find it at techeconomists.com/ask-howard/.

[1] "Trends! Myth vs Reality," Rubin Worldwide presentation at PNC Vendor Summit, January 2025. Data presented includes both Gartner and Rubin Worldwide proprietary data. Presentation is available upon request.

[2] Howard A. Rubin, "Method for benchmarking of information technology spending," patent number 7996249,

Figure 1: **Examples of IT spend impacts**



Note: Does not cover all impacts, such as risk and reputation.

Why assessing technology intensity is critically important

So, why does technology intensity matter—and how can it help drive corporate success? Technology intensity increases over time and exhibits patterns related to world and national gross domestic product (GDP). A case in point was the Great Recession. Enterprises significantly decreased IT investment in 2009. As a result, their technology intensity and gross margins declined, as did global and national GDP and productivity.

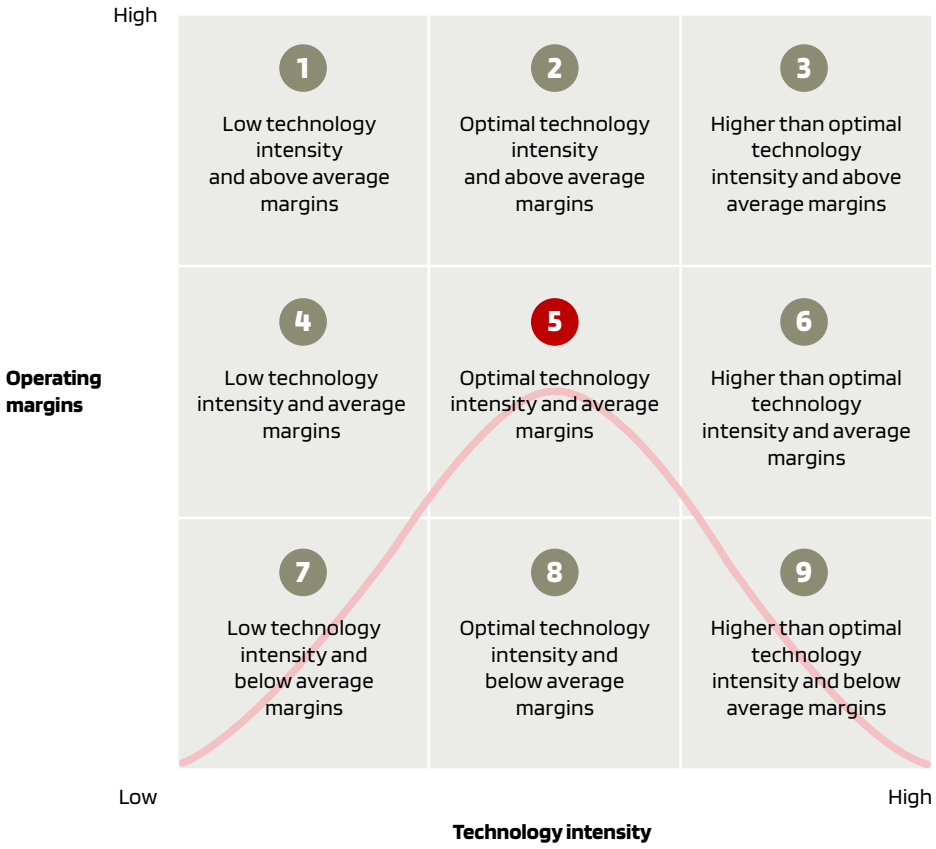
We have found a correlation between technology intensity and key business parameters, such as margin and return on equity (ROE). As Figure 2 below demonstrates, IT spending is a lever that can be used to increase operational efficiency and drive cost reductions, enhancing technology intensity and strengthening margins.

However, technology intensity growth is not linear, and the "performance frontier" is parabolic. That frontier is a boundary that can be used as a powerful diagnostic tool. As we wrote in the "Power of Technology Economics," published by the Boston Consulting Group, technology intensity falls into nine zones, each demanding a strategic response (as illustrated in Figure 2 below). The following analysis is taken from that paper and lightly updated.[3]

Zone 1: Low technology intensity and above-average margins.
Adjust your technology investments to target higher-impact business processes. Your company is "beating the curve" but competitors with a higher level of technology investment and a keener focus on business process improvement are achieving superior operating efficiency from their technology.

[3] This diagram and the analysis following are taken from "The Power of Technology Economics," a white paper from Howard Rubin and Boston Consulting Group, page 16-17, October 2016.

Figure 2: **Technology intensity falls into nine zones**



Zone 2: Optimal technology intensity and above-average margins.
Evaluate ways to optimize costs further and drive the return on technology investment to new levels. Consider increasing cloud computing, data, analytics, and AI investments while innovating business products, operational processes, and the customer experience.

Zone 3: Higher-than-optimal technology intensity and above-average margins.
Recalibrate technology investments to shift your profile to the left and achieve the same or more results with lower spending. Your margins are better than many competitors, but your costs are not. Generating the same results with lower spending will set a new best-in-class performance bar for your competitors.

Zone 4: Low technology intensity and average margins.
Increase your technology spending while shifting the balance to investments that improve operational efficiency. Such investments typically involve business process automation to reduce costs.

Zone 5. Optimal technology intensity and average margins.
Focus on staying ahead of the pack. Benchmark performance regularly and look for investment opportunities that do more than create operational efficiencies and cost reductions. Use technology to beat the curve by driving revenue growth. For example, many companies are

investing in agentic AI, pairing decision intelligence with systems of AI agents to transform functional processes.

Zone 6: Higher-than-optimal technology intensity and average margins.
You are not getting enough "bang for your buck." While your technology intensity is above average, you only have achieved average returns. Extraordinary intensity should lead to high-impact results.

Zone 7: Low technology intensity and below-average margins.
Rethink where and how much you invest in technology. Assess your balance of "run" versus "change" investments. Perhaps aging or inefficient infrastructure is inhibiting your ability to invest, or your core costs for people, hardware, or software are too high. Benchmark to gain insights into what could be causing underinvestment or substandard performance.

Zone 8: Optimal technology intensity and below-average margins.
Restructure your technology investment portfolio. Total spending may be right, but it is going to too many or too few places. Benchmark to find out where your "smart money" is going. Shift your margins upward by increasing the yield of your investments.

Zone 9: Higher-than-optimal technology intensity and below-average margins.
You're spending too much and generating too little. Transform what you do with technology to shift your profile to the left—to optimal technology intensity levels and on-the-curve returns. Your technology is too expensive and ineffective to fuel operational efficiency and increase revenues.

Driving more margin by optimizing technology intensity

Technology economists can exploit the relationship between margins and technology intensity to uncover new value for their organization. They can work with corporate finance teams to assess the relationship between total technology spending and operating expenses and revenue, identifying areas that may be sub-optimized and should be addressed (Figure 3).

Using our methodologies and metrics to optimize critical processes

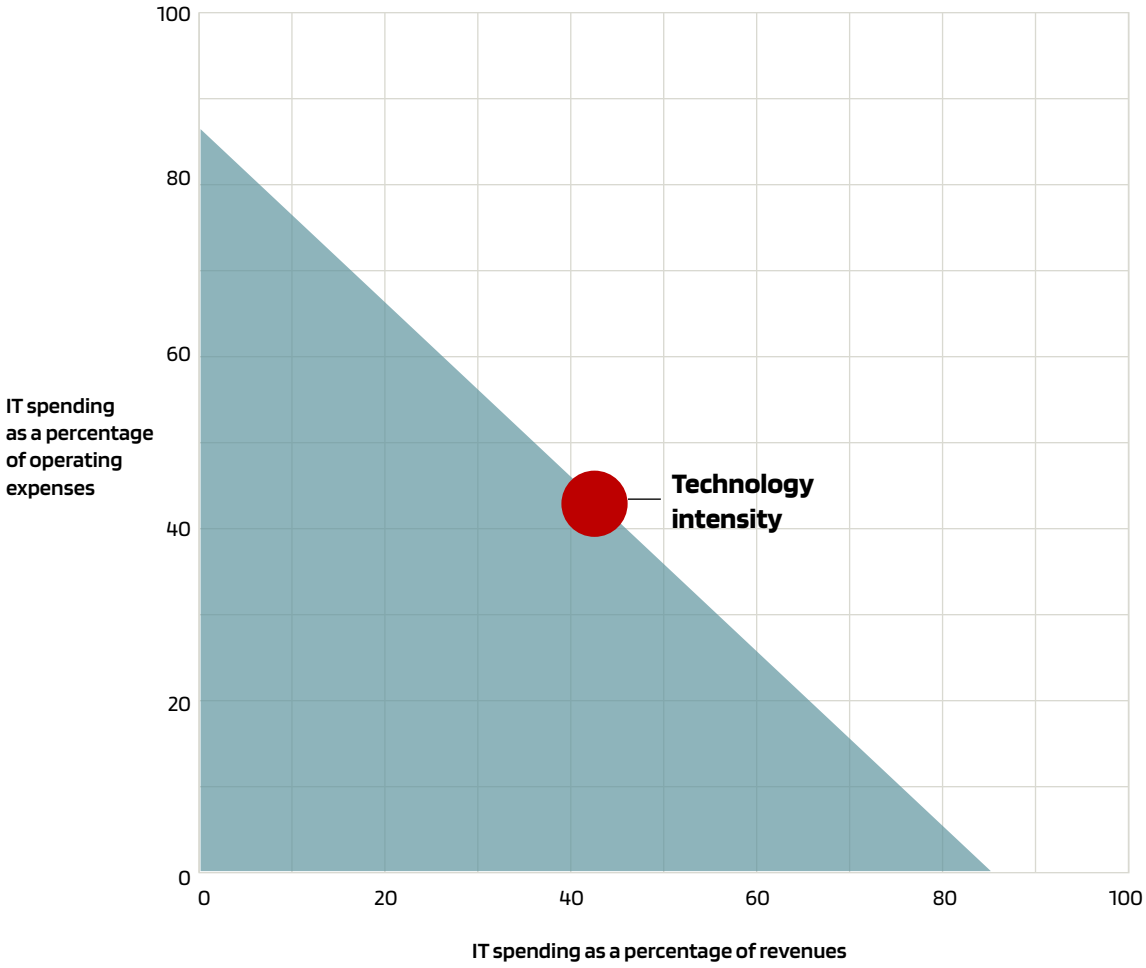
The Technology Economists provides models, measures, and methods you can use to evaluate your company's performance to fine-tune technology investments and ensure they deliver the desired impact.

Using our comprehensive, cutting-edge data and tools, leaders and teams can:

Enable strategic alignment
Leaders can use technology economics-enabled data and analytics to align technological investments with business goals. By doing so, they ensure that these investments create a competitive advantage.

Enhance decision-making
By using innovative tools and developing new metrics, leaders and teams gain deeper insights into the economic impacts of technology investments, improving strategic decision-making. For example, leaders can use data to determine which investments to accelerate, deprioritize, or cancel.

Figure 3: **Exploring the relationship between technology intensity and corporate margin potential**



This proprietary formula enables leaders to calculate their technology intensity to understand performance and uncover new margin potential.

Optimize spending at all levels
Leveraging our methodologies, indicators, and metrics, leaders and teams can evaluate IT performance at portfolio, initiative, and project levels, maximizing their ROI. Our project-related tools enable companies to accurately forecast IT spending and reduce risks, such as budget overruns.

Increase competitiveness
Organizations that leverage cutting-edge technologies and innovation strategies informed by economic analysis improve outcomes. Over time, these decisions scale to enhance competitiveness.

Fuel sustainable growth
Technology economics indicators and tools enable decision-makers to identify and exploit the best opportunities to drive innovation and efficiency improvements.

Make a positive impact on society
Organizations can leverage insights to evaluate and prioritize initiatives that contribute positively to social goals such as improving inclusivity and sustainability.

Adopting new measures to accelerate enterprise growth and improve control

The fast-paced evolution of business has underscored the transformative power of advanced technologies, such as data modernization, cloud services, digitization, and AI. As more companies become data-driven, the role of the technology economy in driving business impact will become universally undisputed. As a result, organizations must adopt business and IT strategies informed by technology economics methodologies, indicators, and metrics.

Using frameworks and customized insights from the organization pioneering the discipline of technology economics can help your company illuminate new opportunities, including where to accelerate investment and prune it.

You'll gain the insights you need to shape strategies, defend budgets, and drive ROI at a holistic and granular level, delivering more value to the business. You'll also grow and operate with extreme discipline, outperforming in your market.

You can experience our indicators at tools for free—and work with us to gain customized insights or certify your team on the latest technology economics methodologies and indicators.

About The Technology Economists

The Technology Economists organization is pioneering the field of technology economics and is dedicated to empowering senior leaders to make better strategic IT investment decisions. Our unique platform provides ongoing education, self-service tools, and proprietary methods decision-makers can use to drive innovation, sustainability, and long-term value. Our vision is to enable a future where technology economics is being practiced in every organization.

To learn more, visit techeconomists.com to explore Ask Howard, and join a global network of forward-thinking technology economists.