

MAINFRAME

# The Economics of Technology Investments

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## A Framework for Making IT Investment Decisions

The 4th Industrial Revolution is moving at a pace so significant that there is no historical precedent. Even within the world of economics, we're experiencing a new kind of economy—a Technology Economy. In this evolving landscape, enterprises that understand Technology Economics principles and use them to guide decisions are among top industry performers. So what does this mean for evaluating the cost and effectiveness of your tech stack and planned IT investments? Glad you asked. Here is a framework for managing your Technology Economy.

**New Asset Classes are Born**

A substantial part of any economy is assessing risk and identifying value. When calculating the value of technology, it's necessary to consider how technology influences your operational costs, efficiency, customer satisfaction, and ability to deliver products to market. As with traditional economies, in a Technology Economy each investment in a particular technology presents relative levels of value and risk. However, rather than measuring those variables on a scale of profit, loss, and volatility, value and risk in a technology context correspond to attributes such as economics, scalability, software capabilities, information security, reliability, availability, and sustainability impact.

Infrastructure, applications, network technology, and other components, in addition to building and maintaining systems, all add up to one thing—lots of choices. But what if you shifted your thinking? What if assessing risks isn't a technology issue but a choice of financial investments?



*Top enterprise performers are not just moving to the Cloud— they're utilizing Mainframe in their Hybrid Cloud environment.*

Shifting your mindset allows you to adopt a Technology Economy framework. A framework where IT investment decisions are focused on balancing risks to achieve a stable set of assets. For example, you can make the financial decision to invest in stocks, bonds, cryptocurrency, or bitcoin—choices all based on a balancing of relative risk. The point is to have a portfolio of assets that attempt to equalize what's sure with what's at stake.

Within the Technology Economy, new asset classes are born—Mainframe, Distributed, and Cloud. Like traditional asset classes, each one in the Technology Economy has a particular value and value proposition. And they have the same characteristics as traditional economics: scalability, risk profile, and business impact. The goal, in this case, is to achieve the right asset balance by keeping the most economically efficient ones.

For example, it would be rare for someone to dump all their stocks and bonds and jump right into cryptocurrency or NFTs, so why would that make sense for tech assets? Yet those who fail to consider their tech assets from a Technology Economy point of view are too often tempted to go all-in on Public Cloud or other current headline-grabbing technology without examining asset balance or the direct relationship to business performance.

## **The Importance of a Mix of Technology Investments**

Managing a company's Technology Economy involves evaluating technology asset classes over time. Making these choices means getting smart with how you mix tech investments to achieve critical business objectives.

These days, it seems like everyone is moving everything to the Cloud—the opposite of a mix. Yet when you compare the revenue attributed to Public Cloud at Amazon Web Services, Microsoft, Google Cloud, and IBM against \$8 trillion in worldwide IT spend, it's not even 10%. These numbers reveal that not everyone out there is on the Cloud. In reality, organizations are relying on a mix of asset classes and [making choices to create balance based on scalability, risk, and business impact](#). The latest thinking is no longer "Cloud first" but rather, "Cloud right." It's more important to make the right technology investments at the right time on the right platform - including, but not limited to, Cloud - to achieve the greatest total value.

**"...technology stack choices are not fashion statements.**

Assessing the right technology asset mix is about understanding business value. Within 20 different industries, best-in-class performers have about 46% more Mainframe compute power than the average performer, 28% less Distributed compute power, and 80% more Public Cloud power. The data also shows that Cloud usage is well below the Mainframe for average and top-performing organizations. Despite all the attention given to Cloud, 85% of global compute is still on-prem. The conclusion is inescapable. Top enterprise performers are not just moving more to the Cloud—they're [utilizing more Mainframe in their Hybrid Cloud environment](#). The numbers clearly show that the top performers are making decisions for their tech asset mix based on customer needs and business performance.

## **A Closer Look at How You Pay for Assets**

Another part of thinking about the economics of IT is how you access and pay for assets today. Take the Cloud, for example. There are more things to consider beyond its benefits and features. From an economics standpoint, contractual arrangements obscure the true economics of the Public Cloud.

Think of the payment structure of most Cloud provider contracts as an all-you-can-eat buffet. It's \$19.95, but only if you can finish everything on your plate. The price goes up to \$209.95 if you can't finish all the food on your plate. This scenario illustrates the economics of Cloud—there is a threshold, and if you don't meet it, you'll pay for it. Literally. That counters the promise of elasticity with Cloud.

How you pay for assets is part of evaluating how to better understand your investments and how to achieve a better balance between them. Achieving balance is also known as Technology Asset Class Optimization (TACO). We now have the data and models that allow IT leaders to evaluate and plan technology investments with the same rigor and language as financial investments—considering desired risk profiles and return on investment.

Ultimately technology costs translate to business outcomes. Tracking your IT spending against business profitability is a critical metric for running an organization in today's Technology Economy.

## **Apply an Economic Point of View**

Even though the Technology Economy is relatively new, technology in business is mature enough to be treated as an investment and managed like any of your other investments. Here are a few key things to remember:

- **Adopt a Technology Economy mindset** and assess your tech stack as a portfolio of investments
- **Evaluate your asset classes** based on performance and impact on business outcomes
- **Take a closer look** at *what* and *how* you pay for assets

The benefits of applying an economic framework to your tech investments include improving risk management, maximizing return, and deciphering value. The result is balanced assets and a better understanding of where and how you should invest in IT in the future.

Technology stacks reflect choices, but they should not be treated as fashion statements—there's no need to go all-in on the latest trend. There is a need, however, to select asset classes and run a Technology Economy based on your organization's particular performance needs and desired outcomes. Achieving this prepares your tech for the future, bolsters business, and positions your organization with a [critical competitive advantage](#).

**Technology Asset Class Optimization is the key to achieving top business performance. [Explore using an economic model to optimize your IT](#)**

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