

## APRIL 10, 2023

# Is Software Still Eating the World?

#### INTRODUCTION

"Software is eating the world," said Marc Andreessen in a 2011 interview with **The Wall Street Journal**, commenting on the escalating expansion of software across industries and geographies. Over a decade later, is software full yet? The simple answer: not even close. Companies have only begun to scratch the surface on the capabilities and productivity gains that software has to offer, and software is likely to only increase its ascent as nearly every company indirectly becomes a software company.

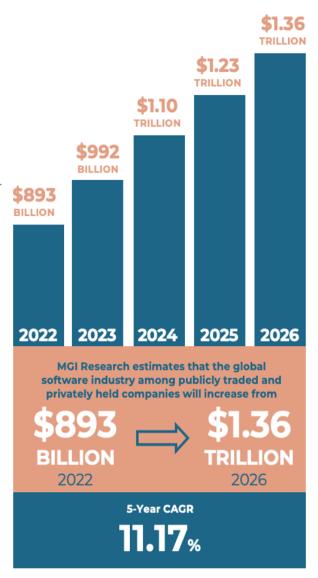
The MGI Research forecasting team recently assembled a bottom-up estimate of the software industry by aggregating revenues of all software companies globally. MGI Research forecasts that the software industry will grow from \$893 billion in 2022 to \$1.36 trillion in 2026, representing a 5-year CAGR of 11.17% (see figure for annual breakdown). Software companies in the United States will dominate the industry, with their revenues more than double the combined revenues of all other software companies globally. Software vendors in China and Germany will take second and third place, respectively. Although current prevailing headwinds may create a bumpy path, the software industry's growth will be strong enough to withstand the turbulence.

MGI Research also recently published a note estimating the size and growth rate of the global tech economy (see **How Large is the Global Tech Economy? - Bigger Than You Think**).

#### TAILWINDS ACCELERATING GROWTH IN THE SOFTWARE INDUSTRY

As the software industry grows by over 50% in just five years, several factors will drive its expansion.

Artificial Intelligence: AI/ML marks the beginning of the next wave of software innovation. Launched in November 2022, ChatGPT has taken companies, both tech and non-tech, by storm in mere months. As AI technology continues to become more mainstream, the possibilities are truly endless. It promises to shorten software development time and improve overall quality of code. Productivity gains in marketing, sales, and support are also probable as the hyper-competitive software industry is hungry for the business benefits of generative AI. Industries that are equally competitive and aggressive adopters of software (e.g., financial services and life sciences) will do the same. Forecasts of the software industry currently don't account for the potentially massive productivity gains brought about by generative AI, meaning that the actual growth rate of the software market may be higher.



The Cost to Develop, Market, and Sell Software Has Never Been Cheaper: Cloud computing has made it incredibly inexpensive to develop and scale software. Open-source code and API offerings shorten the development time and reduce integration friction, making it faster to develop and easier to support even complex applications. The Internet has democratized and revolutionized access to resources, making it cost effective and financially attractive to market and sell into companies of all sizes and markets. Low code/no code development environments give non-technical workers the ability to write new applications, and coding experience among university graduates is becoming increasingly common (not just among those with computer science and engineering degrees). The net result is the planet has never seen so many skilled people developing software applications – yet labor supply far outpaces demand. The increasing popularity, functionality, and affordability of open-source software will continue to create major developments in the software industry.

Vertical-Specific Software Applications: An uptick in investments into industry-specific software over the last decade has led to an explosion of vertical software applications. Industries previously compelled to build their own business applications (e.g., insurance and health care) due to a scarcity of suitable off-the-shelf apps are finding more third-party apps. From mortgage banking to doggy daycares, a wide variety of industries are investing in tailormade solutions, making it easier to reach new customers and integrate with partners. And due to the rapidly increasing demand, these solutions are becoming more affordable as well.

Horizontal Applications: Due to industry consolidation, the past 15-20 years have seen modest innovation among the mega software vendors in core functionalities (e.g., financials, human capital management (HCM), and sales automation/customer relationship management (CRM)). In the guise of digital transformation, legacy application vendors are moving their apps to the cloud, and cloud-native applications are selling into regions beyond North America. Further, horizontal applications like billing, project management, CPQ, and FP&A are capturing more enterprise spend. While vertical software businesses are often restricted by their customer lists, horizontal software has broader opportunities across multiple industries and geographies. Solutions like agile billing and contract lifecycle management (CLM) are now must-have systems of record for companies who aim to maintain a competitive advantage, automate outdated processes, improve customer satisfaction, and most importantly, increase revenue, profits, and grow market share. Many of the add-on categories around traditional ERP systems are growing at a multiple of the ERP market and show no sign of slowing.

#### **HEADWINDS ON THE HORIZON**

Although the tailwinds remain impressively strong, several forces could slow software's trajectory. History has shown that no single industry is shielded from the consequences of macroeconomic upheaval - the IT sector is no exception. War in Ukraine, the energy crunch, and rising interest rates are pressuring companies to trim spending where possible. Other economic factors weighing on businesses include labor shortages (a long-term demographic trend), supply chain disruptions, geopolitical instability, continued public health risks, and rising inflation. Although these factors may be a drag on software industry growth, they aren't likely to represent a major hindrance to growth, as software remains an inflation-proof investment attractive to buyers across all economic sectors. Further, the unstable economic climate underscores the need to automate costly and capital-intensive business processes to stay competitive in today's uncertain world. While software is often equated with high upfront costs, the competitive nature of the software industry brings prices down and makes advanced software relatively affordable to an expanding number of potential buyers.

Government regulation is capable of creating obstacles for the tech industry. However, it is also a common red herring for slowing tech growth, as policymakers fight to increase regulatory constraints of IT companies on the grounds of addressing national security, consumer privacy concerns, and antitrust laws. Elected officials and regulators routinely move too slowly to keep pace with emerging technologies and effectively regulate an industry they don't fully understand. By the time new laws arrive, technology is often too ingrained in society for the regulatory changes to be feasible.

### AS AN EXECUTIVE, HOW DOES THE GROWTH OF THE SOFTWARE INDUSTRY AFFECT MY ORGANIZATION?

As a nearly trillion-dollar industry with double-digit growth, software should have every executive's attention. Cloud software is becoming the most cost effective and efficient productivity booster helping companies scale profitably. Behind every "digital transformation" is a substantial adoption of new software. Business planning and strategy can no longer be separated from software; the conversation must revolve around optimizing software to execute company objectives. When acquiring software, business leaders must buy with a forward-thinking awareness for which problems they aim to solve and the opportunities they want to capture. In doing this, companies must organize around software's advanced capabilities rather than continuing to throw countless resources at a current problem, unsure of the timeliness, accuracy, or quality of the outcome. Software breeds predictability, a rare beacon of stability amid economic chaos. Further, software now permeates every aspect of an organization, and as such, software purchases must extend beyond the IT department. As a non-capital-intensive market, smaller businesses with limited hiring capacities should rely on relatively cheap solutions to complete simple day-to-day processes ranging from workflow management to social media automation platforms to marketing software. More functional areas of the business are being sold to, prompting the need for the broader employee base to capably engage with software suppliers and run successful project implementations without major reliance on IT or external resources.

#### THE BOTTOM LINE

The software industry will increase from approximately \$893 billion in 2022 to nearly \$1.36 trillion in 2026 at a projected CAGR of 11.17%. Its high growth rate is due to a combination of dynamics. Software is easier to develop, applicable to a wider range of company sizes, industries, and geographies, and sales and marketing costs are falling. Advances in technology (namely AI/ML) will accelerate those forces. The business need for increased agility and productivity are all-season demand drivers. Government regulation will likely impact a handful of subindustries, but it could also present opportunities for growth and further spending on software. As a whole, the software industry is a north star for many companies to follow and befriend. It is a ship that shows no sign of sinking or even materially slowing down, despite the economic storms lashing other verticals. The last to jump aboard will find themselves perennially adrift. Business leaders need to prepare themselves and their organizations to accurately assess and achieve the benefits of software's promise.

#### How was this estimate was created?

This forecast was built using the MGI Forecasts bottom-up methodology that starts with data on individual companies and models their revenue and growth based on a broad range of factors including, but not limited to sector, industry, geography, size, profitability, as well as impact from technological megatrends such as digital transformation, shift to as-a-service business models and many others. MGI Forecasts model includes data on all operating publicly trading companies globally with revenues above \$1Million per year. The forecasting model uses analytical approaches to estimate revenues of privately held software companies globally. The detailed forecast is contained within an interactive model that allows highly granular data analysis. MGI Research regularly publishes **MGI Forecasts** market sizing reports and interactive models across a broad range of disciplines including but not limited to Billing, CPQ, Contract Lifecycle Management (CLM), Financials Software (ERP), Financial Planning & Analysis, Collections/AR Automation, Project Management, Expense Management, Automated Revenue Management, Order Management, E-Commerce Platforms, Customer Success, Customer Service, Workforce Time Management, Resource Management, and Skills Management among others. Access to these reports and models is available via a subscription. For more information contact **MGI Research** at **insights@mgiresearch.com** or +1.888.801.3644.