24-hour period on its e-commerce marketplaces. The number of Facebook users around the globe is now on par with the population of China.

For companies with digital platforms that reach such "hyperscale," the marginal cost of storing, transporting, and replicating data is very low. That allows the new tech giants to quickly add interactions and business lines. As has been well documented, these firms can leverage their cost structures, data, and algorithms to disrupt a range of industries, from advertising to transportation.

Consumers often capture much of the value, paying little or nothing for services that traditional businesses provide for a fee. Skype, for example, saved consumers around the world about $37 billion in international phone charges in 2013 alone. Traditional intermediaries are often the casualties. Some go out of business altogether, unable to compete with the lower prices, greater choice, and new conveniences available online. Think of the bookstores shuttered by Amazon, the video stores wiped out by Netflix, and the travel agents rendered obsolete by Expedia.

Tech firms share some intriguing similarities with the new emerging-market giants. Both can be brutal competitors, and both often have tightly controlled ownership structures that give them the flexibility to play the long game. Many tech firms are privately held by founders or venture capital investors who prioritize market share and scale rather than profit. Amazon, Twitter, Spotify, Pinterest, and Yelp are on the growing list of companies that focus on increasing revenue or their user networks even while losing money over extended periods. That mindset—and the control of founders—sometimes persists even after the companies go public. Among NASDAQ-listed software and internet companies, founder-controlled firms have 60% faster revenue growth and 35% to 40% lower profit margins and returns on invested capital than do publicly held firms.

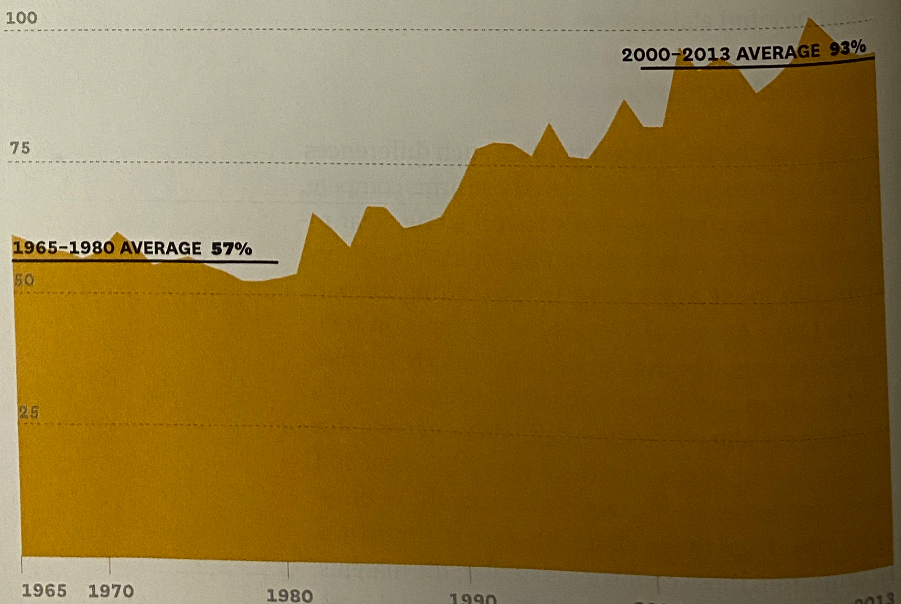
Incumbents are often caught flat-footed when tech firms move into markets where nobody expected them. The Chinese e-commerce giants Alibaba, Tencent, and JD.com have expanded into financial services, including small-business lending, consumer finance, and money market funds. They are able to use data about their vendors and customers to achieve loan performance ratios that are better than the financial industry average. In Brazil the telecommunications company Oi joined with the British analytics firm Cignifi to generate credit scores for customers on the basis of their mobile-phone use. Oi uses that information to extend lending services to unbanked customers through its SMS-based credit-card system.

But it's not just the new tech giants that pose a threat—it's also the businesses they enable. A universe of small vendors competes with much larger companies by piggybacking on global e-commerce platforms such as Amazon, Alibaba, the UK government's G-Cloud, and Airbnb. Pebble, a smartwatch start-up, raised $20 million in just one month on Kickstarter, an online crowdfunding platform that attracts 37% of funds from outside the United States. Thousands of small and midsize Chinese businesses now sell to overseas customers on B2B marketplaces that have millions of registered buyers. Etsy, a digital marketplace for artisanal goods, supported $2 billion in sales in 2014, more than one-third of which were

THE HIDDEN PERIL OF VOLATILITY

The dramatic increase in corporate profits has masked a decrease in their predictability. Since 2000 the average level of volatility of returns on invested capital has been about 60% greater than the levels that prevailed from 1965 to 1980.

VARIANCE IN RETURNS ON INVESTED CAPITAL FOR NORTH AMERICAN FIRMS



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