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Higher Highs and Higher Lows: The American Innovation Growth Engine

In the ever-evolving landscape of financial markets, public companies continue to prove the value of American ingenuity, technological innovation, and astute management execution. Over the years, they have not simply weathered economic cycles but rather flourished – with profit margins consistently setting higher lows *and* soaring highs, even in the face of multiple recessions, geopolitical conflicts, financial crises, and even global pandemics.

However, underneath the hood, fundamental analysis can help shed light on the forces that have compounded the additional wealth created by these companies. Over the last few decades, these businesses have been able to improve their operating margins through the deployment of innovative technology and best-in-class management techniques (allowing for greater adaptability and efficiency enhancements) –all while investing heavily in the opportunities they have imagined for future growth. Margins may dip during recessions, but they recover to new highs, with each subsequent trough and peak higher than prior periods. The continued investment in research and development ("R&D") on an unprecedented scale, has led to numerous technological breakthroughs. Thus, the complexion of these companies' financial statements is markedly different today when compared to prior decades.

For instance, forward-looking companies investing for future growth are:

- Utilizing automation and robotics to streamline processes and reduce or repurpose labor costs.
- Deploying advanced data analytics to make data-driven decisions, optimize operations, and identify cost-saving opportunities.
- Installing cloud technology which revolutionized data storage and processing while reducing infrastructure costs and increasing scalability.

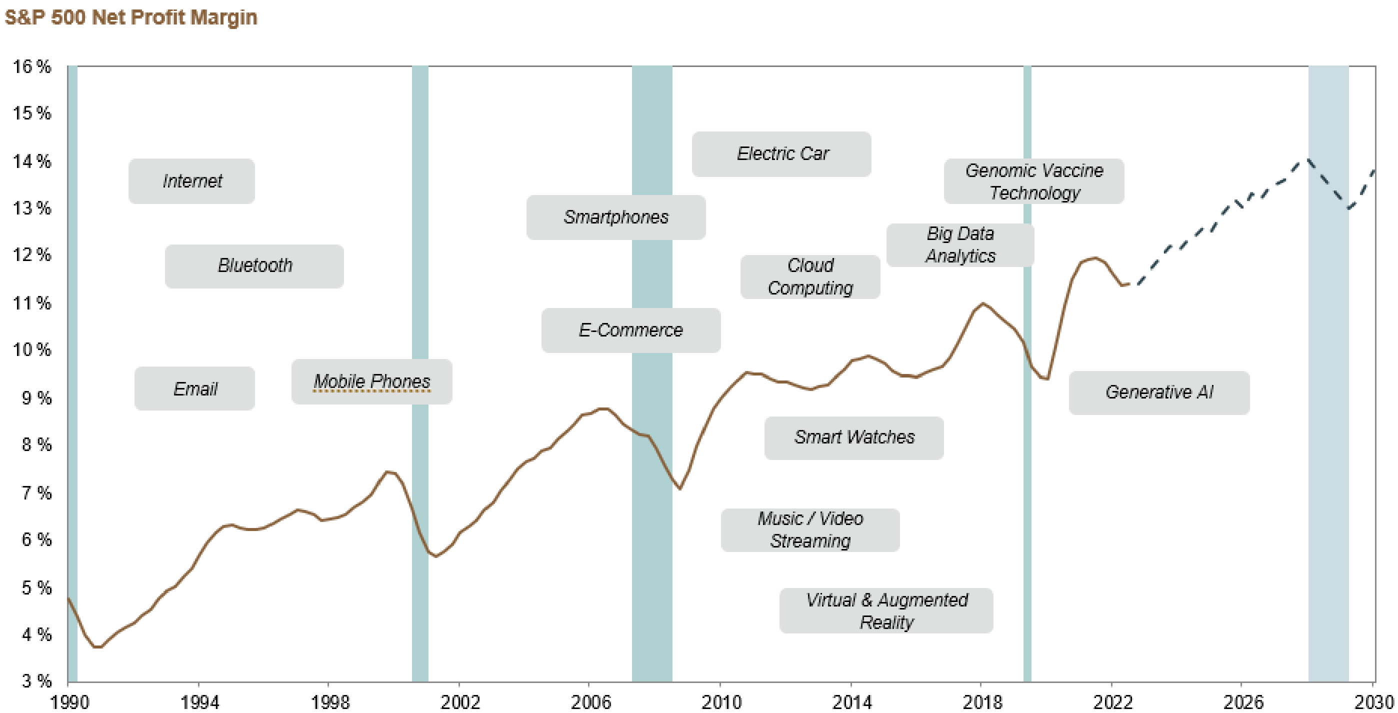
These are but a few examples of margin enhancing investments being exercised by companies over the past few years.

Zooming Out: Secular Growth Through the Cycles

When looking at the broader markets (excluding financials, utilities and real estate sectors for comparability purposes), coming out of the recession in the early 1990s, the average company's profit margin was just under 4%. Over the next decade, margins continued to expand to over 7% (peak) until the dot-com bust in the early 2000s, which drove margins back down to just under 6% (trough). A similar pattern ensued in the years leading to the Great Financial Crisis where margins expanded to almost 9% (peak) before falling back to 7% (trough), with even greater dispersion on the company level! Higher highs *and* higher lows!

Thus, as noted above, over the past three plus decades, companies have harnessed technological advancements to boost productivity. The message is clear – "Invest and innovate or your customers will go elsewhere". Tech giants are not merely dipping their toes into R&D; they have been making colossal investments that surpass those of the U.S.'s largest pharmaceutical corporations. In fact, between 2018-2022 the dollars invested in R&D by Facebook, Google, Microsoft, Apple, and Amazon totaled ~$650 billion, demonstrating an unwavering commitment to innovation and groundbreaking advancements, which is the defining characteristic of the great American enterprise.

After numerous R&D breakthroughs allowed profit margins to reach 11% (peak) in the years leading up to COVID-19, margins have since fallen back under 10% (trough) and have struggled to return to the previous peak given the lingering COVID-related supply chain chaos and commodity price inflation that have pressured businesses.



(Public company index [S&P500 companies excluding Financials, Real Estate and Utilities] net margins over time; shaded areas indicate recession; dotted line and light shading are hypothetical estimates; Source: Bloomberg & Goldman Sachs Research)

Looking Forward While Understanding the Past

Furthermore, in 2023, the economy struggled with the aftermath of Covid stimulus related inflation where prices rose faster than wages and interest rates ratcheted higher. Among the casualties have been continued declines in key housing metrics (ex. existing home sales and the value of the average home) and the failure of key financial institutions (two very large U.S. financial firms and a global investment bank). These outcomes offer a clear indication that the Fed's tightening cycle has had a real impact to the broader economy. At the same time, we enter the last quarter of 2023 against a backdrop of consumer headwinds such as slowing real wage growth and a resumption of student loan payments.

Yet, the advent and release of consumer-facing artificial intelligence ("AI") programs (such as ChatGPT, Bard and others) earlier this year, sparked optimism among investors, with Information Technology, Communication Services and Consumer Discretionary sectors up double digits and the tech-heavy NASDAQ up over 35% this year – a recovery from what were very depressed equity markets in 2022 as the Fed came to defend its anti-inflationary credentials. While many investors may view this AI news as the 'froth in the system', we believe a closer look points to a continuation of the magnificent technological prowess of American businesses. In fact, McKinsey estimates that artificial intelligence will drive over 200 basis points of margin improvement as AI algorithms optimize everything from supply chains to customer interactions, enhancing efficiency and overall profitability[1]. While the ultimate level of margin gains over time remains to be seen, a variety of businesses have already called out AI use cases being incorporated into their business models – both on the internal efficiency and revenue optimization fronts. This AI revolution may very well be the next margin "turning point" and push company financial statement's back to their historical pattern of margin expansion, especially in conjunction with supply chain and commodity normalization (see chart above).

It's More Than Margins… It's Returns

At the same time, businesses, industries, and overall economies have evolved over time and have become less capital-intensive driven by the aforementioned technology revolution in capex spending. For context, from 2000-2010 the ratio of the change in equity to the change in after-tax profit for the S&P500 Index was about nine times (i.e for every nine dollars of equity a business generated one dollar of after-tax profit output). However, from 2010 to 2020 that number declined to about six times and over the last five years to about 3.5 times![2] Consequently, American domiciled businesses have been able to achieve greater profit growth from very well targeted investment programs. They are demonstrating their remarkable ability to harness capital effectively to fund market changing innovation and consequent profit growth.

Drilling down on the company level, Apple Inc. ("AAPL"), the iconic tech giant, embodies this evolutionary process perfectly. It leveraged the allocation of its stock of capital to achieve faster growth in profit dollars by shifting its business model from producing consumer electronics and toward other service-based offerings (e.g., App Store offerings, music streaming, Apple Pay, and Apple TV). This in turn drove the revenue mix away from cyclical smartphone demand toward a steadier stream of recurring revenue. However, in the last decade AAPL achieved a remarkable feat: it was able to accomplish more with less! This is best evidenced by its balance sheet, where AAPL's equity capital has declined since 2017 while its profits in dollars have surged. For context, AAPL's ratio of its change in equity to change in profit was around 3.3 from 2000-2010 and then around 0.40 from 2010-2020. The ability to do more (drive margin expansion, greater revenue growth, and overall product innovation) while returning a significant level of capital back to shareholders, is truly remarkable and likely a driver of AAPL's massive stock outperformance to date.

Underearning Not Overearning

While the future is uncertain, we do expect relentless additional investment in R&D, which will inevitably lead to technological progress. AI sets the stage for another transformative wave poised to reshape the composition of numerous companies and their financial statements, likely propelling greater profit growth over time and, in turn, increasing the intrinsic and market values of these companies.

When considering the inherent worth of these progressive growth companies, companies that can consistently drive higher margins and generate more profits with less capital invested per unit of profit should naturally command higher valuations. Therefore, comparing today's index multiples to historical norms, even when adjusting for interest rate changes, may not provide an accurate gauge of 'expensiveness.'

[1] Artificial Intelligence: The Next Digital Frontier. McKinsey Global Institute. June 2017.
[2] Bloomberg

The best performing stocks are not merely public companies; rather, they are a testament to American resilience, adaptability, optimism, and innovation. They continually set new standards for success, regardless of uncertainties, economic fluctuations, and broader macro cycles. The substantial investments in research and development only underscore a commitment to progress that transcends industries.

Investment Strategy Implementation

Our investment process is underpinned by this exact notion. We are acutely focused on capital allocation and efficiency and believe that profit earned with less capital is worth more than profit generated through greater capital and best-in-class businesses are those that have the greatest success in deploying their capital most effectively and efficiently. Furthermore, with an eye toward innovation and progress, we recognize that R&D investments are an investment in future growth and look to invest in companies where that future growth potential may be under-estimated. Our valuation framework is grounded in understanding how much future growth in each company we are paying for and building a margin of safety around that level.

While we can neither predict tomorrow nor any future market trough, we can place our bets on the unwavering ability of management teams and businesses to invest shareholders' capital wisely. AI's potential to significantly impact company margins should be a testament to this and add to the impressive story of public markets as a journey of triumph, innovation, and enduring progress. As businesses continue to figure out how to do *more with more* or even *more with less*, do not be surprised if operating margins and valuations continue to rise to new peaks for best-in-class businesses.