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MARKET INSIGHTS

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NAVIGATING THE DUAL REVOLUTIONS:

AI's Underestimated Truth and the Coming Fiscal Storm

Mark Twain once delivered a sobering reminder of humanity's tendency to disregard transformative ideas while allowing misconceptions to persist. As we stand on the precipice of two seismic shifts—the AI revolution and an impending fiscal storm—his words resonate profoundly. The true potential of artificial intelligence may be vastly underestimated and dismissed as hype, while fears about its impact remain entrenched. Simultaneously, the era of unbridled deficit spending is ending, and conventional wisdom about fiscal policy faces an upheaval that could shake financial markets to their core.

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History is strewn thick with evidence that a truth is not hard to kill, but a lie, well told, is immortal.



- Mark Twain

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The AI Revolution's Underappreciated Magnitude

The world of computers is on the brink of a monumental transformation, yet its magnitude remains underappreciated. Two concurrent shifts—accelerated computing and generative AI—are poised to not only redefine the computer industry but also to reshape every facet of our global economy.

For decades, advances in computing were driven primarily by steady improvements in central processing units (CPUs). However, as the pace of CPU enhancements has decelerated, the industry has pivoted towards accelerated computing, leveraging graphics processing units (GPUs) and other specialized chips to meet the burgeoning demand for computational power. This approach has gained significant traction due to its superior cost-effectiveness and energy efficiency.

Accelerated computing systems are nothing short of revolutionary. Consider this; a small number of high-performance GPU-based systems can match the performance of thousands of traditional CPU servers, achieving similar results at a fraction of the cost and energy consumption. This efficiency is transformative, particularly for tasks involving artificial intelligence, scientific computing, and large-scale data processing.

One of the pivotal breakthroughs that underscored the importance of accelerated computing was the advent of deep learning—a subset of AI that excels at processing vast datasets to discern patterns and make predictions. Deep learning's insatiable appetite for computing power has driven the industry to innovate at an unprecedented pace.

In 2012, a deep learning model running on a specialized platform stunned the world by achieving a landslide victory in a major computer vision competition.¹ This watershed moment marked the dawn of a new era where deep learning systems began outperforming humans in object recognition tasks. The implications

were profound and clear—it was more than a remarkable achievement in computer vision, it was a harbinger of a new paradigm that could revolutionize software development and, by extension, the entire computing landscape.

Over the past decade, the field of AI has diligently advanced through multiple strategic initiatives:

1. Enhancing every facet of computing infrastructure—from GPU chips to software and networking technologies—to optimize support for deep learning and AI applications.
2. Cementing leadership in data centre computing by integrating expertise across all layers of high-performance computing necessary for handling ever-larger AI models and datasets.
3. Cultivating AI prowess by developing specialized AI platforms for diverse applications such as autonomous vehicles, robotics, digital avatars, and medical imaging—unlocking new markets and creating unprecedented opportunities.

The strategic focus on AI has yielded substantial dividends, fuelling emerging fields like autonomous driving and health care into multi-billion-dollar industries. The ongoing revolution in computing, driven by accelerated computing and generative AI, is far more significant than is commonly acknowledged. As these technologies continue to evolve, their potential to reshape industries and spur economic growth is boundless.

Take, for instance, NVIDIA. From its humble beginnings in the 1990s, when NVIDIA's founders recognized the untapped potential of GPUs, the AI revolution has been a story of defying skepticism. NVIDIA's early focus on graphics laid the groundwork for today's breakthroughs in natural language processing, computer vision, and generative AI, positioning the company at the forefront of this technological renaissance.

¹ ImageNet Large Scale Visual Recognition Challenge 2012.

AI is driving a paradigm shift in how we interact with technology, fundamentally altering our way of life. NVIDIA's GPUs have become the backbone of intelligent assistants, autonomous vehicles, and creative models that will profoundly impact sectors from health care to entertainment.

At the core of this revolution lies the power of floating-point numbers and tokens. Floating-point numbers facilitate neural networks' complex pattern recognition and predictions, while tokens empower AI to process and generate human-like text, driving advances in translation, summarization, and conversational AI. As AI's demand surges, driven by accelerated computing, generative AI, and large language models, a future where tradable tokens hold monetary value akin to trading electricity seems inevitable.

Accelerated computing is key to meeting AI's exponential data processing demands, separating data-intensive tasks for specialized hardware like GPUs. We are just beginning to rebuild the computing infrastructure for this new reality, with trillions slated for investment over the next five years in accelerator development, manufacturing, software, and systems.

Like past technological revolutions, AI promises progress but also peril. It will redefine decision-making and problem-solving while raising ethical concerns about risks and unintended consequences. Will robots replace humans? Will productivity soar? What societal shifts will full AI integration bring? Despite these concerns, the public still underestimates AI's societal impact.

As we navigate this technological renaissance, one truth is clear: AI's potential is not overhyped—it is vastly underhyped and its true impact might only be realized in the years to come. The public understanding remains limited by the shackles of our own imaginations, while visionary leadership like NVIDIA's shapes AI's unrealized potential for societal betterment. Those who doubt this revolution's magnitude should heed Twain's words and remember that AI's transformative truth will shatter boundaries and redefine our existence.

The Coming Storm: Fiscal Consolidation and Market Upheaval

AI isn't the only harbinger of change. As the tides of economic policy shift, a tempest also brews that threatens to upend conventional wisdom about fiscal policy and shake financial markets. The era of unbridled deficit spending is ending, and an impending period of fiscal consolidation looms—one that could spark a growth scare, deflation risks, and market upheaval akin to the post-Second World War era.

As government expenditures stagnate and economic growth decelerates, we must brace for a potential shift in bond markets. We're likely to see investors flock to the relative safety of bonds, marking the end of the "Anything but Bonds" strategy favouring riskier assets. Equity market performance hinges on whether U.S. Federal Reserve rate cuts precede or coincide with a recession, historically favouring stocks without a recession but falling sharply if cuts align with imminent recession.

The post-Second World War period offers insights into the potential consequences of sharp fiscal contraction. After the war, rapid U.S. military spending cuts contributed to economic fragility, just as the "forgotten depression" of the early 1920s had following the First World War. Reduced government spending and other deflationary measures caused many countries to experience short deflationary periods. At a time when the scars of the 1930s were still raw, these developments—a normal cyclical pattern before the Second World War—seemed highly ominous. The intellectual consensus then warned that any consumption increase would fail to counter declining military expenditures, risking a return to Great Depression conditions.

While the mainstream narrative clings to perpetual growth illusions, the once-fringe view of a post-war-like growth scare necessitating deep rate cuts below two per cent is gaining traction among the discerning. This shift from the enticing but unsustainable promises of Modern Monetary Theory² will not be easy, as debt

² Macroeconomic theory that countries which spend, borrow and tax in a currency they fully control (such as the U.S. the U.K., Canada and Japan) are not constrained by federal government spending as they can simply print more money.

levels prove unsustainable and the psychological shock to investors, politicians, and central bankers could be profound. Recent indicators suggest stagnant future government spending, which has historically led to rapid economic deceleration. The "smart money" appears positioned for this scenario.

The Journey to Two Per Cent Begins

Wall Street often overlooks the fundamental principles of monetary policy and economic indicators, focusing excessively on short-term market movements. Despite the well-established lag of around 18 months for monetary policy to take effect, and the lagging nature of price and labour data, economists and strategists tend to react like day traders to every new data release.

With the yield curve inverted for an extended period, a historically reliable recession signal, and the neutral interest rate (r^*) estimated below two per cent, indicating extremely tight monetary conditions, the risk of an economic downturn is evident. However, Wall Street seems oblivious to these looming risks, constantly revising rate cut expectations based on transient data points rather than acknowledging the broader trajectory set in motion by the Federal Reserve's aggressive tightening cycle.

The journey to two per cent has started, led by central bankers in the West. The real question is, how long will it take central bankers to get to r^* and, when they get there, how long do we stay there? My call is that the Bank of Canada overnight rate and the U.S. federal funds rate will be below two per cent by the end of 2025. At that time, it will take 18 months for the full effects of extremely low rates to work into the economy—just as rates at five per cent took longer to take effect. We stand at the beginning of a global reflation cycle which should last until early to mid-2026.

Navigating the Dual Revolutions

As we find ourselves at the intersection of two profound revolutions—the underestimated rise of AI and the coming storm of fiscal consolidation—we must adopt a mindset of prudent contrarianism. While the mainstream narratives may lull us into complacency—

dismissing AI's potential or clinging to the illusion of perpetual economic growth—the weight of evidence demands our clear-eyed attention.

The AI revolution, driven by trailblazers like NVIDIA, will redefine our existence through transformative technologies like floating-point numbers and tradable tokens. Embracing and responsibly harnessing its extraordinary possibilities is not merely an opportunity but an imperative for societal betterment.

Concurrently, the era of unchecked fiscal spending is drawing to a close, and the consequences could be severe. As government expenditures stagnate and economic growth decelerates, we must brace for a potential growth scare, deflation risks, and market upheaval akin to the post-Second World War era. The once-heretical whispers of deep rate cuts and bond market shifts are gaining credence, demanding our attention and proactive positioning.

In this crucible of dual revolutions, we must steel our resolve and embrace a contrarian mindset. While the masses may dismiss or underestimate these seismic shifts, the discerning few must heed the lessons of history and the immutable laws of economics. For those with the courage to look ahead, the rewards of foresight and preparedness may be immense.

As we steer through these uncharted waters, let us be guided by the wisdom of Mark Twain. Let us not be seduced by the immortal lies arising from complacency or fear, but instead acknowledge the transformative truths that will reshape our world, for they are inevitable forces that will test our resilience and redefine our future.

Prepare yourselves, for the dual revolutions are upon us and in their wake, a new world awaits.

Positioning for the Dual Revolutions

As we brace for the convergence of the AI revolution and fiscal consolidation storm, strategic positioning across asset classes becomes paramount. While the path ahead is rife with uncertainty, there are opportunities for the discerning investor.

In our base case, we continue to expect the S&P 500 to rally, with a target of 6,500 in 2025. This bullish outlook is underpinned by the transformative potential of AI, which is poised to drive productivity gains and economic growth across sectors, as well as the assumption that the Federal Reserve will rapidly cut rates in 2025. However, this trajectory may be punctuated by periods of volatility as the market grapples with the implications of fiscal consolidation and a potential growth scare.

Concurrently, the decline in interest rates should set the stage for a rally in the bond market. As investors seek safe havens amidst economic uncertainty, fixed-income assets may become increasingly attractive.

Commodities tied to the AI revolution, such as copper and uranium, will likely attract significant capital inflows. Going forward, industrials tied to power grid rebuilding should become central to earnings growth. As the demand for advanced computing hardware and infrastructure surges, these critical resources and industries will play a pivotal role in enabling the AI revolution's continued progress. Alternative stores of

value, such as gold and bitcoin, may also experience a resurgence in demand. In a period of global reflation and economic uncertainty, these assets could serve as hedges against potential market turbulence and currency debasement.

Overall, risk assets are poised for a favourable run in the near term, driven by the tailwinds of AI-fuelled growth and accommodative monetary policy. However, the risk lies in the latter part of 2025, when investors may realize that the Federal Reserve was late in addressing the economic slowdown, and deflationary forces could become entrenched. In such a scenario, rate cuts may prove ineffective in stimulating growth, leading to a potential market correction.

Navigating these dual revolutions will require a nimble and contrarian mindset, with a keen eye on both the transformative potential of AI and the shifting tides of fiscal policy. Those who can adeptly position themselves across asset classes and adapt to evolving market dynamics may emerge as the true architects of this new era.

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