AVERDAS PRODUCTIVITY FACTORS

Are Investors Still Underexposed to Productivity?

How the Averdas Productivity Factors have rewarded investors across macro cycles, crises and trade wars.

Investor research report
September 2026

Prepared for institutional investors, asset managers and professional advisers

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00 / EXECUTIVE THESIS

Executive thesis

In parallel with the disruptive-innovation debate that has dominated headlines in 2025 and 2026, a quieter but equally persistent question has been building in institutional portfolios: **are investors still underexposed to productivity?**

Drawing on three Averdas research papers spanning a full market cycle, a global pandemic, and the 2025 trade war and tariff conflict, this report revisits that question — and shows why the answer remains yes, and why the case has only strengthened as inflation has proven stickier and trend growth slower than expected.

The evidence is not presented as a single-market or single-period argument. It is assembled across macroeconomic regimes, crisis years and a live trade-war test, with historical and back-tested results clearly identified throughout.

16 yrs	4 / 4	76%
Productivity factors, U.S. study period	Macro regimes with Multi-Factor outperformance	Highest reported monthly hit ratio

Core conclusion

Productivity is not a niche factor. Averdas frames it as a structural source of potential excess return that can complement existing style, macro and innovation exposures.

Important: Past performance, model-based results and back-tested results do not guarantee future performance.

01 / MACRO SETTING

Why productivity matters now

The macro backdrop facing institutional portfolios in the second half of 2026 is precisely the environment in which productivity exposure should matter most. According to the IMF's July 2026 World Economic Outlook, global headline inflation is projected to rise from 4.1% in 2025 to 4.7% in 2026 before easing only gradually to 3.9% in 2027 — a stalling of the disinflation trend that had been in place since early 2024, driven largely by higher energy and food prices.

At the same time, trend growth in the world's advanced economies remains structurally subdued: the OECD projects global GDP growth of around 2.9% in 2026, with the Eurozone expanding by less than 1% and Japan holding near stagnation, as de-globalization, adverse demographics, de-carbonization costs and record public and private debt levels weigh on potential output.

4.1% – 4.7%	2.9%
IMF global headline inflation projection: 2025 to 2026	OECD global GDP growth projection for 2026

This combination of elevated inflation and slower growth compresses the two traditional levers investors have relied on for returns: nominal revenue growth and margin expansion through pricing power. When top-line growth is scarce and input costs keep rising, the companies able to sustain profitability are, almost by definition, those that produce more output with fewer inputs — that is, the more productive ones.

Averdas argues this is exactly why a dedicated productivity exposure deserves a more prominent place in institutional portfolios today than it did in the low-inflation, high-growth decade that preceded 2022: productivity capture is not just a source of alpha in favorable markets, it is increasingly a defensive necessity in a stagflation-prone one.

Source: IMF, World Economic Outlook Update, July 2026; OECD Economic Outlook, April 2026; Averdas research draft, August 2026.

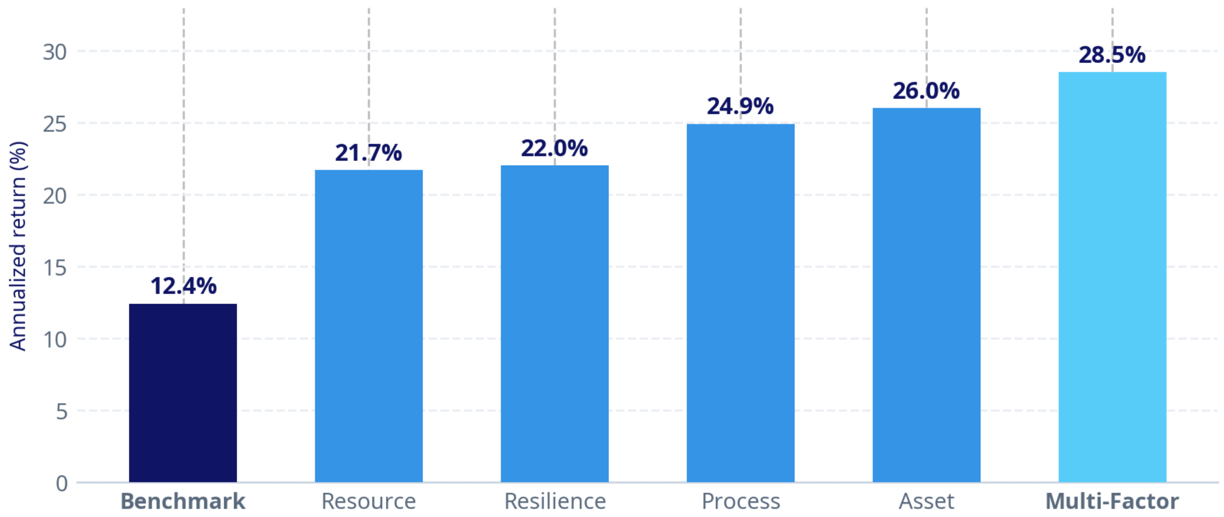
02 / INVESTMENT CASE

Productivity is compounding — and rewarding its investors

At the start of this decade, Averdas argued that conventional style factors — quality, momentum, value, dividends, low volatility and size — insufficiently capture the non-linear, input-output relationships that actually drive corporate outperformance. Averdas therefore built four **productivity factors** — Asset, Process, Resource and Resilience — designed to identify the companies that produce more output with fewer inputs, regardless of the prevailing macroeconomic regime.

The results, now backed by close to sixteen years of data (July 2009 – April 2025) for the U.S. universe (S&P Composite 1500), leave little doubt in the source research: productivity is rewarded, and rewarded on a scale that is hard to ignore. Weighting each macroeconomic regime by the number of months it historically occurred, the Averdas Multi-Factor index generated an annualized return more than double that of the benchmark over the full period, while every individual productivity factor outperformed as well.

Regime-weighted annualized return, U.S. universe



Source: Averdas (DEA model) results are self-calculated based on LSEG Refinitiv Eikon data per 30/04/2025 and S&P Dow Jones Indices LLC data, July 31, 2009 – April 30, 2025. Regime-weighted annualized returns, U.S. universe (S&P Composite 1500). All data prior to an index's launch date is back-tested (hypothetical). Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

That outperformance was not a product of a single favorable stretch of markets. It held up across four distinct macroeconomic regimes, through the COVID-19 crisis, and — most topically — through the trade war and tariff disputes that have defined markets since early 2025.

03 / AVERDAS FRAMEWORK

Four productivity factors, one portfolio sleeve

Just as a dedicated innovation sleeve can be layered onto a traditional equity allocation, Averdas' four productivity factors can be combined into a diversified “productivity sleeve” that sits alongside existing style and macro exposures. Each factor targets a distinct source of operational advantage.

ASSET

Asset Productivity

Effective use of labor, capital and technology. Asset-efficient firms generate more goods and innovate faster, supporting revenue growth.

PROCESS

Process Productivity

Efficiency of operational capabilities. Process-efficient firms adapt faster to volatile environments while sustaining profitability.

RESOURCE

Resource Productivity

Sustainable use of materials and human capital. Resource-efficient firms improve stakeholder outcomes and support long-term value creation.

RESILIENCE

Resilience Productivity

Ability to anticipate, adapt to and recover from disruption. Resilient firms protect returns during shocks and capture opportunities others miss.

Combined into a Multi-Factor index, these four building blocks form a modest, well-diversified allocation that can be sized to an investor's risk tolerance and rebalanced systematically — rather than timed — as productivity leadership rotates between asset efficiency, process discipline, resource stewardship and resilience depending on the macro backdrop.

Source: Averdas AG, “Can Productivity Explain Excess Returns in the Stock Market?”, May 2025.

04 / METHODOLOGY

Five criteria for an investable factor

Averdas' approach is built on five criteria for effective factor design: persistence of performance across time, pervasiveness across regions and market segments, robustness to different measurement approaches, investability using liquid, practical assets, and intuition — factors that are transparent and economically logical.

01 Persistence
Performance should be tested across time, not inferred from a single window.

02 Pervasiveness
The relationship should apply across regions and market segments.

03 Robustness
Results should remain meaningful under different measurement approaches.

04 Investability
The signal should be accessible through liquid, practical assets.

05 Intuition
The factor should have a transparent and economically logical rationale.

Productivity leaders are validated through fundamental data analysis, machine learning models that forecast business outcomes, and large language models that extract insights on operational efficacy directly from company disclosures. This is a description of the research architecture — not a guarantee of future investment results.

05 / MACRO CYCLE

Productivity exposure can boost returns across macro regimes

Averdas classifies each historical month into one of four macroeconomic regimes based on the direction of economic growth (OECD Composite Leading Indicator) and inflation (CPI). Of the 198 months from July 2007 to December 2024, 56% were classified as Rising Growth and 69% as Rising Inflation — underscoring how much of the recent cycle has, in fact, been shaped by inflationary pressure.

Annualized return by macroeconomic regime

GROWTH RISING		
	Rising growth / falling inflation Benchmark **35.34%** Multi-Factor **60.67%**	**Rising growth / rising inflation** Benchmark **25.29%** Multi-Factor **39.52%**
	Falling growth / falling inflation Benchmark **-8.98%** Multi-Factor **9.59%**	**Falling growth / rising inflation** Benchmark **-6.38%** Multi-Factor **6.10%**

INFLATION: FALLING TO RISING

Source: Averdas (DEA model) results are self-calculated based on LSEG Refinitiv Eikon data per 30/04/2025. S&P Dow Jones Indices LLC, OECD, U.S. Bureau of Labor Statistics and Federal Reserve Bank of St. Louis. Data from July 31, 2009, to April 30, 2025. All data prior to an index's launch date is back-tested (hypothetical). Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

The Averdas Multi-Factor index outperformed the benchmark in every single regime — not just during the risk-on Rising Growth / Falling Inflation environment where the S&P Composite 1500 itself thrived (35.3% annualized), but also in the far more difficult Falling Growth regimes, where the benchmark posted negative annualized returns of -9.0% and -6.4% respectively, while the Multi-Factor index still delivered positive returns of 9.6% and 6.1%.

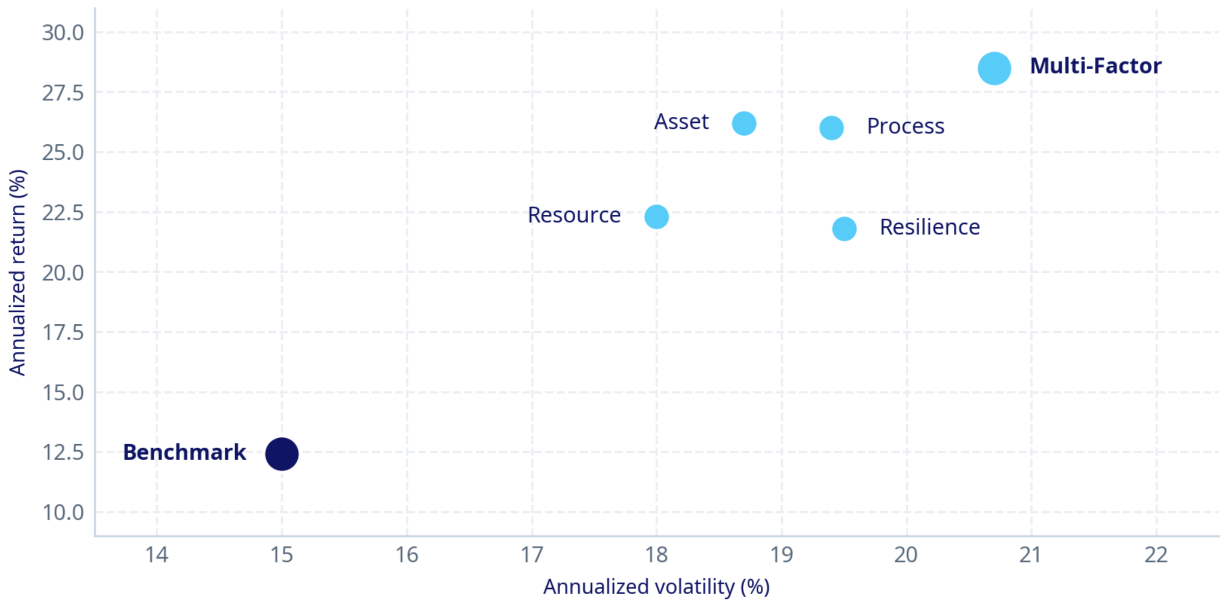
Crucially, the hit ratio — the share of individual months in which the factors beat the benchmark — remained above 55% for the Multi-Factor index in three of the four regimes, and reached 76% in the Rising Growth / Falling Inflation regime, evidence that the outperformance is broad-based rather than driven by a handful of outsized months.

06 / RISK AND CRISIS

Minimal impact on risk, even during downturns

A natural concern with any factor tilt is whether the incremental return comes at the cost of materially higher risk. Plotting full-cycle annualized return against annualized volatility shows that Averdas' productivity factors moved up and to the right of the benchmark — but disproportionately more up than right, resulting in meaningfully higher risk-adjusted returns across the board.

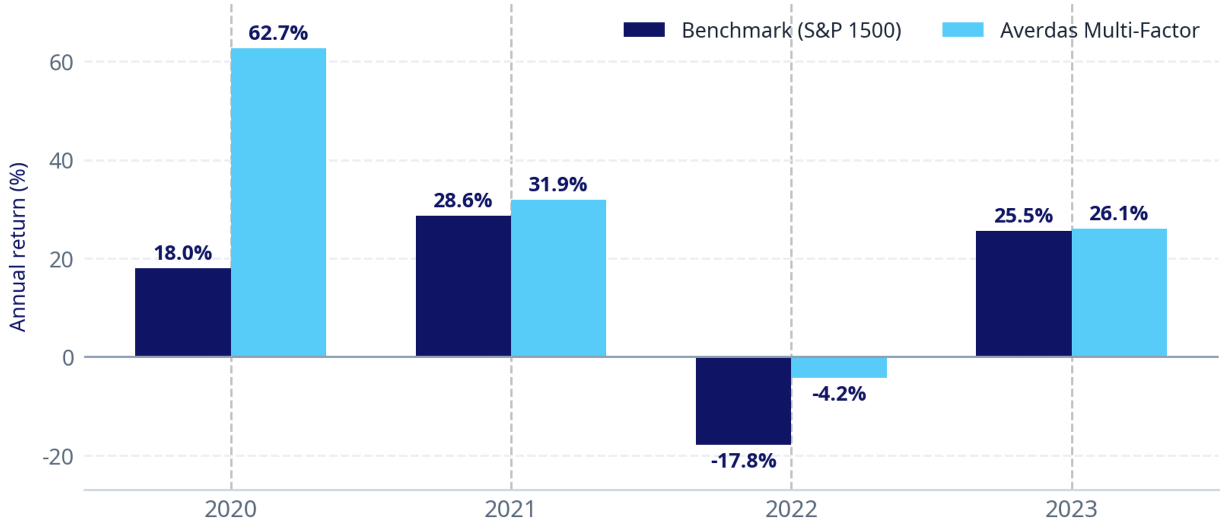
Productivity leaders deliver more return per unit of risk



Source: Averdas (DEA model) results are self-calculated based on LSEG Refinitiv Eikon data per 30/04/2025 and S&P Dow Jones Indices LLC data. Regime-weighted figures, U.S. universe, July 2009 – April 2025. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

This resilience was tested in real time during the COVID-19 pandemic (March 11, 2020 – May 5, 2023, per the WHO-defined period). In the sharp 2020 recovery, the Multi-Factor index more than tripled the benchmark's return; in the 2022 drawdown — a genuine stress test for growth-oriented strategies — the Multi-Factor index lost only 4.2%, versus a 17.8% decline for the benchmark.

Resilient through crisis: annual returns during the pandemic (U.S.)



Source: Averdas (DEA model) results are self-calculated based on LSEG Refinitiv Eikon data per 30/04/2025. S&P Dow Jones Indices LLC, OECD. Data from July 31, 2009, to April 30, 2025 (Table 3, U.S. universe). Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

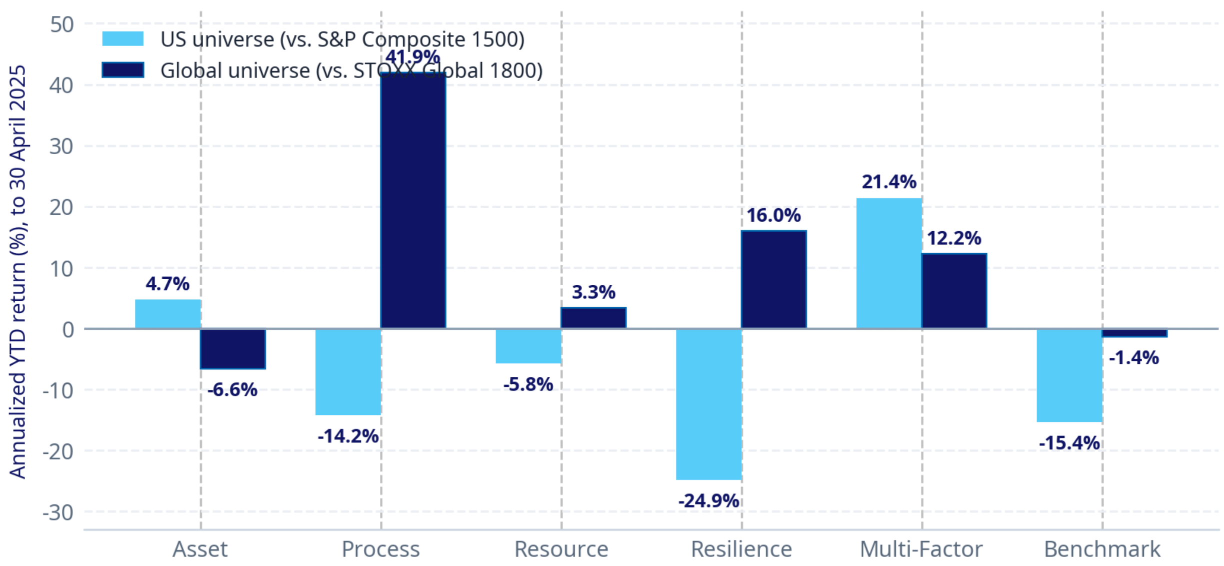
07 / CURRENT TEST

Productivity leaders perform even through trade wars and tariff conflicts

The most immediate test of the productivity thesis is unfolding now. De-globalization, demographic shifts, de-carbonization and record public and private debt levels have combined to produce a stagflationary backdrop — a mix of stagnant growth and elevated inflation — further complicated in 2025 by escalating tariff disputes between major economies.

Averdas argues this is precisely the environment in which productivity gains matter most: they let capital markets identify the companies still capable of expanding margins even as input costs rise and global supply chains re-organize.

Productivity leaders during the 2025 trade war & tariff conflict



Source: Averdas (DEA model) results are self-calculated based on LSEG Refinitiv Eikon data per 30/04/2025. S&P Dow Jones Indices LLC, OECD, STOXX Global 1800. Annualized YTD returns to April 30, 2025 (Tables 1 & 2, “Robust Returns in Times of Trade War and Tariff Conflicts”, May 2025). Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

In the U.S. universe, the Asset Factor and the Multi-Factor index posted positive annualized returns of 4.7% and 21.4% respectively in a period when the S&P Composite 1500 benchmark was down 15.4% annualized. In the Global universe, four of five factors — Process, Resource, Resilience and Multi-Factor — outperformed the STOXX Global 1800 benchmark, with the Process Factor returning an annualized 41.9% against a benchmark decline of 1.4%.

08 / CORPORATE EXAMPLES

The mechanism is visible in real operating decisions

The mechanism behind the numbers is visible in real, well-documented corporate strategies across sectors. The following examples illustrate the operational patterns each factor is designed to capture; they do not represent Averdas index constituents, holdings or recommendations.

AbbVie

ASSET FACTOR

Biopharmaceuticals · United States

AbbVie's handling of Humira illustrates asset efficiency through disciplined intellectual-property management: the company built a portfolio of roughly 130 patents around the drug, extending its effective U.S. market exclusivity by several years beyond the 2016 expiry of the core patent and helping Humira remain one of the best-selling biologics of all time before biosimilar competition finally arrived in 2023.

Akamai

PROCESS FACTOR

Digital infrastructure · United States

Digital infrastructure providers such as Akamai illustrate process efficiency: the company's global content delivery network has historically handled several hundred billion internet requests a day and been estimated to carry up to 15–30% of all web traffic, maintaining that reliability even as competition from hyperscale cloud providers has structurally narrowed the addressable market for traditional content delivery.

Volvo Cars

RESOURCE FACTOR

Automotive · Sweden

Automakers such as Volvo Cars demonstrate resource-conscious decision-making: its 2025 supply agreement with Swedish steelmaker SSAB for recycled, near-zero-emission steel targets one of the largest single sources of a vehicle's carbon footprint — steel typically accounts for around a quarter of material-related emissions in a new car — while also securing input-cost resilience against future carbon pricing.

Palo Alto Networks

RESILIENCE FACTOR

Cybersecurity · United States

Cybersecurity providers such as Palo Alto Networks illustrate the Resilience Factor: by hardening enterprise clients' networks, cloud environments and endpoints against cyberattacks and operational disruption, these companies help their customers protect revenue and continuity precisely during the shocks that hurt less resilient competitors.

These are illustrative, publicly documented examples of the operational patterns each factor is designed to capture; they do not represent Averdas index constituents, holdings or recommendations.

09 / PORTFOLIO ROLE

Conclusion: allocating to productivity with purpose

For investors weighing how to adapt portfolios to a world of persistent inflation, slower trend growth and recurring trade friction, the evidence assembled across three independent Averdas studies — spanning a full market cycle, a global pandemic and the current tariff conflict — points to the same conclusion: productivity is not a niche factor but a structural source of excess return that persists across regimes.

Taken together, this report shows three things for investors. **First**, productivity exposure has outperformed the broad market not just on average but in every macroeconomic regime tested, including the falling-growth environments where most equity strategies struggle. **Second**, that outperformance has come with a favorable risk profile — full-cycle volatility only modestly above the benchmark, and materially smaller drawdowns in stress periods such as 2022. **Third**, and most relevant to today's environment, productivity leadership has continued to hold up through the stagflationary, tariff-driven conditions of 2025 and 2026, suggesting the thesis is not merely a backward-looking artifact of a single cycle but a structural characteristic that travels across macro regimes.

For institutional investors, this points toward productivity as a durable complement — rather than a substitute — for existing style, macro and innovation exposures.

Averdas offers exposure to this thesis through four distinct productivity factors that can be accessed individually or combined into a diversified Multi-Factor allocation:

ASSET

Build the Business

Capital, labor and technology utilization.

PROCESS

Run the Business

Operational efficiency and dynamic capability.

RESOURCE

Make Resource-Conscious Decisions

Sustainable use of materials and human capital.

RESILIENCE

Stabilize the Business

Capacity to anticipate, adapt to and recover from disruption.

Available across the U.S. (S&P Composite 1500), Global (STOXX Global 1800) and European (STOXX 600 / STOXX Europe Total Market) universes, the Averdas factors are designed to be persistent, pervasive, robust, investable and intuitive — giving institutional investors a disciplined way to close the productivity gap in their portfolios, in every part of the macroeconomic cycle.

We encourage investors to work with their advisers to evaluate current factor allocations and assess how a dedicated productivity sleeve could complement existing style, macro and innovation exposures.

10 / APPENDIX

Appendix

Performance disclosure, sources and general disclaimer

Performance, simulated and back-tested data

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Sources and data limitations

- Averdas AG, “A Historical Perspective on Averdas Factor Index Performance across Macroeconomic Cycles,” May 2025.
- Averdas AG, “Can Productivity Explain Excess Returns in the Stock Market?,” May 2025.
- Averdas AG, “Robust Returns in Times of Trade War and Tariff Conflicts,” May 2025.
- International Monetary Fund, World Economic Outlook Update, July 2026.
- OECD Economic Outlook, April 2026.

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