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The Alpha of Omission

Quantifying Benefits for Long-Only Asset Managers from Avoiding Accounting Risk

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This paper investigates the efficacy of a systematic, negative-screening investment strategy based on Transparently.AI's proprietary accounting quality risk score. Challenging conventional notions of alpha generation, we posit that a significant portion of excess returns can be attributed to the deliberate avoidance of companies exhibiting high accounting and governance risks. Utilizing a comprehensive panel dataset across multiple global geographic universes and individual economic sectors, we construct and analyze cap-weighted portfolios that systematically exclude firms with Transparently risk scores above threshold values, comparing their performance against market-inclusive baselines over horizons of up to 20 years.

Our findings reveal a pervasive and economically significant outperformance for screened portfolios across virtually all tested regions and sectors. The strategy consistently generated substantial alpha, with profound impacts in geographies like Hong Kong, UK, Global, Developed Markets, Emerging Markets, North America, US, Asia-Pacific ex Japan, Australia & New Zealand, and Western Europe. Sectorally, alpha proved potent in industries with complex accounting (e.g., Health Care, Consumer Cyclicals, Technology), and delivered strong benefits in capital-intensive or cyclical industries (e.g., Industrials, Basic Materials, Energy). This consistent outperformance underscores the defensive capabilities of accounting risk screening, serving as a critical mechanism for downside protection and enhancing risk-adjusted returns universally, advocating for its integration into strategic portfolio construction and advanced risk management.

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1.0. Introduction: The Generation of Alpha from Avoidance

In the realm of long-only investment management, the pursuit of alpha—the excess return of an investment relative to its benchmark—is conventionally understood through the lens of selecting outperforming assets. However, a significant yet often understated dimension of active management lies in the deliberate exclusion of underperforming or fundamentally flawed companies.

This paper posits that a substantial portion of a long-only fund's alpha can be attributed not merely to the outperformance of its held stocks, but critically, to the avoidance of stocks that are destined to underperform or suffer catastrophic losses. This concept, which we term "alpha from avoidance," fundamentally reorients the focus from "what to buy" to "what not to hold," offering a robust and often more defensive pathway to superior risk-adjusted returns.

The theoretical underpinning of this approach challenges the strict tenets of the semi-strong form of the Efficient Market Hypothesis (EMH). While EMH suggests that all publicly available information is promptly and fully reflected in stock prices, a burgeoning body of research in behavioral finance and information asymmetry argues that complex, nuanced information—particularly that embedded within financial statements indicating accounting irregularities or governance frailties—may not be efficiently priced by the broader market.

Investors, prone to cognitive biases such as optimism, anchoring, or a preference for lottery-like stocks, may systematically overlook or under-react to red flags. Furthermore, the inherent complexities and processing costs associated with deciphering detailed financial disclosures (Grossman & Stiglitz, 1980) create opportunities for more sophisticated analytical models to identify and exploit these inefficiencies.

This study specifically investigates the efficacy of Transparently.AI's proprietary accounting quality risk score, hereafter referred to as the TLY, as a systematic negative-screening tool. This score is designed to identify firms exhibiting characteristics indicative of heightened accounting and governance risk, which are hypothesized to be leading indicators of future stock underperformance, operational distress, or outright fraud.

By systematically excluding companies with a TLY exceeding predefined thresholds from a cap-weighted portfolio, we aim to quantify the alpha generated and the downside risk mitigated across a diverse set of global equity markets. This strategy represents a "quality" factor investment approach, where quality is rigorously defined by accounting integrity and transparency.

The implications for asset managers are profound. In an environment where traditional sources of alpha are increasingly elusive, the ability to consistently avoid value traps and fundamentally flawed companies provides a defensive alpha stream. Such a strategy protects portfolios from the predictable negative returns associated with eventual market correction of mispricing, effectively cutting off the "left tail" of the return distribution.

This not only enhances absolute returns but is also anticipated to significantly improve risk-adjusted performance metrics such as Sharpe and Sortino ratios, given the strategy's inherent focus on mitigating downside risk. Furthermore, the geographic and sectoral segmentation of our analysis acknowledges the varying market structures, regulatory environments, and governance standards across different regions and sectors, providing actionable insights for asset managers seeking to integrate this risk-based screening into their strategic or tactical asset allocation frameworks.

The research seeks to demonstrate that for sophisticated asset managers, understanding and acting upon "what not to hold" is not just a complement to traditional stock selection, but a crucial component of building more resilient and profitable portfolios.

2.0. Literature Concepts

This section establishes the theoretical and empirical foundations for the investigation into accounting risk as a driver of portfolio performance. We briefly review key academic debates concerning market efficiency, the influence of behavioral biases, the significance of financial reporting quality, and the evolving landscape of factor-based and negative-screening investment strategies.

2.1. Market Efficiency and Informational Frictions

The bedrock of modern financial theory, the Efficient Market Hypothesis (EMH), posited by Fama (1970), suggests that asset prices fully reflect all available information. Under its semi-strong form, publicly available information, including financial statements, should be immediately and fully incorporated into stock prices, thereby precluding the possibility of generating consistent alpha through fundamental analysis.

However, a substantial body of literature has challenged the empirical validity of EMH, pointing to various market anomalies and informational frictions. Grossman and Stiglitz (1980) famously argued that information is costly to acquire and process, implying that perfect efficiency cannot exist; otherwise, no incentive would remain for costly information acquisition.

This information asymmetry creates opportunities for informed investors or those with superior analytical capabilities to identify and exploit mispricings before they are fully corrected by the broader market. Our study implicitly operates within this framework, contending that complex signals embedded within accounting data represent a form of costly-to-process information that is not always immediately or accurately reflected in stock prices.

2.2. Behavioral Biases and Under-Reaction to Fundamental Information

The emergence of behavioral finance offers a compelling explanation for persistent market inefficiencies, particularly concerning the under-reaction to fundamental information. Kahneman and Tversky's (1979) seminal work on prospect theory and subsequent research by Shleifer (2000), Barberis and Thaler (2003), and others, demonstrate how psychological biases systematically affect investor decision-making. Investors may exhibit conservatism (under-reacting to new information), overconfidence (leading to insufficient due diligence), or representativeness heuristic (focusing on salient features while ignoring base rates or less obvious data). Critically, investors may

be drawn to "glamour stocks" with exciting narratives, causing them to overlook or downplay accounting red flags in favor of speculative upside, a phenomenon akin to a preference for positive skewness (Mittels & Vissing-Jørgensen, 2012).

These biases can lead to the systematic mispricing of firms with deteriorating financial health or aggressive accounting, creating predictable patterns of future underperformance that a rational, quantitative screening strategy can exploit by avoiding such problematic entities.

2.3. Accounting Quality, Earnings Management, and Financial Reporting Risk

The quality of financial reporting is a critical determinant of a firm's valuation and investment risk. Dechow and Skinner (2000) highlight the increasing scrutiny on earnings management, where managers use discretion in financial reporting to achieve specific earnings objectives, often to mislead stakeholders.

Research by Sloan (1996) demonstrated that firms with high accruals (a proxy for low earnings quality) tend to experience poorer future stock returns, indicating that the market systematically overvalues accruals-heavy earnings. Subsequent studies have developed various models to detect earnings manipulation and accounting irregularities, such as the Beneish *M*-score (Beneish, 1999) and the *F*-score (Piotroski, 2000), linking these signals to future stock underperformance or heightened default risk.

Our study aligns with this stream of literature by utilizing a proprietary accounting risk score, which synthesizes multiple such indicators to create a holistic measure of a firm's financial reporting integrity and governance quality. This score is hypothesized to capture the nuanced signals of poor accounting quality that precede significant negative events, allowing for proactive avoidance.

2.4. Quality Factor Investing

The concept of "quality" as an investment factor has gained significant traction in academic research and industry practice (Novy-Marx, 2013; Asness et al., 2019). While definitions vary, quality typically encompasses characteristics such as high profitability, stable earnings, strong balance sheets, conservative accounting, and robust governance. These attributes are generally associated with lower risk and superior long-term returns.

Our accounting risk score directly operationalizes a crucial dimension of quality – specifically, the absence of accounting and governance risk. By screening out firms lacking these quality characteristics, our strategy seeks to tap into the well-documented "quality premium."

Unlike traditional quality screens that primarily focus on identifying good companies, our approach emphasizes avoiding bad companies, contributing to a more defensive and resilient portfolio construction. This aligns with the idea that avoiding value traps and fundamentally weak businesses is a key component of a successful quality-focused strategy.

2.5. Negative Screening and Its Expanding Role

While traditional active management focuses on "buy" decisions, negative screening has long been employed, particularly in Socially Responsible Investing (SRI) and Environmental, Social, and Governance (ESG) investing. Historically, negative screens might exclude firms involved in controversial industries (e.g., tobacco, firearms). However, the application of negative screening is expanding to fundamental risk factors. Research on ESG integration has shown that strong governance (the "G" in ESG) is often correlated with better operational performance and lower risk (Gompers, Ishii, & Metrick, 2003; Khan, Serafeim, & Yoon, 2016).

Our study extends this principle by applying a detailed accounting risk screen, effectively using a highly specific "G" component to actively avoid firms that pose an intrinsic financial threat. This strategy leverages the power of omission, demonstrating that the decision to not hold a stock can be as impactful, if not more so, than the decision to hold, particularly when avoiding significant future underperformers.

3.0. The Transparently Risk Engine and Proprietary Accounting Risk Scores

The core of this research hinges on the Transparently Risk Engine (TRE), a sophisticated AI/ML-driven system designed for the automated, early detection of accounting manipulation and fraud. The TRE generates a proprietary accounting quality risk score, referred to as the TLY in our methodology, which serves as a crucial input for identifying and avoiding problematic firms. This section elaborates on the nature, construction, and predictive power of these proprietary scores as detailed in the Transparently white papers: "Predicting Corporate Collapse with Accounting Quality" (2023) and "Predicting Time Series Stock Returns with Accounting Quality" (2024).

3.1. Construction and Methodology of the Transparently Risk Engine

The TRE is a complex analytical framework that generates monthly point-in-time (PIT) accounting quality risk scores for listed companies globally. Its methodology is characterized by several key features:

AI/ML Model: The engine employs an underlying Artificial Intelligence and Machine Learning model that is re-estimated each month. This dynamic re-estimation ensures that the risk scores are always based only on financial data available up to that specific month-end, thereby meticulously avoiding lookahead bias. This rigorous PIT approach is fundamental to the integrity and practical applicability of the scores in a real-world investment context.

Big Data and Diverse Characteristics: The TRE leverages large datasets and a wide array of models to identify significant risk signals. These signals are derived from characteristics encompassing numerous aspects of a company's financial statements and reporting practices. The aim is to replicate aspects of the analytical behaviour of forensic accountants, activist short sellers, credit analysts, equity analysts and other market participants. This multi-faceted approach allows the engine to detect nuanced patterns that might indicate manipulation.

Focus on Pernicious Earnings Management: The primary focus of the TRE is on identifying pernicious forms of earnings management/manipulation that are known to presage corporate failure and/or underperformance. This includes, but is not limited to, aggressive revenue recognition, manipulation of depreciation

policies, understatement of bad debts, faking inventory or cash flows, accelerating sales, and the use of off-balance sheet transactions. The system is designed to hunt for these manipulation footprints that are often not obvious to human analysts or even auditors.

Holistic Risk Quantification: The output of the TRE is an overall risk score that represents the joint probability of manipulation and corporate failure resulting from that manipulation. This holistic score provides a single, quantifiable measure of a firm's accounting integrity and its associated risk of future distress.

Explainable AI (XAI) A critical feature of the TRE is its design as an explainable AI system. It is not a "black box"; rather, it provides detailed explanations of the drivers of manipulation, key parts of the accounts, questions to ask management and specific areas to analyze further. This transparency is vital for investment managers to understand the basis of the risk scores and integrate them effectively into their due diligence processes.

Universe Coverage: The TRE is applied to a broad universe of approximately 80,000 stocks globally, covering active, delisted, and suspended companies, ensuring comprehensive coverage and mitigating survivorship bias in its training data. Banks and insurers are typically excluded due to their unique financial reporting structures requiring specialized models.

3.2. Predictive Power of the Accounting Risk Scores

The white papers provide compelling evidence of the significant and robust predictive power of the Transparently Risk Scores (TLY) for both future stock performance and the likelihood of corporate collapse:

Correlation with Future Returns: Across all forms of analysis, a very strong and statistically significant negative relationship is observed between the TLY and future stock returns. Higher risk scores are consistently associated with worse future return outcomes. For example, the "Predicting Time Series Stock Returns" paper highlights an overall future 12-month median return spread of 26.7% between decile 1 (low risk) and decile 10 (high risk) companies. This spread increases with longer holding periods, reaching 52.6% over 36 months.

Prediction of Corporate Collapse: The "Predicting Corporate Collapse" paper directly links high risk scores to a heightened probability of stock failure. Using a definition of stock failure as a relative and absolute performance of -80% or worse from a stock's historic peak price, the out-of-sample test data shows that:

- 97% of stocks with a risk score above 0.9 subsequently met the failure criteria.
- 86% of stocks with a risk score above 0.8 subsequently failed.
- 65% of stocks with a risk score above 0.5 subsequently collapsed.

This demonstrates a strong monotonic relationship between higher risk scores and a greater certainty of subsequent stock failure.

Multi-Year Lead Time: A crucial finding is the existence of a multi-year lead time between high-risk signals and corporate failure. The TRE can identify significant information on manipulation/failure rates prior to market recognition of increased failure risk. Even three years prior to a stock hitting the failure event threshold, a high predicted manipulation/risk score (e.g., >0.7) was associated with 73% of those stocks ultimately failing. This lead time provides a critical window of opportunity for investors to avoid or exit problematic positions.

Impact on Price Decline: For independently identified manipulators, the median absolute return from peak price to last available price for firms with scores above 0.8 was -99% in the out-of-sample test set. This illustrates that high manipulation risk is strongly associated with substantially worse return outcomes, often leading to near-total equity value destruction.

Statistical Significance: The relationships observed are consistently very strongly statistically significant, indicating that the predictive power is not due to random chance. Substantial alphas are also evident in regressions of risk score portfolio return spreads against Fama-French factor portfolio returns, confirming that the alpha is not merely a compensation for known risk factors.

In summary, the Transparently Risk Engine provides a sophisticated, data-driven, and empirically validated measure of accounting quality risk. This proprietary score (TLY) serves as a powerful leading indicator of future stock underperformance and corporate collapse, forming the bedrock of the negative-screening strategy explored in this paper.

4.0. Methodology

This section details the methodology employed to assess the performance impact of Transparently.AI's proprietary accounting risk score on long-only investment portfolios. The core objective is to determine whether the systematic exclusion of high-risk companies, as identified by the TLY metric, leads to superior investment returns and enhanced risk management compared to a passive, market-inclusive strategy. The approach involves constructing and analyzing multiple capitalization-weighted portfolios across distinct geographic universes and global sectors.

4.1. Data Sources and Sample Construction

The analysis relies on a point-in-time (PIT) dataset, generated by Transparently, for accounting risk scores.This dataset provides monthly snapshots of the proprietary accounting risk score for each company. The TLY risk score is a composite metric derived from an advanced analytical model that assesses various accounting and governance indicators. The use of PIT data is paramount; it guarantees that the risk score applied at any given month was genuinely available to an investor at that specific time, preventing any artificial inflation of performance.

The PIT data is combined with the monthly market capitalization for each company. Market capitalization is utilized to construct cap-weighted portfolios, reflecting the investment methodology of most major indices and many active funds. Both USD-denominated and local currency market capitalization data are employed, with the choice depending on the specific geographic universe being analyzed to maintain relevance to local investment contexts.

Monthly total return indices for each company, both in local currency and USD, are employed for calculating 1-month forward returns, as they account for all distributions (e.g., dividends, stock splits), offering a comprehensive measure of total shareholder return. Return data and market capitalization data is sourced from Refinitiv.

4.2. Geographic and Sectoral Universes

To provide a comprehensive global perspective and account for heterogeneous market characteristics, the analysis is systematically applied across multiple predefined geographic and global sectoral universes. This segmentation is crucial for understanding how the efficacy of accounting risk screening may vary with differences in regulatory environments, corporate governance standards, and market development

levels. For sectoral classifications we employ Thomson Reuters Business Classifications. These are similar to Global Industry Classification Standards.

For each universe, the relevant subset of securities is extracted from the universe data and subsequently merged with the other datasets to create a unified panel dataset for each specific universe, forming the foundation for all subsequent portfolio construction and performance analysis. Special consideration is given to local currency universes (e.g., HK, CN, GB, JP), where local currency market capitalization and local return indices are used for weighting and return calculations, respectively. For all other universes, USD-denominated market capitalization and USD return indices are employed.

4.3. Forward Return Calculation

Accurate measurement of future returns is important for unbiased performance evaluation. For each security and month, the 1-month forward return is calculated using the total return indices. This is achieved by taking the return index one month ahead and dividing it by the current month's return index, then subtracting one:

This method ensures that all capital gains and income distributions are captured, providing a true measure of the total return an investor would realize over the subsequent month.

4.4. Data Curation and Cleaning

To ensure the robustness and reliability of the results, a series of data curation steps are applied to each universe's merged dataset. These steps are designed to mitigate the impact of outliers and data anomalies:

Missing Data Exclusion: Observations with missing 1-month forward returns or missing accounting risk scores are removed.

Extreme Return Filtering: Outliers in 1-month forward returns (e.g., returns exceeding 1000%) are removed, as these are invariably indicative of data errors rather than genuine market movements.

Cumulative Adjustment Factor: Firms with unusually high cumulative adjustment factors are excluded to filter out data integrity issues related to significant corporate actions (these are a source of both anomalous market capitalisation and return calculations in public datasets).

4.5. Portfolio Construction

Our methodology employs a portfolio-based approach to systematically assess the value of the accounting risk-scoring model. All portfolios are market capitalization-weighted.

4.5.1. Baseline Portfolio

A baseline portfolio is constructed for each geographic universe. This portfolio represents a passive, market-inclusive investment strategy and includes all securities within the curated dataset for that universe. The monthly return of this portfolio is calculated as the cap-weighted average of the 1-month forward returns of all its constituent securities. This baseline serves as the benchmark against which the performance of the risk-screened portfolios is evaluated.

4.5.2. Risk-Screened Portfolios

In addition to the baseline, five risk-screened portfolios are constructed. These portfolios are designed to test the hypothesis that excluding high-risk companies improves investment performance. A set of specific TLY thresholds are defined: 0.5, 0.6, 0.7, 0.8, and 0.9 (representing accounting manipulation risk scores of 50%, 60%, 70%, 80% and 90%, respectively). For each threshold, a separate portfolio is created that includes only those securities with a TLY at or below the given threshold. The monthly return for each screened portfolio is calculated as the cap-weighted average of the 1-month forward returns of its eligible constituent securities.

4.6. Performance Evaluation

4.6.1. Annualized Returns

The performance of each portfolio (baseline and the five screened portfolios) is evaluated over various long-term investment horizons: 5, 10, 15, and 20-year periods ending July 2025.. Monthly returns are annualized using the compound annual growth rate formula:

$$\text{Annualized Return} = (1 + \text{Average Monthly Return})^{12} - 1$$

This allows for a direct comparison of the long-term efficacy of the screening strategy across different market cycles and provides a clear measure of absolute performance enhancement.

Note that returns for the baseline and risk-screened portfolios will not directly map to market index performance over the periods evaluated, particularly over the longest time

horizons. This is a result of the analysis excluding most banks and insurers, and a smaller sample set size in the earliest years with data constraints limiting the number of companies for which the Transparently risk score can be calculated.

4.6.2. Value-Added Analysis

To provide a more intuitive and economically significant measure of the strategy's impact, a value-added analysis is conducted. This involves simulating the growth of a hypothetical $1 billion fund invested in each portfolio (baseline and screened portfolios) over the same 5, 10, 15, and 20-year periods.

For each period and each screened portfolio, the following metrics are calculated:

Baseline Final Value (USD): The terminal value of the $1 billion fund if invested in the baseline portfolio.

Screened Portfolio Final Value (USD): The terminal value of the $1 billion fund if invested in the respective risk-screened portfolio.

Value Difference (USD): The difference between the screened portfolio's final value and the baseline's final value. This metric directly quantifies the economic value added or preserved by the avoidance strategy.

Average Value Added Per Year (USD): The total value difference divided by the number of years in the period, providing an annualized measure of economic impact.

Removed Tickers Count: The number of unique tickers that were excluded from the screened portfolio relative to the baseline during the analysis period, indicating the scope of the negative screening.

These value-added metrics are reported in millions of USD, providing clear evidence of the tangible benefits of the accounting risk screening strategy for asset managers.

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5.0. Results Overview: An Assessment of Accounting Risk as a Portfolio Selection Criterion

This section synthesizes the empirical findings derived from applying Transparently.AI's proprietary TLY score as a negative screening mechanism across a diverse set of global equity markets and sectors.

5.1. Geographies

5.1.1. Pervasive Efficacy of Alpha from Avoidance

The most salient finding is the ubiquitous and economically significant outperformance achieved by portfolios systematically excluding companies with elevated accounting risk. Across virtually all analyzed geographic universes and time horizons (5, 10, 15, and 20 years), screened portfolios consistently generated higher annualized returns than their respective cap-weighted baseline portfolios. This broad efficacy empirically validates the core hypothesis that "what a long-only fund doesn't hold" is a potent source of alpha.

The strategy's success challenges the strong form of the Efficient Market Hypothesis by demonstrating persistent informational inefficiencies, particularly concerning the timely and accurate pricing of complex accounting and governance-related risks. These risks, often obscured by financial complexity and compounded by behavioral biases, are evidently identified and mitigated by the proprietary accounting risk score.

As the exclusion threshold became stricter (higher TLY scores), the incremental alpha typically diminished, although it largely remained positive relative to the baseline. Importantly, the number of companies with higher risk scores diminishes in a non-linear manner. Thus, as a smaller selection is removed, the impact on the portfolio is reduced. This does not indicate that higher risk scores are not associated with more adverse future return outcomes. Rather, it is a product of the reduced impact on the overall portfolio of removing smaller numbers of companies.

5.1.2. Heterogeneity in Alpha Magnitude and Risk Mitigation

While the positive impact is widespread, the magnitude of alpha generation varied significantly across regional blocs, reflecting diverse market structures, regulatory environments, and investor behaviors.

In highly developed and seemingly efficient markets such as the **Global, Developed Markets, North America, United States, and Western Europe universes**, the accounting risk screen consistently added substantial alpha (typically 1.5 to 3.2 percentage points annually over longer horizons). This suggests that even in environments characterized by stringent regulations, high analyst coverage, and sophisticated investor bases, the proprietary score is capable of discerning subtle, persistent accounting quality issues (e.g., aggressive revenue recognition, poor accruals quality) that precede future earnings disappointments and stock price underperformance.

Specifically, in the **United States**, the strategy demonstrated remarkable efficacy, generating up to 3.2 percentage points of annual alpha over 5 years, and consistently adding over $1.2 billion in value over 20 years for a $1 billion initial investment.

The **North American** market, heavily influenced by the US, similarly showcased robust outperformance, with up to 3.2 percentage points of annual alpha over 5 years and over $1.3 billion in added value over 20 years. These significant value additions in purportedly efficient markets underscore that such inefficiencies are not trivial but materially impact wealth creation.

The strategy demonstrated its most dramatic and transformative impact in markets sometimes associated with greater corporate governance challenges or higher information asymmetry, notably **Hong Kong and Great Britain**.

In **Hong Kong**, the baseline portfolio exhibited weak or even negative returns over significant periods. The accounting risk screen not only converted these losses into strong positive returns but also generated an astonishing alpha of up to 7.4 percentage points annually over 10 years, adding over $1.3 billion to a $1 billion initial investment over 20 years. This profound effect highlights the acute vulnerability of this market to hidden accounting risks, potentially exacerbated by the unique legal and governance interplay of mainland Chinese listings.

Similarly, **Great Britain** witnessed powerful alpha, with the strategy generating over $1.1 billion in additional value over 20 years. This suggests the UK market may harbor a significant number of "value traps"—companies that appear superficially cheap but are fundamentally flawed due to accounting and governance issues, which the screen effectively identifies and avoids.

Emerging Markets and Eastern Europe also showed pronounced benefits, consistent with the hypothesis that greater informational opacity and less mature regulatory frameworks in these regions amplify the impact of accounting risk. The significant value added to hypothetical USD1b portfolios (nearly $2 billion over 20 years in Emerging Markets alone) underscore the critical role of the screen in preserving and growing capital in these dynamic yet often riskier environments.

The performance in China and Japan revealed more nuanced outcomes.

In mainland **China**, while modest alpha was generated, its magnitude was less consistent and pronounced compared to other regions. This suggests that in a market heavily influenced by state intervention and policy directives, accounting risk, though present, may sometimes be overshadowed by other dominant drivers of stock performance. A company's political alignment or strategic importance could temporarily override fundamental accounting signals.

Japan also exhibited modest but consistent alpha. Given Japan's distinct corporate governance traditions (e.g., extensive cross-holdings) and slower adoption of certain financial reporting norms, the accounting risk score might primarily identify outliers rather than widespread systemic issues. This implies that while valuable, a purely quantitative accounting screen in Japan might be optimally deployed in conjunction with qualitative, contextual analysis.

Australia & New Zealand consistently generated positive alpha, with robust value addition over longer periods. This indicates that even in markets with significant exposure to cyclical sectors like commodities, the underlying accounting quality remains a material factor impacting long-term returns.

5.1.3. Implications for Alpha Generation and Downside Risk Management

The consistent alpha generated across diverse markets positions the accounting risk score as a novel and robust factor in investment decision-making. This alpha is predominantly derived from the active avoidance of predictable losers, rather than the selection of winners. By systematically removing companies with deteriorating fundamentals, aggressive accounting practices, or outright fraudulent activities, the strategy acts as a powerful risk management tool. It effectively cuts off the "left tail" of the return distribution, shielding portfolios from catastrophic losses (e.g., stock blow-ups due to accounting scandals).

The economic scale of the presented value-add for portfolios, often accumulating to billions of dollars for an initial USD1b investment, underscores that this is not merely a statistical anomaly but a tangible source of wealth preservation and creation. This defensive alpha stream is particularly valuable in periods of market stress or heightened uncertainty, offering resilience and stability to long-only portfolios. While not explicitly measured in this analysis, the consistent avoidance of underperforming assets strongly suggests a significant improvement in risk-adjusted return metrics such as Sharpe and Sortino ratios.

5.1.4. Strategic and Tactical Portfolio Construction

The findings carry significant implications for asset managers and portfolio constructors:

Strategic Tilt: The pervasive and persistent nature of the alpha suggests that integrating accounting risk screening as a permanent, strategic tilt in long-only portfolio construction is justified. This could involve a zero-weight allocation to firms exceeding a high-risk threshold, or an aggressive underweighting based on the score.

Factor Integration: This accounting risk score essentially functions as a sophisticated Quality factor. Its interaction with other established investment factors (e.g., Value, Growth, Momentum) warrants further investigation. It is plausible that this Quality factor exhibits a negative correlation with "value traps" (cheap-for-a-reason stocks) and a positive correlation with deteriorating momentum, offering diversification benefits when combined with other factor strategies.

Contextual Application: The regional heterogeneity in performance suggests that while the score is globally applicable, its stringency and integration method may need to be tailored to specific market contexts. For instance, a more aggressive screen might be warranted in markets with weaker governance, while a more nuanced approach, potentially with qualitative overlays, might be suitable for markets like Japan or China.

Enhanced Due Diligence: The consistent extraction of alpha, even in highly efficient markets, highlights that relying solely on conventional financial analysis may be insufficient. The proprietary accounting risk score offers an advanced layer of due diligence, enabling investors to identify and pre-empt risks that are often overlooked or difficult to detect through traditional means.

In conclusion, the empirical evidence overwhelmingly supports the proposition that a systematic negative-screening strategy based on Transparently.AI's accounting risk score is a powerful and globally relevant approach to enhancing long-only portfolio performance. By effectively identifying and avoiding firms with high accounting risk, investors can unlock a consistent source of alpha and significantly improve the defensive characteristics of their portfolios.

5.2. Sectors

This section provides an assessment of the systematic, negative-screening investment strategy's performance across various economic sectors. This analysis synthesizes the key findings from the Basic Materials, Consumer Cyclicals, Energy, Financials, Health Care, Industrials, Real Estate, Technology, and Utilities sectors, highlighting general trends in alpha generation and risk mitigation attributable to accounting quality screening within these distinct industry groups.

5.2.1. Pervasive Alpha Generation: Accounting Quality as a Universal Fundamental Factor

The most profound and consistent finding across the sector-specific analysis is the widespread and statistically significant efficacy of the accounting risk screening strategy in generating alpha across virtually all investigated sectors. This robust empirical evidence strongly reinforces the notion that accounting quality is a universal fundamental factor, transcending industry-specific dynamics, business models, and macroeconomic sensitivities. Regardless of whether a sector is capital-intensive (e.g., Energy, Industrials), consumer-driven (e.g., Consumer Cyclicals), or innovation-led (e.g., Technology, Health Care), the ability to discern and systematically avoid firms with elevated accounting risk consistently translates into superior portfolio performance.

The economic significance of the alpha generated by this strategy is consistently compelling across all sectors. For a hypothetical $1 billion initial investment, the strategy frequently generated hundreds of millions, and often well over a billion dollars, in additional value over longer horizons. For instance:

- In Health Care, the 0.5 threshold portfolio added over $2.1 billion over 20 years, translating to an average annual value add of $106 million.
- In Technology, the same threshold added over $2.2 billion over 20 years, averaging $114 million annually.

- Consumer Cyclicals saw over $1.2 billion in added value over 20 years, averaging $60 million annually.

These figures are not merely statistical artifacts but represent tangible wealth creation for investors. Furthermore, the consistent outperformance, especially during periods where baseline sector returns were notably lower or even negative (e.g., Health Care's -0.7% baseline over 5 years, which was converted to a positive 5.1% with the 0.5 screen), emphatically highlights the defensive strength and downside risk mitigation capabilities of the accounting risk screening strategy.

While the overarching trend is positive, a deeper dive into sector-specific results reveals intriguing nuances that can inform tailored investment approaches:

Health Care and Consumer Cyclicals: Amplified Alpha from Complexities and Discretion. These sectors exhibited particularly strong alpha generation. In Health Care, the inherent complexities of R&D capitalization, intellectual property valuation, and regulatory approval processes can create significant discretion in accounting, making firms vulnerable to aggressive reporting. The accounting risk score appears adept at navigating these complexities. Similarly, Consumer Cyclicals, sensitive to discretionary spending, can see rapid shifts in fundamentals, where aggressive accounting might mask deteriorating business models. The strategy's ability to identify these firms provides a substantial edge.

Industrials, Financials, and Technology: Robust Alpha in Diverse Capital Structures and Innovation Cycles. These sectors, despite their varied characteristics (e.g., capital intensity in Industrials, leverage in Financials, rapid innovation in Technology), consistently delivered substantial alpha. Industrials often involve long-term contracts and asset valuation complexities; Financials deal with intricate balance sheet management and regulatory capital; and Technology faces challenges in revenue recognition for subscriptions, software development costs, and intangible asset valuation. The consistent alpha here suggests that the accounting risk score is versatile enough to identify manipulation across different financial reporting landscapes.

Basic Materials and Energy: Interplay of Accounting Risk with Cyclicality and Capital Intensity. These sectors, heavily influenced by commodity cycles and capital expenditures, showed positive alpha, but with a slight initial underperformance for the 0.5 threshold portfolio over shorter horizons. This could be attributed to periods where speculative rallies in commodity prices temporarily lift even fundamentally weak firms,

or where the sheer scale of capital projects allows for temporary obfuscation. However, over longer periods (10, 15, 20 years), significant alpha consistently emerged, demonstrating that the benefits of screening for fundamental quality ultimately accrue, even in cyclically sensitive and capital-intensive industries. This highlights the importance of a long-term perspective when applying the screen in these sectors.

Real Estate: Alpha from Navigating Complex Valuations and Revenue Recognition. This sector consistently delivered robust alpha, with the 0,5 threshold portfolio generating a 1.8 percentage point alpha over 5 years (4.7% vs. 3.0%). The positive value difference was strong, indicating that accounting quality is a significant factor in an industry often characterized by complex project-based revenue recognition, asset revaluations, and intricate financing structures. The score's ability to identify aggressive practices in these areas is particularly valuable.

Utilities: Modest Alpha in Regulated and Stable Environments. While still positive, the alpha generated in Utilities was generally more modest compared to other sectors. This can be attributed to the highly regulated nature of many utility companies, which often leads to more stable, predictable, and less discretionary accounting practices. The lower prevalence or impact of severe accounting risks in such environments naturally results in a smaller, though still beneficial, alpha from avoidance.

5.2.2. Overarching Implications for Sector-Specific Investment Strategies

The sector-level analysis provides actionable insights for investment managers specializing in particular industries:

Universal Relevance of Accounting Quality: The pervasive alpha across almost all sectors unequivocally demonstrates that accounting quality is a universal fundamental factor, not confined to specific industries. This implies that accounting risk screening should be a standard and non-negotiable component of due diligence, regardless of the sector focus. It provides a foundational layer of risk assessment that complements, rather than replaces, industry-specific expertise.

Tailored Screening Stringency and Strategic Application: While a stringent screen generally yields the best results, managers might consider tailoring the exclusion threshold based on sector-specific characteristics. In highly regulated and stable sectors like Utilities, a slightly less aggressive screen

might still capture most benefits without unduly restricting the investment universe. Conversely, in sectors with inherently more complex or discretionary accounting (e.g., Health Care, Technology, Real Estate) or those prone to speculative cycles (e.g., Basic Materials, Energy), a very stringent screen is demonstrably powerful and arguably essential for robust risk management.

Enhanced Risk Management in Volatile and Complex Sectors: The defensive capabilities of the strategy are particularly valuable in sectors prone to higher volatility, rapid technological change, or intricate financial structures. By actively avoiding firms with weak accounting, managers can significantly reduce idiosyncratic risk and improve portfolio resilience within these dynamic industries. This is especially pertinent where market narratives might temporarily overshadow underlying fundamental weaknesses.

Complementary to Sector Expertise: A Quantitative Edge. The accounting risk score serves as a powerful quantitative complement to qualitative sector expertise. It provides an objective, data-driven lens that can help pinpoint problematic firms that might otherwise be overlooked, even by seasoned industry analysts deeply immersed in their respective sectors. This allows for a more efficient allocation of deep-dive research resources, enabling analysts to focus their qualitative efforts where they are most needed, rather than on firms with readily identifiable fundamental flaws. This integration of quantitative screening with qualitative insight represents a cutting-edge approach to sector-focused investment strategies.

In conclusion, the sector-specific results profoundly strengthen the "alpha from avoidance" hypothesis. The consistent generation of alpha and significant value creation across a broad spectrum of industries confirm that Transparently.AI's accounting risk score is a potent tool for enhancing returns and managing risk, making it a valuable component for sophisticated, sector-focused investment strategies seeking to navigate the inherent complexities and informational asymmetries of global capital markets.

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6.0. Detailed Results

6.1. Global Universe

The analysis of the Global universe provides a foundational understanding of the efficacy of the accounting risk screening strategy. This overarching market segment, encompassing diverse economies and regulatory landscapes, serves as a robust testbed for the "alpha from avoidance" hypothesis. The results consistently demonstrate the predictive power of the TLY score in identifying firms destined for underperformance, thereby enabling superior portfolio outcomes.

The Monthly Performance Summary for the Global universe reveals a clear and consistent pattern of outperformance by portfolios employing the accounting risk screen. Across all examined time horizons (5, 10, 15, and 20 years), every screened portfolio, generated higher annualized returns compared to the pf_return_all baseline portfolio.

The most significant alpha was consistently achieved by the 0.5 threshold portfolio. Over a 20-year period, this portfolio delivered an annualized return of 14.5%, representing a substantial 2.1 percentage point alpha over the baseline's 12.4%. Similarly, over the 10-year horizon, the 0.5 threshold portfolio returned 8.2% annually, an impressive 2.8 percentage point alpha against the baseline's 5.4%.

A distinct "alpha curve" is observable: the magnitude of outperformance generally decreases as the exclusion threshold becomes tighter. For instance, while the 0.5 portfolio achieved a 2.1% alpha over 20 years, the 0.9 portfolio yielded a more modest 0.1% alpha (12.5% vs. 12.4%). This phenomenon is seen across all country and sector portfolios examined. Importantly, this does not indicate that higher risk scores fail to be associated with more adverse future return outcomes. Rather, it is a product of the reduced impact on the overall portfolio of removing smaller numbers of companies.

The Value Difference Summary, simulating the growth of a hypothetical $1 billion initial investment, provides compelling evidence of the economic significance of the accounting risk screening strategy in the Global universe.

For the 0.5 portfolio, the strategy generated an astounding $2.7 billion in additional value over the 20-year period, resulting in an average annual value add of $136 million.

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Table 1. Monthly Performance Summary - Global

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	8.7	11.0	10.8	10.1	9.6	9.0
10	5.4	8.2	7.7	6.8	6.2	5.6
15	6.7	9.1	8.6	8.0	7.3	6.8
20	12.4	14.5	14.1	13.5	12.9	12.5

Table 2. Value Difference - Global

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,453	1,622	168	20,114	34
	10	1,525	2,014	489	19,953	49
	15	2,256	3,249	992	19,320	66
	20	5,764	8,490	2,726	19,341	136
0.6	5	1,453	1,606	153	14,372	31
	10	1,525	1,913	388	13,650	39
	15	2,256	3,016	760	12,141	51
	20	5,764	7,816	2,051	11,678	103
0.7	5	1,453	1,558	104	9,360	21
	10	1,525	1,764	239	8,346	24
	15	2,256	2,738	482	6,572	32
	20	5,764	7,037	1,273	6,093	64
0.8	5	1,453	1,517	64	5,279	13
	10	1,525	1,650	125	4,396	13
	15	2,256	2,471	215	2,955	14
	20	5,764	6,326	562	2,677	28
0.9	5	1,453	1,472	18	1,400	4
	10	1525	1552	27	848	3
	15	2256	2298	41	566	3
	20	5764	5874	109	556	5

The removed tickers count further highlights the scale of the strategy's impact. For the 0.5 portfolio over 20 years, 19,341 unique tickers were excluded from the investment universe. This indicates that a significant number of firms globally exhibit accounting risk signals that, when avoided, materially contribute to superior portfolio performance. The consistent presence of such a large pool of problematic firms across the global market underscores the widespread nature of informational inefficiencies related to accounting quality.

The Global universe results provide compelling evidence that the accounting risk screening strategy is a universally applicable and highly effective approach to enhancing long-only portfolio performance. The consistent generation of alpha, coupled with substantial economic value creation, suggests that the Transparently Risk Engine successfully identifies fundamental weaknesses that are systematically overlooked or mispriced by the broader market.

This strong global outperformance implies that accounting quality is a fundamental and persistent factor in equity markets worldwide. For global asset managers, this strategy offers a robust framework for:

Systematic Alpha Generation: Providing a more consistent source of excess returns that can meaningfully enhance diversified global portfolios.

Downside Risk Mitigation: Acting as a crucial defensive mechanism by avoiding firms prone to severe underperformance or corporate collapse, thereby improving the overall risk-adjusted profile of the portfolio.

Enhanced Due Diligence: Offering a sophisticated, data-driven layer of fundamental analysis that complements traditional research, allowing for more informed investment decisions on a global scale.

The results from the Global universe lay a strong foundation for the subsequent region-specific analyses, suggesting that the benefits of avoiding high accounting risk are not confined to particular market structures but are a pervasive phenomenon across the global equity landscape.

6.2. Developed Markets Universe

Following the global assessment, the analysis of the Developed Markets universe provides insights into the efficacy of the accounting risk screening strategy within mature, highly regulated, and generally more efficient economies. This segment,

comprising a significant portion of global equity capitalization, serves as a rigorous test of the "alpha from avoidance" hypothesis, demonstrating its applicability even where informational frictions are presumed to be lower.

The Monthly Performance Summary for the Developed Markets universe consistently reveals that portfolios employing the accounting risk screen generate superior annualized returns compared to the baseline. This outperformance holds true across all examined time horizons (5, 10, 15, and 20 years) and for all tested exclusion thresholds.

The most significant alpha is consistently observed with the 0.5 threshold. Over a 20-year period, this portfolio delivered an annualized return of 7.8%, representing a substantial 2.0 percentage point alpha over the baseline's 5.8%. Similarly, over the 10-year horizon, the 0.5 portfolio returned 9.4% annually, an impressive 3.0 percentage point alpha against the baseline's 6.4%. Even over the shorter 5-year period, a robust 2.6 percentage point alpha was generated (12.0% vs. 9.4%).

The consistent generation of alpha in Developed Markets, often considered benchmarks for market efficiency, strongly suggests that the Transparently Risk Engine effectively identifies subtle yet persistent informational inefficiencies related to accounting quality.

The Value Difference Summary for Developed Markets, simulating a $1 billion initial investment, provides compelling evidence of the economic benefits derived from the accounting risk screening strategy.

For the 0.5 portfolio, the strategy generated a remarkable $1.187 billion in additional value over the 20-year period, corresponding to an average annual value add of $59 million.

The removed tickers count is significant, with 14,964 unique tickers excluded over 20 years for the 0.5 portfolio. This indicates a considerable universe of firms within developed markets that, despite typically higher levels of transparency and scrutiny, still exhibit accounting risk signals that materially detract from portfolio performance. The consistent presence of such a large pool of problematic firms underscores the enduring value of sophisticated accounting risk analysis.

Table 3. Monthly Performance Summary - Developed Markets

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	9.4	12.0	11.9	11.1	10.5	9.8
10	6.4	9.4	8.9	8.0	7.3	6.6
15	7.5	9.9	9.5	8.8	8.2	7.6
20	5.8	7.8	7.4	6.9	6.3	5.9

Table 4. Value Difference - Developed Markets

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,491	1,684	193	13,814	39
	10	1,665	2,231	567	14,264	57
	15	2,518	3,608	1,090	14,585	73
	20	2,349	3,537	1,187	14,964	59
0.6	5	1,491	1,673	182	10,366	36
	10	1,665	2,130	465	10,337	46
	15	2,518	3,371	854	9,885	57
	20	2,349	3,244	895	9,748	45
0.7	5	1,491	1,618	126	7,317	25
	10	1,665	1,960	296	6,849	30
	15	2,518	3,065	548	5,786	37
	20	2,349	2,921	572	5,477	29
0.8	5	1,491	1,568	77	4,532	15
	10	1,665	1,821	157	3,958	16
	15	2,518	2,793	275	2,752	18
	20	2,349	2,624	275	2,534	14
0.9	5	1,491	1,514	23	1,304	5
	10	1,665	1,699	35	827	3
	15	2,518	2,574	56	549	4
	20	2,349	2,404	55	540	3

The results from the Developed Markets universe provide compelling evidence that the accounting risk screening strategy is a highly effective approach for enhancing long-only portfolio performance, even in environments often characterized by high market efficiency. The consistent generation of alpha and substantial economic value creation suggest that the Transparently Risk Engine successfully identifies fundamental weaknesses that are systematically overlooked or mispriced by the broader market.

6.3. Emerging Markets Universe

The analysis extends to the Emerging Markets universe, a segment characterized by rapid growth, evolving regulatory frameworks, and often higher informational asymmetries compared to developed economies. This environment presents a compelling context for evaluating the "alpha from avoidance" hypothesis, as the potential for significant accounting risk and its impact on portfolio performance may be amplified. The results consistently highlight the substantial benefits derived from systematically screening for accounting quality in these dynamic markets.

The Monthly Performance Summary for the Emerging Markets universe reveals a pronounced and consistent pattern of outperformance by portfolios employing the accounting risk screen. This outperformance is evident across all examined time horizons (5, 10, 15, and 20 years) and for all tested exclusion thresholds, underscoring the strategy's robustness in this diverse market segment.

The most significant alpha is consistently achieved by the 0.5 portfolio. Over a 20-year period, this portfolio delivered an annualized return of 13.3%, representing a substantial 2.0 percentage point alpha over the baseline's 11.3%. More strikingly, over the 10-year horizon, where the baseline return was a modest 1.1%, the 0.5 portfolio generated 2.8% annually, an impressive 1.7 percentage point alpha. This relative outperformance is particularly impactful when Baseline returns, % are low, highlighting the defensive strength of the screening strategy. Over the 15-year period, the 0.5 portfolio achieved 5.4% annually, a 2.5 percentage point alpha against the baseline's 2.9%.

The Value Difference Summary for Emerging Markets, simulating a $1 billion initial investment, provides compelling evidence of the profound economic benefits derived from the accounting risk screening strategy.

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Table 5. Monthly Performance Summary - Emerging Markets

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	6.1	7.2	6.7	6.4	6.3	6.2
10	1.1	2.8	2.2	1.6	1.3	1.1
15	2.9	5.4	4.8	4.2	3.1	2.9
20	11.3	13.3	12.8	12.3	11.4	11.3

Table 6. Value Difference - Emerging Markets

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,299	1,373	73	6,300	15
	10	974	1,175	200	5,689	20
	15	1,257	1,842	585	4,735	39
	20	4,136	6,112	1,976	4,377	99
0.6	5	1,299	1,340	41	4,006	8
	10	974	1,101	126	3,313	13
	15	1,257	1,683	426	2,256	28
	20	4,136	5,512	1,376	1,930	69
0.7	5	1,299	1,319	19	2,043	4
	10	974	1,033	59	1,497	6
	15	1,257	1,529	272	786	18
	20	4,136	5,029	893	616	45
0.8	5	1,299	1,313	13	747	3
	10	974	1,002	28	438	3
	15	1,257	1,291	34	203	2
	20	4,136	4,250	114	143	6
0.9	5	1,299	1,300	1	96	0
	10	974	977	3	21	0
	15	1,257	1,257	0	17	0
	20	4,136	4,137	1	16	0

For the 0.5 portfolio, the strategy generated a remarkable $1.976 billion in additional value over the 20-year period, corresponding to an average annual value add of $99 million. With the 0.6 screen, over $1.376 billion in additional value was created over two decades. These substantial figures underscore the tangible wealth creation for investors who actively avoid high-risk firms in Emerging Markets.

The removed tickers count is significant, with 4,377 unique tickers excluded over 20 years for the 0.5 portfolio. This indicates a considerable universe of firms within Emerging Markets that, due to potentially weaker governance, less developed regulatory oversight, or greater opacity, exhibit accounting risk signals that materially detract from portfolio performance. The consistent presence of such a large pool of problematic firms underscores the enduring value of sophisticated accounting risk analysis in these markets.

The results from the Emerging Markets universe provide compelling evidence that the accounting risk screening strategy is an exceptionally effective approach for enhancing long-only portfolio performance, particularly in environments where information asymmetry and governance risks are often elevated. The consistent generation of alpha and substantial economic value creation suggest that the Transparently Risk Engine successfully identifies fundamental weaknesses that are systematically overlooked or mispriced by the broader market.

6.4. Asia Pacific ex Japan Universe

The Asia Pacific ex Japan (APACxJ) universe represents a highly dynamic and diverse region, encompassing both developed economies (e.g., Australia, Singapore) and rapidly growing emerging markets (e.g., China, and India). This heterogeneity makes it a critical region for assessing the robustness and adaptability of the accounting risk screening strategy. The results consistently demonstrate the significant benefits derived from systematically screening for accounting quality across this varied landscape.

The Monthly Performance Summary for the APACxJ universe reveals a strong and consistent pattern of outperformance by portfolios employing the accounting risk screen. This outperformance is evident across all examined time horizons (5, 10, 15, and 20 years) and for all tested exclusion thresholds, underscoring the strategy's broad applicability in this diverse market segment.

Table 7. Monthly Performance Summary - Asia Pacific ex Japan

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	6.3	7.8	7.3	6.9	6.7	6.4
10	1.3	4.4	3.6	2.8	2.2	1.4
15	3.9	6.7	6.1	5.3	4.6	4.0
20	5.6	8.0	7.5	6.9	6.3	5.7

Table 8. Value Difference - Asia Pacific ex Japan

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,282	1,383	101	9,307	20
	10	974	1,342	367	8,182	37
	15	1,420	2,187	767	7,293	51
	20	1,939	3,244	1,306	6,934	65
0.6	5	1,282	1,350	68	6,399	14
	10	974	1,241	267	5,232	27
	15	1,420	1,981	561	4,088	37
	20	1,939	2,852	913	3,608	46
0.7	5	1,282	1,319	37	3,824	7
	10	974	1,141	166	2,821	17
	15	1,420	1,755	335	1,797	22
	20	1,939	2,510	571	1,440	29
0.8	5	1,282	1,311	29	1,838	6
	10	974	1,068	93	1,180	9
	15	1,420	1,587	168	583	11
	20	1,939	2,219	281	410	14
0.9	5	1,282	1,288	6	310	1
	10	974	990	16	95	2
	15	1,420	1,441	21	52	1
	20	1,939	1,972	34	46	2

The most significant alpha is consistently achieved by the 0.5 portfolio. Over a 20-year period, this portfolio delivered an annualized return of 8.0%, representing a substantial 2.4 percentage point alpha over the baseline's 5.6%. More strikingly, over the 10-year horizon, where the baseline return was a modest 1.3%, the 0.5 portfolio generated 4.4% annually, an impressive 3.1 percentage point alpha. This relative outperformance is particularly impactful when Baseline returns, % are low, highlighting the defensive strength of the screening strategy. Over the 15-year period, the 0.5 portfolio achieved 6.7% annually, a 2.8 percentage point alpha against the baseline's 3.9%.

The Value Difference Summary for APACxJ, simulating a $1 billion initial investment, provides compelling evidence of the profound economic benefits derived from the accounting risk screening strategy.

For the 0.5 portfolio, the strategy generated a remarkable $1.306 billion in additional value over the 20-year period, corresponding to an average annual value add of $65 million. Even with the 0.6 screen, over $913 million in additional value was created over two decades. These substantial figures underscore the tangible wealth creation for investors who actively avoid high-risk firms in the APACxJ region.

The removed tickers count is significant, with 6,934 unique tickers excluded over 20 years for the 0.5 portfolio. This indicates a considerable universe of firms within APACxJ that, due to varying levels of governance, regulatory oversight, or market transparency, exhibit accounting risk signals that materially detract from portfolio performance. The consistent presence of such a large pool of problematic firms underscores the enduring value of sophisticated accounting risk analysis in these markets.

The results from the APACxJ universe provide compelling evidence that the accounting risk screening strategy is an exceptionally effective approach for enhancing long-only portfolio performance, particularly across a region characterized by its diverse economic development and market maturity. The consistent generation of alpha and substantial economic value creation suggest that the Transparently Risk Engine successfully identifies fundamental weaknesses that are systematically overlooked or mispriced by the broader market.

6.5. Japan Universe

The Japan universe presents a unique case study for the accounting risk screening strategy due to its distinct corporate governance traditions, extensive cross-holdings,

and a market culture that has historically differed from Western counterparts. These unique characteristics provide a nuanced context for evaluating the "alpha from avoidance" hypothesis. The results indicate that while the strategy consistently generates positive alpha, its magnitude is more modest compared to other developed markets.

The Monthly Performance Summary for the Japan universe reveals a consistent, albeit very modest, pattern of outperformance by portfolios employing the accounting risk screen. This outperformance is generally evident across all examined time horizons (5, 10, 15, and 20 years) and for the more stringent exclusion thresholds.

The most significant alpha, though comparatively smaller than in other regions, is observed with the 0.5 and 0.6 screening thresholds. Over a 20-year period, both these portfolios delivered an annualized return of 6.4%, representing a 0.2 percentage point alpha over the baseline's 6.2%. Similarly, over the 10-year horizon, 0.5 generated 7.6% annually, a 0.1 percentage point alpha against the baseline's 7.5%.

The modest but persistent alpha indicates that while accounting risk is a factor in Japan, its impact on broad market returns may be less pronounced or more idiosyncratic compared to other regions.

The Value Difference Summary for Japan, simulating a $1 billion initial investment, provides evidence of the economic benefits derived from the accounting risk screening strategy, albeit on a smaller scale than in other major markets.

For the 0.5 portfolio, the strategy generated $78 million in additional value over the 20-year period, corresponding to an average annual value add of $4 million. With the 0.6 screen, over $63 million in additional value was created over two decades. While these figures are positive, they are considerably smaller than those observed in other major global markets.

The removed tickers count is also lower, with 282 unique tickers excluded over 20 years for the 0.5 portfolio. This suggests that the incidence of severe accounting risk (in the form measured by the Transparently Risk Engine) might be less pervasive or manifest differently in the Japanese market compared to other regions.

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Table 9. Monthly Performance Summary - Japan

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	12.7	12.7	12.8	12.7	12.7	12.7
10	7.5	7.6	7.5	7.5	7.5	7.5
15	9.4	9.4	9.5	9.4	9.4	9.4
20	6.2	6.4	6.4	6.3	6.2	6.2

Table 10. Value Difference - Japan

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,771	1,776	5	553	1
	10	1,876	1,890	14	412	1
	15	3,288	3,310	22	401	1
	20	2,523	2,601	78	282	4
0.6	5	1,771	1,781	10	256	2
	10	1,876	1,880	3	163	0
	15	3,288	3,314	26	167	2
	20	2,523	2,586	63	77	3
0.7	5	1,771	1,776	5	105	1
	10	1,876	1,871	-6	59	-1
	15	3,288	3,275	-13	57	-1
	20	2,523	2,544	21	9	1
0.8	5	1,771	1,775	4	34	1
	10	1,876	1,873	-3	20	0
	15	3,288	3,285	-3	19	0
	20	2,523	2,523	0	2	0
0.9	5	1,771	1,772	1	4	0
	10	1,876	1,877	1	4	0
	15	3,288	3,289	2	3	0
	20	2,523	2,524	1	2	0

The results from the Japan universe provide evidence that, even within its unique market context, the accounting risk screening strategy can still contribute to enhanced long-only portfolio performance. The consistent, albeit very modest, generation of alpha suggests that the Transparently Risk Engine successfully identifies fundamental weaknesses that, while perhaps less impactful, still detract from returns in the Japanese market.

6.6. Western Europe Universe

The Western Europe universe represents a significant bloc of developed economies, characterized by robust regulatory frameworks, high levels of transparency, and mature capital markets. This region provides another crucial test for the "alpha from avoidance" hypothesis, assessing whether the accounting risk screening strategy can generate consistent benefits even in environments typically considered highly efficient. The results demonstrate a clear and consistent positive impact from systematically screening for accounting quality.

The Monthly Performance Summary for the Western Europe universe consistently reveals that portfolios employing the accounting risk screen generate superior annualized returns compared to the pf_return_all baseline. This outperformance is evident across all examined time horizons (5, 10, 15, and 20 years) and for all tested exclusion thresholds.

The most significant alpha is consistently observed with the 0.5 portfolio. Over a 20-year period, this portfolio delivered an annualized return of 8.1%, representing a substantial 1.6 percentage point alpha over the baseline's 6.5%. Similarly, over the 10-year horizon, the 0.5 portfolio returned 8.3% annually, an impressive 1.6 percentage point alpha against the baseline's 6.7%. Even over the shorter 5-year period, a robust 0.7 percentage point alpha was generated (11.2% vs. 10.5%).

The Value Difference Summary for Western Europe, simulating a $1 billion initial investment, provides compelling evidence of the economic benefits derived from the accounting risk screening strategy.

For the 0.5 portfolio, the strategy generated a remarkable $920 million in additional value over the 20-year period, corresponding to an average annual value add of $46 million. With the 0.6 screen, over $586 million in additional value was created over two decades. These substantial figures highlight the tangible wealth creation for investors who actively avoid high-risk firms in Western European markets.

Table 11. Monthly Performance Summary - Western Europe

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	10.5	11.2	11.1	10.7	10.6	10.5
10	6.7	8.3	7.9	7.4	7.0	6.8
15	8.0	9.6	9.2	8.7	8.3	8.1
20	6.5	8.1	7.6	7.2	6.8	6.6

Table 12. Value Difference - Western Europe

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,537	1,587	51	2,625	10
	10	1,687	1,963	276	2,860	28
	15	2,590	3,236	646	3,016	43
	20	2,546	3,466	920	3,152	46
0.6	5	1,537	1,583	46	1,868	9
	10	1,687	1,891	204	1,898	20
	15	2,590	3,067	477	1,833	32
	20	2,546	3,132	586	1,824	29
0.7	5	1,537	1,558	22	1,200	4
	10	1,687	1,796	109	1,063	11
	15	2,590	2,863	273	872	18
	20	2,546	2,866	320	814	16
0.8	5	1,537	1,547	10	613	2
	10	1,687	1,738	51	461	5
	15	2,590	2,705	115	333	8
	20	2,546	2,669	123	297	6
0.9	5	1,537	1,538	2	102	0
	10	1,687	1,699	12	53	1
	15	2,590	2,613	23	44	2
	20	2,546	2,569	22	42	1

The removed tickers count is significant, with 3,152 unique tickers excluded over 20 years for the 0.5 portfolio. This indicates a considerable universe of firms within Western Europe that, despite typically higher levels of transparency and scrutiny, still exhibit accounting risk signals that materially detract from portfolio performance. The consistent presence of such a large pool of problematic firms underscores the enduring value of sophisticated accounting risk analysis.

The results from the Western Europe universe provide compelling evidence that the accounting risk screening strategy is a highly effective approach for enhancing long-only portfolio performance, even in environments often characterized by high market efficiency and strong regulatory oversight. The consistent generation of alpha and substantial economic value creation suggest that the Transparently Risk Engine successfully identifies fundamental weaknesses that are systematically overlooked or mispriced by the broader market.

6.7. Australia & New Zealand Universe

The Australia & New Zealand (AU_NZ) universe presents a unique economic profile, often characterized by a significant concentration in commodity-related sectors (e.g., mining) and financials. This regional focus allows for an examination of how the accounting risk screening strategy performs in markets where macroeconomic factors, such as global commodity prices, can exert substantial influence. The results indicate consistent positive alpha generation, suggesting that even amidst strong cyclical forces, accounting quality remains a material factor.

The Monthly Performance Summary for the AU_NZ universe consistently reveals that portfolios employing the accounting risk screen generate superior annualized returns compared to the pf_return_all baseline. This outperformance is evident across all examined time horizons (5, 10, 15, and 20 years) and for all tested exclusion thresholds.

The most significant alpha is consistently observed with the 0.5 portfolio. Over a 20-year period, this portfolio delivered an annualized return of 9.3%, representing a substantial 2.4 percentage point alpha over the baseline's 6.9%. More strikingly, over the 15-year horizon, 0.5 generated 9.4% annually, an impressive 2.9 percentage point alpha against the baseline's 6.5%. Even over the shorter 5-year period, a robust 1.2 percentage point alpha was generated (10.6% vs. 9.4%).

Table 13. Monthly Performance Summary - Australia & NZ

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	9.4	10.6	10.6	10.2	10.5	9.5
10	8.3	9.9	9.2	9.0	9.4	8.4
15	6.5	9.4	8.9	8.4	7.9	6.7
20	6.9	9.3	8.8	8.4	7.9	7.0

Table 14. Value Difference - Australia & NZ

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,423	1,518	94	1,576	19
	10	1,794	2,143	349	1,789	35
	15	1,836	2,917	1,080	1,882	72
	20	2,075	3,571	1,496	1,914	75
0.6	5	1,423	1,519	96	1,343	19
	10	1,794	1,996	202	1,510	20
	15	1,836	2,706	869	1,452	58
	20	2,075	3,226	1,151	1,393	58
0.7	5	1,423	1,489	65	1,092	13
	10	1,794	1,965	170	1,142	17
	15	1,836	2,493	656	883	44
	20	2,075	2,922	847	756	42
0.8	5	1,423	1,503	80	767	16
	10	1,794	2,028	233	705	23
	15	1,836	2,281	444	359	30
	20	2,075	2,595	520	258	26
0.9	5	1,423	1,430	7	166	1
	10	1,794	1,828	34	73	3
	15	1,836	1,897	60	33	4
	20	2,075	2,148	73	31	4

The Value Difference Summary for AU_NZ, simulating a $1 billion initial investment, provides compelling evidence of the profound economic benefits derived from the accounting risk screening strategy.

For the 0.5 portfolio, the strategy generated a remarkable $1.496 billion in additional value over the 20-year period, corresponding to an average annual value add of $75 million. With the 0.6 screen, over $1.151 billion in additional value was created over two decades. These substantial figures underscore the tangible wealth creation for investors who actively avoid high-risk firms in the AU_NZ markets.

The removed tickers count is significant, with 1,914 unique tickers excluded over 20 years for the 0.5 portfolio. This indicates a considerable universe of firms within AU_NZ that, despite the influence of macroeconomic factors, still exhibit accounting risk signals that materially detract from portfolio performance. The consistent presence of such a large pool of problematic firms underscores the enduring value of sophisticated accounting risk analysis in these markets.

The results from the AU_NZ universe provide compelling evidence that the accounting risk screening strategy is a highly effective approach for enhancing long-only portfolio performance, even in markets with significant exposure to cyclical sectors. The consistent generation of alpha and substantial economic value creation suggest that the Transparently Risk Engine successfully identifies fundamental weaknesses that are systematically overlooked or mispriced by the broader market.

6.8. China & Hong Kong Universe

The China & Hong Kong (CN_HK) universe represents a combined market segment that blends the unique characteristics of mainland China's state-influenced economy with Hong Kong's distinct corporate governance and legal framework. This combined analysis is particularly insightful, as it allows us to observe how the strong signals of accounting risk in Hong Kong might interact with the more nuanced effectiveness seen in standalone China. The results indicate a robust generation of positive alpha, suggesting that the inclusion of Hong Kong-listed companies significantly enhances the overall efficacy of the screening strategy in a broader Asian context.

The Monthly Performance Summary for the CN_HK universe reveals a strong and consistent pattern of outperformance by portfolios employing the accounting risk screen. This outperformance is evident across all examined time horizons (5, 10, 15, and 20 years) and for all tested exclusion thresholds.

Table 15. Monthly Performance Summary - China & Hong Kong

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	3.2	4.5	3.9	3.6	3.5	3.3
10	-1.7	1.9	1.0	0.1	-0.7	-1.5
15	3.2	6.0	5.4	4.6	3.9	3.3
20	6.3	8.3	7.8	7.5	7.0	6.4

Table 16. Value Difference - China & Hong Kong

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,059	1,135	76	2,656	15
	10	667	970	303	1,666	30
	15	1,145	1,771	625	1,266	42
	20	1,934	2,945	1,011	1,153	51
0.6	5	1,059	1,096	36	1,728	7
	10	667	881	214	881	21
	15	1,145	1,600	454	570	30
	20	1,934	2,620	686	451	34
0.7	5	1,059	1,079	20	961	4
	10	667	797	129	400	13
	15	1,145	1,408	263	219	18
	20	1,934	2,435	501	152	25
0.8	5	1,059	1,073	14	421	3
	10	667	733	66	126	7
	15	1,145	1,276	130	67	9
	20	1,934	2,203	269	47	13
0.9	5	1,059	1,063	4	66	1
	10	667	679	12	10	1
	15	1,145	1,163	18	8	1
	20	1,934	1,970	36	7	2

The most significant alpha is consistently achieved by the 0.5 portfolio. Over a 20-year period, this portfolio delivered an annualized return of 8.3%, representing a substantial 2.0 percentage point alpha over the baseline's 6.3%. More strikingly, over the 10-year horizon, where the baseline portfolio experienced a negative annualized return of -1.7%, 0.5 generated 1.9% annually, an impressive 3.6 percentage point alpha. This profound relative outperformance during a period of market decline for the baseline highlights the defensive strength of the screening strategy in this combined universe. Over the 15-year period, the 0.5 portfolio achieved 6.0% annually, a 2.8 percentage point alpha against the baseline's 3.2%.

The Value Difference Summary for CN_HK, simulating a $1 billion initial investment, provides compelling evidence of the profound economic benefits derived from the accounting risk screening strategy.

For the 0.5 portfolio, the strategy generated a remarkable $1.011 billion in additional value over the 20-year period, corresponding to an average annual value add of $51 million. With the 0.6 screen, over $686 million in additional value was created over two decades. These substantial figures underscore the tangible wealth creation for investors who actively avoid high-risk firms in the CN_HK markets.

The removed tickers count is significant, with 1,153 unique tickers excluded over 20 years for the 0.5 portfolio. This indicates a considerable universe of firms within CN_HK that, due to varying levels of governance, regulatory oversight, or market transparency, exhibit accounting risk signals that materially detract from portfolio performance. The consistent presence of such a large pool of problematic firms underscores the enduring value of sophisticated accounting risk analysis in these markets.

The results from the China & Hong Kong universe provide compelling evidence that the accounting risk screening strategy is an effective approach for enhancing long-only portfolio performance, particularly when combining markets with diverse governance standards. The strong and consistent generation of alpha, especially the ability to convert negative Baseline returns, % into positive ones, highlights the profound impact of avoiding fundamental weaknesses.

6.9. Basic Materials

The Basic Materials sector, characterized by its capital-intensive nature and sensitivity to commodity cycles, presents a unique environment for accounting risk. The analysis shows that while the 0.5 screen initially exhibited a slight negative value difference over

5 years (-1 million USD), this trend reversed dramatically over longer horizons. Over 20 years, 0.5 generated an annualized return of 13.1%, a 0.9 percentage point alpha over the baseline's 12.2%. This translated into $993 million in additional value for a $1 billion initial investment, averaging $50 million annually. The removed tickers count for this portfolio was substantial, at 3,705 firms over 20 years.

The initial short-term underperformance for the strictest screen might suggest that during certain cyclical upturns, even fundamentally weak firms in this sector can experience speculative rallies. However, the strong long-term alpha unequivocally demonstrates that accounting quality is a persistent and material factor that ultimately triumphs over short-term market noise. The significant value added over longer periods implies that avoiding high-risk firms in Basic Materials protects portfolios from the eventual correction of mispricing, which can be particularly severe in industries with volatile earnings and large capital expenditures. This highlights the importance of a long-term perspective when applying accounting risk screens in cyclically sensitive sectors.

6.10. Consumer Cyclicals

The Consumer Cyclicals sector, encompassing industries sensitive to economic cycles and consumer discretionary spending, proved to be a fertile ground for the accounting risk screening strategy. The 0.5 portfolio consistently and significantly outperformed the baseline across all time horizons. Over 20 years, it delivered an annualized return of 7.4%, generating a 2.5 percentage point alpha over the baseline's 4.9%. This translated into a remarkable $1.210 billion in additional value for a $1 billion initial investment, averaging $60 million annually. The removed tickers count for this portfolio was 2,374 firms over 20 years.

The robust alpha in Consumer Cyclicals underscores the effectiveness of the accounting risk score in identifying firms that may be masking deteriorating business models or aggressive revenue recognition practices during periods of fluctuating demand. In an industry where brand perception and consumer sentiment can influence valuations, weak accounting can obscure underlying financial fragility, leading to severe underperformance when market conditions shift. The strategy's ability to consistently avoid these problematic firms provides substantial downside protection and enhances long-term compounding, making it particularly valuable for managers navigating the inherent volatility of this sector.

Table 17. Monthly Performance Summary - Basic Materials

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	11.2	11.1	11.4	11.4	11.6	11.4
10	6.5	7.6	7.3	7.0	7.1	6.8
15	4.9	6.4	6.1	5.7	5.6	5.2
20	12.2	13.1	13.0	12.7	12.7	12.4

Table 18. Value Difference - Basic Materials

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,582	1,580	-1	3,508	0
	10	1,583	1,786	203	3,682	20
	15	1,571	1,982	410	3,673	27
	20	4,322	5,314	993	3,705	50
0.6	5	1,582	1,600	18	2,779	4
	10	1,583	1,729	146	2,961	15
	15	1,571	1,892	320	2,677	21
	20	4,322	5,117	796	2,566	40
0.7	5	1,582	1,600	18	2,154	4
	10	1,583	1,675	91	2,269	9
	15	1,571	1,767	195	1,703	13
	20	4,322	4,866	545	1,556	27
0.8	5	1,582	1,610	28	1,532	6
	10	1,583	1,681	98	1,549	10
	15	1,571	1,733	161	810	11
	20	4,322	4,757	435	690	22
0.9	5	1,582	1,597	16	476	3
	10	1,583	1,634	50	293	5
	15	1,571	1,631	60	115	4
	20	4,322	4,490	168	111	8

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Table 19. Monthly Performance Summary - Consumer Cyclicals

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	6.9	10.2	10.1	8.8	8.2	7.0
10	3.0	6.5	5.9	4.8	4.0	3.1
15	6.8	9.7	9.1	8.3	7.6	6.9
20	4.9	7.4	6.8	6.1	5.5	5.0

Table 20. Value Difference - Consumer Cyclicals

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,292	1,515	223	2,897	45
	10	1,144	1,632	487	2,628	49
	15	2,175	3,324	1,150	2,440	77
	20	1,870	3,079	1,210	2,374	60
0.6	5	1,292	1,511	220	1,962	44
	10	1,144	1,531	387	1,593	39
	15	2,175	3,045	871	1,374	58
	20	1,870	2,704	834	1,254	42
0.7	5	1,292	1,421	129	1,150	26
	10	1,144	1,378	233	842	23
	15	2,175	2,696	522	621	35
	20	1,870	2,362	492	555	25
0.8	5	1,292	1,379	87	473	17
	10	1,144	1,278	134	295	13
	15	2,175	2,425	251	228	17
	20	1,870	2,092	222	204	11
0.9	5	1,292	1,300	8	81	2
	10	1,144	1,159	15	46	2
	15	2,175	2,203	28	37	2
	20	1,870	1,895	25	37	1

6.11. Consumer Non-Cyclicals

The Consumer Non-Cyclicals sector, which includes staples like food and beverage, household products, and personal goods, is typically characterized by lower volatility and more predictable earnings than its cyclical counterparts.

The presence of a persistent and economically significant alpha, therefore, is a powerful endorsement of the study's core hypothesis—that accounting quality is a pervasive and universally relevant factor, even in industries where one might least expect to find material mispricing.

The results clearly indicate a consistent and positive performance differential. Across all measured time horizons, from 5 to 20 years, every screened portfolio outperformed the baseline, market-inclusive portfolio.

The effect is most pronounced for the 0.5 portfolio, which delivered annualized returns of 8.1% over 20 years; a full 1.3 percentage points higher than the baseline's 6.8%. For a hypothetical $1 billion fund, the value added by this strategy exceeded $918 million over two decades, representing an average annual value add of $46 million.

This finding carries significant implications for long-only managers focused on defensive portfolios. It demonstrates that even within a sector regarded as a "safe haven," latent risks from accounting irregularities and poor governance can act as a consistent drag on performance.

The strategy acts as an essential filter, allowing a portfolio to capture the full, unadulterated return of the sector's high-quality core by systematically shedding firms that, despite their defensive nature, are fundamentally flawed.

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Table 21. Monthly Performance Summary - Consumer Non-Cyclicals

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	5.4	6.5	5.7	5.6	5.6	5.5
10	4.2	5.8	5.2	4.9	4.6	4.2
15	6.7	8.0	7.5	7.2	7.0	6.7
20	6.8	8.1	7.7	7.3	7.1	6.9

Table 22. Value Difference - Consumer Non-Cyclicals

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,254	1,328	74	1,184	15
	10	1,402	1,657	255	1,169	25
	15	2,376	2,900	523	1,065	35
	20	3,198	4,116	918	1,022	46
0.6	5	1,254	1,277	24	790	5
	10	1,402	1,556	154	766	15
	15	2,376	2,695	319	613	21
	20	3,198	3,759	561	554	28
0.7	5	1,254	1,271	17	486	3
	10	1,402	1,503	101	419	10
	15	2,376	2,567	190	306	13
	20	3,198	3,513	315	255	16
0.8	5	1,254	1,267	13	225	3
	10	1,402	1,466	64	170	6
	15	2,376	2,502	125	124	8
	20	3,198	3,378	181	113	9
0.9	5	1,254	1,260	7	51	1
	10	1,402	1,413	11	23	1
	15	2,376	2,396	20	24	1
	20	3,198	3,228	31	21	2

6.12. Energy

The Energy sector, characterized by high capital intensity, geopolitical influences, and commodity price volatility, also demonstrated consistent benefits from accounting risk screening. The 0.5 portfolio consistently outperformed the baseline across all time horizons, particularly over longer periods. Over 20 years, it achieved an annualized return of 5.1%, a 1.9 percentage point alpha over the baseline's 3.2%. This resulted in $629 million in additional value for a $1 billion initial investment, averaging $31 million annually. The removed tickers count for this portfolio was 1,244 firms over 20 years.

The significant value added, despite the sector's inherent volatility, indicates that even in an industry where external factors often dominate, poor accounting quality remains a material detractor from long-term returns. The strategy helps investors avoid firms that might be overstating reserves, aggressively capitalizing exploration costs, or engaging in other practices that inflate reported performance, ultimately leading to financial distress.

6.13. Financials

Note that most banks and insurers were excluded from this analysis given the very different nature of their accounts. Hence, results presented here represent financials other than banks and insurers.

The Financials sector, with its intricate balance sheets, complex regulatory environment, and reliance on trust, is particularly susceptible to the impact of accounting quality. The analysis reveals strong and consistent alpha generation for screened portfolios. The 0.5 portfolio consistently outperformed the baseline across all time horizons. Over 20 years, it delivered an annualized return of 4.7%, a 2.2 percentage point alpha over the baseline's 2.5%. This translated into $493 million in additional value for a $1 billion initial investment, averaging $25 million annually. The removed tickers count for this portfolio was 1,154 firms over 20 years.

The robust outperformance in Financials underscores the critical role of accounting risk screening in an industry where opacity and leverage can amplify the impact of manipulation. Given the systemic importance of financials, the consistent alpha from avoidance highlights the strategy's value in mitigating both idiosyncratic firm-specific risks and potential broader contagion effects stemming from accounting irregularities.

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Table 23. Monthly Performance Summary - Energy

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	14.2	14.4	14.6	14.5	14.5	14.1
10	2.5	5.2	4.7	3.8	2.9	2.5
15	2.5	5.0	4.3	3.6	2.9	2.5
20	3.2	5.1	4.5	4.1	3.5	3.2

Table 24. Value Difference - Energy

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,829	1,856	27	1,028	5
	10	1,027	1,381	354	1,239	35
	15	1,043	1,580	537	1,244	36
	20	1,129	1,758	629	1,244	31
0.6	5	1,829	1,877	47	789	9
	10	1,027	1,305	277	945	28
	15	1,043	1,413	370	878	25
	20	1,129	1,528	399	812	20
0.7	5	1,829	1,860	31	543	6
	10	1,027	1,187	160	642	16
	15	1,043	1,262	219	508	15
	20	1,129	1,379	250	430	13
0.8	5	1,829	1,862	32	335	6
	10	1,027	1,072	45	349	4
	15	1,043	1,107	64	210	4
	20	1,129	1,201	72	181	4
0.9	5	1,829	1,824	-5	80	-1
	10	1,027	1,022	-5	51	0
	15	1,043	1,039	-4	28	0
	20	1,129	1,125	-4	28	0

Table 25. Monthly Performance Summary - Financials

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	12.8	15.2	15.4	14.5	13.5	12.9
10	5.7	9.0	8.6	7.7	6.6	5.8
15	8.0	10.8	10.3	9.7	8.7	8.0
20	2.5	4.7	4.4	3.8	3.1	2.5

Table 26. Value Difference - Financials

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,692	1,896	205	1,089	41
	10	1,457	2,024	566	1,184	57
	15	2,409	3,626	1,217	1,226	81
	20	915	1,408	493	1,154	25
0.6	5	1,692	1,906	214	749	43
	10	1,457	1,916	459	779	46
	15	2,409	3,345	935	751	62
	20	915	1,309	393	684	20
0.7	5	1,692	1,834	142	467	28
	10	1,457	1,772	314	475	31
	15	2,409	3,054	645	391	43
	20	915	1,182	267	343	13
0.8	5	1,692	1,752	60	228	12
	10	1,457	1,599	142	212	14
	15	2,409	2,689	280	155	19
	20	915	1,032	117	142	6
0.9	5	1,692	1,705	13	76	3
	10	1,457	1,478	20	40	2
	15	2,409	2,436	27	29	2
	20	915	925	9	29	0

6.14. Health Care

The Health Care sector, characterized by its reliance on R&D, intellectual property, and complex regulatory approval processes, often presents unique accounting challenges and opportunities for discretion. The results indicate that this sector is a particularly fruitful area for accounting risk screening. The 0.5 portfolio consistently and significantly outperformed the baseline across all time horizons. Over 20 years, it delivered an annualized return of 8.7%, generating a substantial 3.1 percentage point alpha over the baseline's 5.6%. This translated into an impressive $2.110 billion in additional value for a $1 billion initial investment, averaging $106 million annually. The removed tickers count for this portfolio was 3,003 firms over 20 years.

The exceptional alpha in Health Care suggests that the accounting risk score is highly effective in identifying firms that might be aggressively capitalizing R&D, prematurely recognizing revenue from drug pipelines, or engaging in other practices to inflate reported performance. The inherent complexities of valuation in this sector can create significant informational asymmetries, which the screening strategy effectively exploits to protect portfolios from firms destined for underperformance or regulatory scrutiny. The strong defensive capabilities are particularly evident over shorter horizons (e.g., 5 years), where the baseline was negative (-0.7%), but the 0.5 portfolio achieved a positive 5.1% return, highlighting its ability to convert losses into gains.

6.15. Industrials

The Industrials sector, encompassing a wide range of manufacturing, engineering, and infrastructure-related businesses, often involves long-term contracts, complex project accounting, and significant capital expenditures. The analysis reveals strong and consistent alpha generation for screened portfolios. The 0.5 portfolio consistently outperformed the baseline across all time horizons. Over 20 years, it delivered an annualized return of 8.7%, generating a substantial 2.5 percentage point alpha over the baseline's 6.2%. This translated into $1.486 billion in additional value for a $1 billion initial investment, averaging $74 million annually.

The robust outperformance in Industrials underscores the effectiveness of the accounting risk score in identifying firms that may be manipulating long-term contract accounting, aggressively valuing assets, or obscuring liabilities related to large-scale projects. The significant value added indicates that even in a sector traditionally seen as stable, poor accounting quality remains a material detractor from long-term returns.

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Table 27. Monthly Performance Summary - Health Care

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	-0.7	5.1	4.0	3.1	1.8	0.4
10	1.8	6.6	5.7	4.6	3.7	2.4
15	7.4	10.8	10.3	9.7	9.0	7.9
20	5.6	8.7	8.3	7.6	6.9	6.0

Table 28. Value Difference - Health Care

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	926	1,235	309	2,715	62
	10	1,081	1,749	668	2,763	67
	15	2,569	4,201	1,632	2,859	109
	20	2,490	4,600	2,110	3,003	106
0.6	5	926	1,171	245	2,101	49
	10	1,081	1,601	520	1,999	52
	15	2,569	3,939	1,370	1,953	91
	20	2,490	4,226	1,736	1,992	87
0.7	5	926	1,125	199	1,542	40
	10	1,081	1,437	356	1,270	36
	15	2,569	3,575	1,006	1,177	67
	20	2,490	3,658	1,168	1,149	58
0.8	5	926	1,050	124	1,000	25
	10	1,081	1,323	242	737	24
	15	2,569	3,254	685	641	46
	20	2,490	3,236	745	604	37
0.9	5	926	978	52	318	10
	10	1,081	1,152	71	216	7
	15	2,569	2,760	191	189	13
	20	2,490	2,690	200	189	10

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Table 29. Monthly Performance Summary - Industrials

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	12.9	15.0	15.0	14.6	13.5	13.0
10	6.1	9.9	8.7	8.0	6.7	6.2
15	7.8	11.1	10.1	9.4	8.3	7.9
20	6.2	8.7	7.8	7.5	6.6	6.3

Table 30. Value Difference - Industrials

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,724	1,906	182	2,766	36
	10	1,573	2,262	689	2,564	69
	15	2,549	4,070	1,521	2,312	101
	20	2,405	3,892	1,486	2,276	74
0.6	5	1,724	1,909	185	1,842	37
	10	1,573	2,027	454	1,601	45
	15	2,549	3,504	955	1,308	64
	20	2,405	3,300	895	1,242	45
0.7	5	1,724	1,871	147	1,047	29
	10	1,573	1,894	321	853	32
	15	2,549	3,193	644	606	43
	20	2,405	3,063	657	573	33
0.8	5	1,724	1,777	53	482	11
	10	1,573	1,672	99	339	10
	15	2,549	2,725	176	223	12
	20	2,405	2,579	173	195	9
0.9	5	1,724	1,732	8	101	2
	10	1,573	1,584	11	49	1
	15	2,549	2,567	18	39	1
	20	2,405	2,425	20	41	1

The strategy provides a crucial layer of defense against firms that might be masking operational inefficiencies or financial distress through aggressive reporting, thereby enhancing portfolio resilience.

6.16. Real Estate

The Real Estate sector, characterized by its reliance on asset valuations, project-based revenue recognition, and often high leverage, is particularly susceptible to accounting manipulation. The analysis shows consistent and significant alpha generation for screened portfolios. The 0.5 portfolio consistently outperformed the baseline across all time horizons. Over 20 years, it delivered an annualized return of 5.5%, generating a substantial 1.8 percentage point alpha over the baseline's 3.7%. This translated into $613 million in additional value for a $1 billion initial investment, averaging $31 million annually.

The strong alpha in Real Estate highlights the efficacy of the accounting risk score in identifying firms that might be aggressively revaluing properties, prematurely recognizing revenue from sales, or obscuring debt obligations. The inherent complexities of real estate accounting provide ample opportunities for discretion, which the screening strategy effectively navigates to protect portfolios. The consistent value added underscores the importance of fundamental accounting quality in an industry prone to boom-bust cycles, where aggressive reporting can amplify losses during downturns.

6.17. Technology

The Technology sector, defined by rapid innovation, intangible assets, and evolving business models, often involves complex accounting for revenue recognition, R&D expenses, and stock-based compensation. The analysis reveals particularly strong and consistent alpha generation. The 0.5 portfolio consistently outperformed the baseline across all time horizons. Over 20 years, it delivered an annualized return of 10.7%, generating a substantial 2.5 percentage point alpha over the baseline's 8.2%. This translated into an impressive $2.277 billion in additional value for a $1 billion initial investment, averaging $114 million annually. The removed tickers count for this portfolio was 3,396 firms over 20 years.

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Table 31. Monthly Performance Summary - Real Estate

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	3.0	4.7	4.5	3.8	3.3	3.0
10	1.2	3.3	3.0	2.4	1.5	1.2
15	3.8	5.9	5.5	4.7	4.1	3.7
20	3.7	5.5	5.1	4.5	3.9	3.7

Table 32. Value Difference - Real Estate

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,093	1,185	92	1,124	18
	10	989	1,224	235	1,028	23
	15	1,443	1,993	549	902	37
	20	1,417	2,030	613	819	31
0.6	5	1,093	1,174	81	729	16
	10	989	1,191	202	584	20
	15	1,443	1,877	434	411	29
	20	1,417	1,892	475	349	24
0.7	5	1,093	1,134	41	360	8
	10	989	1,113	124	234	12
	15	1,443	1,663	220	139	15
	20	1,417	1,652	235	103	12
0.8	5	1,093	1,111	18	138	4
	10	989	1,021	32	65	3
	15	1,443	1,507	63	39	4
	20	1,417	1,484	67	31	3
0.9	5	1,093	1,094	2	10	0
	10	989	992	2	5	0
	15	1,443	1,435	-9	3	-1
	20	1,417	1,415	-2	3	0

Table 33. Monthly Performance Summary - Technology

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	12.5	14.8	14.4	13.6	13.1	12.7
10	11.4	14.0	13.6	12.4	11.9	11.5
15	10.7	13.4	13.1	12.3	11.2	10.8
20	8.2	10.7	10.2	9.5	8.6	8.2

Table 34. Value Difference - Technology

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,686	1,878	193	3,345	39
	10	2,594	3,295	701	3,251	70
	15	3,858	5,634	1,776	3,238	118
	20	3,645	5,922	2,277	3,396	114
0.6	5	1,686	1,839	153	2,343	31
	10	2,594	3,187	593	2,155	59
	15	3,858	5,403	1,545	1,983	103
	20	3,645	5,425	1,780	2,047	89
0.7	5	1,686	1,772	86	1,454	17
	10	2,594	2,851	258	1,208	26
	15	3,858	4,816	957	1,030	64
	20	3,645	4,720	1,075	1,048	54
0.8	5	1,686	1,734	48	791	10
	10	2,594	2,733	139	615	14
	15	3,858	4,121	262	488	17
	20	3,645	3,946	301	486	15
0.9	5	1,686	1,699	13	192	3
	10	2,594	2,622	28	114	3
	15	3,858	3,909	50	96	3
	20	3,645	3,688	43	92	2

The exceptional alpha in Technology underscores the effectiveness of the accounting risk score in identifying firms that might be aggressively recognizing revenue, prematurely capitalizing development costs, or using complex financial structures to inflate reported performance. In a sector where growth narratives can often overshadow fundamental scrutiny, the strategy provides a crucial objective lens. The significant value added indicates that even in this dynamic and often speculative industry, robust accounting quality is a critical determinant of long-term investment success, and avoiding firms with weak fundamentals is highly rewarding.

6.18. Utilities

The Utilities sector, typically characterized by its regulated nature, stable cash flows, and capital-intensive operations, generally exhibits more conservative and predictable accounting practices. The analysis shows consistent, albeit more modest, alpha generation for screened portfolios. The 0.5 portfolio consistently outperformed the baseline across all time horizons. Over 20 years, it delivered an annualized return of 6.2%, generating a 0.7 percentage point alpha over the baseline's 5.5%. This translated into $381 million in additional value for a $1 billion initial investment, averaging $19 million annually. The removed tickers count for this portfolio was 246 firms over 20 years.

The more modest alpha in Utilities, compared to other sectors, is likely a reflection of the sector's inherent stability and regulatory oversight, which tend to reduce the prevalence and impact of severe accounting irregularities. However, the consistent positive alpha, even if smaller, still indicates that accounting quality remains a relevant factor, identifying firms that might be engaging in subtle forms of earnings management or facing unacknowledged financial stress. The strategy provides a valuable, albeit less dramatic, layer of risk mitigation and return enhancement even in this traditionally defensive sector.

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Table 35. Monthly Performance Summary - Utilities

Monthly market capitalization-weighted portfolios are created for the full sample set (Baseline) and returns are calculated over the following month. The annualized return is then calculated and displayed in the table over periods of 5, 10, 15, and 20 years to July 2025. The process is repeated for portfolios created by removing stocks from the Baseline portfolio that have Transparently risk scores over 50%, 60%, 70%, 80% and 90%. Annualized returns for these Threshold portfolios are presented.

Period (years)	Baseline returns, %	Threshold returns, %				
		0.5	0.6	0.7	0.8	0.9
5	9.8	10.2	10.0	9.8	9.9	9.7
10	5.9	6.6	6.8	6.4	6.1	5.9
15	5.2	6.3	5.9	5.6	5.3	5.2
20	5.5	6.2	6.1	5.8	5.6	5.5

Table 36. Value Difference - Utilities

Period-end portfolio values are provided for the Baseline portfolio and Transparently Threshold portfolios for a USD1b portfolio as at the start date. The USDm difference between the portfolios is presented, along with the average USDm/year value added and the number of unique tickers removed from the Baseline portfolio for each threshold value.

Threshold	Period (years)	Baseline USDm	Portfolio USDm	Diff USDm	Tickers removed	Avg USDm/year
0.5	5	1,526	1,567	41	327	8
	10	1,630	1,764	134	326	13
	15	1,883	2,239	356	259	24
	20	2,337	2,718	381	246	19
0.6	5	1,526	1,550	25	203	5
	10	1,630	1,777	146	195	15
	15	1,883	2,100	217	137	14
	20	2,337	2,641	304	123	15
0.7	5	1,526	1,526	0	104	0
	10	1,630	1,698	68	94	7
	15	1,883	1,994	111	62	7
	20	2,337	2,479	142	52	7
0.8	5	1,526	1,533	7	51	1
	10	1,630	1,655	24	47	2
	15	1,883	1,917	34	24	2
	20	2,337	2,386	49	20	2
0.9	5	1,526	1,525	-1	11	0
	10	1,630	1,632	1	8	0
	15	1,883	1,885	2	4	0
	20	2,337	2,340	3	3	0

7.0. Implications for Investment Management

The empirical findings from this analysis of accounting risk screening present actionable implications for investment managers, portfolio construction specialists, and risk analysts across the global financial landscape. The consistent generation of alpha through the systematic avoidance of high-risk firms necessitates a re-evaluation of conventional approaches to equity investing and highlights the growing importance of sophisticated fundamental analysis.

7.1. Redefining Alpha Generation: The Power of Negative Screening

The most significant implication is the demonstration of "alpha from avoidance" as a robust and persistent source of excess returns. Traditional active management often centers on identifying future outperformers. This study, however, underscores that a substantial portion of a portfolio's outperformance can be attributed to the deliberate exclusion of underperforming or fundamentally flawed companies.

This paradigm shift suggests that investment managers should allocate significant resources not only to "what to buy" but equally, if not more, to "what not to hold." This strategy offers a valuable, often uncorrelated, alpha stream that can enhance diversified portfolios, particularly in crowded or increasingly efficient markets where traditional alpha sources are diminishing.

The consistent outperformance, even in highly developed markets like the United States and Western Europe, indicates that material informational inefficiencies regarding accounting quality persist, providing fertile ground for active managers equipped with sophisticated analytical tools.

7.2. Enhanced Risk Management and Downside Protection

The study strongly implies that accounting risk screening is a powerful tool for advanced risk management, particularly in mitigating downside risk. By proactively identifying and excluding firms with aggressive accounting practices, weak governance, or outright financial irregularities, portfolios are demonstrably shielded from catastrophic losses—often termed "torpedo stocks" or "value traps." The substantial 'value_difference_usd' figures, amounting to billions of dollars for a moderate initial investment across various regions, quantify this wealth preservation.

This defensive characteristic is invaluable in volatile market conditions or during systemic crises, where the ability to avoid severe drawdowns can significantly enhance long-term compounding. Investment managers can strategically integrate this screening as a primary defense mechanism, aiming not just for higher returns, but crucially, for superior risk-adjusted returns and greater portfolio resilience. The direct correlation between excluding high-risk firms and improved portfolio performance suggests that the accounting risk score serves as a leading indicator of potential financial distress and stock price erosion.

7.3. Strategic Portfolio Construction and Factor Integration

The pervasive efficacy of the accounting risk screen necessitates its consideration as a core component in strategic portfolio construction.

Strategic Tilt: Fund managers can implement this as a permanent "quality tilt," systematically underweighting or entirely excluding firms that fall above predefined accounting risk thresholds. The optimal threshold will likely depend on the manager's risk appetite and the specific market context, with more stringent screens (e.g., > 0.5) generally yielding higher alpha but potentially excluding a larger universe of stocks.

Factor Investing: The accounting risk score functions effectively as a sophisticated Quality factor. Its integration into multi-factor models is highly promising. Given that many "value traps" exhibit poor accounting quality, this Quality factor is likely to show a negative correlation with the traditional Value factor, thereby enabling the construction of "High-Quality Value" portfolios that avoid financially distressed cheap stocks. Similarly, firms with deteriorating accounting often precede negative price momentum, suggesting potential synergies or divergences with the Momentum factor. Understanding these factor interactions will be critical for constructing more robust and diversified factor-based portfolios.

Diversification across Risk Sources: Beyond traditional asset class or sector diversification, integrating an accounting risk screen offers a crucial layer of diversification across risk sources, specifically addressing idiosyncratic company-level fundamental risks that can materially impair long-term portfolio performance.

7.4. Implications for Market Efficiency and Information Processing

The consistent outperformance observed in traditionally "efficient" markets (e.g., Developed Markets, United States, Western Europe) challenges the assumption of fully efficient pricing of all public information. These findings suggest that complex accounting information, while publicly available, is not always fully or promptly incorporated into stock prices by the broader market. This inefficiency can arise from various factors, including the high processing costs required to analyze detailed financial statements, the inherent opacity of certain accounting practices, and the presence of investor behavioral biases that lead to an under-reaction to negative fundamental signals.

For active managers, this implies that advanced analytical tools, such as the proprietary accounting risk score, can effectively exploit these persistent informational arbitrage opportunities.

7.5. Enhanced Due Diligence and Analytical Tools

The demonstrated benefits underscore the increasing importance of sophisticated, data-driven analytical tools in modern investment management. Relying solely on conventional financial statement analysis or qualitative assessments may be insufficient to capture the subtle yet impactful signals of accounting risk. The proprietary score offers an advanced layer of due diligence, providing quantitative, objective, and consistent identification of potential weaknesses that might otherwise be overlooked.

This enhances the manager's ability to conduct more thorough fundamental research, directing deeper dives into flagged companies and optimizing the allocation of research resources.

7.6. Regional Adaptations and Nuanced Application

While the strategy is globally applicable, the variation in alpha magnitude and specific market dynamics across different regions highlights the need for contextual application. Investment managers operating in diverse geographic mandates should:

Tailor Thresholds: Adapt exclusion thresholds based on the prevalent governance standards and informational environments of specific markets.

Combine with Local Expertise: In markets where non-accounting factors (e.g., government policy in China, unique corporate structures in Japan) exert

significant influence, the quantitative screen should be complemented by deep local qualitative expertise.

Monitor Evolving Dynamics: Continuously monitor market and regulatory developments that might alter the efficacy of the screen, ensuring its ongoing relevance and optimization.

In essence, the results advocate for a strategic shift in active management, where robust negative screening based on accounting risk becomes an indispensable element for achieving superior, risk-adjusted returns and building more resilient long-only portfolios in an increasingly complex global equity landscape.

8.0. Avenues for Future Research

This study has provided compelling evidence for the efficacy of a negative-screening investment strategy based on proprietary accounting risk scores. However, the depth and breadth of these findings naturally open numerous promising avenues for future research, which can further enhance the academic rigor, practical applicability, and nuanced understanding of accounting quality's role in portfolio management.

8.1. Expanding Performance Metrics and Comprehensive Risk Analysis

While the current study robustly quantifies absolute returns and economic value added, future research should delve deeper into risk-adjusted performance metrics to provide a more holistic understanding of the strategy's benefits. This would involve calculating and comparing:

Sharpe Ratios: To assess the return generated per unit of total portfolio risk, offering a standardized measure of efficiency.

Sortino Ratios: Particularly relevant for a defensive strategy, as it penalizes only for downside volatility, thereby more accurately reflecting the strategy's ability to mitigate adverse outcomes.

Information Ratios: To quantify the active return generated per unit of active risk (tracking error) relative to the baseline, providing insight into the skill of the active management.

Maximum Drawdowns and Drawdown Duration: A detailed analysis of these metrics during various market cycles and crises (e.g., 2008 financial crisis, 2020 COVID-19 downturn) would empirically demonstrate the protective capabilities of the screening strategy in extreme market conditions. This would highlight how avoiding high-risk firms can cushion portfolios against significant value destruction.

Tracking Error and Beta Analysis: Regressing screened portfolio returns against the baseline or a relevant market factor (e.g., Fama-French market factor) would allow for the estimation of systematic risk exposure (beta) and active risk (tracking error). This would clarify whether the observed alpha is truly idiosyncratic or merely a reflection of different systematic risk exposures.

8.2. Deepening Factor Interactions and Multi-Factor Portfolio Construction

The accounting risk score effectively functions as a sophisticated Quality factor. Future research should rigorously investigate its interactions with other well-established investment factors to explore potential synergies or divergences:

Factor Correlations: Analyze the correlation of accounting risk with traditional factors such as Value (HML), Growth, Momentum (WML), and Size (SMB). It is hypothesized that accounting risk may exhibit a negative correlation with "value traps" (stocks that appear cheap but are fundamentally flawed) and a positive correlation with deteriorating price momentum.

Multi-Factor Portfolio Integration: Construct and evaluate multi-factor portfolios that explicitly integrate the accounting risk screen alongside other factors. This could involve building "High-Quality Value" portfolios that combine a low accounting risk screen with a value tilt, aiming to avoid financially distressed cheap stocks.

Conditional Factor Performance: Examine whether the efficacy of the accounting risk factor is conditional on the performance of other factors or specific market regimes. For instance, does it perform exceptionally well when momentum reverses or when value stocks are struggling?

By pursuing these avenues, future research can build upon the foundations of this study, further solidifying the academic and practical importance of accounting risk screening in modern investment management.

9.0. Conclusions

This empirical analysis has demonstrated the compelling efficacy of a systematic, negative-screening investment strategy based on Transparently.AI's proprietary accounting quality risk score. We have presented evidence supporting our central hypothesis – that significant alpha can be actively generated through the avoidance of financially distressed or fundamentally flawed companies – across a diverse array of global geographic universes and various economic sectors, and over multiple long-term investment horizons.

The findings underscore a critical reorientation for active investment management, advocating for a rigorous focus on excluding predictable "losers" as a powerful complement to traditional stock selection.

9.1. Synthesis of Key Findings: Pervasive Alpha and Economic Impact

The study reveals a pervasive and economically significant outperformance of portfolios that systematically exclude firms exhibiting high accounting risk. This "alpha from avoidance" was consistently observed across virtually all investigated global geographic universes, including highly efficient developed markets (Global, Developed Markets, North America, United States, Western Europe) and those with greater informational asymmetries or governance challenges (Hong Kong, Great Britain, Emerging Markets, Eastern Europe, APAC ex-Japan, Australia & New Zealand). Notably, in regions like Hong Kong and Great Britain, the strategy transformed baseline underperformance into substantial positive returns, showcasing its defensive capabilities and ability to mitigate catastrophic losses.

This efficacy extends universally across diverse economic sectors. Alpha generation proved particularly potent in sectors characterized by inherent accounting complexities and discretionary reporting, such as Health Care, Consumer Cyclicals, and Technology. Here, the Transparently Risk Engine demonstrated significant value in identifying firms prone to aggressive accounting practices or hidden weaknesses.

Robust benefits were also consistently delivered in more capital-intensive or cyclical industries like Industrials, Basic Materials, and Energy, particularly over longer horizons, confirming that accounting quality is a fundamental factor transcending industry-specific dynamics. Even in highly regulated and stable sectors like Utilities, a positive, albeit modest, alpha was consistently observed.

Critically, the billions of dollars in additional value generated for a hypothetical USD1b fund across both geographic and sectoral analyses underscore the tangible economic significance of this approach, validating its practical relevance for real-world portfolio management.

9.2. Broad Implications for Investment Management

These findings carry implications for the theory and practice of investment management:

Redefining Alpha Sources: The study establishes negative screening for accounting risk as a legitimate, pervasive, and powerful source of alpha. This strategy offers a valuable return stream that can enhance diversified portfolios, compelling investment managers to integrate this "alpha from avoidance" perspective into their core investment philosophy, regardless of their geographic or sectoral focus.

Enhanced Risk Management Across Dimensions: The strategy serves as a downside protection mechanism, insulating portfolios from severe impairments caused by accounting irregularities and corporate governance failures. This ability to cut off the "left tail" of the return distribution is invaluable for improving risk-adjusted returns and fostering long-term capital preservation, particularly in volatile market conditions. Its effectiveness across both diverse geographies and sectors highlights its universal utility in mitigating both systemic and idiosyncratic risks.

Strategic and Sector-Specific Portfolio Construction: The accounting risk score can be effectively employed as a permanent "quality tilt" in portfolio construction. For sector-specialist managers, the consistent alpha across industries implies that accounting risk screening should be a standard component of due diligence, with the potential for tailored screening stringency based on sector-specific accounting complexities or cyclical sensitivities. This offers a sophisticated factor that can interact dynamically with other established investment factors, forming the basis for more resilient and diversified portfolios.

Challenging Market Efficiency: The consistent outperformance in supposedly efficient markets and across various sectors suggests that complex accounting information is not always promptly or fully priced by the broader market. This indicates enduring informational inefficiencies that can be exploited by advanced analytical tools like the Transparently Risk Engine, reinforcing the value proposition of active management rooted in deep fundamental insight.

Elevated Due Diligence and Quantitative Complement: The results underscore the necessity of moving beyond conventional due diligence to embrace sophisticated, data-driven tools that can uncover subtle yet impactful signals of accounting risk. This empowers managers to make more informed investment and divestment decisions, optimizing research resource allocation, and providing a powerful quantitative complement to qualitative sector and geographic expertise.

In conclusion, the evidence is compelling: accounting quality is a persistent and economically significant factor in global equity markets, universally impacting performance across geographies and sectors.

A strategy of systematically excluding firms with high accounting risk, as identified by Transparently.AI's proprietary score, offers a robust and transformative path to enhancing returns and, more importantly, proactively managing downside risk.

For the sophisticated asset manager, integrating this "alpha from avoidance" framework represents a powerful and indispensable tool for building more resilient, more profitable, and sustainably superior portfolios.

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