Reality Gap (RG)

A Heuristic Indicator for Measuring the Distance Between Market Valuation and Fundamental Coverage

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Abstract

Financial markets routinely value firms at levels that are only partially captured by standard valuation ratios. Price-to-earnings measures market value relative to current profits but ignores the balance-sheet base. Price-to-book captures recorded equity but neglects long-run earning power. Discounted cash flow models, while theoretically richer, are highly assumption-sensitive and difficult to standardize across broad firm universes.

This paper introduces Reality Gap (RG) as a transparent heuristic intended to measure the distance between a firm's market valuation and its fundamental coverage by tangible capital and sustainably positive earning power. RG is defined as the ratio of market capitalization to a constructed fundamental base, consisting of tangible equity plus a capitalized measure of inflation-adjusted average earnings over the past ten years. If long-run average earnings are non-positive, the earnings component is set to zero, so that only tangible capital remains as coverage. To preserve interpretability, recent earnings dynamics are reported separately through a five-level appendix ranging from ++ to --.

The paper does not claim to estimate intrinsic value. Instead, RG is proposed as a coverage-oriented diagnostic metric that bridges the gap between balance-sheet-based and earnings-based valuation approaches. Illustrative case studies suggest that RG is particularly informative in cases where market valuations rely heavily on growth narratives, platform dominance, or expectations that extend far beyond currently observable balance-sheet substance and normalized profitability.

Keywords: Valuation, Heuristic Indicators, Market Fundamentals, Tangible Equity, Normalized Earnings, Coverage Ratio

JEL Classification: G12, G14, G32

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1. Introduction

Capital markets value companies not only on the basis of what they currently own or earn, but also on what they promise to deliver in the future. This is both their strength and their weakness. On one hand, stock prices enable the capitalization of expectations, innovations, and long-term earnings opportunities. On the other hand, market valuations can diverge substantially from the fundamental base that is derivable from tangible substance and actually realized earning power.

This tension is not new. What is new, however, is its visibility. In many phases of modern financial markets, corporate valuations appear that standard metrics can only inadequately describe. This is particularly true when companies with a relatively limited material base and volatile or still nascent earnings histories reach valuations that far exceed what can be explained by traditional balance-sheet or earnings logic alone. Conversely, there are companies with substantial balance-sheet substance and a long track record of positive earning power that the market prices at significant discounts. Between these poles, an analytical problem emerges: the commonly used metrics each capture only partial aspects of the fundamental picture, not its conservatively understood overall coverage.

The price-to-earnings ratio (P/E) measures valuation relative to earnings but ignores the material base. The price-to-book ratio (P/B) places the balance sheet at the center but says little about sustainably achievable earning power. EV/EBIT and related multiples improve operational comparability but remain multiplier metrics, not coverage measures. Discounted cash flow models provide theoretically richer valuations but are highly assumption-dependent in practice. Tobin's q comes closest to the question at issue here but is more difficult to standardize operationally and less clearly applicable to modern, heavily intangible business models.

This situation provides the motivation for the indicator proposed in this paper: Reality Gap (RG). RG is not intended to replace comprehensive company valuation, nor to determine the 'true' value of a company. Rather, the indicator pursues a narrower but clearly defined goal: to make visible the distance between a company's market valuation and a conservatively constructed fundamental base. This fundamental base consists of two elements: first, a tangible balance-sheet substance component, operationalized through Tangible Equity; and second, a smoothed earnings component that is included only when long-run average earning power is positive.

The central idea is simple. Companies can be fundamentally sustained in different ways: through substance, through earning power, or through a combination of both. When market value lies far above both components, a valuation zone emerges that is more strongly shaped by expectations, narratives, dominance assumptions, or distant future discounting than by conservatively assessable fundamentals. This need not be irrational. It may reflect real innovation opportunities, significant market power, or structurally transformed value creation. It does mean, however, that the stock market valuation has moved away from the fundamental base derivable using a cautious, transparently defined methodology. It is precisely this distance that RG seeks to quantify.

The proposed approach is deliberately heuristic. It relinquishes the claim to model all future cash flows with precision, and equally relinquishes the claim to value intangible assets fully or fairly. That is precisely its function: RG is not intended to simulate completeness but to enable

a robust, transparent, and reproducible diagnosis. The metric is conceived not as a substitute for deeper company analysis but as a bridge indicator between balance-sheet-based and earnings-based valuation, suitable for recurring comparisons, case studies, rankings, and public debates.

The construction of RG follows four methodological guiding principles: simplicity, so that it can be applied quarterly and across companies; conservatism, so that speculative valuation premia are not silently built into the denominator; transparency, so that its assumptions can be openly discussed, varied, and criticized; and discriminatory power between coverage and dynamics, which is why the recent earnings trend is reported only in a separate appendix rather than integrated into the main value.

The aim of this paper is accordingly threefold. First, RG is introduced as a clearly defined valuation indicator. Second, it is shown why this indicator addresses a methodological gap between existing standard metrics. Third, drawing on illustrative case studies and sensitivity considerations, the paper examines what analytical power RG can develop across different company profiles and where its limitations lie.

> *The core question is straightforward: How far is the observed market value still covered by tangible substance and sustainably positive earning power?*

This question gives rise to the further structure of the paper. Chapter 2 discusses the deficiencies of existing valuation metrics. Chapter 3 develops the formal definition of RG and its associated earnings trend appendix. Chapter 4 provides methodological justification for the choice of individual components. Chapter 5 examines parameter sensitivities. Chapter 6 illustrates the approach through selected case studies. Chapter 7 identifies limitations and scope of application. Chapter 8 summarizes the findings and outlines possible extensions.

2. Deficiencies of Existing Valuation Metrics

2.1 Starting Point

The valuation of companies in capital markets relies in practice on a range of established metrics that each condense certain aspects of a company's economic situation. The most commonly used measures include the price-to-earnings ratio (P/E), the price-to-book ratio (P/B), various enterprise value multiples such as EV/EBIT or EV/EBITDA, and more comprehensive, model-based methods such as discounted cash flow valuations (DCF). Conceptually related measures such as Tobin's q are also used.

None of these metrics is inherently useless; their problem lies rather in their partiality. RG is not intended to replace existing methods but to address a gap: the missing, simple, and transparent connection between tangible substance and sustainably positive earning power in a single, repeatably applicable coverage indicator.

2.2 The Price-to-Earnings Ratio: Strong in Earnings Logic, Blind to Substance

The P/E ratio relates share price or market capitalization to reported annual earnings and enables a quick assessment of growth and valuation premiums. It says nothing, however, about the material substance underlying a company, the robustness of its balance sheet, whether high earnings are distorted by one-off items, or whether the company has built only a weak fundamental base despite a high valuation. The P/E ratio is earnings-oriented but substance-blind. Additionally, it fails analytically when earnings are negative, precisely in those cases where a discussion of fundamental coverage would be most important.

2.3 The Price-to-Book Ratio: Close to Substance, but Blind to Earnings

The P/B ratio relates market value to book equity. It is closer to substance but says little about what that substance actually generates in durable earnings. The book value is not a neutral reality but an accounting construct. Goodwill, capitalized intangible assets, or other valuation assumptions can significantly influence it without this automatically implying equally reliable fundamental coverage.

2.4 EV/EBIT and EV/EBITDA: Operationally Useful, but Not a Coverage Measure

Enterprise value-based metrics neutralize capital structure effects and are operationally useful. They measure how expensively operating earnings are priced, however, not whether that pricing rests on a solid material base or how far the market valuation has stretched relative to a conservatively constructed fundamental base. For the problem pursued here, they are related but insufficient.

2.5 Discounted Cash Flow Models: Theoretically Rich, Practically Model-Dependent

DCF models are theoretically the richest method but suffer from high assumption-dependence. Small changes in the discount rate, deviating margin assumptions, or altered terminal value estimates can produce massively different results. For a transparent, standardizable comparison across many companies, a full DCF approach is too

unconstrained. RG therefore deliberately pursues a different path: a conservative, clearly defined coverage heuristic whose assumptions can be disclosed and made reproducible.

2.6 Tobin's q: Conceptually Close, Harder to Operationalize

Of all established concepts, Tobin's q is probably closest to the concern of RG: it relates market value to the replacement cost of the capital stock. The difficulty is that these costs are often hard to determine precisely in practice, and in modern intangible-heavy business models they reach conceptual limits. RG can therefore be understood as a pragmatic relative of Tobin's q: easier to operationalize and explicitly supplemented with a smoothed earnings component.

2.7 The Core Deficit: Missing Bridge Between Substance and Earning Power

The established metrics largely split into two camps: substance-focused metrics that emphasize the balance sheet and capital base, and earnings-focused metrics that center on profits or operating results. What is missing is a simple, robust, and publicly accessible metric that combines both in a conservative logic. That is precisely where RG comes in. The decisive question is not primarily 'How expensive is the stock relative to X?' but rather: 'How far is market value still covered by conservatively defined fundamental elements?'

2.8 Why a Heuristic Metric Makes Sense

The choice of a heuristic approach is not a compromise but a deliberate methodological decision. A metric like RG relinquishes the claim to estimate intrinsic value precisely. That is precisely how it gains clarity. Its task is not completeness but diagnostic sharpness: making visible where market prices remain close to tangible substance and reliable earning power, where they move in a moderate zone of expectations, and where they have extended far into narrative- or dominance-driven valuation territory.

2.9 Transition to the Proposed Construction

The deficiencies of existing metrics do not imply that they should be abandoned. Rather, they reveal that an additional perspective is needed. The next chapter presents the precise construction of Reality Gap (RG), including the definition of its fundamental base, the treatment of negative long-run earnings, and the separately reported earnings trend appendix.

3. Definition of Reality Gap (RG)

3.1 Objective

Reality Gap (RG) is a heuristic valuation indicator designed to measure the distance between a company's market valuation and its fundamental coverage. Fundamental coverage is not understood as the company's "true value," but as a deliberately simplified combination of tangible balance-sheet substance and long-run smoothed, sustainably positive earning power.

RG is therefore not a substitute for discounted cash flow models, not a comprehensive company valuation, and not a short-term trading metric. Rather, it is intended to provide a transparent, repeatable, and comparable approximation of how far market values have moved away from a conservatively constructed fundamental base.

3.2 Basic Formula

For company i at valuation date t, Reality Gap is defined as:

$$RG_{i,}^{t} = MC_{i,}^{t} / FB_{i,}^{t}$$

where:

- $MC_{i,}^{t}$ = market capitalization of company i at time t
- $FB_{i,}^{t}$ = fundamental base of company i at time t

The fundamental base is defined as:

$$FB_{i,}^{t} = TE_{i,}^{t} + E_{i,}^{t}$$

where:

- $TE_{i,}^{t}$ = Tangible Equity
- $E_{i,}^{t}$ = capitalized sustainable earning power

3.3 Tangible Equity

Tangible Equity serves as a conservative approximation of the company's tangible balance-sheet coverage. In the base specification:

$$TE_{i,}^{t} = EQ_{i,}^{t} - GW_{i,}^{t} - IA_{i,}^{t}$$

where:

- $EQ_{i,}^{t}$ = book equity
- $GW_{i,}^{t}$ = goodwill

- $IA_{i,}^{t}$ = other intangible assets

This definition follows a precautionary logic. Balance-sheet items whose reliability depends heavily on assumptions, acquisitions, or difficult-to-verify capitalizations are excluded from the fundamental base. RG therefore privileges a conservative substance floor over more expansive accounting-based asset recognition.

3.4 Sustainable Earning Power

Let $NI_{i,}^{t-\varepsilon}$ denote the inflation-adjusted net income of company i in year t−k. The ten-year average earnings are then defined as:

$$G10_{i,}^{t} = (1/10) \times \sum NI_{i,}^{t-\varepsilon} \quad (k = 1 \text{ to } 10)$$

The capitalized earning power is defined as:

$$E_{i,}^{t} = \begin{cases} N \times G10_{i,}^{t} & \text{if } G10_{i,}^{t} > 0 \\ 0 & \text{if } G10_{i,}^{t} \leq 0 \end{cases}$$

The capitalization factor N converts sustainable earning power into a stock-equivalent figure. In the base specification, N = 10. This should not be interpreted as a full discounted cash flow model. Rather, it is a heuristic capitalization rule intended to translate long-run positive earnings into a conservative component of the fundamental base, corresponding heuristically to a long-run capitalization with an implicit return figure of 10 percent. Alternative values such as N = 8 or N = 12 are examined in the sensitivity analysis in Chapter 5.

3.5 Special Cases

Case A: $G10_{i,}^{t} \leq 0$

If long-run average earnings are non-positive, the earnings component is set to zero. The fundamental base then reduces to Tangible Equity:

$$FB_{i,}^{t} = TE_{i,}^{t}$$
$$RG_{i,}^{t} = MC_{i,}^{t} \;/\; TE_{i,}^{t} \quad (\text{provided } TE_{i,}^{t} > 0)$$

Case B: $TE_{i,}^{t} \leq 0$ and $G10_{i,}^{t} \leq 0$

If both Tangible Equity and long-run average earnings are non-positive, no regular RG value is reported. Instead, the company is classified as:

“not fundamentally covered” (equivalent: RG = ∞)

Case C: Very small positive fundamental base

If the fundamental base is positive but very small, RG may become very large. This is not treated as an error but as an intentional signal: market value is only weakly covered by conservatively defined fundamentals.

3.6 Interpretation

The interpretation of RG is straightforward:

- RG10 < 1: market value lies below the constructed fundamental base
- RG10 ≈ 1: market value is in the order of magnitude of the fundamental base
- RG10 > 1: market value exceeds the fundamental base; high values indicate a strong valuation premium

RG is not a fair-value indicator. A high RG value does not automatically imply mispricing, irrationality, or imminent correction. It indicates only that market value lies substantially above the fundamental base as defined in this framework.

3.7 Earnings Trend Appendix

Because RG is intended to measure coverage rather than growth dynamics, recent earnings developments are reported separately through an earnings trend appendix. To construct this appendix, two rolling three-year blocks are compared:

$$B_{new_i,}{}^{t} = (1/3) \times (NI_i,{}^{t}{-1} + NI_i,{}^{t}{-2} + NI_i,{}^{t}{-3})$$
$$B_{old_i,}{}^{t} = (1/3) \times (NI_i,{}^{t}{-4} + NI_i,{}^{t}{-5} + NI_i,{}^{t}{-6})$$

A qualitative trend code is then assigned on the basis of the directional change between the two blocks. Where B_old > 0, the relative change (B_new / B_old − 1) is used. Where B_old ≤ 0, special rules apply in order to avoid meaningless percentage comparisons:

Trend code	Meaning
++	strongly increasing (change > +25%)
+	increasing (change +5% to +25%)
=	approximately stable (change −5% to +5%)
-	declining (change −25% to −5%)
--	strongly declining (change < −25%)

Table 1: Earnings Trend Appendix (codes ++ to --)

The trend code is a contextual supplement. It does not modify the numerical RG value but adds interpretive context.

3.8 Reporting Format

For compact presentation, RG values are reported in the following standard form:

$$\begin{aligned} &\text{RG8} \quad [\text{value}][\text{trend}] \\ &\text{RG10} \quad [\text{value}][\text{trend}] \\ &\text{RG12} \quad [\text{value}][\text{trend}] \end{aligned}$$

where the appended trend symbol is not part of the numerical RG value itself, but a separate marker indicating the recent earnings trend. Examples:

- Tesla: RG10 11.3-
- Allianz: RG10 0.8+
- Volkswagen: RG10 0.2--

3.9 Methodological Classification

RG is designed as a bridge indicator between balance-sheet-based and earnings-based valuation. Unlike traditional multiples, it combines a conservative substance floor with a smoothed earnings component in a single metric. At the same time, it avoids the high assumption-dependence of full discounted cash flow models and remains transparent enough to support sensitivity analysis and repeated cross-company application.

Its role is therefore not to replace existing valuation methods, but to provide an additional diagnostic perspective: the distance between market value and conservatively defined fundamental coverage.

4. Methodological Justification of Components

4.1 Why RG Is Built from Exactly These Components

Reality Gap (RG) is constructed as a deliberately reduced indicator. Its analytical power rests precisely not on incorporating as many variables as possible simultaneously, but on answering a narrow and precise question: How far is a market valuation still covered by conservatively assessable fundamental elements? The components of RG must therefore satisfy four conditions: economic plausibility, transparent definability, repeatable applicability across many companies, and robustness against short-term distortions, one-off effects, and narrative inflation. The construction of RG rests on three core decisions: the use of Tangible Equity as a conservative substance component, the use of a long-run smoothed average earnings as an earnings component, and the separation of coverage and dynamics.

4.2 Tangible Equity as a Conservative Substance Floor

Book equity alone regularly contains positions whose economic reliability varies considerably: goodwill from acquisitions, capitalized intangible assets, and balance-sheet figures that are only limitedly tangible. If RG is to construct a conservative fundamental base, it would be methodologically inconsistent to include such items uncritically, as doing so would allow the denominator to absorb precisely the speculative valuation assumptions whose distance from the fundamental base RG is meant to reveal.

The use of Tangible Equity therefore follows a precautionary logic. This floor is deliberately narrower than the total economic value of the company. RG does not dispute that a company may possess real, valuable intangible assets. The metric asks the narrower question: How far is a market value still covered by conservatively reliable base elements? This conservative asymmetry is methodologically intentional: RG must be able to reveal overextension, and for that the denominator must be cautiously constructed.

4.3 Why Not Full Equity?

Goodwill frequently represents the difference between the acquisition price paid and identifiable net assets, and is itself an expression of earlier valuation premiums. To count it fully in the denominator of a coverage measure would amount to declaring old market enthusiasm the fundamental base for new market enthusiasm. The choice of Tangible Equity is not a judgment that intangibles are worthless. It is an expression of the narrower methodological question: What fundamental base remains when one deliberately retains only what is conservatively tangible?

4.4 Long-Run Smoothed Earnings Rather than Point Estimate

Single-year earnings are problematic: they fluctuate with the business cycle and commodity prices, are susceptible to one-off items, may include balance-sheet adjustments or exceptional write-downs, and can substantially overstate sustainable earning power in boom phases or make an otherwise viable business model look atypically poor in downturns. If RG is not to be merely another short-term multiple, the earnings component must be smoothed. The choice of a ten-year average follows precisely this reasoning: ten years is long enough to cushion cyclical distortions and short enough to maintain relevance to the company's current structure.

4.5 Why Include Earnings at All Rather than Only Substance?

Companies are not merely bundles of assets but productive units whose economic value depends substantially on whether they can sustainably generate surpluses from their base. A company with high material substance that generates little long-run profit is fundamentally different from one with comparable substance but stable earning power. The inclusion of a smoothed earnings component bridges the question 'What is there?' with the question 'What is self-sustaining over time?'

4.6 Why Earnings Are Capitalized

Substance is a stock variable; earnings are a flow variable. To combine both, earning power must be converted into a stock-equivalent form. This is achieved through the capitalization factor N. N is not a precise present value calculation but a heuristic translation of the idea that sustainably positive earning power carries a capitalizable fundamental content. In the base specification N = 10, which heuristically corresponds to a long-run capitalization with an implicit return figure of 10 %. Alternative values such as N = 8 or N = 12 are considered in the sensitivity analysis in Chapter 5. The choice of a fixed factor is a deliberate compromise: coarser than a DCF model, but considerably more standardizable, more transparent, and more practical for comparisons across many companies.

4.7 Why Negative Long-Run Earnings Are Set to Zero

First, this prevents perverse mathematical effects: if negative average earnings entered the denominator, an economically weak company could appear computationally better covered simply because its negative earnings reduce the fundamental base. Second, the rule enforces a clear interpretation: only sustainably positive earning power may count as a coverage contribution. Third, it makes clear that RG does not build in an optimistic option on possible future earnings, but only considers earning power that has already been realized in smoothed form.

4.8 Why Growth Is Not Integrated into the Main Value

Growth is not coverage in the narrow sense but a dynamic assumption. If growth entered the denominator directly, the metric would begin to absorb part of the future expectation whose distance from the fundamental base it is meant to reveal. The separation of main value and trend code is not a loss of information but a gain in interpretability.

4.9 Why a Coarse Trend Code Is Sufficient

A finer numerical growth metric would suggest a precision that is often not reliable in cross-company comparisons. Different base effects, cyclical swings, and exceptional years would quickly make an exact gradation fragile. The qualitative five-level code is robust enough to make tendencies visible without feigning false exactitude. A company with RG10 5.0++ must be interpreted fundamentally differently from one with RG10 5.0-.

4.10 Conservative, but Not Anti-Intangible

RG does not claim to reflect the full economic value of modern companies. It asks the narrower and deliberately more skeptical question: How far is the market valuation still covered by what can be conservatively and historically verified? A high RG value shows precisely that the market price rests heavily on more far-reaching assumptions, information that is analytically useful precisely because it does not build the entire logic of modern value creation into the denominator.

4.11 Why RG Must Be Constructed as a Heuristic Indicator

RG is simple not because complexity is overlooked but because certain complexity is deliberately not hidden within the main number. A more complete model could always be built: one could distinguish sector factors, differentially re-capitalize intangibles, use free cash flow instead of net income, make the capitalization factor interest-rate-dependent, or introduce growth adjustments. All of this would be possible, but it would change the character of the instrument. RG is meant to be a visible, criticizable, and reproducible indicator whose strength lies in focusing a particular question better than existing standard metrics.

4.12 Summary

The methodological construction of RG rests on a clear priority: conservative fundamental coverage should be made visible without transitioning into a free valuation model.

Core design decisions of RG

- Tangible Equity as a cautious substance floor,

- ten-year smoothed earnings as an approximation of sustainable earning power,
- capitalization of this earning power through a fixed heuristic factor (N = 10),
- setting negative long-run earnings to zero to avoid economically nonsensical results, and
- separate reporting of the earnings trend rather than conflating coverage and dynamics.

5. Parameterization and Sensitivity

5.1 Why a Sensitivity Analysis Is Necessary

Precisely because RG is conceived as a heuristic indicator, it must be disclosed how strongly its results depend on the chosen parameters and definitional rules. The sensitivity analysis pursues two goals: first, to examine how robust RG is against reasonable variations of its components; second, to make transparent where the indicator is particularly strongly dependent on definitional decisions. The central sensitivity axes are: the capitalization factor N, the length of the earnings averaging window, the earnings measure, the definition of the substance component, the treatment of negative or extremely volatile data, and sectoral differences.

5.2 Sensitivity to the Capitalization Factor N

A lower factor (N = 8) leads to a smaller fundamental base and higher RG values. A higher factor (N = 12) enlarges the fundamental base and reduces the measured distance. For G10 > 0:

$$\mathrm{RG} = \mathrm{MC} \,/\, (\,\mathrm{TE} + \mathrm{N} \times \mathrm{G10}\,)$$

RG is monotonically decreasing in N for given MC, TE, and G10. Companies whose fundamental base is largely carried by the earnings component are therefore more sensitive to changes in N. Results should ideally be reported for a small plausible interval of N, not just a single point value.

5.3 Sensitivity to the Length of the Earnings Window

A five-year average responds more strongly to recent developments and increases vulnerability to cyclical effects. A ten-year average is more robust against individual years and closer to sustainable long-run earning power. The comparison between five and ten years is particularly informative for strongly growing companies, cyclical companies, and mature stable companies.

5.4 Choice of Earnings Measure: Net Income Versus Alternative Measures

The base specification uses inflation-adjusted net income. As alternatives, free cash flow, operating cash flow, EBIT, or adjusted earnings measures could be used. Each shifts the logic of the indicator. A sensitivity analysis should at minimum examine how strongly key case studies change when a measure closer to cash flow is used.

5.5 Sensitivity to the Definition of Tangible Equity

A less conservative variant would be to use full book equity. This would regularly enlarge the denominator and reduce RG, particularly for companies with a high proportion of intangible capitalizations. If the qualitative conclusions are preserved even with full equity, the diagnosis is particularly robust.

5.6 Handling Negative or Very Small Fundamental Bases

Negative long-run earnings generate no negative earnings contribution but are set to zero. If Tangible Equity is also non-positive, the company is classified as not fundamentally covered. In practical presentation it may be useful to additionally report the absolute fundamental base.

5.7 Inflation Adjustment and Temporal Comparability

Without adjustment, older earnings would appear nominally too small and the ten-year average would be systematically biased downward. The base specification therefore uses inflation-adjusted historical earnings. Empirical applications should disclose which price indices were used and the extent to which currency conversions play a role.

5.8 Sectoral Sensitivity

The indicator is strongest where Tangible Equity and long-run earning power provide a meaningful reference to the economic viability of the company. Particular caution is warranted with banks, insurance companies, financial intermediaries, investment holding companies, very young companies, and strongly intangible-dominated cases.

5.9 Rank Robustness Versus Point Precision

The actual strength of RG lies less in the claim that a value of 4.7 is objectively correct, but rather in the fact that a company looks clearly different from one with RG near 1 even under softer assumptions. The sensitivity analysis should explicitly show which companies remain stably high, stably moderate, or stably low under alternative parameterizations.

5.10 Practical Implications for Website and Paper

For the paper this means: the base specification must be unambiguously defined, key alternative specifications should be systematically tested, and the analytical power of case studies should be discussed in terms of plausible parameter bands. For a website: the standard value should be clearly shown, alternative settings (N = 8/10/12, 5 versus 10 years) should be optionally displayable, and the visualization should make clear where results are robust and where they are more parameter-sensitive.

5.11 Summary

The sensitivity analysis confirms the character of RG as a heuristic but systematically testable metric. Where its central qualitative conclusions are preserved under plausible variations, RG gains diagnostic credibility. Where they are not, the sensitivity analysis itself reveals that the valuation in question relies more on model assumptions than on robust fundamental references.

Parameter	Conservative	Standard	Expansive
Capitalization factor N	8	10	12
Averaging window	12 years	10 years	8 years
Earnings measure	Free Cash Flow	Net Income	EBIT
Substance base	Tangible Equity	Tangible Equity	Full book equity

Table 2: Overview of parameterization variants

6. Case Studies

6.1 Case Selection

The following case studies are not intended as a representative sample of the overall market but as contrasting test cases for the indicator. The selection follows a deliberately heterogeneous logic: Tesla as a strongly narrative growth company with a limited current earnings base relative to its valuation; Nvidia as an extremely highly valued technology company with already exceptional realized earning power; Apple as a mature platform and cash flow company; Allianz as a comparatively classical earnings and balance-sheet story; Volkswagen as a substance-rich industrial company with a significant market discount; and OpenAI as a methodological boundary case of a privately held, highly valued AI company without fully comparable public fundamental data.

For the illustrative figures reported here, a simplified operational approximation is used. Rather than the fully adjusted paper version with inflation-adjusted ten-year average and Tangible Equity, a rough current approximation is employed: market value relative to a combination of book equity and recent earning power. These case studies therefore serve primarily as interpretive illustrations rather than as a definitive calibration of the final RG universe.

Table 3: Illustrative approximations (not fully adjusted), April 2026 – figures in USD bn or EUR bn

Company	MktCap	Book Equity	Net Income	Fundamental Base[1]	RG (approx.)
Tesla	~1,353	~82	~3.8	~120	**~11-**
Nvidia	~4,311	~157	~73	~887	**~4.9+**
Apple	~3,761	~74	~112	~1,194	**~3.1+**
Allianz	~140	~61	~10.8	~169	**~0.8=**
VW	~43.8	~203	~6.7	~270	**~0.16--**
OpenAI	~852[2]	n/a	n/a	n/a	**n/a**

[1] All values are current approximations based on publicly available financial statements (not fully adjusted). Fundamental base = equity + 10 × net income (operational approximation, not inflation-adjusted ten-year average).

[2] Private market valuation per Reuters, April 2026. No regular balance-sheet status.

6.2 Tesla: High Reality Gap as a Narrative and Optionality Case

Tesla provides a particularly clear test case for RG. The company reported net income attributable to common shareholders of USD 3.794 bn for 2025; equity at end-2025 was approximately USD 82.1 bn. Market capitalization in April 2026 was approximately USD 1,353 bn. Even without the stricter Tangible Equity logic, this creates a very large gap between market value and the fundamental base plausibly supported by recent earnings plus the balance-sheet base.

In the RG sense, Tesla is therefore not an ordinary expensive car manufacturer but a case where market value is visibly not sustained by the current earnings position alone. The market is clearly pricing in far more than current vehicle sales or the most recently realized earnings. Methodologically, Tesla is an example of a valuation that rests heavily on optionalized future paths: autonomous mobility, robotics, energy platforms, and other not-yet-fully-realized sources of income. A high RG value in this case is not merely a statement about exaggeration

but about the dominance of narrative, expectation, and strategic optionality over conservatively derivable fundamental coverage.

6.3 Nvidia: High Reality Gap, but with Already Massive Real Earnings Support

Nvidia forms the counterpoint to Tesla within the spectrum of highly valued technology companies. The company reported net income of USD 72.88 bn and equity of USD 157.3 bn for fiscal year 2026; market capitalization in April 2026 was approximately USD 4,311 bn. Nvidia is also a case of high valuation premiums, but not of the same structural quality as Tesla.

The decisive difference lies in already realized earning power. While Tesla shows a relatively thin current earnings base relative to its valuation, Nvidia already stands on an exceptionally strong profit machine. A high RG value here therefore means less that the market is trading almost exclusively in futures rather than in realities, and more that the market assumes an extraordinary persistence and scaling of already visible dominance earnings. Nvidia illustrates that high RG values can carry different meanings: in one case the future bet dominates, in the other the capitalization of already realized but perceived as exceptionally durable earning power.

6.4 Apple: High Valuation, but Within a Mature Cash Flow Logic

Apple reported net income of USD 112.0 bn for 2025; reported equity stood at USD 73.7 bn. Market capitalization in April 2026 was approximately USD 3,761 bn. Apple too is highly valued at first glance. Unlike Tesla, however, this high valuation rests on a long-established combination of brand power, platform economics, capital discipline, and exceptionally stable cash flow generation.

Apple is therefore an important reference case for RG. The indicator should not reflexively read every large multiple as a decoupling from fundamentals. In Apple's case, much speaks for the proposition that a substantial part of the valuation premium can be explained by historically reliable earnings quality. RG would still reveal a gap between market value and conservative fundamental base, but this gap would be economically different to interpret than for a company whose market value is barely supported by established earnings strength. Apple shows that RG does not simply sort expensive against cheap but makes different types of valuation distance distinguishable.

6.5 Allianz: Low to Moderate Reality Gap as a Classical Coverage Case

Allianz represents a deliberately chosen classical countercase within the case studies. The 2025 consolidated financial report shows net income attributable to shareholders of approximately EUR 10.8 bn and equity of approximately EUR 60.6 bn; market capitalization in April 2026 was approximately EUR 140 bn. Even allowing for the general need for caution with insurance companies due to their balance-sheet structure, this yields a considerably tighter relationship between market value, balance-sheet base, and current earning power than for the strongly narrative-driven technology cases.

This is precisely why Allianz is important as a case study. RG should not only mark extremes but also show what a company looks like whose stock market valuation stands in a relatively classical relationship to earning power and capital base. A lower RG value here is not merely an expression of lacking imagination but of a market pricing that remains considerably closer

to traditionally readable fundamentals. Allianz thus serves as a reference for a comparatively grounded valuation mode.

6.6 Volkswagen: Low Reality Gap Despite High Substance

Volkswagen forms the substance-rich industrial counterpart. For 2025, the group reported earnings attributable to Volkswagen AG shareholders of EUR 6.673 bn; the consolidated balance sheet shows equity of approximately EUR 203.1 bn. Market capitalization in April 2026 was only approximately EUR 43.8 bn. This juxtaposition alone shows that Volkswagen does not appear from an RG perspective as an overextended market darling but rather as a case where the company's substantial material and balance-sheet base is valued by the market at a massive discount.

A low RG value is not automatically a buy signal or evidence of undervaluation. In Volkswagen's case it points instead to the opposite problem: the market clearly ascribes far less future quality to the balance-sheet substance and still-positive earning power than it does to platform or AI dominance stories. Cyclicality, political risks, margin pressure, transformation costs, and the structural change in the automotive sector act as discount factors. RG reveals that markets do not simply drift upward away from the real economy but can also radically discount real substance.

6.7 OpenAI: Methodological Boundary Case of an Extreme Private Valuation

OpenAI is treated here as a methodological boundary case, not as a fully comparable RG observation. Reuters reported a valuation of USD 852 bn in early April 2026; annualized revenue was reportedly over USD 20 to 25 bn depending on the date and definition. Public, standardized figures for net income, equity, and full balance-sheet structure in the form required for RG are not available.

This is precisely why OpenAI as a boundary case is methodologically instructive. The company illustrates a domain in which investor valuations are almost entirely mediated through future expectations, platform hopes, AGI narratives, strategic scarcity, and potential future monopoly rents. A fully valid RG value cannot be reliably calculated here at present. The gap between the private valuation and publicly known revenue figures already shows, however, that we are dealing with a valuation logic that relies even more strongly than Tesla or Nvidia on distant dominance assumptions. OpenAI therefore deliberately remains a methodologically incomplete but analytically telling special case.

6.8 Comparative Assessment

The six cases show that RG should not be understood as a banal high-equals-bad, low-equals-good schema. At least four distinct patterns emerge. First, companies like Tesla whose market value is only to a limited degree supported by current earnings and classical balance-sheet figures, resting heavily on future optionality. Second, cases like Nvidia where the distance from the conservative fundamental base is also large but is already carried by exceptionally strong realized earning power. Third, companies like Apple where high valuations are put in perspective by mature cash flow quality, ecosystem power, and a long earnings history. Fourth, Allianz and Volkswagen show that the market often prices classical substance and earnings profiles considerably closer to their conservative fundamental base, or grants only limited future premiums despite high substance.

The case studies thereby support the central idea of the paper: Reality Gap is of interest not as a fair-value estimator but as an instrument that makes visible different types of distance between market price and conservative fundamental base. The metric helps distinguish valuation zones in which markets capitalize real earning power from those in which they primarily price hopes, dominance narratives, or optionalized future scenarios.

6.9 Methodological Implication

The case studies suggest that RG develops its greatest strength not in universal cross-sectoral precision but in diagnostic juxtaposition. The metric forces one to disclose whether a high market valuation rests primarily on tangible substance, historically reliable earning power, or on expectations that the conservative fundamental model deliberately does not capitalize. The case studies serve as a plausibility test: they show that RG does not merely replicate P/E or P/B across very different company profiles but opens an independent perspective on valuation distance.

7. Limitations and Scope of Application

7.1 Why a Chapter on Limitations Is Indispensable

An indicator like Reality Gap (RG) gains scientific credibility not by concealing its weaknesses but by precisely defining its scope. RG's strength lies in diagnosing a particular question: How far is a market value still covered by conservatively defined fundamental elements? This at once defines its limitation. RG is not a complete company valuation model, not a direct forecasting indicator, and not a substitute for sector- or company-specific in-depth analysis.

7.2 RG Is Not an Intrinsic Value Model

The most important limitation concerns the normative status of the metric. RG does not claim to determine the true or fair company value. It measures exclusively the distance between the observed market value and a deliberately conservatively constructed fundamental base. The metric is diagnostic, not normative. It measures distance, not truth.

This distinction is central. A high RG value does not automatically mean that a company is overvalued, irrationally priced, or destined to fall. Markets are entitled and expected to anticipate future expectations, technology options, network effects, or strategic dominance. RG abstracts from a part of these expectations precisely to make visible how far the market value has moved from a narrowly defined fundamental coverage.

7.3 Limited Capture of Intangible Value Sources

RG is deliberately conservatively constructed and uses Tangible Equity from which goodwill and other intangible balance-sheet items are removed. This enhances the indicator's ability to make speculative valuation assumptions visible. At the same time, economically real but difficult-to-grasp value sources appear only incompletely or not at all in the denominator. RG does not dispute the economic reality of such assets but does not treat them as a conservatively reliable fundamental base as long as they have not become visible in the form of sustainably positive, smoothed earning power. RG is therefore particularly strong as a contrast instrument between market price and conservatively assessable coverage, but weaker as an instrument for fully appreciating intangible business models.

This applies particularly to companies whose economic strength rests substantially on software, data, network effects, brand power, platform structures, proprietary models, or hard-to-imitate organizational routines, which is often the core of the business model in modern technology and platform companies.

7.4 Sectoral Limitations

RG is not applicable with equal analytical power in every sector. Particular caution is warranted with banks, insurance companies, financial intermediaries, investment holding companies, asset managers, REITs, and very young companies with a short history.

In banks and insurance companies, even the character of balance-sheet positions is different. Equity, regulatory capital buffers, investment portfolios, and liability structures fulfill a different economic function than in manufacturing companies. A low or high RG value in these sectors cannot be read with the same meaning as for an automotive or software company. This does

not mean RG is useless in these areas, but the indicator should be used only with sectoral caution and in separate comparison groups.

7.5 History Dependence and Young Companies

RG uses a ten-year average earnings figure in the base specification. This strengthens robustness against one-off effects and cyclicality but requires sufficient history. Young, rapidly growing companies or recently listed firms often do not meet this requirement. A metric that derives an apparently complete long-term indicator from a shortened history would feign precision where the data base does not yet support it. For companies with limited history, a separate status is therefore appropriate, such as 'limited-history RG' with explicitly restricted analytical scope.

7.6 Dependence on Accounting Standards and Data Quality

Differences between IFRS and US GAAP, diverging capitalization practices, tax-related special items, currency conversions, and the different treatment of intangible positions can significantly influence the calculation of Tangible Equity and earnings series. RG cannot resolve these differences; it can only disclose them and treat them as standardized as possible. The indicator depends on careful data preparation.

7.7 Not a Short-Term Trading Metric

RG is expressly not intended as an instrument for short-term timing. The metric is too strongly oriented toward smoothed, slowly reacting fundamental components for that purpose. While stock prices can fluctuate daily, the fundamental base constructed by RG changes only gradually. RG is better suited as an instrument for structural comparisons, longer-term valuation diagnoses, rankings, case studies, and public discussions, not as a standalone trigger for short-term buy or sell decisions.

7.8 Risk of Overinterpreting High RG Values

A high RG value is suggestive. Precisely for this reason, there is a risk of reading it prematurely as evidence of exaggeration, speculation, or impending price corrections. Such an interpretation would be methodologically inadmissible. A high RG value can reflect real growth expectations, exceptional market position, network effects, high returns on equity, strategic optionality, political special circumstances, or indeed overextended market sentiment. RG does not fully distinguish between these causes. Every high RG value therefore requires a second level of interpretation: Why is the distance high? The indicator is an entry point into the valuation discussion, not its conclusion.

7.9 Risk of Overinterpreting Low RG Values

Low RG values should equally not be read prematurely as evidence of attractiveness or true undervaluation. A company may be valued close to or even below its conservative fundamental base for good reason: structural shrinkage, poor capital allocation, political risks, high capital requirements, margin erosion, or cyclical uncertainty. Volkswagen was precisely an important case in the paper for this reason: a low RG value can also be an expression of deep market skepticism rather than merely irrational market failure.

7.10 Limits of International Comparability

In a global application, RG encounters additional limits. Companies from different countries differ not only in accounting rules but also in inflation regimes, currency developments, capital market structures, tax frameworks, and ownership structures. An RG ranking across countries can be informative but also prone to distortion. Methodologically, at minimum an explicit disclosure of the conversion and adjustment logic would be needed, along with a stronger emphasis on country-internal or sector-internal comparisons where appropriate.

7.11 RG as a Tool, Not a Worldview

A subtle but important limitation concerns the use of the indicator in public discourse. RG is well suited to making visible the distance between market price and conservative fundamental base. Precisely for this reason, the metric can easily be co-opted into existing ideological interpretive frameworks: as evidence against the market, against technology stocks, against financialization, or conversely as confirmation that balance-sheet substance is obsolete in the modern economy. Both would demand too much of the indicator. RG is not an ideological judgment about capital markets but an analytical tool with a specific reach.

7.12 Positive Scope of Application

Precisely in light of the limitations discussed above, the meaningful scope of application of RG can be more clearly defined. RG is particularly useful for:

- comparing publicly listed companies with sufficient historical data,
- distinguishing between narrative-driven valuations and valuations more closely supported by substance and earning power,
- supplementing classical metrics such as P/E and P/B,
- analyzing valuation regimes through case studies,
- building ranking and monitoring formats, and
- supporting public discussion about the distance between market prices and conservative fundamental coverage.

RG is less suitable as a standalone instrument for:

- very young companies with limited earnings history,
- strictly short-term trading decisions,
- unreflective cross-sector comparisons involving financial companies, and
- estimating a “correct” share price.

7.13 Summary

Reality Gap is a deliberately limited, heuristic coverage indicator. Its limitations arise from the same design that constitutes its strength: the conservative treatment of intangible value sources, dependence on balance-sheet data and histories, sectorally different interpretability, unsuitability as an intrinsic value or timing model, and the need for additional contextual analysis at extreme values. These limitations mark the conditions under which RG can be meaningfully deployed: as a transparent, reproducible tool for making valuation distance visible.

8. Conclusion and Outlook

This paper has proposed Reality Gap (RG) as a heuristic indicator intended to make visible the distance between a company's market valuation and its conservatively constructed fundamental base. The starting point was the observation that established standard metrics each capture only partial aspects. The P/E ratio is strong in earnings logic but substance-blind. The P/B ratio captures the balance-sheet base but says little about sustainably achievable earning power. EV/EBIT and related multiples improve operational comparability but do not answer the question of fundamental coverage. DCF models are theoretically rich but highly assumption-dependent for standardized broad comparisons. Tobin's q is conceptually related but operationally harder to standardize.

Against this background, RG was developed as a bridge indicator. The metric combines two deliberately conservatively chosen components: Tangible Equity as a tangible substance floor and a capitalized form of long-run smoothed, sustainably positive earning power. Negative long-run earnings are not offset as a negative coverage contribution but are consistently set to zero. The recent earnings trend is not incorporated into the main metric itself but is reported through a separate qualitative appendix ranging from ++ to --. The main figure thereby remains methodologically clear: RG measures coverage, not dynamics.

The analysis has shown that the strength of the approach lies precisely in its deliberate limitation. RG makes no claim to determine the intrinsic value of a company. The metric does not say what a stock is really worth, nor does it measure whether markets act rationally or irrationally. It merely makes visible how far an observed market value has moved from a narrowly defined, conservative fundamental base. That is precisely its analytical utility: the indicator forces valuation premiums to be explicitly addressed rather than silently absorbed into accounting or narrative assumptions.

The case studies have confirmed this function. Companies like Tesla appear under RG as strongly optionality- and narrative-driven valuation cases. Nvidia shows that high distance values can also occur where already exceptional real earning power is present. Apple clarifies that a high market valuation should not automatically be read as mere decoupling if it rests on long-term, reliable cash flow and platform strength. Allianz serves as an example of a comparatively classical, grounded valuation. Volkswagen makes visible that markets not only overextend real substance but in some cases also radically discount it. OpenAI finally marks a boundary case where private high valuations rest largely on future narratives without a fully comparable fundamental base being publicly accessible.

At the same time, the paper has made clear that RG is neither universally nor limitlessly applicable. The indicator is sensitive to parameterizations such as the capitalization factor, the chosen earnings window, and the definition of substance. It varies in reliability across sectors and should be read only with caution for banks, insurance companies, very young companies, or business models with particularly unusual balance-sheet structures. It is not a short-term trading metric and not a self-executing trigger for buy or sell decisions. Its appropriate use lies in comparisons, case analyses, rankings, and debates about valuation distance.

Precisely from this, however, emerges the actual contribution of RG. The metric does not unlock a final truth but addresses a gap in the public and analytical toolkit. It creates a transparent point at which discussions about market valuation can begin. Rather than speaking abstractly of expensive or cheap stocks, RG enables a more precise question:

This leads to a simpler and more fundamental question: How far is market value still covered by tangible substance and sustainably positive earning power?

This question is neither identical to classical value analysis nor to market-hostile criticism of high valuations. It is simpler and at the same time more fundamental. Precisely for that reason it is accessible: to investors, researchers, journalists, and a broader public.

Outlook

The further development of RG offers several natural extensions.

First, the indicator should be applied empirically to a larger universe of companies. The key questions would be how stable rankings remain under different parameterizations and what sectoral patterns emerge.

Second, a systematic sensitivity platform would be useful in which users can switch between different variants, such as:

- N = 8, 10, 12
- 5 years versus 10 years of earnings averaging
- Tangible Equity versus full book equity
- Net income versus alternative earnings measures

Such a presentation would not weaken the heuristic character of the indicator but strengthen it, because it makes its assumptions openly accessible.

Third, a quarterly-updated public RG database or website is a natural extension. There the indicator could deploy its communicative strength as a ranking, company profile, comparison tool, and monitor for valuation distance. The combination of paper and website would be particularly fruitful: the paper provides the methodological justification; the website makes the metric visible, verifiable, and publicly accessible.

Fourth, later versions of the approach could examine whether intangibles could be treated more differentially or sectoral special logics more explicitly incorporated. This would need to be done with caution, however, so as not to sacrifice the central advantage of RG: its clarity.

The paper therefore does not conclude with the claim of having found a definitive valuation formula. Its claim is more modest and precisely for that reason more durable: Reality Gap provides a transparent, conservative, and reproducible indicator to make visible the distance between market price and fundamental coverage. At a time when capital markets increasingly capitalize expectations, dominance narratives, and distant future paths, that is already no small achievement.

Core Statement

Reality Gap does not measure the true value of a company, but the distance between its market valuation and the fundamental base covered by tangible substance and sustainably positive earning power.

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Appendix A: Notation and Reporting Standard

This appendix defines the reporting notation used for Reality Gap (RG) throughout the paper and in related tables, charts, and digital applications.

A.1 Primary metric notation

For compact readability, Reality Gap values are reported in the form:

- RG8
- RG10
- RG12

The number indicates the capitalization factor used in the earnings component of the fundamental base:

- RG8 = Reality Gap calculated with N = 8
- RG10 = Reality Gap calculated with N = 10 (standard)
- RG12 = Reality Gap calculated with N = 12

A.2 Compact reporting format

In compact form, values are reported as:

```
RG8  [value][trend]
RG10 [value][trend]
RG12 [value][trend]
```

Examples:

```
RG8  3.5+
RG10 2.8=
RG12 2.2=
RG10 11.3-
```

The appended trend symbol is not part of the numerical RG value itself. It is a separate appendix indicator attached solely for compact readability.

A.3 Trend symbols

The appended trend indicator describes the recent earnings trend and is reported using the following symbols:

- ++ = strongly increasing earnings trend
- + = increasing earnings trend
- = = approximately stable earnings trend
- - = declining earnings trend
- -- = strongly declining earnings trend

Only the short hyphen/minus form is used for declining trends (- and --). No long dash is used in the notation.

A.4 Interpretive separation

The reporting format combines two analytically distinct elements:

- the numerical RG value, which measures the distance between market capitalization and the constructed fundamental base,
- the trend appendix, which summarizes the recent earnings trend.

The trend marker is therefore attached directly for visual compactness, but remains methodologically separate from the RG value. For example:

```
RG10 2.8=   means:
  numerical RG10 value: 2.8
  trend appendix: =  (approximately stable)

RG10 11.3-  means:
  numerical RG10 value: 11.3
  trend appendix: -  (declining)
```

It does not mean that the symbol modifies the arithmetic content of the value itself.

A.5 Long-form reporting

Where more formal reporting is preferred, the compact notation may be expanded as follows:

```
RG10 = 2.8;  trend symbol: =
RG10 = 11.3; trend symbol: -
```

For tables, dashboards, and rankings, however, the compact form is preferred.

A.6 Standard display order

Where multiple RG variants are shown together, the standard order is: RG8, then RG10, then RG12. This order reflects increasing capitalization of long-run earnings and supports immediate comparison of parameter sensitivity.

```
RG8  3.5+
RG10 2.8=
RG12 2.2=
```

A.7 Special cases

If the long-run earnings component is zero because the ten-year average earnings value is non-positive, the corresponding RG value is still reported in normal form, provided the remaining fundamental base (Tangible Equity) is positive.

If the total fundamental base is zero or negative, no regular RG value is reported. In such cases the company is classified separately as:

not fundamentally covered

This classification is not abbreviated into the compact RG notation.

A.8 Recommended usage

For the purposes of the paper, website implementation, rankings, and recurring public reporting, the preferred standards are:

- compact notation in tables, lists, and company snapshots,
- full explanatory notation in methodological sections,
- consistent use of the same trend symbols across all media.

The compact notation is intended to maximize readability without sacrificing methodological clarity.

Appendix B: Temporal Dynamics of Reality Gap and Future Empirical Extension

This paper has treated Reality Gap (RG) primarily as a static diagnostic indicator: a ratio comparing market capitalization to a conservatively constructed fundamental base at a given point in time. Yet one of the most promising extensions of the framework lies precisely beyond the static case. The analytical power of RG is likely to increase significantly once it is observed not only cross-sectionally, but also through time.

B.1 From Static Values to Dynamic Paths

A single RG observation shows how far market value stands from conservatively defined fundamental coverage at a given date. A time series of RG values, by contrast, can reveal how that distance emerged.

This distinction is important. A company with an RG10 of 5.0 may represent very different underlying processes depending on how that value was reached:

- a steady rise of market valuation far beyond slowly growing fundamentals,
- a rapid increase in earning power that partially justifies an initially stretched valuation,
- a collapse of the denominator due to deteriorating earnings, or
- a long-standing market discount that narrows or widens over time.

The temporal path of RG therefore has the potential to distinguish between fundamentally different valuation regimes that a single point estimate cannot separate.

B.2 Analytical Value of RG Time Series

If calculated consistently across multiple years, RG8, RG10, and RG12 could make several types of dynamics visible.

First, RG time series may reveal narrative expansion, where valuation rises much faster than conservatively measured substance and earning power. In such cases, the market increasingly prices optionality, dominance assumptions, or long-horizon expectations rather than already visible fundamental coverage.

Second, RG paths may show fundamental catch-up, where a company gradually grows into a previously stretched valuation. Here a declining RG does not necessarily signal market pessimism; it may reflect a strengthening denominator through rising earning power or substance.

Third, RG paths may identify derating episodes, in which a previously elevated valuation premium contracts sharply. In these cases, the falling RG may be driven less by stronger fundamentals than by declining market capitalization.

Fourth, time series may reveal structural discount regimes, where firms with substantial balance-sheet substance and positive earning power remain persistently close to or below their conservative fundamental base. This would be particularly relevant for cyclical industrial firms, politically constrained sectors, or capital-intensive legacy businesses.

The dynamic perspective thus extends RG from a static heuristic into a more general framework for analyzing how valuation distance forms, widens, stabilizes, or contracts.

B.3 Possible Typology of RG Paths

A future empirical extension could classify firms according to recurring RG path patterns. Possible categories include:

- Narrative Expansion: RG rises over time while recent earnings momentum weakens or remains insufficient to support the valuation expansion.
- Growth-Backed Expansion: RG rises, but the increase is accompanied by strong and improving earning power.
- Fundamental Catch-Up: RG declines because the fundamental base grows faster than market capitalization.
- Derating Collapse: RG declines primarily because market valuation falls.
- Structural Discount: RG remains persistently low despite substantial balance-sheet substance or stable profitability.

Such a typology would make the framework more useful not only for firm-level analysis but also for sectoral comparisons and longitudinal research into valuation regimes.

B.4 Research Questions for a Dynamic RG Framework

A broader time-series implementation of RG would open several research questions:

- Under what conditions does RG rise faster than the underlying fundamental base?
- In which sectors do companies most frequently grow into stretched valuations rather than collapsing out of them?
- Are high-RG firms systematically associated with stronger subsequent volatility, stronger narrative dependence, or lower long-run return robustness?
- Which industries exhibit persistent structural discounts relative to conservative fundamental coverage?
- How stable are RG rankings over time when varying the capitalization factor and accounting definition of substance?

These questions suggest that RG may be useful not only as a descriptive indicator but also as a framework for empirical research on valuation dynamics.

B.5 Practical Data Requirements

A full implementation of long-horizon RG paths would require standardized access to:

- market capitalization histories,
- multi-year balance-sheet data,
- multi-year earnings histories, and
- ideally, consistent inflation-adjustment and accounting normalization procedures across firms and jurisdictions.

For a small number of illustrative firms, such data can be assembled from public filings and annual reports. For larger-scale and internationally comparable implementations, however, the requirements become substantially more demanding. Long-horizon, standardized firm-level financial data are often concentrated within institutional research infrastructures, proprietary databases, or licensed academic platforms.

This creates a practical asymmetry: conceptual development is possible without institutional affiliation, but large-scale empirical validation often depends disproportionately on access structures that are easier to obtain within universities, research institutes, or licensed professional environments.

B.6 Outlook for Future Collaboration

For this reason, the dynamic extension of RG should be understood as a natural next step rather than a completed part of the present paper. The current article establishes the conceptual framework, the methodological logic, and the basic interpretive categories. A broader empirical program would require either substantial manual data construction or access to standardized long-horizon datasets.

Collaboration with researchers or institutions holding such access could therefore be particularly valuable. Not because the conceptual framework depends on academic affiliation, but because large-scale empirical implementation is shaped by unequal access to data infrastructures, licensing systems, and standardized historical financial databases.

B.7 Concluding Remark

The static formulation of Reality Gap already makes a useful distinction visible: the distance between market valuation and conservatively defined fundamental coverage. A dynamic formulation could go further. It could show not only how large that distance is, but also how it changes through time, what drives it, and which valuation regimes repeatedly emerge across firms and sectors.

In this sense, a time-series extension of RG is not merely an add-on. It is one of the most promising paths for turning the framework from a conceptual indicator into a broader empirical research program.