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THE COMPARABILITY PROBLEM

Sustainability Ratings, Methodological Opacity, and Emerging Market Mispricing

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ABSTRACT

Sustainability rating divergence represents one of the most consequential unresolved problems in sustainable finance. When the same firm receives materially different scores from different rating providers, the infrastructure for sustainable capital allocation is, at its foundation, unreliable. This paper argues that divergence is not a technical deficiency awaiting a data solution. It is a structural feature of how sustainability is conceptualised, measured, and weighted by private commercial entities operating without public accountability. The problem is significantly more acute in emerging economies, where disclosure norms, institutional structures, and governance arrangements differ from the OECD environments for which most rating methodologies were designed. Drawing on the primary literature on rating divergence, the theoretical economics of information asymmetry, and the structural features of Indian capital markets, this paper demonstrates that emerging market firms face a systematic comparability discount: they are evaluated using frameworks calibrated to different contexts, by raters with thinner coverage, against benchmarks that do not reflect their institutional reality. The consequences extend beyond portfolio construction. Systematic mispricing of sustainability risk in emerging markets distorts capital allocation at precisely the moment that these economies are making transformative infrastructure and energy decisions. The paper concludes with a framework for regulatory, methodological, and market-led responses, including mandatory disclosure of rating methodology components, regulator-supervised comparability audits, and the construction of market-specific benchmarking frameworks.

1. Introduction: A Market Built on Contested Numbers

Sustainable finance has grown into one of the most significant institutional reorientation of capital markets in the post-war period. Global assets under management incorporating sustainability criteria exceeded USD 30 trillion by the early 2020s, with major institutional investors, central banks, and regulatory bodies articulating frameworks that treat sustainability performance as a material factor in investment and supervisory decisions. At the centre of this transformation sits a relatively small set of private commercial entities that assign sustainability scores to listed firms. Their ratings serve as inputs to index construction, portfolio screening, stewardship engagement, regulatory reporting, and the pricing of sustainability-linked instruments. Their influence on capital allocation is, by any reasonable measure, enormous.

Yet the ratings produced by these entities do not agree with each other. They do not agree in a modest, rounding-error sense. They disagree systematically, substantially, and in ways that determine material investment outcomes. In the landmark empirical investigation of this problem, Berg, Koelbel, and Rigobon (2022) documented an average pairwise correlation of approximately 0.54 between six major sustainability rating providers. For context, the correlation between Moody's and Standard and Poor's credit ratings, applied to the same instruments, is approximately 0.99. Two credit rating agencies looking at the same bond reach nearly identical conclusions. Two sustainability rating agencies looking at the same firm reach conclusions that are barely correlated above chance.

This is not a peripheral anomaly. It is a central, structurally significant failure of the information infrastructure that sustainable finance depends upon. When ratings diverge, the signal that investors require to differentiate between firms on sustainability grounds becomes noise. Capital that is nominally directed toward more sustainable outcomes may be directed in precisely the wrong direction, depending entirely on which rater's definition of sustainability an investor happens to use.

The problem is substantially worse in emerging economies. The major sustainability rating methodologies were designed in, and calibrated primarily against, OECD markets. Their data inputs privilege the disclosure norms, regulatory architectures, and institutional governance arrangements of developed economies. When these methodologies are applied to emerging market firms, they encounter a different evidentiary environment. Disclosure is structured differently. Governance operates through different mechanisms. Environmental standards and social norms respond to different development contexts. The result is not merely that emerging market firms receive lower scores. The result is that they receive scores that are less meaningful, less comparable, and more divergent across providers than scores assigned to developed market firms.

India is an instructive case. It is the world's fifth-largest economy, hosts a sophisticated equity market with over five thousand listed companies, and has made ambitious long-term climate commitments. It is precisely the kind of market where sustainability-oriented capital allocation could have significant real-world impact. Yet India's listed firms are subject to rating frameworks built for a different institutional context, assessed by providers with variable and often thin coverage of Indian issuers, and measured

against peer groups that may not reflect Indian market realities. The comparability problem in India is not merely an academic concern. It shapes the flow of hundreds of billions of dollars of institutional capital.

This paper proceeds as follows. Section 2 analyses the three structural sources of rating divergence identified in the empirical literature. Section 3 examines why these sources are systematically amplified in emerging markets. Section 4 uses India as an empirical case to ground the argument in a specific institutional context. Section 5 analyses the investment consequences of divergence. Section 6 proposes a framework of regulatory and methodological responses. Section 7 concludes.

2. The Architecture of Divergence

2.1 Scope: What Counts as a Sustainability Issue?

The first and most consequential source of divergence is scope: raters do not agree on which issues are relevant to a firm's sustainability performance. Some providers incorporate a narrow set of environmental metrics. Others incorporate broad social assessments, governance indicators, and product-level evaluations. A firm in the energy sector may be assessed on its direct operational emissions by one rater and on the full lifecycle emissions of its products by another. A firm in financial services may be assessed on its own operational footprint by one rater and on the sustainability characteristics of its lending portfolio by another.

Berg, Koelbel, and Rigobon (2022) decompose the sources of divergence into three components and find that scope disagreement is the most important contributor, accounting for the largest share of total divergence. Raters are not measuring the same thing. Their disagreements therefore do not reflect measurement error in the conventional sense. They reflect genuine differences in the conceptualisation of sustainability itself.

This matters for the emerging market context in a specific way. The issues that OECD-designed frameworks identify as sustainability-relevant may not be the issues most material to the sustainability performance of an emerging market firm. A rating framework that weights heavily on the disclosure of Scope 3 emissions may penalise a firm that operates in an economy where supply chain emissions data is structurally unavailable, even if that firm has made material investments in operational decarbonisation. The scope choices embedded in a rating framework reflect the institutional context in which that framework was designed.

2.2 Measurement: How Is Performance Quantified?

The second source of divergence is measurement: even when raters agree that a particular issue is relevant, they measure it differently. Labour practices may be assessed through disclosed injury rates by one provider and through independent certifications by another. Governance quality may be assessed through board composition metrics by one provider and through shareholder rights instruments by another. Water management may be assessed through absolute consumption by one provider and through consumption intensity per unit of revenue by another.

Measurement divergence arises partly from the opacity of underlying methodologies. Most major sustainability rating providers do not publish their full weighting schemes, data transformation algorithms, or controversy adjustment procedures. Investors cannot therefore determine which measurement choices are responsible for a given score, or whether those choices are appropriate for the firm's industry and operating context. Kotsantonis and Serafeim (2019) identify this opacity as a fundamental obstacle to the effective use of sustainability data, noting that without transparency on measurement choices, users cannot distinguish between genuine sustainability differences and methodological artefacts.

For emerging market firms, measurement divergence is compounded by data availability. Where OECD firms have extensive disclosed data across standardised indicators, emerging market firms may have partial disclosure, non-standardised reporting, or disclosure structured around different national frameworks. Raters who fill data gaps using modelled estimates will apply different models, generating different estimates, and therefore different scores, from the same underlying empirical reality.

2.3 Weighting: Which Issues Matter Most?

The third source of divergence is weighting: raters assign different relative importance to different issues. An environmental-heavy weighting scheme will produce systematically different results from a governance-heavy one, even if both scope and measurement are identical. A firm with strong environmental credentials but weak board governance will be rated very differently depending on which characteristics the rater emphasises.

The weighting choices embedded in sustainability ratings are normative. They represent judgements about which sustainability dimensions are most important, most financially material, or most consequential for long-term value creation. These judgements are not neutral. They are, in significant part, reflections of the priorities of the investor communities and regulatory environments in which rating agencies have historically operated. Rating agencies built primarily for the European institutional investor market may embed weighting schemes that reflect European regulatory priorities, which may differ systematically from the priorities most relevant to an Asian or African emerging market context.

Table 1: Primary Sources of Sustainability Rating Divergence

Source of Divergence	Mechanism	Emerging Market Amplifier
Scope	Raters define sustainability-relevant issues differently	OECD-calibrated issue sets may exclude issues most material in emerging market contexts
Measurement	Raters quantify the same issue using different data and methods	Structural disclosure gaps create larger modelling-dependent divergence in emerging markets
Weighting	Raters assign different relative importance to different issues	Weights reflect the priorities of developed-market regulatory and investor communities
Coverage depth	Raters have different analyst capacity by geography	Thinner emerging market coverage amplifies all three primary sources

Source: Adapted from Berg, Koelbel, and Rigobon (2022), with extensions by the author.

3. The Emerging Market Discount: Why Standard Frameworks Fail

3.1 The Design Context Problem

The dominant sustainability rating methodologies were developed by organisations based in North America and Europe, serving institutional investor communities whose primary reference markets are the United States and Western Europe. This is not an incidental biographical fact. It has structural implications for the validity of applying those methodologies to firms operating in materially different institutional environments.

Rating methodologies encode assumptions about the regulatory baseline, the disclosure infrastructure, and the governance architecture of a normal firm in a normal market. When those assumptions are violated, as they structurally are in most emerging economies, the rating does not simply become less precise. It becomes less conceptually valid. A governance score that is calibrated against the UK Corporate Governance Code or the Delaware General Corporation Law is not a straightforwardly transportable instrument for evaluating the governance of a firm operating under the Companies Act 2013 and the SEBI Listing Obligations and Disclosure Requirements.

This is the design context problem. It is not, at its root, a data quality problem. Even if an Indian firm disclosed every indicator requested by a major rating provider, the weighting and measurement framework applied to those indicators would still reflect a conceptual architecture built for a different institutional environment.

3.2 The Disclosure Architecture Mismatch

Mandatory sustainability disclosure in India is structured around the Business Responsibility and Sustainability Reporting framework, introduced by the Securities and Exchange Board of India and made mandatory for the top one thousand listed companies by market capitalisation commencing with financial year 2022-23. The BRSR framework is a material achievement: it establishes a standardised, mandatory, nationally applicable disclosure architecture for a large set of Indian issuers. It is, however, structured differently from the disclosure frameworks that underpin the data inputs of major sustainability rating providers.

The BRSR follows a nine-principle structure drawn from the National Guidelines for Responsible Business Conduct. Its disclosure requirements reflect Indian policy priorities, Indian regulatory categories, and Indian definitions of relevant sustainability issues. The GRI Standards, the TCFD framework, and the ISSB's IFRS Sustainability Disclosure Standards, which are the reference frameworks for the data inputs of most global rating providers, follow different structures, different materiality definitions, and different indicator sets.

The practical consequence is a translation problem. An Indian firm that has fully complied with BRSR has disclosed a great deal of relevant sustainability information. But that information is not in the format that global rating methodologies are designed to ingest. The rating provider must either remap the BRSR

disclosure to its own indicator set, which introduces methodological choices and potential errors, or treat the absence of GRI-formatted data as a disclosure gap, which may result in lower scores that reflect framework mismatch rather than genuine sustainability underperformance.

3.3 Coverage Depth and Analyst Capacity

The quality of sustainability ratings is a function not only of methodology but of the analytical resources deployed to apply that methodology to a specific firm. Major rating providers allocate analyst capacity according to the size and investor interest of their coverage universe. OECD market firms, particularly large-cap firms in the United States and European Union, receive more intensive direct analysis than firms in emerging markets, where coverage is often thinner and more reliant on modelled estimates and default scores.

The use of default scores, which assign to a firm the average characteristics of its industry sector in the absence of better information, is particularly problematic in the emerging market context. Default scores embed the assumption that an emerging market firm's sustainability profile resembles the average profile of its global sector peers. This assumption is systematically unlikely to hold. The average sustainability profile of a global sector peer group is predominantly a function of its OECD members. Assigning that profile to an emerging market firm is an assumption of similarity that the available evidence does not support.

The consequence is that a material portion of the sustainability ratings assigned to emerging market firms are not ratings of those firms at all. They are ratings of the OECD-dominant sector average, attributed to a firm simply because insufficient direct information is available to do otherwise. This represents a fundamental failure of the ratings' informational purpose.

4. India as Evidence: Structural Features That Amplify Divergence

4.1 The Ownership Structure Problem

Indian listed companies exhibit ownership structures that are materially different from the Anglo-American models against which most governance components of sustainability ratings are calibrated. Promoter-held companies, in which a founding family or a state entity holds a controlling stake, account for a large proportion of firms on the National Stock Exchange and the Bombay Stock Exchange. Government-owned enterprises, classified as Central Public Sector Enterprises, represent significant components of several benchmark indices.

Governance rating methodologies that assign negative scores to concentrated ownership structures, or that evaluate board independence against standards derived from the UK Corporate Governance Code or SEC requirements, will systematically penalise Indian firms for governance arrangements that are legal, common, and not demonstrably associated with worse sustainability outcomes in the Indian institutional context. The governance component of an Indian firm's sustainability score may therefore reflect a structural mismatch between the firm's legitimate governance model and the governance model embedded in the rating methodology, rather than a genuine governance deficiency.

4.2 Sectoral Composition and the Transition Context

India's listed equity market includes significant representation from sectors that are undergoing active sustainability transition: public sector energy companies, industrial conglomerates, and infrastructure operators whose decarbonisation pathways are shaped by India's specific energy security constraints, development priorities, and geopolitical context. Rating methodologies that apply static, sector-level sustainability thresholds to these firms do not capture the transition trajectory. A firm that has reduced its emissions intensity by thirty percent over five years but remains above the threshold of a Paris-aligned benchmark will receive the same rating, or a worse rating, than a firm that has maintained static performance at a level that happens to fall below the threshold.

The transition context is analytically distinct from the static performance context, and the two require different evaluative frameworks. Sustainable finance in a developing economy context is, in significant part, about the direction and rate of transition, not the current position relative to an absolute threshold calibrated for a fully decarbonised future. Rating methodologies that do not incorporate transition trajectory will structurally misassess firms in economies that are making large sustainability investments from a lower development baseline.

4.3 The Data Infrastructure Gap

India's listed companies, even those in the top-one-thousand BRSR cohort, face data infrastructure constraints that are structurally different from their OECD counterparts. Scope 3 emissions data, which requires firm-level supply chain analysis to a degree of granularity that most Indian firms cannot yet generate, is an example. Water consumption data at the facility level, biodiversity impact data, and detailed

social data on supply chain labour conditions are similarly constrained by the limitations of India's statistical infrastructure.

When rating providers encounter these constraints, they have a choice between assigning a lower score on the relevant indicator, assigning a sector-average default score, or treating the absence of data as neutral rather than negative. Different providers make different choices. The consequence, again, is divergence that reflects provider methodology rather than any underlying difference in the firms' sustainability performance. Indian firms are penalised not for what they do, but for what they cannot yet report.

> *A rating gap that is caused by a disclosure framework mismatch is not a sustainability performance gap. It is a measurement artefact. Treating it as the former, and allowing it to drive capital allocation decisions, produces systematic mispricing.*

5. Investment Consequences: Mispricing, Capital Misallocation, and Systemic Risk

5.1 The Active-Passive Dimension

The investment consequences of rating divergence operate differently across active and passive strategies. For active managers, divergence creates a problem of inconsistency: sustainability screens applied to portfolio construction will produce materially different portfolios depending on which rater's data is used. A firm that passes MSCI's screening criteria may fail Sustainalytics' criteria. An investor who believes they are constructing a sustainable portfolio is, in practice, constructing a portfolio that reflects one provider's definition of sustainability, without any assurance that this definition corresponds to any agreed standard of genuine sustainability performance.

For passive managers, particularly those operating indexed products, the consequences are more structural. Index providers who incorporate sustainability criteria into their index construction rules must choose which rating provider's data to use. That choice, typically made on commercial and practical grounds rather than analytical ones, determines the composition of indices that may collectively represent trillions of dollars in assets under management. The capital flows that follow from index membership and exclusion are therefore partially a function of which rating provider's methodology an index provider has chosen to rely upon, a selection that investors in those indexed products have no visibility into.

5.2 The Cost of Capital Distortion

Where sustainability ratings influence the cost of capital for listed firms, rating divergence creates capital cost distortions that have no underlying economic justification. A firm that receives a high rating from one provider and a low rating from another may find its cost of equity influenced by the investor mix its stock happens to attract, which will vary depending on which sustainability screening criteria different institutional investors apply. Two firms with identical sustainability performance may face materially different costs of capital simply because the rating methodology that happens to be most influential in their investor base assigns their sector's characteristics differently.

In emerging markets, this distortion is compounded by the home bias penalty. Emerging market firms already face a structural cost-of-capital premium relative to comparable OECD firms, reflecting political risk, currency risk, and information asymmetries. If sustainability rating divergence systematically produces lower and more variable scores for emerging market firms, independent of their actual sustainability performance, it adds a sustainability premium to the existing cost-of-capital penalties these firms face. Capital from sustainability-constrained institutional investors becomes harder to access not because the firm's sustainability performance is poor, but because the measurement framework applied to the firm is inappropriate.

5.3 Systemic Risk from Correlated Rating Errors

Where multiple rating providers respond to the same data constraints in similar ways, their errors may be correlated rather than independent. If all major providers underweight Indian firms' sustainability performance relative to their true performance because all providers face the same disclosure framework mismatch, the resulting capital misallocation is not diversified away. It is systematic. The aggregate effect is a sustained underinvestment in firms and sectors in emerging economies that may, in terms of actual sustainability outcomes, be executing transitions that merit more capital rather than less.

This systemic dimension elevates the rating divergence problem from an inconvenience for portfolio managers to a structural risk for the broader sustainability transition. The financial plumbing that is supposed to channel capital toward sustainable outcomes is, in the emerging market context, partially misdirected by measurement artefacts. The real-world consequence is not merely a suboptimal portfolio. It is a slower and more costly transition in the economies where the transition matters most.

Table 2: Investment Consequences Across Strategy Types

Strategy Type	Manifestation of Divergence	Emerging Market Amplification
Active long-only	Inconsistent portfolio outcomes across equivalent mandates	Provider coverage gaps create larger active return dispersion
ESG-screened index	Index composition is a function of rater selection, not sustainability performance	Systematic exclusion of emerging market firms via mismatch penalties
Sustainability-linked debt	Coupon step-ups/downs are anchored to contested benchmarks	Benchmark availability and quality lower in emerging markets
Stewardship and engagement	Engagement priorities vary by rater used	Misidentified material issues reduce engagement effectiveness
Regulatory reporting	SFDR, TCFD, BRSR disclosures rely on incomparable underlying data	Regulatory arbitrage opportunities created by reporting divergence

Source: Author's analysis.

6. Toward a Solution: A Framework for Regulatory and Market Responses

6.1 Mandatory Methodology Disclosure

The most direct regulatory intervention is the mandatory disclosure of the full methodological specifications of sustainability rating products. This should include, at minimum, the list of issues included in scope, the data sources and transformation rules applied to each issue, the weighting scheme, the procedure for handling missing data including the construction and application of default scores, and the criteria for controversy adjustments. This level of disclosure exists for credit rating agencies operating under the European Credit Rating Agency Regulation and analogous frameworks in other jurisdictions. There is no principled basis for a lower standard for sustainability rating providers whose products are used for comparable purposes.

Mandatory methodology disclosure would not eliminate divergence, which reflects genuine conceptual disagreements about the definition of sustainability. But it would allow investors to understand the sources of divergence, to assess the appropriateness of particular rating products for their investment purposes, and to make informed judgements about which methodological choices are appropriate for a given firm's institutional context. It would transform an opaque commercial product into a legible analytical instrument.

6.2 Comparability Audits and Regulatory Oversight

Securities regulators in major emerging market jurisdictions, including SEBI in India, should consider establishing a formal oversight framework for sustainability rating providers operating in their markets. This framework should include a requirement that providers whose products are used in regulated contexts, such as the composition of regulated sustainability indices or the disclosure obligations of registered investment funds, demonstrate that their methodologies are applicable to the specific institutional context of the relevant market.

A comparability audit framework would require rating providers to publish, for each significant market they cover, a reconciliation of their methodology against the disclosure framework and institutional context of that market. Where the audit identifies material structural mismatches, such as the application of an OECD-calibrated governance framework to a market with different legitimate governance norms, the provider would be required to disclose this explicitly and to explain how the mismatch is handled in the rating.

6.3 Market-Specific Benchmarking Frameworks

The construction of market-specific sustainability benchmarks, calibrated to the institutional, regulatory, and development context of specific emerging markets, represents the most substantive long-term solution to the design context problem. India's BRSR framework provides a foundation. The issuance by SEBI of guidance on how BRSR disclosures should be interpreted and used by sustainability rating

providers would reduce the translation problem described in Section 3.2. The development of India-specific sector benchmarks, reflecting the transition trajectories and baseline conditions of Indian sectors rather than global sector averages dominated by OECD firms, would reduce the default score problem described in Section 3.3.

This is not a proposal for the isolation of Indian firms from global sustainability standards. The goal is integration on terms that are analytically appropriate. A globally comparable sustainability assessment of an Indian firm should reflect the firm's performance within its actual institutional context, not its performance relative to a benchmark calibrated for a different context. Accurate comparison requires methodological appropriateness, not methodological uniformity.

6.4 Investor-Side Obligations

The demand side of the rating market has its own responsibilities. Institutional investors who use sustainability ratings in investment processes governed by disclosed sustainability mandates should be required to disclose which rating providers' data they use, how they handle divergence across providers, and whether they apply any adjustments for the institutional context of specific markets. Where sustainability ratings influence capital allocation at scale, the methodological choices embedded in those ratings should be visible to end investors and beneficiaries.

The consolidation wave in the sustainability data industry, which has seen major financial information providers acquire specialist sustainability rating companies, has increased the influence of a small number of methodologies without a corresponding increase in transparency. Regulatory scrutiny of the competitive dynamics of this market, including the conflicts of interest that arise when rating providers also sell advisory services to rated firms, is warranted and overdue.

7. Conclusion

The comparability problem in sustainability ratings is not a problem that will resolve itself through market development. It reflects genuine conceptual disagreements about the meaning of sustainability, structural misalignments between rating methodologies and the institutional contexts of emerging economies, and the commercial incentives of private rating providers who have limited accountability for the consequences of methodological choices that affect the direction of global capital flows.

The consequences are most acute in emerging markets. Firms in economies like India, where the sustainability transition is most consequential and where the capital requirements are most significant, are systematically evaluated through frameworks that were not designed for their context, by providers with insufficient analytical capacity to apply those frameworks with precision, and against benchmarks that embed the characteristics of a different institutional reality. The result is a comparability discount that imposes real costs on real economies.

The policy response requires action on multiple fronts: mandatory methodology transparency, regulatory oversight of sustainability rating providers operating in emerging markets, the construction of market-appropriate benchmarking frameworks, and investor-side disclosure obligations. None of these is individually sufficient. Together, they represent the minimum conditions for a rating infrastructure that serves the purposes for which it is commercially deployed.

The alternative, continuing to allow trillions of dollars of capital allocation to be influenced by contested, opaque, and contextually inappropriate methodologies, is not sustainable in the literal sense of the word. It is a structural failure of the financial system's capacity to direct resources toward the outcomes that the system's own stated priorities demand.

> *Sustainable finance cannot be built on numbers that mean different things to different people. The comparability problem is not a technical inconvenience. It is a foundational integrity question.*

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