ARTICLE

# Do Investors Now Understand Emerging Markets Better? Evidence from Different Measures of Credit Risk

### Colin Ellis

*Department of Economics, London South Bank University, SE1 0AA London, United Kingdom*

## ABSTRACT

Investors' understanding of Emerging Markets (EMs) is central to debates about global capital allocation, risk pricing, and financial stability. In particular, the ability of investors to interpret and respond to evolving credit signals has become increasingly important in a world of heightened volatility and rapid information flow. In more recent years, the proliferation of market-based indicators—particularly Market-Implied Ratings (MIRs)—has offered new tools for assessing sovereign credit risk, supplementing or challenging traditional agency ratings from the likes of S&P, Fitch and Moody's. This paper examines the relationship between MIRs and agency ratings across twelve EM sovereigns, analysing how rating gaps evolved before, during, and after recent global shocks. By comparing these dynamics over a twenty-year horizon, the paper provides a longitudinal perspective on investor behaviour. It documents that while MIRs can often diverge significantly from agency ratings—reflecting market skepticism or exuberance—these gaps have narrowed in the post-pandemic period. Such convergence suggests a maturing of investor perspectives and a deeper integration of EMs into global financial frameworks. More importantly, the volatility of gaps between MIRs and ratings has changed significantly for EMs, moving towards that seen for major advanced economies. These findings suggest that although investors' grasp of EM fundamentals has improved, market pricing continues to reflect both structural information asymmetries and episodic sentiment-driven deviations.

*Keywords:* Emerging Markets; Financial Signals; Credit Ratings; Time Variation

*CORRESPONDING AUTHOR:

Colin Ellis, Department of Economics, London South Bank University, SE1 0AA London, United Kingdom; Email: ellisc10@lsbu.ac.uk

# 1. Introduction

Emerging Markets (EMs) have long presented both opportunities and challenges for global investors. The promise of higher returns than can be found in advanced markets is offset by greater volatility, political risk, and the perennial concern that market participants may not fully comprehend the complexities of EM economies. Historically, this perceived information gap has contributed to episodes of "sudden stops"[1], potential contagion, and mispricing, with significant consequences for both issuers and investors. Even a modest increase in policy uncertainty can drive up risk premia, hitting bond prices and currency values.

In the past two decades, the continued globalization of capital markets and the increased offerings of different financial instruments have increased the integration of EMs into global portfolios. At the same time, the information environment has evolved: investors now have access to more real-time data, a wider array of analytical tools, and a more diverse set of market signals. Among these, Market-Implied Ratings (MIRs)—credit signals inferred from market prices, such as sovereign bond yields or credit default swaps (CDS)—have emerged as a potentially powerful complement to traditional agency ratings that provide formal assessments of credit risk.

This paper uses MIRs and agency ratings to address a central question: Do investors now understand Emerging Markets better? Specifically, it examines whether the evolution of MIRs relative to signals from credit rating agency ratings provides evidence of improved investor understanding of EM risk. We focus on the behaviour of MIR-agency rating gaps across twelve EM sovereigns, analysing their magnitude and volatility, and comparing them with G7 benchmarks to control for global market effects. By examining both the level and volatility of MIR-agency gaps, we aim to assess whether investor perceptions have become more stable and better aligned with structural credit fundamentals. This approach allows us to distinguish between temporary sentiment-driven divergences and more persistent shifts in investor understanding.

The remainder of the paper is structured as follows. Section 2 reviews the conceptual framework for interpreting MIRs and agency ratings, and outlines the methodological approach. Section 3 presents the empirical analysis, documenting the evolution of MIR-agency gaps and their determinants. Section 4 discusses the implications of this analysis for investor behavior and EM risk pricing. Finally, Section 5 concludes.

# 2. Conceptual Framework: MIRs, Ratings, and Information Problems in Emerging Markets

## 2.1. Understanding Emerging Markets: Investor Perspectives

Emerging markets (EMs) have long been viewed as fertile ground for investment, offering high growth potential, more favorable demographics, and expanding consumer bases. Yet, they also present unique challenges that differentiate them from advanced economies. Over the past 20 years, investor attitudes toward EMs have changed frequently and significantly, shaped by global economic shifts, technological progress, and geopolitical dynamics.

There are a number of challenges that investors encounter when investing in emerging markets. One of the most cited deterrents for investors is the political instability and regulatory unpredictability in EMs. Unlike advanced economies with well-established legal frameworks, EMs can suffer from opaque governance, sudden policy shifts, and weak enforcement of property rights. These factors increase the cost of due diligence and heighten the risk of capital loss. This can manifest as domestic crises, particularly if capital flight is triggered: Dornbusch[2] offers a conceptual framework for understanding EM financial crises.

Currency fluctuations are another challenge: EMs are thought to be more susceptible to these, driven by external shocks, trade imbalances, and inconsistent monetary policies. This volatility can erode returns and complicate hedging strategies. Limited infrastructure and underdeveloped financial systems in EMs can also hinder efficient capital allocation. Investors often face liquidity constraints, limited exit options, and high transaction costs, especially in smaller frontier markets. Information asymmetry is another concern: investors frequently encounter information gaps due to poor data transparency, limited analyst coverage, and language barriers. This makes it harder to assess company fundamentals and macroeconomic trends.

Finally, large global shocks continue to trigger capital flight to advanced markets such as the US, despite growing

debate over the role of the US dollar in global finance. Over the past 20 years, events such as the Global Financial Crisis (GFC), COVID-19 pandemic, trade tensions between the US and China, and Russia's invasion of Ukraine have triggered market reactions that have disproportionately affected EMs. These shocks can expose structural vulnerabilities, but often trigger capital flight even without such revelations.

Abid[3] shows that investor pricing of EM sovereign risk remains highly sensitive to political shocks, even when macroeconomic fundamentals are stable—reinforcing the idea that sentiment-driven volatility can persist despite structural improvements. And Gamboa-Estrada and Romero[4] provide empirical evidence that geopolitical risk significantly amplifies sovereign risk premia in EMs, particularly through CDS and emerging market bond index (EMBI) spread channels—reinforcing the argument that investor sentiment remains highly reactive to external shocks. These dynamics underscore the persistent information challenges that investors face when assessing EM risk.

There is extensive past research on the impact of capital flows on EMs. Kaminsky and Reinhart[5] famously examine interlinkages between balance of payments and banking crises, which have arisen more frequently in EMs in the past. The pro-cyclical nature of capital inflows to EMs, and the impact of such flows, is described in further detail by Kaminsky et al[6]. Hoggarth et al[7] also examine capital flows, finding that equity flows are more stable than debt flows from banks. Further analysis of capital flows and emerging markets is widely available, for instance from Rothenberg and Warnock[8], Ahmed and Zlate[9], Brooks et al[10], and Waheed[11]. More broadly, the impact of potential policies to address spillover effects on EMs from the US in particular is examined by Coman and Lloyd[12].

At the same time, it is important to note that EMs also offer compelling opportunities for investors. Using a broad definition, EM countries account for over 85% of the global population according to UN data and many are home to rapidly growing middle classes. Rising urbanization and consumer demand create robust markets for goods and services, where investors can make returns. This is clearly evident in economic data: since 2000, EMs have contributed over half of global GDP growth, consistently outpacing developed markets. This is not just a China story: countries like India, Indonesia, and Brazil are already among the largest global economies, and will likely outpace developed markets over the coming decade.

Emerging market securities also offer value for investors. These securities—particularly equities—often trade at significant discounts compared with developed markets. This discount presents an extra margin—it can be viewed either as safety or as upside potential—for long-term investors. Exposure to EM assets can also enhance portfolio diversification, by offering investors access to different growth cycles and sectors. Their lower correlation with developed markets makes them attractive for risk-adjusted returns. This also has benefits for the EMs themselves: Obstfeld and Taylor[13] examine how EMs integrate into global capital flows, and the implications for policy. Khanna et al[14] and Williamson and Zheng[15] discuss these issues and describe strategies for EMs, from a corporate perspective. There is no shortage of advice for investors either: see for example Brunner[16] and more recently Gudmunssen et al[17] and OMFIF[18]. Alfaro and Mendoza[19] presents a recent summary of policy challenges facing EMs. ING[20] highlights how many EMs have adopted inflation targeting, strengthened fiscal frameworks, and developed local currency bond markets—yet investor pricing still reflects episodic skepticism.

Investors must weigh all of these factors, and many others, when making investment decisions and allocating funds to different opportunities. Past research has examined how investors' attitudes shape market participation: see for instance Nadeem et al[21]. Importantly, in this context those decisions will in turn rely on investors' assessments and perception of EMs relative to other opportunities and countries.

Recent academic work has also explored this evolution. Montes & Costa[22] show that fiscal credibility plays a significant role in shaping sovereign risk perceptions in EMs, with stronger fiscal anchors leading to narrower spreads and more stable investor sentiment. These findings are consistent with investor understanding of EM fundamentals improving alongside structural changes, but remain incomplete. The fact that investors' assessments and perceptions can change over time is the central question that this paper examines.

## 2.2. Credit Ratings for Emerging Markets

Credit ratings from agencies such as Moody's, S&P, and Fitch have long served as primary benchmarks for sovereign

creditworthiness. These ratings, based on both quantitative and qualitative assessments, are intended to capture the likelihood of adverse credit events such as default, and are often used as signals about the broader risk environment facing sovereign issuers. In EMs, ratings play a particularly important role: they influence capital flows, determine the inclusion of securities in bond indices, and affect the cost of borrowing. Moody's[23] provides definitions for its different rating symbols and defaults.

Ratings from credit rating agencies (CRAs) are constructed using a combination of macroeconomic indicators (such as GDP growth, fiscal deficits, and external balances), political and institutional assessments, and qualitative judgment by analysts. Although they are widely used, CRA ratings are not without criticism. They are typically updated infrequently, lag market developments, and may reflect institutional inertia or subjective biases in timing and interpretation. In the context of EMs, where political and economic conditions can shift rapidly, these limitations may be especially salient. Moreover, ratings reflect not only economic "fundamentals" but also subjective judgments about factors such as governance, policy credibility, and external vulnerabilities. While there is little formal evidence of bias in sovereign ratings—see for example Ellis[24]—even CRAs themselves emphasize that credit ratings are just another signal about credit risks that should be considered alongside other data.

The importance of agency ratings in EMs can be amplified by their embeddedness in regulatory frameworks and investment mandates. Some institutional investors rely on these ratings to define investment universes and risk limits. Consequently, ratings can exert a self-reinforcing influence on market dynamics, sometimes amplifying volatility during downgrades or upgrades. The 2011 downgrade of US sovereign debt by S&P, for example, had global reverberations; but in EMs, the impact of ratings changes can be even more dramatic due to lower baseline liquidity and greater reliance on external capital.

These dynamics underscore a dual role of credit ratings in EMs: as both informational signals and risk anchors for investors. While they offer a structured benchmark for assessing credit risk, their limitations—especially in fast-moving or politically volatile environments—necessitate complementary tools such as MIRs.

## 2.3. Market-Implied Ratings (MIRs): Theory and Practice

Credit ratings from CRAs tend to change infrequently, and can lag financial and economic developments. But unlike credit ratings, financial market prices adjust constantly—multiple times during a day and thousands of times a year. This responsiveness means that, when a significant event or shock occurs, markets often react more quickly than CRAs do. Investors, therefore, tend to rely on these price movements as real-time indicators of credit risk: financial markets are the "jump variable" of the global economy. These signals can come from various sources, including equity prices, bond yields, and CDS.

As a result, there are often discrepancies between what the market suggests and what traditional ratings from CRAs imply. Understanding how these two measures differ—and how they change over time—is central to our analysis. But to make such comparisons meaningful, we first need a common scale.

This is challenging because rating scales are typically ordinal and non-linear. In other words, a bond price movement of a certain size might suggest a big change in rating at one level, but barely any change at another. To address this, we must convert market signals into something that looks like a rating: these are known as market-implied ratings or MIRs—credit signals from financial markets that are mapped onto a rating scale. Importantly, MIRs are not official ratings published by CRAs: instead, they take financial market information and translate it into a format that looks like CRA ratings.

There are three common types of MIR. A first approach comes from CDS markets. CDS contracts, particularly those with (five-year) maturities that are frequently traded, are often assumed to reflect pure credit risk. To create MIRs from CDS data, less-standard contracts are typically filtered out, and median credit spreads are established for broad rating categories. That in turn allows a mapping to a rating scale.

A second approach uses equity markets. Here, we calculate an expected default frequency based on the firm's market capitalization (share price) and its capital structure. This method, rooted in contingent claims theory and ultimately the Merton[25] credit risk model, is designed to isolate the credit risk component from share prices. These signals can again be aligned with rating categories, producing equity-based

signals of default risk.

A third type of MIR, and the one we will focus on in this paper, is derived from bond prices. Sovereign bonds are one of the most regularly traded securities within any economy, and yields are often used as benchmarks by investors and policymakers alike (**Figure 1**).
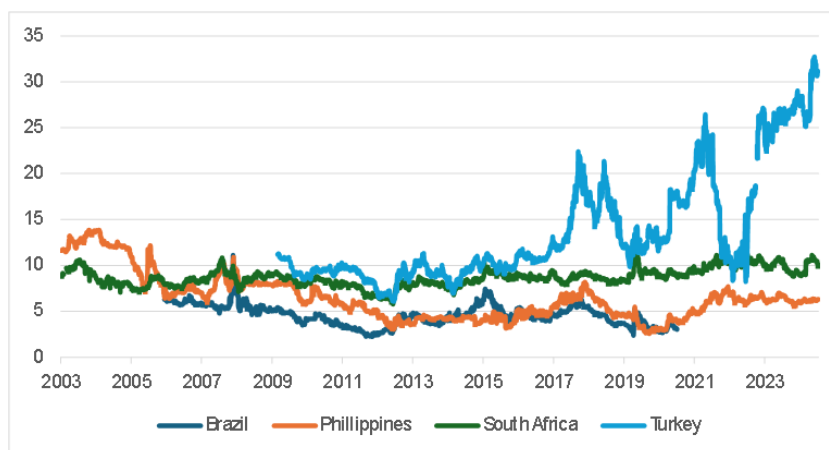


**Figure 1.** Examples of ten-year bond yields for selected EM countries (%).

Bond markets reflect many risk factors beyond credit, so this process is a bit more involved than for CDS prices. The starting point is similar, as bonds with complex features—like variable coupons or convertibility—are excluded in order to focus on so-called "vanilla" bonds. From these bonds, a composite credit spread can be estimated for individual issuers, adjusting for options when needed. In turn, that can be used to estimate an implicit rating gap for each instrument issued by a single entity. These spreads are then averaged, giving larger issues more weight, and this average gap is used, relative to an issuer's existing rating, to inform the issuer-level MIR. More details on this approach can be found in Moody's[26].

The main appeal of MIRs lies in their immediacy and sensitivity to new information. Unlike CRA ratings, which may be revised only after lengthy deliberation, MIRs can adjust in real time to changing market perceptions, news events, or shifts in global risk appetite. As such, MIRs are often viewed as a "wisdom of crowds" indicator, aggregating the views of diverse market participants: they are a signal about investors' views.

At the same time, these metrics depend on having sufficient market data: gaps in data on bond prices and yields will lead to time series discontinuities. This is why we focus on bond-implied MIRs in this piece, as they are the most reliable in terms of data availability for this study. However, signals can still be distorted by technical market factors

(e.g., liquidity, supply/demand imbalances, forced selling, index re-balancing), global risk-on/risk-off dynamics, or transient sentiment swings. Moreover, mapping market prices to rating categories involves methodological choices and assumptions that can, in principle, influence the results.

This is an important point to note: in transforming market prices into MIRs, we are creating discrete integers ranging from 1 (equivalent to Aaa) to 21 (C). This transformation will, by construction, limit the volatility of the resulting data; MIRs will be less volatile, in absolute terms, than market prices. This is consistent with rating notches being "wide": based on Moody's idealized loss tables[27], a one-notch downgrade corresponds to roughly a 50% to 60% increase in credit risk over the medium term. Importantly for this analysis, we are comparing like-with-like when we compare MIRs with credit ratings. This discretization is important for interpreting MIR-agency gaps, as it affects both the magnitude and persistence of observed differences. This also reinforces the need to interpret MIRs not as raw market prices, but as structured signals that embed both investor sentiment and methodological constraints.

## 2.4. The MIR-Agency Gap: Interpreting Divergences

The central question of this piece is to assess whether investors' perceptions of EMs have changed over the past

two decades. Despite limitations to both credit ratings from CRAs and MIRs, the gap between the two provides a useful lens for assessing investor views. This is something that has been examined in previous research, notably by Amstad & Packer[28]. Separately, IMF[29] examines the evolution of domestic debt markets in EMs against the backdrop of vulnerabilities to global shocks, and the way some markets have built structural resilience. This highlights the advantages of looking at the MIR gap: it offers a control for such structural changes within individual economies and markets, which we would expect to see over long periods of time.

This point deserves greater discussion. Economic policies, and their impact, can be thought of in simple terms as either temporary or permanent. Temporary changes in economic condition—whether very short-term, or more cyclical in nature—should show up in financial market prices and hence in MIRs. But their impact should ultimately be transient, if the changes are genuinely temporary.

However, structural changes to economies—for instance, significant economic development, or sustained increases in market liquidity—should also show up in financial market prices, but have a permanent impact. Ratings from CRAs offer a means of controlling for this: because, in principle, CRAs should 'look through' temporary volatility and focus on credit fundamentals. This means that we should expect to see the impact of structural changes in ratings over longer periods; but not the impact of temporary developments. As such, CRA ratings offer a benchmark against which to compare MIRs, which will react to both temporary and permanent changes in economic and financial conditions. Such an approach relies on ratings genuinely reflecting structural conditions, not temporary changes; and it is important to note that other factors, such as idiosyncratic market frictions, could also persist.

If we are willing to accept that there may have been structural changes in EM economies in recent decades—such as the adoption of inflation targeting, improvements in fiscal frameworks, and the development of local currency bond markets—then we need to acknowledge that some form of benchmark is needed when considering the impact of these changes, rather than just looking at raw market data. Markets can learn and adjust, of course; but as noted by Grossman and Stiglitz[30], markets are never perfectly efficient, as information is costly to acquire and process.

Past work—notably Ellis et al[31]—has examined how gaps between CRA ratings and MIRs have evolved. But the use of MIR-rating gaps as a test of evolving investor appetite across countries is the novel approach taken in this paper. The gap between a country's MIR and its CRA rating provides a useful lens for assessing investor understanding. A persistent positive gap (MIR above agency rating) may indicate market optimism or underestimation of risk; a negative gap may signal market skepticism or heightened concern about unrecognized vulnerabilities. The dynamics of this gap—its size, persistence, response to shocks and, importantly, volatility over time—offer insights into whether investors are converging towards a more accurate and nuanced understanding of EM risk.

Given the potential for movements in financial markets that are global in nature, it is also worth having a 'control' group that we can compare EMs to. For the purposes of this analysis, we will focus on the Group of 7 (G7) countries. Originating from an informal meeting of finance ministers in 1973, the G7 are advanced economies with some of the deepest and most liquid bond markets in the world. As such, they offer a good benchmark against which to gauge EMs. If there is global volatility in markets and MIRs, that should be observable in both EM and G7 metrics, allowing us to distinguish EM-specific dynamics from broader market effects.

## 3. Empirical Analysis: MIRs and CRA Ratings across Major EMs and AEs

### 3.1. Data, Coverage and Illustrations

In order to examine how market and CRA views have changed, and relative to one another, we first need to gather data across a range of economies for comparison.

This analysis focuses on MIRs generated from bond prices, published by Moody's. The data are on a daily (business day) basis, covering a range of major emerging markets over the period 2004 to the end of 2024. The sample of countries was chosen on the basis of data availability, with the aim of limiting data gaps. The MIRs we use here are based on observable bond prices; so that requires at least some degree of consistency in the availability of market prices for sovereign bonds over time, at similar durations. Unfortunately, many smaller economies do not have well-developed bond markets, with sufficient liquidity and maturities to generate consistent

time series for market prices. Trying to construct MIRs for these economies is fraught with difficulties and ultimately would still result in many large data gaps. Regrettably, this necessarily meant that many smaller EMs—including those countries sometimes referred to as 'frontier markets'—were excluded from the sample. As an illustration, it is noteworthy that consistent time series data were not available even for larger EMs such as Argentina. The final sample of EMs is constrained by these data availability concerns; but it includes a diverse set of EMs with meaningful variation in credit signals over two decades.

Happily, there were other countries where data are available that have experienced significant changes in policy and financial developments over the past 20 years. For instance, over the past 20 years Türkiye has seen significant improvement and deterioration in its MIR metrics (**Figure 2**); note the vertical axis runs from 1 (Aaa) to 21 (C). The steady improvement in the MIR until 2009/10 reflects the market-friendly reforms adopted by the authorities at that time. But from 2016 onwards, there is more volatility in the MIR at the same time as it deteriorated, reflecting investor concerns about monetary policy independence, inflation, and external financing risks, alongside episodes of unorthodox policy. More recently, the MIR has improved, but remains above its 2009 level.
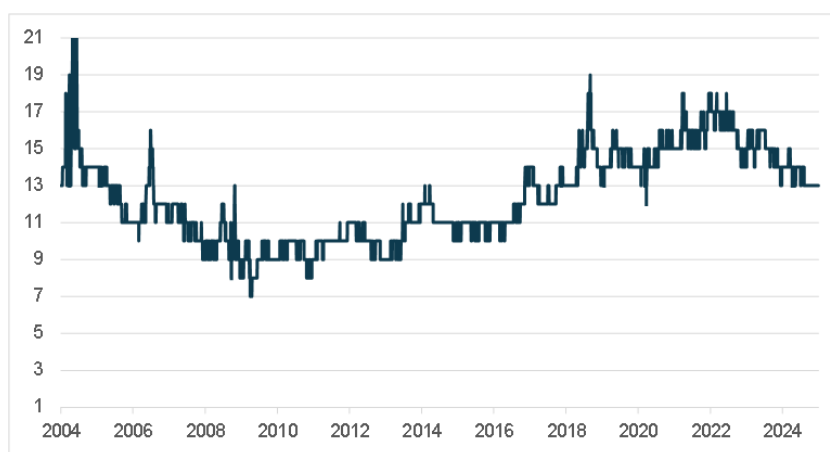


**Figure 2.** The MIR for Türkiye.

South Africa offers a contrasting example. Apart from some volatility early in the sample and during the GFC, the MIR has been less volatile over the past 20 years (**Figure 3**). At the same time, it has gradually deteriorated between 2010 and 2024, consistent with a gradual reduction in credit quality. The lower volatility likely reflects the higher strength of institutions, such as the strength of central bank independence. There are still pockets of volatility around events such as the 2017 cabinet reshuffle and the 2020 pandemic shock, but they are relatively contained.
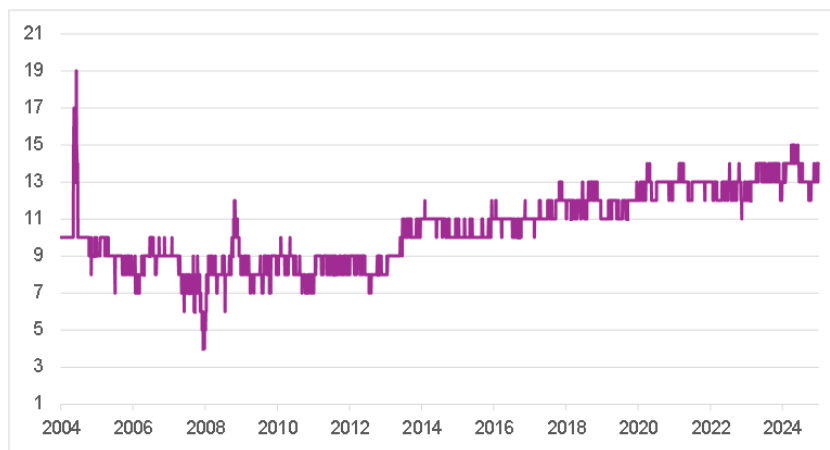


**Figure 3.** The MIR for South Africa.

However, in order to make general statements about EMs it is important to combine observations across markets, to develop cross-country inferences. The full sample of EM economies used in this analysis comprised major countries from three broad regions of the world. From Latin America (Latam) the sample includes Brazil, Colombia, Mexico & Peru; in Europe, the Middle East and Africa (EMEA) the sample included Hungary, Poland, Romania, South Africa and Türkiye; and from the Asia-Pacific (APAC) region the three EMs included were China, Indonesia and the Philippines. These countries were selected based on data availability, continuity and relevance to global EM benchmarks, while also being consistent with Moody's coverage and investor focus. The MIRs for these countries are shown in **Figures 4–6**.

Alongside these major EMs, we also included the G7 advanced economies (AEs). The logic here is simple but compelling: if we want to establish whether investors' views of EMs have changed over time, we also need something to compare individual country data to, in case investors' views have actually changed globally, and we are simply misinterpreting the data.

For example, if there has been a structural increase in global investor risk appetite over the past 20 years, then that should be visible—abstracting from cyclical and other temporary changes—in the prices of all global assets. It may be less visible in global benchmarks such as US and German government bonds; but it should still be present.
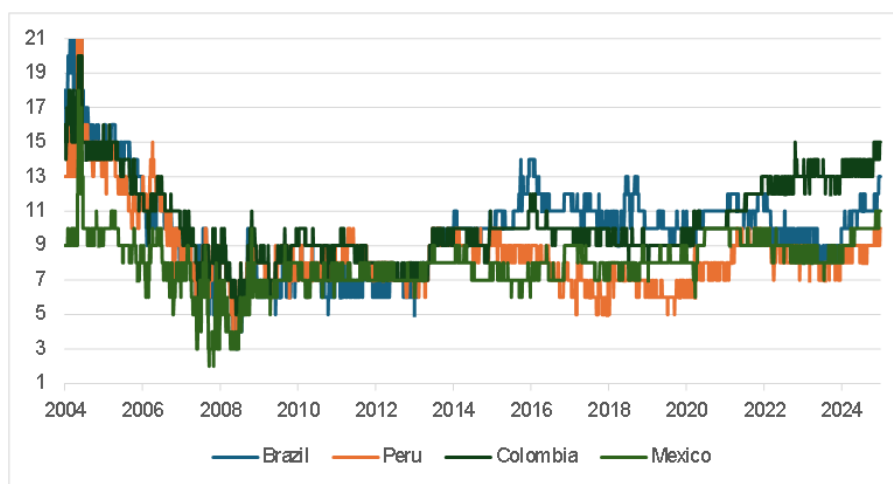


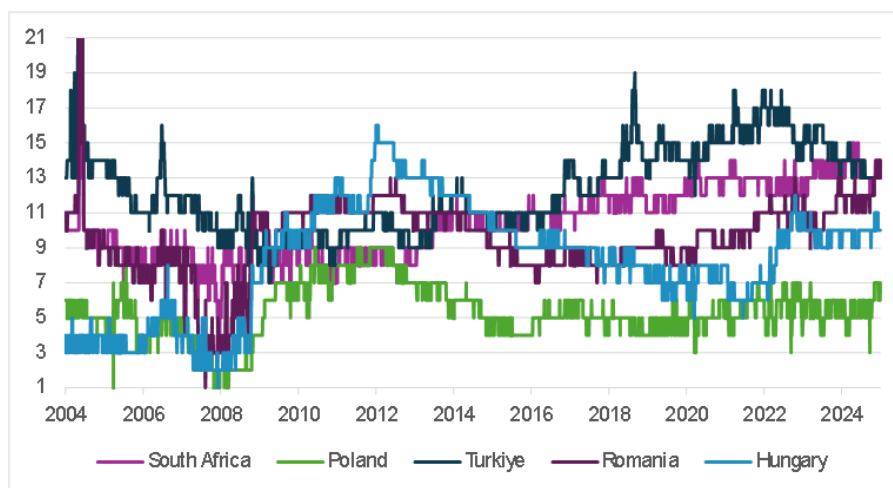**Figure 4.** The MIRs for Latam EMs in the sample.



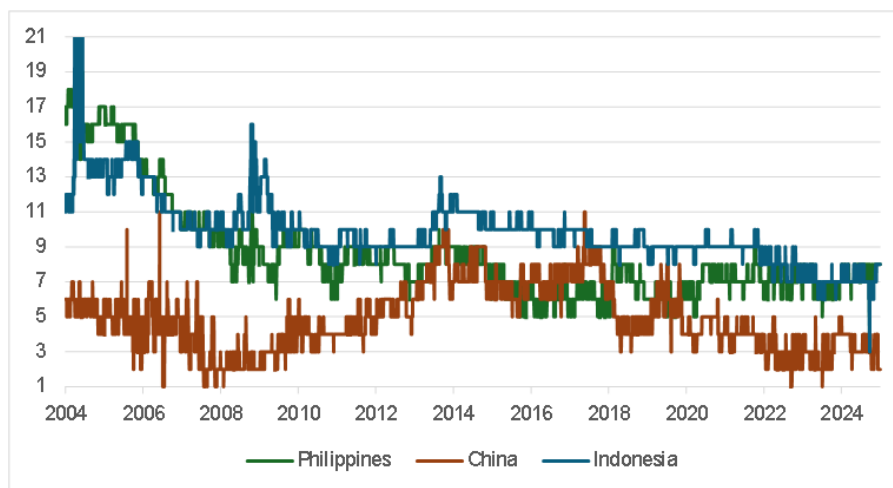**Figure 5.** The MIRs for EMEA EMs in the sample.

**Figure 6.** The MIRs for EMs in APAC in the sample.

So this final group of MIRs focused on G7 industrialised economies, for the purposes of comparison with EM countries. The group comprises the United States, Japan, Germany, France, the United Kingdom, Italy and Canada. While this group can act as a 'control' check—we can compare developments in MIRs across EMs to similar metrics for the G7—it is itself not without significant changes over the past 20 years. For instance, in 2004 Moody's rated five of the G7 countries as Aaa, the highest rating on its scale:

and the lowest rated as Italy at Aa2, still the third highest rating on Moody's scale. By 2024, Italy's rating had fallen to Baa3—below China, Poland and Hungary—and only three G7 countries still had an Aaa rating. (The US will lose its Aaa rating in May 2025, outside the analytical sample.) This comparison group allows us to distinguish EM-specific dynamics from broader shifts in global investor behaviour.

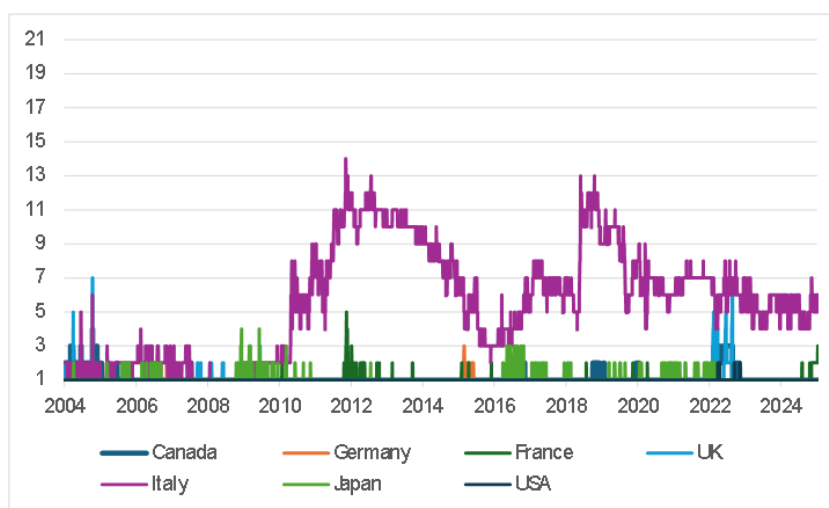The MIRs for the G7 economies are shown in **Figure 7**.



**Figure 7.** The MIRs for G7 countries.

## 3.2. Measuring MIR-Rating Gaps

Having sourced MIR data, together with sovereign ratings also from Moody's, we can calculate the 'gaps' between these two signals of credit risk. These gaps are the differences

between investors' views and CRA assessments, and their evolution provides a guide to how the former have shifted, relative to the benchmark provided by the latter.

One immediate need was to 'clean up' some of the MIR data. Regrettably, due to market closures and other issues,

there were intermittent gaps in the MIR data coverage, even for the larger and more widely traded and covered EMs in our sample. Happily, these gaps were short—normally just a day or two—and concentrated towards the start of the sample. In these instances, we simply examined whether the MIR had changed when the data resumed. In the vast majority of instances, they had not; so we filled in the blanks with the same MIR value. On occasion, there were changes, and analytical judgment was required. For simplicity, in the absence of significant news during the interregnum, changes were assumed to have occurred when the data resumed. Happily, varying this assumption—for example smoothing changes through the longer data gaps—had no impact on the broad results from this analysis presented below.

Once we have a continuous time series for MIRs—sovereign ratings are continuous by construction, at least for the countries in our sample—we can calculate the gaps between them. Given the mapping from the rating scale to integers (with Aaa taking the value of 1, and C taking 21), the gaps were calculated as the Moody's integer minus the MIR integer. As such, a negative gap indicates the market having a more pessimistic view than CRAs. This transformation aligns with the discretization discussed in Section 2.3, and ensures comparability across countries and time.

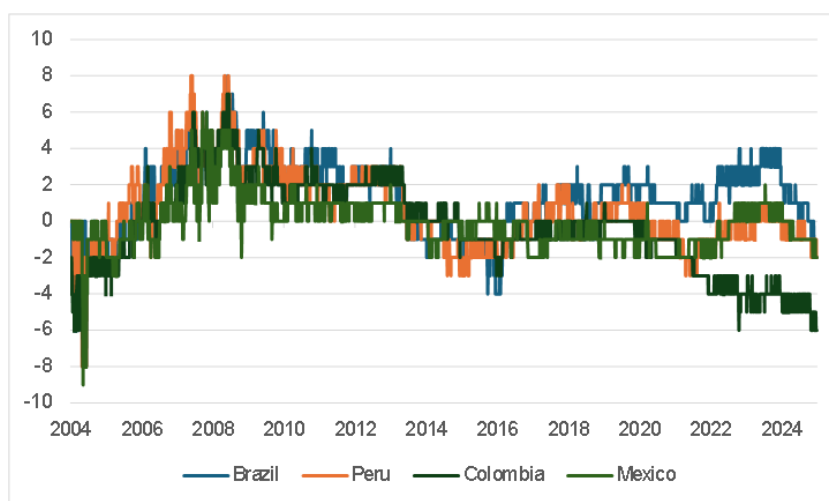The MIR gaps across different regions are shown in **Figures 8**–**10**.



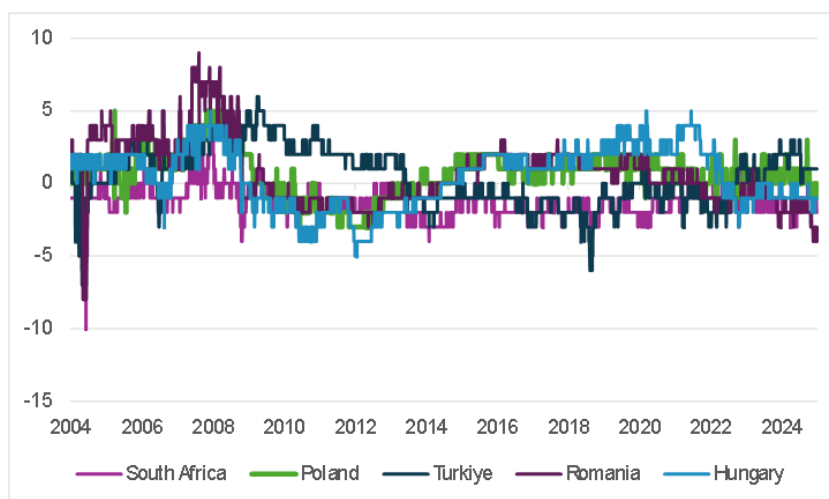**Figure 8.** MIR gaps for EM countries in Latam.



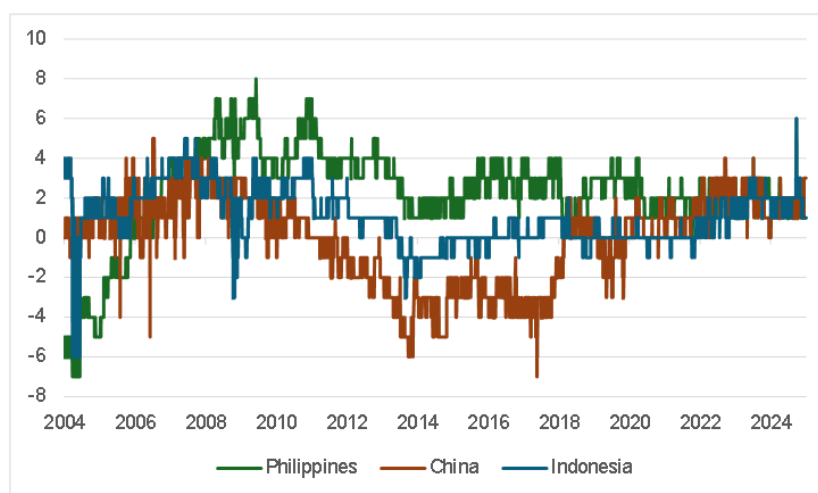**Figure 9.** MIR gaps for EM countries in EMEA.

**Figure 10.** MIR gaps for EM countries in APAC.

It is immediately apparent from the graphs that MIR gaps are, by their very nature, volatile and yet at times persistent. It is striking that the same measures are typically less pronounced for G7 countries (**Figure 11**). Italy is the obvious exception here, which makes it a useful comparator for individual EM countries.
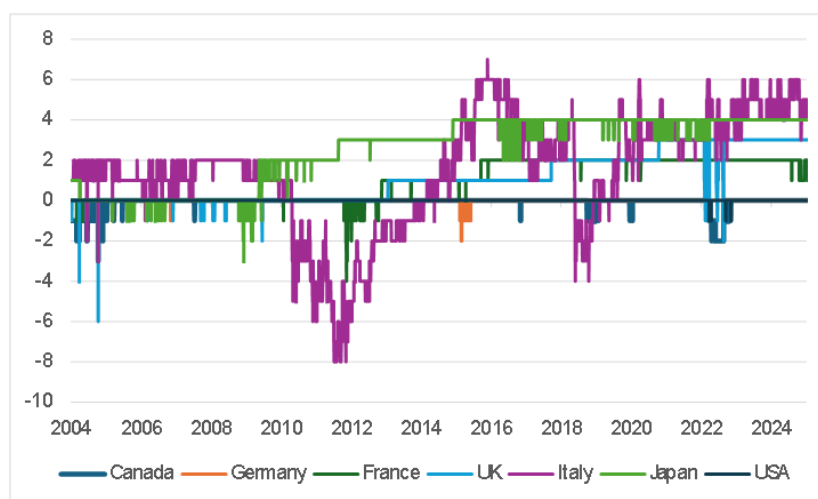


**Figure 11.** MIR gaps for G7 countries.

## 3.3. Analysing Investor Perceptions: Average MIR Gaps

Having gathered the data, we can now examine it to establish trends and differences. First, it is striking that, across the entire data sample, there is no relationship between the *average* gap between MIRs and ratings, and the *volatility* of that gap (**Figure 12**). If EMs are inherently more uncertain than AEs, then we might expect that to be reflected in greater volatility of the MIR gap, as investor perceptions may reflect that uncertainty; but also potentially in a form of 'risk premium' that pushes yields up (and hence MIRs down), other things being equal. But such a risk premium is not evident in the data: that is consistent with average risk premia reflecting underlying credit risk more than other factors.

It is also striking that the relative volatility of the market, compared with credit ratings, is also evident in the data. Grouping EMs in the regional groups, the pro-cyclicality of financial markets is apparent when we split the data sample into different periods. To start with, the sample was split into five separate groups: pre-GFC (2004–2007); the GFC itself (2008–2010); immediately post-GFC (2011–2015); the period of relatively calm pre-COVID (2016–2019); and the COVID period and its aftermath (2020–2024).
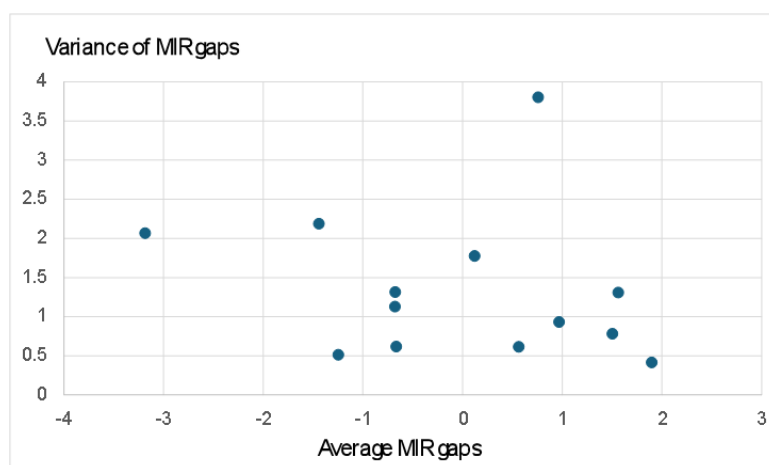
**Figure 12.** Average MIR gaps and variance of those gaps for EMs over the sample.

The average MIR gap is clearly not stable over time (**Figure 13**). Over the whole sample, average gaps are very small, consistent with the lack of relationship between mean and variance shown above. Prior to the GFC, there was a positive gap of around a notch, indicating that investors were more nervous about EMs than CRAs. During the GFC, the MIR gap is also positive, widening for Latam and APAC, but narrowing for EMEA. While the pattern differed across regions, in the 2011–2015 period financial markets had regained significant optimism and were more bullish on EMs than the rating agencies. Since 2016, the gaps have again been typically small, but continue to exhibit volatility.
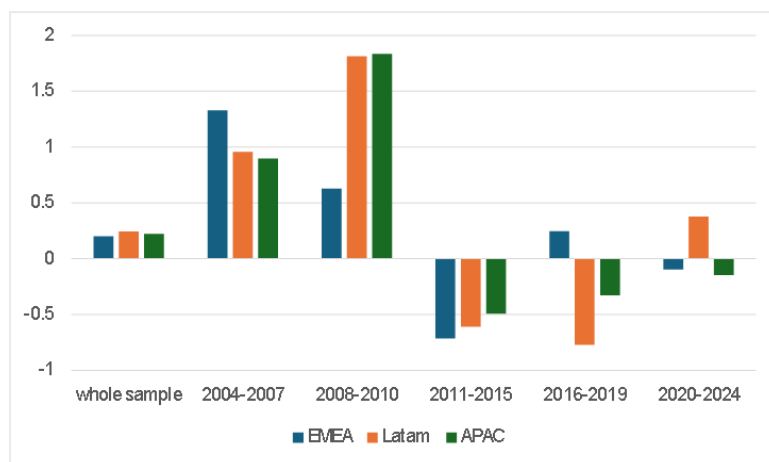


**Figure 13.** Average MIR gaps by region and sample.

This last observation is a critical one. We might expect average rating gaps to be variable, to the extent that EMs are viewed as a 'risk' asset: as investors' risk appetite or animal spirits wax and wane, that should be reflected in different risk premia. If CRAs manage to look through these temporary changes as they claim to, that should also be reflected in MIR gaps.

In light of this, the volatility of rating gaps—the second moment of the distribution—is likely to be the best indicator of how investors' views are evolving. If investors are becoming more familiar and comfortable with EM investing, then we may still see risk premia shift; but the uncertainty around those premia would be expected to diminish, consistent with greater stability in investor perceptions.

## 3.4. Analysing Investor Perceptions: Variance of MIR Gaps

Against this backdrop, we can conduct a similar analysis for the variance of MIR gaps. Given that volatility metrics

are always positive, the comparison with the G7 'control' group is also important here, as a benchmark to compare EMs against.

Using the same sampling periods as earlier, we can again assess changes over time. The averaged results across countries are very striking (**Figure 14**). Over the whole sample, it is clear that investors' perceptions are more volatile and hence uncertain for EMs compared with G7 economies; but the relative metrics shift significantly. The relative volatilities are very different at the start of the sample, up to and including the GFC. But strikingly the average variance of MIR gaps is almost identical across EMs and the G7 in the period 2011–2015 and 2016–2019.

The pattern is very similar when we split the sample by region (**Figure 15**). Prior to the GFC, there was more volatility in MIR gaps across all EM regions, with G7 countries exhibiting very little volatility. The pattern is similar during the GFC, although G7 volatility increases. Notably, in the post-GFC period the volatility in EM regions is broadly similar to that among G7 economies.
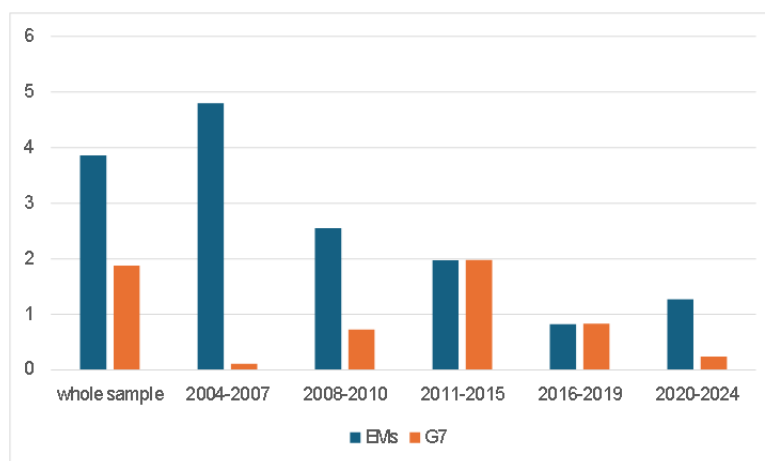


**Figure 14.** Variance of MIR gaps for EMs and G7 over sample periods.
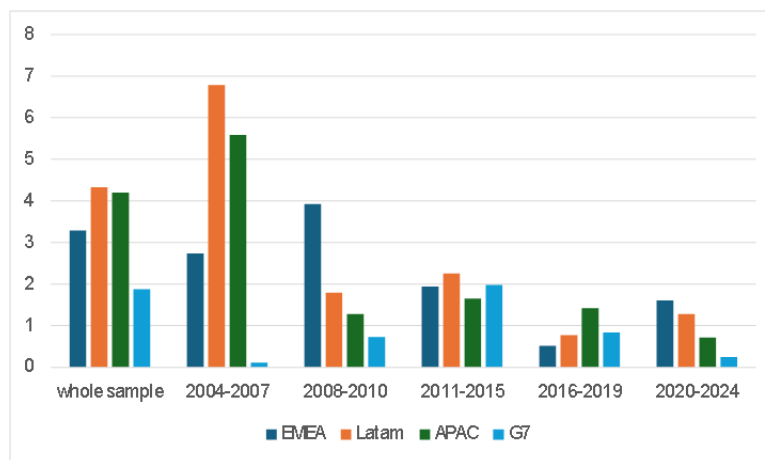


**Figure 15.** Variance of MIR gaps across country groups and time.

This convergence in volatility suggests a structural shift in investor behaviour: EM risk is no longer perceived as inherently more uncertain than AE risk, at least during periods of relative calm. This is worth emphasizing: between 2011 and 2019, investors' views around sovereign risk (relative to structural benchmarks from CRAs) were around the same level as for the G7. Volatility in EMEA and APAC was actually slightly lower than for the G7 between 2011 and 2015; and between 2016 and 2019, volatility was lower for EMEA and Latam than for the G7.

By itself, this suggests a clear shift in investor views of (relative) EM risks. The decline in volatility evident in the data is consistent with investors learning more about EM risk and dynamics over time, and increasingly becoming more familiar and comfortable with those risks. The data are clearly consistent with a narrative of investors being more comfortable in assessing EM risks today than they were pre-GFC.

At the same time, the data also suggest that there has been some deterioration over the past five years, if we interpret it consistently. But the 2020–2024 period is far from typical, with the COVID-19 pandemic in particular driving significant volatility in financial markets and increased risk aversion, certainly at the start of the pandemic.

To engender further insight here, the final period was split into single years to examine relative volatilities (**Figure 16**). It is striking that, across all EM regions and the G7, volatility was most pronounced in 2022, probably reflecting the heterogeneous recoveries from COVID-19 and associated economic effects such as the surge in inflation (and central bank policy responses). But even though the variation in EM gaps was higher than for the G7 in subsequent years, it is worth noting that the gap between EMs and the G7 remains much smaller than it was 15–20 years ago.

Another way of illustrating this is to compare individual EM countries with the G7 country that exhibits the greatest volatility, which is Italy. Across the 2020–2024 period, fully half of the 12 EMs that we examine here have lower volatility in MIR gaps than Italy (**Figure 17**). Of those that have seen higher volatility, we have often observed significant domestic political events over this part of the sample: we would normally expect any higher uncertainty associated with these events to be reflected in greater volatility. These findings align with the earlier discussion cited from recent institutional commentary; in particular that while investor familiarity with EM fundamentals has improved, it remains vulnerable to episodic shocks.
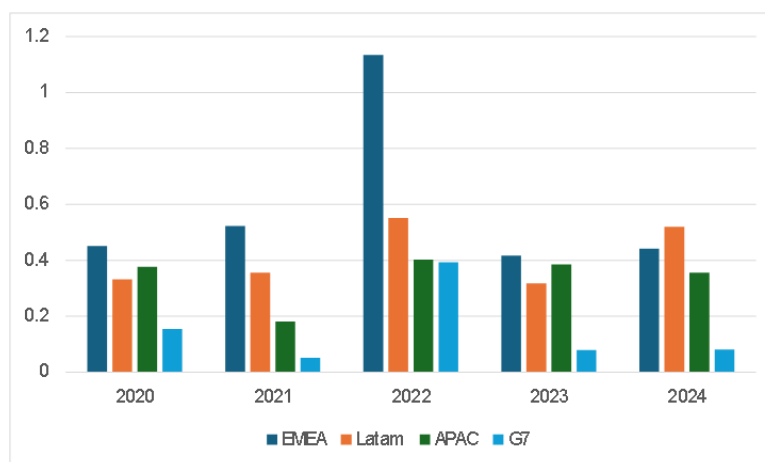


**Figure 16.** Variance of MIR gaps across country groups in recent years.
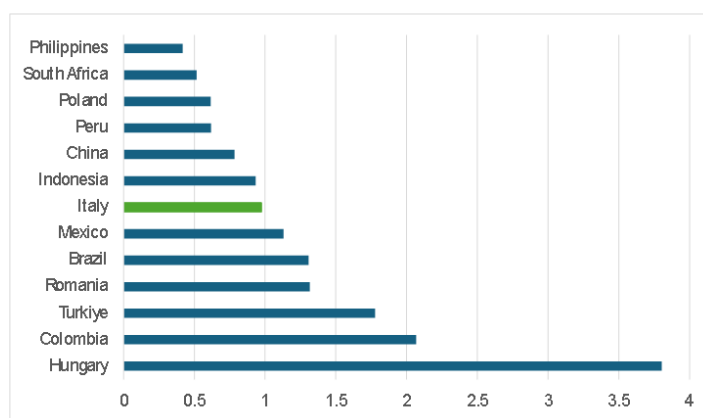


**Figure 17.** Variance of MIR gaps since 2020 for EMs and Italy.

# 4. Discussion: Investor Understanding and the Limits of Market Pricing

The evident decline in the volatility of MIR gaps over the past 20 years—and in particular the convergence towards members of the G7—provides clear support for the hypothesis that investors' understanding and comfort with assessing EM risks has improved. Several factors are likely to have contributed to this development, including:

- Greater data availability and transparency: Higher-frequency macroeconomic data becoming more accessible, improved disclosure standards, and the growth of independent research have reduced information asymmetries, making it easier to form more stable views on EMs.
- Experience with past crises: Investors are likely to have learned from previous episodes of EM volatility, leading to more nuanced assessments of risk and resilience.
- Advances in analytical tools: The use of sophisticated models, alternative data, and real-time indicators has enhanced investors' ability to monitor and evaluate EM fundamentals.
- Market discipline and feedback: The increasing role of and reliance on financial markets (including MIR signals) by issuers, investors, and policymakers has created a stronger feedback loop, with markets offering swift assessments of policy changes, encouraging policymakers and investors (and CRAs) to refine their assessments.

This interpretation is supported by recent commentary cited earlier, which noted that EMs have made substantial progress in institutional reform and macroeconomic management, yet investor pricing still reflects episodic scepticism.

At the same time, the persistence of gaps for certain countries at certain times, notably during periods of stress, indicates that investors can and do still hold different views from CRAs. That is ultimately a sign of health: all markets, including financial ones, depend on agents holding different views for transactions to occur.

This analysis also suggests that, for all their limitations, CRA credit ratings remain an important anchor for EM risk assessment. They provide a standardized, compa-rable measure of creditworthiness, and a useful benchmark for investors: this is evident from the fact that average gaps between MIRs and CRA ratings are small, across the sample as a whole. So MIRs can and do serve as an early warning signal—credit ratings will never move as quickly as financial market prices—highlighting potential concerns before they are reflected in other data (including ratings). But at the same time, CRA ratings can be used by investors to either validate or challenge their perceptions, providing an important cross-check. This dual role is increasingly recognised in academic research on EMs, as noted earlier; CRAs and market signals can serve complementary functions, with MIRs offering immediacy and CRAs providing structural benchmarks, and are used as such in this paper.

This analysis also suggests that MIR gaps are a useful tool for evaluating investor sentiment, relative to a fundamental perspective, particularly in the face of structural economic changes and shifts in investor perceptions. Over the past 20 years, we have seen significant changes in the types of financial analysis conducted by investors, including greater use of alternative data, more complex quantitative models, and the introduction and integration of new elements such as environmental, social and governance (ESG) factors. In principle, any lasting impact from these types of changes should be reflected in both market prices and CRA ratings; making the gap between them a useful indicator that can effectively embed and hence control for these changes. This reinforces the value of MIR-agency gaps as a dynamic diagnostic tool, capable of capturing both structural evolution and transient sentiment shifts in EM risk pricing.

# 5. Conclusions

The evidence presented in this paper offers a nuanced answer to the central question: yes, investors now appear to understand Emerging Markets better than they once did—but that understanding remains partial, episodic, and, at times, fragile. Over the past two decades, the convergence between Market-Implied Ratings (MIRs) and agency ratings has been both notable and instructive. The narrowing of MIR-agency gaps, particularly during periods of relative calm, suggests that investor assessments have become more aligned with structural credit fundamentals over time. Importantly, the volatility of those gaps has also declined markedly, rein-

forcing the idea that investor perceptions are stabilizing—arguably a proxy for greater familiarity and confidence in EM creditworthiness.

Yet this convergence is neither complete nor uniform. Episodes of sharp divergence—often during global shocks or periods of acute domestic instability—underscore the limits of market understanding and the persistence of sentiment-driven fluctuations. Experiences such as Türkiye and South Africa illustrate how investor pricing remains shaped by domestic narratives and institutional credibility. The G7 comparison shows that EM risk is no longer perceived as inherently more volatile. The resilience—or lack thereof—of investor perceptions under stress may be a more meaningful gauge of market understanding than any steady-state alignment during calmer periods. The widening of gaps during the pandemic illustrates how fragile the convergence remains.

The heterogeneity across countries also reminds us that investor views and market pricing are still shaped by context-specific narratives, institutional credibility, and the quality of macroeconomic policy. While MIRs offer immediacy and responsiveness, their susceptibility to transitory shocks, risk-on/risk-off dynamics, and technical market factors remains a structural limitation.

This paper does not claim that MIRs are inherently superior or that CRAs have become irrelevant. On the contrary: the interplay between the two offers a valuable lens on evolving investor views. The MIRs serve as a dynamic check on static assessments, while agency ratings provide a stabilizing benchmark against sentiment-driven volatility. The gap between the two, rather than being a flaw, is a feature—one that captures the divergence between rapid market reactions and more deliberative credit assessments. Tracking this gap offers a way to quantify progress in investor understanding without assuming that either signal is correct, let alone infallible.

In conclusion, the trajectory is encouraging, but the destination has not yet been reached. Investor understanding of EMs has improved, but the learning process continues. Structural improvements in EMs, better data, and greater integration into global markets will all have played a role in narrowing the information gap. However, persistent volatility during stress events suggests markets remain prone to overshoot or underreact. Future research could extend this framework to incorporate other indicators or explore whether similar patterns exist in frontier markets, if data availability challenges were overcome. For now, the MIR-agency gap is a valuable means of gauging how far investor comprehension has come—and how far it may still have to go.

# Funding

# Institutional Review Board Statement

Not applicable.

# Informed Consent Statement

Not applicable.

# Data Availability Statement

The charts, analysis and results presented in this paper are available on request. Original underlying data sourced from Moody's are available via different sources, including of course Moody's itself.

# Acknowledgments

# Conflicts of Interest

The author declares no conflict of interest. He alone is responsible for the design of the study; the collection, analyses, or interpretation of data; the writing of the manuscript; and the decision to publish the results.

# References

[1] Calvo, G., 1998. Capital Flows and Capital-Market Crises: The Simple Economics of Sudden Stops. Journal of Applied Economics (CEMA). 1(1), 35–54.

[2] Dornbusch, R., 2001. A Primer on Emerging Market Crises, NBER Working Paper 8326. Massachusetts Institute of Technology: Cambridge, MA, USA.

[3] Abid, A., 2025. Forecasting Sovereign Credit Risk Amidst a Political Crisis: A Machine Learning and

Deep Learning Approach. Journal of Risk and Financial Management. 18(6), 300. DOI: https://doi.org/10.3390/jrfm18060300

[4] Gamboa-Estrada, F., Romero, J.V., 2025. Geopolitical Risk and Emerging Market Sovereign Risk Premia. In Proceedings of the 2025 Latin American Journal of Central Banking (LAJCB) Conference, Mexico City, Mexico, 22–23 May 2025. Available from: https://www.cemla.org/actividades/2025-final/2025-05-2025-lajcb-conference/papers/5_2GamboaRomero.pdf (cited 21 July 2025).

[5] Kaminsky, G.L., Reinhart, C.M., 1999. The Twin Crises: The Causes of Banking and Balance-of-Payments Problems. American Economic Review. 89(3), 473–500. DOI: https://doi.org/10.1257/aer.89.3.473

[6] Kaminsky, G.L., Reinhart, C.M., Vegh, C.A., 2004. When it Rains, it Pours: Procyclical Capital Flows and Macroeconomic Policies, NBER Working Paper 10780. MIT Press: Cambridge, MA, USA.

[7] Hoggarth, G., Jung, C., Reinhardt, D., 2016. Financial Stability Paper No. 40. Available from: https://www.bankofengland.co.uk/financial-stability-paper/2016/capital-inflows-the-good-the-bad-and-the-bubbly (cited 20 July 2025).

[8] Rothenberg, A., Warnock, F., 2006. Sudden Flight and True Sudden Stops, NBER Working Paper 12726. National Bureau of Economic Research: Cambridge, MA, USA. DOI: https://doi.org/10.3386/w12726

[9] Ahmed, S., Zlate, A., 2013. Capital Flows to Emerging Market Economies: A Brave New World?, International Finance Discussion Papers Number 1081. Board of Governors of the Federal Reserve System: Washington, DC, USA.

[10] Brooks, R., Fortun, J., Pingle, J., 2022. Global Macro Views—The Global Interest Rate Shock and EM Outflows. Institute of International Finance: Washington, DC, USA.

[11] Waheed, M., 2022. Systemic Sudden Stops in Emerging Economies: A Recent Perspective, MPRA Paper No. 113751. Munich Personal RePEc Archive: Munich, Germany. Available from: https://mpra.ub.uni-muenchen.de/113751/1/MPRA_paper_113751.pdf (cited 21 July 2025).

[12] Coman, A., Lloyd, S.P., 2019. In the face of spillovers: prudential policies in emerging economies, Bank of England Staff Working Paper No. 828. European Central Bank (ECB): Frankfurt, Germany.

[13] Obstfeld, M., Taylor, A.M., 2002. Globalization and Capital Markets, NBER Working Paper No. 8846. National Bureau of Economic Research: Cambridge, MA, USA.

[14] Khanna, T., Palepu, K., Sinha, J., 2005. Strategies That Fit Emerging Markets. Available from: https://hbr.org/2005/06/strategies-that-fit-emerging-markets (cited 21 July 2025).

[15] Williamson, P.J., Zeng, M., 2009. Value-for-Money Strategies for Emerging Markets. Available from: https://hbr.org/2009/03/value-for-money-strategies-for-recessionary-times (cited 21 July 2025).

[16] Bruner, R.F., Conroy, R.M., Li, W., et al., 2003. Investing in Emerging Markets. The Research Foundation of the Association for Investment Management and Research: New York, NY, USA.

[17] Klyuev, V., Medina, L., Plotnikov, D., et al., 2022. Emerging Markets: Prospects and Challenges. IMF Working Papers. 2022(035), 1. DOI: https://doi.org/10.5089/9798400203954.001

[18] OMFIF, 2024. Balancing opportunities and risks in emerging markets. Available from: https://www.omfif.org/2024/07/balancing-opportunities-and-risks-in-emerging-markets/ (cited 20 July 2025).

[19] Alfaro, L., Mendoza, E., 2020. Current Policy Challenges Facing Emerging Markets. IMF Economic Review. 68(3), 453–455. DOI: https://doi.org/10.1057/s41308-020-00119-z

[20] ING, 2024. The fundamental picture is looking up for EM sovereigns. Available from: https://think.ing.com/articles/the-fundamental-picture-is-looking-up-for-em-sovereigns/ (cited 21 July 2025).

[21] Nadeem, M.A., Qamar, M.A.J., Nazir, M.S., et al., 2020. How Investors Attitudes Shape Stock Market Participation in the Presence of Financial Self-Efficacy. Frontiers in Psychology. 11, 553351. DOI: https://doi.org/10.3389/fpsyg.2020.553351

[22] Montes, G.C., Costa, J., 2022. Effects of fiscal credibility on sovereign risk: evidence using comprehensive credit rating measures. International Journal of Emerging Markets. 17(3), 858–888. DOI: https://doi.org/10.1108/IJOEM-06-2020-0697

[23] MOODY'S, 2025. Rating Symbols and Definitions. Available from: https://ratings.moodys.com/api/rmc-documents/53954 (cited 01 July 2025).

[24] Ellis, C., 2022. Are Sovereign Ratings Biased Against Africa? Applied Economics and Finance, 9(1), 29–36.

[25] Merton, R.C., 1974. On the Pricing of Corporate Debt: The Risk Structure of Interest Rates. The Journal of Finance. 29(2), 449. DOI: https://doi.org/10.2307/2978814

[26] MOODY'S, 2016. Moody's Market Implied Ratings: Description, Methodology, and Analytical Applications. Available from: https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_190989 (cited 01 July 2025).

[27] MOODY'S, 2016. Moody's Idealized Cumulative Expected Default and Loss Rates. Available from: https://www.moodys.com/research/doc--PBS_SF434522 (cited 01 July 2025).

[28] Amstad, M., Packer, F., 2015. Sovereign Ratings and Market-Implied Ratings. BIS Quarterly Review. Avail-

able from: https://www.bis.org/publ/qtrpdf/r_qt1512h.pdf (cited 03 July 2025).

[29] IMF, 2025. Global Shocks, Local Markets: The Changing Landscape of Emerging Market Sovereign Debt, Global Financial Stability Report. Available from: https://www.imf.org/en/Publications/GFSR/Issues/2025/10/14/global-financial-stability-report-october-2025

(cited 03 July 2025).

[30] Grossman, S., Stiglitz, J., 1980. On the Impossibility of Informationally Efficient Markets. American Economic Review. 70(3).

[31] Ellis, C., Kanthan, K., Zhang, C., 2018. Do Credit Ratings Move Toward The Market, Or Vice Versa?. Journal of Fixed Income. 28(2), 55–63.