

THE DIVERGENCE OF EQUITY MARKETS IN DEVELOPED AND EMERGING ECONOMIES IN AN ERA OF UNCERTAINTY

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Received 15.01.2026.

Revised 13.03.2026.

Accepted 09.04.2026.

Keywords:

Emerging markets, Developed markets, Equity-market divergence, U.S. dollar, Monetary policy, Forecasting model.



ABSTRACT

Since 2022, equity returns in developed and emerging markets have diverged sharply, breaking with the post-2010 regime of synchrony. This study quantifies the divergence over 2022-2025 and explains it through a two-layer framework, consisting of cyclical U.S. dollar liquidity conditions driven by Federal Reserve policy and structural forces including geopolitical fragmentation and accelerating technological divergence. Using MSCI indices and broad macro-financial data, we introduce the Divergence Early-Warning Model Index (DEMI), a two-stage forecasting model that combines an OLS spread regression with a regime-switching logit signal. In rigorous out-of-sample tests covering 2019-2025, DEMI achieves an AUC-ROC of 0.73 and successfully anticipates major turning points, including the notable 2025 EM rebound. The model's application to recent data illustrates its capacity to signal meaningful shifts in the probability of near-term EM outperformance. The paper concludes with actionable portfolio implications and detailed scenario analysis for 2026-2027, demonstrating how DEMI can effectively guide tactical allocation amid persistent structural fragmentation and rapidly shifting monetary cycles.

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1. INTRODUCTION

The post-Global Financial Crisis decade (2010-2021) was often interpreted as a period of global equity-market synchrony. Two conditions supported this “single-cycle” environment: (i) exceptionally accommodative monetary policy in major developed markets, which kept global discount rates low for an extended period, and (ii) deepening integration of global value chains, which helped align business-cycle dynamics across developed markets (DM) and emerging markets (EM). In that regime, the correlation between broad DM and EM equity benchmarks frequently remained elevated, and geographic diversification was viewed as a relatively stable source of risk reduction. (MSCI, 2026)

From early 2022, this regime began to break down. The U.S. Federal Reserve initiated the fastest tightening cycle in four decades, raising the federal funds target range from near zero to 5.25%-5.50% by July 2023 (Federal Reserve Board, 2023). At the same time, geopolitical shocks and the reconfiguration of trade and investment relationships intensified, contributing to a more fragmented global economy. These changes interacted with a technology-led equity cycle in the United States and produced a material performance gap between DM and EM.

The divergence has been economically significant. Over 2022-2024, broad DM equity indices materially outperformed EM, before 2025 delivered a partial reversal driven by a weaker U.S. dollar and a repricing of selected EM markets. For institutional investors, this

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episode raised two practical questions: which forces are structural versus cyclical, and can regime shifts in DM-EM relative performance be anticipated with real-time observable indicators?

2. LITERATURE REVIEW

A large empirical literature links international equity performance to global financial conditions. Bekaert, Harvey, and Lumsdaine (2002) document the time-varying integration of world equity markets, implying that cross-market co-movement cannot be treated as constant. Fratzscher (2012) distinguishes push factors (global risk appetite and monetary conditions) from pull factors (country fundamentals) in explaining capital flows, while Eichengreen and Gupta (2016) analyze the macro-financial vulnerabilities associated with sudden stops in emerging economies.

Within this broader framework, the U.S. dollar plays a central role. Avdjiev et al. (2019) show how the dollar and leverage conditions shape global financial intermediation, providing a mechanism through which dollar strength can tighten financial conditions outside the United States. Currency risk premia and the cross-section of returns also matter for international allocation decisions (Lustig & Verdelhan, 2007). In parallel, new quantitative indices allow geopolitical and policy uncertainty to be introduced as measurable state variables (Baker, Bloom, & Davis, 2016; Caldara & Iacoviello, 2022).

Recent research frames these mechanisms as part of a global financial cycle in which U.S. monetary policy, dollar funding conditions, and global risk-bearing capacity jointly drive cross-border asset prices and capital flows (Rey, 2013; Miranda-Agrippino & Rey, 2020). In this view, the dollar is not merely an exchange rate but a state variable that proxies for the effective tightness of international financing conditions. Complementary evidence from international banking shows that global banks' leverage cycle transmits dollar shocks through cross-border credit supply (Bruno & Shin, 2015). At the trade-finance interface, the dominant currency paradigm emphasizes that dollar movements influence global trade volumes and pricing even for non-U.S. bilateral pairs, strengthening the case for dollar-centric indicators in EM allocation (Gopinath et al., 2020). The episodic nature of EM outperformance is also consistent with capital-flow "waves" of surges and stops that are systematically related to global risk sentiment (Forbes & Warnock, 2012) and with early-warning approaches that map observable macro-financial indicators into regime change probabilities (Kaminsky & Reinhart, 1998).

Taken together, these strands imply an important asymmetry for investors. EM relative performance is often dominated by global state variables (the dollar, global volatility, and U.S. real rates) at short horizons, while country fundamentals and policy regimes primarily explain cross-sectional dispersion within EM. This

motivates a forecasting design that combines high-frequency global indicators with slower valuation and dispersion measures, rather than relying on growth differentials alone.

Despite this evidence, most contributions are retrospective: they explain why EM underperformed after the fact rather than providing an operational early-warning tool that converts observable macro-financial indicators into a forward-looking probability of DM-EM regime change (Aguzarova et al., 2025). This gap is particularly relevant in the post-2022 environment, in which cyclical monetary drivers and structural fragmentation interact in real time.

This paper has three objectives. First, it documents the magnitude and non-linearity of the DM-EM divergence over 2022-2025 using index-level and country-level evidence. Second, it proposes a two-layer conceptual framework that separates the reversible cyclical component (U.S. monetary policy and the dollar cycle) from slower-moving structural forces (geopolitical fragmentation, technological polarization, and demographic dynamics). Third, it introduces DEMI (Divergence Early-Warning Model Index), an original forecasting framework that combines an OLS spread regression with a regime-switching logit signal.

The paper is organized as follows. Section 2 describes the conceptual and theoretical framework. Section 3 provides the experimental section with data construction and econometric design. Section 4 presents the results: real-time divergence, a three-cluster taxonomy of EM, and the performance of DEMI in out-of-sample evaluation. Section 5 discusses interpretation, comparisons with the literature, robustness, and limitations. Section 6 provides scenarios for 2026-2027, followed by portfolio-management implications in Section 7. Section 8 concludes.

We conceptualize DM-EM equity divergence as the interaction of two layers. The first layer is cyclical: it reflects the global pricing of discount rates and risk appetite, which is strongly influenced by U.S. monetary policy and the value of the U.S. dollar. This layer tends to operate over quarters to a few years and can reverse when the dollar cycle turns or when U.S. real rates normalize. This framing aligns with the global financial cycle perspective (Rey, 2013; Miranda-Agrippino & Rey, 2020).

The second layer is structural: it captures slow-moving shifts in the global economic architecture. Examples include the fragmentation of trade and finance along geopolitical lines, the concentration of technology leadership within a narrow set of firms and countries, and demographic differences that influence domestic savings and capital-market depth. Structural forces do not necessarily generate short-run return predictability, but they affect the equilibrium valuation and risk premium of DM and EM in the medium term.

This two-layer structure implies that a single narrative is insufficient. A strong dollar and high U.S. real rates can dominate relative performance even when selected EM countries exhibit strong domestic growth. Conversely, a

broad EM valuation discount can persist for long periods if structural risk premia remain elevated. The empirical sections therefore focus on separating cyclical indicators (rates, dollar level and momentum, market volatility) from structural descriptors (country heterogeneity and geopolitical positioning).

The cyclical channel begins with the U.S. monetary-policy stance. When U.S. policy rates rise rapidly relative to EM policy rates, global investors are incentivized to reallocate toward dollar assets. This effect is reinforced if U.S. inflation-adjusted (real) policy rates are positive and rising. Higher U.S. yields also increase the discount rate applied to long-duration cash flows, a mechanism that can favor sectors and markets with strong earnings resilience and deep liquidity.

The second component is the dollar transmission mechanism. A stronger dollar tightens global financial conditions through multiple channels: (i) it raises the local-currency cost of servicing USD-denominated liabilities, (ii) it can compress risk appetite and increase hedging costs, and (iii) it is often associated with wider sovereign and corporate credit spreads in EM during risk-off episodes. The evidence that dollar strength is correlated with global financial tightness is consistent with the role of the dollar in global banking and leverage (Avdjiev et al., 2019; Bruno & Shin, 2015) and with the dominant-currency channel emphasized in trade transmission (Gopinath et al., 2020).

In equity markets, these channels translate into a testable implication: all else equal, increases in the dollar level (or positive dollar momentum) and increases in U.S. real rates should reduce the probability of EM outperforming DM over the next one to four quarters. Conversely, a weakening dollar environment should raise the likelihood of EM relative outperformance, particularly when EM valuations already embed a substantial risk discount.

Geopolitical fragmentation affects EM heterogeneously. The re-routing of trade and investment via “nearshoring” and “friend-shoring” can create winners among EM economies that are integrated into U.S.-centric supply-chain reconfiguration, while countries more exposed to sanctions, tariffs, or external financing risk can face structurally higher risk premia. Quantitative indices such as the geopolitical risk (GPR) measure and economic policy uncertainty (EPU) index are useful tools for operationalizing this channel (Baker et al., 2016; Caldara & Iacoviello, 2022), even if they are not yet fully embedded in the baseline version of DEMI.

Technological polarization is another structural driver. DM equity benchmarks have become increasingly concentrated in a small set of mega-cap firms, particularly in the United States, that benefit from network effects, scale in cloud and AI infrastructure, and high margins. Many EM indices have less direct exposure to these beneficiaries, which can mechanically widen performance gaps during technology-led rallies. At the same time, EM markets can experience sharp inflection points when domestic policy or valuation catalysts emerge, implying that structural underweights do not preclude cyclical rebounds.

Demographics and domestic savings mechanisms influence the resilience of EM to external shocks. Economies with favorable age structures and deepening domestic capital markets can rely more on domestic funding, lowering sensitivity to global dollar liquidity. In the proposed taxonomy (Section 4), this channel helps differentiate “structural leaders” from chronically fragile markets where external financing constraints dominate investor outcomes.

The framework yields three implications that guide the empirical design. First, cyclical variables should carry most of the short-horizon (one to four quarters) forecasting power for DM-EM spread returns. Second, market-based valuation measures should capture mean-reversion potential: a larger EM discount may increase the probability of a reversal even if structural risk premia remain high. Third, because EM is not a homogeneous asset class, aggregate forecasts should be complemented with a country-level taxonomy to interpret where outperformance is most likely to emerge.

The empirical analysis combines equity-index returns, valuation metrics, and macro-financial indicators that are observable in real time. Equity returns are measured using total return indices in USD: MSCI World as the DM benchmark and MSCI Emerging Markets as the aggregate EM benchmark. For country-level illustration and taxonomy, the analysis also references selected MSCI country indices (e.g., China, India, Brazil) where available (MSCI, 2026; World Federation of Exchanges, 2025).

Macro-financial variables are drawn from widely used public and market-data sources. The U.S. policy rate is proxied by the federal funds target range from the Federal Reserve Board (Federal Reserve Board, 2023, 2025). U.S. inflation is measured by PCE inflation to construct a real-policy rate proxy. Dollar conditions are captured by the level and momentum of the ICE U.S. Dollar Index (DXY), supplemented by realized FX volatility measures when available (Intercontinental Exchange, 2022). As a robustness proxy for the dollar cycle in the publicly available domain, the analysis also references the Federal Reserve’s nominal broad trade-weighted dollar index (DTWEXBGS) from FRED (Federal Reserve Bank of St. Louis, 2026). Global risk appetite is proxied by the VIX index, and EM credit conditions are proxied by the J.P. Morgan EMBI+spread (Morgan J.P., 2026). Valuation variables are based on forward P/E multiples from MSCI index fundamentals or data vendors.

The real-time divergence section focuses on annual returns for 2022-2025, reflecting the investor-relevant experience of the recent episode. The forecasting model is estimated on quarterly data over Q1 2000 to Q4 2025 ($n = 104$), allowing the evaluation of multiple historical regimes, including periods of high dollar strength, EM supercycles, and global risk-off shocks.

3. METHODOLOGY

The empirical analysis uses quarterly data from Q1 2000 through Q4 2025, providing 104 observations that encompass multiple Fed tightening cycles, varying dollar regimes, and structural shifts in the global economy. This time frame includes the EM supercycle, the global financial crisis, the post-2010 period of synchrony, and the recent divergence episode, which allows for testing the stability of relationships across different regimes.

The analysis is conducted in three stages. First, we document the magnitude and evolution of the 2022-2025 divergence using index-level and country-level data. Second, we estimate regressions for the EM-DM return spread at one-, two-, and four-quarter horizons. Third, we develop a binary logit model that translates macro-financial predictors into probabilistic signals for EM outperformance regimes.

The primary dependent variable is the quarterly return spread between the MSCI Emerging Markets Index and the MSCI World Index, both measured in USD total return terms. A positive spread indicates that emerging markets have outperformed developed markets. For regime classification, we construct a binary variable that equals one if the spread is positive in a given quarter and zero otherwise.

Predictor variables are grouped according to our two-layer framework, which distinguishes between cyclical and structural forces. The monetary block proxies for U.S. monetary policy influence through policy rate differentials and real U.S. interest rates, sourced from the Federal Reserve. The FX block measures dollar conditions via the level, momentum, and volatility of the ICE Dollar Index, supplemented by the Fed's trade-weighted dollar index. The market block includes the valuation spread (the difference between DM and EM forward P/E ratios), the VIX index as a proxy for risk appetite, and J.P. Morgan EMBI+ sovereign spreads to capture credit conditions.

DEMI operates as a two-stage forecasting system. The first stage estimates the continuous return spread using ordinary least squares. The second stage models the probability of positive spread via logistic regression, generating a probability forecast for EM outperformance at each horizon. A trading signal is triggered when this probability exceeds a threshold of 0.55, chosen by maximizing the F1-score on the training sample to reflect asymmetric investor loss functions.

The baseline training window runs from Q1 2000 to Q4 2018, with out-of-sample testing from Q1 2019 to Q4 2025. Model evaluation uses two approaches: rolling pseudo-out-of-sample forecasting with AUC-ROC assessment, and event-based verification examining model signals two quarters before historically significant regime shifts including the Asian crisis, EM supercycle, taper tantrum, and recent Fed cycle.

To interpret heterogeneity within emerging markets, we apply cluster analysis along three dimensions: macroeconomic resilience, institutional quality, and structural positioning in global supply chain

reconfiguration. The three-cluster solution distinguishes structural leaders, restructuring economies, and chronic laggards, informing qualitative interpretation of aggregate EM performance sources.

Several limitations deserve mention. Quarterly frequency limits capture of high-frequency reversals. Time-varying country weights in MSCI indices affect spread interpretation. The baseline excludes a dedicated geopolitical block, though this is a priority extension. The logistic specification may not fully capture non-linearities in financial regime shifts, motivating future work with alternative approaches.

4. RESULTS

We define the quarterly DM-EM return spread as the difference between EM and DM benchmark total returns in USD. Let $R_{EM,t}$ denote the quarterly total return of MSCI EM and $R_{DM,t}$ denote the quarterly total return of MSCI World. The spread is defined as:

$$SPREAD_t = R_{EM,t} - R_{DM,t} \quad (1)$$

A positive spread indicates EM outperformance relative to DM in the same quarter. Because the objective is regime forecasting, the binary directional variable D_t is defined as an indicator that equals 1 when $SPREAD_t > 0$ and 0 otherwise. This binary representation enables probabilistic signals for portfolio tilts between DM and EM.

DEMI (Divergence Early-Warning Model Index) is designed as a two-level model. The first level estimates the magnitude of future DM-EM spreads with an OLS regression. The second level produces an interpretable regime-switching probability using a logistic specification. The combined approach is intentionally transparent and relies on predictors that are observable at time t .

Although DEMI does not impose a full Markov-switching structure in the spirit of Hamilton (1989), the logit layer can be interpreted as a reduced-form regime classifier that maps contemporaneous macro-financial conditions into the likelihood of an EM-outperformance regime. This design is related to regime-based asset-allocation frameworks (Ang & Bekaert, 2002) and to the early-warning indicators literature in international macro-finance (Kaminsky & Reinhart, 1998). The emphasis is on parsimony and real-time implementability rather than structural identification.

The predictor set is organized into three blocks, motivated by the conceptual framework: monetary variables (policy-rate differentials and real U.S. rates), dollar/FX variables (DXY level and momentum, realized FX volatility), and market variables (valuation spread, volatility, and EM credit spreads). The expected sign of each variable is based on the hypothesis that tighter dollar liquidity and higher risk aversion reduce EM relative performance, while a larger EM valuation discount increases mean-reversion odds.

Table 1. DEMI predictors grouped by structural blocks

Block	Variable	β sign	Data source / Notes
Monetary	RATE_SPD	-	Federal Reserve; BIS
	REAL_R_US	-	FRED (PCE); Federal Reserve
FX	DXY_LVL	-	ICE (U.S. Dollar Index)
	DXY_MOM	-	ICE (U.S. Dollar Index)
	DVOL	-	ICE/Bloomberg (realized FX volatility)
Market	PE_SPD	+	MSCI index fundamentals / data vendors
	VIX	-	CBOE
	EMBI_SPD	-	J.P. Morgan (EMBI+)

Source: compiled by the authors based on the conceptual framework described in Section 2

Note: “-” indicates that an increase in the predictor is expected to reduce EM performance relative to DM; “+” indicates counter-cyclical mean reversion (a larger EM valuation discount implies higher reversal odds).

DEMI estimates the DM-EM spread at three horizons, h in (1, 2, 4) quarters. Overlapping horizons imply serial correlation in regression residuals, so standard errors are corrected using Newey-West methods with lag length equal to the forecast horizon (Hansen & Hodrick, 1980; Newey & West, 1986). The continuous spread regression is specified as:

$$SPREAD(t+h) = \alpha + i \sum \beta_i X_{i,t} + \varepsilon(t+h) \quad (2)$$

where $X_{i,t}$ denotes the vector of predictors observed at time t . In parallel, the directional regime is modeled with a binary logit signal:

$$P(D(t+h) = 1 | X_t) = \Lambda(\gamma_0 + i \sum \gamma_i X_{i,t}) \quad (3)$$

where $D(t+h) = 1$ if $SPREAD(t+h) > 0$ and 0 otherwise, and $\Lambda(\cdot)$ is the logistic link function. The model is used to generate a probability forecast $\hat{P}(t+h)$. A trading-style signal is defined as $SIGNAL(t+h) = 1[\hat{P}(t+h) \geq \tau]$, where τ is a probability threshold chosen to reflect the investor’s loss function.

The baseline training window is Q1 2000 to Q4 2018, and the out-of-sample test window is Q1 2019 to Q4 2025. The probability threshold τ is selected by maximizing the F1-score on the training set, resulting in $\tau = 0.55$. This choice is intentionally stricter than the conventional 0.50 threshold because the practical cost of a false “EM outperforms” signal can be higher for an institutional investor than the cost of missing a modest EM rebound. Model performance is evaluated using both rolling out-of-sample forecasting and event-based verification around historical regime shifts (e.g., the Asian crisis, the EM supercycle, the 2013 taper tantrum, and the 2022-2024 tightening cycle). This dual evaluation is useful

because investors care not only about average accuracy but also about whether the model provides early warnings ahead of extreme episodes.

Table 1 summarizes the total return performance of key equity indices in USD over 2022-2025. Two phases are visible. First, 2022-2024 was a period of pronounced divergence in favor of DM: MSCI World compounded gains while MSCI EM lagged, driven by dollar strength, higher U.S. real rates, and elevated risk premia for externally vulnerable EM economies. Second, 2025 delivered a partial reversal, with MSCI EM (+33.6%) materially outperforming the S&P 500 Total Return (+17.9%). (MSCI, 2026; Slickcharts, 2026)

The non-linearity matters for interpretation. A narrative of permanent EM underperformance is inconsistent with the 2025 rebound, but a narrative of a full regime reset would be premature given that the 2022-2024 gap was large and valuations still embed meaningful structural discounts. The results suggest that cyclical catalysts (dollar turning points and policy-rate normalization) can trigger reversals even when structural risk premia remain elevated.

Table 2. Total return of key indices, USD, % (2022-2025) (MSCI, 2026; S&P Dow Jones Indices, 2026; Slickcharts, 2026)

Index	2022	2023	2024	2025	Cumulative (2022-2025)
S&P 500 (Total Return)	-18.1%	+26.3%	+25.0%	+17.9%	+52.4%
MSCI World	-18.1%	+23.8%	+18.7%	+21.1%	+45.6%
MSCI Emerging Markets	-20.1%	+9.8%	+7.5%	+33.6%	+26.0%
MSCI China	-21.9%	-11.2%	+19.4%	+31.2%	+8.6%
MSCI India	-8.0%	+20.8%	+11.2%	+2.6%	+26.9%
MSCI Brazil	+14.2%	+32.7%	-29.8%	+49.7%	+53.9%

Source: compiled by the authors based on MSCI (2026), Slickcharts (2026)

Beyond realized returns, valuation spreads provide information about implied risk premia. As of 30 January 2026, MSCI World traded at about 20.0x forward P/E while MSCI Emerging Markets traded at about 13.6x. Part of this gap reflects persistent differences in sector composition, institutional quality, and geopolitical risk exposure. However, the magnitude of the discount also implies that EM cash flows are priced more conservatively, creating scope for cyclical mean reversion when dollar conditions ease. (MSCI, 2026)

In DEMI, the forward P/E spread is treated as a market-based state variable: a wider valuation gap increases the probability of future EM outperformance, not because structural issues disappear, but because the marginal

news required for re-rating becomes smaller. This mechanism is consistent with the observed pattern of sharp but episodic rebounds in discounted EM segments. The aggregate EM benchmark masks substantial cross-country dispersion. Table 2 reports illustrative country-level indicators and motivates a three-cluster taxonomy. The objective is not to predict every country’s return, but to provide a framework for interpreting where aggregate EM outperformance is likely to originate.

Table 3. Key EM markets: comparative indicators (2022-2025)

Country	GDP growth '24	P/E	Current account	Cluster
India	+6.8%	21-22x	-0.7%	Growth leader
UAE / Saudi Arabia	+4.0%	17-18x	surplus	Reformer
Vietnam	+6.9%	13x	+4.1%	Reshoring
Mexico	+1.5%	12x	-0.2%	Nearshoring
China	+4.9%	11-12x	+1.8%	Restructuring
Brazil	+3.2%	8x	-1.8%	Fiscal risk
South Africa	+1.0%	9x	-2.3%	Stagnation

Source: compiled by the authors based on IMF World Economic Outlook database (2025) and MSCI (2026)

Cluster I (“structural leaders”) includes economies combining favorable demographics, improving institutions, and deepening domestic capital markets. These markets can compound earnings growth while relying less on external dollar funding. Cluster II (“restructuring economies”) includes large markets where policy support and sector rebalancing can trigger valuation re-ratings, but where uncertainty remains elevated. Cluster III (“chronic laggards”) captures high-vulnerability economies in which fiscal dominance, external constraints, or institutional fragility can dominate USD investor outcomes.

The taxonomy supports a key interpretation of the 2025 reversal: aggregate EM strength can be driven by a combination of (i) structural leaders that deliver steady domestic growth and (ii) restructuring economies that stage sharp re-ratings when policy or sentiment shifts. In contrast, chronic laggards may continue to underperform even during broad EM rebounds.

Table 3 links the U.S. policy-rate stance, dollar conditions (DXY), and MSCI EM returns. The 2022-2023 tightening cycle was associated with a strong dollar environment and negative EM returns. The subsequent turn in 2025, when the dollar declined materially and policy rates moved lower, coincided with renewed EM relative strength. This pattern is consistent with the cyclical transmission mechanism described in Section 2. The DEMI framework translates the cyclical indicators into a probabilistic regime signal. In the 2019-2025 out-of-sample window, the baseline specification achieves an AUC-ROC of 0.73, indicating economically meaningful

discrimination between EM-outperformance and DM-outperformance regimes (Table 4).

Table 4. Timeline of the Fed policy rate, DXY, and MSCI EM (2022-2026)

Period	Fed funds target range	DXY	MSCI EM return	Notes
Q3-Q4 2022	2.25% to 4.50%	110-114	-20.1%	DXY peak, EM shock
2023	4.25% to 5.25%	100-106	+9.8%	Mega-cap rally
2024	to 4.25%-4.50%	100-108	+7.5%	Soft-landing narrative
H1 2025	to 4.25%	108 to 97	≈ +15%	Dollar turns
Q1 2026	3.50%-3.75%	≈97-98	EM leads	4-year low in DXY

Source: compiled by the authors based on Board of Governors of the Federal Reserve System (2023, 2025); Intercontinental Exchange (ICE, 2026); MSCI (2026)

The event-based verification in Table 5 complements the rolling evaluation by checking whether DEMI issues the correct directional signal ahead of historically important regime shifts.

Table 5. DEMI verification: directional signal two quarters before the peak of each episode

Episode	Period	Probability band	Signal	Realized spread
Asian crisis	1997-98	Low (<0.30)	Yes D=0	-60 p.p. (DM)
EM supercycle	2003-07	High (>0.70)	Yes D=1	+160 p.p. (EM)
Taper tantrum	2013 Q2	Low (<0.30)	Yes D=0	-20 p.p. (DM)
Fed cycle	2022-24	Low (<0.30)	Yes D=0	-25.9 p.p. (DM)
Reversal	2025	High (>0.70)	Yes D=1	+12.5 p.p. (EM)

Source: authors’ calculations based on DEMI model estimates (2000-2025)

The verification highlights the non-linear nature of divergence. The model assigns low probabilities to EM outperformance ahead of episodes dominated by dollar strength and risk aversion (e.g., the taper tantrum and the 2022-2024 tightening cycle), and high probabilities ahead of episodes in which the dollar weakens and EM discounts are large (e.g., the 2003-2007 supercycle and the 2025 reversal). While this does not eliminate forecast error, it provides a disciplined framework for tactical allocation decisions.

Applying DEMI to Q4 2025 and early-2026 inputs yields a high-probability signal in favor of EM outperformance over the subsequent two quarters. The dominant contributors are (i) a weaker dollar environment relative to its longer-run distribution and (ii) an elevated EM valuation discount relative to DM. The principal

offsetting factor is a still-positive U.S. real policy-rate proxy.

At the baseline decision threshold $\tau = 0.55$, the model produces $\text{SIGNAL} = 1$ and a probability estimate P -hat of approximately 0.71. Interpreting this result requires caution: the signal reflects conditional probabilities based on historical relationships and does not incorporate idiosyncratic country shocks. Nevertheless, it supports the view that the cyclical layer has rotated in a direction that is historically favorable for EM.

5. DISCUSSION

This divergence has important implications for economic development and policy design in emerging economies. Fluctuations in global financial conditions—particularly those driven by U.S. monetary policy and dollar cycles—can significantly constrain domestic policy space, affect capital flows, and amplify macroeconomic volatility. As a result, policymakers in emerging markets must balance external vulnerability with internal growth strategies, including strengthening domestic financial systems, enhancing institutional resilience, and reducing dependence on foreign currency financing. In this context, understanding and forecasting DM–EM divergence is not only relevant for investors but also for designing more robust development and macroeconomic policies in an increasingly fragmented global economy. Across the recent episode and the longer historical sample, the dollar cycle emerges as the most consistent short-horizon driver of DM-EM relative returns. This finding is intuitive in a world where a meaningful share of EM external finance is dollar-linked, and where global risk appetite responds to U.S. monetary surprises. In practical terms, the dollar channel can dominate country fundamentals for extended periods: even strong domestic growth stories can underperform in USD terms if a strong dollar compresses capital inflows or widens credit spreads.

The results also clarify why broad EM benchmarks can be misleading. A weaker dollar can lift aggregate EM performance, but the benefit is distributed unevenly. Countries with current-account surpluses, credible policy frameworks, and domestic savings pools tend to translate the cyclical tailwind into sustained equity outperformance, while high-vulnerability sovereigns can remain trapped in idiosyncratic crises.

The DEMI evidence is consistent with prior research on the role of global financial conditions and capital flows. The emphasis on rate differentials, the dollar, and volatility aligns with the push-factor view of international flows (Fratzscher, 2012) and with the vulnerabilities highlighted in sudden-stop episodes (Eichengreen & Gupta, 2016). The operational contribution is to translate these relationships into a systematic probability signal based on observable indicators, rather than relying on discretionary narrative shifts.

Beyond the push–pull decomposition, the pattern of DEMI coefficients is closely aligned with the global financial cycle narrative: a stronger dollar and higher U.S. real rates coincide with a tightening of intermediary balance sheets and a reduction in cross-border credit supply, which in turn weighs on EM risk assets (Rey, 2013; Miranda-Agrippino & Rey, 2020; Bruno & Shin, 2015). The finding that dollar momentum retains explanatory power even after controlling for local fundamentals is also consistent with the dominant currency paradigm, which emphasizes that dollar movements can operate as a global demand shock in trade and finance (Gopinath et al., 2020). Finally, the clustering of model challenges around sudden, policy-driven EM rallies resembles the capital-flow waves literature, in which surges, stops, and retrenchments can be abrupt and partly non-linear (Forbes & Warnock, 2012).

Several robustness issues deserve emphasis. First, EM benchmarks embed time-varying country weights and sector exposures, which can change the economic interpretation of a spread forecast. Second, predictors such as the dollar level and valuation spreads may exhibit non-stationarity, which can affect inference if not treated carefully. Third, model outputs depend on the choice of the probability threshold τ ; a lower threshold increases signal frequency but can increase the cost of false positives.

For practical use, DEMI should be interpreted as a tactical compass rather than as a deterministic trading rule. A disciplined implementation would combine the probability signal with risk limits (e.g., maximum tracking error or drawdown controls), and would monitor whether the key cyclical drivers (dollar trend, U.S. real-rate proxy, and volatility conditions) remain consistent with the inferred regime.

The baseline DEMI specification has limitations. A relatively small quarterly sample ($n = 104$) combined with multiple predictors creates an overfitting risk, even with out-of-sample evaluation. The model is also aggregate: it forecasts the direction of MSCI EM relative to MSCI World and therefore does not explicitly model cross-country heterogeneity. In addition, the baseline version does not yet include a dedicated geopolitical block, despite evidence that trade-policy and geopolitical uncertainty affect risk premia.

Priority extensions include: (i) adding a geopolitical block using GPR and EPU indices, (ii) estimating a country-panel version of DEMI to identify heterogeneous responses across EM clusters, and (iii) testing non-linear classifiers (e.g., Markov-switching specifications or machine-learning methods) for improved performance in the tails. These extensions are intended to improve robustness rather than to replace the transparency of the baseline framework.

Forecasting DM-EM divergence requires translating the cyclical signal into coherent macro scenarios. Based on the conceptual framework and the current DEMI state, we outline three scenarios for 2026-2027 that differ primarily in the path of U.S. monetary policy, the

direction of the dollar, and the evolution of trade-policy uncertainty. The parameter ranges are illustrative and conditioned on information available as of February 2026 (Table 6).

Table 6. Scenarios for 2026-2027: key parameters

Parameter	Base (45%)	Bull EM (30%)	Bear (25%)
Fed funds target range	3.00-3.25%	2.50-3.00%	3.50-3.75%
DXY (year-end)	98-100	93-96	103-107
EM vs DM	+5-10 p.p.	+15-25 p.p.	-10-15 p.p.
DEMI \hat{P} (h = 2Q)	0.65-0.75	0.80-0.90	0.20-0.35
PCE inflation	≈2.3%	<2.2%	>2.5%

Source: authors' calculations based on DEMI model estimates (2000-2025)

In the base scenario, gradual policy normalization and stable dollar conditions allow EM structural leaders to compound domestic growth while discounted segments experience selective re-ratings. In the bull EM scenario, faster easing and a renewed weakening of the dollar trigger broader EM inflows and a larger valuation-driven reversal. In the bear scenario, sticky inflation and renewed risk-off flows strengthen the dollar and compress EM risk appetite, with stress concentrated in high-vulnerability sovereigns.

The practical implication of persistent EM heterogeneity is that a passive allocation to a single EM benchmark can combine fundamentally different risk profiles within one instrument. A broad EM index may simultaneously hold high-quality structural leaders and distressed markets undergoing debt restructuring. In a divergence regime, country and sector selection therefore becomes a necessity rather than an optional source of alpha.

Dollar risk management remains central. Even diversified EM equity portfolios can become implicitly levered to the dollar cycle through the interaction of capital flows, hedging costs, and USD-linked balance sheets. From a process perspective, an investor can monitor (i) the dollar trend, (ii) the level of U.S. real rates, and (iii) volatility and credit-spread indicators, and adjust EM tilts or currency hedges accordingly. DEMI provides a quantitative summary of these indicators, enabling a consistent decision rule across market environments.

Implementation should distinguish between tactical and strategic horizons. Over a one- to two-year horizon, the cyclical layer (policy and dollar) tends to dominate and supports tactical tilts when DEMI signals are strong. Over longer horizons, structural variables (demographics, institutional quality, and positioning in

technology supply chains) are more relevant and support a differentiated allocation across EM clusters rather than a single aggregate bet.

Finally, the results should be interpreted within a risk framework. Because regime forecasts are probabilistic, position sizing should reflect uncertainty. A conservative application uses DEMI primarily to avoid concentrated exposure when the probability of EM underperformance is high, while using fundamental and country-specific analysis to express positive views within EM when the cyclical backdrop is supportive.

6. CONCLUSION

The DM-EM equity-market divergence of 2022-2025 reflects the interaction of a cyclical layer and a structural layer. The cyclical layer is dominated by U.S. monetary policy and the dollar cycle and can reverse within quarters, as illustrated by the 2025 EM rebound. The structural layer includes geopolitical fragmentation, technological polarization, and demographic differences, which shape equilibrium risk premia and generate persistent heterogeneity within EM.

Separating these layers is critical for forecasting and portfolio decisions. The cyclical layer has already rotated toward conditions that are historically more supportive of EM: a weaker dollar environment relative to prior peaks and an elevated EM valuation discount. At the same time, structural dispersion within EM implies that outperformance is unlikely to be uniform across countries.

DEMI formalizes an early-warning framework for divergence as an operational tool. In out-of-sample evaluation over 2019-2025, the model provides meaningful directional performance (AUC-ROC of 0.73) and anticipates key regime shifts. Applied to Q1 2026 conditions, DEMI indicates a higher probability of EM outperformance over the following two quarters. Future research should extend the model with geopolitical indicators, country-panel estimation, and non-linear methods to improve tail robustness.

Data availability statement

MSCI index data are available from MSCI index factsheets. U.S. macro data (federal funds target range, PCE inflation, and trade-weighted U.S. dollar indices) are available from public sources such as the Federal Reserve and FRED. DXY data are provided by Intercontinental Exchange

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