Asia Pacific Science Press

Asia Pacific Economic and Management Review
ISSN(O):3005-9275
ISSN(P):3005-9267
Vol. 3 No.5 (2026)

Business Sentiment and FDI Dynamics in Brazil: An Econometric Assessment of Investor Confidence, 2000–2025

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Abstract: Research on China has recently argued that locally sourced business sentiment is a better leading indicator of foreign direct investment (FDI) than global confidence indices. This paper asks whether that result travels to Brazil, Latin America's largest FDI recipient. We replicate and extend the design of Finley et al. (2025) using the components of the Industrial Entrepreneur Confidence Index (ICEI) of the National Confederation of Industry (CNI) — current conditions (Business Performance), expectations (Business Outlook) and the composite index — together with Brazil's rank in the Kearney FDI Confidence Index and macroeconomic fundamentals for 2000–2025. Trend, correlation, Newey–West regression, ARDL bounds-testing and Granger-causality analyses are applied. Business Outlook declines significantly over the period (−0.42 points per year, $p = 0.005$), and Brazil falls from 3rd place (2012–2013) to outside the Kearney top 25 (2019, 2023). Yet FDI does not follow: FDI as a share of GDP is flat and FDI in US dollars grows by about 6.1% per year. Sentiment is uncorrelated with FDI intensity, the bounds test rejects a long-run sentiment–FDI relationship, and sentiment does not Granger-cause FDI, whereas lagged FDI does help predict sentiment. Real labour-cost growth is the only determinant that is significant across all specifications. The evidence is consistent with counter-cyclical, "fire-sale" FDI during Brazil's 2015–2016 recession, when confidence collapsed and the real depreciated while FDI intensity peaked. We conclude that domestic sentiment is not a universal leading indicator of FDI: its predictive value depends on the motive and timing of inward investment, and Brazilian policymakers should monitor costs and asset valuations alongside confidence.

Keywords: Foreign Direct Investment; Business Confidence; Investor Sentiment; ICEI; ARDL Bounds Test; Fire-Sale FDI; Brazil

Published: Nov 1, 2026

DOI: https://doi.org/10.62177/apemr.v3i5.1800

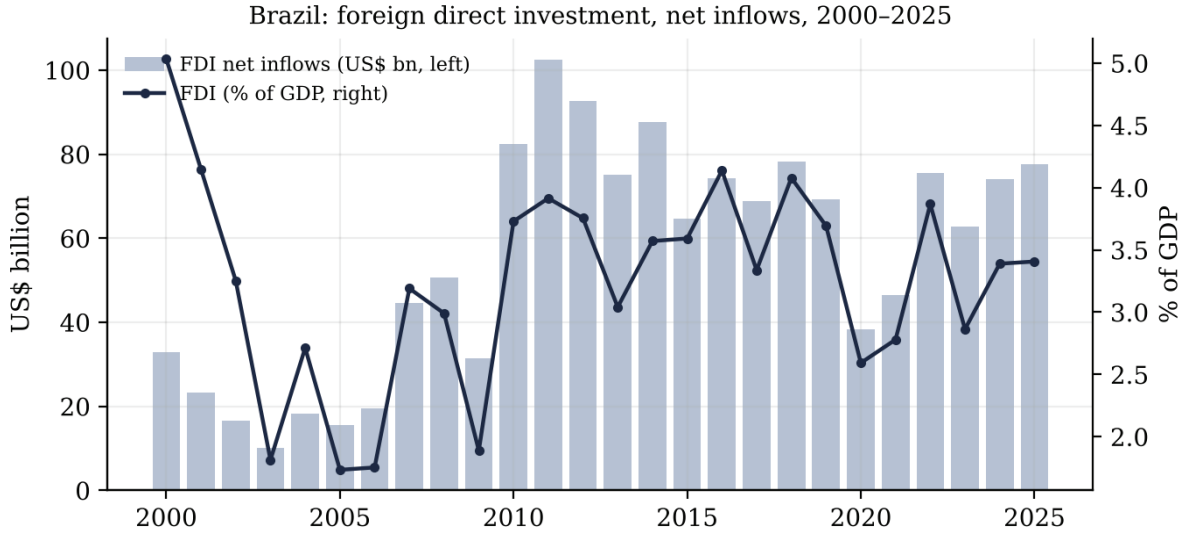
1. Introduction

Brazil has been one of the world's leading destinations for foreign direct investment since the stabilisation of the 1990s. Multinational firms first entered to serve a large, protected domestic market and to access natural resources; over time, investment spread into services, finance, infrastructure concessions and, more recently, renewable energy and the digital economy. FDI net inflows rose from about US$10 billion in 2003 to a peak above US$100 billion in 2011, and have oscillated between roughly US$40 and US$90 billion since (Figure 1).

The last decade has, however, been marked by recurrent shocks: the deep 2015–2016 recession, a prolonged fiscal crisis, the COVID-19 contraction of 2020, high and volatile real interest rates, and repeated episodes of political uncertainty. Business

confidence surveys have registered these shocks sharply, and international benchmarks have followed: Brazil, ranked 3rd in the Kearney FDI Confidence Index in 2012 and 2013, dropped to 25th in 2018 and out of the top 25 in 2019 and 2023. Media coverage of corporate exits — Ford's closure of its Brazilian manufacturing in 2021 being the best-known example — reinforces an impression of declining attractiveness.

Figure 1. FDI net inflows to Brazil, 2000–2025 (US$ billion and % of GDP)



Source: World Bank, World Development Indicators.

Recent work on China argues that such impressions can be misleading and that locally sourced business sentiment tracks realised FDI better than headlines or global indices. Finley et al. (2025) construct an index from the member surveys of foreign chambers of commerce in China and find that Business Outlook is among the strongest correlates of FDI intensity, outperforming the Kearney index. Whether this is a general property of sentiment or a feature of the Chinese case is an open question. Brazil is a natural test: it is a large, market-seeking FDI destination with a long, publicly available and methodologically stable business confidence series, but its FDI history is dominated by exchange-rate swings, privatisation and concession cycles, and acquisitions of domestic assets during downturns.

This paper re-runs the Chinese design for Brazil and strengthens it. We use the CNI's Industrial Entrepreneur Confidence Index (ICEI) and its two components as the Brazilian analogues of the Business Performance and Business Outlook indices, benchmark them against Brazil's Kearney rank, and relate them to FDI and macroeconomic fundamentals over 2000–2025. Beyond trends and correlations, we account for the time-series properties of the data with unit-root tests, heteroskedasticity- and autocorrelation-consistent regressions, the ARDL bounds test of Pesaran et al. (2001) and Granger-causality tests.

The findings diverge from the Chinese evidence. Brazilian business sentiment has deteriorated — significantly so for expectations — but FDI has not. Sentiment does not predict FDI in the short run, is not linked to it in the long run, and the only robust determinant is real labour-cost growth. The pattern is consistent with the "fire-sale FDI" mechanism (Krugman, 2000; Aguiar & Gopinath, 2005), in which crises lower the dollar price of domestic assets and attract foreign buyers precisely when local confidence is weakest. The contribution is therefore a qualification: domestic sentiment is not a universal leading indicator of FDI, and its usefulness depends on the motive and timing of inward investment.

Section 2 reviews the literature on FDI determinants, sentiment and the Brazilian case. Section 3 presents data and methods. Section 4 reports results, Section 5 discusses them, and Section 6 concludes with policy implications and limitations.

2. Literature Review

2.1 Determinants of FDI in Emerging Markets

The eclectic paradigm distinguishes market-seeking, efficiency-seeking, resource-seeking and strategic-asset-seeking investment (Dunning, 1993), and the empirical literature has mapped these motives onto location fundamentals. Market size and growth are the most robust predictors (Asiedu, 2002; Blonigen, 2005; Islam & Beloucif, 2024). Labour costs matter

mainly for efficiency-seeking projects, while human capital and financial development condition the benefits that host economies derive from FDI (Alfaro et al., 2004). Evidence for Morocco shows that the growth, energy and environmental effects of FDI are non-linear and conditioned by institutions and absorptive capacity (Fayou, 2026c; Fayou & Boubrahimi, 2026a, 2026c, 2026e), while the depth of financial institutions shapes how firms withstand shocks (Fayou, 2026b). Openness and infrastructure lower transaction costs (Globerman & Shapiro, 2002; Campos & Kinoshita, 2003), and institutional quality, political risk and corruption shape both the volume and the composition of inflows (Busse & Hefeker, 2007). The motive and sectoral composition of FDI matter as much as its volume: in Africa, manufacturing and market-seeking services FDI support structural transformation whereas extractive FDI does not (Fayou, 2026a), and FDI and trade are closely intertwined in Moroccan manufacturing (Fayou, 2026d).

Exchange rates occupy a special place. With imperfect capital markets, a depreciation of the host currency raises the relative wealth of foreign firms and lowers the foreign-currency price of host-country assets, increasing acquisitions (Froot & Stein, 1991). This mechanism is central to the Latin American experience, where currency crises have repeatedly been followed by waves of foreign takeovers.

2.2 Investor Sentiment, Uncertainty and FDI

A second strand stresses expectations. Favourable source-country equity valuations lower the cost of financing cross-border acquisitions (Baker et al., 2009). Policy uncertainty depresses investment (Baker et al., 2016), and host-country political uncertainty delays FDI (Julio & Yook, 2012). Geopolitical factors operate through similar channels: geopolitical risk affects trade non-linearly across the distribution of flows (Fayou, 2026e), diplomatic realignment can redirect bilateral FDI (Fayou & Boubrahimi, 2026d), and soft-power assets are associated with larger bilateral trade (Fayou & Boubrahimi, 2026b). Sentiment proxies have been linked to FDI in Malaysia (Hassan et al., 2016), and city-level evidence from China shows that economic policy uncertainty reduces inward FDI (Gao et al., 2024). Finley et al. (2025) go further, arguing that chamber-of-commerce sentiment in China is a better signal of FDI than the global Kearney index.

An important counter-current emphasises that FDI can be counter-cyclical with respect to host conditions. Krugman (2000) describes “fire-sale FDI”: in a crisis, liquidity-constrained domestic owners sell assets to foreign investors at depressed prices. Aguiar and Gopinath (2005) document that foreign acquisitions rose and acquisition prices fell during the East Asian crisis. FDI has also proved more resilient than portfolio flows in emerging-market crises (Fernández-Arias & Hausmann, 2001), and North–South FDI responds to source-country rather than host-country cycles (Levy-Yeyati et al., 2007). If these channels dominate, domestic pessimism and FDI may move in opposite directions, and sentiment loses its predictive value.

2.3 FDI in Brazil

Brazilian FDI has historically been market- and resource-seeking. The privatisation programme of the late 1990s brought large inflows into telecommunications, energy and banking; the commodity boom of the 2000s attracted investment in mining, oil and agribusiness; and the infrastructure concession programmes of the 2010s and 2020s opened transport and sanitation to foreign capital. Throughout, Latin American evidence points to market size, growth, openness and macroeconomic stability as the main pull factors (Amal et al., 2010). The persistent “Custo Brasil” — a complex tax system, high real interest rates, logistics bottlenecks and regulatory uncertainty — is widely cited by investors as the main obstacle, and motivated the consumption-tax reform enacted by Constitutional Amendment 132 of 2023.

2.4 Research Gap

The sentiment–FDI literature rests on few countries, small samples and mostly static correlations, and it rarely asks whether sentiment leads or lags FDI. The Chinese evidence of Finley et al. (2025) uses 18 annual observations, median-aggregated survey items and correlation-based feature rankings without testing for non-stationarity, spurious trends or direction of causality. This paper addresses these gaps for Brazil by using a long, harmonised confidence series, explicitly separating current conditions from expectations, testing for long-run relationships and for the direction of predictability, and confronting the sentiment hypothesis with the fire-sale alternative.

3. Data and Methodology

3.1 Sentiment Indices

Long-running surveys of foreign chambers of commerce in Brazil are not publicly available as consistent annual series, which rules out a literal replication of the Chinese index. We therefore use the CNI's Industrial Entrepreneur Confidence Index (ICEI), the longest harmonised business-sentiment survey in Brazil, published since 1999 and distributed through the Central Bank of Brazil's time-series system (SGS). The ICEI is a diffusion index from 0 to 100, where values above 50 indicate confidence. It has two components that map directly onto the dimensions used by Finley et al. (2025):

Business Performance is measured by the ICEI Current Conditions Index (SGS 7342), which captures firms' assessment of current business and economic conditions relative to the previous six months. Business Outlook is measured by the ICEI Expectations Index (SGS 7343), which captures expectations for the next six months. The Composite index is the headline ICEI (SGS 7341). We verified the series against CNI releases (e.g., ICEI = 53.2 in October 2024 and 47.2 in October 2025). Because the SGS series report the January, April, July and October readings, annual values are the mean of these four observations, which smooths survey noise but does not alter the timing of turning points.

The global benchmark is Brazil's rank in the Kearney FDI Confidence Index, which surveys senior executives of large multinationals. Ranks were collected edition by edition from the Kearney reports and contemporaneous press coverage; Brazil ranked 6th (2007), 4th (2010), 3rd (2012, 2013), 5th (2014), 6th (2015), 12th (2016), 16th (2017), 25th (2018), outside the top 25 (2019), 22nd (2020), 24th (2021), 22nd (2022), outside the top 25 (2023), 19th (2024) and 21st (2025). We convert ranks to a score of 26 minus rank (0 when absent), so higher is better. Unlike Finley et al. (2025), we do not impute values for years without an edition (2008, 2009, 2011), which leaves 16 observations.

3.2 FDI and Macroeconomic Variables

FDI is measured in two ways, as in the original study: net inflows as a percentage of GDP and net inflows in current US dollars (in logarithms). GDP growth, consumer-price inflation and the official BRL/USD exchange rate (in logarithms) come from the World Bank's World Development Indicators. Labour cost is measured as the annual growth of the real minimum wage, computed from the monthly national minimum wage (SGS 1619), averaged by year and deflated by the consumer-price index; the minimum wage is a binding reference for wage bargaining and payroll costs in Brazil. Table 1 summarises the variables.

Table 1. Variables and sources

Variable	Definition	Source	Period
Business Performance	ICEI Current Conditions Index (0–100), annual mean	CNI via BCB-SGS 7342	2000–2025
Business Outlook	ICEI Expectations Index (0–100), annual mean	CNI via BCB-SGS 7343	2000–2025
Composite ICEI	Headline ICEI (0–100), annual mean	CNI via BCB-SGS 7341	2000–2025
Kearney FDIC score	26 − Brazil's rank (0 if outside top 25)	Kearney FDICI reports	2007–2025 (n = 16)
FDI (% of GDP)	FDI net inflows, % of GDP	World Bank WDI	2000–2025
ln FDI (US$)	Log of FDI net inflows, current US$ bn	World Bank WDI	2000–2025
GDP growth	Real GDP growth, %	World Bank WDI	2000–2025
Inflation	CPI inflation, %	World Bank WDI	2000–2025
Exchange rate	Log of BRL per US$, period average	World Bank WDI	2000–2025
Labour cost	Real minimum-wage growth, %	BCB-SGS 1619; own calculation	2000–2025

Note: SGS = Sistema Gerenciador de Séries Temporais, Banco Central do Brasil.

3.3 Empirical Strategy

The analysis proceeds in five steps. First, linear trends are fitted to each sentiment index, with Newey–West (HAC) standard errors as a robustness check (Newey & West, 1987). Second, the order of integration of each series is assessed with augmented Dickey–Fuller (ADF) and KPSS tests. Third, Pearson correlations between each candidate driver and the two FDI measures are computed, contemporaneously and with a one-year lag on the driver. Fourth, the sensitivity analysis

of the original study is replaced by multivariate regressions with standardised regressors and HAC standard errors, so that coefficients are directly comparable as "sensitivities". Four specifications alternate the sentiment variable — Business Outlook (M1), Business Performance (M2), Composite ICEI (M3) and Kearney FDIC (M4) — while holding the controls (GDP growth, inflation, exchange rate and labour cost) constant, mirroring the substitution design of Finley et al. (2025). A variant adds a linear trend to guard against spurious association between trending series.

Fifth, we test for long-run relationships with the autoregressive distributed lag (ARDL) bounds approach of Pesaran et al. (2001), which is valid for regressors that are a mix of I(0) and I(1) series. Given the sample size, we estimate parsimonious ARDL(1,1,1,1) models in unrestricted error-correction form with an unrestricted constant (case 3):

$$\Delta FDI_t = \alpha + \varphi FDI_{t-1} + \theta_1 S_{t-1} + \theta_2 GDP_{t-1} + \theta_3 ER_{t-1} + \gamma_1 \Delta S_t + \gamma_2 \Delta GDP_t + \gamma_3 \Delta ER_t + \varepsilon_t$$

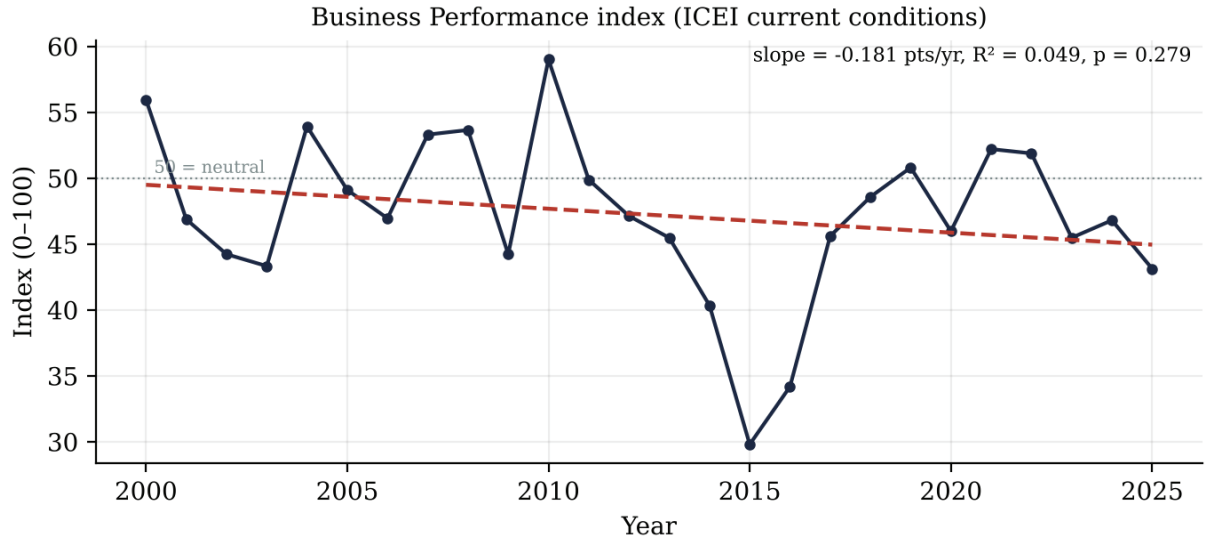
where S is the sentiment index. Cointegration is assessed with the F-test on $\varphi = \theta_1 = \theta_2 = \theta_3 = 0$, and long-run elasticities are recovered as $-\theta/\varphi$ with delta-method standard errors. Finally, Granger-causality tests (Granger, 1969) with one lag assess whether sentiment helps predict FDI, and vice versa. All tests use $\alpha = 0.05$. Computations were carried out in Python 3 with pandas, statsmodels and scipy; the dataset and code are available from the author.

4. Results

4.1 Business Performance: Weak but Cyclical

Business Performance shows a negative but statistically insignificant trend (slope = −0.181 points per year, $R^2 = 0.049$, p = 0.279; HAC p = 0.159). The index is dominated by cycles rather than trend: it peaked at 59.0 in 2010, collapsed to 29.8 in 2015 during the recession, recovered above 50 in 2019 and 2021–2022, and stood at 43.1 in 2025 (Figure 2). Its average fell only modestly, from 50.0 in 2000–2010 to 48.0 in 2019–2025. Unlike the Chinese case, where the performance index declined significantly, Brazilian industrial firms' assessment of current conditions has been persistently weak but not steadily deteriorating.

Figure 2. Business Performance index (ICEI current conditions), 2000–2025

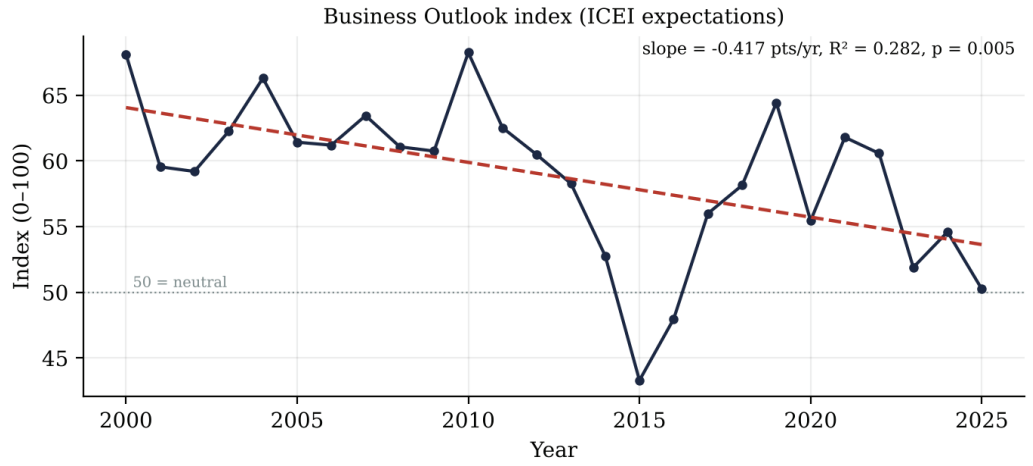


Source: CNI, ICEI (BCB-SGS); annual mean of Jan/Apr/Jul/Oct readings.

4.2 Business Outlook: A Significant Downward Trend

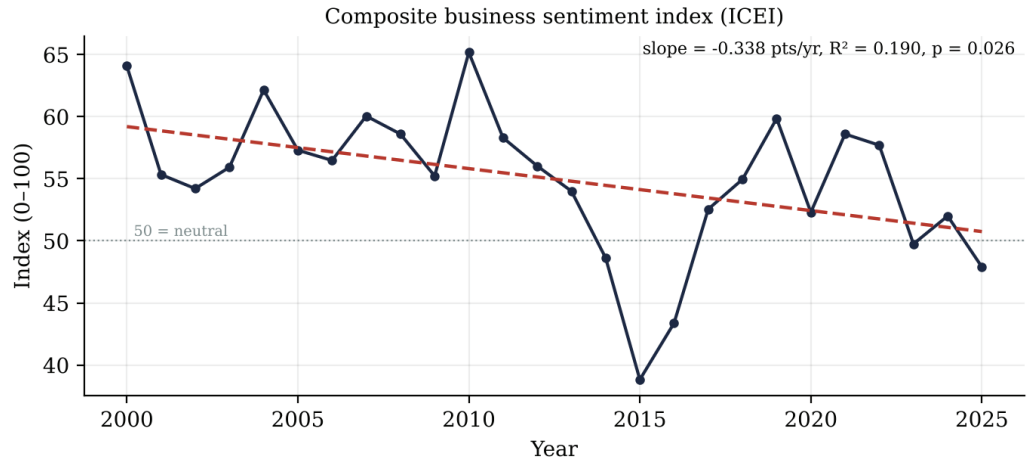
Expectations show a clear deterioration. Business Outlook declines by 0.417 points per year ($R^2 = 0.282$, p = 0.005; HAC p < 0.001), from an average of 62.9 in 2000–2010 to 57.0 in 2019–2025 (Figure 3). Expectations reached their minimum of 43.3 in 2015 — expectations fell below the neutral threshold of 50 only in 2015 and 2016 — and ended the sample at 50.3, close to neutrality. The composite ICEI also trends down (slope = −0.338, $R^2 = 0.190$, p = 0.026; Figure 4). These results parallel the Chinese evidence of declining outlook, although the Brazilian decline is driven by large cyclical troughs as much as by gradual erosion.

Figure 3. Business Outlook index (ICEI expectations), 2000–2025



Source: CNI, ICEI (BCB-SGS); annual mean of Jan/Apr/Jul/Oct readings.

Figure 4. Composite business sentiment index (ICEI), 2000–2025

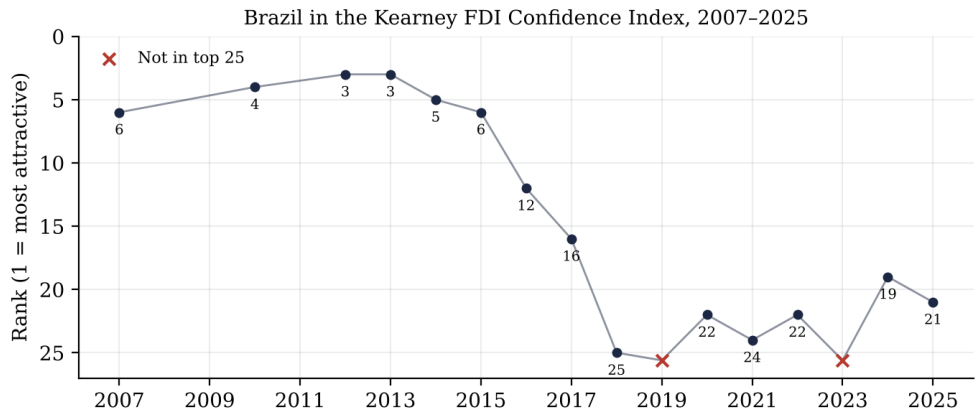


Source: CNI, ICEI (BCB-SGS); annual mean of Jan/Apr/Jul/Oct readings.

4.3 Global Investor Confidence: A Fall from the Top Five

The Kearney benchmark confirms that multinational executives have become markedly less enthusiastic about Brazil (Figure 5). Brazil was in the top six in every edition from 2007 to 2015, slid to 12th in 2016 and 16th in 2017, and has since hovered between 19th and 25th, dropping out of the ranking altogether in 2019 and 2023. The trend in the FDIC score is steep and highly significant (slope = −1.45 points per year, $R^2 = 0.687$, $p < 0.001$, $n = 16$).

Figure 5. Brazil's rank in the Kearney FDI Confidence Index, 2007–2025

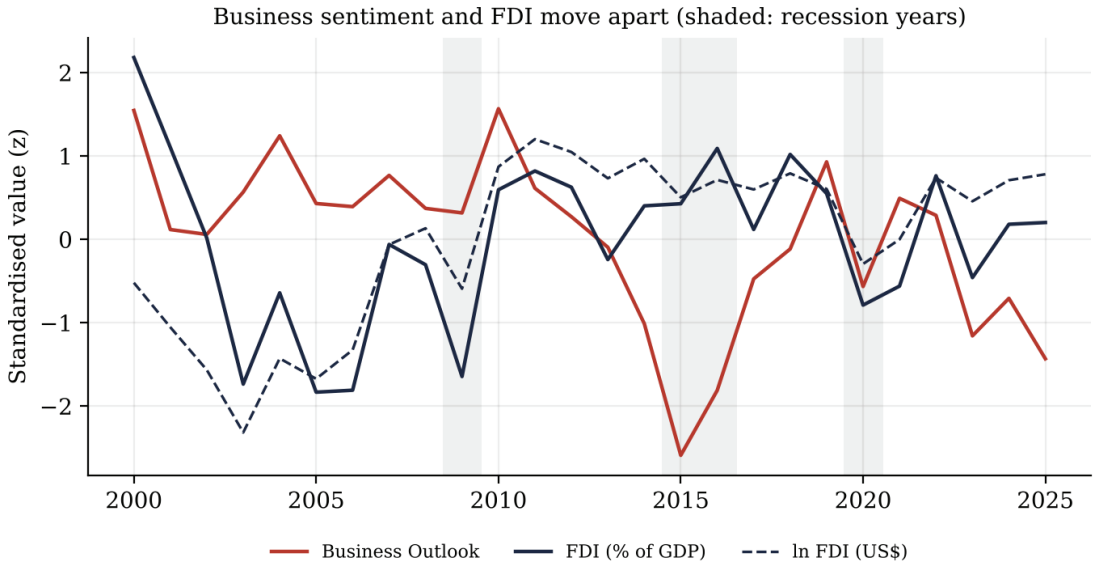


Sources: Kearney FDICI reports and press coverage of each edition; no editions in 2008, 2009, 2011.

4.4 Realised FDI: No Decline

Realised investment tells a different story. FDI as a share of GDP has no trend (slope = 0.013, p = 0.555), fluctuating around 3.3% of GDP, while FDI in US dollars rises at about 6.1% per year ($p < 0.001$). Figure 6 overlays the standardised series. The divergence is starkest in 2015–2016: Business Outlook reached its lowest level in 26 years while FDI intensity rose to 4.14% of GDP in 2016, one of the highest values of the period, as the BRL/USD rate rose by almost 50% between 2014 and 2016. Conversely, the confidence peak of 2010 coincided with a strong real.

Figure 6. Business Outlook and FDI, standardised values, 2000–2025



4.5 Stationarity

Table 2 reports unit-root tests. FDI in both measures, Business Performance, GDP growth and inflation are stationary in levels according to the ADF test. Business Outlook and the composite ICEI are borderline (ADF p = 0.108 and 0.063), with KPSS tests failing to reject stationarity at 5%, while the exchange rate is clearly I(1). Real labour-cost growth is inconclusive, which is unsurprising for a policy-determined series observed 26 times; since a growth rate is implausibly I(2), we keep it as a control in the static models but exclude it from the bounds tests. The mixed I(0)/I(1) pattern motivates the ARDL approach.

Table 2. Unit-root tests

Variable	ADF (level)	ADF (first difference)	KPSS p-value (level)	Conclusion
FDI (% of GDP)	−3.73***	−4.38***	≥ 0.100	I(0)
ln FDI (US$)	−3.79***	−3.70***	0.049	I(0)
Business Performance	−3.22**	−6.04***	≥ 0.100	I(0)
Business Outlook	−2.53	−5.67***	0.060	I(1)
Composite ICEI	−2.77*	−5.68***	≥ 0.100	I(1)
GDP growth	−3.79***	−3.48***	≥ 0.100	I(0)
Inflation	−3.04**	−4.13***	≥ 0.100	I(0)
Exchange rate (log)	−0.45	−4.71***	0.034	I(1)
Labour cost	−2.56	−0.77	0.024	Inconclusive

Note: ADF with constant, lag length selected by AIC. *, **, *** denote rejection of the unit-root null at 10%, 5% and 1%. KPSS null hypothesis: level stationarity (p-values truncated at 0.10).

4.6 Correlation Analysis

Tables 3 and 4 replicate the feature–target correlation analysis of the original study. For FDI as a share of GDP — the measure for which Finley et al. (2025) found Business Outlook to be among the strongest correlates (r = 0.77) — no variable

is significantly correlated at 5% in Brazil, and all three sentiment indices have coefficients close to zero, contemporaneously and with a one-year lead. For FDI in US dollars, the significant correlates are real labour-cost growth ($r = -0.411$, $p = 0.037$) and inflation ($r = -0.403$, $p = 0.041$); Business Outlook is negatively correlated at the 10% level ($r = -0.335$, $p = 0.094$). The Kearney score shows positive but insignificant correlations with both FDI measures.

Table 3. Correlation analysis of FDI drivers (FDI, % of GDP)

Variable	r	p-value	r (driver lagged 1 year)	n
Real labour cost growth	−0.318	0.114	−0.212	26
Kearney FDIC score	0.181	0.502	0.274	16
Inflation	−0.078	0.704	−0.130	26
Business Performance	0.068	0.743	−0.192	26
Business Outlook	−0.059	0.774	−0.250	26
Exchange rate (log BRL/USD)	−0.042	0.838	−0.026	26
GDP growth	−0.022	0.915	−0.174	26
Composite ICEI	−0.015	0.941	−0.234	26

Note: Pearson correlations, ordered by absolute contemporaneous correlation. *, **, *** denote significance at 10%, 5% and 1%.

Table 4. Correlation analysis of FDI drivers (ln FDI, US$)

Variable	r	p-value	r (driver lagged 1 year)	n
Real labour cost growth	−0.411**	0.037	−0.246	26
Inflation	−0.403**	0.041	−0.359*	26
Business Outlook	−0.335*	0.094	−0.324	26
Kearney FDIC score	0.306	0.249	0.408	16
Composite ICEI	−0.251	0.215	−0.265	26
Exchange rate (log BRL/USD)	0.130	0.527	0.097	26
GDP growth	−0.086	0.677	−0.121	26
Business Performance	−0.073	0.724	−0.138	26

Note: as Table 3.

4.7 Multivariate Sensitivity Analysis

Table 5 reports the multivariate models with standardised regressors; Figure 7 shows the M1 coefficients as a sensitivity ranking. Two results stand out. First, real labour-cost growth is the most influential and the only robust driver: a one-standard-deviation increase in real minimum-wage growth lowers FDI intensity by 0.40 percentage points of GDP ($p = 0.018$) and FDI in dollars by about 38 log points ($p < 0.001$). A depreciated real (higher BRL/USD) is associated with lower FDI intensity in M1 and M3. Second, no sentiment index has a positive effect. For FDI as a share of GDP, all sentiment coefficients are small and insignificant. For FDI in dollars, Business Outlook (−0.347, $p < 0.001$), Business Performance and the composite ICEI enter negatively.

The negative sentiment coefficients in the dollar-FDI regressions do not survive the inclusion of a linear trend (Table 6): once the upward drift in dollar FDI and the downward drift in expectations are controlled for, the Outlook coefficient falls to −0.080 ($p = 0.168$), while labour-cost growth remains significant in every specification. Replacing the domestic indices with the Kearney score (M4) does not help: its coefficient is insignificant for both FDI measures, multicollinearity rises (VIF ≈ 8.0), and with only 16 observations the model has no explanatory power once degrees of freedom are accounted for (adjusted $R^2 = -0.020$). In contrast with Finley et al. (2025), neither local nor global sentiment improves the explanation of Brazilian FDI.

Table 5. Multivariate models with alternative sentiment indicators (standardised coefficients)

Panel A — Dependent variable: FDI (% of GDP)

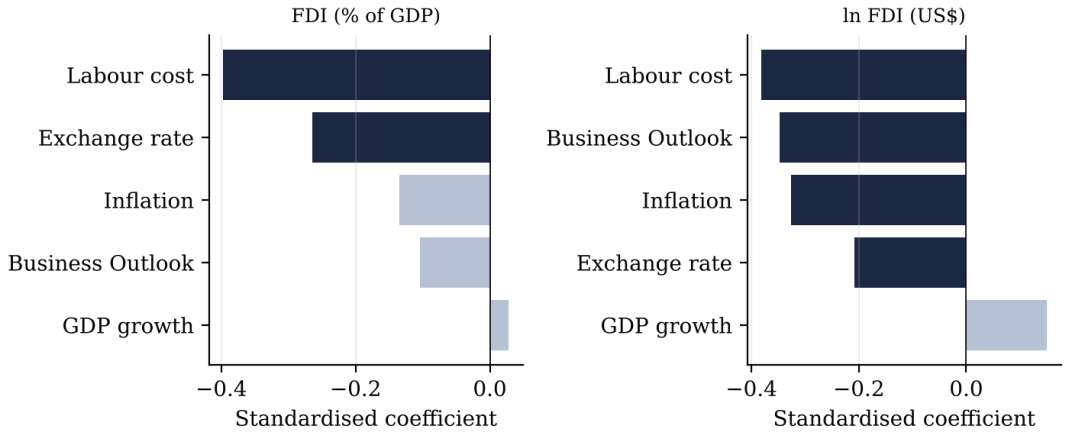
	M1 Outlook	M2 Performance	M3 Composite	M4 Kearney
Business Outlook	−0.104			
Business Performance		0.105		
Composite ICEI			−0.051	
Kearney FDIC score				−0.499
GDP growth	0.028	−0.123	−0.002	−0.138
Inflation	−0.135	−0.123	−0.143	0.271**
Exchange rate (log)	−0.265**	−0.232*	−0.246**	−0.555
Labour cost growth	−0.397**	−0.385**	−0.399**	0.101
R^2	0.187	0.184	0.181	0.320
n	26	26	26	16
Max VIF	2.37	3.64	2.71	7.96

Panel B — Dependent variable: ln FDI (US$)

	M1 Outlook	M2 Performance	M3 Composite	M4 Kearney
Business Outlook	−0.347***			
Business Performance		−0.274**		
Composite ICEI			−0.338***	
Kearney FDIC score				−0.055
GDP growth	0.150*	0.153	0.172**	−0.001
Inflation	−0.326***	−0.396***	−0.354***	0.075
Exchange rate (log)	−0.208**	−0.125	−0.180*	−0.111
Labour cost growth	−0.381***	−0.409***	−0.393***	0.039
R^2	0.554	0.484	0.534	0.150
n	26	26	26	16
Max VIF	2.37	3.64	2.71	7.96

Note: OLS with standardised regressors; Newey–West HAC standard errors (2 lags). *, **, *** denote significance at 10%, 5% and 1%. M1–M3: 2000–2025; M4: Kearney edition years only.

Figure 7. Sensitivity ranking: standardised coefficients, model M1



Dark bars: p < 0.05 (Newey–West HAC). Model M1, 2000–2025, n = 26.

Table 6. Robustness: models M1–M3 with a linear trend

Sentiment index	Sentiment → FDI % GDP	Labour cost → FDI % GDP	Sentiment → ln FDI US$	Labour cost → ln FDI US$
Business Outlook	−0.097	−0.390**	−0.080	−0.142**
Business Performance	0.141	−0.346**	−0.019	−0.133**
Composite ICEI	−0.030	−0.380**	−0.065	−0.141**

Note: standardised coefficients; all models include GDP growth, inflation, exchange rate, labour cost and a linear trend; HAC standard errors; n = 26.

4.8 Long-Run Relationships: ARDL Bounds Tests

Table 7 reports the bounds tests. With three regressors, the 5% critical bounds are 2.88 for I(0) and 4.01 for I(1). No F-statistic exceeds the upper bound; most fall below the lower bound, so the null of no long-run relationship cannot be rejected. The Business Outlook model for FDI intensity (F = 2.50) lies just above the 10% lower bound but well below the upper bound and is therefore at best inconclusive. Long-run sentiment coefficients are small, negative and insignificant (e.g., −0.119, t = −1.32 for Business Outlook). The error-correction term on lagged FDI intensity is negative and significant (−0.596, p = 0.018), but this reflects the mean reversion of a stationary FDI ratio rather than adjustment to a sentiment-anchored equilibrium. For dollar FDI the adjustment coefficient is not negative, ruling out error correction. Residual diagnostics (Ljung–Box, Jarque–Bera) are satisfactory throughout. Given the sample size, the asymptotic critical values should be read with caution (Narayan, 2005), but the statistics are far enough from the upper bound that small-sample corrections would not reverse the conclusion.

Table 7. ARDL(1,1,1,1) bounds tests: sentiment, GDP growth and exchange rate

Model	F-stat	Decision	ECT (φ)	Long-run sentiment coef. (t)	Ljung–Box p	Jarque–Bera p
Business Outlook → FDI % GDP	2.50	Inconclusive at 10%; none at 5%	−0.596**	−0.119 (−1.32)	0.77	0.68
Business Outlook → ln FDI US$	0.76	No cointegration	0.019	1.037 (0.16)	0.22	0.54
Business Performance → FDI % GDP	2.18	No cointegration	−0.505**	−0.092 (−0.79)	0.45	0.84
Business Performance → ln FDI US$	1.43	No cointegration	0.076	0.291 (0.67)	0.27	0.62
Composite ICEI → FDI % GDP	2.41	No cointegration	−0.563**	−0.124 (−1.19)	0.83	0.86
Composite ICEI → ln FDI US$	0.94	No cointegration	0.038	0.582 (0.31)	0.32	0.56

Note: unrestricted error-correction form, case 3 (unrestricted constant); n = 25. Pesaran et al. (2001) asymptotic bounds, k = 3: 10% [2.46, 3.52]; 5% [2.88, 4.01]; 1% [3.78, 5.05]. Long-run coefficient = −θ/φ with delta-method t-statistic.

4.9 Direction of Predictability

The leading-indicator hypothesis implies that sentiment should Granger-cause FDI. Table 8 shows that it does not: for every index and both FDI measures, lagged sentiment adds no predictive power (p between 0.23 and 0.53). The reverse direction is significant at 5% in five of six cases: lagged FDI helps predict sentiment, with a negative sign — years following high FDI tend to see lower industrial confidence. Rather than sentiment leading FDI, FDI tends to peak as the domestic cycle turns down.

Table 8. Granger-causality tests (one lag)

Pair	F (sentiment → FDI)	p	F (FDI → sentiment)	p	Sign of FDI(t−1) in sentiment eq.
Business Outlook / FDI % GDP	1.48	0.236	5.33	0.031	−2.51
Business Outlook / ln FDI US$	0.40	0.532	6.59	0.018	−3.62
Business Performance / FDI % GDP	1.38	0.253	7.50	0.012	−3.37
Business Performance / ln FDI US$	0.63	0.436	4.08	0.056	−3.33
Composite ICEI / FDI % GDP	1.51	0.232	6.78	0.016	−2.82
Composite ICEI / ln FDI US$	0.50	0.488	6.23	0.021	−3.54

Note: variables in levels (all FDI measures are stationary by ADF); n = 26.

5. Discussion

The Brazilian evidence qualifies the conclusion drawn for China. In both countries, survey-based sentiment has deteriorated, and in both, investors remain present. But whereas Finley et al. (2025) find that local Business Outlook tracks FDI intensity closely, in Brazil sentiment neither tracks nor predicts FDI, and global confidence (Kearney) fares no better. Three mechanisms help explain the divergence.

Counter-cyclical, valuation-driven FDI. Brazil's largest confidence slumps (2009, 2015–2016, 2020) coincided with sharp depreciations and falling asset prices. Foreign firms with access to cheaper funding expanded through acquisitions, concessions and capital injections into distressed subsidiaries precisely when domestic firms were most pessimistic, in line with the wealth effects of Froot and Stein (1991) and the fire-sale mechanism of Krugman (2000) and Aguiar and Gopinath (2005). The negative sign of lagged FDI in the sentiment equations is consistent with this timing.

Composition of FDI. Brazilian inflows include sizeable intercompany loans and reinvested earnings that respond to parent-company financing conditions, interest-rate differentials and the need to recapitalise subsidiaries, not only to new-project decisions. Such flows are poorly captured by sentiment questions about business conditions and expectations. Sector-level evidence from Africa likewise shows that the composition of FDI, rather than its aggregate level, determines its developmental effects (Fayou, 2026a).

Whose sentiment. The ICEI surveys industrial firms operating in Brazil, most of which are domestically owned, while the Chinese index is built from foreign chambers whose members are themselves the investors. Part of the divergence may therefore reflect measurement rather than behaviour. This is a genuine limitation, but it also sharpens the policy lesson: the predictive value of "local" sentiment depends on how close the surveyed population is to the actual investors.

The robust negative effect of real labour-cost growth is consistent with efficiency-seeking motives and with investor concerns over the cost structure summarised in the "Custo Brasil". It is also the variable whose role is common to both studies: Finley et al. (2025) rank labour costs among the strongest drivers in China as well.

6. Conclusion and Policy Implications

This paper transposed the business-sentiment approach to FDI from China to Brazil using 26 years of harmonised confidence data. Business expectations have declined significantly and Brazil has fallen sharply in global investor rankings, yet FDI intensity is unchanged and dollar inflows have grown. Domestic sentiment is not associated with FDI in the short or long run and does not predict it; real labour costs are the only robust driver, and the pattern is consistent with counter-cyclical, valuation-driven inflows. Business sentiment is therefore not a universal leading indicator of FDI: its value depends on the motive of investment, on the composition of flows and on whose sentiment is measured.

6.1 Monitoring Investor Confidence

Brazilian authorities should not read swings in domestic business confidence as signals of imminent FDI movements, nor should improvements in Kearney-type rankings be treated as targets in themselves. A more useful dashboard would combine confidence with indicators of relative costs (real wages and unit labour costs), asset valuations and the real exchange rate, and

would separate equity investment in new projects from intercompany loans and reinvested earnings. A dedicated survey of foreign-invested firms — conducted, for instance, with the foreign chambers of commerce and ApexBrasil — would close the measurement gap identified above.

6.2 Reducing the Cost of Doing Business

Since labour and operating costs are the most robust determinant, policies that raise productivity relative to wages and lower non-wage costs offer the most direct lever. Effective implementation of the consumption-tax reform of Constitutional Amendment 132/2023, scheduled to be phased in from 2026 to 2033, should reduce compliance costs and cumulative taxation; predictability during the transition will matter as much as the final design.

6.3 Moving from Opportunistic to Strategic FDI

Counter-cyclical inflows are a stabiliser, but acquisitions at depressed prices add less productive capacity than greenfield investment. Policies that reduce macroeconomic volatility, deepen long-term domestic credit, and offer stable regulatory frameworks for concessions and the energy transition would shift the composition of FDI towards long-horizon, capacity-creating projects. Deeper trade integration — including the conclusion of the Mercosur–EU agreement negotiations in December 2024 — and progress in the OECD accession process could anchor investor expectations beyond the domestic cycle; evidence from the African Continental Free Trade Area suggests that regional trade liberalisation strengthens the developmental payoff of non-extractive FDI (Fayou, 2026a).

6.4 Limitations and Future Research

The analysis relies on 26 annual observations, which limits the power of cointegration and causality tests; quarterly FDI data from the Central Bank's balance-of-payments statistics would allow higher-frequency tests. The ICEI measures the sentiment of industrial firms rather than foreign investors, and services, which account for a large share of FDI, are not covered. Kearney ranks are an ordinal and censored measure. Future work could build a foreign-investor sentiment index from chamber surveys where available, disaggregate FDI into equity, reinvested earnings and intercompany loans, and test the fire-sale mechanism directly with cross-border M&A data. A comparative panel of emerging markets would help determine under what conditions sentiment does, or does not, lead investment.

Funding

No

Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

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