




Macro-locational determinants of Chinese foreign direct investment in Cameroon



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Background: Macro-locational determinants of foreign direct investment (FDI) constitute a country's comparative advantage in attracting FDI. Although literature identifies potential determinants of Chinese FDI, empirical studies reveal significant variation across countries, necessitating investigation of specific macro-locational factors in each context.

Aim: Despite its abundant resources and reliance on FDI for development, Cameroon has experienced slow FDI growth. Efforts to enhance trade and investment relations between Cameroon and China make an understanding of Chinese FDI drivers crucial for policymakers. This study aims to ascertain the significance of macro-locational determinants in attracting Chinese FDI to Cameroon.

Setting: The study uses quarterly data on proposed macro-locational determinants of FDI from 2003 to 2017.

Method: Data were obtained from credible databases and reports. The study employs time series data and uses the Johansen approach and vector error correction modelling for analysis.

Results: Findings indicate a statistically significant positive relationship between Chinese FDI and Cameroon's market size and competitiveness. A significant inverse relationship was found between exchange and interest rates and Chinese FDI. Trade openness had a small but ambiguous effect on Chinese FDI.

Conclusion: The results align with FDI theories though not all proposed determinants were significant for Chinese FDI in Cameroon. To attract FDI, Cameroon must expand its market, stabilise exchange rates and maintain competitiveness, especially through skills development. Financial institutions should provide competitive interest rates to promote private-sector borrowing.

Contribution: This study enhances the understanding of the key factors influencing Chinese FDI in Cameroon and contributes to the limited research on macro-locational determinants of FDI in Africa.

Keywords: foreign direct investment; FDI theories; macro-locational determinants; China; Cameroon.

Introduction

Since the 1980s, developing economies have experienced a substantial rise in foreign direct investment (FDI), primarily fuelled by the demand for reliable external capital because of insufficient domestic savings and recurring lending crises (Demirhan & Masca 2008). Foreign direct investment is often perceived as a crucial driver for economic development in these nations, promoting job creation, technology transfer and infrastructural advancement (Camarero, Montolio & Tamarit 2020). Consequently, developing countries now receive nearly half of global FDI (Forte, Teles & Santana 2023).

Like many other developing countries, Cameroon has acknowledged the pivotal role of FDI in fostering economic growth, particularly after enduring several financial challenges. These included the global financial crisis of 1981–1988, a sharp decline in crude oil prices, a drop in the prices of key agricultural exports and a shortage of funds needed to meet the Millennium Development Goals (MDG) (Akwaowo 2013; Ghura 1997). In response, Cameroon intensified its focus on attracting FDI following unsuccessful attempts at economic revival through currency devaluation, fiscal tightening, privatisation of state-owned enterprises and banking sector restructuring (Ghura 1997).

To enhance its appeal to foreign investors, Cameroon implemented several policy reforms and tax incentives (Njong 2008). Notable measures included the Investment Code of 1990, amended

in 1994, and the amendment of the *Patent Right Act* in February 1999 (Forgha 2009; Njong 2008). Additionally, establishing the National Industrial Free Trade Zone in 1991 provided corporate tax holidays and lifted controls on exchange rates and profit repatriation (Zisuh 2001). In 2001, the Cameroonian parliament passed an investment charter committing the government to ensuring justice, combating corruption, protecting investors and their properties and eliminating bureaucracy and discrimination (Zisuh 2001).

These initiatives proved effective, and by 2009, Cameroon had secured substantial FDI, with the average annual FDI inflow reaching \$337 million that year (Akwaowo 2013). France and the United States (US) became key sources of FDI, with one of the US's notable investments in sub-Saharan Africa being the Chad–Cameroon pipeline (Forgha, Ngong & Lionel 2016). Other countries such as China, South Korea, South Africa, India and Morocco also made significant contributions to FDI in Cameroon (Forgha et al. 2016). The emphasis on promoting FDI is further justified by evidence that it enhances economic development in Cameroon, especially through job creation (Ngouhouo & Nchofoung 2021). Despite past successes, Cameroon has recently experienced a slowdown in FDI inflows (Djomo et al. 2017). According to a United Nations Conference on Trade and Development (UNCTAD) (2023) report, Cameroon lags behind several other African countries, including Ghana, Ivory Coast and Senegal, in attracting general FDI inflows. This situation is perplexing, given studies by Al-Fadhat and Prasetyo (2022) and Nghan (2017) that highlight Cameroon's potential to attract FDI because of its abundant natural resources, renewable energy potential and strategic position in Central Africa, providing access to landlocked Central African countries. The slow growth in FDI poses a significant challenge for Cameroon, which relies heavily on FDI to fund economic development (Nghan 2017). In response, China has shown considerable interest in strengthening ties and promoting FDI growth in Cameroon. On 23 March 2018, in Beijing, China's Premier Li Keqiang and Cameroon's President Paul Biya reached agreements on cooperation in technology, industrial growth, workforce development and infrastructure projects (Mengjie 2018).

However, the intention to boost Chinese FDI in Cameroon has elicited mixed reactions. While China's contributions to infrastructural development, such as road infrastructure, dam construction and seaport projects, are acknowledged (Al-Fadhat & Prasetyo 2022; Mayers, Nguiffo & Assembe-Mvondo 2019), there are concerns raised by the Cameroonian coordinator of the Forest and Rural Development Association (FODER) regarding environmental damage and safety hazards from illegal mining by Chinese nationals (Marsh 2019). Al-Fadhat and Prasetyo (2022) also highlight potential debt traps because of the structural power imbalance between China as an investor and Cameroon as a recipient. Nghan (2017) further notes criticisms around the lack of social responsibility and poor wages paid to local workers by Chinese firms. These controversies are not unique to Cameroon; Brautigam (2020) notes that Chinese FDI in Africa

often diverges from conventional Western approaches by investing in poorly governed, resource-rich countries. These issues raise questions about the actual determinants of Chinese FDI in Cameroon.

Numerous theories and empirical studies have explored the factors determining FDI (Asiamah, Ofori & Afful 2019; Nguyen 2021). Among these, locational determinants at the macro level are considered primary sources of a country's comparative advantage in attracting FDI (Petrović-Randelović, Janković-Milić & Kostadinović 2017). However, conflicting findings from studies such as those of Camarero et al. (2020) and Korsah, Amanamah and Gyimah (2022) suggest that there are no universally accepted sets of macro-locational determinants of FDI. Furthermore, despite the controversies surrounding Chinese FDI, research on its determinants, especially in Africa, is limited. Studies by Tuman and Erlingsson (2020) and Utesch-Xiong and Kambhampati (2022) reveal significant discrepancies in the macro-locational determinants of Chinese FDI across different host countries. This necessitates establishing country-specific determinants of FDI and identifying determinants specific to the investing country.

This study aims to identify and ascertain the macro-locational determinants of Chinese FDI in Cameroon, considering both the positive assertions and criticisms of Chinese involvement. This study is based on the premise that a better understanding of the determinants of Chinese FDI will enable Cameroon to strategise more effectively, minimising negative aspects and maximising benefits. This aligns with the findings of Weng, Sayer and Xue (2017) that advancing economic cooperation with China offers significant potential benefits for Cameroon but also poses risks and challenges. Additionally, by incorporating variables such as political stability, this research seeks to clarify debates regarding its importance for Chinese FDI, a much-debated issue in the literature (Brautigam 2020; Kolstad & Wiig 2011).

This research contributes to policy development and seeks to fill a notable gap in the existing literature, as studies have yet to specifically examine the macro-locational determinants of Chinese FDI in Cameroon. It rigorously evaluates established FDI theories to determine whether the locational determinants affecting Chinese investment in Cameroon are in accordance with conventional FDI theories. By clarifying these issues, this study aims to enhance Cameroon's ability to leverage Chinese FDI for sustainable economic development while mitigating potential risks.

The subsequent section presents a comprehensive review of both theoretical and empirical literature, alongside the development of hypotheses. Following this, the research methods, procedures and techniques employed in the study are detailed. The findings from the empirical analysis of the determinants influencing Chinese FDI in Cameroon are then reported and critically examined. This is concluded with a discussion of the study's limitations and suggestions for future research endeavours.

Literature review and hypothesis development

The Organisation for Economic Cooperation and Development (OECD 2023) defines FDI as an investment that entails an investor establishing a long-term interest and exerting significant control over a business in a different nation. Akwaowo (2013) elaborates that this lasting interest implies a long-term association between the direct investor and the investment enterprise. Fundamentally, FDI entails residents from one country owning assets abroad with the primary aim of controlling these assets (Alfaro & Chauvin 2017). Additionally, FDI can occur when a foreign corporation establishes a subsidiary in another country to market its products and services.

Foreign direct investment can occur in various forms, such as greenfield investments, which involve constructing new production plants in the host country or brownfield investments, which involve acquiring existing firms through mergers and acquisitions (M&A) (Alfaro & Chauvin 2017). Greenfield investments are more prevalent in developing countries compared to developed ones, although M&A activities, including privatisations, are also significant in developing nations (Alfaro & Chauvin 2017).

The importance of FDI, particularly for developing countries, lies in its role as a conduit for capital, knowledge and technology transfer, as well as access to brand names and marketing advantages (Pacific, Sunday & Lucy 2015). Foreign direct investment is distinguished from portfolio investments by the degree of control it confers; while FDI involves actual operational control, portfolio investments typically do not grant controlling stakes (Pacific et al. 2015). Moreover, FDI is generally preferred over portfolio investments because of its lower volatility and greater resilience to economic fluctuations in host countries.

Review of related theories

Research interest in FDI surged as the concept became popular, leading to several theories explaining why firms engage in FDI. Buckley et al. (2007) argue that a thorough understanding of these theories, particularly those focusing on Chinese FDI in Africa, can highlight any gaps between theoretical predictions and practical outcomes. More specifically, the following theories are explained next, namely the Eclectic paradigm, Industrial Organisational Theory, Location Specific Theory, the Firm Specific Advantage and Country Specific Advantage (FSA-CSA) framework and the Theory of Competitive Advantage.

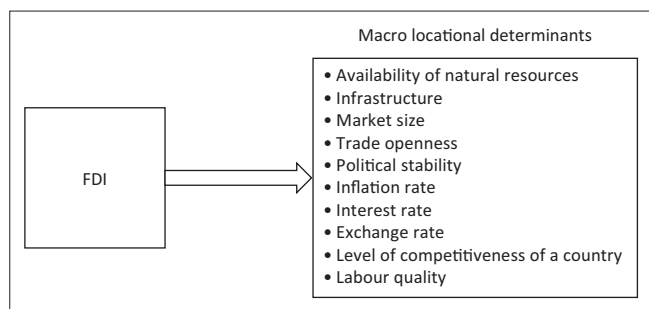
Dunning's (1987) Eclectic paradigm is a key theoretical framework for understanding FDI. By synthesising multiple FDI theories, it offers a comprehensive approach to explaining why firms invest abroad, how they choose to enter foreign markets and the conditions required for successful operations (Dunning 1987). The paradigm highlights three key drivers of FDI: ownership advantage, internalisation and location

advantage (Dunning 1987). It also distinguishes between two groups of FDI determinants: firm-specific factors at the micro level, such as ownership and internalisation advantages, and country-specific factors at the macro level, known as locational advantages (Petrović-Randelović et al. 2017).

Ownership advantages, as outlined in the FSA-CSA framework, represent the intangible assets and resources a firm holds such as financial resources, qualified workforce, technological capabilities, intellectual property and leadership skills that enhance its competitiveness abroad (Nielsen, Asmussen & Weatherall 2017). According to the Eclectic paradigm, firms leverage these advantages through FDI to capitalise on market inefficiencies (Petrović-Randelović et al. 2017). Internalisation, in contrast, involves firms maintaining control over these assets instead of granting licensing to foreign firms to maximise their benefits (Dunning 1987). This concept aligns with the Industrial Organisation Theory, which posits that firms prefer to exploit their specific advantages through FDI in the face of market imperfections (Dunning 1987). Therefore, while the ownership advantage explains why firms engage in FDI, internalisation explains how to enter a foreign market.

Location advantages, central to this study, encompass a range of socio-political and economic conditions that impact a firm's choice to invest in a particular location. These factors include political stability, market size, production costs, infrastructure, trade barriers and a favourable competitive environment (Nielsen et al. 2017). The concept of location advantage aligns closely with the Location Specific Theory and the FSA-CSA framework, highlighting the importance of factors such as natural resources, labour costs, trade openness or trade barriers and market size (Rashidin et al. 2020).

The importance of the various locational factors is based on various reasons. Natural resources reduce production costs by situating factories close to raw material sources, attracting resource-seeking FDI in developing countries (Akwaowo 2013). Chinese FDI, driven by China's economic growth needs, often targets resource-rich countries (Tuman & Erlingsson 2020). On the other hand, infrastructure is a significant determinant for attracting FDI, as good transport networks, electricity and communication facilities enhance productivity and reduce costs (Shahbaz et al. 2021). Market size also plays a vital role, as larger markets attract FDI, especially in services industries (Amponsah, Garcia-Fuentes & Smalley 2020). Trade openness indicates the ease of conducting international trade and attract FDI. Nonetheless, trade barriers can also serve as a magnet for FDI, particularly for market-seeking investors who are drawn to regions with high trade restrictions (Sabir, Rafique & Abbas 2019). Additionally, political stability is pertinent for creating a favourable investment environment, as political instability increases the risk associated with FDI (Mourao 2018). A favourable competitive environment, characterised by economic stability and reflected in factors such as inflation and interest rates, is essential for attracting FDI. High inflation rates create uncertainty (Buckley et al. 2007), while



FDI, foreign direct investment.

FIGURE 1: Macro-locational determinants of foreign direct investment based on location-based foreign direct investment theories.

stable or low-interest rates encourage investment by reducing costs (Mujahid, Noman & Nargis 2019).

In addition to the locational factors highlighted in the Eclectic paradigm and related FDI theories, exchange rates play a crucial role in economic stability, as suggested by exchange rate-focused theories. Aliber's hypothesis (1971, cited in Nayak & Choudhury 2014) suggests that firms in countries with strong currencies tend to invest in nations with weaker currencies to capitalise on higher market valuations. Conversely, Froot and Stein's (1991) model contends that currency depreciation reduces acquisition costs for foreign assets, potentially boosting FDI.

Porter's (1990) Theory of Competitive Advantage offers a different perspective, positing that a nation's competitive edge is determined by the innovation and productivity of its industries rather than by its natural resources or currency value. This theory suggests that a country's competitiveness and labour quality should positively influence FDI. Abbas, Moosa and Ramiah (2021) argue that a highly skilled labour force fosters increased productivity and facilitates faster technological adoption. The macro-locational determinants for FDI used in this study are summarised in Figure 1.

As illustrated in Figure 1, the diversity and uncertainty surrounding FDI create a complex landscape for identifying the specific macro-level factors that influence investment decisions, particularly in the context of Cameroon. To establish a robust foundation for hypothesis development, it is essential to review empirical studies that have examined the significance of these factors in various countries, especially developing and African countries.

Empirical review

Various studies have been carried out to evaluate the importance of macro-locational determinants of FDI, with varying results across different contexts.

Using a sample of Sub-Saharan African countries, Makonda and Ngakala (2021) found that natural resource availability significantly attracts FDI inflow. This also holds for Chinese FDI, as evidenced by studies such as those by Kolstad and Wiig (2011) and Utesch-Xiong and Kambhampati (2022).

The significance of infrastructure has yielded mixed results. While Emako, Nuru and Menza (2022) found that infrastructure positively influences FDI inflow into developing countries, Wagner and Delois (2023) observed that infrastructural challenges did not deter FDI inflow in India. More specifically, Utesch-Xiong and Kambhampati (2022) noted Chinese FDI for infrastructural development in resource-rich countries. Forgha et al. (2016) found that increased infrastructural development attracted general FDI inflow to Cameroon.

The importance of market size has yielded more consistent results. Amponsah et al. (2020) identified market size as a crucial factor influencing FDI in sub-Saharan African countries. Regarding Chinese FDI, both Mourao's (2018) and Utesch-Xiong and Kambhampati's (2022) findings support the argument that market size significantly influences Chinese FDI in Africa, given China's strategy to expand its market presence abroad.

The relationship between trade openness and FDI in Africa remains contentious. While Forte et al. (2023) and Korsah et al. (2022) reported that trade openness positively influences FDI in African countries, Lee et al. (2022) observed no significant effect of trade openness on Chinese FDI in Belt and Road Initiative nations. Contradicting these findings, Forgha et al. (2016) reported that increased openness actually reduced FDI inflow in Cameroon.

The importance of political stability varies across regions and time periods. Bouchoucha and Benammou (2020) found that African countries with low political risk attract FDI, while Bhujabal, Sethi and Padhan (2024) observed that institutional quality entailing political stability attracted FDI inflows in South and Southeast Asia. In Cameroon, Forgha et al. (2016) observed that political stability increased general FDI inflow from 1975 to 2015. However, Saha, Sadekin and Saha (2022) found no impact of political stability on FDI for developing economies, including Cameroon, over the period 2002–2018. For Chinese FDI, the importance of political risk is less clear. Kolstad and Wiig (2011) and Utesch-Xiong and Kambhampati (2022) assert that Chinese FDI is drawn to African countries with high political risk. Lu et al. (2014) expanded on this finding, noting that this preference for high-risk environments is more evident in developing nations compared to their developed counterparts. Conversely, Mourao (2018) found that heightened political risk significantly deterred Chinese FDI in a sample of African countries from 2003 to 2010.

The results regarding the importance of economic stability variables have been mixed, often contradictory to the relevant theories, especially in terms of the exchange rate. Nguyen (2021) and Sabir et al. (2019) found that higher inflation rates negatively impacted FDI inflows into Vietnam and developing countries, respectively. On the contrary, Korsah et al. (2022) found that inflation was not a significant determinant of FDI in West African countries. Similarly, Utesch-Xiong and Kambhampati (2022) found no significant influence of inflation on Chinese FDI in Africa. Regarding

exchange rates, Djomo et al. (2017) observed a negative impact of exchange rate appreciation on agricultural growth and FDI in Cameroon, whereas Korsah et al. (2022) observed the opposite effect in West African countries. For Chinese FDI, Munjal, Varma and Bhatnagar (2022) note that a stronger domestic currency positively influenced Chinese FDI inflows in a sample of African countries. Research on interest rates is more limited, with Asiamah et al. (2019) finding a negative association with FDI in Ghana and Chandra and Handoyo (2020) reporting no significant effect in a sample of Asian countries.

Recent studies (see Abbas et al. 2021; Gold, Rasiah & Teng 2019; Wagner & Delois 2023) equally report consistent positive associations between the quality of human capital and FDI. Abbas et al. (2021) found that the availability of skilled labour significantly influenced FDI in developing economies. Wagner and Delois (2023) observed that India's shift towards a knowledge economy with technological skills greatly attracted FDI. For Chinese FDI, Gold et al. (2019) reported a positive association between Chinese FDI and the quality of human capital in African countries.

Considering the limited research on the role of competitiveness of a country in attracting FDI, this study aims to investigate its significance in Cameroon as a contribution to the literature. In summary, given the conflicting findings in the existing literature on the factors influencing general FDI and Chinese FDI, further empirical analysis is necessary to establish the significance of macro-level determinants in Cameroon. Based on these considerations, the following hypotheses were formulated:

- H₁: There is a positive relationship between infrastructure and Chinese FDI in Cameroon.
- H₂: There is a positive relationship between market size and Chinese FDI in Cameroon.
- H₃: There is a positive relationship between human capital and Chinese FDI in Cameroon.
- H₄: There is a positive relationship between the availability of natural resources and Chinese FDI in Cameroon.
- H₅: There is a positive relationship between the global competitive index and Chinese FDI in Cameroon.
- H₆: There is a negative relationship between political risk and Chinese FDI in Cameroon.
- H₇: There is a negative relationship between trade openness and Chinese FDI in Cameroon.
- H₈: There is a negative relationship between the inflation rate and Chinese FDI in Cameroon.
- H₉: There is a negative relationship between an appreciation of the exchange rate measured as the real effective exchange rate and Chinese FDI in Cameroon.
- H₁₀: There is a negative relationship between the interest rate and Chinese FDI in Cameroon.

The following section discusses the research methods, procedures and techniques used in this study to explore these determinants comprehensively.

Research methods, procedures and techniques

Study design and data collection

This study uses a positivist paradigm, deemed suitable given the application of quantitative methods and various existing databases that provide objective deductive evidence external to the researcher. The results were validated through tests for validity and reliability (Collis & Hussey 2014). The study employs deductive reasoning and is confirmatory, as it tests assertions based on macro-locational determinants set out in FDI theories. To address confirmation bias, objectivity was enhanced by being aware of biases related to data selection, overfitting, data interpretation and question framing.

The study uses secondary data sources, with the dependent variable being the stock of Chinese FDI in Cameroon, expressed as a percentage of the country's gross domestic product (GDP). The explanatory variables encompass key macro-locational determinants of FDI identified through theoretical frameworks and existing literature as the most pertinent factors: inflation, interest rate, infrastructure, natural resources, global competitiveness index, human capital, political risk, exchange rate, market size and trade openness. The proxies used for these variables are shown in Table 1.

The research data consisted of numerical data from various databases on the dependent and explanatory variables. Data were collected from credible and reliable sources, as indicated in Table 1, covering the period spanning 2003–2017, generating a time series dataset. Although most datasets comprised quarterly time series, some variables were only reported annually. These include Chinese FDI stock, the Global Competitiveness Index (GCI), infrastructure, natural resources and human capital. To align these variables with the quarterly format, interpolation techniques were applied to derive quarterly data estimates using EViews 13.¹

Research procedure

Preliminary data analysis was undertaken as follows. Correlation analysis was first performed using EViews 13, followed by unit root testing and estimating an initial base model incorporating all the proposed FDI determinants using ordinary least squares (OLS). Following the outcome of the preliminary analysis, cointegration testing was undertaken using the Johansen cointegration technique, followed by vector error correction modelling to investigate the determinants of Chinese FDI into Cameroon more systematically. The steps undertaken for the procedures and techniques employed are described in more detail further in the text. All econometric estimations for the study were carried out using EViews 13, which is well suited to time series analysis.

¹EViews 13 offers a number of interpolation methods for converting annual to quarterly data, the most common being quadratic and linear methods. Selection of a suitable interpolation method for a particular series was undertaken in such a way as to reflect the existing pattern of the series to the extent possible. See Aziakpono (2005) and Grossman, Mack and Martinez-Garcia (2014) for further discussion.

TABLE 1: Variable, variable name, description, proxy and data source.

Variable	Variable name	Description	Proxy	Data source
Chinese FDI (dependent variable)	LFDI	Chinese investment in Cameroon	Stock of Chinese FDI in Cameroon as a percentage of GDP	Statistical bulletin of Chinese outward FDI (2010–2018)
Inflation	LCPI	Inflation rate	Consumer price index	The International Monetary Fund's (IMF) International Financial Statistics (IFS) database (2019)
Interest rate	LDRATE	The cost of capital	Discount rate	IMF IFS database (2019)
Infrastructure	LELECT	Level of infrastructural development	Access to electricity (percentage of total population)	World Bank World Development Indicators (WBWDI) (2019)
Natural resources	LFUELX	Availability of natural resources	Fuel export (percentage of merchandise exports)	WBWDI (2019)
Global competitiveness index (GCI)	LGCI	Efficiency, government institutions, and technological innovations.	Global competitiveness index (GCI)	Schwab (2010–2018)
Human capital	LHDI	Perceived quality of human capital (individuals' abilities to achieve a long and healthy life, develop knowledge, and produce income sufficient for a basic standard of living.)	Human Development Index	UNDP Human Development Report (2019)
Political risk	LPOLRISK	Degree of political stability	Cameroon's rating for political stability and absence of violence	Political Risk Services' international country risk guide (2019)
Exchange rate	LREER	The value of Cameroon's currency in comparison to a basket of other currencies, adjusted for inflationary effects	Nominal effective exchange rate divided by a price deflator or index of cost	IMF IFS database (2019)
Market size	LRGDP	The size of the market	Real GDP	WBWDI (2019)
Trade openness	LTRADE	Degree of openness to trade	Ratio of imports plus exports to GDP	IMF's (IFS) database (2019)

Source: Authors' table based on FDI determinants highlighted by Buckley, P.J., Clegg, L.J., Cross, A.R., Liu, X., Voss, H. & Zheng, P., 2007, 'The determinants of Chinese outward foreign direct investment', *Journal of International Business Studies* 38(4), 499–518. <https://doi.org/10.1057/palgrave.jibs.8400277>; Kisto, M., 2017, 'Determinants of foreign direct investment in Mauritius: Evidence from time series data', *International Journal of Scientific & Technology Study* 6(8), 367–377. & Munjal, S., Varma, S. & Bhatnagar, A., 2022, 'A comparative analysis of Indian and Chinese FDI into Africa: The role of governance and alliances', *Journal of Business Study* 149, 1018–1033. <https://doi.org/10.1016/j.jbusres.2022.05.087>

Note: LFDI; LCPI; LDRATE; LELECT; LFUELX; LGCI; LHDI; LPOLRISK; LREER; LRGDP; LTRADE represent the natural logarithm of the variables as explained in Table 1.

GDP, gross domestic product; FDI, foreign direct investment; LFDI, natural log FDI; LCPI, natural log of consumer price index; LDRATE, natural log of the discount rate; LELECT, natural log of access to electricity; LFUELX, natural log of fuel export; LGCI, natural log of the global competitiveness index; LHDI, natural log of human development index; LPOLRISK, natural log of Cameroon's rating for political stability and violence; LREER, natural log of the real effective exchange rate; LRGDP, natural log of real GDP and LTRADE, natural log of ratio of imports plus exports to GDP.

Base model specification

The econometric model, referred to as the base model, was adapted from Buckley et al. (2007) to investigate the significant macro-locational factors influencing Chinese FDI in Cameroon. In this model, the dependent variable – Chinese FDI stock in Cameroon, expressed as a percentage of GDP – was regressed against a set of explanatory variables reflecting the proposed macro-locational determinants of Chinese FDI. The regression equation employed for this analysis is as follows (Equation 1):

$$\ln FDI_t = c + \beta_1 \ln CPI_t + \beta_2 \ln DRATE_t + \beta_3 \ln ELECT_t + \beta_4 \ln FUELX_t + \beta_5 \ln GCI_t + \beta_6 \ln HDI_t + \beta_7 \ln POLRISK_t + \beta_8 \ln REER_t + \beta_9 \ln RGDGP_t + \beta_{10} \ln TRADE_t + \varepsilon_t \quad [\text{Eqn } 1]$$

where:

- c is the intercept coefficient,
- \ln the natural logarithm of the variables,
- β_1 to β_{10} the slope coefficients to be estimated and
- ε_t the error term.

The data used in the aforementioned equation were transformed into natural logarithms in accordance with theoretical expectations and previous empirical research (Buckley et al. 2007), which posit a non-linear relationship between the variables.

Correlation analysis and unit root testing

Before integrating the macro-locational determinants into the regression model for FDI, a set of predefined criteria were employed to assess the properties and appropriateness of the time series data. To provide an initial understanding of the relationships between FDI and the explanatory variables,

Pearson correlation analysis was conducted using EViews 13. Furthermore, the Pearson correlation matrix of the proposed macro-locational factors was scrutinised to detect any indications of multicollinearity among the variables.

Subsequently, the stationarity of the variables and their order of integration were confirmed by applying both the Augmented Dickey–Fuller (ADF) unit root test and the Kwiatkowski–Phillips–Schmidt–Shin (KPSS) test, following the approach outlined by Kisto (2017).

Johansen cointegration tests and vector error correction modelling

Following the preliminary analysis, including the base model estimation, it was evident that cointegration testing should be followed. For this study, the Johansen cointegration test was identified as the most appropriate method to assess whether a stable long-term relationship existed among the variables in the regression model (Kushwah & Garg 2020). Testing for cointegration is essential when series are individually non-stationary, as the presence of cointegration ensures the regression results are not spurious. The Johansen test uses a maximum likelihood process to test for cointegrating vectors in a system of non-stationary time series based on the trace test and maximum eigenvalue test. The null hypothesis for the Johansen test asserts that no cointegration is present (Kushwah & Garg 2020).

In applying the Johansen cointegration and vector error correction model (VECM) technique,² we use only variables

²As the Johansen cointegration and error correction modelling technique is well known, we present a brief summary of the steps followed in this article. Interested readers may consult Turrissi, Cigada and Zappa (2022) for a more detailed discussion of the technique.

that at least one of the unit root test methods confirmed is an I(1) series, as reported in the results section. Next, we use information criteria to determine the appropriate lag length for the cointegration test. Where more than one lag length is chosen, we begin the cointegration test with the lowest lag length until meaningful cointegration results with white noise residuals are found. The cointegration tests were based on the trace test and the maximum eigenvalue test. Where at least one of the tests confirms cointegration, we proceed to estimate the VECM. To normalise on LFDI in the VECM, we test for weak exogeneity by placing a zero restriction on each of the error correction terms of variables in the model. If LFDI was found to be endogenous in the model, we normalised on it in the VECM to estimate the long-run, short-run and the error correction coefficients. A significant error correction coefficient provides an estimate of the speed of adjustment back to long-run equilibrium (Kisto 2017). Finally, the study proceeded with residual diagnostic testing using the VEC residual serial correlation LM test and heteroscedasticity test.

As the focus of the study is on investigating the determinants of Chinese FDI into Cameroon, the modelling undertaken involved specifications for which FDI was found to be endogenous.

The long-run models estimated were as follows (Equation 2, Equation 3 and, Equation 4):

$$\text{Model 1: } \ln\text{FDI}_t = c + \beta_1 \ln\text{GCI}_t + \beta_2 \ln\text{REER}_t + \beta_3 \ln\text{RGDP}_t + \beta_4 \ln\text{TRADE}_t + \varepsilon_t \quad [\text{Eqn 2}]$$

$$\text{Model 2: } \ln\text{FDI}_t = c + \beta_1 \ln\text{FUELX}_t + \beta_2 \ln\text{POLRISK}_t + \beta_3 \ln\text{RGDP}_t + \beta_4 \ln\text{TRADE}_t + \varepsilon_t \quad [\text{Eqn 3}]$$

$$\text{Model 3: } \ln\text{FDI}_t = c + \beta_1 \ln\text{DRATE}_t + \beta_2 \ln\text{POLRISK}_t + \beta_3 \ln\text{RGDP}_t + \beta_4 \ln\text{TRADE}_t + \varepsilon_t \quad [\text{Eqn 4}]$$

The justification for this selection is explained in the results and discussion section further in the text.

The corresponding ECM equations for the models above are as follows (Equation 5, Equation 6 and, Equation 7):

$$\text{Model 1: } \Delta \ln\text{FDI}_t = c + \alpha_1 \Delta \ln\text{GCI}_{t-1} + \alpha_2 \Delta \ln\text{GCI}_{t-2} + \alpha_3 \Delta \ln\text{REER}_{t-1} + \alpha_4 \Delta \ln\text{REER}_{t-2} + \alpha_5 \Delta \ln\text{RGDP}_{t-1} + \alpha_6 \Delta \ln\text{RGDP}_{t-2} + \alpha_7 \Delta \ln\text{TRADE}_{t-1} + \alpha_8 \Delta \ln\text{TRADE}_{t-2} + \delta \text{ECM}_{t-1} + \varepsilon_t \quad [\text{Eqn 5}]$$

$$\text{Model 2: } \Delta \ln\text{FDI}_t = c + \alpha_1 \Delta \ln\text{FUELX}_{t-1} + \alpha_2 \Delta \ln\text{POLRISK}_{t-1} + \alpha_3 \Delta \ln\text{RGDP}_{t-1} + \alpha_4 \Delta \ln\text{TRADE}_{t-1} + \delta \text{ECM}_{t-1} + \varepsilon_t \quad [\text{Eqn 6}]$$

$$\text{Model 3: } \Delta \ln\text{FDI}_t = c + \alpha_1 \Delta \ln\text{DRATE}_{t-1} + \alpha_2 \Delta \ln\text{POLRISK}_{t-1} + \alpha_3 \Delta \ln\text{RGDP}_{t-1} + \alpha_4 \Delta \ln\text{TRADE}_{t-1} + \delta \text{ECM}_{t-1} + \varepsilon_t \quad [\text{Eqn 7}]$$

The respective lag length selections are discussed and explained in the following section of the article.

Ethical considerations

Ethical approval was waived as the study made use of publicly available data. Ethical clearance waiver number: RUHREC-2024-0010.

Results and discussion

Correlation analysis and unit root test results

Table 2 presents the correlation coefficients between FDI and each of the explanatory variables, as well as those between the explanatory variables themselves, based on the Pearson correlation analysis in EViews 13. While correlation results do not imply causation, they provide a preliminary overview of the relationship between the key variable of interest (stock of Chinese FDI as a percentage of GDP) and each of the proposed macro-locational determinants of FDI. A significant correlation coefficient signals a possible association between the explanatory variable in question and Chinese FDI.

Column 1 of Table 2 reveals no statistically significant correlation between LFDI and LFUELX or LTRADE. The absence of a relationship between LFDI and LFUELX may indicate limited interest or opportunities for Chinese FDI in the fuel sector within Cameroon. Given the potential substitutability of FDI and trade flows, a negative correlation between LFDI and LTRADE might be expected. However, the insignificant finding could be attributed to insufficient sample size or trade and FDI complementarities. Counterintuitively, a positive correlation exists between LFDI and LCPI. While

TABLE 2: Correlation coefficients.

Variable	LFDI	LCPI	LDRATE	LELECT	LFUELX	LGCI	LHDI	LPOLRISK	LREER	LRGDP
LFDI	1.00	-	-	-	-	-	-	-	-	-
LCPI	0.97***	1.00	-	-	-	-	-	-	-	-
LDRATE	-0.96***	-0.95***	1.00	-	-	-	-	-	-	-
LELECT	0.98***	0.99***	-0.96***	1.00	-	-	-	-	-	-
LFUELX	0.05	-0.12	0.04	-0.06	1.00	-	-	-	-	-
LGCI	0.81***	0.89***	-0.76***	0.83***	-0.22***	1.00	-	-	-	-
LHDI	0.98***	0.99***	-0.96***	0.99***	-0.06***	0.86***	1.00	-	-	-
LPOLRISK	-0.58***	-0.46***	0.56***	-0.53***	-0.26**	-0.17	-0.52***	1.00	-	-
LREER	-0.74***	-0.65***	0.72***	-0.70***	-0.36***	-0.43***	-0.68***	0.51***	1.00	-
LRGDP	0.98***	0.98***	-0.97***	0.99***	-0.02	0.80***	0.99***	-0.56***	-0.71***	1.00
LTRADE	0.04	0.04	0.03	-0.01	0.36***	0.18	0.04	0.18	-0.23*	-0.03

Note: Authors' estimations using EViews 13.

LFDI, natural log FDI; LCPI, natural log of consumer price index; LDRATE, natural log of the discount rate; LELECT, natural log of access to electricity; LFUELX, natural log of fuel export; LGCI, natural log of the global competitiveness index; LHDI, natural log of human development index; LPOLRISK, natural log of Cameroon's rating for political stability and violence; LREER, natural log of the real effective exchange rate; LRGDP, natural log of real GDP and LTRADE, natural log of ratio of imports plus exports to GDP.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$.

the exact reason may be unclear, a positive association may be unsurprising in the presence of moderate price level changes like those reflected in the present CPI series. The other correlations predominantly conform to both theoretical predictions and empirical findings, demonstrating notable positive associations between LFDI and LELECT, LRGDP, LHDI and LGCI. However, significant negative relationships were observed with LDRATE and LPOLRISK although some literature presents evidence of a positive correlation between Chinese FDI in African nations and political risk. The inverse relationship between LPOLRISK and FDI in Cameroon is likely because of a heightened aversion to political risk, particularly violence, following the kidnap of 10 Chinese contractors in Northern Cameroon in 2014 by Boko Haram (Nghan 2017).

Regarding the relationship between the explanatory variables, as indicated in Table 2, there are several instances of significant correlations between the proposed macro-locational determinants themselves, except for the two variables, fuel export and trade openness (LFUELX and LTRADE). Therefore, there is a high potential for multicollinearity if the proposed determinants are used all together in a regression. In the regression analysis that follows, this is accounted for by considering the variance inflation factors (VIFs), which help determine whether a particular variable contributes to multicollinearity.

Next, we proceed to test each time series for a unit root using the ADF and KPSS unit root tests to determine the order of integration of each variable. The results are reported in Table 3.

The findings presented in Table 3 indicate that, according to the ADF test, LRGDP is stationary in level terms. Additionally, all other variables, except for LHDI, are non-stationary at level terms but stationary at first differences. Notably, LHDI exhibited stationarity only at second differences determined by the ADF test. In contrast, results from the KPSS test revealed that LFUELX and LTRADE were stationary in level terms. At the same time, all remaining variables, including LHDI, were stationary at first differences. Consequently, the overall outcomes of the unit root tests suggested that conducting cointegration testing and analysis would be essential.

Base model regression results

The base model estimated in double-log form using OLS, with all the potential determinants included, suggests that inward FDI from China into Cameroon is inversely related to the discount rate and political risk at the 1% and 5% significance levels, respectively. In addition, inward FDI is positively related to infrastructure (as proxied by the electricity variable) and market size (real GDP) at the 10% level, fuel exports at the 1% level (although the FUELX coefficient is very small) and the global competitiveness index at the 5% level. The signs are all as expected from the

general FDI literature, including that for political risk. On the other hand, the LCPI, LHDI, LREER and LTRADE coefficients are not statistically significant.³

However, as the correlation analysis and unit root test results indicate, the base model has major limitations in this form and the estimation results cannot be considered reliable. High correlations between the explanatory variables in Table 2 suggest significant potential for multicollinearity. Furthermore, the unit root test results in Table 3 indicate the prevalence of non-stationary series in the model. Accordingly, any regression results based on the data need to be tested for cointegration.

For a multiple regression model like that used in the base model, the Engle–Granger cointegration test is not satisfactory because it cannot identify the presence of more than one cointegrating relationship (Bilgili 1998). Hence an alternative estimation method and cointegration technique should be used. The Johansen approach, based on maximum likelihood estimation, is commonly employed to test for the presence of cointegration in a multiple regression context (Bilgili 1998). In addition, the Johansen test is more effective as it detects cointegrating vectors even with mixed stationary and nonstationary components (Mantalos & Shukur 2001). Furthermore, account must also be taken of the presence of extensive collinearity between the proposed FDI determinants in the study.

In the present analysis, the limited availability of bilateral FDI data between China and Cameroon is a constraint on the sample size of the dataset. This in turn has implications for the use of the Johansen technique, based as it is upon a vector autoregressive model (VAR) with a lag structure. The lag structure means that caution must be taken with the number of variables added to the system because of degrees of freedom constraints. Nevertheless, both the issue of multicollinearity and the lag structure of the VAR are addressed in the study by exploring different VAR specifications using alternative combinations of the proposed FDI determinants identified earlier.⁴

Johansen cointegration results and vector error correction modelling

This section reports the results of three estimations using the Johansen method. Model 1 includes FDI, the global competitiveness index, real exchange rate, real GDP and trade openness variables in the VAR system. Model 2 includes FDI together with fuel exports, political risk, real GDP and trade openness, while Model 3 introduces the discount rate and excludes fuel exports. As Chinese FDI in Cameroon is the key variable of interest in the study, it was important to establish that LFDI was endogenous in the

³The OLS results for the base model, as well as the data supporting the findings, are available from the authors on request.

⁴Variable choice is guided by the variance inflation factors which, as noted earlier, detect variables that contribute extensively to multicollinearity.

TABLE 3: Classification of series according to the order of integration.

Variable	ADF test	KPSS test
LFDI	I(1)	I(1)
LCPI	I(1)	I(1)
LDRATE	I(1)	I(1)
LELECT	I(1)	I(1)
LFUELX	I(1)	I(0)
LGCI	I(1)	I(1)
LHDI	I(2)	I(1)
LPOLRISK	I(1)	I(1)
LREER	I(1)	I(1)
LRGDP	I(0)	I(1)
LTRADE	I(1)	I(0)

Note: Authors' estimations using EViews 13.

ADF, Augmented Dickey-Fuller; KPSS, Kwiatkowski-Phillips-Schmidt-Shin; LFDI, natural log FDI; LCPI, natural log of consumer price index; LDRATE, natural log of the discount rate; LELECT, natural log of access to electricity; LFUELX, natural log of fuel export; LGCI, natural log of the global competitiveness index; LHDI, natural log of human development index; LPOLRISK, natural log of Cameroon's rating for political stability and violence; LREER, natural log of the real effective exchange rate; LRGDP, natural log of real GDP and LTRADE, natural log of ratio of imports plus exports to GDP.

chosen specifications. Hence weak exogeneity test results are reported specifically for the LFDI variable.⁵

Table 4 presents the Johansen cointegration test results and the weak exogeneity testing of LFDI for all three models.

As indicated in Table 4, lag lengths of 3, 2 and 2 were selected for Models 1, 2 and 3, respectively, for the cointegration testing, based on the information criteria in EViews. The deterministic trend assumption used was Case 3 (Johansen-Hendry-Juselius) throughout. The results of both the trace and maximum eigenvalue tests indicate the presence of one cointegrating vector at the 5% significance level in all three models. The weak exogeneity test for LFDI confirms that FDI is endogenous in each case although at the 7% level in Model 2.

Given the findings of cointegration reported in Table 4, we estimated the VECMs in each case. As LFDI was found to be endogenous, we were thus able to normalise on LFDI in the VECMs. The estimation results for each model are depicted in Table 5. As the focus of the present study is on FDI, the long-run coefficients are the focus of attention although the error correction coefficient is also reported in each case.

The estimation results in Table 5 suggest that an expanded market size (as measured by LRGDP) has a notable positive effect on FDI across all models. The responsiveness of FDI to changes in this variable is relatively large and significant at the 1% level in each case. This finding is in line with the Eclectic paradigm and concurs with the findings of Mourao (2018) who found a significant positive relationship between Chinese FDI and market size.

With respect to trade openness, the results are mixed, relatively small and at best weakly significant. In Model 1 in Table 5, lower trade openness (as measured by LTRADE) appears to stimulate

5. Although a wide range of alternative models were estimated, an interesting finding was that FDI was not endogenous for a number of these specifications despite the theoretical underpinnings of the proposed FDI determinants in the study. In addition, the LHDI and LELECT variables contributed significantly to multicollinearity across the various specifications and were not included. Their impact was likely covered by other variables, such as LGCI.

TABLE 4: Johansen cointegration test results and weak exogeneity test for LFDI.

Test results	Model 1	Model 2	Model 3		
VAR order	3	2	2		
Determ. trend assump.	3	3	3		
Cointegrating vectors (<i>r</i>)	1	1	1		
Trace test	Trace stat	Trace stat	Trace stat	5% cv	
<i>r</i> = 0	105.11	82.20	78.71	69.82	
<i>r</i> ≤ 1	47.79	46.10	42.05	47.86	
<i>r</i> ≤ 2	23.00	27.73	22.51	29.80	
Max. Eigenvalue test	ME stat	ME stat	ME stat	5% cv	
<i>r</i> = 0	57.32	36.10	36.66	33.88	
<i>r</i> ≤ 1	24.79	18.37	19.54	27.58	
<i>r</i> ≤ 2	15.01	14.51	15.02	21.13	
Weak exogen. test: LFDI	Chi-sq 11.247	Chi-sq 3.299	Chi-sq 6.074	-	
	(<i>p</i> = 0.001)	(<i>p</i> = 0.069)	(<i>p</i> = 0.014)	-	

Note: Authors' estimations using EViews 13.

cv, critical value; ME, maximum eigenvalue; LFDI, natural log FDI.

TABLE 5: Estimation results: Long-run and error correction coefficients.

Variable	Normalised on LFDI					
	Model 1		Model 2		Model 3	
	LR coefficient	<i>p</i> -value	LR coefficient	<i>p</i> -value	LR coefficient	<i>p</i> -value
LFUELX (-1)	-	-	-0.027	-	-	-
LDRATE (-1)	-	-	-	-	-0.897*	-
LGCI (-1)	1.183**	-	-	-	-	-
LPOLRISK (-1)	-	-	-0.984	-	-0.186	-
LREER(-1)	-5.002***	-	-	-	-	-
LRGDP (-1)	5.085***	-	5.777***	-	4.706***	-
LTRADE (-1)	-0.298*	-	0.206	-	0.305*	-
<i>c</i>	107.6	-	144.8	-	117.3	-
Error correction coeff	-0.285***	-	-0.128***	-	-0.217***	-
R-squared	0.440	-	0.351	-	0.398	-
F-statistic	3.218***	-	4.587***	-	5.621***	-
Serial correlation: LM test	28.98	0.265	14.35	0.955	15.85	0.919
Heteroscedasticity: chi sq	293.0	0.929	176.7	0.555	147.80	0.962

Note: Authors' estimations using EViews 13.

LFDI, natural log FDI.

*, *p* < 0.10; **, *p* < 0.05; ***, *p* < 0.01.

FDI, but the responsiveness is less than 0.3% and is significant at the 10% level only. In Models 2 and 3, greater trade openness is associated with higher FDI, but the responsiveness of FDI is weak, and the coefficient is only significant at the 10% level in Model 3. The ambiguity surrounding the impact of trade openness on Chinese FDI aligns with the Eclectic paradigm and prior empirical findings. Trade barriers can stimulate Chinese FDI because of market-seeking investments, which are often drawn to locations with stringent trade restrictions. This may have been the case previously, as Forgha et al. (2016) reported that increased trade openness reduced general FDI inflows to Cameroon. However, as Cameroon receives other FDI types or as trade may complement FDI, greater trade openness might stimulate Chinese FDI. Nevertheless, the relationship between the two appears weak in either scenario.

In Model 1, the coefficient of the competitiveness variable LGCI has the expected positive sign and is significant at the 5% level. The result suggests that a 1% increase in LGCI stimulates a 1.183% increase in FDI, holding all else constant. The significance of Cameroon's competitive level in attracting

FDI aligns with the Theory of Competitive Advantage. The coefficient of LREER indicates a relatively strong adverse effect on FDI of an appreciation of the real effective exchange rate. This impact is significant at the 1% level. This finding supports Aliber's hypothesis, Froot and Stein's model and most empirical evidence, including Djomo et al. (2017), in the case of Cameroon.

Models 2 and 3 in Table 5 both include the political stability variable. The sign of the coefficient in each case indicates the inverse relationship between political risk and FDI expected in the Eclectic paradigm and some of the general FDI literature. However, the LPOLRISK coefficients in Models 2 and 3 are not statistically significant. In the case of Model 2, the absolute t-statistic of the coefficient exceeds 1, suggesting that the LPOLRISK variable does contribute to the overall explanatory power of the model. Nevertheless, it appears that political risk is not a notable determinant of Chinese FDI in Cameroon. The nonsignificant finding regarding political risk is unexpected and contradicts both the Eclectic paradigm and Location Specific Theory. This may suggest a lack of consideration for political risk by Chinese FDI, especially in African countries as previously noted by Brautigam (2020) and Kolstad and Wiig (2011). However, the study's time frame covering the period 2003–2017 may also explain the unexpected sign, given that political risk in Cameroon remained mostly stable until the onset of the Anglophone crisis in 2016. Therefore, the importance of political risk could be better assessed by extending the time frame of the current study from 2017 onwards. Furthermore, this study assesses political risk using a variable focused on political stability and the absence of violence. Incorporating other indicators of political risk, such as the rule of law, government effectiveness and control of corruption, could provide a more comprehensive understanding of the impact of political risk.

Model 2 includes the fuel exports variable as a proxy for natural resources. The sign is unexpected, indicating an inverse relationship between fuel exports and FDI, though the result is not significant. This contradicts the Eclectic paradigm and most empirical findings. However, the unexpected negative sign could be because of the proxy used for natural resources, as Chinese FDI may be more interested in other natural resources, particularly aluminium, bauxite, copper, gold and diamonds, which have been reported to attract Chinese FDI by Utesch-Xiong and Kambhampati (2022). Cameroon also has a presence of these resources.

Finally, Model 3 introduces the LDRATE as a potential determinant. The sign of the coefficient is expected and indicates a negative sign between the discount rate and FDI but only significant at the 10% level. This contradicts Chandra and Handoyo (2020) but is in line with the Eclectic paradigm and concurs with Asiamah et al. (2019).

Table 5 also provides the error correction coefficients that are negative and statistically significant at the 1% level across all models. Their absolute values can thus be interpreted as the speed of adjustment back to long run equilibrium in each

case. For example, for Model 1, 28.5% of the adjustment takes place each quarter.

The residual diagnostic test results for the three models are also reported in Table 5. For the VEC residual serial correlation LM tests, there is no evidence of serial correlation according to both the LRE and Rao F statistics as the null hypothesis of no autocorrelation cannot be rejected.⁶ Similarly, the VEC residual heteroscedasticity tests reveal no evidence of heteroscedasticity in any of the three cases as the null of homoscedasticity cannot be rejected.

In summarising the findings of the relationship between Chinese FDI and the macro-locational determinants of FDI in Cameroon included in Models 1–3, as per Table 5, the following is evident for the hypothesis testing:

- $H_2; H_5; H_7; H_9; H_{10}$ are supported
- $H_4; H_6$ are not supported
- $H_1; H_3; H_8$ cannot be tested rigorously in the present study.

Conclusion and recommendations

The study examined the significance of proposed macro-locational determinants of Chinese FDI using quarterly data from 2003 to 2017. Johansen cointegration testing and VECM modelling were employed, and the findings indicate a statistically significant positive relationship between Cameroon's market size, competitiveness and Chinese FDI in the long run. Additionally, a statistically significant negative relationship was found between interest rates, the discount rate and Chinese FDI. The relationship between trade openness and Chinese FDI was ambiguous. These significant findings generally align with empirical literature and relevant FDI theories, including the Eclectic Paradigm, Location Specific Theory, Aliber's Hypothesis and Froot and Stein's model and the Theory of Competitive Advantage. The study contributes to understanding the key factors influencing Chinese FDI in Cameroon and highlights policy areas for improvement. This study also contributes to the existing body of knowledge on macro-locational determinants of FDI, particularly given the limited studies available on these determinants concerning Chinese FDI in African countries and, more specifically, in Cameroon. It provides empirical evidence supporting theoretical predictions regarding the impact of market size, the level of competitiveness of a country, interest rates and discount rates. The findings highlight the need for further research to clarify the relationship between trade openness and Chinese FDI and the need for a longer time period to undertake further analysis.

To enhance the country's chances to attract FDI, the Cameroonian government's policies to attract FDI should extend beyond tax concessions and include collaboration with the centre bank, Banque des Etats de l'Afrique Centrale (BEAC) to target and monitor the exchange rate to ensure stable exchange rates. Local councils and municipalities should consider computerising systems for store rentals, tax payments and ticket sales to reduce corruption and enhance

⁶For reasons of space, just the LRE statistic and its associated probability value are reported in Table 5.

market accessibility. Additionally, investment in infrastructure, particularly in safe electrical connections and expanding market spaces, is essential to ensure safety and avoid loss of property and accommodate traders, including those from other Central African countries. Further, the government must focus on enhancing competitiveness by providing quality education and relevant skills to young Cameroonians. This includes shutting down non-accredited institutions, providing financial resources for educational technology and continuously reviewing curricula, with significant investment in vocational and technical education. Financial institutions should offer competitive or low-interest rates to attract private firms and FDI, particularly Chinese firms accustomed to low rates from China's Exim Bank. This would boost lending and contribute to economic growth. Finally, the government should carefully monitor trade openness to maintain a balance that is conducive to attracting FDI.

Limitations and suggestions for future research

The limitations of this study provide opportunities for further research. Specifically, the results of the multiple regressions could be improved by extending the analysis period, improving the data quality and considering other variables, such as financial development indicators, including those that could not be tested in the current study.

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Competing interests

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Authors' contributions

This article was adapted from part of the Master's thesis of Ms Q. Andangnui, who is the primary researcher of this study. The thesis was supervised by Prof L. Louw who guided the drafting and writing of the study and this article. Ms N. Cattaneo assisted in the analysis and verified the interpretation of the findings of the study.

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Data availability

The data that support the findings of this study are available on request from the corresponding author, Q. Andangnui.

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