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Assessing marginal, threshold and net effects of financial globalisation on financial development in Africa

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Abstract

The present inquiry contributes to extant literature by simultaneously accounting for variations in financial development and financial globalisation in the assessment of hypothetical initial financial development conditions for the rewards of financial globalisation. For this purpose, we examine marginal, threshold and net effects of financial globalisation on financial development throughout the conditional distributions of financial development. The empirical evidence is based on contemporary and non-contemporary quantile regressions with data from 53 African countries for the period 1996-2011. Financial globalisation is measured with Net Foreign Direct Investment inflows whereas financial development entails all dimensions identified by the Financial Development and Structure Database of the World Bank. The findings consistently reveal: (i) positive marginal effects, (ii) unfeasible financial globalisation positive thresholds and (iii) negative financial globalisation net effects. The second and third findings are fundamentally due to marginal effects of low positive magnitude. Policy implications are discussed.

JEL Classification: F02; F21; F30; F40; O10

Keywords: Banking; International investment; Financial integration; Development

1. Introduction

Externalities of globalisation have been substantially documented in recent African development literature, *inter alia*: (i) the welfare (Makochekanwa, 2014), growth (Kummer-Noormamode, 2014; Tumwebaze & Ijjo, 2015), employment (Anyanwu, 2014; Foster-McGregor et al., 2015) and trade (Shuaibu, 2015) implications of growing openness and (ii) reverse foreign direct investment (FDI) from Africa to Europe (Barros et al., 2014).

A strand of underlying literature has been devoted to assessing if initial conditions are essential to materialise the benefits of globalisation, notably: threshold conditions of financial development benefits from financial globalisation (Asongu, 2014). The debate has been skewed towards financial globalisation because while some consensus in the literature has been established on the rewards of trade openness, the debate on benefits of financial openness has seen renewed interest after the recent financial crisis (Rodrik & Subramanian, 2009). The debate on initial conditions has been partly motivated by cautious positions from some researchers, notably: (i) Henry (2007) on the relevance of calculated and gradual capital account openness; (ii) Prasad and Rajan (2008) have advised on the need to consider country-specific features in financial openness decisions and (iii) Kose et al. (2011) have articulated the essence of factoring-in initial conditions in the management of potential risks from financial globalisation.

To the best of our knowledge, the literature on the debate about rewards from financial openness can be engaged in three main strands: thesis, anti-thesis and synthesis. The first strand is based on the theoretical motivations of financial globalisation. According to the narrative, financial globalisation enables efficient capital allocation and international risk sharing. The phenomenon is more rewarding to less developed countries that are scarce in capital and rich in labour (Fischer, 1998; Summers, 2000). Such benefits include: access to foreign capital, economic growth and transition from low- to middle-income. According to the authors, developed countries are equally rewarded with greater economic stability.

Kose et al. (2011) in the second strand have argued that the relative stability experienced by developed countries is traceable to less volatile output, compared to their developing counterparts who experience more volatile output. This anti-thesis builds on narratives advocating that, *inter alia*: (i) global financial instability is the product of complete account liberalisation (Rodrik, 1998; Bhagwati, 1998; Stiglitz, 2000; Kose et al., 2006) and (ii) financial globalisation is a concealed motivation of extending the rewards of international trade in goods to trade in assets (Rodrik & Subramanian, 2009; Asongu, 2014).

The third strand documenting a synthesis which we have alluded to in the second paragraph is also known as the Henry (2007) and/or Kose al. (2011) hypothesis: *“In this paper we develop a unified empirical framework for characterizing such threshold conditions. We find that there are clearly identifiable thresholds in variables such as financial depth and institutional quality: the cost-benefit trade-off from financial openness improves significantly*

once these threshold conditions are satisfied' (Kose et al., 2011, p.147). The recent financial crisis has consolidated the underlying hypothesis because developing countries which had previously experienced substantial capital inflows have had to witness a considerable decline in the same flows (Asongu & De Moor, 2017). Following a revival of the debate on benefits of capital account openness in financial development, some scholars have expressed deep skepticism about claims that recent financial engineering has resulted in substantial positive development externalities (Rodrik & Subramanian, 2009). This sceptical strand has been partially motivated by an evolving strand of post-crisis African development literature that is centred around the highlighted hypothesis, namely: Price and Elu (2014), Asongu (2014), Motelle and Biekpe (2015) and Asongu and De Moor (2017).

First, Price and Elu (2014) have established that the adverse-growth effects of credit contraction during the 2008-2009 financial crises have been more felt by sub-Saharan African (SSA) countries belonging to the French African Colonies (CFA) monetary union. Second, Asongu (2014) has concluded that the Kose et al. (2011) hypothesis is valid exclusively with respect to financial size, as opposed to dynamics of financial depth, activity and efficiency. Motelle and Biekpe (2015) have settled on the position that deeper financial integration results in financial sector instability in the Southern African Development Community (SADC). Asongu and De Moor (2017) have extended Asongu (2014) by further investigating the Kose et al. hypothesis to present thresholds of financial globalisation at which an initially negative effect of financial globalisation on financial development becomes positive.

The present inquiry contributes to extant literature by simultaneously accounting for variations in financial development and financial globalisation in assessing the underlying hypothesis of initial financial development conditions for the reward of financial globalisation. In essence, both financial development and financial globalisation thresholds for the benefit of financial globalisation are considered at the same time. Financial development thresholds are established when there is a consistent significance in the estimated financial globalisation variable, with either decreasing negative magnitude or increasing positive magnitude throughout the conditional distribution of financial development (Asongu, 2014). Conversely, financial globalisation thresholds refer to cut-off points from which a previously negative effect from financial globalisation on financial development changes to positive (Asongu & De Moor, 2017).

The policy relevance for assessing these thresholds simultaneously builds on the intuition that, cut-offs points for financial development benefits of financial globalisation may also be contingent on initial levels of financial development. In essence, blanket policies based on mean values of financial development may not be effective unless they are contingent on initial financial development levels and tailored differently across countries with low- medium- and high-financial development. Accordingly, while the role of policy has either been to encourage or discourage capital flows (Rodrik & Subramanian, 2009, pp.16-17; Asongu, 2014, p. 166), this inquiry improves policy decisions by attempting to provide insights into what levels of capital flows are needed for what levels of financial development to benefit which dynamics of financial development.

It is important to devote some space to articulating how this study steers clear of previous inquiries. First, it is different from Asongu (2014) in that: (i) it focuses on 53 instead of 15 African countries; (ii) specifications are also tailored to capture FDI thresholds and (iii) marginal and net effects are computed. Second, in relation to Asongu and De Moor (2017), three differences are also clearly apparent: (i) the periodicity is longer to capture tail effects of financial development distributions; (ii) adopted methodology assesses FDI effects on financial development throughout the conditional distributions of financial development and (iii) FDI net effects are computed.

The rest of the study is structured as follows. Section 2 discusses the data and methodology. The empirical analysis and discussion of results are covered in Section 3. Section 4 concludes with implications and future directions.

2. Data and Methodology

2.1 Data

We examine a panel 53 African countries with data for the period 1996-2011 from World Development Indicators and the Financial Development and Structure Database (FDSD) of the World Bank. The African scope and periodicity of inquiry are in accordance with the literature partially motivating the study (Asongu, 2014). Moreover, while the starting year captures the period of Africa's growth resurgence (Fosu, 2015, p. 44), the ending year is determined by constraints in data availability.

In accordance with the motivating literature, the dependent indicators are financial development dynamics of depth (from global economic and financial system standpoints)¹, efficiency (at banking and financial system levels)², activity (from banking and financial system perspectives)³ and size⁴. Financial globalisation is measured as net FDI inflows, in accordance with Henry (2007) and Rodrik and Subramanian (2009).

Selected control variables included: public investment, trade openness, foreign aid, inflation and Gross Domestic Product (GDP) growth. Whereas we expect trade openness, public investment and GDP growth to increase financial development, the effects of foreign aid and inflation cannot be established prior. This is essentially because low (high) inflation is positively (negatively) related to financial development and the impact of foreign aid is contingent on the amount that actually reaches the recipient economy. For brevity and lack of space, more in-depth elucidation of expected signs of control variables can be found in Asongu and De Moor (2017)⁵.

The definition and source of variables, the summary statistics and corresponding correlation matrix are disclosed in Appendix 1, Appendix 2 and Appendix 3 respectively. The ‘summary statistics’ indicates that: (i) the variables are quite comparable and (ii) from the standard deviations, we can be confident that reasonable estimated nexuses would emerge. The objective of the correlation matrix is to control for potential concerns of multicollinearity.

¹ “Borrowing from the FDSO, this paper measures financial depth both from overall-economic and financial system perspectives with indicators of broad money supply ($M2/GDP$) and financial system deposits ($Fdgd$) respectively. While the former denotes the monetary base plus demand, saving and time deposits, the later indicates liquid liabilities. Since we are dealing exclusively with developing countries, we distinguish liquid liabilities from money supply because a substantial chunk of the monetary base does not transit through the banking sector” (Asongu, 2014, p. 189).

² “By financial intermediation efficiency here, this study neither refers to the profitability-oriented concept nor to the production efficiency of decision making units in the financial sector (through Data Envelopment Analysis: DEA). What we seek to highlight is the ability of banks to effectively fulfill their fundamental role of transforming mobilized deposits into credit for economic operators (agents). We adopt proxies for banking-system-efficiency and financial-system-efficiency (respectively ‘bank credit on bank deposits: $Bcbd$ ’ and ‘financial system credit on financial system deposits: $Fcfd$ ’)” (Asongu, 2014, pp.189-190).

³ “By financial intermediary activity here, the work highlights the ability of banks to grant credit to economic operators. We proxy for both banking intermediary activity and financial intermediary activity with “private domestic credit by deposit banks: $Pcrb$ ” and “private credit by domestic banks and other financial institutions: $Pcrbof$ ” respectively” (Asongu, 2014, p. 190).

⁴ According to the FDSO, financial intermediary size is measured as the ratio of “deposit bank assets” to “total assets” (deposit bank assets on central bank assets plus deposit bank assets: $Dbacba$).

⁵ These control variables have also been substantially documented in the literature (Huang, 2005; Osabuohain & Efobi, 2013; Owosu & Odhiambo, 2014; Nyasha & Odhiambo, 2015a, 2015b; Asongu & Nwachukwu, 2017).

2.2 Methodology

We adopt quantile regressions (QR) with an interaction variable for financial globalisation as estimation strategy. QR enable us to examine the effect of financial globalisation on financial development throughout the conditional distributions of financial development whereas the interaction variable of financial globalisation provides insights into what levels of financial globalisation are required for financial globalisation to benefit financial development in recipient countries.

Previous studies investigating the Kose et al. hypothesis have reported parameter estimates either at the mean (Asongu & De Moor, 2017) and throughout the distribution (Asongu, 2014) of financial development, in order to respectively investigate thresholds directly from the dependent variable and indirectly from the main independent variable. Moreover, while mean effects from models like Ordinary Least Squares (OLS) may be relevant for baseline estimations, they are based on the assumption of normally distributed error terms. Conversely QR are not based on the underlying assumption (Keonker & Hallock, 2001).

With the technique, parameters are estimated at multiple points of financial development, hence enabling a distinction between countries with low- medium- and high-levels of financial development.

The θ^{th} quantile estimator of a financial development dynamic is obtained by solving for the optimization problem in Eq. (1), which is disclosed without panel subscripts for ease of presentation and simplicity.

$$\min_{\beta \in R^k} \left[\sum_{i \in \{i: y_i \geq x_i' \beta\}} \theta |y_i - x_i' \beta| + \sum_{i \in \{i: y_i < x_i' \beta\}} (1 - \theta) |y_i - x_i' \beta| \right] \quad (1)$$

Where $\theta \in (0,1)$. Contrary to OLS which is based on minimizing the sum of squared residuals, the weighted sum of absolute deviations are minimised in QR. For instance, the 75th quartile or 90th decile (with $\theta=0.75$ or 0.90 respectively) by approximately weighing the residuals. The conditional quintile of financial development or y_i given x_i is:

$$Q_y(\theta / x_i) = x_i' \beta_\theta \quad (2)$$

where unique slope parameters are estimated for each θ^{th} specific quintile. This formulation is analogous to $E(y/x) = x_i\beta$ in the OLS slope where parameters are assessed only at the mean of the conditional distribution of financial development. For the model in Eq. (2), the dependent variable y_i is a financial development indicator while x_i entails a constant term, *FDI*, *FDI*×*FDI*, *GDP growth*, *inflation*, *public investment*, *foreign aid and trade*.

Given that the adopted estimation approach consists of employing an interaction variable for financial globalisation, we briefly engage some pitfalls to bear in mind. According to Brambor et al. (2006), all constitutive terms must be involved in the specifications. Moreover, in order for the estimations have economic meaning, estimated interaction parameters are interpreted as conditional marginal impacts. In addition, for the interacting FDI indicator to make economic sense, it should be within the range provided by the summary statistics.

3. Empirical results

The findings related to financial dynamics of depth, efficiency, activity and size are presented in Tables 1, 2, 3 and 4 respectively. Whereas the left-hand-side (LHS) of tables shows contemporary estimations, the right-hand-side (RHS) reveals non-contemporary regressions. Consistent with Mlachila et al. (2014, p. 21) and Asongu and Nwachukwu (2015), independent variables on the RHS are lagged by one year in order to have some bite on endogeneity. Moreover, as expected the OLS results are different from QR estimates in terms of significance and magnitude.

Consistent with the motivation of the inquiry, we compute: (i) FDI thresholds for which an initially negative effect of FDI on financial development becomes positive and (ii) the net effect of financial globalisation on financial development. For example, given that -0.489 and 0.002 are respectively significant estimated parameters from FDI and 'FDI×FDI', the potential FDI threshold at which the negative effect becomes positive is 244.5 (0.489/0.002) while the net effect is -0.478 (-0.489 + [0.002×5.082])⁶. The computation of threshold and net effect are consistent with Asongu and De Moor (2017) and Koomson and Asongu (2016), respectively.

The following findings can be established from Table 1 on the relationship between financial depth and financial globalisation. First, there is some evidence of positive thresholds in

⁶ 5.028 is the mean value of FDI.

the 50th quartile and 10th decile to 50th quartile respectively on the LHS and RHS of Panel A for money supply. Second, in Panel B for liquid liabilities, a (some) positive threshold(s) is (are) also apparent in the 50th (25th to 50th) quartile(s) on the RHS (LHS). Unfortunately for either panel the positive modifying thresholds are not within range (-82.89 to 145.20). Third, the corresponding net effects of FDI are negative. Fourth, with the exception of GDP growth, the significant control variables have the expected signs. Consistent with Asongu and De Moor (2017), the unexpected negative effect of GDP growth may be traceable to immiserizing growth during Africa's growth resurgence. The period of this resurgence (see Fosu, 2015, p. 44) is consistent with the periodicity adopted in this study.

Panel A (B) of Table 2 shows findings corresponding to banking (financial) system efficiency. In Panel A, there are threshold effects in the 25th and 50th quartile s of the LHS and RHS whereas in Panel B, the threshold impact(s) is (are) apparent in the 50th (25th and 50th) quartile(s). Unfortunately: (i) identified thresholds are not within range and (ii) corresponding net financial globalisation effects are negative.

In Table 3 on financial activity, irrespective of the contemporaneous character of the specifications, there is overwhelming evidence of positive thresholds throughout the conditional distributions of banking system activity (Panel A) and financial system activity (Panel B). Corresponding financial globalisation thresholds are unfeasible and net effects are negative.

The findings from Table 4 on financial size show that there is a positive (negative) threshold in the 10th (90th) decile of contemporary regressions. The positive threshold is not within range and corresponding net effect is negative. Conversely, the negative threshold is within the FDI range. Unfortunately, the slightly different tendency from the 0.90th quintile of the LHS is unlikely to counterbalance findings from Tables 1-3.

The control variables in Tables 2-4 are significant with expected signs. These are broadly in line with those of Table 1 because underlying financial development variables are conflicting by definition. For example, observed opposite signs in the control variables corresponding to financial efficiency regressions are traceable to the definition and measurement of financial allocation efficiency: the ability to convert mobilised savings into credit for economic agents. Therefore, financial depth or deposits decrease with improving financial efficiency.

Table 1: Financial Depth and Financial Globalisation

Financial Depth												
Panel A: Overall Economic Depth (Money Supply)												
	Contemporary						Non-Contemporary					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	31.203*** (0.000)	13.918*** (0.000)	17.618*** (0.000)	20.896*** (0.000)	29.176*** (0.000)	37.038*** (0.000)	30.508*** (0.000)	14.106*** (0.000)	16.535*** (0.000)	20.471*** (0.000)	27.298*** (0.000)	36.373*** (0.000)
FDI	-0.340** (0.049)	-0.054 (0.663)	-0.196* (0.062)	-0.489*** (0.000)	-0.491** (0.048)	-0.291 (0.494)	-0.360* (0.051)	-0.250* (0.080)	-0.250*** (0.003)	-0.389*** (0.001)	-0.492* (0.095)	-0.069 (0.874)
FDI×FDI	0.001 (0.145)	0.0002 (0.741)	0.0008 (0.240)	0.002*** (0.000)	0.002 (0.227)	0.001 (0.736)	0.001 (0.217)	0.001* (0.093)	0.001* (0.052)	0.002** (0.016)	0.002 (0.337)	-0.001 (0.624)
GDP growth	-0.382*** (0.000)	-0.267*** (0.001)	-0.337*** (0.000)	-0.324*** (0.000)	-0.615*** (0.001)	-0.539** (0.047)	-0.313*** (0.007)	-0.264** (0.010)	-0.311*** (0.000)	-0.299*** (0.000)	-0.628*** (0.001)	-0.375 (0.141)
Inflation	-0.008*** (0.000)	-0.006*** (0.000)	-0.002*** (0.001)	-0.005*** (0.000)	-0.010*** (0.000)	-0.019*** (0.000)	-0.007** (0.013)	-0.020*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.009*** (0.000)	-0.017*** (0.000)
Public Invt.	0.778*** (0.003)	0.243 (0.220)	0.452*** (0.000)	1.020*** (0.000)	1.290*** (0.000)	2.085*** (0.000)	0.858*** (0.003)	0.249 (0.252)	0.605*** (0.000)	1.037*** (0.000)	1.763*** (0.000)	2.086*** (0.000)
Foreign Aid	-0.589*** (0.000)	-0.061 (0.498)	-0.117*** (0.009)	-0.384*** (0.000)	-0.657*** (0.001)	-1.006* (0.066)	-0.582*** (0.000)	-0.055 (0.532)	-0.094*** (0.006)	-0.318*** (0.000)	-0.733*** (0.002)	-0.951* (0.097)
Trade	0.035 (0.173)	-0.005 (0.756)	0.009 (0.496)	0.045*** (0.000)	0.134*** (0.000)	0.256*** (0.002)	0.040 (0.138)	0.005 (0.777)	0.013 (0.245)	0.039** (0.015)	0.136*** (0.002)	0.256*** (0.001)
+ FDI threshold	na	na	na	244.5	na	na	na	250	250	194.5	na	na
Net FDI Effect	na	na	na	-0.478	na	na	na	-0.244	-0.244	-0.378	na	na
Pseudo R ² /R ²	0.110	0.046	0.053	0.074	0.092	0.139	0.112	0.052	0.056	0.068	0.094	0.143
Fisher	10.98***						12.38***					
Observations	624	624	624	624	624	624	587	587	587	587	587	587

Panel B: Financial System Depth (Liquid Liabilities)												
	Contemporary						Non-Contemporary					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	24.442*** (0.000)	6.891*** (0.002)	10.333*** (0.000)	14.048*** (0.000)	25.621*** (0.000)	34.286*** (0.000)	24.148*** (0.000)	6.588*** (0.005)	10.611*** (0.000)	14.855*** (0.000)	25.678*** (0.000)	33.928*** (0.000)
FDI	-0.322* (0.051)	-0.129 (0.373)	-0.336*** (0.001)	-0.334*** (0.004)	-0.647** (0.030)	-0.330 (0.288)	-0.337* (0.055)	-0.187 (0.208)	-0.364*** (0.001)	-0.259** (0.012)	-0.753** (0.019)	0.138 (0.631)
FDI×FDI	0.001 (0.156)	0.0008 (0.415)	0.001** (0.010)	0.001** (0.021)	0.003 (0.131)	0.001 (0.517)	0.001 (0.205)	0.001 (0.305)	0.002*** (0.009)	0.001 (0.055)	0.003 (0.100)	-0.003 (0.144)
GDP growth	-0.303*** (0.002)	-0.134 (0.186)	-0.186*** (0.009)	-0.263*** (0.002)	-0.391** (0.043)	-0.464** (0.010)	-0.248** (0.022)	-0.115 (0.455)	-0.155* (0.061)	-0.224*** (0.002)	-0.359 (0.077)	-0.163 (0.326)
Inflation	-0.008*** (0.000)	-0.0007 (0.507)	-0.003*** (0.000)	-0.005*** (0.000)	-0.009*** (0.000)	-0.018*** (0.000)	-0.007*** (0.001)	-0.010*** (0.000)	-0.001* (0.053)	-0.003*** (0.000)	-0.008*** (0.000)	-0.018*** (0.000)
Public Invt.	0.734*** (0.002)	0.100 (0.557)	0.490*** (0.000)	1.066*** (0.000)	1.233*** (0.001)	1.691*** (0.000)	0.810*** (0.002)	0.070 (0.692)	0.525*** (0.000)	1.111*** (0.000)	1.404*** (0.000)	1.535*** (0.000)
Foreign Aid	-0.607*** (0.000)	-0.059 (0.363)	-0.113** (0.010)	-0.360*** (0.000)	-0.724*** (0.002)	-1.078** (0.011)	-0.612*** (0.000)	-0.051 (0.480)	-0.139*** (0.005)	-0.394*** (0.000)	-0.776*** (0.002)	-1.028*** (0.009)
Trade	0.045* (0.060)	0.017 (0.401)	0.032** (0.014)	0.037** (0.020)	0.101** (0.018)	0.259*** (0.000)	0.047* (0.061)	0.024 (0.277)	0.032** (0.027)	0.024* (0.075)	0.109** (0.019)	0.273*** (0.000)
+ FDI threshold	na	na	336	334	na	na	na	na	182	na	na	na
Net FDI Effect	na	na	-0.330	-0.328	na	na	na	na	-0.353	na	na	na
Pseudo R ² /R ²	0.123	0.029	0.049	0.071	0.096	0.158	0.127	0.026	0.048	0.0757	0.097	0.158
Fisher	11.42***						10.98***					
Observations	624	624	624	624	624	624	587	587	587	587	587	587

*, **, ***: significance levels of 10%, 5% and 1% respectively. FDI: Foreign Direct Investment. Invt: Investment. GDPg: GDP growth rate. OLS: Ordinary Least Squares. R² for OLS and Pseudo R² for quantile regression. Lower quantiles (e.g., Q 0.1) signify nations where Financial depth is least. +FDI threshold: Positive FDI threshold. na: not applicable due to insignificance of underlying FDI estimates.

Table 2: Financial Efficiency and Financial Globalisation

Financial Efficiency												
Panel A: Banking System Efficiency												
	Contemporary						Non-Contemporary					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	91.108*** (0.000)	41.433*** (0.000)	71.264*** (0.000)	89.217*** (0.000)	115.13*** (0.000)	139.04*** (0.000)	90.842*** (0.000)	46.129*** (0.000)	72.263*** (0.000)	87.062*** (0.000)	110.16*** (0.000)	139.99*** (0.000)
FDI	-0.578** (0.048)	-0.498 (0.123)	-0.953*** (0.000)	-1.112*** (0.000)	-0.070 (0.884)	0.182 (0.687)	-0.527* (0.070)	-0.023 (0.926)	-0.923*** (0.000)	-0.851*** (0.007)	-0.358 (0.322)	-0.059 (0.899)
FDI×FDI	0.003 (0.137)	0.002 (0.262)	0.005** (0.020)	0.006*** (0.008)	0.0005 (0.876)	-0.002 (0.427)	0.003 (0.141)	-0.0009 (0.588)	0.005*** (0.001)	0.004* (0.072)	0.003 (0.160)	0.0009 (0.763)
GDP growth	0.184 (0.342)	0.293 (0.281)	0.398 (0.112)	0.024 (0.916)	0.117 (0.786)	0.003 (0.989)	0.277* (0.090)	0.341** (0.026)	0.375* (0.067)	0.364 (0.133)	0.267 (0.274)	-0.080 (0.753)
Inflation	-0.001*** (0.009)	-0.003*** (0.000)	-0.0001 (0.745)	-0.001*** (0.001)	-0.001*** (0.000)	-0.002*** (0.000)	-0.016** (0.038)	-0.033*** (0.000)	-0.053*** (0.000)	-0.020*** (0.070)	-0.010*** (0.000)	-0.015*** (0.000)
Public Invt.	-1.228*** (0.000)	-0.222 (0.644)	-0.913** (0.016)	-1.218*** (0.000)	-1.372** (0.015)	-1.916*** (0.003)	-1.069*** (0.000)	-0.548 (0.196)	-0.888*** (0.007)	-0.891*** (0.007)	-1.247*** (0.002)	-1.479** (0.015)
Foreign Aid	-0.462*** (0.000)	0.002 (0.994)	-0.461*** (0.006)	-0.326** (0.032)	-0.681*** (0.004)	-0.849*** (0.003)	-0.473*** (0.000)	-0.048 (0.802)	-0.457*** (0.002)	-0.416*** (0.003)	-0.591*** (0.000)	-0.940*** (0.000)
Trade	-0.061* (0.070)	-0.033 (0.586)	-0.067 (0.168)	-0.045 (0.266)	-0.133** (0.034)	-0.105* (0.072)	-0.078** (0.026)	-0.067 (0.245)	-0.070 (0.110)	-0.062 (0.149)	-0.105** (0.025)	-0.128** (0.017)
+ FDI threshold	na	na	190.6	185.33	na	na	na	na	184.6	212.75	na	na
Net FDI Effect	na	na	-0.927	-1.081	na	na	na	na	-0.897	-0.830	na	na
Pseudo R ² /R ²	0.097	0.037	0.059	0.061	0.055	0.113	0.097	0.042	0.067	0.054	0.053	0.121
Fisher	10.44***						8.53***					
Observations	630	630	630	630	630	630	597	597	597	597	597	597

Panel B: Financial System Efficiency												
	Contemporary						Non-Contemporary					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	106.25*** (0.000)	13.918*** (0.000)	17.618*** (0.000)	20.896*** (0.000)	29.176*** (0.000)	37.038*** (0.000)	107.07*** (0.000)	46.154*** (0.000)	73.254*** (0.000)	91.603*** (0.000)	119.04*** (0.000)	168.97*** (0.000)
FDI	-0.780*** (0.008)	-0.054 (0.663)	-0.196* (0.062)	-0.489*** (0.000)	-0.491** (0.048)	-0.291 (0.494)	-0.660** (0.037)	-0.443 (0.152)	-1.090*** (0.000)	-1.085*** (0.000)	-0.316 (0.446)	-0.201 (0.807)
FDI×FDI	0.005** (0.012)	0.0002 (0.741)	0.0008 (0.240)	0.002*** (0.000)	0.002 (0.227)	0.001 (0.736)	0.004** (0.044)	0.002 (0.268)	0.006*** (0.000)	0.006*** (0.003)	0.002 (0.308)	0.001 (0.776)
GDP growth	0.073 (0.732)	-0.267*** (0.000)	-0.337*** (0.000)	-0.324*** (0.000)	-0.615*** (0.001)	-0.539** (0.047)	0.204 (0.322)	0.283 (0.122)	0.286 (0.132)	0.153 (0.441)	0.300 (0.384)	0.174 (0.700)
Inflation	-0.015** (0.019)	-0.006*** (0.000)	-0.002*** (0.001)	-0.005*** (0.000)	-0.010*** (0.000)	-0.019*** (0.000)	-0.015** (0.036)	-0.026*** (0.000)	-0.058*** (0.000)	-0.008*** (0.000)	-0.010*** (0.000)	-0.014*** (0.000)
Public Invt.	-1.388*** (0.000)	0.243 (0.220)	0.452*** (0.000)	1.020*** (0.000)	1.290*** (0.000)	2.085*** (0.000)	-1.410 (0.000)	-0.347 (0.528)	-1.141*** (0.000)	-0.831*** (0.002)	-1.891*** (0.000)	-2.833** (0.018)
Foreign Aid	-0.802*** (0.000)	-0.061 (0.498)	-0.117*** (0.009)	-0.384*** (0.000)	-0.657*** (0.001)	-1.006* (0.066)	-0.829 (0.000)	-0.052 (0.821)	-0.395*** (0.000)	-0.441*** (0.000)	-0.500*** (0.005)	-1.155** (0.018)
Trade	-0.134*** (0.000)	-0.005 (0.756)	0.009 (0.496)	0.045*** (0.000)	0.134*** (0.000)	0.256*** (0.002)	-0.159 (0.000)	-0.062 (0.344)	-0.045 (0.254)	-0.102*** (0.004)	-0.168*** (0.001)	-0.279*** (0.007)
+ FDI threshold	156	na	na	244.5	na	na	165	na	181.6	180.8	na	na
Net FDI Effect	-0.754	na	na	-0.478	na	na	-0.639	na	-1.059	-1.054	na	na
Pseudo R ² /R ²	0.111	0.046	0.053	0.074	0.092	0.139	0.113	0.041	0.069	0.056	0.043	0.108
Fisher	106.25***						8.24***					
Observations	624	624	624	624	624	624	587	587	587	587	587	587

*, **, ***: significance levels of 10%, 5% and 1% respectively. FDI: Foreign Direct Investment. Invt: Investment. GDPg: GDP growth rate. OLS: Ordinary Least Squares. R² for OLS and Pseudo R² for quantile regression. Lower quantiles (e.g., Q 0.1) signify nations where Financial efficiency is least. +FDI threshold: Positive FDI threshold. na: not applicable due to insignificance of underlying FDI estimates.

Table 3: Financial Activity and Financial Globalisation

Financial Activity												
Panel A: Banking System Activity												
	Contemporary						Non-Contemporary					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	22.694*** (0.000)	4.512*** (0.000)	7.143*** (0.000)	13.747*** (0.000)	20.450*** (0.000)	39.421*** (0.000)	22.863*** (0.000)	5.105*** (0.000)	7.573*** (0.000)	14.169*** (0.000)	17.259*** (0.000)	42.736*** (0.000)
FDI	-0.406*** (0.001)	-0.082 (0.135)	-0.270*** (0.000)	-0.330*** (0.002)	-0.697*** (0.000)	-0.761*** (0.009)	-0.400*** (0.002)	-0.118** (0.011)	-0.201*** (0.006)	-0.313** (0.014)	-0.826*** (0.000)	-0.875*** (0.001)
FDI×FDI	0.002*** (0.006)	0.0004 (0.208)	0.001*** (0.000)	0.001*** (0.009)	0.004*** (0.003)	0.004* (0.051)	0.002** (0.014)	0.0007** (0.018)	0.001** (0.025)	0.001** (0.044)	0.004*** (0.002)	0.005** (0.016)
GDP growth	-0.169** (0.036)	-0.067 (0.122)	-0.107** (0.021)	-0.134* (0.092)	-0.206 (0.176)	-0.454** (0.010)	-0.108 (0.223)	-0.036 (0.404)	-0.055 (0.306)	-0.103 (0.227)	-0.185 (0.194)	-0.794*** (0.000)
Inflation	-0.007*** (0.001)	-0.006*** (0.000)	-0.001*** (0.000)	-0.003*** (0.000)	-0.007*** (0.000)	-0.014*** (0.000)	-0.007*** (0.005)	-0.007*** (0.000)	-0.011*** (0.000)	-0.003*** (0.000)	-0.008*** (0.000)	-0.014*** (0.000)
Public Invt.	0.050 (0.747)	0.092 (0.162)	0.086 (0.214)	0.320*** (0.004)	0.404* (0.062)	-0.249 (0.568)	0.072 (0.669)	0.083 (0.306)	0.127 (0.143)	0.359** (0.010)	0.667*** (0.005)	0.086 (0.848)
Foreign Aid	-0.549*** (0.000)	-0.033 (0.254)	-0.087*** (0.002)	-0.255*** (0.000)	-0.522*** (0.000)	-0.908** (0.040)	-0.555*** (0.000)	-0.069** (0.013)	-0.082** (0.015)	-0.247*** (0.000)	-0.519*** (0.001)	-0.885** (0.033)
Trade	0.032 (0.115)	0.001 (0.843)	0.023*** (0.004)	0.010 (0.484)	0.088*** (0.001)	0.261*** (0.000)	0.029 (0.167)	-0.001 (0.863)	0.013 (0.181)	0.003 (0.856)	0.121*** (0.000)	0.224*** (0.000)
+ FDI threshold	203	na	270	330	174.25	190.25	200	168	201	313	206.5	175
Net FDI Effect	-0.395	na	-0.264	-0.324	-0.676	-0.740	-0.389	-0.114	-0.195	-0.307	-0.805	-0.849
Pseudo R ² /R ²	0.116	0.033	0.040	0.040	0.065	0.145	0.115	0.033	0.040	0.037	0.062	0.149
Fisher	10.82***						10.43***					
Observations	624	624	624	624	624	624	587	587	587	587	587	587

Panel B: Financial System Activity												
	Contemporary						Non-Contemporary					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	30.861*** (0.000)	4.474*** (0.000)	7.655*** (0.000)	14.534*** (0.000)	22.840*** (0.000)	52.326*** (0.000)	30.813*** (0.000)	4.854*** (0.000)	7.722*** (0.000)	14.360*** (0.000)	23.367*** (0.000)	51.814*** (0.000)
FDI	-0.467*** (0.001)	-0.121** (0.029)	-0.288*** (0.000)	-0.377*** (0.000)	-0.789*** (0.000)	-1.174*** (0.000)	-0.459*** (0.001)	-0.119** (0.026)	-0.257*** (0.001)	-0.310** (0.017)	-0.668** (0.015)	-1.048*** (0.001)
FDI×FDI	0.003*** (0.002)	0.0007* (0.064)	0.001*** (0.000)	0.002*** (0.001)	0.005*** (0.000)	0.008*** (0.001)	0.002*** (0.005)	0.0007** (0.042)	0.001*** (0.007)	0.001** (0.049)	0.003* (0.074)	0.006*** (0.001)
GDP growth	-0.185* (0.051)	-0.082** (0.023)	-0.088** (0.043)	-0.139** (0.040)	-0.203 (0.205)	-0.620*** (0.001)	-0.119 (0.244)	-0.067 (0.199)	-0.060 (0.035)	-0.099 (0.240)	-0.178 (0.339)	-0.616*** (0.002)
Inflation	-0.007*** (0.003)	-0.004*** (0.000)	-0.001*** (0.000)	-0.003*** (0.000)	-0.007*** (0.000)	-0.014*** (0.000)	-0.007** (0.012)	-0.007*** (0.000)	-0.010*** (0.000)	-0.002*** (0.000)	-0.007*** (0.000)	-0.013*** (0.000)
Public Invt.	-0.032 (0.866)	0.115 (0.101)	0.071 (0.292)	0.320*** (0.002)	0.423 (0.107)	0.325 (0.505)	-0.013 (0.947)	0.106 (0.279)	0.097 (0.307)	0.347** (0.012)	0.605* (0.054)	0.160 (0.762)
Foreign Aid	-0.773*** (0.000)	-0.029 (0.321)	-0.076*** (0.006)	-0.275*** (0.000)	-0.564*** (0.000)	-1.180** (0.017)	-0.772*** (0.000)	-0.048 (0.183)	-0.068* (0.058)	-0.245*** (0.000)	-0.644*** (0.002)	-1.106** (0.031)
Trade	-0.007 (0.760)	0.001 (0.886)	0.020*** (0.009)	0.009 (0.478)	0.081** (0.013)	0.143** (0.013)	-0.009 (0.721)	-0.001 (0.865)	0.017 (0.121)	0.001 (0.945)	0.068* (0.073)	0.153** (0.010)
+ FDI threshold	155.6	172.8	288	188.5	157.8	146.7	229.5	170	257	310	222	174.6
Net FDI Effect	-0.390	-0.117	-0.282	-0.366	-0.763	-1.133	-0.448	-0.115	-0.251	-0.304	-0.652	-1.017
Pseudo R ² /R ²	0.104	0.030	0.037	0.036	0.054	0.114	0.102	0.031	0.036	0.034	0.050	0.115
Fisher	9.51***						8.92***					
Observations	626	626	626	626	626	626	589	589	589	589	589	589

*, **, ***: significance levels of 10%, 5% and 1% respectively. FDI: Foreign Direct Investment. Invt: Investment. GDPg: GDP growth rate. OLS: Ordinary Least Squares. R² for OLS and Pseudo R² for quantile regression. Lower quantiles (e.g., Q 0.1) signify nations where Financial activity is least. +FDI threshold: Positive FDI threshold. na: not applicable due to insignificance of underlying FDI estimates.

Table 4: Financial Size and Financial Globalisation

	Financial Size											
	Contemporary						Non-Contemporary					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	68.993*** (0.000)	46.062*** (0.000)	59.878*** (0.000)	72.663*** (0.000)	90.504*** (0.000)	96.064*** (0.000)	70.382*** (0.000)	48.066*** (0.000)	58.466*** (0.000)	70.900*** (0.000)	90.622*** (0.000)	97.009*** (0.000)
FDI	-0.552*** (0.001)	-1.297*** (0.005)	-0.847*** (0.004)	-0.427* (0.064)	-0.207* (0.077)	0.098** (0.013)	-0.422** (0.012)	-0.276 (0.532)	-0.650 (0.037)	-0.273 (0.202)	-0.066 (0.540)	0.055* (0.088)
FDI×FDI	0.001 (0.292)	0.007** (0.020)	0.003 (0.116)	0.000004 (0.998)	-0.0007 (0.444)	-0.003*** (0.000)	0.001 (0.368)	0.001 (0.500)	0.002 (0.290)	-0.0007 (0.617)	-0.001 (0.168)	-0.002 (0.000)
GDP growth	-0.013 (0.939)	-0.205 (0.480)	-0.074 (0.777)	-0.097 (0.594)	0.089 (0.279)	0.153*** (0.000)	0.093 (0.609)	0.004 (0.990)	0.175 (0.503)	0.144 (0.377)	-0.010 (0.883)	0.089*** (0.000)
Inflation	-0.015*** (0.000)	-0.036*** (0.000)	-0.044*** (0.000)	-0.013*** (0.000)	-0.013*** (0.000)	-0.014*** (0.000)	0.0002 (0.628)	-0.002** (0.023)	0.0009* (0.011)	0.0004** (0.011)	0.00002 (0.712)	-0.0002*** (0.000)
Public Invt.	0.683*** (0.000)	0.962** (0.020)	0.676** (0.017)	0.735*** (0.004)	0.367*** (0.008)	0.229*** (0.000)	0.563*** (0.001)	1.170* (0.080)	0.337 (0.239)	0.463** (0.047)	0.404*** (0.002)	0.110*** (0.008)
Foreign Aid	-0.710*** (0.000)	-0.733*** (0.001)	-0.990*** (0.000)	-0.895*** (0.000)	-0.873*** (0.000)	-0.494*** (0.000)	-0.724*** (0.000)	-0.858*** (0.004)	-0.826*** (0.000)	-0.728*** (0.000)	-0.870*** (0.000)	-0.432*** (0.000)
Trade	0.126*** (0.000)	0.127* (0.050)	0.172*** (0.000)	0.137*** (0.000)	0.053*** (0.002)	0.017*** (0.003)	0.114*** (0.000)	0.028 (0.733)	0.181*** (0.000)	0.153*** (0.000)	0.053*** (0.001)	0.017*** (0.000)
+/- FDI threshold	na	185.2	na	na	na	32.6	na	na	na	na	na	na
Net FDI Effect	na	-1.261	na	na	na	0.082	na	na	na	na	na	na
Pseudo R ² /R ²	0.211	0.079	0.138	0.163	0.158	0.086	0.182	0.046	0.118	0.158	0.149	0.069
Fisher	23.29***						19.11***					
Observations	620	620	620	620	620	620	589	589	589	589	589	589

*, **, ***: significance levels of 10%, 5% and 1% respectively. FDI: Foreign Direct Investment. Invt: Investment. GDPg: GDP growth rate. OLS: Ordinary Least Squares. R² for OLS and Pseudo R² for quantile regression. Lower quantiles (e.g., Q 0.1) signify nations where Financial size is least. +/-FDI threshold: Positive and Negative FDI thresholds. na: not applicable due to insignificance of underlying FDI estimates.

Our main findings are twofold: unfeasible positive FDI thresholds and negative net FDI effects. In essence, the positive FDI thresholds at which the negative effect of FDI on financial development becomes positive are unfeasible because corresponding values are not within the range of FDI provided by the summary statistics.

The findings in this study seriously question the purported advantages of capital account liberalisation. While the theoretical benefits of FDI in terms of risk sharing and financial allocation efficiency may be quite apparent in the absence of volatilities and distortions in developing countries, contemporary financial development rewards of FDI may be difficult to establish for the continent because of the increasing frequency and magnitude of global financial crises (see Buckle, 2009, p. 36; Asongu, 2015, p. 624).

Beyond the channel of financial crises, the appeals of financial globalisation for financial development may be increasingly blurred partly because of globalisation-fuelled debts that are increasing income-inequality (Asongu et al., 2015), decreasing efficiency and productivity (Mulwa et al., 2009) and deteriorating business cycles (Leung, 2003).

Findings of the study are broadly consistent with the sceptical strand of the literature on the disappointment of financial globalisation (Rodrik, 1998; Rodrik and Subramanian, 2009). The results also align with Fischer’s (1998) recommendation on the orderly openness of capital accounts. Conversely, overly optimistic positions in the literature should be considered with caution, notably: Dornbusch’s International Monetary Fund lectures, which considered capital controls as “*an idea who’s time had past*” (Dornbusch, 1996) and later claimed that “*the correct answer to the question of capital mobility is that it ought to be unrestricted*” (Dornbusch, 1998, p. 20).

In Table 5, we employ an extended procedure with instrumental variables in order to better control for endogeneity and further assess the validity of findings in Tables 1-4. The regressions are performed with corresponding control variables, which are not disclosed because of space constraint. The instrumentation process consists of regressing the FDI variables on their first lags and then saving the fitted values that are subsequently used as the independent variable of interest. The findings in terms of marginal effects, net impacts and thresholds are consistent with those established in previous tables.

Table 5: Extended procedure with instrumental quantile regressions

	Panel A: Financial Depth											
	Overall Economic Depth (Money Supply)						Financial System Depth (Liquid Liabilities)					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	35.571*** (0.000)	16.596*** (0.000)	19.772*** (0.000)	24.517*** (0.000)	34.850*** (0.000)	45.659*** (0.000)	28.421*** (0.000)	10.059*** (0.000)	13.304*** (0.000)	16.057*** (0.000)	29.404*** (0.000)	43.007*** (0.000)
IVFDI	-0.921* (0.076)	-0.448 (0.247)	-0.574* (0.097)	-1.105*** (0.000)	-2.169*** (0.003)	-3.090** (0.016)	-0.856* (0.082)	-0.409 (0.290)	-0.769*** (0.001)	-0.507 (0.171)	-1.864** (0.016)	-3.099*** (0.001)
IVFDI × IVFDI	0.102 (0.107)	0.008 (0.186)	0.008 (0.118)	-0.013*** (0.001)	0.027** (0.014)	0.036* (0.080)	0.010 (0.156)	0.007 (0.207)	-0.010*** (0.003)	0.004 (0.477)	0.022* (0.054)	0.037** (0.012)
+ FDI threshold	na	na	na	nsa	80.333	85.833	na	na	nsa	na	84.727	85.756
Net FDI Effect	na	na	na	-1.172	-2.028	-2.902	na	na	-0.821	na	-1.749	-2.905
Pseudo R ² /R ²	0.112	0.049	0.051	0.071	0.102	0.155	0.120	0.026	0.045	0.064	0.102	0.172
Fisher	28.61***						23.81***					
Observations	586	586	586	586	586	586	586	586	586	586	586	586

	Panel B: Financial Efficiency											
	Banking System Efficiency						Financial System Efficiency					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	99.001*** (0.000)	45.578*** (0.000)	81.010*** (0.001)	105.58*** (0.000)	123.91*** (0.000)	145.88*** (0.000)	118.12*** (0.000)	48.997*** (0.000)	83.794*** (0.000)	102.75*** (0.000)	122.57*** (0.000)	174.12*** (0.000)
IVFDI	-1.979** (0.021)	-1.031 (0.290)	-2.666*** (0.001)	-3.766*** (0.000)	-1.342 (0.297)	-0.438 (0.741)	-2.184*** (0.009)	-1.428 (0.159)	-3.454*** (0.000)	-2.491*** (0.003)	-0.764 (0.525)	-1.563 (0.432)
IVFDI × IVFDI	0.025* (0.095)	0.011 (0.482)	0.031** (0.010)	0.053*** (0.002)	0.025 (0.207)	0.014 (0.468)	0.041*** (0.002)	0.022 (0.142)	0.053*** (0.000)	0.049*** (0.000)	0.014 (0.444)	0.027 (0.360)
+ FDI threshold	79.16	na	86.00	71.056	na	na	53.268	na	65.169	50.836	na	na
Net FDI Effect	-1.848	na	-2.504	-3.489	na	na	-1.970	na	-3.177	-2.235	na	na
Pseudo R ² /R ²	0.105	0.033	0.064	0.062	0.060	0.119	0.136	0.044	0.078	0.079	0.060	0.125
Fisher	11.63***						12.09***					
Observations	592	592	592	592	592	592	586	586	586	586	586	586

Panel C: Financial Activity												
	Banking System Activity						Financial System Activity					
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	27.907*** (0.000)	5.455*** (0.000)	10.581*** (0.000)	18.399*** (0.000)	28.712*** (0.000)	48.698*** (0.000)	3.976*** (0.000)	5.523*** (0.000)	10.802*** (0.000)	19.228*** (0.000)	32.667*** (0.000)	62.986*** (0.000)
IVFDI	-1.028*** (0.005)	-0.244* (0.073)	-0.645*** (0.000)	-0.883*** (0.007)	-1.582*** (0.004)	-1.957*** (0.004)	0.416*** (0.003)	-0.224 (0.128)	-0.690*** (0.000)	-0.942*** (0.008)	-1.562** (0.017)	-2.143*** (0.009)
IVFDI × IVFDI	0.014*** (0.008)	0.003* (0.088)	0.009*** (0.001)	0.013** (0.011)	0.023*** (0.009)	0.025** (0.015)	0.006*** (0.002)	0.003 (0.138)	0.010*** (0.000)	0.014** (0.012)	0.023** (0.020)	0.033** (0.010)
+ FDI threshold	73.428	81.333	71.666	67.923	68.78	78.28	nsa	na	69.00	67.28	67.91	64.939
Net FDI Effect	-0.954	-0.228	-0.598	-0.815	-1.462	-1.826	0.447	na	-0.639	-0.868	-1.442	-1.970
Pseudo R ² /R ²	0.122	0.033	0.042	0.038	0.067	0.166	0.108	0.030	0.039	0.033	0.054	0.129
Fisher	13.18***						10.68***					
Observations	586	586	586	586	586	586	588	588	588	588	588	588

Panel D: Financial Size						
	OLS	Q.10	Q.25	Q.50	Q.75	Q.90
Constant	74.508*** (0.000)	59.657*** (0.000)	66.357*** (0.000)	76.984*** (0.000)	93.049*** (0.000)	95.989*** (0.000)
IVFDI	-0.907* (0.066)	-1.645 (0.307)	-1.145 (0.191)	-0.431 (0.519)	-0.104 (0.778)	0.167 (0.149)
IVFDI × IVFDI	0.006 (0.460)	0.018 (0.417)	0.004 (0.727)	-0.004 (0.663)	-0.003 (0.491)	-0.012*** (0.000)
+ FDI threshold	na	na	na	na	na	na
Net FDI Effect	na	na	na	na	na	na
Pseudo R ² /R ²	0.196	0.064	0.129	0.163	0.153	0.075
Fisher	15.55***					
Observations	583	583	583	583	583	583

* ** ***: significance levels of 10%, 5% and 1% respectively. IV: Instrumental Variable. FDI: Foreign Direct Investment. IVFDI: Instrumented FDI. OLS: Ordinary Least Squares. R² for OLS and Pseudo R² for quantile regression. Lower quantiles (e.g., Q 0.1) signify nations where Financial development is least. +FDI threshold: Positive FDI threshold. na: not applicable due to insignificance of underlying FDI estimates. nsa: not specifically applicable because of: (i) a synergy effect where both underlying FDI estimates are positive or (ii) a deteriorate effect where both underlying FDI estimates are negative.

4. Concluding implications and future research directions

We set-out to contribute to extant literature by simultaneously accounting for variations in financial development and financial globalisation in the assessment of hypothetical initial financial development conditions for the rewards of financial globalisation. The policy relevance for assessing these variations simultaneously builds on the intuition that, thresholds for financial development benefits of financial globalisation may also be contingent on initial levels of financial development. Accordingly, blanket policies based on mean values of financial development may not be effective unless they are contingent on initial financial development levels and tailored differently across countries with low- medium- and high-financial development. For this purpose, we have examined marginal, threshold and net effects of financial globalisation on financial development throughout conditional distributions of financial development. We have established that, but for a thin exception from the 90th decile of contemporary financial size regressions, the findings consistently reveal: (i) positive marginal

effects, (ii) unfeasible financial globalisation positive thresholds and (iii) negative financial globalisation net effects. The second and third findings are fundamentally due to marginal effects of low positive magnitude. The unfeasibility of positive FDI thresholds and negative net FDI effects could be due to the weakness of the institutions and policies of these African countries instead of FDI direct net effect as Henry (2007) stated.

As an implication, the marginal effect of FDI in financial development can be improved by enhancing the absorptive capacity of FDI. Some of these factors may include: trade openness, increasing technological know-how, improving human capital and greater emphasis on knowledge economy. Evidently, extant literature would be enriched if future lines of inquiry focus on establishing mechanisms by which the marginal effect and absorptive capacity of FDI can be increased to achieve greater development outcomes. Another future research direction could seek to establish the role of FDI volatility and global financial crises in the negative effect of FDI on financial development.

Moreover, the increasing marginal effects from FDI across financial activity specifications, partially aligns with the cautions of Henry (2007) and Kose et al. (2006, 2011). They have documented the need to open capital accounts in tandem with developments of essential conditions like enhancement of absorptive capacities in recipient countries. This may require *inter alia*: the establishment and/or improvement of information sharing offices needed to mitigate information asymmetry between: (i) foreign investors and domestic banks on the one hand and (ii) between domestic banks and economic operators on the other hand. Therefore assessing whether established linkages withstand further empirical scrutiny in the light of absorptive capacities is an interesting future research direction.

Appendices

Appendix 1: Summary Statistics (1996-2011)

	Variables	Mean	S.D	Min.	Max.	Observations
Financial Development	Economic Financial Depth (M2)	31.843	21.633	4.129	112.83	721
	Financial System Depth (Fdgd)	25.665	20.510	1.690	97.823	721
	Banking System Efficiency (BcBd)	69.434	30.383	13.374	196.07	806
	Financial System Efficiency (FcFd)	74.334	38.143	13.753	260.66	721
	Banking System Activity (Pcrb)	17.787	16.856	0.551	86.720	721
	Financial System Activity (Pcrbof)	19.830	22.998	0.010	149.77	723
	Financial Size (Dbacba)	71.635	23.194	2.982	99.999	794
Financial Globalization	FDI Net Inflows	5.082	12.170	-82.89	145.20	819
	IVFDI Net Inflows	5.217	4.822	-29.64	60.874	766
Control Variables	Economic Prosperity (GDPg)	4.887	7.229	-32.83	106.27	808
	Inflation	53.052	906.40	-9.797	24411	748
	Public Investment	7.448	4.659	0.000	43.011	729
	Development Assistance	10.561	12.354	-0.251	147.05	819
	Trade Openness (Trade)	76.568	36.615	17.858	275.23	801

S.D: Standard Deviation. Min: Minimum. Max: Maximum. M2: Money Supply. Fdgd: Financial deposits(liquid liabilities). BcBd: Bank credit on Bank deposits. FcFd: Financial credit on Financial deposits. Pcrb: Private domestic credit from deposit banks. Pcrbof: Private domestic credit from deposit banks and other financial institutions. Dbacba: Deposit bank assets on central bank assets plus deposit bank assets. FDI: Foreign Direct Investment. IVFDI: Instrumented FDI. GDPg: GDP growth.

Appendix 2: Correlation Matrix (Uniform sample size: 616)

Financial Development Dynamics							Other variables						
Financial Depth		Financial Efficiency		Financial Activity		Fin. Size							
M2	Fdgdg	BcBd	FcFd	PrCb	PrCbOf	Dbacba	FDIgdg	GDPg	Inflation	PubIvt	NODA	Trade	
1.000	0.974	0.080	0.118	0.833	0.669	0.458	-0.084	-0.100	-0.061	0.114	-0.261	0.088	M2
	1.000	0.095	0.184	0.883	0.758	0.501	-0.077	-0.080	-0.057	0.113	-0.288	0.117	Fdgdg
		1.000	0.868	0.446	0.461	0.207	-0.132	-0.050	-0.107	-0.230	-0.170	-0.112	BcBd
			1.000	0.554	0.701	0.240	-0.124	-0.070	-0.082	-0.212	-0.187	-0.144	FcFd
				1.000	0.931	0.519	-0.108	-0.080	-0.062	-0.039	-0.314	0.074	PrCb
					1.000	0.454	-0.103	-0.080	-0.050	-0.070	-0.300	0.009	PrCbOf
						1.000	-0.119	-0.009	-0.092	0.095	-0.355	0.227	Dbacba
							1.000	0.301	0.014	0.060	0.059	0.398	FDIgdg
								1.000	0.012	0.129	0.030	0.235	GDPg
									1.000	0.030	-0.009	0.090	Inflation
										1.000	0.171	0.148	PubIvt
											1.000	-0.243	NODA
												1.000	Trade

M2: Money Supply. Fdgdg: Financial deposits(liquid liabilities). BcBd: Bank credit on bank deposits. FcFd: Financial credit on Financial deposits. PrCb: Private domestic credit from deposit banks. PrCbOf: Private domestic credit from deposit banks and other financial institutions. Dbacba: Deposit bank assets on central bank assets plus deposit bank assets. FDI: Foreign Direct Investment. GDPg: GDP growth. PubIvt: Public Investment. NODA: Net Official Development Assistance. Fin: Financial.

Appendix 3: Variable Definitions

Variables	Signs	Variable Definitions	Sources
Economic Financial Depth	M2	Money Supply (% of GDP)	World Bank (FDSD)
Financial System Depth	Fdgd	Liquid Liabilities (% of GDP)	World Bank (FDSD)
Banking System Efficiency	BcBd	Bank credit on Bank deposits	World Bank (FDSD)
Financial System Efficiency	FcFd	Financial credit on Financial deposits	World Bank (FDSD)
Banking System Activity	PrCb	Private domestic credit from deposit banks (% of GDP)	World Bank (FDSD)
Financial System Activity	PrCbF	Private domestic credit from financial institutions (% of GDP)	World Bank (FDSD)
Financial Size	Dbacba	Deposit bank assets on Central bank assets plus Deposit bank assets	World Bank (FDSD)
Financial Globalisation 1	FDI	Foreign Direct Investment Net Inflows (% of GDP)	World Bank (WDI)
Financial Globalisation 1	IVFDI	Instruments Foreign Direct Investment Net Inflows	Authors' calculation
Economic Prosperity	GDPg	GDP Growth (annual %)	World Bank (WDI)
Inflation	Infl	Consumer Price Index (annual %)	World Bank (WDI)
Public Investment	PubIvt	Gross Public Investment (% of GDP)	World Bank (WDI)
Development Assistance	NODA	Total Net Official Development Assistance (% of GDP)	World Bank (WDI)
Trade openness	Trade	Imports plus Exports in commodities (% of GDP)	World Bank (WDI)

WDI: World Bank Development Indicators. FDSD: Financial Development and Structure Database.

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