TRADE OPENNESS, REMITTANCES, FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH: NEW EVIDENCE FROM ASIAN DEVELOPING NATIONS

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ABSTRACT: *Mostly economists advocatethat trade openness;financial development, remittances and economic growth of the developing countries are closely related with each other. Study used panel regression analysis over the period of 1980-2012, to investigatethe contribution of trade openness, remittances and financial institution development in economic growth of Asian developing countries. Study used recently developed instruments for trade openness, remittances and financial growth. Study foundthat trade openness significantly but negatively related with economic growth while remittances positively but insignificantly effect the growth of Asian developing countries. To study the role of financial growth in economic development, three different proxies, based on literature review, are used for growth in financial institutions. Results indicate that financial development positively and significantly affect economic growth.*

Keywords: economic growth, trade, remittances, institutions

INTRODUCTION:

Developing countries strive forhigh and sustainable economic growth. Fordecades,economists are trying to identify the possible factors of economic growth, although the debate is still on-going but inconclusive. There is consensus among economists that remittances, trade openness and financial development are the main factors which can influence economic growth of a country.

Since 80's the world economies are rapidly transforming into a global village and drawn closer to each other for more trade integration and economic cohesion. However, economic literaturehas been divided into two extremes, with respect to effect of trade openness on economic growth.The supporter argues that trade openness encourage competition in domestic and international trade by spreading knowledge, technological progress and reorganization of resources keeping in view absolute and comparative advantages[1-3].However, opponent stated that trade openness and growth rapport is a complex phenomenon [1, 4], and not easy to understand especially at the initialphase of economic progress.Moreover, recent data fail to declare aunique relationship between free trade and economic prosperity[5].Therefore, benefits of trade liberalization like specialization and productive efficiencydevelopment is good for economic growth but not unconditionally; these advantages may either amplified or diminished even sometime cancelled depending upon economic factors and policies which are part of game. Convincingly, trade liberalization in itself is not yet unambiguously and universally linked with prosperity and happiness. A vast literature looking at its fruits but numerous empirical studies have not found the evidence conclusive [6].

A vast literature focused financial development as key determinant of economic growth[7-12].Although physical and human capital accumulation leads toward long term sustainable economic growthand financialinstitutionfacilitate the greater population in having access to the physical assets and their efficient use,by mobilizing household and foreign savings [13]. Financial development provide greater access of individuals to financial services [14], by improving and expanding economic activities.In recent years,financial developmentreceived considerable attention in economic literature but its role is still ambiguous[13], especially if government interfere the banking system, financial institutions will be no more fruitful for growth. Moreover, financial development is fruitful only when it is embedded with strong institutional framework [15].

The third group of descriptions emphases remittances, mechanism which transfers resources rom developed to developing countries, as an important source of development. In literature two different schools of thoughts exist. The optimist views that remittances improve economic development of recipient countries by upgrading the migrant's household, standard of living, investment in health and education and improve balance of payment by financing imports[16, 17]. Moreover, remittances are considered a stable external financing source for economic growth of developing countries[18]. While pessimists argue that remittances create hurdle in the way of economic development by putting pressure on prices to increase and by reducing incentive to do work among migrant's family members [19].The empirical studies [20-22], that produce ambiguous results of association between remittances and growth produce a space for investigation of true impact of remittances on growth.The above discussion suggests three important determinantsthat can affect economic growth but according to the literature their role is ambiguous in poornations. The purpose of my study is to clear the mind of the reader about the relationship ofmostly debated and recommended factors of economic development.

Literature Review

The ample literature is available which debate on effect of trade openness on economic growth but fail to reach at single inference. Theoretical studies suggest that relationship among these variables is very complex and ambiguous. A wide range of endogenous growth modelsemphasizedthat trade policies increases worldwide rate of growth by affecting allocation of resources but at the same time it may affect individual country's growth adversely[1, 2, 23].On the other hand, neo classical approachadvocate that comparative advantage and efficiency gain give momentum to the advantages arises from trade. Moreover, it highlighted that country can reaped static and dynamic advantages only by making reallocation of resources according to comparative advantages. On the contrary, "post Keynesian and Schumpeterian evolutionary models" portray a mechanism that allows trade openness to influence the long term economic growth. However, growth literature did not reach on clear consensus about trade openness and growth relationship, we resort to the empirical studies. Although the relationship is less contradictory in empirical studies but still is an open question for debate in the empirical literature.Empirical studies [24-30] established the conviction that trade openness fostered the economic growth. Moreover, some studies suggest that only trade openness is a source of unconditional convergence[31, 32]. time span chosen for analysis play critical role while determining the short run and long run relationship between growth and trade openness, [33]. However,literature raises an argument that there can be endogeniety problem with trade openness and growth relationship. Gravity model controlled endogeniety problem by using geographic component, independent from countries' income and economic policies and measuresthe impact of trade openness on growth. The study [34], used gravity model identify a rout way for trade openness to effect growth and suggest that trade gives rise to GDP through improvement in physical capital and human capital[35]. Some studies, investigate that openness and development of financial institutionenforce economic growth[36-39], and at the same time high economic growth reinforce improvement in financial development, trade openness. Conclusively, there are numerous studies [34, 40-42]which have investigated the effect of trade openness and growth.

Extensive literature debates on possible effect of remittances on economic growth. Some studies found that growth in remittance secure economic growth of nations. Remittances can raise economic welfare, through reduction in the sternness of poverty in poor nations[43, 44], by improving development of financial sector [45], by improving foreign exchange reserves and capital accumulation[46], that ultimately reduces macroeconomic instability[47]. Moreover, stable economic policies and law and order situation motivate the migrants to contribute in economic growth by making investment and innovation at their homeland [22, 48].Additionally, remittances have significant effect on economic growth[49, 50]. On the other hand, some studies investigate a limited role of remittances in economic development because, remittances are consumed on consumption items rather than rather than investment [48, 51], remittances may appreciate real exchange rate [46], which adversely affect growth. Similarly, remittances improve economic condition of left behinds thatlower the tendency to participate in labour market which is harmful for growth [47, 52-54].

Third and utmost factor affecting economic growth is financial development. Theoretical and empirical literature suggests positive effect of financial development on growth. There is growing consensus that financial institution can play vital role in economic development [55], by reducing liquidity and individual risks through mobilizing savings and reallocation of resources toward more productive uses. Even monetary system of England play significant role at the time of industrial revolution(Bagehot, 1873 Hicks 1969). Moreover, deep rooted financial system causes capital accumulation which improves technological revolution that ultimately leads to economic development [56]. Similarly financial development improvescapital formation and efficiency of productive technique which positively and significantly affect welfare of the economies[57]. Early economic theories suggest that economic development is a process of innovation in real as well as in financial development [12]. Financialdevelopment improve economic growth through different channel; improved saving growth rate, high investment rate, incraese in efficiency of capital allocation and vibrant technological choices [58, 59].In contrast there are some studies which found, in some cases, no relationship of growth and financial development [60-62] However, there is lack of harmony among economists on the relationship between financial development and economic development. So, current study carried out to make the picture clear.

Data Collection and Methodology

Study includ Asian developing countries (Pakistan, Malaysia, Philippine, Singapore, Sri Lanka, Thailand, Vietnam, China, India, Indonesia)and time series data that has been collected for the period of 1980 to 2012 from WDI.The purpose of thisresearchis to determine, how growth rate response to trade openness, financial development and remittances. Panel regression has been estimated for Asian developing countries to find the impact of trade openness, remittances, financial development and economic growth.

Econometric Model:

$$lnGDP_{i,t} = \beta_0 + \beta_1 lnTrade_{i,t} + \beta_2 lnREM_{i,t} + \beta_3 dlnDCB_{i,t} + \beta_4 lnEDU_{i,t} + €$$

$$lnGDP_{i,t} = \beta_0 + \beta_1 lnTrade_{i,t} + \beta_2 lnREM_{i,t} + \beta_3 dlnDCP_{i,t} + \beta_4 lnEDU_{i,t} + €$$

$$lnGDP_{i,t} = \beta_0 + \beta_1 lnTrade_{i,t} + \beta_2 lnREM_{i,t} + \beta_3 dlnM2_{i,t} + \beta_4 lnEDU_{i,t} + €$$

lnGDP =The natural log of real GDP per capita

lnREM= log of personal remittances received % of GDP

lnTRAD =log of trade openness and [d*lnDCB, dlnDCP,dlnM2*] are different proxies used to measure financial development, Xis human capital used as controlled variable, and $€$is error term. Thus we performed three separate regressions to study the impact of trade openness, remittances, and financial development. DCP, DCB and M2 are included in regression equation separately because these proxies are highly correlated among themselves for most developing countries. Study employed panel data, a blend of both time series and cross section data, which contained some cross sectional units (countries) over a same time period [63]. There are many techniques in econometrics for conducting

analysis with panel data but this study used fixed effect model and random effect model because these are most important and widely used techniques for panel data analysis.In literature, different authors provided different justifications for adopting these techniques.This study choose random sample from population then panel data approaches, fixed effect model and random effect model, are employed [64], after that, study run Hausman's specification test to choose one most appropriate model.If Hausman's specification test produces insignificant result then random effect is more appropriateinstead of fixed effects model. The results of Hausmanfor this study suggests that random effect model is appropriate for further analysis, and also go towards further testing like Breusch Pagan Lagrange multiplier test. If this test produces significant results then most appropriate model is random effects model and authors reject the following null hypothesis "no random effects". Similarly, if this test fails to give the significant results than most appropriate model for analysis is pooled Ordinary Least Square (OLS) regression.

The description of the variables used in this study is given below.

Empirical Findings

All the variables are expected to be stationary at level, i.e. I (0). We executed two panel unit root tests that investigate the mean and variance of the data over the period is constant or not, first one is [65, 66]. If null hypothesisis rejected then data is said to be stationary. Results of unit root tests are presented in Table1 Below.

Table 1: Unit Root Test.
(Null-Hypothesis: There is unit root)

Independent variable	Method	Unit Root test	Cross sections
lntrade	Levin, Lin & Chu t*	-4.910*	10
	Im, Pesaran and Shin W-stat	-5.457*	
lngdp	Levin, Lin & Chu t*	-5.629*	10
	Im, Pesaran and Shin W-stat	-5.590*	
lnRem	Levin, Lin & Chu t*	-1.4116*	10
	Im, Pesaran and Shin W-stat	0.2885*	
dlnDCB	Levin, Lin & Chu t*	-8.837*	10
	Im, Pesaran and Shin W-stat	-9.112*	
	Im, Pesaran and Shin W-stat	-4.970*	
dlnDCP	Levin, Lin & Chu t*	-9.641*	10
	Im, Pesaran and Shin W-stat	-9.443*	
dlnM2	Levin, Lin & Chu t*	-13.27*	10
	Im, Pesaran and Shin W-stat	-12.24*	
lnedu	Levin, Lin & Chu t*	-3.176**	10
	Im, Pesaran and Shin W-stat	-4.937**	

all variables included in this study are stationary at the level. Unit root tests strongly reject the null hypothesis.

Table 2: Descriptive Statistics

Variable	mean	St. deviation	maximum	Minimum
Lntrad	3.432	0.682	7.9592	1.8833
lnRem	0.558	1.394	2.5769	-4.4469
lndcb	0.025	0.135	1.0511	-0.954
dlndcp	0.026	0.134	1.0421	-0.9498
Dlnm2	0.027	0.084	0.4328	-0.698
lnedu	4.494	0.131	4.714	4.100
lngdp	1.411	0.694	2.6172	-2.9536

The mean value of all variables varies from 1.411 to 4.494 and standarddeviation varies from 0.131 to 1.396.

Table 3: Dependent variable: GDP

Independent variable	Random effect (equation 1)	Pooled OLS (equation 1)	Random effect (equation 2)	Pooled OLS (equation 2)	Random effect (equation 3)	Pooled OLS (equation 3)
c	2.095* (2.36)	3.001* (3.960)	2.116** (2.36)	3.024* (3.99)	2.003* (2.179)	2.538* (3.409)
Trad.	-0.939* (34.31)	-0.931* (-33.764)	-0.939* (-34.31)	-0.931* (-33.77)	-0.956* (-34.31)	-0.935* (34.94)
Rem.	0.026 (1.320)	0.0155 (1.118)	0.026 (1.320)	0.016 (1.194)	0.021 (1.059)	0.006 (0.526)
edu	0.4556* (2.176)	0.2399* (2.406)	0.4556* (2.176)	0.231** (2.170)	0.602* (2.945)	0.282*** (1.721)
DCB	0.187* (3.781)	0.1430* (3.980)				
DCP			0.136* (2.781)	0.145* (3.99)		
M2					0.214* (3.396)	0.204* (4.659)

Adjusted R-squared	0.918	0.920	0.918	0.9203	0.920	0.923
F-Statistics	330.13	338.48	330.16	338.80	341.51	355.16
	Chi-Sq. Statistics			prob.		
Hausman test	8.503			0.205		

The results for panel regression with three different financial development proxies (dcb, dcp, m2) are reported in table 4.3. Results indicate that trade openness has significant and negative impact on economic development. Trade openness is not very much beneficial for developing countries [67], especially the countries, that specializes in the production of low quality products [68], experiencing political instability, having contradictory macroeconomic policies,can face negative consequences of trade openness[69]. This study used the Asian developing countries which are mostly agrarian economies and dependent on agriculture sector for their economic development. 60% exports of developing countries consist on primary products. Moreover, effectiveness of trade openness heavily dependent on appropriate monetary and fiscal policiesalong with corruption free administration [70]. Therefore, due to poor and inappropriate monetary and fiscal policies, developing countries are unable to reap the fruits of trade liberalization in real sense. Moreover, the fastest growing economies (Lebanon and Lesotho) advocatetrade policies with restriction where as the most liberal economies like Moldova and Mongolia have experienced collapse in growth [5].

Moreover, the results, when we employ panel regression analysis by using dcb as proxy variable for financial development,portray that remittances haveinsignificant positive effect on economic growth.Therefore, remittances have limited role in economic development if it spent on household consumption rather than investment [48, 51].In developing countries, people spent major part of remittances on household consumption, and on other luxurious items (Chimhowu, et al. 2005). Similarly, when we use dcp and M2 as proxy variable for financial development, results show, remittances have negative significant impact on economic growth. Remittances may not have healthy impact on development in long run, and even some time it can be negative[71] and may adversely affect economic growth, when it appreciate real exchange [46]. Similarly, remittances improve living standard of migrant household, that ultimately reduce labour participation in labour market which is harmful for economic growth by directly affect household income that could[47, 52-54]. In this study dcb, dcp and m2 are the indicators of financial development; results indicate that financial progress is positively and significantly related with economic growth, especially at the initial stages of progress in poor backward nations, the level of financial intermediaries' paly vital and significant role in economic development. Although the financial system in developing countries is far from efficient level but still it has robust relationship with economic development[13]. Financial deepening, allow capitalization on financial economies of scale that ultimately trigger economic growth [72]. Therefore, appropriate institutional structure is essential for potential contribution of financial development. Results are consistent with earlier studies [56, 73-75].Education has been used as controlled variable in this study. It has positive and significant relationship with economic growth.

CONCLUSION

This study investigates the effect of three important factors, trade openness, remittances and growth of financial development, on economic growth.Results indicate that trade openness has significant but negative impact on economic growth in Asian developing countries whereas, remittances hasinsignificant positive impact on economic development. Moreover, three measures of financial development (dcb, dcp, m2), indicates that financial development positively and significantly affect the economic growth of developing countries. Domestic credit, Private creditand broad money, have positive and significant impact on economic growth.

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Appendix

variables	Definition	Proxy variable
GDP per capita	The value of final goods and services produced in an economy with in one year divided by population	Gdp per capita (%annual)
Trade openness	Reduction in barrier in the movement of goods and services across the boundaries of a country	Import-export/gdp
Remittances	The amount of money send by migrant to his family at home country	Personal remittances receives (% of gdp)
M2	Broad money is used to measure the financial depth or size of financial system	Money and qusia money as a % of GDP
dcp	High ratio of dcp shows higher development of financial system along higher level of domestic investment.	Domestic credit to private sector (% of GDP)
dcb	Higher dcb indicate greater degree of confidence upon the banking sector for financing	Domestic credit to private by bank (% of GDP)
education	Education is a process which transfer skill, knowledge and habits from one generation to another generation through teaching	Adjusted net enrollment rate primary (% primary school age children)