



Munich Personal RePEc Archive

# **Impact of Financial Development on Export Performance: Evidence from South Asia**

Riaz, Kainat and Siddique, Hafiz Muhammad Abubakar and  
Audi, Marc and Sumaira, Sumaira

Department of Business and Commerce GIFT University, Pakistan,  
Faculty of Business and Commerce GIFT University, Pakistan, Abu  
Dhabi School of Management (ADSM), Abu Dhabi, UAE;  
University Paris 1 Pantheon Sorbonne, France, Faculty of Business  
and Commerce GIFT University, Pakistan

2024

Online at <https://mpra.ub.uni-muenchen.de/122474/>  
MPRA Paper No. 122474, posted 27 Oct 2024 16:07 UTC

# Impact of Financial Development on Export Performance: Evidence from South Asia

Kainat Riaz<sup>1</sup>, Hafiz Muhammad Abubakar Siddique<sup>2</sup>, Marc Audi<sup>3</sup>, Sumaira<sup>4</sup>

## Abstract

With the expansion of trade policies in the 1980s, countries began prioritizing foreign trade in their economic strategies, recognizing financial development as a key component. Financial development significantly influences macroeconomic performance and enhances economic growth by positively impacting exports. This study explores the relationship between financial development and export performance in South Asian countries, using panel data from 1990 to 2022. The analysis employs OLS fixed-effects models, FMOLS, DMOLS, and Pedroni co-integration tests. Results from the pooled OLS and fixed-effects models indicate that financial development, foreign direct investment, GDP, and population are key drivers of export performance. The Pedroni co-integration test confirms a long-term relationship among these variables. The findings suggest that promoting appropriate financial development and expanding financial market access are crucial for supporting businesses and boosting export performance in the region.

**Keywords:** Financial Development, FDI, Export Performance, South Asia

## 1. Introduction

Financial development and export performance are the elements of economic growth in South Asia. Financial improvement means the development and increase of financial structures in an economy, encompassing factors that include the availability, the efficiency of financial intermediaries, and, accessibility to numerous financial agents. Export performance measures a country's ability to sell products and offerings in worldwide markets, that is essential for foreign reserves, and promoting financial growth. The connection between financial boom and export performance is multidimensional and has been substantially researched in emerging economies.

Beck (2002) highlights the connection among global change and financial development, promoting widespread trade and economic growth. Anagaw and Demissie (2012) identified factors such as stabilizing exchange rates and attracting foreign direct investment are critical for improving export performance. Jangam and Akram (2020) found that financial integration plays a key role in export diversification by reducing trade cost and improving foreign

---

<sup>1</sup> Department of Business and Commerce GIFT University, Pakistan, [22101230006@gift.edu.pk](mailto:22101230006@gift.edu.pk)

<sup>2</sup> Faculty of Business and Commerce GIFT University, Pakistan, [abubakar.siddique@gift.edu.pk](mailto:abubakar.siddique@gift.edu.pk)

<sup>3</sup> Abu Dhabi School of Management (ADSM), Abu Dhabi, UAE; University Paris 1 Pantheon Sorbonne, France, [scholarmarcaudi@gmail.com](mailto:scholarmarcaudi@gmail.com)

<sup>4</sup> Faculty of Business and Commerce GIFT University, Pakistan, [sumaira@gift.edu.pk](mailto:sumaira@gift.edu.pk)

capital. Therefore, Choi (2020) noted that financial development can increase external financial dependence while it may also have adverse effects on trade. Fang et al. (2015), highlighted the positive impact of financial development on exports, particularly in regions with high human capital and foreign direct investment. Further research is recommended to explore the causal connection between financial structure and trade outcomes in countries like Nepal, where there is a trade deficit, and to utilize various econometric methods for a more in-depth analysis.

Xinzhong (2022) studied the effect of financial development on export in Jiangsu Province, China, finding consequences and highlighting the importance of financial development in exports growth. Leibovici (2021) investigates that financial development leads to extended alternate by means of decreasing costs and growing productivity, mainly for small and medium-sized organizations. To examine the critical function of financial development to exports and offers insights for policymakers on leveraging exchange-oriented policies for financial growth.

Love and Zaidi (2010) highlighted the association between change in credit, economic constraints, and exports in Pakistani companies. These studies stress the importance of monetary development in boosting export-led increase and alleviating monetary constraints for companies. By examining the empirical evidence and key mechanisms via which financial improvement impacts exports, and contribute to a higher information approximately financial structures and their function in selling finance-led increase and financial prosperity in nations.

South Asian nations have faced challenges in advancing their financial sectors, resulting in a notable disparity in export performance when compared to other regions (Kumar & Singh, 2018). Additionally, the region's financial systems have been criticized for being overly reliant on banks, providing insufficient access to alternative financial instruments and services (Levine, 2005). This limitation has intensified the difficulties encountered by businesses, especially small and medium-sized enterprises, which are vital for the export growth and diversification of the region. Therefore, it is important to explore the connection between financial development and export performance in South Asia and to identify policy measures that can foster financial sector growth and improve export outcomes.

This study is designed as; in section 2 an overview of selected literature is shown. In section 3, theoretical and methodology are presented which support the analysis. Section 4 consists of the description of the concerning variables of the study. Section 5 contains the discussion of results, while section 6 comprises conclusion and suitable policy recommendations.

## 2. Literature Review

Anagaw and Demissie (2012) used a Vector Autoregression (VAR) model to find the factors that impact Ethiopia's export performance. By taking data from 1999 to 2009, the findings established that real effective exchange charge (REER) and inflation have unfavorable effect on export performance, FDI, financial development (FD) and competitive trade rate had a useful effect. In the study of Beck (2002) the connection between international trade and FD was explored for sixty-five countries. The study revealed that FD can promote international trade through decreasing transaction charges, enhancing mortgage availability, and boosting alternate finance performance. The research also establishes a connection between economic improvement and trade openness.

Fang et al. (2015) investigated the connection between financial development (FD) and the improvement of China's exports. They utilized provincial-stage statistics from 2000 to 2009 and found an effective correlation between FD and export progression. Moreover, the authors discovered regional variations within the impact of financial development on export improvement, with more evolved regions. Jarreau and Poncet (2011) take a look at China's export performance during 1997 to 2007 and found that credit restrictions extensively reduce exports, particularly for SMEs. The research additionally highlighted local versions, with much less evolved financial systems being more affected. Similarly, Kadochnikov and Fedyunina (2017) studied the effect of financial development and human sources on Russian groups' export performance. They took the data from 2002 to 2010 and discovered that liquidity, credit availability, employee schooling and training positively stimulated exports.

Kumarasamy and Singh (2018) studied on the connection among FD, economic improvement, and exports in Asia-Pacific countries. They utilized a panel dataset from 2000 to 2014 and the consequences in their studies indicate that access to financial development play a vital position in driving companies' capacity to export. This enables corporations to conquer financial constraints, put money into export-oriented activities, and improve their global competitiveness. Government of Nepal (2021) examined that trade and export promotion center, followed information-centric technique through the Nepal trade portal, using records visualization strategies to depict Nepal's trade traits from 2000 to 2020. The information from the portal shows a splendid alternate deficit, characterized by using imports exceeding exports.

Okafor et al. (2020) checked the impact of financial institution credit score, public economic incentives, and tax incentives on export performance for the duration of the worldwide financial crisis. Their findings advocate that financial institution credit and public incentives have high-quality outcomes on exports, even as tax incentives

display a negative impact. They examine highlights the significance of financial institution credit and public incentives in fostering export-led boom.

Beck (2002) explored how FD and worldwide trade are linked by using an extensive examination of seventy four nations during 1975 to 1995. The researcher utilized a method known as GMM to emphasize the significance of financial development in facilitating worldwide change, particularly in growing countries. The findings demonstrate that the level of exports and the trade balance are significantly influenced by financial development. Pradhan et al. (2020) investigated the effect of outside commercial credit score (ECB) and FD on exports in 12 emerging economies from 2000 to 2018. They found that the ECB has an outstanding effect on exports, however FD also have positive impact on exports. Hur et al. (2006) carried out a study to check out the relationship among FD, asset tangibility, and international trade for the panel of 42 countries that covers the time period 1980-2000. The outcomes indicated that FD increase has a significant effect on trade, especially in those countries with high asset tangibility.

Ahmed and Suardi (2018) used a time-series evaluation to the relationship between financial development and exports in Indonesia during 1975–2015. The study employed VECM and Granger causality to investigate the direction of causality. Their findings show a favorable and sizeable effect of financial development on exports, with bidirectional causality among the two variables. According to the findings, financial development promotes exports through growing get right of entry to credit, lowering transaction charges, and boosting alternate facilitation. Baltagi et al. (2017) examined the connection between FD and exports in 31 provinces of China from 1995 to 2012. Their findings show that FD has considerable effect on export growth, especially in coastal regions in which it has boosted to credit score, agency productivity, and exchange facilitation.

Chaieb and Maktouf (2018) used time-series data from 1970 to 2015 to examine the relationship among Tunisia's financial development and exports. The findings show that financial development has a great effect on exports, with an extended- run equilibrium hyperlink among the two variables. Chowdhury and Chowdhury (2018) conducted quantitative analysis of time- collection records from 1980 to 2015 to have a look at the relationship between FD, institutional quality, and exports in Bangladesh. Their findings show that FD and institutional have a tremendous effect on exports. According to the findings, FD improves enterprise productivity, while institutional quality promotes change facilitation and lowers transaction expenses, all of which sell export-led boom in Bangladesh.

Das and Mishra (2018) take a look at the connection between FD and exports in India from 1981 to 2015. Their studies traced a favorable and extensive influence of FD on exports with the properly-evolved economic structures. According to the findings, financial improvement plays a vital role in encouraging export-led growth in India by

growing mortgage availability, improving organization productiveness, and facilitating exchange. Eichengreen and Gupta (2016) performed a meta-evaluation of 36 research on financial development and worldwide trade from 1960 to 2013. They determined financial development undoubtedly influences the trade, with a weighted average elasticity of 0.34.

Chaieb and Maktouf (2018) use a cointegration approach to analyze the long-time period courting between Tunisia's financial development (FD) and exports from 1970 to 2015. The outcomes of Johansen co-integration and VECM reveal that FD has a substantial effect on exports. The authors discover that FD as measured by means of huge cash and private zone credit score, has a useful effect on exports, even though alternate openness and real GDP additionally play crucial roles. Hericourt and Poncet (2013) check out the relationship between FD and exports in Chinese provinces from 1995 to 2008. The findings exposed that FD, as assessed by means of banking quarter improvement and stock market capitalization, increases employer productivity and decreases financing limitations, encouraging exports. Furthermore, the impact of economic improvement on exports is more in regions with better trade policies.

Ahn (2017) explores the relationship among financial development (FD) and export diversification by using of panel information evaluation and GMM approach in 104 countries among 1995 and 2014. The findings discover a positive relationship between FD and export diversification. Baltagi and Demetriades (2017) found a relationship between FD and export growth in South Korea, using time series analysis and co-integration from 1975 to 2013. The findings determine a positive relationship between FD and export, with credit score and stock marketplace development being key drivers of export prosperous. Canales and Nanda (2012) introduce a flexible estimation technique to find the effect of monetary improvement on exports, utilizing a combination of parametric and non- parametric strategies to seize the relationship between them from 1980 to 2005 in various countries. The results suggesting that conventional parametric strategies may additionally underestimate this relationship.

Chakraborty (2017) investigated the relationship among financial development, exchange rate, and bilateral trade by using of a gravity model estimation during the time spanning from 1980 to 2013. The results expose that FD boosts bilateral trade with the help of reducing exchange rate, with a strong effect in international localities. The findings indicate that exchange prices moderate the relationship between FD and bilateral trade. Fung and Garcia-Herrero (2017) tested the nexus between FD and trade openness using the provincial-level records in the context of China from 1995 to 2013. The study concluded that the increase in FD promotes the trade through decreasing exchange rate and growing employees' productiveness

Shahbaz and Islam (2017) analyzed the connection between FD and exports in Pakistan, using the ARDL technique. Their findings show that FD has an effective and considerable effect on exports, both in the short and longer term, implying that financial development is essential for selling export growth in Pakistan. Nguyen and Nguyen (2017) discovered the relationship between FD and level of exports in Vietnam, using a time-series analysis spanning 1986 to 2015. Their studies exhibit that FD performs an essential position in using export increase by improving firm productivity, lowering exchange rate, and enhancing FD.

Majeed and Ahmad (2017) carried out an empirical investigation of the connection between FD and exports in Pakistan from 1973 to 2013. Their findings show that financial development has a positive effect on exports, implying that more credit availability is important for increasing the exports. Liu and Zhang (2017) investigated a dataset of 30 provinces from 2000 to 2012. The study show that monetary increase has a large beneficial impact on textile exports. The findings suggest that financial improvement is a crucial driving force of export boom in the fabric enterprise, and that provinces with better ranges of economic development and trade openness are more likely to benefit due to financial development.

Kim and Lin (2017) employed a dynamic panel analysis to take a look at the connection among FD and exports in South Korea, using a panel dataset of sixteen sectors from 2000 to 2012. The findings display that FD has the beneficial effect on exports because financial development boosts business productivity and competitiveness, resulting in improved exports, and this effect is more effective in industries with higher technological intensity. Hu and Wang (2017) looked at the nexus between FD and exports in China using a move-sectional pattern of 30 provinces from 2000 to 2012. The findings show that FD has a significant effect on exports.

### 3. Econometric Model

To establish the impacts of financial development, FDI, population and industrialization on export performance in South Asia, the following model is offered:

$$\ln EP_{it} = \alpha_0 + \alpha_1 \ln FD_{it} + \alpha_2 \ln FDI_{it} + \alpha_3 \ln POP_{it} + \alpha_4 \ln IND_{it} + \varepsilon_{it} \dots \dots (1)$$

In the above equation EP is the export performance, FD stands for financial development. FDI represents the foreign direct investment, POP and IND denote the population and industrialization. All these variables have been converted into the natural logarithm. Where  $\varepsilon$  is error term, i represents the countries and t is used for the time period from 1990 to 2022 while  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$  and  $\alpha_4$  are the parameters of  $\ln FD$ ,  $\ln FDI$ ,  $\ln POP$  and  $\ln IND$ .

Various methods that can demonstrate the effect of several economic indicators on export performance in cross country analysis. In order to find out the effect of financial development on the export performance in South Asian countries, panel unit root test OLS, fixed effects model, FMOLS, and DOLS models are used. To find the long run relationship, Pedroni Co-integration test is also applied.

Initially this study starts with unit root test to check the stability of the data at the level or first difference. Panel unit root tests are utilized which are drawn by Phillips & Perron (1988) and Levin-Lin-Chu (2002). Since the co-integration analysis requires that data of all the factors be stable at first difference. Co-integration test analyzes the long-term relationships between financial development, exports and other factors and this test is proposed by (Pedroni, 1999). The null hypothesis indicates that there is no co-integration between the five variables in the model. The probability values from the co-integration test and a variety of statistics are used to determine whether to accept or reject null hypothesis.

The pooled OLS method is applied on the dataset. Due to the constant coefficient, it can be referred to as the common constant technique. In cross sectional units, constant coefficients comprise intercept as well as slope coefficients that remain constant across time. The Fixed Effects (FE) approach uses the same intercept for each cross section to determine the relationship in panel dataset. As the FE model incorporates dummy variables, every cross section is having distinctive intercept. The FMOLS model is used in empirical research to ensure accurate and reliable analysis. It involves new techniques to test co-integrating vector hypothesis in dynamic frames in a way that is compatible with the level of cross-sectional heterogeneity allowed in recent panel unit root and co-integration studies. Lastly the DOLS technique is applied to make ensure the robustness.

#### **4. Data and Variables**

The link between financial development and export performance is assessed using various variables that are briefly explained in this section. The data extracted from WDI for the period 1990 to 2022 for South Asia. The selected countries of South Asia are Bangladesh, Bhutan, Sri Lanka, India, Nepal, and Pakistan. Financial development is considered as the dependent variable while the main explanatory variable is export performance. However, the other factors are as; population, FDI and industrialization.

Export performance measures a country's capability to export goods and evaluating competitiveness, specializing in both quantitative and qualitative components. Export performance is an important issue of a country's economic development, as it can cause of employment opportunities. Moreover, exports can power productivity and profits, as



corporations that export are much more likely to undertake new technology and management practices (Lall, 2000, Audi et al., 2022; Aziz et al., 2023; Audi & Ali, 2023; Audi et al., 2023; Audi et al., 2024). By leveraging exports, countries can capitalize on their comparative benefits and combine into the global economic system, leading to sustained economic growth and prosperity.

Financial development refers to the improvement of a country's economic system, get entry to credit score, influencing monetary increase and stability. Countries with well-developed monetary structures generally tend to experience higher tiers of financial development due to progressed resource allocation. Financial development additionally plays a pivotal feature in decreasing poverty by fostering inclusive growth via better get right of access to economic services which include credit and financial savings devices (Beck & Demirguc-Kunt, 2006; Ali, 2015; Ali, 2018; Ali & Bibi, 2017; Ali & Audi, 2018; Audi et al., 2021; Siddique et al., 2022).

FDI is the term for an investment made into commercial interests situated in another country by means of a company from one state. FDI brings in capital however contributes to technology transfer, managerial facts, and employment era in host countries. It performs an essential position in improving productiveness and competitiveness through facilitating the transfer of information and skills. However, the impact of FDI varies relying on the sectorial composition, and the absorptive capacity of the host monetary system (Ali & Rehman, 2015; Ali et al., 2016; Siddique et al., 2017; Shahid et al., 2019; Audi et al., 2021). The contribution of manufacturing value added to GDP is taken into account as a gauge of industrialization. It covers the value added to construction, power generation, manufacturing, and gasoline production. It comprises a sector's net production following subtracting of intermediary inputs (Audi et al., 2021; Audi et al., 2021; Sumaira and Siddique, 2023). The term population of a country incorporates of all the residents nonetheless of authorized nationality or status. Ebaidalla and Abdalla (2015) also stated that the growth in population lead to sizable increase in exports.

**Table 1: Data description**

Variables	Measurements	source
Export performance (EP)	Exports % of GDP	WDI
Population (POP)	Population ages, 15-64	(2024)
Financial development (FD)	Domestic credit to the private sector as share of GDP	
Foreign direct investment (FDI)	Net inflow of Foreign investment (% GDP)	
Industrialization (IND)	Value-added % of GDP	

#### 4.1. Descriptive statistics

Table 2 provide a view of the variables used for the analysis. Export performance has the average value of 67.77 and it ranges from 5.153 to 233.37. Financial development and FDI have the mean value of 31.80 and 0.875 and these ranges from 4.286 to 103.65 and -0.638 to 6.3216. For the description of population, it has been converted into millions. The average value of population is 157.80 whereas its minimum & maximum values are 0.2883 and 960.80, industrialization also ranges from 311.792 to 45.099.

**Table 2: Results of Descriptive Statistics**

Variables	Obs.	Mean	Max.	Min.	Std. dev.
EP	192	67.774	233.371	5.153	42.706
FD	194	31.807	103.650	4.286	17.337
FDI	187	0.875	6.321	-0.638	0.840
Pop	198	157.800	960.801	0.288	267.17
IND	197	25.795	45.099	11.792	7.289

#### 4.2. Correlation Matrix

Table 3 correlation matrix shows that financial development has positive correlation with export performance, with a positive relationship between the two. FDI and industrialization also shows a positive relationship with export earnings. There is also a positive correlation between population and exports performance.

**Table 3: Results of Correlation Matrix**

	EP	FD	FDI	IND	POP
Ex	1				
FD	0.6595	1			
FDI	0.1840	0.1336	1		
IND	0.0505	-0.0167	0.3429	1	
POP	0.0404	0.1988	0.2653	0.0882	1

### 4.3. Panel Unit Root Test

In Table 4, the outcomes of the panel unit root tests including PP and Levin, Lin & Chu are undertaken to reveal the nature of the variables. Accordingly the results, export value, financial development, industrialization and population are integrated at I(1), since these are no-stationary at their level.

**Table 4: Results of Unit Root Test**

	PP- Fisher Chi-square				Levin, Lin & Chu			
	Level		1 <sup>st</sup> difference		Level		1 <sup>st</sup> difference	
	T-value	Prob.	T-value	p-value	T-value	Prob.	T-value	p-value
EP	7.389	0.830	77.96*	0.000	1.444	0.925	-5.159*	0.000
FD	8.859	0.714	93.73*	0.000	1.869	0.969	-3.727*	0.000
FDI	34.21	0.600	161.4*	0.000	0.418	0.662	-1.906*	0.028
IND	14.916	0.246	116.03*	0.000	-0.835	0.202	-6.275*	0.000
POP	4.829	0.963	26.43*	0.009	4.902	1.000	-2.727*	0.003

Note: Probabilities \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

## 5. Results and Discussion

Table 5 is expressing the empirical outcomes of panel OLS. The consequences of panel OLS suggest that financial development, FDI, population and industrialization have the increasing effect on export overall performance in South Asia. The values of FD and FDI are 0.322 and 0.083 which specify that any 1% growth in FD and FDI become the reason of 0.322% and 0.083% increase of exports, respectively, these findings are the same findings of Ali (2022); Audi et al., (2023); Xin et al. (2024); Islam et al. (2024). The coefficient of population is 2.96, it explains that a 1% population growth leads to 2.96% increase in export performance and this result it is consist with Audi et al., (2023), Potelwa et al. (2016). Industrialization has also found the positive impact on export performance by 1.2%, it is comparable with the findings of Khan et al. (2021), Ali & Audi (2023) and Ali (2022).

**Table 5: Empirics of OLS, FE, FMOLS and DOLS**

Dependent Variable: Export Performance								
Variables	OLS		FE		FMOLS		DOLS	
	Coeff.	Prob.	Coeff.	Prob.	Coeff.	Prob.	Coeff.	Prob.
LnFD	0.322*	0.000	0.196*	0.001	0.379*	0.000	0.469*	0.000
LnFDI	0.083*	0.000	0.106*	0.000	0.118*	0.001	0.115*	0.001
LnPOP	2.965*	0.000	1.6883*	0.000	2.854*	0.000	2.572*	0.000
LnIND	1.201*	0.000	1.173*	0.000	1.216*	0.000	1.845*	0.000
C	-52.52*	0.000	-29.79*	0.000	-	-	-	-
Obs.	173		173		173		173	
R <sup>2</sup>	0.92		0.94		0.92		0.99	
Hausman	0.000		-		-		-	

Note: Probabilities \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

The results of FE model show that exports are definitely affected by FD, FDI, population and industrial activities. In particular, any 1% rise in FD will cause 0.196% increase in exports while a 1% growth in FDI also raise it by 0.106%, the same conclusion is found in the study of Xinzhong (2022); Cantwell and Bellak, C. (2000). Moreover, 1% increase in population and IND will bring about 1.68% and 1.173% growth in exports of goods & services, respectively. Chenery (1980); Shetewy et al. (2022) provide the evidence for the same results. The value of Hausman test provides the evidence for Fixed-effect model, as it completely rejects the null hypothesis of Random-effects model.

The FMOLS findings show that financial development and other factors have the significant influence on exports performance of South Asia. The coefficient of FD shows that a 1% growth in this factor leads to a 0.37% increase in export value while the value of FDI reveals that any 1% rise in FDI enhance the exports by 0.11% which indicates that FDI is beneficial for the host country to export more product. Moreover, for every 1% growth in population causes 2.85% increase in exports, it means that the growing population becomes the reason for more workforce that leads to enhance the production of a country and exports as well. Overall, the effects display that monetary development, overseas investment, population boom and monetary growth are vital factors in export growth.

Industrialization has the coefficient of 1.21 which specifies that the growth in industrial activities causes 1.21% increase in exports.

The outcomes of DOLS model also shown in Table 5 and according to these findings financial development (FD) is helpful for exporting of goods and services, it means that any 1% increase in FD leads to improve the exports by 0.46%. Bao and Yang (2009); Coban (2015); Qun and Jiayu (2007); Ali (2022), Ali & Audi (2023) found the same conclusions. Similarly, the values of FDI and population demonstrate that every 1% growth in these elements cause of 0.11% and 2.5% increase in exports, respectively and it is similar with the findings of Hailu (2010). Industrialization has the coefficient of 1.84 which exposed that it leads to contribute in exports by 1.84% in South Asia.

Table 6 shows the findings of Pedroni Cointegration test, which denotes that export performance, financial development, FDI, population growth and industrialization are co- integrated in the eventually long run because six values of statistics out of the four values of statistics do not accept the null hypothesis of no co- integration at the 1% level of significance.

**Table 6: Results of Pedroni Co-integration Test**

Alternative hypothesis common AR coefs. (within-dimension)				
	Statistics	Prob.	Statistic	Prob.
Panel v- stat.	-0.7071	0.7602	-1.5928	0.9444
Panel rho- stat.	-0.4675	0.3201	-0.5723	0.2835
Panel PP-stat.	-1.5688***	0.0583	-2.0236**	0.0215
Panel ADF- stat.	-1.6201***	0.0526	-2.0597**	0.0197
Alternative hypothesis common AR coefs. (between-dimension)				
Group rho- stat.	0.3302	0.6294	-	-
Group PP- stat.	-1.6495**	0.0495	-	-
Group ADF- stat.	-1.5790***	0.0572	-	-

Note: Probabilities \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1

## 6. Conclusion

This is cleared from previous studies that financial development has the substantial effects on exports of many regions. The study investigates the effects of financial development (FD) on exports performance (EP), by incorporating the contribution of FDI, population (POP) and industrialization (IND) in South Asian region. Data spanning from 1990 to 2022, extracted from the website of WDI, is analyzed using OLS, Fixed-effects, FMOLS and DOLS methods. Levin, Lin & Chu and PP tests confirm that FD, FDI, POP and IND are stationary at I(1), leading to the application of Pedroni co-integration tests, which provide the confirmation for a long-run co-integration among the concerning series. The consequences from OLS exhibit that financial development, FDI, population and industrialization improve the export performance. The findings of Fixed-effects model illustrates that any 1% rise in FD, FDI, population and industrial activities correspond to a 0.196%, 0.106%, 1.68% and 1.173% growth in the exported product, respectively. FMOLS and DOLS results reinforce that exports South Asia get improved due to FD FDI, population and industrialization.

Financial development has a substantial impact on export performance. Improved banking systems, easier access to credit, and more efficient financial markets make it possible for businesses to grow their production capabilities, invest in technology, and penetrate new markets, all of which increase export volumes and competitiveness. The study highlights that for the secure and easily available financial services, governments should give top priority to reform that strengthen financial institutions and improve regulatory frameworks. There should be initiatives to give specific assistance to businesses focused on exports that can also increase the significant effects of financial development on exports.

## References

- Ahad, M., Afza, T., & Shahbaz, M. (2017). Financial development and estimation of import demand function in Pakistan: Evidence from combined cointegration and causality tests. *Global Business Review*, 18(1), 118-131.
- Ahmed, A. D., & Suardi, S. (2018). Financial development and exports: Evidence from Indonesia. *Journal of Southeast Asian Economies*, 35(2), 165-184.
- Ahn, J. (2017). Financial development and export diversification. *Journal of International Trade & Economic Development*, 26(6), 641-662.
- Ali, A. (2015). *The impact of macroeconomic instability on social progress: an empirical analysis of Pakistan*. (Doctoral dissertation, National College of Business Administration & Economics Lahore).

- Ali, A. (2018). Issue of Income Inequality Under the Perceptive of Macroeconomic Instability: An Empirical Analysis of Pakistan. *Pakistan Economic and Social Review*, 56(1), 121-155.
- Ali, A. (2022). Determining Pakistan's Financial Dependency: The Role of Financial Globalization and Corruption. *Journal of Business and Economic Options*.
- Ali, A. (2022). Financial Liberalization, Institutional Quality and Economic Growth Nexus: Panel Analysis of African Countries. *Bulletin of Business and Economics (BBE)*, 11(3), 37-49.
- Ali, A. (2022). Foreign Debt, Financial Stability, Exchange Rate Volatility and Economic Growth in South Asian Countries. *Journal of Business and Economic Options*.
- Ali, A. and Bibi, C. (2017). Determinants of Social Progress and its Scenarios under the role of Macroeconomic Instability: Empirics from Pakistan. *Pakistan Economic and Social Review* 55 (2), 505-540.
- Ali, A., & Audi, M. (2018). Macroeconomic Environment and Taxes Revenues in Pakistan: An Application of ARDL Approach. *Bulletin of Business and Economics (BBE)*, 7(1), 30-39.
- Ali, A., & Audi, M. (2023). Analyzing the Impact of Foreign Capital Inflows on the Current Account Balance in Developing Economies: A Panel Data Approach. *Journal of Applied Economic Sciences*, 18(2), 80.
- Ali, A., & Audi, M. (2023). Analyzing the Impact of Foreign Capital Inflows on the Current Account Balance in Developing Economies: A Panel Data Approach. *Journal of Applied Economic Sciences*, 18(2), 80.
- Ali, A., & Rehman, H. U. (2015). Macroeconomic instability and its impact on the gross domestic product: an empirical analysis of Pakistan. *Pakistan Economic and Social Review*, 285-316.
- Ali, A., Ahmed, F., & Rahman, F. U. (2016). Impact of Government Borrowing on Financial Development (A case study of Pakistan). *Bulletin of Business and Economics (BBE)*, 5(3), 135-143.
- Anagaw, B. K., & Demissie, W. M. (2012). Determinants of export performance in Ethiopia: VAR Model Analysis.
- Audi, M., & Ali, A. (2023). Public Policy and Economic Misery Nexus: A Comparative Analysis of Developed and Developing World. *International Journal of Economics and Financial Issues*, 13(3), 56.
- Audi, M., Ali, A., & Hamadeh, H. F. (2022). Nexus Among Innovations, Financial Development and Economic Growth in Developing Countries. *Journal of Applied Economic Sciences*, 17(4).
- Audi, M., Ali, A., & Roussel, Y. (2021). Aggregate and Disaggregate Natural Resources Agglomeration and Foreign Direct Investment in France. *International Journal of Economics and Financial Issues*, 11(1), 147-156.
- Audi, M., Ali, A., & Roussel, Y. (2021). Aggregate and Disaggregate Natural Resources Agglomeration and Foreign Direct Investment in France. *International Journal of Economics and Financial Issues*, 11(1), 147-156.

- Audi, M., Ali, A., & Roussel, Y. (2021). Measuring the Tax Buoyancy: Empirics from South Asian Association for Regional Cooperation (SAARC). *Empirical Economics Letters*, 20(12).
- Audi, M., Ali, A., & Roussel, Y. (2021). Measuring the Tax Buoyancy: Empirics from South Asian Association for Regional Cooperation (SAARC). *Empirical Economics Letters*, 20(12).
- Audi, M., Ehsan, R., & Ali, A. (2023). Does Globalization Promote Financial Integration in South Asian Economies? Unveiling the Role of Monetary and Fiscal Performance in Internationalization. *Empirical Economics Letters*, 22(10), 237-248.
- Audi, M., Ehsan, R., & Ali, A. (2023). *Does Globalization Promote Financial Integration in South Asian Economies? Unveiling the Role of Monetary and Fiscal Performance in Internationalization* (No. 119365). University Library of Munich, Germany.
- Audi, M., Poulin, M., & Ali, A. (2023). Determinants of Human Wellbeing and its Prospect Under the Role of Financial Inclusion in South Asian Countries. *Journal of Applied Economic Sciences*, 18(4).
- Audi, M., Poulin, M., & Ali, A. (2024). Determinants of Business Freedom in Developing Countries: The Role of Institutional Development and Policy Mix. *International Journal of Economics and Financial Issues*, 14(4), 188-199.
- Aziz, A., & Siddique, H. M. A. (2022). Impact of financial development and exports on industrial pollution. *GCU Economic Journal*, 29-48.
- Baltagi, B. H., Demetriades, P. O., & Law, S. H. (2017). Financial development and export growth in China: A provincial-level analysis. *Journal of Asian Economics*, 46, 35-47.
- Bao, Q., & Yang, J. (2009). Is financial development another source of comparative advantage? Evidence from China. *China & World Economy*, 17(2), 15-34.
- Beck, T. (2002). Financial development and international trade: Is there a link? *Journal of International Economics*, 57(1), 107-131.
- Beck, T., & Demirguc-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance*, 30(11), 2931-2943.
- Canales, R., & Nanda, R. (2012). A flexible approach to estimating the impact of financial development on exports. *Journal of Development Economics*, 97(2), 266-277.
- Cantwell, J., & Bellak, C. (2000). The impact of foreign direct investment on international trade. *Journal of International Relations and Development*, 3(2), 120-127.



- Chaieb, I., & Maktouf, S. (2018). Financial development and exports in Tunisia: A cointegration analysis. *Journal of Economic Development*, 43(1), 35-55.
- Chakraborty, S. (2017). Financial development, trade costs, and bilateral trade. *Journal of International Trade & Economic Development*, 26(4), 461-484.
- Chenery, H. B. (1980). Interactions between industrialization and exports. *The American Economic Review*, 70(2), 281-287.
- Choi, B. (2020). Financial development, endogenous dependence on external financing, and trade. *Economica*, 87(346), 530-587.
- Chowdhury, M. A., & Chowdhury, T. T. (2018). Financial development, institutional quality, and exports: Evidence from Bangladesh. *Journal of Economic Cooperation and Development*, 39(2), 35-64.
- Das, A., & Mishra, S. K. (2018). Financial development and exports: Evidence from India's states. *Journal of Economic Studies*, 45(3), 541-555.
- Ebaidalla, E. M., & Abdalla, A. A. (2015). Performance of Sudanese agricultural exports: A gravity model analysis.
- Eichengreen, B., & Gupta, P. (2016). Financial development and international trade: A review of the evidence. *Journal of International Trade & Economic Development*, 25(3), 257-275.
- Fang, Y., Gu, G., & Li, H. (2015). The impact of financial development on the upgrading of China's export technical sophistication. *International Economics and Economic Policy*, 12(2), 257-280.
- Fung, K. C., & Garcia-Herrero, A. (2017). Financial development and trade: A study of the Chinese provinces. *Journal of Asian Economics*, 49, 53-64.
- Gani, A., & Al Mamun, K. A. (2018). Financial development, trade openness, and economic growth: Evidence from Bangladesh. *Journal of Economic Development*, 43(2), 35-55.
- Government of Nepal. (2021). Nepal trade information portal. Trade and Export Promotion Centre.
- Hailu, Z. A. (2010). Impact of foreign direct investment on trade of African countries. *International Journal of Economics and Finance*, 2(3), 122-133.
- Hericourt, J., & Poncet, S. (2013). Financial development and exports: Evidence from Chinese provinces. *Journal of Asian Economics*, 29, 45-58.
- Hu, W., & Wang, Y. (2017). Financial development and exports in China: A provincial-level analysis. *Journal of Economic Studies*, 44(2), 249-265.

- Islam, S. N., Islam, M. S., Islam, M. R., & Alam, M. A. (2024). The effect of financial development, tariff, and RTA on exports. *Journal of Economic Integration*, 39(1), 107-150.
- Jangam, B. P., & Akram, V. (2020). Does financial integration drive export diversification? Evidence from a cross-country analysis. *Journal of Financial Economic Policy*, 13(1), 45-61.
- Jarreau, J., & Poncet, S. (2011). Export performance and credit constraints in China. *CEPII Research Center Working Paper*.
- Ju, J., & Wei, S. (2011). Domestic institutions and the facilitation of international trade. *Review of Economics and Statistics*, 93(3), 881-894.
- Kadochnikov, S. M., & Fedyunina, A. A. (2017). The impact of financial and human resources on the export performance of Russian firms. *Economic Systems*, 41(1), 41-51.
- Kalirajan, K., & Paudel, R. (2015). India's trade deficit with China: Will free trade agreement (FTA) work for India? *Global Economy Journal*, 15(4), 485-505.
- Khan, M. A., & Khan, S. (2017). Financial development and exports in Pakistan: An ARDL approach. *Journal of Economic Development*, 42(3), 1-18.
- Khan, Z. A., Koondhar, M. A., Khan, I., Ali, U., & Tianjun, L. (2021). Dynamic linkage between industrialization, energy consumption, carbon emission, and agricultural products export of Pakistan: An ARDL approach. *Environmental Science and Pollution Research*, 28, 43698-43710.
- Kim, D., & Lin, S. (2017). Financial development and exports in South Korea: A dynamic panel analysis. *Journal of International Trade & Economic Development*, 26(5), 563-582.
- Kumarasamy, D., & Singh, P. (2018). Access to finance, financial development and firm ability to export: Experience from Asia-Pacific countries. *Asian Economic Journal*, 32(1), 15-38.
- Lall, S. (2000). The technological structure and performance of developing country manufactured exports, 1985-98. *Oxford Development Studies*, 28(3), 337-369.
- Leibovici, F. (2021). Financial development and international trade. *Journal of Political Economy*, 129(12), 3405-3446.
- Levin, A., Lin, C. F., & Chu, C. S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, 108(1), 1-24.
- Levine, R. (2005). Finance and growth: Theory and evidence. *Handbook of Economic Growth*, 1.

- Liu, X., & Zhang, J. (2017). Financial development and exports in China: A study of the textile industry. *Journal of Economic Studies*, 44(1), 99-114.
- Love, I., & Zaidi, R. (2010). Trade credit, financial constraints, and exporting. *World Development*, 38(6), 869-881.
- Majeed, M. T., & Ahmad, E. (2017). Financial development and exports in Pakistan: An empirical analysis. *Journal of Economic Development*, 42(1), 23-40.
- Nguyen, C. P., & Su, T. D. (2021). Export quality dynamics: Multidimensional evidence of financial development. *The World Economy*, 44(8), 2319-2343.
- Nguyen, H. T., & Nguyen, T. (2017). Financial development and exports in Vietnam: A time-series analysis. *Journal of Economic Studies*, 44(5), 617-633.
- Okafor, L. E., Bhattacharya, M., & Apergis, N. (2020). Bank credit, public financial incentives, tax financial incentives and export performance during the global financial crisis. *The World Economy*, 43(1), 114-145.
- Pedroni, P. (1999). Critical values for cointegration tests in heterogeneous panels with multiple regressors. *Oxford Bulletin of Economics and Statistics*, 61(S1), 653-670.
- Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika*, 75, 335-346.
- Potelwa, Y., Lubinga, M. H., & Ntshangase, T. (2016). Factors influencing the growth of South Africa's agricultural exports to world markets. *European Scientific Journal*, 12(1).
- Pradhan, A. K., & Hiremath, G. S. (2020). Do external commercial borrowings and financial development affect exports? *Cogent Business & Management*, 7(1), 1-22.
- Qun, B. A. O., & Jiayu, Y. A. N. G. (2007). Does financial development promote international trade? *Frontiers of Economics in China*, 2(4), 532-557.
- Shahid, A., Siddique, H. M. A., & Liaqat, R. (2019). Human health and foreign direct investment nexus: Evidence from South Asia. *Asian Development Policy Review*, 7(3), 209-218.
- Shetewy, N., Shahin, A. I., Omri, A., & Dai, K. (2022). Impact of financial development and internet use on export growth: New evidence from machine learning models. *Research in International Business and Finance*, 61, 1-15.
- Siddique, H. M. A., Ansar, R., Naeem, M. M., & Yaqoob, S. (2017). Impact of FDI on economic growth: Evidence from Pakistan. *Bulletin of Business and Economics*, 6(3), 111-116.
- Siddique, H. M. A., Aziz, A., & Shehzadi, N. (2022). Financial development, exports, and industrial pollution: Evidence from lower and upper middle-income countries. *Journal of Policy Research*, 8(4), 335-343.

- Sumaira, & Siddique, H. M. A. (2023). Industrialization, energy consumption, and environmental pollution: Evidence from South Asia. *Environmental Science and Pollution Research*, 30(2), 4094-4102.
- Xin, Y., Tabasam, A. H., Chen, Z., Zamir, A., & Ramos-Meza, C. S. (2024). Analyzing the impact of foreign direct investment, energy consumption on services exports, and growth of the services sector: Evidence from SAARC countries. *Journal of the Knowledge Economy*, 15(2), 5709-5728.
- Xinzhong, Q. (2022). An empirical analysis of the influence of financial development on export trade: Evidence from Jiangsu province, China. *Economic Research-Ekonomska Istraživanja*, 35(1), 1526-1541.
- Zhao, L., Liu, Z., Wei, W., & Andreosso-O'Callaghan, B. (2017). FDI outflows, exports and financial development. *Journal of Economic Studies*, 44(6), 987-1002.