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Muhammad Nadim Hanif
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Kletzer and Bardhan (1987) argue that countries with a relatively well-developed financial sector have a comparative advantage in industries that rely on external finance. Beck (2002) and Fanelli and Medhora (2002) find that well-developed financial sector translates into a comparative advantage in the production of manufactured goods. There has been no attempt so far to explore the relationship between the financial development and international trade competitiveness in the case of Pakistan. We construct Balassa's Revealed Comparative Advantage (RCA) index for textile sector of Pakistan. Using ratio of credit extended to the textile sector to the total non-government credit of the banking system (Textile Credit Share [TCS]) as proxy for external finance, we estimate long-run relationship and Error Correction Mechanisms (ECM) between RCA index and TCS while controlling for other determinants of the international trade competitiveness of textile sector of Pakistan. In line with the findings of Beck (2002) and Fanelli and Medhora (2002), our results suggest that recourse to external finance has a strong positive impact on the country's textile sector competitiveness both in the short and the long run, even when we control for traditional determinants of competitiveness.

(JEL: F14, O16) **Keywords:** Financial Development, Competitiveness.

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1. Introduction

Traditional theories of international trade focus on comparative advantage and factor endowments concepts. Kletzer and Bardhan (1987) highlight the contribution of some aspects of credit market imperfections to inter-country differences in patterns of specialization and trade. They show that even when technology and endowments are identical between countries and there are no economies of scale, the difference in the level of financial development may lead to higher external finance premium in one country compared to other countries. This may provide comparative advantages to those firms which have access to developed financial markets or institutions. They presumed that more sophisticated manufactured finished products require more credit to cover selling and distribution costs than primary or intermediate products. They show that countries with a relatively well-developed financial sector have comparative advantage in industries and sectors that rely more on external finance.

Over the last few decades, researchers have shown that financial sector development plays significant role in economic growth. Reforming the financial sector may have implications for the structure of international trade if the level of financial development is a determinant of a country's comparative advantage as Kletzer and Bardhan (1987) highlighted. Thus, the effect of trade reforms on the structure of international trade might depend on the level of a country's financial development. Recent study by Fanelli and Medhora (2002) vindicates the argument of Kletzer and Bardhan (1987) by finding that comparative advantage is positively affected by the financial sector development.

There has been no attempt so far to analyze the relationship between the financial development and international trade competitiveness for the case of Pakistan. This article is an attempt to fill this gap by exploring the role of access to external finance on the country's textile exports competitiveness.

In Pakistan, focus of trade policy started shifting from import substitution to export promotion since the seventies. In 1988, Pakistan signed a Structural Adjustment Programme with the International Monetary Fund (IMF) to address its balance of payments deficit problems which required an emphasis on greater liberalization of both imports and exports. The abolition of trade barriers moves resources to the products in which country has a comparative advantage. While there are several links between financial development and international trade, this article attempts to explore the ability of the financial sector to channel savings to private sector to help overcome liquidity constraints and raise the international trade competitiveness of the textile sector of Pakistan.[1] Our findings suggest

[1] The focus of this study is on textile sector, since textile exports capture around 90 per cent share in the total manufactured exports of the country.

that recourse to external finance has a strong positive impact on the country's textile sector competitiveness both in the short and the long run.

The rest of the article is structured as follows. In Section 2, review of literature relating to financial development and trade competitiveness is given. Section 3 discusses the data series, the model and the methodology utilized. The empirical results are presented in Section 4. The last section concludes the article by summarizing the findings of this study.

2. Review of Literature

Among the macroeconomic variables that the empirical literature on economic growth has identified as being highly correlated with the growth performance are financial development (Detragiache and Ueda 2004; Khan and Senhadji 2000; Levine 1997) and the degree of openness (for example, Frankel and Romer 1999; Sachs and Warner 1995). The development economists have rarely explored the area of relationship between financial development and trade patterns. Kletzer and Bardhan (1987), in their seminal work in this area, show that countries with relatively well-developed financial sector have a comparative advantage in industries that depend on external finance. In the Kletzer and Bardhan (1987) model, even when technology and endowments are identical between the countries and economies of scale are absent, credit market frictions lead to one country facing a higher interest rate or rationed credit compared to other countries. This may lead to differences in comparative advantages in processed goods which require more working capital, marketing cost or trade finance. Kletzer and Bardhan (1987) presumed that more sophisticated manufactured finished goods require more finance to cover selling and distribution costs than primary or intermediate goods.

While exploring the link between financial development and growth, Rajan and Zingales (1998) concluded that in countries with well-developed financial systems, industries that are naturally heavy users of external finance grow faster. They argue that this result has implications for trade patterns because well-developed financial sector is a source of comparative advantage for a country in industries that rely more on external finance.

Motivated by the argument of Rajan and Zingales (1998), Beck (2002) explores a link between level of financial development and the level and structure of international trade. He analyzes theoretically a channel through which economy-wide level of external finance determines the commodity structure of trade balance. The Beck model focuses on the role of finance in mobilizing savings and facilitating large-scale and high return projects. He also finds empirical evidence supporting his model that a well-developed financial sector translates

into a comparative advantage in the production of manufactured goods. Thus, the level of financial development translates into comparative advantage in industries that are more dependent on external finance.

According to Fanelli and Medhora (2002), the competitiveness of a country depends both on the price and non-price factors. For improving the price competitiveness, devaluation can prove helpful in the short run. However, the non-price competitiveness can be induced in industries by enhancing the level of productivity. They explain that in an environment of efficient financial markets, the financial intermediaries are in a position of impacting the level of innovation by identifying and channelling funds to the most efficient users. The imperfections in the financial market,[2] on the other hand, reduce the ability of the financial sector to efficiently channel funds from lenders to the borrowers and that negatively impacts the productivity growth. Hence, higher level of financial development impacts comparative advantage of a country by enhancing the level of productivity by identifying entrepreneurs with the best chances of successfully implementing innovative production processes.

3. Data, Model and Methodology

In order to measure competitiveness of textile sector of Pakistan, we construct Balassa (1965) index of Revealed Comparative Advantage (RCA).[3] This index measures the relative importance of a sector in a country's total exports with respect to the relative importance of the same sector in the overall exports in the world. It is given by the following equation:

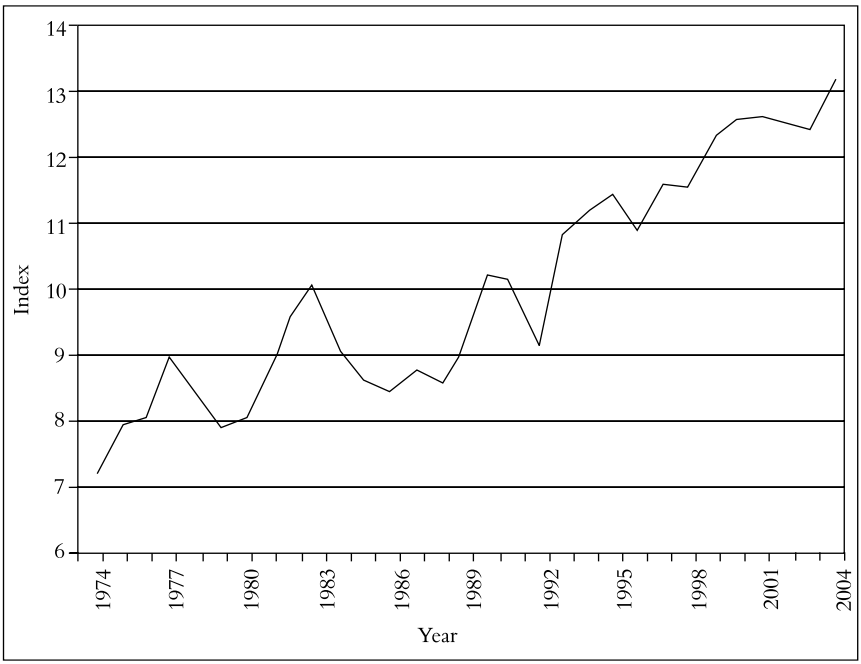
$$RCA_{ij} = \frac{X_{ij}/X_i}{X_{wj}/X_w} \tag{1}$$

where X_{ij} is country i's exports of sector j, X_i is total exports of country i, X_{wj} is world's exports of sector j and X_w is the overall exports in the world. Thus, the ratio in the numerator is the share of sector j's export in country i's total exports and the ratio in denominator is the share of the same sector in world's overall exports. If RCA_{ij} is greater than unity, it means that country i has comparative advantage in production in her sector j. The data to construct RCA index is taken from 'Comtrade' database of United Nations Statistics Division.

[2] In the form of segmentation in the financial market, scarcity of long-term credit for the financing of private firms, and low capitalization of the stock markets as compared to the size of the economy.

[3] The time span of this study is 1974–2004 and we have used annual data series.

FIGURE 1
Time Series Plot of RCA Index



The evolution of the RCA index is shown in the Figure 1. It shows that Pakistan's textile sector exports are inherently competitive in the world market since the values of the RCA index are greater than unity throughout the period of analysis. Besides, it also shows that the country achieved continuous improvement in the level of competitiveness during this period.

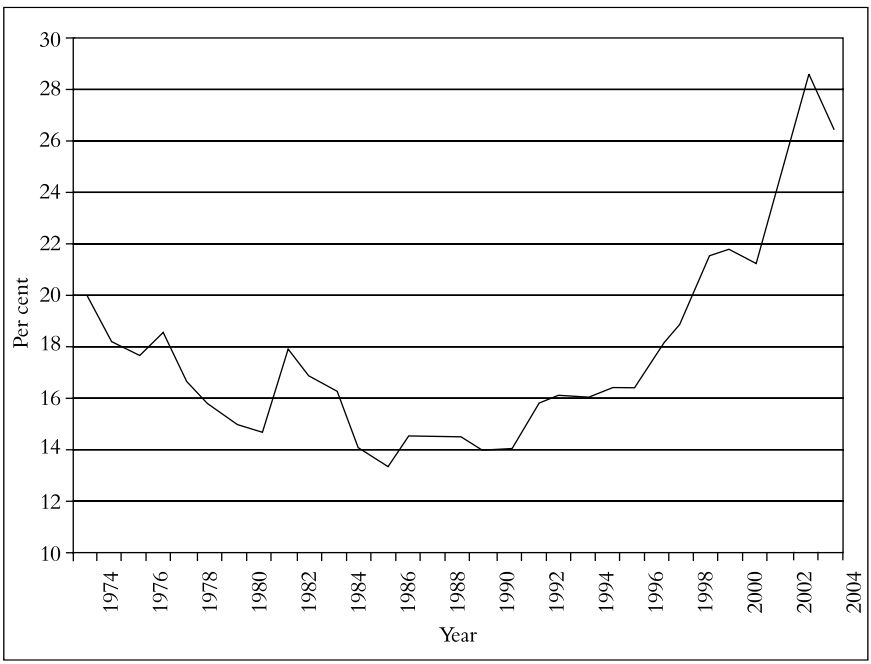
Various proxies have been used in the literature to measure financial sector development in a country. Some studies conducted specifically on finance–trade relationship have used firm-level data in which the role of financial sector has been measured by firms' dependency on external finance. Here we construct a proxy of financial development by getting an idea from the measures constructed by King and Levine (1993) while studying finance–growth nexus. They used four proxies, namely, ratio of the liquid liabilities to GDP, ratio of the assets of deposit money banks to the total assets of the banking system, ratio of claims on the non-financial private sector to total domestic credit (excluding credit to money bank), and the ratio of claims on the non-financial private sector to GDP. Our focus in this study is on the textile sector of Pakistan and, hence, we can measure financial sector role in this context as a ratio of the claims on the textile sector to

the total value added in the textile sector. But we do not have data for the value addition of the Pakistan's textile sector (separately). The other proxy we can think of is ratio of total non-government credit to the overall GDP (CGDR). This will not be able to reflect share of the textile sector in the financial development process.[4] Therefore, we use the ratio of credit extended to the textile sector to the total non-government credit of the banking system[5] denoted by Textile Credit Share (TCS). Figure 2 shows the evolution of TCS during the period under study.

The model relating the role of finance to the textile sector competitiveness may be of the form:

$$Log\ (RCA_t) = \beta_0 + \beta_1 Log\ (TCS_t) + \varepsilon_t \qquad (2)$$

FIGURE 2
Time Series Plot of TCS



[4] Similar is the problem with the ratio of overall liquid liabilities to GDP (M2GR).

[5] However, there is one caveat with the use of this proxy: it shows concentration of the credit to the textile sector rather than the overall development of the financial sector. The best proxy would be the firm-level data of external finance used by textile sector. But that requires a different approach for doing this work.

where *RCA* is a measure of competitiveness of textile sector of Pakistan, *TCS* is a proxy for finance and ε_t is the error term. β_0 and β_1 are intercept and slope parameters, respectively, in the model. If the estimate of the slope parameters turns out to be positively significant, it means that the greater availability of external finance to textile sector helps a country improve her international trade competitiveness in this sector. However, finance is not the only determinant of a country's international trade competitiveness in any sector. In order to assess the impact of finance on the comparative advantage, we have to control for other determinants. The relative strength of a country's currency *vis-à-vis* its competitors along with its domestic price level is an important source of comparative advantage to a country. We can take this fact into account by inclusion of country's real effective exchange rate (REER[6]) in the model. It determines the impact of country's exchange rate policy on trade sector. We expect sign of REER to be negative while we do regression analysis. With the appreciation (depreciation) of real effective exchange rate, our textile sector exports will become costly (cheaper) for the international buyers and this will hurt (boost) demand and our exports will shrink (expand) and RCA will decline (rise) subsequently. Furthermore, Pakistan is world's fourth largest producer of cotton which is core input for the textile sector. This natural edge gives the country a comparative advantage over the competitors. To capture this effect, we include cotton production (CTP) as an explanatory variable in the model.[7] The definitions and sources of all the variables used in this article are explained in Table A1 of the Appendix. On the basis of the earlier discussion, one may estimate the following model:

$$Log\ (RCA_t) = \beta_0 + \beta_1 Log\ (TCS_t) + \beta_2 Log\ (REER_t) + \beta_3 Log\ (CTP_t) + \varepsilon_t \quad (3)$$

But, if we examine Table A2, showing matrix of simple correlation coefficients between RCA, TCS, REER and CTP, we observe that there is strong multicollinearity problem due to higher correlation between REER and CTP (–0.94) than the correlation between RCA and REER (–0.80) as well as RCA and CTP (0.73). We cannot keep any one of the two out of the model as both these variables are significant from the theoretical point of view. REER is the policy variable that determines the impact of country's exchange rate policy on its trade sector. On the other hand, cotton produced in Pakistan is the most important input for

[6] We defined it in a way that increase in REER means appreciation in our currency as compared with the trading partners.

[7] One may argue that variables like wage inflation (WINF), domestic industrial electricity prices (DIEP) and high speed diesel prices (HSDP) also affect the textile sector competitiveness through cost of production channel. In this study, we do not find these variables to have statistically significant impact on textile sector competitiveness in the long run. However, while doing the short-run analysis, we do find significance of domestic industrial electricity prices (DIEP).

the textile sector and plays an important role in determining country's trade pattern and, hence, international trade competitiveness. The solution we suggest here is to estimate the following two separate models:

$$Log\ (RCA_t) = \beta_0 + \beta_1 Log\ (TCS_t) + \beta_2 Log\ (REER_t) + \varepsilon_t \quad (4)$$

$$Log\ (RCA_t) = \gamma_0 + \gamma_1 Log\ (TCS_t) + \gamma_2 Log\ (CTP_t) + \varepsilon_t \quad (5)$$

β_2 in model (4) is expected to be negative as discussed earlier, while γ_2 in model (5) is expected to have positive sign. As mentioned before, if the estimated slope parameters of TCS turn out to be positively significant, it would indicate that availability of external finance to textile sector raises the international competitiveness in textile products.

Looking at their graphs (Figures 1 through 4), all of our series RCA, TCS, REER and CTP are expected to be integrated of order one. Using Augmented Dickey–Fuller (ADF) approach, we test the stationarity of the time series used in this analysis. Then we test for the long-run relationships among the variables,

FIGURE 3
Time Series Plot of REER

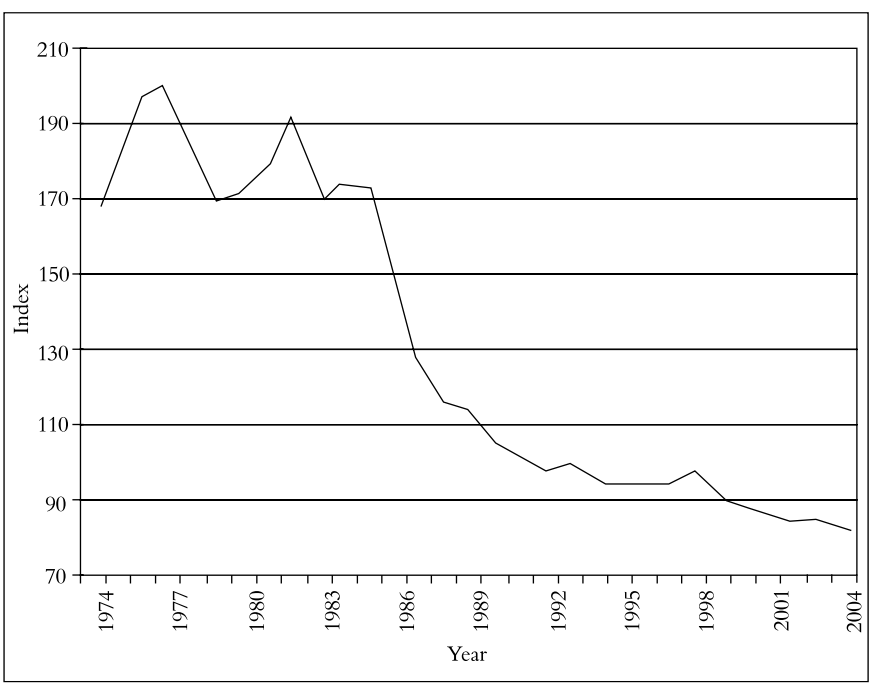
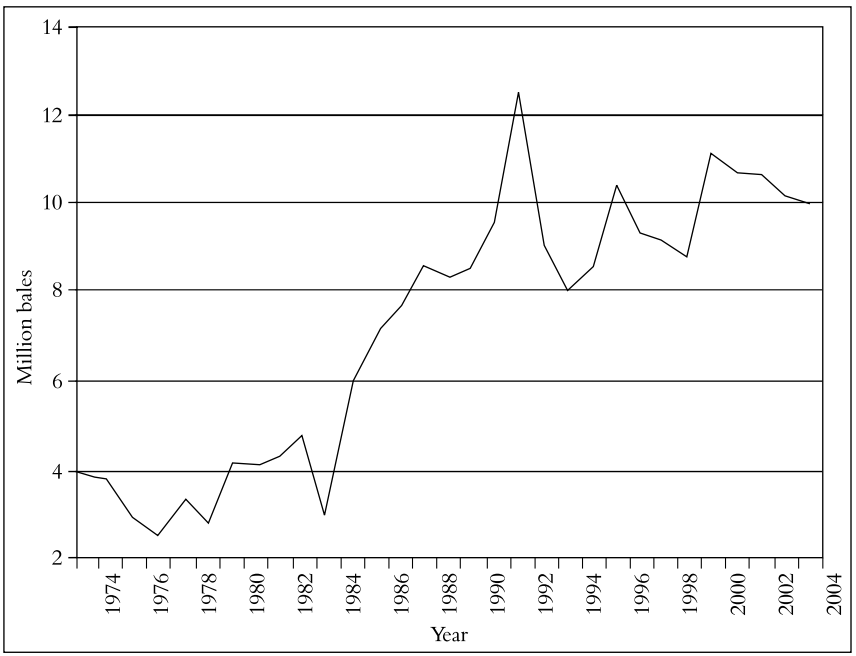


FIGURE 4
Time Series Plot of CTP



as postulated in the models (4) and (5), using Engle–Granger two-step procedure.[8] Later, from the equilibrium models, we use errors to built Error Correction Mechanisms (ECM) to see the short-run dynamics of the models. In the ECMs, we will also test if the variables like wage inflation (WINF), changes in domestic industrial electricity prices (DIEP) and/or high speed diesel prices (HSDP) have short-run impact on the textile sector competitiveness through cost of production channel.

4. Estimated Results

Before the econometric analysis, we do some simple statistical analysis. The correlation matrix presented in Table A2 of the Appendix shows that for the case of Pakistan, there is a positive relationship between the textile credit share in the total non-government credit advanced by the banking sector and the

[8] We also test for stability of the estimated coefficients, and for normality and homoscedasticity of the errors term.

RCA index for textile sector of Pakistan; there is a negative relationship between real effective exchange rate and Pakistan's textile sector competitiveness; and cotton production and RCA index for textile sector are positively related.

The first step in the econometric analysis is the univariate time series analysis. The augmented Dickey–Fuller (ADF) unit root test has been used to test the time series properties of the data. Intercept and trend have been included on the basis of their statistical significance in the ADF equation. The results of ADF test presented in the Table A3 of the Appendix show that all the variables of the models (4) and (5) are integrated of order one as they are stationary after first difference.

While we estimate models (4) and (5), we find the problem of autocorrelation in the estimated equations. To resolve this issue, lagged dependent variable is included in each of these models. It is important to note that in addition to capturing the dynamic process, lagged dependent variable is also an excellent proxy for many of the omitted variables.

As seen from the Figure 1, there is some fall in RCA for textile sector in 1992 which reflects a boom year for cotton production all over the world. World cotton production reached from 87.2 million bales in 1991 to 95.4 million bales in 1992. Pakistan's cotton production also increased from the previous level of 9.6 million bales and reached a historic peak of 12.8 million bales in 1992. However, world share of textile products in overall exports rose more than that of Pakistan's textile exports share in the overall exports. Thus, RCA declined in spite of the fact that cotton production rose by 33.2 per cent against world cotton production, which rose by 9.4 per cent. To capture this fall in RCA, a dummy variable for 1992 is included.

Final equations estimated are presented in Table A4 of the Appendix. First we see whether the variables in each of the two models exhibit long-run relation or not. As suggested by Engle and Granger (1987), we test for the stationarity of the errors from estimated models (4) and (5).

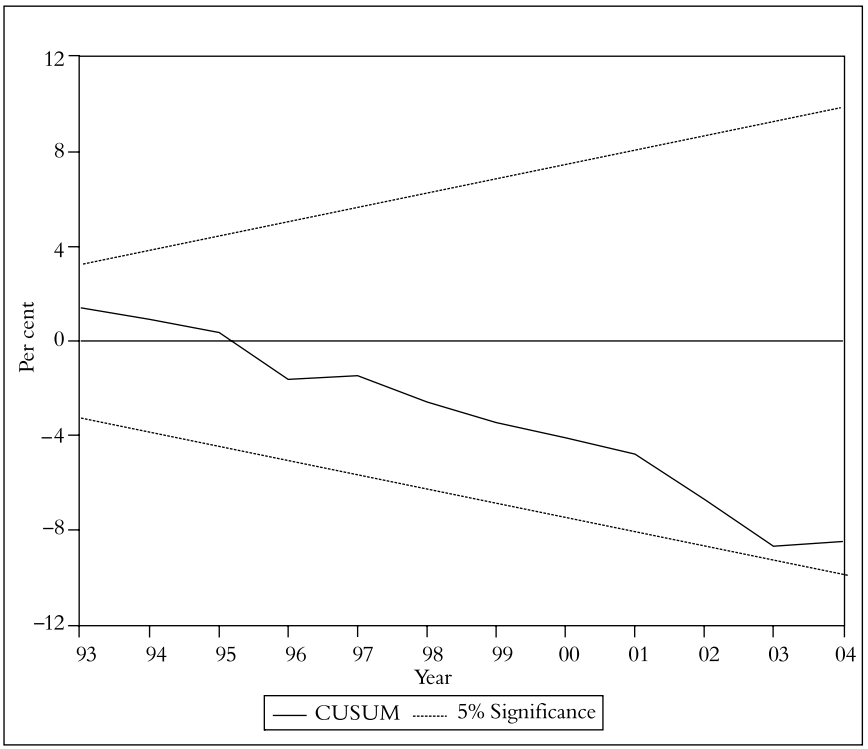
The results for both estimated models in (4) and (5) validate our hypothesis that the credit availability to the textile sector helps improve Pakistan's competitiveness in international trade in textile products.[9] The elasticity of RCA with respect to TCS ranges from 0.17 to 0.20. The regression results in Table A4 show that all the variables have expected signs. From the estimated model (4), we can see that the elasticity of RCA with respect to REER is –0.19. Appreciation of our currency, as compared with our trading partners, impacts our textile sectors

[9] CGDR and M2GR are suitable proxies for financial development in overall economy rather than in the context of textile sector as we argued in the earlier section. Furthermore, these indicators of finance were found to be insignificant when we regressed RCA index upon each of these separately with other determinants of RCA.

competitiveness negatively. This is evident from the statistically significant estimated coefficient of REER in (4). The elasticity of RCA with respect to CTP is 0.10. Further, as expected, the coefficient of CTP from model (5) is found to be positively significant.[10]

Post estimation statistical diagnostic tests were applied to the residual series. These include Jarque-Bera test for normality, LM test for serial correlation, White tests for heteroscedasticity. Both the models have passed all these tests. In Figures 5 to 8 we plot cumulative sum and cumulative sum of squares of recursive

FIGURE 5
CUSUM Test for Estimated Model (4)



[10] Another variable which we tried to control for is terms of trade (TOT). It is measured by ratio of unit value of export to unit value of imports. In both the models (4) and (5), we found estimated coefficient of Log(TOT) to be negative (as one should expect) but statistically insignificant (with p-values 0.14 and 0.20 respectively). Furthermore, the inclusion of Log(TOT) in model (5) deteriorates both the Akaike Information Criterion (AIC) and the Schwarz Criterion (SC), and thus we excluded Log(TOT) from the final equations we estimated for this study.

FIGURE 6
CUSUM of Sqs Test for Estimated Model (4)

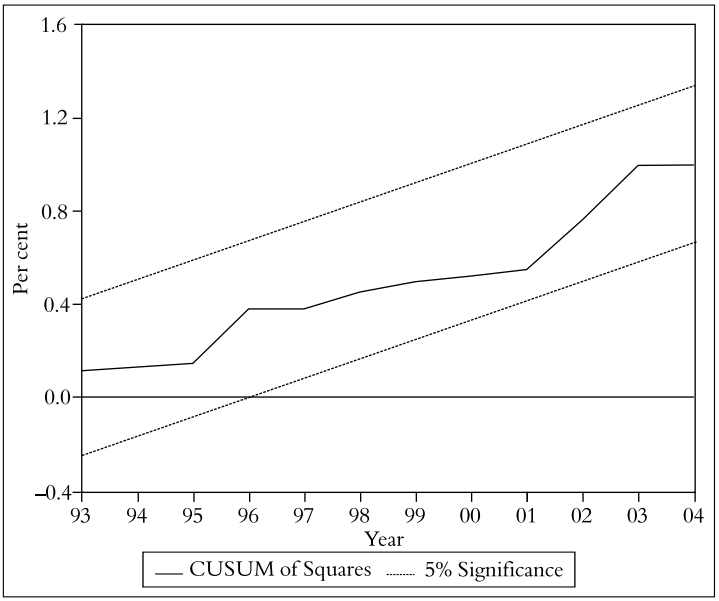


FIGURE 7
CUSUM Test for Estimated Model (5)

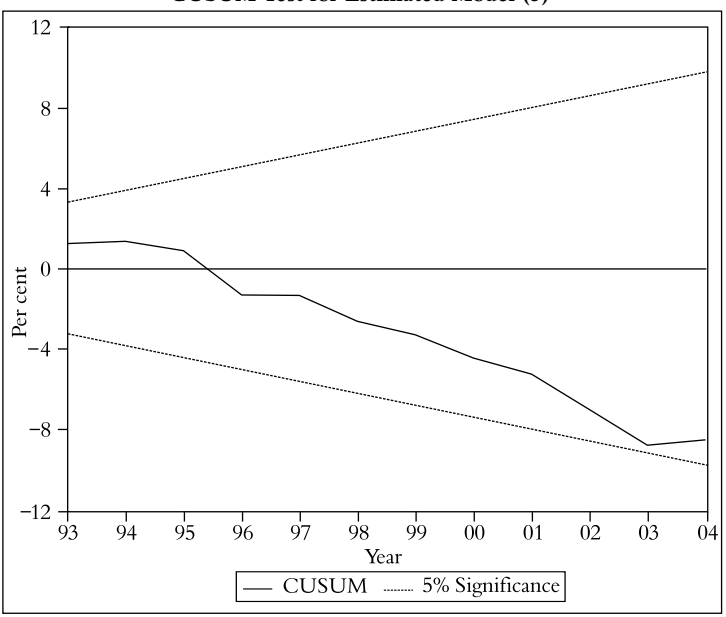
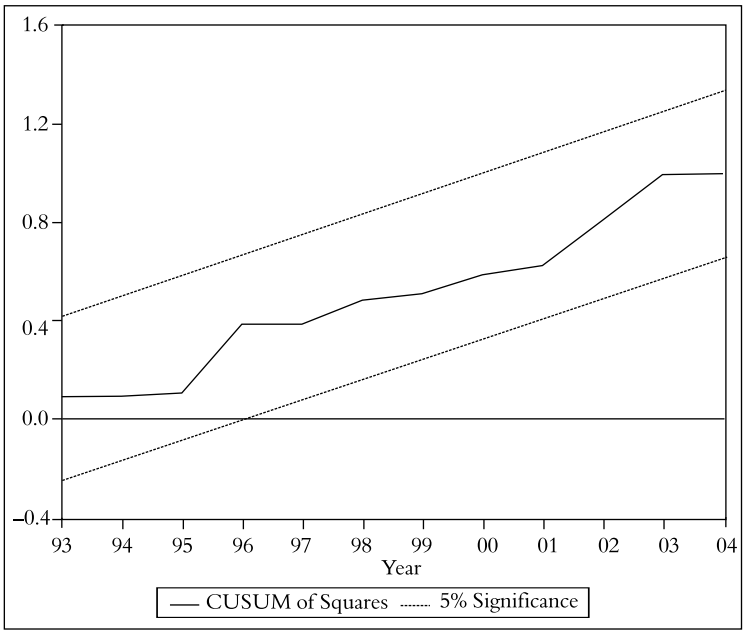


FIGURE 8
CUSUM of Sqs Test for Estimated Model (5)



residuals along with their critical lines (at 5 per cent level of significance). These plots confirm the estimated coefficients' stability and the stability of the error variance.

To test for cointegration between the variables in the models, we apply standard unit root test upon the errors of these models. The results have been presented in the Table A5. These tests for cointegrating residuals confirm stationary relationship among the variables as we have postulated in models (4) and (5).

Having established cointegration as a long-run property, ECM is a natural way of capturing dynamic adjustment to the long run. With the help of ECM we can also conduct Granger (1969) non-causality tests. We estimate the following parsimonious models using ERROR 4 and ERROR 5 estimated before, using models (4) and (5) for which estimated results have been reported in Table A4.

$$\Delta Log\ (RCA_t) = \phi_0 + \phi_1 ERROR\ 4_{t-1} + \phi_2 \Delta Log\ (TCS_t) + \phi_3 \Delta Log\ (NERD_t) + \phi_4 \Delta Log\ (DIEP_t) + \eta_t \quad (6)$$

$$\Delta Log\ (RCA_t) = \varphi_0 + \varphi_1 ERROR\ 5_{t-1} + \varphi_2 \Delta Log\ (TCS_t) + \varphi_3 \Delta Log\ (NERD_t) + \varphi_4 \Delta Log\ (DIEP_t) + \nu_t \quad (7)$$

In models (4) and (5), we have long-run determinants of RCA. In addition to these determinants, for the short-run analysis using the ECMs, we have also attempted to investigate if variables like wage inflation (WINF), changes in domestic industrial electricity prices (DIEP) and/or high speed diesel prices (HSDP) have short-run impact on the textile sector competitiveness through cost of production channel. The estimated ECM models in (6) and (7) are presented in Tables A6 and A7 respectively. The error terms are significant in both the models though it is significant in Model (7) at 10 per cent. In both the models we find that there is a significant positive short-run impact of external finance on Pakistan's competitiveness in international trade in textile products. We do not find statistical support for short-term impact of REER or CTP on RCA index in any of the two estimated ECMs. We, however, found that the changes in nominal exchange rate[11] of US Dollar (NERD) significantly affect changes in RCA index in the short run. There is also negative significant impact of industrial electricity prices on RCA index in short run. Wage inflation and changes in high speed diesel prices do not have such impacts (this may be because elec-tricity price has already been showing short-run impact).

5. Conclusion

Traditional theories of international trade focus on comparative advantage and factor endowments. Kletzer and Bardhan (1987) show that even when there are no economies of scale, and technology and endowments are identical between countries, a country with relatively developed financial institutions would have comparative advantages in the production of processed goods requiring more external finance. The recent study by Fanelli and Medhora (2002) vindicates the argument of Kletzer and Bardhan (1987) by finding that comparative advantage is positively effected by the financial sector development.

In this article we attempt to explore the ability of the financial sector to channel savings to private sector to help overcome liquidity constraints and raise the international trade competitiveness of the textile sector of Pakistan. We construct Balassa's RCA index for our textile sector. To examine the role of external finance to textile sector in determining its competitiveness, we estimate two models—one based on REER and other on the cotton production (CTP)—along with the ratio of credit extended to the textile sector to the total non-government credit of the banking system (TCS). We find that there is stable and long-run relationship between RCA index and TCS in presence of traditional determinants

[11] Pak rupees per US Dollar.

of the international trade competitiveness of textile sector of Pakistan. For both the models we also estimated ECMs. The results suggest that greater access to external finance has a strong positive impact in the improvement of country's textile sector competitiveness, both in the short and the long run, even when we control for traditional determinants of competitiveness. Thus, the thesis put forth by Kletzer and Bardhan (1987), that an efficient financial system helps in improving country's comparative advantage, is supported by these results for the case of Pakistan. Competitiveness in the short-run, however, is also impacted by Pakistan's bilateral nominal exchange rate with the US and the domestic industrial electricity prices.

The findings of this article have a strong policy implication as this underlines the importance of financial sector development for strengthening of comparative advantage in the largest exporting sector of Pakistan. Therefore, it is imperative for Pakistan to continue with the ongoing financial reforms. In addition, the implementation of the second generation reforms would further reduce the cost of doing business in Pakistan and thus lead to improvement in the comparative advantages of country's exports in a highly competitive global external environment.

Appendix

TABLE A1
Definition and Sources of the Data Used

Variable	*Description*	*Source*
RCA	Revealed Comparative Advantage index	Authors' calculation using 'Comtrade' database of United Nations Statistics Division
TCS	Share of credit extended to textile sector in total non-government advances extended by the banking sector	State Bank of Pakistan
REER	Real effective exchange rate	State Bank of Pakistan
CTP	Log of cotton production	*Handbook of Statistics on Pakistan Economy* by State Bank of Pakistan
WINF	Wage inflation in the textile sector	Authors' calculation using textile sector wages data from *50 Years of Pakistan in Statistics* (Volume IV) by Federal Bureau of Statistics
HSDP	High speed diesel prices	*50 Years of Pakistan in Statistics* (Volume IV)
DIEP	Domestic industrial electricity prices	*50 Years of Pakistan in Statistics* (Volume IV)
NERD	Nominal exchange rate of Dollar (Pak Rupees per US$)	State Bank of Pakistan

TABLE A2
Correlation Matrix

	RCA	*TCS*	*REER*	*CTP*
RCA	1.00	0.60	–0.80	0.73
TCS		1.00	–0.31	0.20
REER			1.00	–0.94
CTP				1.00

TABLE A3
Results of Unit Root Analysis

	ADF Test Value (p-value in Parentheses)*		*c, t and n Included@*	
Variable	*At Levels*	*First Difference*	*At Levels*	*First Diff.*
Log(RCA)	–2.85 (0.19)	–5.33 (0.00)	t, c	n
Log(TCS)	–1.46 (0.82)	–4.57 (0.00)	t, c	n
Log(REER)	–2.24 (0.44)	–3.75 (0.00)	t, c	n
Log(CTP)	–2.83 (0.20)	–7.18 (0.00)	t, c	n
Log(HSDP)	–1.70 (0.73)	–4.44 (0.00)	t, c	c
Log(DIEP)	–2.03 (0.56)	–5.67 (0.00)	t, c	c
Log(NERD)	–2.89 (0.18)	–3.77 (0.00)	t, c	c
WINF	–6.73 (0.00)		c	

Notes: We used zero lag as suggested by 'Schwartz Information Criteria' for lag selection in ADF test value.

* MacKinnon's one-sided p-values.

@ c, t and n denotes constant, trend and none (of the two) included in the ADF regression estimated to test for unit root.

TABLE A4
Results of Regression Analysis—Log (RCA) as Dependent Variable

	Model with Log(REER) {test-statistic in brackets} (p-value in parentheses)	*Model with Log(CTP) {test-statistic in brackets} (p-value in parentheses)*
Constant	1.61 (0.00)	–0.40 (0.05)
Log(TCS)	0.17 (0.00)	0.20 (0.00)
Log(REER)	–0.19 (0.00)	
Log(CTP)		0.10 (0.00)
Log (RCA(–1))	0.49 (0.00)	0.56 (0.00)
Dummy 1992	–0.13 (0.02)	–0.15 (0.00)
R^2	0.92	0.91
F-Stat	{72.00}(0.00)	{66.93}(0.00)
Jarque-Bera	{0.80} (0.67)	{1.51} (0.46)
Serial Correlation LM (F) test	{1.61}(0.22)	{0.54}(0.58)
White (F) test for Heteroscedasticity	{1.98}(0.10)	{1.81}(0.13)

TABLE A5
Test of Cointegration (Unit Root Test of Error)

	DF Test Value (p-value in Parentheses)*
	At Levels
Error from Model with Log (REER)	–4.19 (0.00)
Error from Model with Log (CTP)	–4.45 (0.00)

TABLE A6
Results of ECM Model 6

	Test-statistic in Brackets and p-value in Parentheses
Lagged Error 4	–5.21 (0.03)
ΔLog(TCS)	2.42 (0.05)
ΔLog(NERD)	4.12 (0.00)
ΔLog(DIEP)	–1.28 (0.00)

TABLE A7
Results of ECM for Model 7

	Test-statistic in Brackets and p-value in Parentheses
Lagged Error 5	–0.40 (0.10)
ΔLog(TCS)	0.25 (0.06)
ΔLog(NERD)	0.35 (0.02)
ΔLog(DIEP)	–0.12 (0.01)

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