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Determinants of Export Performance in the Wake of the Global Financial Crisis: Evidence from South Asia

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1. INTRODUCTION AND MOTIVATION

The idea that trade is important for economic growth dates back to the nineteenth century when classical economists like Adam Smith, Ricardo, John Stuart Mill etc. advocated the favourable effects of international trade on output. Since then a rich body of both theoretical and empirical literature has evolved with regards to exports and trade policy. Within this overall literature, two competing approaches that can be broadly identified are Import Substitution industrialisation (IS) and Export-Led (EL) growth. According to the EL growth hypothesis, exports can promote economic growth through three main channels that are as follows: (i) trade enables firms (at the micro level) and countries (at the macro level) to gain through specialisation and economies of scale. The most efficient producers witness increasing market shares, that in turn lead to aggregate productivity gains through a reallocation of resources [Taylor (1981) and Melitz (2003)], (ii) Exports are an important source of foreign exchange. These resources are important not just for the purchase of vital inputs such as capital and machinery but are extremely valuable where balance of payments constraints are widespread [Faridi (2012)]. (iii) Trade is an important source of knowledge and technological transfers. New growth theory has shown that trade with technologically innovative countries allows access to the technological know-how of trading partners, and also has the potential of encouraging innovative activity by increasing the returns to innovate as traders have access to a larger market relative to non-trading firms.

Empirical studies on determinants of export growth have mainly been macro level studies across countries and regions and have not provided sufficient insights into the specific export promotion policies needed to promote exports and hence growth. It is only recently that firm level data has enabled empirical research to analyse firm level data to get a better understanding of why firms, as opposed to governments and countries, choose to trade. Some studies suggest that differences between exporting and non-exporting are persistent—exporting firms tend to be more productive and this

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productivity is fed by the larger markets they have access to due to international trade.[1] Evidence also suggest that firms face substantial barriers to trade and models engaging firm heterogeneity to explain decision-making, sustainability and growth in the level of exports have become increasingly pertinent [Tybout (2001); Lawless (2009)].

While access to the international market has been shown to provide firms with new opportunities and faster growth [Ungson, *et al.* (1997); Qian (2002)], determinants of firm-level export growth have been varied. Managerial and marketing skills, experience, production technologies and logistical efficiencies provide exporters with firm-specific 'comparative advantages' [Wignaraja (2008)] that when compounded with economies of scale lead to substantial cost advantages for these firms over domestic, non-exporting firms [Kim, *et al.* (1993) and Wagner (1995)]. Even firms lacking appropriate internal economies can benefit from agglomeration economies, especially if different areas of the country are strongly specialised in particular industrial activities [Sterlacchini (2001)]. This can give small firms, and countries, the cost advantage needed for competitive export growth.[2] More recent studies have moved away from cost advantages to barriers to trade that form a threshold firms must cross if they are to export.

Rajan and Zingales (1998) established that financial development, by lowering the costs of external finance to firms, leads to economic growth. Studies have applied this principle to a smaller sample of exporting firms and found generally consistent results—access to finance, apart from providing required fixed and working capital is also dependent on firm quality, is hence strongly related to growth of exporting firms [Beck (2003); Manova (2005); Becker and Greenberg (2005)] is strongly related to growth of exporting firms. For a panel of UK exporting firms, Guariglia and Mateut (2005) analyse the sensitivity of financial variables to inventory investment and find that exporters tend to be less liquidity constrained. The only theoretical contribution to this literature, Chaney (2005), proves that firms with lack of access to finance will be constrained in their exports.

Yet another school of thought focuses on the technical capabilities of the firms as determining the export performance (at the firm level).[3] This is a notion that fits well with the role technical advancement plays in growth theories. Li (2008) shows that for the US manufacturers, increasing exports is associated with increasing technical efficiency. At the same time, firms may be inhibited from adopting technology by limited access to finance, legal and regulatory constraints and country specific frictions such as corruption.[4]

To this literature, we posit the growing importance that financial and economic events worldwide can have, especially given growing globalisation [Mishkin (2007)]. The need to be financially robust has become all the more prominent in the wake of Global Financial Crisis, 2008, particularly in the developing countries where under-regulated financial markets can be expected to have increased credit rationing. Its impact

[1]See Roberts and Tybout (1997); Bernard and Jensen (1995, 2004); Zou and Stan (1998) provide a summary of the fifty empirical studies done, admittedly mostly of a macroeconomic nature, from 1987–1997.

[2]See seminal work by Bagella, *et al*. (1998); as well as Becchetti and Rossi (2000).

[3]See Lall (1987 and 1992); Bell and Pavitt (1993); Nelson (2008); and Correa, *et al.* (2008).

[4]See Parenta and Prescott (1994); Hall and Khan (2003) provide a summary of the literature on determinants of technology adoption.

on the exporting firms when one considers the widespread effect on national wealth, and hence on export production and consumption, is yet to be seen.

The trade sector in Pakistan has followed the EL growth model since its inception in 1947. Yet the benefits of EL policies in Pakistan have been extremely limited relative to the success such policies have exhibited in East Asia or even in other South Asian countries like Bangladesh and India. Currently, Pakistan is faced with economic stagnation following a spurt of economic growth during the first half of the last decade. Moreover, given the much higher (almost twice) own-income import elasticity relative to the own-income export elasticity in the country, the stagnation following growth acceleration has also been accompanied by balance of payments crisis. Given the persistent nature of balance of payment constraints in the country, the trade sector can serve to push the economy towards a sustainable, higher growth trajectory.

In this backdrop, this study has a two-fold objective: First, to analyse the impact of the global financial crisis on manufacturing and service exports in four South Asian countries. On the one hand, the costs of external finance for both the private and the public sectors rose with a badly hit financial sector, and on the other, export earnings fell making the governments of these countries even more reliant on external finance.[5] Since then, the growth of exports in South Asian economies has been recovering— in 2010 export growth was impressively higher than in the years preceding the crisis (Figures 1 and 2 in Appendix).[6] Exports growth in Pakistan, for instance, has increased from –8 percent in 2007 to 18 percent in 2010. Nevertheless, heterogeneity amongst countries is reflected in differential, albeit positive, rates of growth across these four countries, with India leading with a growth of almost 22 percent in its exports. This study provides an analysis of how the crisis impacted exporting firms in South Asia[7] and attempts to delve deeper into the characteristics of firms that were hit negatively. The findings may be useful in formulating policies which may provide better safeguard for firms against future shocks transmit through the global financial network.

The second objective of the study is to understand the determinants of export performance in a sample of exporting firms from Pakistan, India, Bangladesh and Sri Lanka. The main emphasis in this part of the analysis will be on various dimensions of the business environment in which firms operate such as the degree of competition from informal activity, prevalence of corruption and the general efficiency of the logistics industry in the economy.

The organisation of the paper is as follows: Section 3 describes the data used. Section 4 explains the methodology used. Section 5 discusses the results of the regression estimates. Section 6 concludes the paper and provides policy implications.

[5]See Cocazza, *et al*. (2011) for a summary of the impact of the global crisis 2007, and subsequent government policies in South Eastern European countries. See also Camanho da Costa Neto and Romeu (2011) for impact on exports in Latin American countries.

[6]The figures in the Appendix illustrate how these countries were performing before and after the crisis. These figures are based on the IMF International Monetary Fund, World Economic Outlook Database and not on the South Asian Interim Survey dataset used for empirical analysis in the study.

[7]Recent studies have focused on the asymmetric impacts of the crisis across countries [Camanho da Costa Neto and Romeu (2011)].

2. DATA

The study uses data provided by the World Bank's South Asia Interim Enterprise Survey (2010) for four South Asian economies, namely Pakistan, India, Sri Lanka and Bangladesh. The data provides detailed information on various aspects of business activity in each country such as infrastructure and services, sales, finance, business-government relations, labour, business environment etc.[8] In addition, the datasets also provide general information about surveyed firms such as their size, location and industry. The data covers 440 firms in Pakistan, 482 firms in India, 484 firms in Sri Lanka and 500 firms in Bangladesh. In Pakistan, 20 percent of the surveyed firms have a presence in the international market. For the Indian and Sri Lankan sub-samples, 10 percent of the surveyed firms are exporting abroad while for the Bangladesh sub-sample, 7 percent of the firms are exporters (Figure 1). In line with the objective of this study, the working sample is restricted to exporting firms only. This leaves us with a sample of 240 exporting firms.

Size: Descriptive statistics show that exporting firms are predominantly large in size. For Pakistan, India and Bangladesh large firms account for almost 75 percent of the sample of exporters while for Sri Lanka 66 percent of the exporting firms are large while the rest are medium or small in size.[9]

External Financial Access: On average, exporters have greater access to external finance (as measured by the percentage of working capital[10] financed through private commercial banks, state-owned banks or non-bank financial institutions) as compared to non-exporting firms. This differential is highest in Pakistan while the smallest in Bangladesh. In Pakistan for instance, exporting firms have almost four times greater access to external finance than non-exporting firms. In Sri Lanka exporters have 10 percent higher external financial access than non-exporters while in the case of India this differential stands at almost 5 percent.

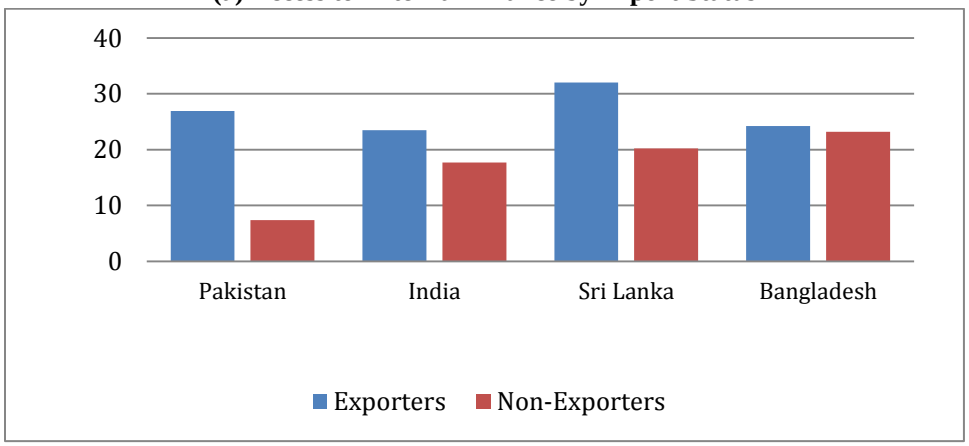
Financial Crisis: The perceived impact of the global financial crisis on manufacturing and service enterprises seems to differ across exporting and non-exporting firms. In Pakistan for instance, 10 percent more firms in the non-exporters sample report that the crisis had a negative impact on their business activity relative to the sample of exporters. The converse holds true for other South Asian economies under study i.e., a greater percentage of exporters report a negative impact of the global financial crisis in comparison with non-exporters. This differential is greatest in Bangladesh where 24 percent more exporters report a negative impact of the crisis relative to non-exporters while the differential is least in Sri Lanka.

[8]The dataset on Bangladesh only provides information on sales, labour, and finance.

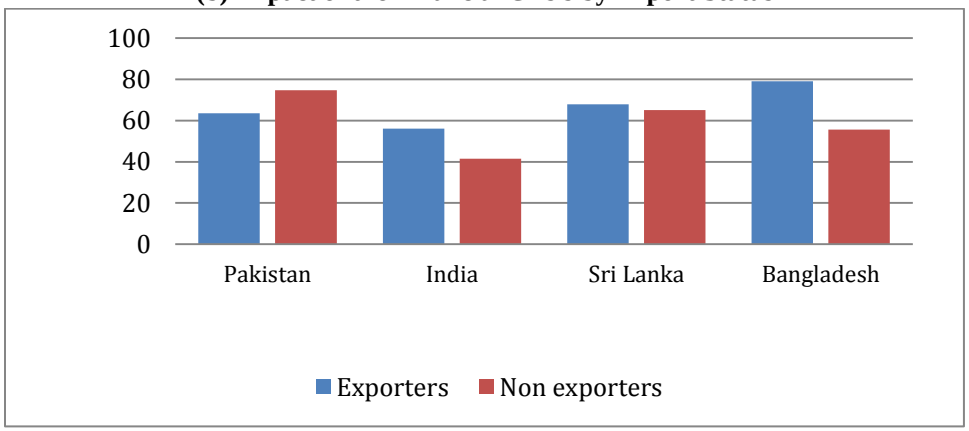
[9]Mention that large firms have been over sampled to maintain representativeness.

[10]An alternative possibility was to use percentage of fixed asset investment undertaken over 2009 to 2010 that was financed through external sources. This alternative measure was not used as the response rate for this question was much lower. Thus using this measure would have meant reducing the sample size which would have effected estimated results.

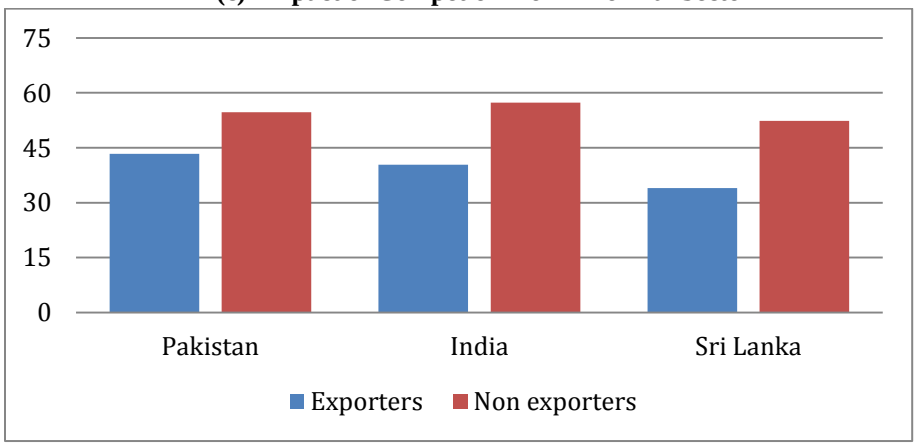
(a) Access to External Finance by Export Status



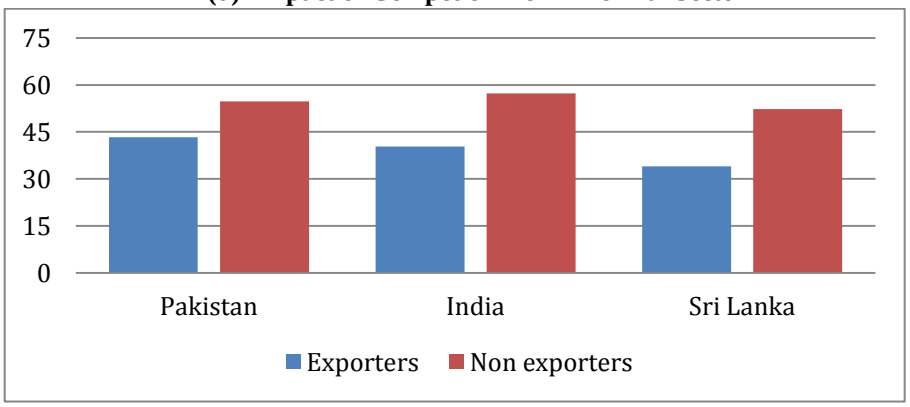
(b) Impact of the Financial Crisis by Export Status



(c) Impact of Competion from Informal Sector



(d) Impact of Competion from Informal Sector



Competition from the Informal Sector: Exporting firms across all four countries report that they face competition from the informal sector. A comparison with the sample of non-exporting firms in each country shows that compared to exporters, non-exporting firms face more competition from the domestic informal sector. This is understandable given the fact that competition from foreign firms plays a key role in the overall competition faced by exporting firms in each country. Thus rivalry from the informal sector is likely to have a greater influence on non-exporting firms catering to the domestic market.

Prevalence of Bribery: Descriptive statistics show that in Pakistan, firms spend more time in meeting with tax officials and were more frequently engaged in making bribes compared to firms in India and Sri Lanka; 42 percent of exporters and 33 percent of non-exporters report that they spent time and made payments to tax officials over the past year. Thus, it is also interesting to note that exporters report a higher prevalence of corruption than non-exporters in Pakistan. In India on the contrary, an almost equal percentage of exporting and non-exporting firms report to engage in corruption and bribery in order to get work done; 28.6 percent of exporters and 31 percent of non-exporting firms report that they made payments to tax officials over the past year. In Sri Lanka, the incidence of bribery appears to be low as very few firms (only 6 in the sample of exporters and 19 in the sample of non-exporters) report to have been engaged in making payments to tax officials.[11]

Logistics: Descriptive statistics reveal that the average number of days to clear customs for Pakistani firms (5) is lower than India (8.7) but higher than Sri Lanka (3.2). For the sample of Bangladeshi exporters, information on logistics was not available.

3. METHODOLOGY

3.1. Empirical Framework

3.1.1. *Impact of the Global Financial Crisis*

According to existing literature one of the main methodological difficulties in trying to study the behaviour of exports is the issue of 'simultaneity' bias. It is argued

[11]For Bangladesh information on bribery and time spent in meeting with tax officials was not available.

that one of the following two hypothesis may hold true: (i) 'self-selection' i.e., more productive firms, with greater efficiency, a larger scale of operations and higher access to finance self select themselves into entering international markets; and (ii) 'learning-by-exporting' i.e., firms that enter international markets are exposed to new sources of knowledge, expertise and technology which could aid these firms in becoming larger [Loecker (2007)]. If unaccounted for, 'simultaneity bias' (or this problem of reverse causality) would render most of the right hand side variables (such as size, financial access etc.) as endogenous in our model. This would lead to biased estimates. Thus, to overcome this problem we specify a model with lagged independent variables (as given by Equation 1.0), whereby the dependent variable measures the predicted average annual growth rate of exports for firm j in 2011. The variable of interest is $crisis_{t-1}$ which is a dummy variable equal to 1 if in year 2010 firm j reported to have been negatively affected by the global financial crisis.

$$gr_{jt} = \alpha_0 + \beta_1 crisis_{t-1} + \sum\beta_1 X_{jt-1} + \varepsilon_0 \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (1.0)$$

X is a vector of controls. These include (i) degree of *external financial access* (as measured by firm *j*'s percentage of working capital financed through private and state-owned banks as well as non-bank financial institutions), (ii) *size* of the firm (whereby size is defined in terms of the number of people working for firm *j* such that a small firm is one which employs less than 20 workers, medium employs between 20 to 99 workers while large firms are classified as those which hire 100 or more workers) has been added specifically to provide preliminary results on the differential impact of the crisis and business environment on small and larger firms, (iii) the industry to which firm *j* belongs, and (iv) the location where firm *j* is located. For the sample of Pakistani firms, location is represented by city dummies while in the pooled sample country dummies are used to account for location.

Ideally a panel dataset tracking firms both before and after the crisis would be most suited for answering the question under study. In the absence of such data however using projected export growth rates along with a cross sectional dataset offers a feasible option for ascertaining the impact of the financial crisis on exporting firms in South Asia.

To explore the impact of the crisis further, we try to identify what are the characteristics of firms which were hit by the crisis. To that end, we augment (1.0) by adding interactive terms between crisis and financial access as well as between crisis and size both for the sample of Pakistani exporters as well as in the pooled sample containing exporting firms from India, Bangladesh and Sri Lanka.

3.1.2. *Impact of the Business Environment*

In line with the second objective of the study, the following model (as illustrated by Equations 2.1 to 2.3) is specified to understand how various dimensions of the business environment such as corruption, logistics and informal activity impact export performance. As before the dependent variable gr_{jt} measures the average annual growth rate of exports which is expected between 2010 and 2011 for firm *j* while lagged variables are used on the right hand side to control for 'simultaneity bias'. *X* is a vector of the same controls which were mentioned in the last section i.e. size, financial access, industry and location.

$$gr_{jt} = \alpha_0 + \beta_1\, corruption_{t-1} + \sum\beta_1\, X_{jt-1} + \varepsilon_0 \quad \ldots \quad \ldots \quad \ldots \quad (2.1)$$

$$gr_{jt} = \alpha_0 + \beta_1\, logistics_{t-1} + \sum\beta_i\, X_{jt-1} + \varepsilon_0 \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (2.2)$$

$$gr_{jt} = \alpha_0 + \beta_1\, informal_{t-1} + \sum\beta_i\, X_{jt-1} + \varepsilon_0 \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad (2.3)$$

In Equation (2.1) the variable of interest is $corruption_{t-1}$ which is a dummy variable equal to 1 if over the past year (i.e. 2009 to 2010) the firm was engaged in meeting government tax officials and was involved in exchanging gifts or in making informal payments. In Equation (2.2) the variable of interest is $logistics_{t-1}$ which represents the average number of days it took firm *j* to clear customs from time the firm's goods arrived at their main point of exit (e.g., port, airport etc.). In Equation (2.3) the variable of interest is $informal_{t-1}$ which represents a dummy variable equal to 1 if firm *j* reported that it faces competition from firms in the informal sector and 0 otherwise.

3.2. Estimation Strategy

Given the continuous nature of the dependent variable, the study employs an ordinary least squares estimation technique (OLS). Estimation is done in three stages—in the first instance, the sub-sample of Pakistani firms are used to estimate the models listed in the previous sections. In the second instance, the models are estimated for the pooled sample which includes firms from all the other three South Asian economies i.e. India, Bangladesh, and Sri Lanka. In the third instance, models 2.1–2.3 is only estimated for the pool of Indian and Sri Lankan firms as information on these dimensions was not available for Bangladeshi firms.

4. RESULTS

4.1. The Impact of the Global Financial Crisis

4.1.1. *Pakistan*

For the sample of Pakistani exporters, results show that the crisis had a significant and negative impact on export growth. Firms that were affected by the crisis witnessed 16 percent lower average annual export growth compared to firms that were not affected by the crisis. In addition we find that size is a significant determinant of export growth—both medium and large firms experience substantially higher export growth than small firms implying that there is a significant size advantage amongst exporters. While the location dummies are significant, one must look at their signs and coefficients with caution, as the sample under study is not representative at the national level.[12]

When we augment our model with an interaction term between crisis and external finance (column 2, Table 1), we find that the crisis variable becomes insignificant while the interaction term is significant. This implies that the impact of the crisis actually works through the finance channel such that firms that had high levels of external

[12]Friesenbichler (2011).

Table 1

Impact of Financial Crisis on Export Growth

	Pakistan			Pooled Sample: India, Bangladesh and Sri Lanka			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Financial Crisis	–16.620*	–4.740	–33.543	25.040	11.157	13.517	96.595
	(9.142)	(11.628)	(25.352)	(16.742)	(22.013)	(24.006)	(125.373)
External Financing Access	–0.136	0.128	–0.137	0.466	–0.055	0.203	0.401
	(0.135)	(0.210)	(0.136)	(0.293)	(0.376)	(0.490)	(0.296)
Medium	72.754***	78.101***	68.356***	–19.927	–23.548	–13.839	–16.973
	(24.695)	(24.678)	(25.851)	(65.396)	(64.371)	(66.168)	(92.868)
Large	81.196***	88.249***	62.215*	–56.950	–55.821	–50.184	–11.674
	(23.471)	(23.647)	(34.774)	(63.910)	(62.869)	(64.843)	(90.063)
Manufacturing	17.442	17.363	15.918				
	(15.165)	(15.020)	(19.086)				
Textiles	–22.857	–23.041	–23.884				
	(14.252)	(14.116)	(14.451)				
Food	5.563	0.696	4.755				
	(20.804)	(20.821)	(21.014)				
Lahore	26.221**	26.633**	25.981**				
	(12.131)	(12.017)	(12.281)				
Islamabad	39.653**	42.647**	38.222**				
	(16.409)	(16.356)	(16.663)				
Crisis*External Financing Access		–0.431*				0.411	
		(0.265)				(0.613)	
Crisis*Medium			19.730				–89.904
			(26.356)				(127.239)
Crisis*Large			0.473				–27.115
			(19.225)				(129.453)
India				51.944***	–9.404	52.958***	47.393**
				(18.301)	(32.806)	(18.404)	(18.413)
Bangladesh				21.177	18.031	20.509	20.878
				(21.021)	(20.833)	(21.092)	(20.934)
Crisis*India					41.533		
					(33.711)		
					1.348**		
External Financing Access*India					(0.590)		
N	95	95	95	129	129	129	129

Marginal effects; Standard errors in parentheses.
* p<0.1 , ** p<0.05, *** p<0.01.

financing currently that were also hit by the global financial crisis expect to experience lower export growth compared firms that were hit by the crisis but were not financed through external sources. Thus, crisis on its own do not have a direct impact on export growth as illustrated by the insignificance of the crisis dummy in the model (column 2, Table 1). The size effect continues to hold even in the augmented model as medium and large firms persistently show higher export growth than small firms.

As a next step, the model is augmented with interactive terms between crisis and size (column 3, Table 1). Results show that there is no differential impact of the crisis across size. Thus it is not the case that medium/large firms are more or less likely to be impacted by the crisis relative to small firms.

Regression estimates also show that the earlier result of crisis not exerting a direct significant impact on expected export growth continues to hold (as illustrated by the insignificance of the crisis variable).

4.1.2. *India, Sri Lanka and Bangladesh*

Results on the pooled sample containing Indian, Sri Lankan and Bangladeshi exporting firms show that the crisis had an insignificant impact on expected export growth (column 4, Table 1). It is important to note that the dataset employed by the study is for the year 2010—two years after the onset of the global financial crisis. Thus there is a probability that firms have partially or completely recovered from the crisis. In fact examining the trend in export growth for each of the four South Asian economies shows that exports decline in 2008 and 2009 but export growth is positive post 2010 (Figures 1–4 in the Appendix). Thus the insignificance of the crisis variable reflects not that firms were not impacted by the crisis but that by 2010, they had regained their export outlook.

Results also show that firms in India exhibit higher expected export growth than firms in Sri Lanka (which has been taken the base category). The result also holds true when Bangladesh is taken as the base category. However when we augment the model with an interactive term between financial access and the Indian country dummy, we find that this expected export advantage for Indian firms is actually driven by those firms that have high levels of external financial access (column 5, Table 1). Thus, firms in India which have financial access have 1.4 percent points high export growth than Indian firms without financial access as well as those in other countries.

To gauge whether there is an inter-country differential in the impact of the financial crisis, we add an interactive term between the country dummy for India and the crisis variable. We find there is no difference across country in this dimension as is evident from the insignificance of this variable (column 5, Table 1).

In addition, we find that contrary to Pakistani firms, the impact of the crisis does not vary by the extent of financial access—as demonstrated by the statistical insignificance of the interaction term between crisis and financial access (column 6, Table 1). However, similar to Pakistan, firms in the pooled sample do not face a size advantage in counteracting the impact of the crisis on export activity (column 7, Table 1).

In conclusion, for the pooled sample under study, crisis has an insignificant impact on export growth between 2010 to 2011 which could possibly suggest that firms have recovered from the impact by the time these firms were interviewed for the Interim Survey data collection in 2010. In addition, Indian exporting firms have a competitive advantage over exporters in Bangladesh and Sri Lanka. This advantage is largely driven through external financial access.

On the other hand for Pakistan, crisis continues to have a significant negative impact on expected export growth two years since the onset of the crisis. This negative impact is stronger for firms with higher levels of external financial access. In addition size is consistently found to be an important determinant of export growth for Pakistani firms.

4.2. The Impact of Business Environment

4.2.1. *Corruption*

Estimates of the impact on business environment reveal that in the case of Pakistan, corruption does not have a significant impact on export growth (column 1, Table 2). Results from the augmented model however, show that corruption exerts a significant and negative impact on export growth on firms that have access to external

finance (column 3, Table 2). As before, size remains an important determinant of export growth as is evident from the significant size dummies in all specifications (column 1, Table 2). However, the size impact on export growth is not affected (neither dampened nor enhanced) by the prevalence of corruption. Thus these findings suggest that the impact of corruption only works through the external finance channel.

Table 2

Impact of Corruption on Export Growth

	Pakistan			Pooled Sample: India, Bangladesh and Sri Lanka		
	(1)	(2)	(3)	(4)	(5)	(6)
Corruption	–3.572	–20.627	10.552	–6.867	1.595	–24.244
	(10.471)	(49.040)	(12.332)	(29.425)	(45.566)	(58.414)
External Financing Access	–0.191	–0.167	0.032	0.378	0.437	0.395
	(0.148)	(0.149)	(0.181)	(0.426)	(0.492)	(0.431)
Medium	77.467***	57.418	73.801***	40.903	40.078	43.668
	(26.558)	(35.610)	(26.068)	(107.184)	(107.880)	(108.084)
Large	90.272***	86.013**	89.313***	–20.587	–22.163	–21.917
	(25.365)	(32.989)	(24.844)	(106.390)	(107.223)	(107.058)
Manufacturing	11.979	16.707	10.469			
	(18.202)	(18.438)	(17.840)			
Textiles	–28.268	–26.056	–28.005			
	(17.890)	(17.925)	(17.520)			
Food	–2.362	3.886	4.018			
	(26.940)	(27.155)	(26.563)			
Services				–10.270	–10.535	–9.956
				(29.342)	(29.538)	(29.521)
Lahore	26.103**	23.802*	23.240*			
	(13.090)	(13.144)	(12.893)			
Islamabad	38.717*	42.656*	36.437*			
	(19.773)	(21.653)	(19.395)			
India				44.667*	44.940*	44.600*
				(23.961)	(24.131)	(24.096)
Corruption*External Financing Access			–0.588**		–0.231	
			(0.285)		(0.945)	
Corruption*Medium		48.511				
		(55.617)				
Corruption*Large		9.928				22.279
		(50.655)				(64.570)
N	86	86	86	86	86	86

Marginal effects; Standard errors in parentheses.
* p<0.1 , ** p<0.05, *** p<0.01.

In the pooled sample, corruption is insignificant in explaining export growth not just directly but also through indirect channels such as financial access and size (column 4, 5, 6, Table 2).

4.2.2. *Informal Activity*

Results for Pakistan show that competition from the informal sector is insignificant in explaining export growth. This is not surprising given approximately 40 percent of the exporters in the sample for Pakistan are predominantly catering to the international market (as more than 75 percent of the total output in these firms is exported) and hence domestic competition (formal or informal) does not have a bearing on the export growth they expect over the year.

Results from the pooled sample show that competition from the informal sector has a significant and negative impact on export growth (column 2, Table 3). In an efficient market, competition should force market players to improve the quality of their products in order to become more competitive. But if markets are imperfect, increased competition may not necessarily lead to improvements in product quality or in enhanced competitiveness of exports. In such a scenario, competition from the informal sector may cause formal firms to lose market share as well as profits, thereby reducing investments for future growth.[13] The interaction term between informal activity and finance is however positive and significant suggesting that this negative impact of competition from the informal sector is dampened if firms are able to rely on external sources of finance to fund future investments.

Table 3

Impact of Competition from the Informal Sector on Export Growth

	Pakistan			Pooled Sample: India, and Sri Lanka		
	(1)	(2)	(3)	(4)	(5)	(6)
Informal Sector Presence	0.662	–2.866	3.345	–6.683	–65.773**	85.723
	(9.537)	(10.461)	(11.911)	(20.309)	(29.218)	(140.493)
External Financing Access	–0.152	–0.140	–0.102	0.590*	–0.036	0.579
	(0.136)	(0.137)	(0.190)	(0.344)	(0.404)	(0.349)
Medium	76.838***	67.465**	74.612***	–4.671	18.299	34.828
	(25.141)	(27.611)	(25.939)	(72.361)	(70.497)	(104.376)
Large	88.519***	90.144***	87.054***	–60.806	–41.855	–9.205
	(23.515)	(23.639)	(23.946)	(70.371)	(68.421)	(101.820)
Manufacturing	16.927	17.281	16.837			
	(15.572)	(15.607)	(15.652)			
Textiles	–25.167*	–24.544*	–25.245*			
	(14.411)	(14.457)	(14.485)			
Food	4.709	5.495	6.020			
	(21.080)	(21.140)	(21.465)			
Services				–5.498	–1.333	–1.980
				(27.534)	(26.677)	(28.320)
Lahore	25.580**	24.502*	23.882*			
	(12.605)	(12.695)	(13.435)			
Islamabad	37.981**	39.756**	38.037**			
	(16.850)	(17.017)	(16.936)			
India				53.010***	52.941***	54.844***
				(20.137)	(19.478)	(20.437)
Informal*External Financing			–0.108		1.905***	
Access			(0.284)		(0.697)	
Informal*Medium		19.488				–101.720
		(23.522)				(142.150)
Informal*Large						–75.250
						(145.844)
N	96	96	96	101	101	101

Marginal effects; Standard errors in parentheses.
* p<0.1 , ** p<0.05, *** p<0.01.

[13]La Portia and Schliefer (2008) argue that instances informal and formal firms are very similar, informal competition promotes efficiency in the same manner formal competition does. However, if there are vast differences driven by the need to remain illegal and hence undetected by the government, informal firms tend to be 'parasitic'—siphoning off the profits of the formal firms by reducing their market shares and shifting the burden of taxes to the formal firms in the industry.

Table 4

Impact of Logistics on Export Growth

	Pakistan			Pooled Sample: India and Sri Lanka		
	(1)	(2)	(3)	(1)	(2)	(3)
Logistics	–0.422	–1.850	–5.869	–0.427	1.478	–5.084
	(0.807)	(1.443)	(6.123)	(2.112)	(2.639)	(18.293)
External Financing Access	–11.772	–21.775	–10.176	0.672	1.061**	1.022**
	(10.389)	(13.335)	(10.556)	(0.407)	(0.520)	(0.446)
Medium	78.714**	79.029**	60.990	–9.189	–0.115	–40.708
	(30.554)	(30.468)	(39.121)	(76.291)	(76.456)	(214.724)
Large	88.507***	94.645***	63.036*	–75.510	–75.396	–158.514
	(29.241)	(29.609)	(37.774)	(74.468)	(74.262)	(211.557)
Manufacturing	11.198	10.815	11.777			
	(18.328)	(18.278)	(18.446)			
Textiles	–30.364*	–31.811*	–28.606*			
	(16.680)	(16.677)	(16.817)			
Food	–0.929	–2.420	–0.059			
	(23.976)	(23.940)	(24.058)			
Services				–33.811	–38.710	–24.893
				(31.551)	(31.728)	(32.181)
Lahore	33.948**	31.733**	32.313**			
	(14.027)	(14.109)	(14.164)			
Islamabad	40.487**	46.922**	42.208**			
	(19.472)	(20.153)	(19.727)			
India				52.885**	51.408**	43.142
				(25.772)	(25.731)	(25.931)
Logistics* External Financing Access		2.106			–4.031	
		(1.768)			(3.362)	
Logistics*Large			6.198			9.447
			(6.185)			(18.432)
Logistics*Medium			4.738			1.237
			(6.224)			(18.533)
N	83	83	83	86	86	86

Marginal effects; Standard errors in parentheses, * p<0.1 , ** p<0.05, *** p<0.01.

4.2.3. *Logistics*

Both for Pakistan as well as for the pooled sample estimates on logistics do not have any explanatory power in explaining the variation in expected export growth. This result is robust in the augmented specifications that account for differential growth of firms that have financial access or are large. However, we must allow for the fact that this data is perceptions based so the variable on logistics may not be necessarily capturing the actual efficiency of the logistics industry in the country as perceptions may and/or the perceptions may not be well founded.

5. CONCLUSION

The South Asian Enterprise Survey data confirm the high export of firms in South Asian Economies—however, growth was far from homogenous. On the basis of the results presented in the last section, it can be concluded that exporting firms from other South Asian countries in our sample had recovered from the global financial crisis within two years since the first onslaught of the crisis. In Pakistan however, firms continue to be negatively impacted by the financial crisis of 2007-08. This goes to show that markets in Pakistan are more underdeveloped than markets in other South Asian countries particularly India. In fact, firms in Pakistan that have high level of current external financing tend to become more vulnerable as a result of crisis given greater financial obligations and are likely to experience greater reductions in future exports relative to firms with little or no external finance.

Results on business environment show that variables on corruption, logistics as well informal activity are insignificant in explaining export growth for both our samples.[14] However, this is not to say that business climate does not matter. Rather, given the perceptions based nature of this data, without further investigation with actual indicators on each of these dimensions, provides an incomplete picture of the role of these variables in explaining future export growth.

Some exceptions to the above results are the following: (i) Pakistani firms with external financing become more vulnerable to the detrimental effects of corruption on export growth. (ii) The presence of external financing dampens the negative effect of competition from the informal sector for the sample of Indian and Sri Lankan firms.

In addition results indicate a significant advantage due to size with the medium and large dummies continuing to be significant in all specifications for Pakistan.

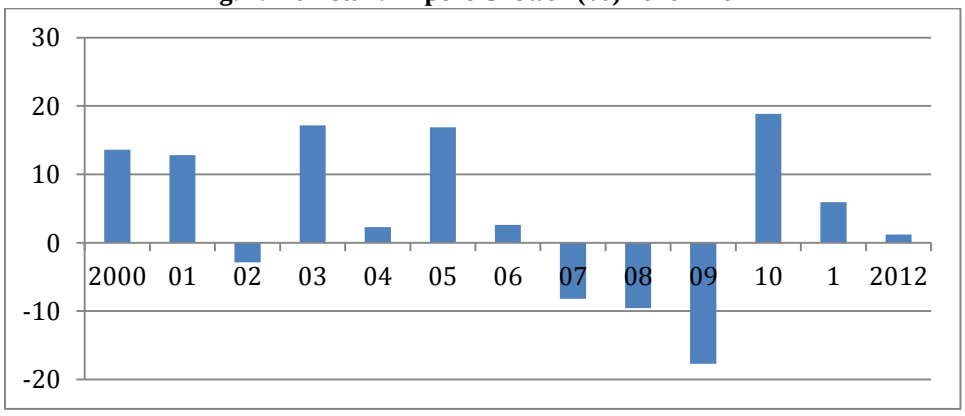
Policy Implications

Persistent negative impact of the financial crisis on Pakistani exporters, compared to their counterparts in India, Sri Lanka and Bangladesh, point towards a need for more developed markets. For instance, robustness to global crisis will require well-functioning financial markets where informational asymmetries and resultant credit rationings are kept to a minimum. Results of this study indicate that improving access to finance can counter-act some of the negative impact of competition from the informal sector. At the moment, however, it appears that that the state of the financial sector (and the asymmetry of information in lenders face) is such that external financing serves to make firms more vulnerable to corruption.

The finding that large and medium firms outperform smaller firms requires that size be an important consideration for policy-makers when considering industrial policy. Thus government policies that are aimed at promoting organic growth of small firms into medium and eventually large in size may be of great importance in promoting export growth in Pakistan.

APPENDIX

Fig. 1. Pakistan: Export Growth (%) 2010 – 2012*



[14]This result is supported in some existing studies. Shahzad, *et al.* (2012) have shown political stability to be the single most important factor in determining export growth and FDI inflows into the country, while factors such as infrastructure have an insignificant impact. Daly and Muzart (2007) show that while access to finance is positively related to SME export growth in Chile, reforms in business environment has had limited impact.

Fig. 2. India: Export Growth (%) 2010 – 2012*

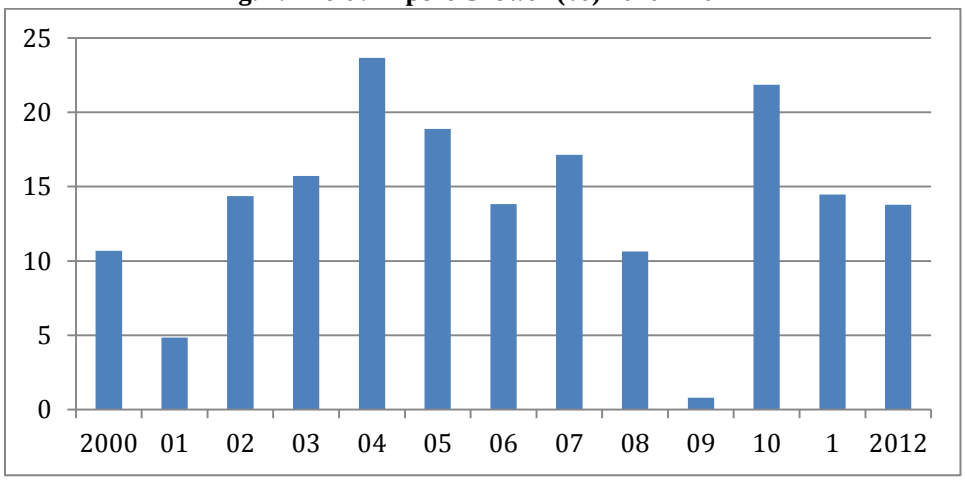


Fig. 3. Sri Lanka: Export Growth (%) 2010 – 2012*

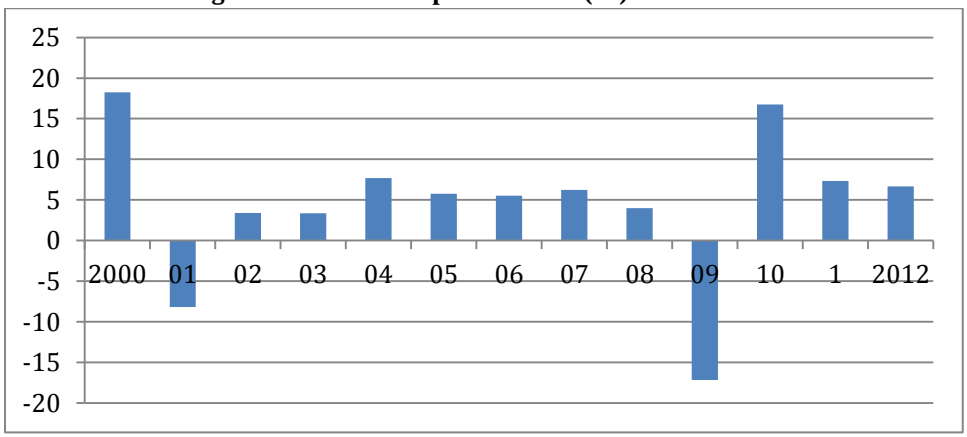
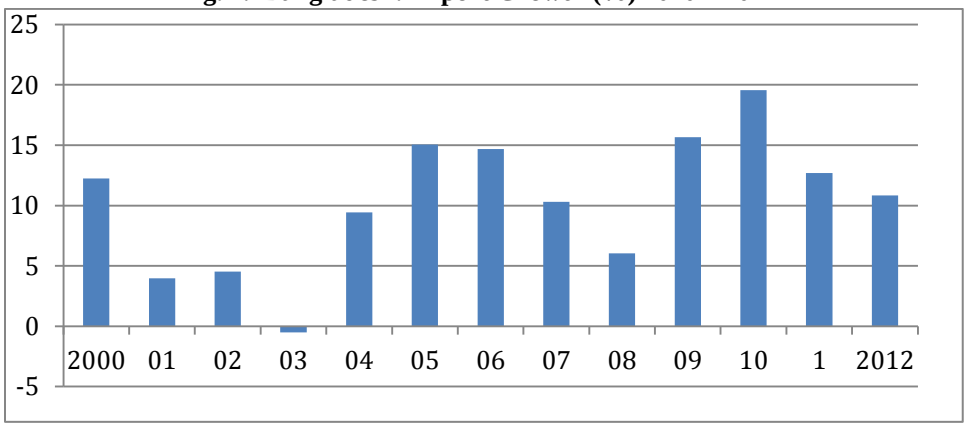


Fig. 4. Bangladesh: Export Growth (%) 2010 – 2012*



Source: IMF International Monetary Fund, World Economic Outlook Database, April 2012.
*predicted values for 2012.

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