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Bangladesh's Exports Potential in the Global Market

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Abstract *Bangladesh has been pursuing export led growth strategy for quite some time. It is providing a range of fiscal and legal incentives to local, fully foreign and joint-venture export-oriented industries. The exports performance has also been improving, even though the country has witnessed the preponderance of RMG products in its exports basket. However, there are many 'behind the border' constraints, which are widely believed to have detrimental impact on export performance. This paper tries to explore whether and to what extent export potential has remained unrealized due to such constraints. It adopts a panel stochastic frontier gravity model for Bangladesh for 35 important destinations including South Asian countries. It reveals that on average 43 percent of the export potential in major destinations has remained unutilized due to such constraints.*

1. Introduction

Bangladesh has been pursuing export led growth strategy for quite some time. It provides a range of fiscal and legal incentives to local, fully foreign and joint-venture export-oriented industries. The reforms of the trade regime initiated in the early 1980s continued to be undertaken by successive governments for greater outward-orientation. These measures led to a remarkable decline in quantitative restrictions, opening up of trade in many restricted items, significant rationalization and diminution of import tariffs and complete liberalization of the foreign exchange regime on current account. Generous promotional measures were also taken for exports — export promotion schemes were adopted to provide

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exporters with an environment in which the previous anti-export bias could be reduced significantly. Important export incentive schemes include subsidized rates of interest on bank loans, duty free import of machinery and intermediate inputs, cash subsidies, and exemption from value-added and excise taxes.The export performance has also been improving, even though the country has witnessed a high specialization in Ready Made Garments (RMG) products in its exports basket (Hossain and Kabir, 2011). All other non-RMG major export items have had only a modest growth since the late-1980s. Though some new items have been added to the export basket the country's export base remains narrow and undiversified (Raihan and Razzaque, 2006).

Moreover, there are many impediments in Bangladesh in the form of internal constraints, which are widely believed to have detrimental impact on export performance. Domestic 'behind the border' or supply side constraints like infrastructure, communications, ports, capacity in implementing export incentive regime, functioning of export related institutions, governance of the external sector, etc., coupled with 'beyond the border' constraints, such as inadequate market access in the form of stringent rules of origin, environmental conditions, labor regulations, compliance, various anti-competitive measures and product quality have contributed to the highly concentrated export basket. It is widely believed that the export performance would have been much better if these constraints could be removed or at least minimized.

Given this backdrop, this paper tries to explore whether and to what extent export potential has remained unrealized due to such constraints. In doing so, it adopts an augmented stochastic frontier panel gravity model of Bangladesh's exports to understand the magnitude of untapped trade potential due to behind the border constraints. The rest of the paper is organized as follows. Section 2 describes various aspects of export performance of the country, *viz*., diversification, change in destinations, key indices, and nature of the constraints. Section 3 explains the empirical specification of the stochastic frontier gravity model and sources of data. The analyses of the results of gravity model and magnitude of untapped export potential are reported in Section 4. Finally, concluding remarks are made in Section 5.

2. Bangladesh's Exports Performance

Bangladesh undertook significant changes in economic and trade policies in the 1980s and 1990s, which included structural adjustment reforms and trade liberalization through considerable reduction of tariff and non-tariff barriers, and

incentives to exports. These initiatives subsequently resulted in an increased degree of integration with the global economy. Exports increased at an average annual rate of 7.8 percent in the 1970s. The subsequent changes in economic policies led to some improvement in export performance and it grew at an average annual rate of 9.1 percent in the 1980s. In order to reduce trade deficits, the government initiated trade liberalization policies in the 1980s, which enhanced the supply response, especially of the exportables.These policies also reduced the anti-export bias and buoyant world demand led to the rapid growth of exports. Exports grew at an annual average rate of 9.6 percent during the 2000s.

During the last decade Bangladesh's exports successfully overcame two major challenges: *first*, the dreaded landslide decline of RMG exports after the complete phase-out of the Multi-Fiber Arrangement (MFA) on 31 December 2004, and *second*, the possible export shock due to global financial meltdown especially in the later part of 2000s (Hossain and Kabir, 2012). RMG exports grew at around 42 percent in FY 2010-11 even in the midst of global financial crisis, which clearly indicates the country's emergence as one of the biggest players in the international market. However, in the first ten months of 2011-12 fiscal exports witnessed a rather dismal growth, at 8.4 percent which was due mainly to the re-emergence of global economic depression and lingering Euro Area crisis (Bangladesh Bank, 2012).

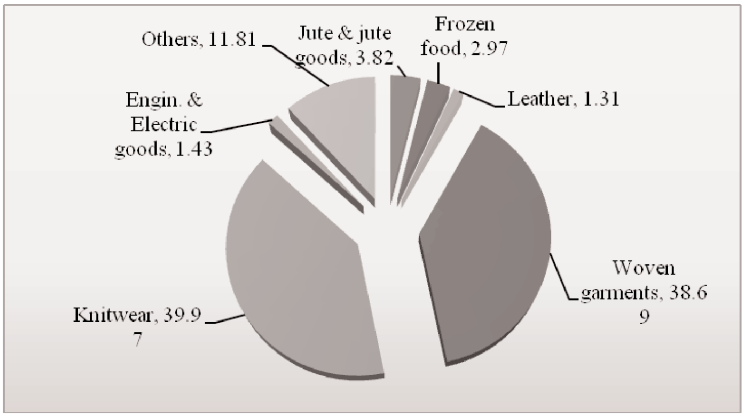
Table 1: Export Volume and Growth, 1972-2010

	1972-75	76-80	81-85	86-90	91-95	96-00	00-05	06-10
Volume (billion US$)	0.49	0.77	0.96	1.44	2.92	5.62	8.03	15.46
Growth (%)	5.46	13.86	10.22	9.37	18.00	9.92	9.03	13.20
Export-GDP Ratio (%)	4.70	5.79	5.01	5.60	8.63	12.72	15.18	19.38

Source: *World Development Indicators (www.worldbank.org).*

Besides robust growth of exports in terms of value, the ratio of exports to GDP has also increased significantly over time, from about 6 percent in 1990 to about 20 percent in 2008, although the ratio decreased a little bit in 2010 (Table1). It indicates that the country has successfully promoted its exports sector to respond to the demand in international market. It also led to greater specialization in the goods produced by its abundant factor, labor. The overwhelming dominance of RMG in the export basket over quite a long period of time (since mid-1990s) raised the issue of loss of product diversification. A consistently high diversification index (Table 2) indicates that the country has been specializing on

Figure 1: Composition of Exports Basket, Jul 2011-Jan 2012 (% of Total Exports)



Source: Bangladesh Bank, *Major Economic Indicators: Monthly Update* (April 2012).

Table 2: Export Diversification Index, 1995-2010

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
0.80	0.80	0.81	0.82	0.83	0.84	0.83	0.83	0.87	0.84	0.83	0.83	0.82	0.81	0.86	0.86

Source: *UNCTAD Statistics (www.unctad.org).*

few products. Conversely, significant diversification is taking place in the RMG but the other products are not coming out with prominence.

The composition of exports demonstrates significant changes in its pattern over time. The share of manufacturing sector remained nearly two-thirds up to the mid-1980s. The exports were dominated by natural resource intensive exports, such as raw jute, tea, frozen food, fish, and agricultural products in the primary group, and crude fertilizer, jute goods, and leather and leather products in the manufactured

Table 3: Changes in Composition of Exports, 1972-73 to 2009-10

	1972-73	75-76	81-82	85-86	90-91	95-96	2000-01	05-06	08-09	0910
Raw Jute	37.78	33.27	16.22	15.13	6.07	2.34	1.04	1.41	0.95	1.2
Primary Goods	42.27	42	32.25	36.63	17.82	12.26	7.49	7.34	6.52	5.32
Jute Manufacturing	56.82	55.88	56.56	43.46	16.91	8.47	3.56	3.43	1.73	3.25
RMG	0	0	1.12	16.05	44.6	65.61	75.16	75.06	79.33	75.29
Manufactured Goods	57.73	58	67.75	63.37	82.18	87.74	92.51	92.66	94.41	94.67

Source: *Hossain and Kabir (2012).*

group up to mid-1980s. The exports of primary goods experienced sharp decline after 1985-86 and it constituted a meager part of the export basket at around 5 percent during the 2000s (Table 3).

Besides, the shift in composition of commodity trade, destination of exports has also witnessed growing concentration and significant shift in regional composition. For example, only about one-fifth of total exports entered the EU market in 1980, while 10-15 percent of total exports went to developing Asia, the Middle East, Africa, and North America. Later on, EU emerged to be the largest destination of Bangladesh's exports followed by North America. These two markets accounted for around two-thirds of the total exports. The shift in export destination took place due to changes in the commodity composition; the EU and

Table 4: Destination of Exports (% of Total)

	1980	1990	2000	2008	2010
European Union	19.94	35.33	40.26	47.99	43.67
North America	15.15	32.23	33.71	24.58	23.78
Middle East	12.79	6.21	2.97	4.46	1.46
Africa	11.42	4.94	2.44	1.42	0.49
Developing Asia	10.41	3.3	0.58	0.64	
Others	30.29	17.98	20.03	20.9	

Source: *Calculated from IMF-DOTS.*

North America turned out to be dominant buyers of RMG products over time. This trend led to significant decline in the share of exports to developing Asia, the Middle East and Africa in total exports (Table 4). It implies that the country's export sector is susceptible to shock in the demand of the two regions.

The value index of exports demonstrates an impressive growth at an average 14.5 percent over the last three decades. From only 54.8 in 1980, it increased to 301.1 in 2010, which significantly exceeded the domestic consumer price index. It indicates that the external market has turned out to be considerably lucrative than the internal market for the same product in terms of value. However, the growth

Table 5: Indices of Exports (% of Total)

Indices	1980	1985	1990	1995	2000	2005	2010
Value index	11.85	15.61	26.12	54.80	100	145.52	301.12
Volume index	14.46	18.15	32.24	68.64	100	144.40	264.62
Unit value index	82	86	81	85	100	100.77	113.79

Source: *UNCTAD Statistics (www.unctad.org).*

of unit value index has been significantly low at an average 1.09 percent, which indicates that value addition remained meager (Kabir, 2012).

3. Model and Data

3.1 *Empirical Specification*

The stochastic frontier gravity model captures trade resistances beyond and behind the border by bifurcating the error term of an augmented gravity model. The inclusion of a non-negative unobservable term in this model helps capture unobservable and manmade resistances to trade and barriers. Kalirajan (2007) suggests that the stochastic frontier approach can be adopted in circumstances when the information on all restrictive policy-induced constraints in home and in partner countries is fully available.

Stochastic production frontier models, developed independently but simultaneously by Aigner*et al.* (1977) and Meeusen and van den Broeck (1977), are regarded to be the momentous contribution to econometric modelling of production function and estimating of technical efficiency of the production units involved in producing a particular output (Battese and Coelli, 1992; 1995). Examining the determinants of bilateral trade and calculating trade potential are also possible in this approach, as the trading process is subject to inefficiency due to various structural restraints such as political, social, infrastructural and institutional characteristics identified above along with exogenous shocks like business cycles.

To understand the nature of the stochastic frontier problem of Bangladesh's exports, suppose that the export function is $f(x_{ij,t}, \beta)$, where $x_{ij,t}$ is the vector of economic, geographic, social and institutional factors that influence exporters i and importers j at time t, and β is the vector of unknown parameters. In the absence of any error or inefficiency, countries ij would trade

$$y_{ij,t} = f\left(x_{ij,t}, \beta\right) \tag{1}$$

where $y_{ij,t}$ is the scalar of observed exports from home country i to destination j at time t. A fundamental building block of the stochastic frontier gravity model is that each country potentially exports lower due to a degree of inefficiency arising from 'behind the border' constraints, such that

$$y_{ij,t} = f[(x_{ij,t}, \beta).\tau_{ij,t}] \tag{2}$$

where $\tau_{ij,t}$ is the level of trade efficiency of the exporters and $0 \leq \tau_{ij,t} \leq 1$. $\tau_{ij,t} = 1$

1 The nature and functions of a variety of resistance have been identified in Armstrong (2007).

implies that the export is optimal with the technology embodied in $f(x_{ij,t}, \beta)$, while $\tau_{ij,t}<1$ indicates that the export is non-optimal due to inefficiency. In the case of $\tau_{ij,t}= 0$, the export is completely inefficient.

Assuming that export is subject to random shocks, the stochastic frontier gravity model in a general form can be written as

$$y_{ij,t} = f[(x_{ij,t}, \beta).\tau_{ij,t}.\exp(v_{ij,t})] \quad (3)$$

where the stochastic error term, $v_{ij,t}$, represents the random exogenous shocks to the exports processes. Although export is subject to different kind of shocks, the term is assumed to follow a common distributional pattern. Thus, $v_{ij,t}$ is a two-sided normally distributed variable. Assuming $\tau_{ij,t}$to be an exponential as $exp(-u_{ij,t})$, where$u_{ij,t}$ is a stochastic variable that follows a non-negative distribution, Equation (3) can be written in the following log-linear Cobb-Douglas form

$$\ln y_{ij,t} = \beta_0 + \sum_{k=1}^{m} \beta_k \ln x_{ij,t} + v_{ij,t} - u_{ij,t} \quad (4)$$

where the technical efficiency term $u_{ij,t}$ is time-varying. In the simplest specification, $u_{ij,t}$ is a time-invariant truncated normal random variable, and $u_{ij,t}$ and $v_{ij,t}$ are distributed independently.

As mentioned above, the stochastic frontier gravity model provides estimates of the trade potential that can be obtained if the bilateral trade operates at the frontier or maximum level when the trade resistances are at minimum or absent. Thus, the bilateral exports potential can be envisioned as the maximum possible exports which can take place if there is no resistance between them given the determinants (Kalirajan, 1999). As most of the export resistances cannot be quantified and thus remain unobserved, these together constitute the non-negative disturbance term.

Following Egger (2000, 2002), Baltagi *et al.* (2003), Serlenga and Shin (2007), and Kabir and Salim (2010), we adopt the following gravity equation to examine the potential of Bangladesh's exports in line with the functional form of the exports frontier:

$$\ln EXP_{ij,t} = \alpha_0 + \alpha_1 \ln TGDP_{ij,t} + \alpha_2 \ln RFE_{ij,t} + \alpha_3 SIM_{ij,t} + \alpha_4 \ln DIST_{ij} + \alpha_5 \ln RER_{ij,t} + \alpha_6 BOR_{ij} + \alpha_7 SAARC_{ij,t} + v_{ij,t} - u_{ij,t} \quad (5)$$

where, $EXP_{ij,t}$ is the value of exports of Bangladesh i (in US dollars) to country j at time t. Equation (1) $DIST_{ij}$ indicates the distance between i and j, and BOR_{ij} and $SAARC_{ij,t}$ imply common border (1 = if Bangladesh and j share border; 0 = otherwise) and membership in SAARC's preferential trading arrangement or free trade area (1 = if a country is a member; 0 = otherwise), respectively. Moreover,

$TGDP_{ij,t} = TGDP_{i,t} + TGDP_{j,t}$

RFE_{ij} takes a minimum of zero if both countries exhibit equal GDP or production. The range of *SIM* is given by, $0 \leq SIM_{ij} \leq 0.5$; where 0.5means 'equal' and zero implies 'absolute divergence' in country size. In a 'factor box representation' of trade model, *TGDP* can be related to the length of the diagonal of the box, *SIM* with the location of the consumption point along the diagonal, and *RFE* to indicate the distance between production and consumption points along the relative price line (Egger, 2000).

Egger (2000) and Baltagi et al. (2003) indicate that positive TGDP of local and destination countries and positive SIM imply increased intra-industry trade, *i.e.*, $\alpha_1>0$ and $\alpha_3>0$ support the New Trade Theory (NTT). Greater similarity with respect to GDP per capita implies increased similarity in size of the country-specific product diversity in the differentiated goods sector (Breuss and Egger, 1999). Due to variety in consumers' taste, increased similarity yields an increased trade volume and therefore $\alpha_3>0$.

The *Linder* hypothesis predicts that an increased difference between per capita GDP of source and destination countries will decrease trade of monopolistically competitive products under the assumption of differentiated tastes, and thus $\alpha_2<0$. Bergstrand (1990) reveals that within the developed world, bilateral trade is inversely related to the difference in *RFE* or positively related to the similarity in preferences, which supports the *Linder* hypothesis. Krugman (1981) shows that the nature of trade depends on similarity of countries in terms of factor endowment (which supports the *Linder* hypothesis), and trade between countries increasingly becomes intra-industry as they become more similar. Baltagi *et al.* (2003) observe that the Heckscher-Ohlin-Samuelson theorem implies that $\alpha_2>0$.

RER_{ij} stands for real exchange rate between two countries, which is calculated as the product of the nominal exchange rate and relative price levels in each country. Following Serlenga and Shin (2007), it is expressed as

where $P_{i,t}$ and $P_{j,t}$ are price levels of home and partner countries respectively. $ER_{ij,t}$ is the bilateral nominal exchange rate between the currencies of foreign country *j* and the home country *i*. Carrère (2006) and Serlenga and Shin (2007) argue that an increase in the bilateral real exchange rate reflects depreciation of

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2 Kumbhakar and Lovell (2000) provide a detailed version of this derivation.

3 The 2×2×2 trade model that is due to Helpman and Krugman (1985) and Helpman (1987) is comprised of two goods (differentiated and homogenous), two factors (capital and labour), and two countries (importer and exporter).

the importer's currency against that of the exporters. Thus, the coefficient of *RER* is expected to be positive in the exports panel.

3.2 *Data*

In order to construct the panel data of Bangladesh's exports for the period of 1980-2010, the sample countries are drawn from all the destination countries of Bangladesh's exports by posing a quantitative criterion? the countries should have 0.2 per cent of its total world exports to the individual partner country. This criterion has helped identify the major export destination.

The annual data on aggregate exports are gathered from the International Monetary Fund's (IMF) Direction of Trade Statistics (DOTS) and Export Promotion Bureau (EPB) of Bangladesh. Data on GDP and per capita GDP are collected from the WDI. The data on distance, common border and common official language come from the Centred' EtudesProspectives etd' Informations Internationales (CEPII).

Bilateral exchange rate data are not available in the standard secondary sources. Therefore, it is calculated from official exchange rates of individual countries, which are collected from the WDI. Brun *et al.* (2005) and Athokorala (2009) primarily use consumer price index (CPI) to represent the price level. We use the CPI as the price indicator, which are collected from the World Development Indicators. Data on the presence of a common border are taken from CEPII.

Table 6: Results of the Stochastic Frontier Gravity Model

	Coefficient	Standard Error (Robust)	P > |z|
$lnTGDP_{ij,t}$	2.643	0.167	0.000
$lnRFE_{ij,t}$	0.150	0.157	0.340
$SIM_{ij,t}$	13.009	1.365	0.000
$lnDIST_{ij}$	-1.691	0.724	0.020
$lnRFR_{ij,t}$	0.156	0.046	0.001
BOR_{ij}	-2.169	1.009	0.032
$SAARC_{ij,t}$	0.032	1.798	0.986
Constant	-41.418	7.140	0.000
Country: 35			
Time Period: 1980-2010			
Wald χ^2	445.25		
Prob> χ^2	0.000		
μ	-3.535	9.295	0.704
$ln(\sigma^2)$	2.721	1.140	0.017
$ilgt(\gamma)$	1.746	1.339	0.192
Log likelihood	1608.55		

4. Analyses and Results

4.1 *Results of the Gravity Model*

The Maximum Likelihood estimates of gravity equation (5) have been presented in Table 6 for Bangladesh's exports. *TGDP* turns out to be positive as expected. The positive but insignificant*RFE*indicates absence of *Linder* effect in exports of Bangladesh. However, positive and significant *SIM* indicates that the pattern of exports follows New Trade Theory if it performs at the frontier. The sign of *DIST* is negative and significant, which indicates that distance elasticity of exports is negative, *i.e.*, greater distance of destination country discourages exports from Bangladesh. It is negative and significant at 5 per cent level in the exports panel, which supports Kalirajan (1999, 2007) and Kalirajan and Singh (2008). *RER* takes the desirable sign, which indicates that a real depreciation increases exports. The variable *BOR* takes the unexpected sign indicating that common border with India decreases Bangladesh's exports in the long run.

Table 7: Bangladesh's Export to South Asia (% of Total)

	1980	1985	1990	1995	2000	2005	2011
Afghanistan						0.010	0.015
Bhutan			0.009	0.009	0.016	0.039	0.014
India	1.014	2.963	1.298	1.143	0.897	1.400	2.240
Maldives	0.000	0.013	0.000	0.001	0.000	0.000	0.152
Nepal	0.066	0.513	0.440	0.319	0.024	0.041	0.004
Pakistan	6.993	4.151	1.390	0.847	0.617	0.612	0.047
Sri Lanka	0.604	0.024	0.492	0.367	0.044	0.104	0.379
Total	8.677	7.664	3.629	2.686	1.598	2.205	2.851

Source: *Calculated from IMF DOTS and EPB.*

However, the coefficient of *SAARC* turns out to be positive but significant. It indicates that the exports of Bangladesh to SAARC countries have not increased significantly since inception. Data also supports this evidence. Table 7 shows that in 1985 the total export to SAARC countries was 7.7 percent of Bangladesh's exports to the world, it went down significantly to only 1.6 percent in 2000. However, this ratio increased a little bit later on, but it was roughly 2.9 percent in 2011.

4.2 *Export Potential*

Export potential measure provides useful insight to examine the scope of the highest possible expansion of exports between the bilateral partners. In the conventional gravity model, export potential or the performance of bilateral

export flow can be measured using the mean prediction (Baldwin, 1994). As opposed to such exercise, an estimate of the highest potential can be worked out from the linear predictions of the estimated regression coefficients of the export frontier from the augmented gravity model.

The focus of the stochastic frontier gravity model is to work out the impact of resistance to bilateral export flows with respect to potential. Kalirajan (1999) defines potential trade to be the maximum possible trade that can take place, given the determinants, when no (beyond and behind the border) constraints are imposed on trade between the two countries. This potential may be constantly changing as countries either increase or decrease the impediments on trade. Drawing heavily on his work, let us consider Equation (5) to conceptualise Bangladesh's export potential as follows.

Suppose that β_k are the estimates of parameters of the potential gravity function that yields the highest possible export from home to destination countries. The β_k coefficients are chosen to represent the export responses following minimum behind the border constraints by the trading partners. These can be obtained from among the individual response coefficients in the following way:

$$\beta_{k,t}=\max_j(\beta_{kj,t})\ j = 1, 2, \ldots,n;\ t = 1, 2, \ldots, T;\ k = 1, 2, \ldots, K \qquad (6)$$

If the response coefficients are selected using Equation (4.7), then the highest possible trade between trading partners i and j if they face fewer restriction on trade can be determined by the gravity equation (6).

Based on the regression estimates, export potential between countries, i and j, can be worked by the following ratio:

$$PE_{ij,t} = \frac{EXP_{ij,t}}{\exp(\ln EXP^{*}_{ij,t})} \qquad (7)$$

where is the realised exports and [*exp*] is the export predicted from the significant coefficients of Equation (5) that yields the maximum possible export following 'fewer' behind the border constraints. $PE_{ij,t}$ denotes the index of potential export that varies between 0 and 1. Equation (7) provides useful information about the realisation of actual export towards the highest possible export measured at the frontier. For example, $PE_{ij,2000} = 0.52$ suggests that the rate of realisation of the export potential is 52 per cent in the year 2000.

The trend of realisation of Bangladesh's export potential over time is displayed in Table 8. The realisation of Bangladesh's export potential has been on average 77 percent for the significant destinations, including South Asian countries in the

Table 8: Country Ranking in Realization of Export Potential

Country	% Unrealized	Sl.	Country	% Unrealized	Sl.	Country	% Unrealized
Greece	72	13.	South Africa	26	25.	UK	13
Bhutan	56	14.	Norway	25	26.	Sweden	12
Singapore	49	15.	Denmark	25	27.	USA	12
Korea	46	16.	Iran	24	28.	Italy	11
Japan	46	17.	Turkey	22	29.	Netherlands	9
Saudi Arabia	45	18.	Switzerland	18	30.	Pakistan	9
Ireland	31	19.	Germany	16	31.	Belgium	7
Austria	31	20.	Australia	16	32.	Mexico	6
Russia	30	21.	France	16	33.	Sri Lanka	4
Nepal	28	22.	India	15	34.	Brazil	1
Finland	28	23.	Spain	14	35.	Canada	1
Poland	26	24.	Hong Kong, China	14			

long run among all the sample countries. However, 43 percent export potential is unrealised in the first ten countries where export potential is highly unutilized. Amongst these countries Greece, Singapore, South Korea, Japan, Saudi Arabia, Ireland, Austria and Russia are big markets where Bangladesh can significantly expand its exports, varying from 30 to 72 percent. In the next 10 countries the untapped export potential is 23 percent. Thus, there is a significant avenue of export expansion for Bangladesh to its export destinations.

For the South Asian countries, the realization of export potential is 78percent. Bangladesh can expand its exports significantly to only two countries, Bhutan and Nepal. However, Bangladesh's volume of exports in these two countries is not of considerable amount; it was only US$3.1 and US$10.8 million in 2010, respectively, which could have been expanded up to 52 and 28 percent, respectively, in that year.

5. Concluding Remarks

This paper provides an account of the export performance and potential of Bangladesh by adopting an augmented stochastic frontier panel gravity model. It reveals that even though the country has registered significant growth of exports over the years due to a range of policy reforms and incentives to export sector, there have been structural changes of commodity composition and destinations. Also, there has been specialization in RMG products. However, a number of factors inhibit the growth and realizing the potentials of the country's export. Domestic behind the border or supply side constraints like infrastructure, communications, ports, capacity in implementing export incentive regime, functioning of export related institutions, governance of the external sector, etc., coupled with 'beyond the border' constraints, such as inadequate market access

have contributed to the highly concentrated export basket (Hossain and Kabir, 2011).

Liberalization has opened up export opportunities for the country. However, it has also increased the level of competition and the number of non-trade barriers deterring the export in some markets in the form of stringent rules of origin, environmental conditions, labor regulations, compliance, various anti-competitive measures and product quality. Razzaque and Raihan (2006) identified some behind the border constraints that restrain export performance of the country. These are lack of fund for investment and working capital, high rate of interest charged by financial institutions, shortage of skilled manpower, stringent regulatory regime, low standards and quality of products, lack of entrepreneurial and managerial skills, political tensions, occasional labor unrest in export oriented firms, institutional weakness/inefficiency, poor law and order situation, bribing, centralized decision making, power crisis, and inefficient ports and customs. Despite some recent initiatives of automation, the whole customs facility has remained comparatively inefficient.

The present paper reveals that due to behind the border constraints, significant potential of exports has remained untapped over the last three decades, which are mostly bigger markets and important destinations of the country's exports. There will be growing competition in the coming years and Bangladesh will gradually lose its current comfort in the international market due to, *inter alia*,increased wage, tariff rationalization in energy and other basis utilities, high cost of doing business, and medium income country status. Therefore, the country will need to address the above-mentioned constraints in order to realize the significant potential which already exists, and gradually secure a good standing amongst its competitors in the long run.

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