



## Trends of India Trade with Persian Gulf Countries

### KEYWORDS

International Business; International Trade; PGC; GCC; Trends of Trade

### Pouria Mohajeri

Ph.D Research Scholar, Department of Economics Panjab University, Chandigarh

**ABSTRACT** *The present study has been written with an objective to analyse the trends in Indian trade relations with Persian Gulf countries. The analysis is based upon the growth evaluation of Indian trade with PGCs. The growth rates of trade volume, imports and export volumes, shares of various PGCs in Indian imports and exports have been used as yardsticks of trade relations with PGCs. In addition to the said parameters, the direction of trade and tariff structure with PGCs has also been provided to infer that PGCs are significant trade partner of India and offers ample opportunities of trade promotion to Indian subcontinent.*

### 1. Introduction

For interpretation of the expected benefits from trade, the information on existing trade relations is of utmost importance. Unless and until we know about the existing volume of trade, trade shares, terms of trade, etc. Thus, present research endeavour to view the need of trend and direction of trade analysis with PGCs, the study has been divided into four sections. Section-2 offers trend analysis in detail; the trends in trade intensity, terms of trade and nature of tariff with each PGC that has been discussed in detail. Section-3 provides a rich analysis of trade direction with PGCs. The trends in major commodities and service (if traded) within India and PGCs are being provided in the same section. Section-4 summarizes the conclusions derived at each stage of trend and direction of trade analysis with PGCs.

#### 2.1 Trends in Indian Trade Relations with Persian Gulf Countries

The trend analysis has been used to represent the major features of growth of trade with PGCs. The compound and average annual growth rate of various trade indicators have been used to interpret the trade relations, while, the CDV coefficient has been utilized to check the volatility in the trade relations. The following semi-log equation has been used to compute average annual growth rate:

$$\ln Y_t = \alpha + \beta t + \epsilon_t$$

In the above equation,  $\ln Y_t$  is the natural logarithmic of variable  $Y_t$  whose growth rate has to be calculated. The coefficients  $\alpha$  and  $\beta$  are the parameter of model and the sample estimate of  $\beta$  is the measure of average annual growth rate. The term  $\epsilon_t$  is white noise disturbance term and  $R^2$  obtained after estimating above regression which is the ratio of explained variation by trend item  $t$  to total variation in  $\ln Y_t$ . The compound growth rate has been estimated using the following formula:

$$CGR = [\text{Antilog}(\hat{\beta}) - 1] \times 100$$

To check the significance of average annual growth rate, P-values have been computed using t-test statistics. Another measure Cuddi-Dulla index of Variation (CDV) has been utilized to measure the degree of variation in the time series variable under evaluation. The CDV has

$$CDV = CV \times \sqrt{1 - R^2}$$

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The CV is coefficient of variation in the time series under evaluation. The CV has not been used because time series variables have a tendency to grow over a period of time i.e., called 'trend effect'. Despite of trend effect, the CV overstates the true variation in series under evaluation. Thus, in time series literature, the CDV coefficient has been suggested as an exact measure of degree of variation. The analysis has been carried out using three dimensions of trade relations: trade intensity, terms of trade, and nature and extent of tariff exercised between Indian and each individual partner Persian Gulf nation.

#### 2.2 Trade Intensity with PGCs

The Trade Intensity Index (TII) is used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in the world trade. It is defined as the share of one country's exports going to a partner divided by the share of world exports going to the partner. It is calculated as:

$$T_{ij} = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$$

Where  $x_{ij}$  and  $x_{wj}$  are the values of country  $i$ 's exports and of world exports to country  $j$  and where  $X_{it}$  and  $X_{wt}$  are country  $i$ 's total exports and total world exports respectively. An index value of more or less than one indicates a bilateral trade flow that is larger (smaller) than expected, given the partner country's importance in world trade (User's Manual of Wits, 2011). The TII is based on an actual observation of bilateral trade flow and therefore, is the measure of intimacy of the trading relationship between any two given countries. The higher Trade Intensity Index, the better will be our export possibility and therefore an exporter should choose the market with high TII values.

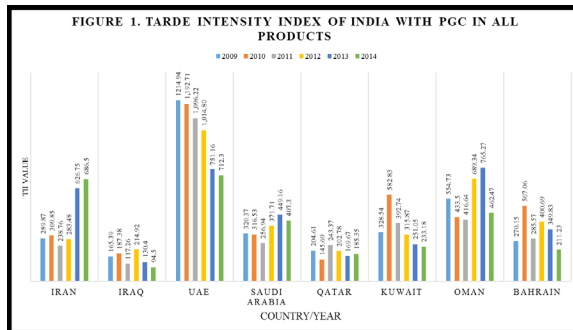
In the present analysis, the intensity of trade has been analysed through the volume and share of Indian trade with PGCs. Further, the aggregated analysis has been performed for Persian Gulf and Gulf Cooperation Council (GCC) separately, excluding Iran and Iraq from PGCs from GCC. Figure 1 provides the TII of India with PGCs over the years 2009 to 2014 for all products. It may be inferred that India has the highest TII value to the tune of 712.30 with UAE in the year 2014. It means that the best market for In-

dian Exports among PGC in 2014 is UAE. The second rank for India among PGCs has been observed with Iran in tune of 686.50 in latest year of study 2014. Among PGC's, India enjoys less intensity of export with Iraq's i.e., TII in the year 2014 is lowest to the tune of 94.5. Though the value is less yet above unity value of TII, this reflects that India has huge prospect of trade with Iraq. By looking over the entire study period, best market for Indian export is UAE with highest TII. However, in recent two years of the study (i.e., 2013 and 2014), Iran emerges to be the best market among all other PGCs for Indian export. Furthermore, Iraq remains the worst market for Indian export over the entire study period among all PGCs with lowest TII.

Further, to analyse the trends in trade intensity between India and PGCs, it becomes pertinent to contemplate the trends in volume and shares of each PGC in Indian trade, exports and imports. Thus, Table 1 and 2 have been investigated trends in volume of trade with each Persian Gulf country individually and with two groups of PGC and GCC countries. The figures have been provided at both current and constant prices over a period of 18 years spanning over the years 1996-97 to 2013-14. It is evident from Table 1 that the volume of trade with PGCs at market prices has increased from US \$ 7,841.26 million in 1996-97 to US \$ 184,738.02 million in 2013-14. However, the said increase may be due to increase in price levels. Thus, to neutralize the effect of price change, the figures have been reported at constant prices at the base year 2004-05. Table 2 reports the figures at constant prices and substantiates the fact that the increase in volume of trade is from US \$ 9304.81 million to US \$ 1, 49,580.86 million. If we compare the volume of trade with GCC countries excluding Iran and Iraq, the figures in year the 2013-14 at constant prices comes out to be US \$ 1,21,470.47 million, 81.21 percent of the total trade with PGCs group. It simply means that 18.79 percent of the Indian trade with PGCs is coming from Iran and Iraq.

The analysis of average annual growth rates represent that the trade volume with PGCs has increased at an average growth rate of 20.06 percent per annum during the study period under evaluation. However, the overall growth observed during entire period is 22.21 percent. The observed P-value is near zero and thus support the inference that the observed growth is high enough and statistically significant too. The GCC group that excludes Iran and Iraq from Persian Gulf Countries, has also witnessed near 20 percent (19.34 percent) average annual growth rate in volume of trade. Thus, the difference in both average annual and compound growth rates is not large enough between two groups of countries.

At disaggregated level, it can be observed from the Table 2 that in 2013-2014 the highest volume of Indian trade among PGCs has been observed with UAE to the tune of US \$ million 59,540.24 in the year 2013-14 at market prices. Thus, UAE tops among other PGCs with highest volume of trade to the tune of US \$ million 48,209.25 million at PPP followed by Saudi Arabia at second rank with amount of US \$ million 37421.58. The country of oil i.e., Iraq, has been observed at third rank with volume of trade with India to the tune of US \$ 19,438.89. The countries viz., Kuwait, Qatar, Iran, Oman and Bahrain have been observed at following ranks in terms of volume of Indian trade with eight PGCs.



Though the volume of Indian trade is highest with UAE, trade relations have grown at highest rate with some other PGCs. Iraq tops in the list of eight PGCs in terms of average annual and compound growth rates. However, the trade with UAE has increased at statistically significant average annual growth rate of 19.34 percent per annum at constant prices. The overall growth of Indian trade with UAE during the entire study period under evaluation is 21.34 percent and observed at 5 among the eight PGCs. It is worth mentioning that highest average annual growth rate of 39.64 percent per annum in Indian trade volume with Iraq has been observed among PGCs along with overall growth of volume to the tune of 48.64 percent. The growth rate is high enough and must be cautiously interpreted. The search of theoretical reasons for such a high growth rate has been done through an analysis of Table 3.1.

The visualization of Table-3.1 represents that from 1996-97 to 2005-06, the volume of trade with Iraq is very low in comparison to the other PGCs, while a surge in volume has been noticed from 2006-07 onwards. The volume of Indian trade with Iraq has increased from US \$ 2.21 million in 1996-97 to US \$ 157.99 million in 2005-06. However, a sudden increase has been observed in 2006-07 with a trade volume of US \$ 5718.4 million and it continuously grown up to US \$ 19,438.89 million by 2013-14. A high Cuddi-Dulla index of Variation (CDV) to the tune of 62.05 percent is because of high variation in volume of Indian trade with Iraq. The second highest growth rate has been observed for Qatar to the tune of 29.83 percent per annum with a compound growth rate of 34.76 percent. In case of Qatar, the same problem of structural break in volume of trade has been observed as in 2006-07 the volume of trade suddenly jumped from US \$ 1,160.96 million to US \$ 2,391.61 million at market prices. In subsequent years, the same trend of surge in volume of trade continued with Qatar too. The observed structural break is valid for all PGCs as in most of the PGCs, a surge in volume of trade has been observed in 2006-07 onwards. Thus, ranking of the countries on the basis of growth rates only will not be reliable for analysing the strength of trade relation with PGCs. A high CDV index indicates high degree of variation in volume of trade in general and trade relations in particular. Thus, CDV may be utilized as an indicator of stability in trade relations with country under evaluation; a low CDV means robust and stable trade relations while a high CDV indicates unstable trade relations. The lowest CDV to the tune of 23.94 percent has been observed with UAE over the study period and thus, substantiates the fact that the observed growth rate of trade relations is not only statistically significant but stable too. Except UAE, CDV has been observed above 30 percent with remaining seven PGCs; a high variation due to structural shift.







2006-07	1446.48	203.99	12,021.77	2,590.77	614.81	184.52	630.97	331.53	16,374.38	18,024.85
2007-08	1943.92	272.1	15,636.91	3,711.16	681.54	252.47	939.43	538.73	21,760.24	23,976.26
2008-09	2534.01	437.43	24,477.48	5,110.38	797.5	286.52	779.04	674.37	32,125.30	35,096.74
2009-10	1853.17	477.13	23,970.40	3,907.00	782.45	250.21	1,032.93	536.97	30,479.97	32,810.27
2010-11	2492.90	678.14	33,822.39	4,684.40	1,856.01	651.83	1,082.24	375.39	42,472.25	45,643.29
2011-12	2411.33	763.97	35,925.52	5,683.29	1,181.41	439.99	1,322.13	807.95	45,360.29	48,535.59
2012-13	3351.07	1,278.13	36,316.65	9,785.78	1,061.08	603.47	2,599.49	687.18	51,053.65	55,682.85
2013-14	4971.35	918.03	30,520.42	12,218.95	1,061.14	639.36	2,812.27	969.06	48,221.20	54,110.58

Panel B: Growth Rates<sup>#</sup>

Intercept <sup>#</sup>	4.71	2.40	6.86	5.89	4.69	3.62	4.10	3.12	7.33	7.42
Growth Rate <sup>#</sup>	21.42	27.60	22.04	17.98	14.59	15.76	20.24	22.02	20.86	20.90
CGR <sup>#</sup>	23.88	31.79	24.66	19.70	15.71	17.07	22.44	24.64	23.19	23.25
P-Value <sup>#</sup>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
R-Square <sup>#</sup>	0.92	0.83	0.97	0.95	0.92	0.95	0.96	0.93	0.97	0.98
Rbar-Square <sup>#</sup>	0.92	0.81	0.96	0.94	0.92	0.94	0.96	0.93	0.97	0.97
CV <sup>#</sup>	91.62	108.10	95.74	104.48	79.64	87.74	112.72	93.27	94.45	93.94
CDV <sup>#</sup>	25.22	45.12	18.36	24.17	22.40	20.10	23.17	24.38	15.89	14.55

**Notes:** i) Figures in parenthesis of type ( ) are ranks of the countries in terms of Average Annual Growth rate; and ii) \*, \*\*, and \*\*\* represent significance at 10, 5 and 1 percentage levels of significance, respectively.

**Sources:** i) @ <http://commerce.nic.in/eidb/default.asp>; and ii) # Author's Calculations.

Table 6: Trends in Exports from India to Persian Gulf Countries

(Figures in US \$ million at PPP 2004-05)

Country Year	Iran	Iraq	UAE	Saudi Arabia	Kuwait	Bahrain	Oman	Qatar	GCC <sup>#</sup>	PGC <sup>#</sup>
1996-97	231.3725	2.58	1751.50	684.91	183.60	74.47	138.80	37.87	2871.14	3105.09
1997-98	213.48	13.93	2026.58	857.97	221.83	76.11	135.91	54.81	3373.21	3600.62
1998-99	197.80	45.12	2321.60	962.52	204.70	70.66	147.36	49.92	3756.76	3999.68
1999-2000	192.26	62.44	2633.54	938.86	195.11	76.15	167.88	44.96	4056.49	4311.19
2000-01	290.28	107.45	3322.01	1052.47	254.64	100.61	184.95	81.38	4996.06	5393.78
2001-02	316.67	258.80	3118.52	1034.29	258.13	94.60	186.46	61.32	4753.34	5328.81
2002-03	748.91	245.79	3806.11	1076.06	286.60	113.85	227.17	109.92	5619.73	6614.42
2003-04	971.24	79.52	5422.17	1188.31	337.55	118.08	273.97	135.87	7475.96	8526.72
2004-05	1231.39	131.19	7347.88	1412.06	421.44	156.46	267.67	209.42	9814.93	11177.51
2005-06	1141.25	149.76	8251.24	1738.04	493.37	184.62	392.24	249.06	11308.05	12599.57
2006-07	1168.72	164.82	9713.26	2093.27	496.75	149.08	509.80	267.86	13230.67	14563.58
2007-08	1651.21	231.13	13282.37	3152.35	578.92	214.45	797.97	457.61	18483.05	20366.01
2008-09	2093.37	361.37	20221.10	4221.73	658.82	236.61	643.57	557.10	26539.95	28993.78
2009-10	1349.02	347.33	17449.29	2844.11	569.59	182.14	751.92	390.88	22187.21	23884.29
2010-11	1758.51	478.36	23858.54	3304.41	1309.24	459.80	763.41	264.80	29960.98	32197.08
2011-12	1802.00	570.92	26847.32	4247.15	882.87	328.80	988.03	603.78	33897.38	36270.89
2012-13	2604.61	993.42	28227.06	7605.98	824.72	469.04	2020.40	534.10	39681.31	43279.42
2013-14	4025.26	743.32	24712.13	9893.58	859.20	517.68	2277.00	784.63	39044.76	43812.89

Panel B: Growth Rates<sup>#</sup>

Intercept <sup>#</sup>	5.04	2.73	7.19	6.22	5.02	3.95	4.43	3.45	7.66	7.75
Growth Rate <sup>#</sup>	17.60	23.80	18.24	14.07	10.79	11.95	16.44	18.21	17.04	17.10
CGR <sup>#</sup>	19.25	26.87	20.00	15.23	11.39	12.69	17.86	19.98	18.59	18.65
P-Value <sup>#</sup>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
R-Square <sup>#</sup>	0.90	0.75	0.75	0.91	0.92	0.92	0.94	0.92	0.98	0.98
Rbar-Square <sup>#</sup>	0.90	0.74	0.74	0.91	0.91	0.92	0.94	0.91	0.98	0.98
CV <sup>#</sup>	82.93	97.29	84.03	93.94	61.61	72.52	103.45	84.81	83.36	82.96
CDV <sup>#</sup>	25.88	48.24	14.06	27.55	17.68	20.25	24.75	24.37	11.90	10.51

**Notes:** i) Figures in parenthesis of type ( ) are ranks of the countries in terms of Average Annual Growth rate; and ii) \*, \*\*, and \*\*\* represent significance at 10, 5 and 1 percentage levels of significance, respectively.

**Sources:** i) @ <http://commerce.nic.in/eidb/default.asp>; and ii) # Author's Calculations.

Table 7 substantiates the fact that share of Iraq in Indian volume of trade has increased continuously from 0.73 percent in 2005-06 to 9.20 percent in 2006-07, and to 10.32 percent in 2013-14. Though, Iran is another additional country in PGC group, its share increased from 0.76 percent in 2005-06 to a maximum value of 3.04 percent in 2008-09 and then declined to 2.0 percent in 2013-14. A negative and insignificant average annual growth rate of Iranian share in Indian volume of trade thus, substantiates the fact that Iran is not responsible for deviation in two share and trend lines from year 2006-07 onwards. Therefore, according to study Iraq is significant source of vari-

ation between trend lines of GCC and PGCs group and thus, should not be ignored while signing a free trade agreement within the Persian Gulf region.

Looking at disaggregated country level, it may be observed that among all countries of PGC group, UAE has a highest share of 32.23 percent in total volume of Indian trade with PGC. Also, the UAE's share in Indian volume of trade with all countries is 7.79 percent in the recent year of study i.e., 2013-14; these shares in 2012-13 had been observed to the tune of 38.77 percent and 9.54 percent, respectively. After UAE in PGC group, the second place is



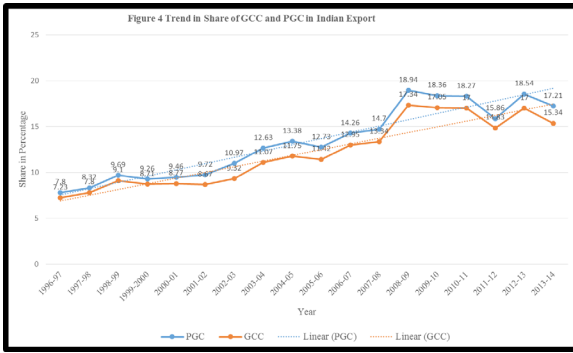


Table 9: Trends in Share of Each PGC in Total Indian Export and in Indian Export with PGC Group (Figures in Percentage)

Year	Iran		Iraq		UAE		Saudi Arabia		Kuwait		Bahrain		Oman		Qatar	
	PGC	India	PGC	India	PGC	India	PGC	India	PGC	India	PGC	India	PGC	India	PGC	India
1986-87	7.45	0.38	0.08	0.01	56.41	4.41	22.06	1.72	2.91	0.46	2.40	0.19	4.47	0.35	1.32	0.10
1987-88	5.93	0.49	0.39	0.03	56.28	4.86	23.81	1.98	0.16	0.51	2.11	0.18	3.77	0.31	1.52	0.15
1988-89	4.95	0.48	1.13	0.11	58.04	5.62	24.06	2.33	3.12	0.50	1.77	0.17	3.68	0.36	1.42	0.12
1989-90	4.48	0.41	1.47	0.13	61.09	5.68	21.28	2.02	4.53	0.42	1.77	0.16	3.89	0.36	1.64	0.10
2000-01	5.38	0.51	1.99	0.19	61.59	5.83	19.51	1.85	4.72	0.45	1.87	0.18	3.43	0.32	1.50	0.14
2001-02	5.94	0.58	1.86	0.47	58.51	5.69	19.41	1.89	4.84	0.47	1.78	0.17	3.50	0.34	1.13	0.11
2002-03	11.32	1.26	3.71	0.41	57.54	6.31	16.27	1.78	4.31	0.48	1.72	0.19	3.45	0.38	1.60	0.18
2003-04	11.39	1.44	0.93	0.12	63.59	8.03	13.94	1.76	3.96	0.50	1.18	0.17	3.21	0.41	1.59	0.20
2004-05	11.02	1.47	1.17	0.16	65.74	8.80	12.63	1.69	3.77	0.50	1.40	0.19	2.99	0.32	1.87	0.22
2005-06	9.66	1.15	1.19	0.15	65.49	8.33	13.79	1.76	3.80	0.50	1.47	0.19	3.11	0.40	1.98	0.25
2006-07	8.02	1.14	1.13	0.16	66.70	9.51	14.37	2.05	3.41	0.49	1.02	0.15	3.50	0.50	1.84	0.26
2007-08	8.11	1.19	1.13	0.17	67.22	9.59	15.48	2.27	3.84	0.42	1.09	0.15	3.92	0.58	2.25	0.31
2008-09	7.22	1.37	1.35	0.34	69.74	13.21	14.56	2.76	2.27	0.43	0.81	0.15	2.22	0.42	1.92	0.39
2009-10	5.65	1.04	1.45	0.27	73.06	13.41	11.91	2.19	2.38	0.44	0.76	0.14	3.15	0.58	1.64	0.30
2010-11	5.49	1.05	1.49	0.27	74.10	13.54	10.26	1.88	4.07	0.74	1.43	0.26	2.37	0.43	0.82	0.15
2011-12	4.97	0.79	1.57	0.25	74.02	11.74	11.71	1.86	2.43	0.39	0.91	0.14	2.72	0.43	1.06	0.26
2012-13	6.02	1.12	1.30	0.43	65.22	12.09	17.57	2.26	1.91	0.35	1.08	0.20	4.07	0.87	1.52	0.23
2013-14	9.19	1.58	1.70	0.29	59.40	9.71	22.58	3.89	3.96	0.34	1.18	0.20	5.20	0.90	1.79	0.31
Intercept	1.77	-0.67	-0.42	-2.98	4.04	1.48	3.42	0.51	1.88	-0.69	0.80	-1.76	1.29	-1.28	0.30	-2.26
Growth Rate*	20.86	5.85	-6.70	12.04	1.41	1.89	2.41	1.19	-0.97	0.19	-0.66	4.08	1.11	6.48		
CGR*	23.19	6.82	6.83	13.80	1.14	6.49	-1.81	2.44	-6.12	-0.97	-5.02	0.19	-0.66	4.79	1.12	6.67
P-Value*	0.00	0.00	0.09	0.00	0.00	0.04	0.02	0.00	0.22	0.00	0.79	0.88	0.00	0.56	0.00	0.00
R-Square*	0.84	0.48	0.17	0.49	0.41	0.85	0.21	0.31	0.84	0.09	0.69	0.01	0.02	0.63	0.05	0.61
CDV*	21.12	28.46	63.17	46.24	7.52	14.15	17.63	23.53	13.82	17.66	17.88	23.58	23.81	23.32	25.54	

(Notes: \*) Figures in parentheses are ranks of the countries in terms of Average Annual Growth rate. \*\*, \*\*\*, and \*\*\*\* represent significance at 10, 5 and 1 percent level of significance respectively. Sources: Author's Calculations.

4. Direction of Trade and Structure of Tariff among PGCs

Trading strategies are based on the investor's assessment of the broad market and directional trading can mean a basic strategy of going long if the market is perceived as heading higher and find out the products in which trade intensity is higher. Although tariff rate acts as a barrier on trade yet its analysis is important to assess the viability of trade with target market. Thus, analysis of direction of trade is important to analyse what products India is trading (i.e., exports and imports) with PGCs and what is the structure of tariff within India and these gulf countries.

4.1 Direction of Indian Trade with PGC- An Aggregated Analysis

The composition of Indian trade with PGCs has been provided in Table 10 along with the share of each products in Indian exports and imports. The figures for the year 2013 have been reported along with the tariff rates imposed by India and PGCs on each other's imports and exports. Table 10 provides the major import of India in year 2013 from PGC is product and substantiates the fact that 81 percent of total imports from PGCs belongs to Mineral Fuels, Mineral Oils and Products of their Distillation, Bituminous Substances, and Mineral Waxes (i.e., two digit HS code 27). The average tariff rate exercised on these products is 7.15 percent Advelorem. The second important product in Indian imports from PGCs is Natural or Cultured Pearls, Precious or Semiprecious Stones, Pre.Metals, Clad with Pre. Metals and Articles thereof; IMIT, Jewellery and Coin (i.e., HS code 71) with a share of 9.13 percent. A tariff rate of 11.5 percent is being charged by India on HS 71 products imported from PGCs. The two categories of products (i.e., HS-27 and HS-71) form 90.13 percent share of Indian imports from PGCs and thus, considered to be sufficient to discuss the effect of reducing import duty by India under FTA.

In addition to Indian the imports, the major export to PGCs have been provided in Table 10 along with the in-

formation on tariff rates charges by PGCs on Indian products. Among Indian exports to PGCs, the major share is of HS-27 and HS-71 category products. The shares of each of these categories is 25 percent and 23.7 percent, respectively. The third major products in Indian exports to PGCs belong to Cereals (i.e., two digit HS code 10) with 8.5 percent share. India levies higher tariff on HS-27 and HS-71 products in comparison to the PGCs. The average tariff rate exercised by PGCs on HS-27 products is 5.30 percent in comparison to the Indian average of 7.15 percent. For HS-71, PGCs levy 3.1 percent against Indian rate 11.5 percent.

Thus, the duty charged by India on PGC products is higher than the duty charged on Indian products by PGCs. A list of 13 categories of products has been provided for Indian exports to PGCs in ascending order on the basis of the share of each product in total Indian exports to PGCs. The total share of these 13 products turns out to be 81.13 percent and is sufficient to analyze the effect of change in tariff structure on Indian welfare.

Table 10: Composition of Indian Trade with PGC Group

Products (HS 2-digit Code)	Imports		Exports	
	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)
MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES (27)	81%	7.15%	25%	5.30%
NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMIPRECIOUS STONES, PRE-METALS, CLAD WITH PRE-METAL AND ARTICLES THEREOF; IMIT, JEWELRY, COIN. (71)	9.13%	11.5%	23.7%	3.1%
CEREALS (10)	--	--	8.5%	3.8%
ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS (85)	--	--	3.3%	7.6%
NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES, PARTS THEREOF (84)	--	--	3.0%	5.9%
SHIPS, BOATS AND FLOATING STRUCTURES (89)	--	--	2.8%	1.1%
ARTICLES OF IRON OR STEEL (72)	--	--	2.62%	5.7%
IRON AND STEEL (72)	--	--	2.38%	5.2%
ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, NOT KNITTED OR CROCHETED (62)	--	--	2.36%	5.2%
AIRCRAFT, SPACECRAFT, AND PARTS THEREOF (88)	--	--	2.35%	3%
ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, KNITTED OR CROCHETED (61)	--	--	1.86%	3%
ORGANIC CHEMICALS (29)	2%	10.04%	1.71%	6.3%
MEAT AND EDIBLE MEAT OFFAL (02)	--	--	1.52%	8.5%

Source: author's a calculation

4.2 Direction of Indian Trade and Tariff Structure with PGC- A Disaggregated Analysis

To understand the composition of Indian import from all PGC members, a country level analysis of major trading products is required. Table 11 provides direction of trade and tariff structure exercised on PGCs products in India (i.e., on Indian Import from PGC). It is evident from the table that India is importing product category HS-27 from all PGC members with highest share 99.5 percent share of India Imports from Iraq and 93 percent from Qatar and Kuwait are classified under the HS-27 category. The second highest share is of commodities group HS-29 of four countries, namely, Iran, Saudi Arabia, Oman and Kuwait. The major Indian imports of commodities under category HS-71 is from the UAE. 40 percent Indian Import from UAE falls under this category.

Regarding the tariff structure, Iran is levied a highest 20 percent tariff rate on product code HS-29 but GCC member are levied 7.2 percent on the same product. All the GCC member are levied the same tariff rate on their products. Further, the highest rate of 10 percent is charged from Iran and Iraq under product category HS-27. Except these two nations, other nations are charged 6.2 percent MFN rate on products under category HS-27. The second highest tariff has been observed in case of product code HS-71; the UAE is paying 10.3 percent Advelorem on this category of products.

To understand the composition of Indian export to all PGC members, a country level analysis of major trading products is required. Tables 12 provides detail on the Direction

of Indian exports along with tariff rates exercised by PGCs on Indian products during the year 2013. The main partner of India in export to PGC group is UAE with highest share of 17 percent in Indian export for the product HS-27 with a tariff rate of 5 percent advelorem. The second major product in Indian export to UAE is classified under the categories HS-85 and HS-89 with the share of 3.5 percent.

analyse the trends in Indian trade relations with Persian Gulf countries. The analysis is based upon the growth evaluation of Indian trade with PGCs. The growth rates of trade volume, imports and export volumes, shares of various PGCs in Indian imports and exports have been used as yardsticks of trade relations with PGCs. In addition to the said parameters, the direction of trade and tariff structure with PGCs has also been provided to infer that PGCs are significant trade partner of India and offers ample opportunities of trade promotion to Indian subcontinent.

Table 11 : Share and Tariff Rate of Major Commodities Import by India From PGCs

Commodities HS Code	27		28		29		31		71		72		76	
	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)
Iran	83	10	27	7.5	4.8	20	5.4	10	-	15	-	7.5	-	10
Iraq	99.5	10	-	7.5	-	20	-	10	-	15	-	7.5	-	10
UAE	45	6.2	-	7.4	-	7.2	-	6.3	40	10.3	-	5.6	-	7
Saudi Arabia	90	6.2	-	7.4	4	7.2	-	6.3	-	10.3	-	5.6	-	7
Qatar	93	6.2	-	7.4	-	7.2	-	6.3	-	10.3	-	5.6	-	7
Kuwait	93	6.2	-	7.4	4	7.2	-	6.3	-	10.3	-	5.6	-	7
Oman	50	6.2	-	7.4	12	7.2	15	6.3	-	10.3	10	5.6	-	7
Bahrain	54	6.2	-	7.4	-	7.2	-	6.3	-	10.3	8.5	5.6	26	7

Notes: i) Tariff Rate in year 2014 ii) Commodities are in HS Code (details are available in appendix) iii) Share amount and Tariff rate are in Percentage iv) Tariff rate for GCCs (WTO) member is in Average of AV Duties v) Tariff rate for Iran and Iraq is in maximum AV Duties (not member of WTO)  
Sources: i) <http://tariffdata.wto.org/TariffList.aspx> ii) Author's Elaboration

From analysis, it has been observed that 24.16 percent of the Indian total trade is with PGCs that amounts worth US \$ 184,738.02 million in year 2013-14. In total trade volume, the share of import is US \$ 130,627.44 million and share of export is US \$ 54,110.58 million. Thus, the share of Indian imports is much higher than Indian exports in Total trade volume of India with PGCs. The 29.02 percent Indian imports and 17.21 of total Indian export are from PGCs and both have grown at a significant rate during the period 1996-2013.

The tariff rate charged on these two products by UAE are 3.6 percent and 1.1 percent, respectively. Next to UAE, the second most important country among PGCs group for Indian export is Saudi Arabia. The major exports by India to Saudi Arabia falls under category HS-27 with share of 56 percent. The products under category HS-10 are exported to Saudi Arabia with a share of 10 percent (i.e., second highest share) with a tariff rate of 0.8 percent in the year 2013. Further, the products under category HS-10 have a significant share in Indian export to all Persian Gulf Countries. In HS-10 category products, Iran has the highest share to the tune of 40 percent followed by Iraq at second place with a share of 30 percent

From direction of trade analysis, it has been noticed that the maximum Indian import from PGCs falls under product category of HS-27 (i.e., mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes). Given its development needs, India is the fourth largest importer of energy in the world. However, PGC group countries are main supplier of energy. Because of these reasons, India and PGC get tight during the more recent years. Among PGC group, the UAE has highest share in Indian total trade. The UAE is also at top of the list of Indian trading partners in the entire world.

The list of Indian export to PGCs is exhaustive and for present analysis, 28 major products have been shortlisted. These 28 products sums out to be 81.13 percent share in total Indian exports to PGCs. The exhaustive list of exported products to PGCs indicates that India has a good market in PGC to export the different variety of products. The two countries, Iran and Iraq, are not the members of WTO and are having high tariff rate in comparison to others GCC countries. India on the other side is also charging higher tariff on PGC products in the comparison to GCC countries. Thus, all of these countries must be brought under uniform tariff structure category so as to explore the trade opportunities in the Asian region.

The major share of Indian imports from PGC is on some fewer product e.g., two products falling under HS-27 and HS-71 categories sums up above 90 percent of Indian imports from PGCs. However, the list of Indian export to PGCs is exhaustive and spread over a variety of product. By observing the tariff structure of PGC members it notice that GCC member are being charged less tariff rate as compare to the PG countries that are not the members of GCC (e.g., Iran and Iraq). On the other side, India levy MFN tariff rate on GCC member's products while exercise Compound tariff rate on products imported from Iran and Iraq (not WTO member).

Table 12 : Share and Tariff structure of Major Commodities of Indian Export to PGC Members

Commodities HS Code	02		07		08		09		10		17		23	
	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)
Iran	2.3%	19.6%	-	-	-	-	2.5%	31.25%	40%	20.5%	3.5%	28.6%	14%	20.1%
Iraq	9.5%	15%	-	-	-	-	-	-	30%	5%	1.5%	15%	-	-
UAE	-	-	-	-	-	-	-	-	1.8%	0.8%	-	-	-	-
Saudi Arabia	2%	4.1%	-	-	-	-	-	-	10%	0.8%	-	-	-	-
Qatar	3%	4.1%	2%	2.6%	1.2%	2.5%	1.25	3.5%	9%	0.8%	-	-	-	-
Kuwait	6%	4.1%	3%	2.6%	2.5%	2.5%	2.5%	3.5%	25%	0.8%	-	-	2.55	4.8%
Oman	1.7%	4.1%	-	-	-	-	-	-	6%	0.8%	1.5%	3.5%	-	-
Bahrain	-	-	1.7%	2.6%	-	-	-	-	6%	0.8%	-	-	-	-

In trends in trade, two significant structural breaks have been observed over the study period of 1996 to 2013. These breaks are observed in import of India from PGC, first break is in the year 2000-01 a sharp decrease in import from PGC, and second break happened in the year 2006-07 a surge in Indian import from PGCs. On the other hand Indian export to PGC have grown smoothly over the study period under evaluation.

Table 13: Tariff rate at disaggregate level among PGC

commodities HS Code Countries	26		27		28		29		30		38		39	
	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)	Share (%)	Tariff Rate (%)
Iran	-	-	-	-	1.4%	7.9%	4%	10.9%	-	-	1.7%	16.7%	-	-
Iraq	-	-	4%	6.15%	-	-	-	-	5.5%	9.5%	-	-	-	-
UAE	-	-	17%	5%	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	-	-	56%	5%	-	-	2.5%	4.1%	-	-	-	-	-	-
Qatar	-	-	5%	5%	-	-	3%	4.1%	-	-	-	-	-	-
Kuwait	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oman	1.7%	5%	46%	5%	-	-	-	-	-	-	-	-	-	-
Bahrain	-	-	36%	5%	6%	5%	-	-	-	-	-	-	2%	5%

In sum, it has been observed that PGCs are important trade partners of India. One of the PGCs (i.e., UAE) is already on the top of list of Indian trading partners. The PGCs are also big suppliers of energy in the world market and energy is among the prominent needs of shining India too. Further, India is exporting variety of products to PGCs and thus, trade relations with PGCs will help Indian planner to promote the export oriented industries. Hence, extending trade relations with PGCs will be in favour of Indian economy. Further, ample opportunities to PGCs will be available if India reduces tariff on PGC products. With less tariff, PGCs will get better access to Indian market. Therefore, given the importance of trade relations within India

4. Summary of conclusion

The present study has been written with an objective to



and PGCs, it is suggested that the policy planners of both nations should work in directions to facilitate trade and build trade infrastructure between two sides. This will not only help to correct balance of trade of partner nations but improve the socio economic, political and skill exchange within the p

Continue of table 3.13

Commodities HS Code Countries	48		52		55		61		62		69		71	
	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate
Iran	1.4%	30.9%	1.4%	52.6%	2%	43.3%	-	-	-	-	-	-	-	-
Iraq	-	-	-	-	-	-	-	-	-	-	4%	10.8%	-	-
UAE	-	-	-	-	-	-	3%	5%	3.1%	5%	-	-	42%	3.1%
Saudi Arabia	-	-	-	-	-	-	1%	5%	1.5%	5%	-	-	-	-
Qatar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kuwait	-	-	-	-	-	-	3.5%	5%	3.5%	5%	-	-	-	-
Oman	-	-	-	-	-	-	-	-	3%	5%	-	-	-	-
Bahrain	-	-	2.6%	5%	-	-	-	-	-	-	-	-	4.5%	3.1%

Commodities HS Code Countries	72		73		84		85		87		88		89	
	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate	Share (%)	Tariff Rate
Iran	5.8%	8.6%	-	-	3.2%	13.6%	4.5%	23.5%	-	-	-	-	-	-
Iraq	1.8%	3%	11%	9.7%	7%	6.5%	10%	16%	1.8%	13.2%	-	-	-	-
UAE	1.8%	5%	2.5%	5%	2%	4.5%	3.5%	3.6%	-	-	3.4%	2.7%	3.5%	1.1%
Saudi Arabia	2.5%	5%	2%	5%	3.3%	4.5%	2.3%	3.6%	1.3%	4.8%	1.7%	2.7%	-	-
Qatar	4%	5%	6%	5%	7%	4.5%	7%	3.6%	5%	4.8%	-	-	28%	1.1%
Kuwait	3%	5%	3.5%	5%	7.5%	4.5%	7.5%	3.6%	3.5%	4.8%	-	-	-	-
Oman	1.6%	5%	3%	5%	7%	4.5%	4%	3.6%	1.7%	4.8%	-	-	5.5%	1.1%
Bahrain	3%	5%	4.3%	5%	5.5%	4.5%	4.5%	3.6%	1.8%	4.8%	-	-	-	-

Notes: i) Tariff Rate in year 2014 ii) Commodities are in HS Code (details are available in appendix iii) Share amount and Tariff rate are in Percentage iv) Tariff rate for GCCs (WTO) member is in Average of AV Duties v) Tariff rate for Iran and Iraq is in maximum AV Duties (not member of WTO)

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