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Assessment Study of Export, Import Price Indexes and Their Foretell Trend in Case of Pakistan

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Abstract
Purpose: This analysis examines the import and export price indexes and sudden changes in increasing curves in case of Pakistan. **Methodology:** In this case study the Spearman Rank correlation coefficient, denoted by r_s, is used for computation the association between both price indexes over the time period of sixteen quarters from 2012-15. **Findings:** The empirical results show that the two rankings i.e. Export Price and Import Price indexes have direct and significant relationship at the level of 0.05 level of significance (α) and Import and Export price indexes curves show a steady increase to upward on QoQ (Quarter on Quarter) basis. **Recommendations:** To strengthen economy government need to resolve energy issue through proactive measures and planning for attaining appropriate productivity by the industrial sector and increase exports goods to maintain balance of payment. The government should ensure the trade with neighboring countries and chalk out comprehensive plan for industrial estates to utilize potential youth edge and cheap labour to overcome unemployment and manufacturing cost.
Keywords: Balance of Payment**,** Economy, Machinery, Product, Trade,

Introduction

These are two indexes monitor the import and exports prices. These indexes are created by compiling the prices of good's basket purchased in the country but produced out of country i.e. imports and the prices of good's basket purchased out of country but produced in the country generally known as exports.

Three general techniques are in practice to compile the indices of import & export prices, in first mode the using unit value indices are compiled from import and export merchandise trade data derived from administrative customs documents. In second the price indices are compiled by using the data collected from different surveyed on prices of descriptive exported and imported items. While, in third technique a hybrid approach is used to compile the import and export indices for some items through survey-based price indices and for others custom-based unit value indices as some oil-producing countries use unit value indices, but because detailed reliable data are readily available from the oil-producing establishments for this important sector, the unit value indices are complemented by survey-based price indices or price quotations from international markets. In case of Pakistan, it is examining that the cost of production is increasing with the passage of time while gap in export or import prices relatively going high which hit the country exports and balance of payment as well. The average import price indexes in Pakistan is noticed 257.73 point indexes which was observed high at 1637.33 point indexes in 2013 and just .60 point indexes low in the third quarter of 1970 from the data of 1970 to 2015. However, in case of export price indices, the average is 160.45 point indices, observed 771.5 point indices high in first quarter of 2014 and 1.20 point indices low in 1970 (www.economictrading.com). Pakistan has the cheap labure advantage and geographical edge also. But due to under utilization of all resources, is facing economical tribulations. Pakistan' growth rate remained underperformance especially growth in export which kept the balance of payment under pressure. Keeping a little eyesight on past, it has observed in 2001 to onward the export index points is going up but the gap curve between export and import price indices increased every regimes of military or democratic government. Low agricultural productivity due to climate change and unseasoned rains in the south Punjab made cause to collapse the cotton yields and left rude impact on relating community. Agricultural yield is interconnected with industrial output because our industry is interlinked with agriculture. If the agricultural yield is low it means the industrial output is also low which make effect the export of the country and at the end balance of payment.

Objective of the study

The main portfolio of the study is to reveal the perspective slant linked directly or indirectly with import and export price, any association between Export and Import Price and their impact on balance of payment and economy of the country. The study of all segments interconnected, their intensity of influence on parallel curve of import and export price indexes and impact on balance of payment where the curves of both prices indexes difference found inequitable.

Literature review

Being an agri. country Pakistan's 70 percent of the population link with agriculture activities directly or indirectly and having the industry reliant to the agriculture. The main exporting products observed by the country based on raw material, textile and agricultural and leather products while the imports were electronic equipments, machines, organic chemicals, fertilizers, medical equipments, oil, etc. Kemal, M. A. (2004a) concluded that imports and exports have significant association with each other, and also highlighted that Pakistan now seriously follow the policies which are coherent with WTO agreements. Consumer goods imports have direct contemporaneous association with exports while intermediate capital goods imports which mainly include machineries have two-period lagged impact on exports.

The first evidence of the dual nature of international trades pro-competitive effects; exporters respond to tougher competition along the two related margins of price and quality (Benjamin R. Mandel 2013). In the same sense Arshad, Z., Mukhtar, S., Bibi, A. and Zia, A. (2015) indicated that there is long lasting relationship between imports and exports of Pakistan, having bi-directional causality in long run but in short run there is unstable situation. Pakistan economy' previous hierarchy showed that we export being an agricultural country raw material and less expensive goods while in other hand import expensive or value added products, which become reason of trade deficit and negative balance of payment.

The only way to go for development is depend upon the trade but Pakistan' share observed very small instead of other neighboring countries. Total exports observed relating to agriculture and having low price while imports were value added. Pakistan is going to establish bilateral long-term relationship with neighboring countries which will help to reduce transporting cost and flow of exchange rate. 70% of the country' imports consisted upon machinery, petroleum products, transport equipments, edible oil and iron & steel which made the reason of deficit in balance of payment. Alam, S., and Ahmad, Q. M. (2010) suggested that a single trade policy is not effective to overcome the trade deficit and Policy makers need to revamp a separate policies for different trading partner keeping in view the relationships with the country. Malik, S., & Chaudhary, A. R. (2012) indicated that trade relations once established then last for long time with regard to support the transportation costs statistically significant and inversely related to the Pakistan's bilateral imports. Sultan, Maryam and Munir, Kashif (2015) added that Government need to pay concentration for development of the industry to increase producer supply in the local markets and enhance supply side policies like investment on infrastructure for transportation, investment on technical education to increase research and development, technological advancement for enhancing productivity.

Imports and exports have positive significant association with each other, which shows that Pakistan is significantly following the policies which are coherent with WTO agreements according to Kemal, M. A. (2004a). Consumer goods imports have direct contemporaneous association with exports while intermediate capital goods imports which mainly include machineries have two-period lagged impact on exports. Ali, A. and Chani, M. I. (2013) found out the long run association among import demand of all four commodity groups, real GDP and their relative prices and indicated that the import demand of fuel lightening and lubricants items group is highly income as well as price elastic However, the results of study confirm the reality that country' imports demand of all the commodity groups are highly sensitive to change in real GDP.

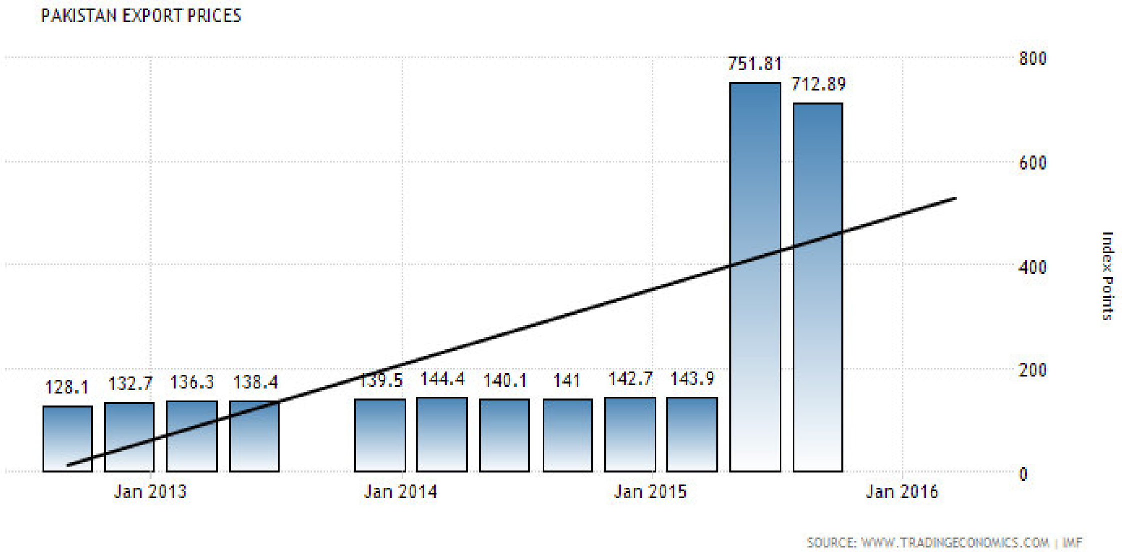
Iqbal et al. (2014) worked on regional integration to analyze the import structure of Pakistan by using time series data from 1971 to 2012 to estimate long run relationship and demand model of imports of Pakistan by Autoregressive distributed lag (ARDL) methodology and found that import prices and real income are the major determinants of import demand. Trade with neighboring country can become the cause of positive balance of payment and control the inflation in the country. C P, Jomit (2014) delved that bilateral trade of India ominously influenced by the common colonizer and membership in bilateral trade agreements and also indicated that country can be reached to ten times more the level of an actual export with countries like Netherlands and Pakistan.

Discussion and Methodology

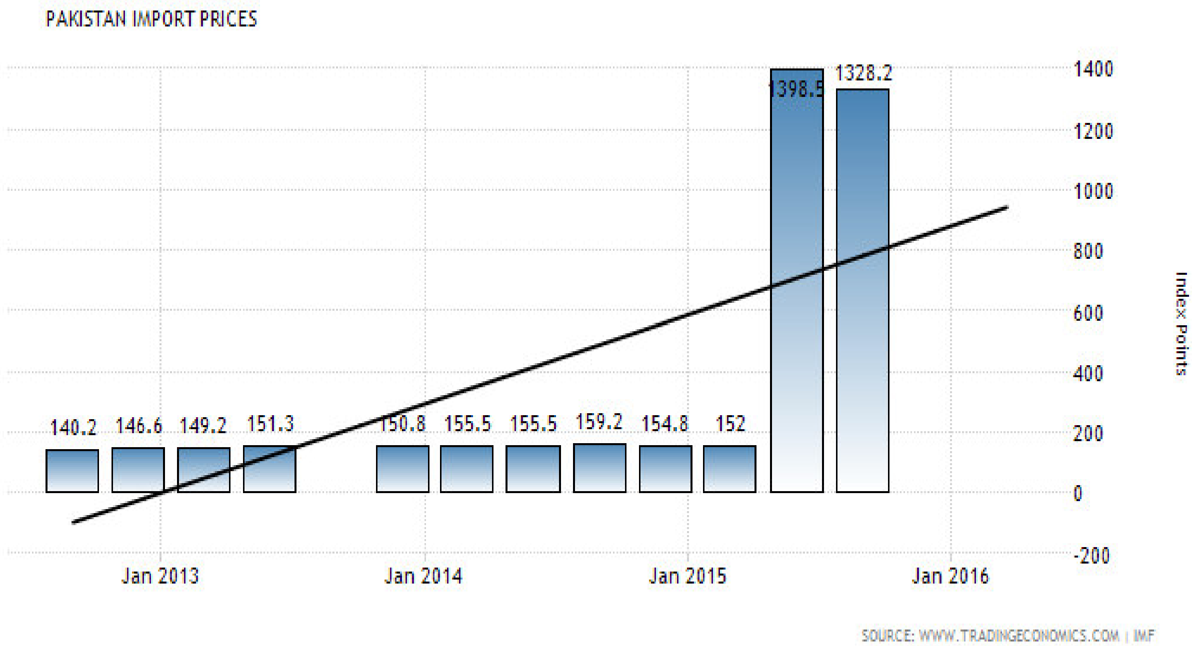
A general discussion at this time is that the country's financial position facing number of challenges, some of, are relating to security and law & order situation parallel with economical and financial factors i.e. increasing burden of debt, imbalance in balance of payment, energy crises, trade deficit, decrease in foreign remittances, financial crunch, export of raw material instead of finished/value added product, corruption, low industrial productivity, and low yield in agriculture while Pakistan 70% population directly or indirectly linked with agriculture. Burgeoning population is the root cause of the all crises this time country is facing. Unemployment, poverty and lack of basic utilities to the nation like health, education, security, residence and specially the law & order situation in the country are the big challenges.

This overwhelming situation leaves the impact on our producer, export and import price increasing steadily instead of our neighboring countries like China and India. At that time in China the producer price is on 94.70 index point and same import and export prices stand at 88 and 101 index points respectively. In India the producer price is 175.7 index points and import and export prices stand at 518 and 300 index points respectively.

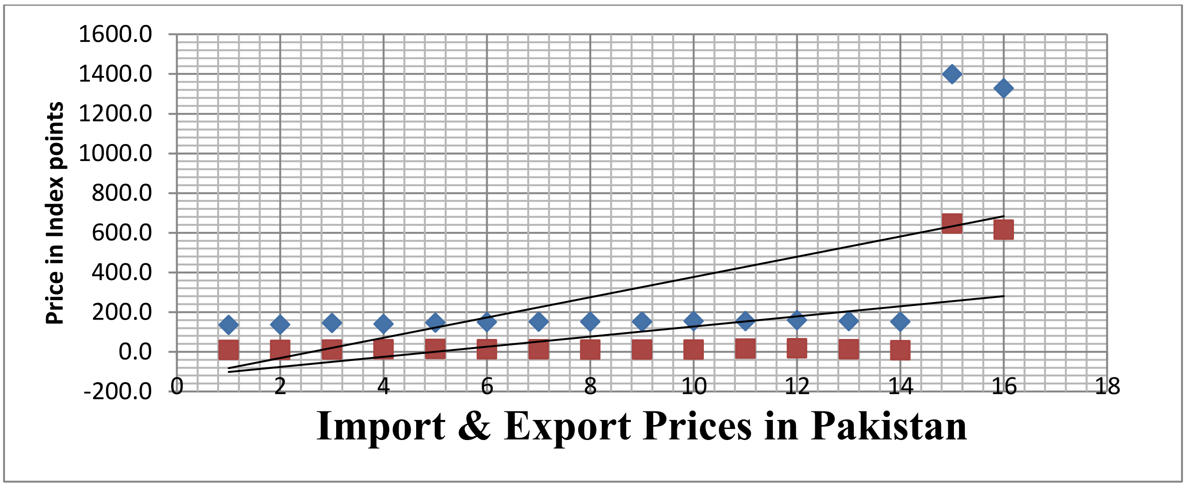
In case of Pakistan the current producer price is 206 index points and import and export prices are placed at 1328 and 712 index points respectively. Thus the comparative analysis shows the cost of production, import and export of goods and services is very high and profit margin vice versa is low.



The difference between export and import price is increasing with the passage of time and both curves show the rising trend and increasing distance. The table of export price index shows sudden increase in second quarter of 2015 and reached at 751.81 index points while it was on 143.9 index point in first quarter. The same situation can be observed in import price index where it was 1398.5 index points in second quarter of 2015 while it was at 152 index points in first quarter of the same year.



Comparative analysis of the both prices can be observed through the graph and increasing distance between both curves show the future trend. In case of China import price index is low than the export price index and import price stands at 88 in November 2015 while export price index is observed 101 at October 2015 which is 13 index points high than import and show consistence and prosperous economic position. But in Pakistan, the import price stands at 1328.2 index points in third quarter of 2015 while export price observed at 712.89 index points in same quarter. In this case import price is greater 615.31 index points than the export price show the alarming situation.



The Spearman Rank Correlation Coefficient: the Spearman Rank correlation coefficient, denoted by r_s, was used for computational purpose:

Period	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Exp. Price	**126.6**	**127.3**	**132.9**	**128.1**	**132.7**	**136.3**	**138.4**	**139.0**	**139.5**	**144.4**	**140.1**	**141.0**	**142.7**	**143.9**	**751.8**	**712.9**	
Imp. Price	**135.3**	**136.7**	**144.5**	**140.2**	**146.6**	**149.2**	**151.3**	**151.0**	**150.8**	**155.5**	**155.5**	**159.2**	**154.8**	**152.0**	**1398.5**	**1328.2**	
Exp. Rank	1	2	5	3	4	6	7	8	9	14	10	11	12	13	16	15	
Imp. Rank	1	2	4	3	5	6	9	8	7	12	12	13	11	10	15	14	
d_i	0	0	1	0	-1	0	-2	0	2	2	-2	-2	1	3	1	1	
d_i^2	0	0	1	0	1	0	4	0	4	4	4	4	1	9	1	1	$\sum d_i^2$=34

H_0: Export prices and Import prices are independent (Not correlated)vs.
H_1: Export prices and Import prices are directly correlated (there is direct relationship between Export prices and Imports prices)
Level of significance α = 0.05
Critical region $r_s \geq r_s^* = 0.4265$

$$r_s = 1 - \frac{6\sum d_i^2}{n\,(n^2-1)} \quad => \quad r_s = 1 - \frac{6(34)}{16\,(16^2-1)} \quad => \quad r_s = .95$$

Where d_i= differences between ranks of corresponding values X and Y, and n = number of pairs of values (X, Y) in the data. The data consist of a bivariate random sample of size n as (X_1, Y_1), (X_2, Y_2)… (X_n, Y_n). The variable Y is also ranked 1, 2… n according to the relative magnitude of the observations. The variable Y is also ranked 1, 2… n according to the relative magnitude of the observations. If ties occur among the X's i.e. Export Price or among the Y's i.e. Import Price each tied value is assigned the mean of the rank positions for which it is tied. When the rank of X is the same as the rank of Y for every pair of observations (perfect direct relationship), all the differences d_i will be equal to zero and r_s will be equal to +1. On the other hand, when the rank of one variable with each pair of observation (X_i, Y_i) is the reverse of the other (perfect inverse relationship), r_s will be equal to -1.

Conclusion

Since the calculated value of r_s= .95 is greater than the critical region value $r_s^* = 0.4265$ (i.e. value of r_s *does* not fall in the critical region), we reject H_0 at the level of 0.05 level of significance and we, therefore, concluded that the two rankings i.e. Export Price and Import Price have direct and significant relationship at the level of 0.05 level of significance (α). Import and Export price curves show a steady increase QoQ (Quarter on Quarter) basis.

Center of attention

Sensing the critical situation of the country, as economy throughout the decade facing financial crunch and chairman FBR had accepted in a statement publish in newspaper that the figure of non-tax payer had increased rapidly from 2.9 to 3.8 million in recent fiscal year is a matter of concern for revenue department. In-hand foreign reserves of the country are reached to $20.45 billion which is reaching this time high. The value of dollar in country is now boosting up on daily basis and in result of this flight the rupee-dollar parity is going to $1 over Rs.104.73 which causes a tremendous pressure on the balance of payment. The indicators of balance of payment are needed to redefine however the oil import bill in country is reduced and saved around $7.5 billion in this fiscal year. The external debts has reached to $66.457 billion expected a further increase to $68 billion at the end of 2016. To strengthen economy government need to resolve energy issue through proactive measures and planning for attaining better productivity by industrial sector and increase of exports goods to maintain balance of payment.

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