



Managing The Impact of Changes in Discount Rate, Forex Rate, Exports & GDP on Imports of Pakistan

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Abstract

The purpose of this study is to investigate how changes in macroeconomic indicators, such as GDP, exports, discount rate, and Forex rate, affect Pakistani imports. It is widely acknowledged that the world has become a global village, with no state being able to meet its own needs for goods and services. As a result, these states are forced to import goods and services that would be extremely expensive to produce locally due to a lack of raw materials. Imports are crucial to global trade because they enable nations to buy raw materials from other countries, transform them into completed goods, and then export those goods for significant profit. Maintaining a positive balance of payments requires the state to maintain an appropriate balance between its imports and exports. Since importing goods and services from overseas requires paying significant foreign exchange, it is imperative that only necessities be imported and that luxury items be avoided. Using data of independent variables, such as export, GDP, discount rate, and Forex rate, and dependent variable, namely import spread over a period from 1972 to 2020, descriptive statistics and diagnostic tests, such as Unit root test, ARDL tests, Bound test, Multicollinearity, Heteroscedasticity, Correlation, and Autocorrelation, have been conducted. In order to examine the existence of a long-term balance link between import, GDP, interest rate, export, and foreign exchange rate, we have adopted the bounds analysis method to cointegration, which was developed inside the ARDL structure. The results provide strong evidence that the GDP, interest rate, and exchange rate all have an important impact on determining the long- and short-term responses to our nation's imports.

Key words: Import, Export, GDP, Discount Rate, Forex rate



Introduction

Global trade has played significant part in the progress of both developed and underdeveloped countries because states are reliant on one another due to uneven distribution of resources. Export of agricultural and other primary commodities accounts for a major share of developing countries income. Besides export dependence developing countries are also heavily dependent on the import of diverse capital and consumer goods to feed their industries and satisfy their peoples' consumption needs. Developing countries have been facing balance of payments (BOPs) problems because of divergence in imports and exports and hence the importance of foreign trade is obvious. Pakistan is an important country of the world. However, in terms of trade it does not enjoy a significant share. Recognizing the importance of trade, different governments have adopted different policies about trade according to international economy demands. (Jahanzed Haider, 2019) In terms of Sustainable development goal # 12 of Pakistan viz "Ensure sustainable consumption & production patterns". Achieving economic growth and sustainable development requires that we urgently reduce our ecological footprint by changing the way we produce and consume goods and resources. Agriculture is the biggest user of water worldwide, and irrigation now claims close to 70 percent of all fresh water for human use. The efficient management of our shared natural resources, and the way we dispose of toxic waste and pollutants, are important targets to achieve this goal. Encouraging industries, businesses and consumers to recycle and reduce waste is equally important, as is supporting developing countries to move towards more sustainable patterns of consumption by 2030. A large share of the world population is still consuming far too little to meet even their basic needs. Halving the per capita of global food waste at the retailer and consumer levels is also important for creating more efficient production and supply chains. This can help with food security, and shift us towards a more resource efficient economy (sdgspakistan , n.d.)

No country is self-sufficient in meeting demand of local people in respect of goods, services, food etc., which necessitates to carry out foreign trade comprised of import and export of said items. Import is preferred instead of local production and manufacturing of goods, due to number of reasons such as, expensive cost of labor, non-availability of raw material; non- availability of skills; non availability of technology; high cost of production; and low scale of production (wikipedia , n.d.)



In addition, the importation and exportation of goods are subject to trade agreements between the importing and exporting jurisdictions. Sometimes trade barriers are imposed by country in order to safeguard domestic products from foreign competition, these trade barriers may be in form of implementation of laws of the land, measures and policies restricting, preventing or impeding the exchange of goods and services through conduct of foreign trade. Our country is confronted with challenging problems, including higher growth rate of population, violence poverty inflation, devaluation of Pak Rupee, illiteracy and bribery. shortfall of electricity., excess of imports than exports, adverse position of balance of payments, dependence on loans and foreign aid, weak revenue system, governance issues, exchange rate, rural to Urban migration, default by exporters in export proceeds realization, terrorism.

Table 1

Data Of Imports, Exports, Discount Rate, GDP,& Forex Rate 2001 To 2021

FY	Exports Us \$	Imports Us \$	Gdp Growth %	Discount Rate %	Fxr Rate Us \$ To Pkr
2001-2002	9,135,000,000	10,340,000,000	3.554418216	12.25	61.92716167
2002-2003	11,160,000,000	12,220,000,000	2.508337724	7.5	59.72378167
2003-2004	12,313,000,000	15,592,000,000	5.777033992	8.25	57.75199667
2004-2005	14,391,000,000	20,598,000,000	7.546860015	8.625	58.25786333
2005-2006	16,451,000,000	28,581,000,000	6.518778074	9	59.514475
2006-2007	16,976,000,000	30,540,000,000	5.898984441	9.5	60.271335
2007-2008	19,052,000,000	39,966,000,000	4.832817277	10	60.73851583
2008-2009	17,688,000,000	34,822,000,000	1.701405465	12.63	70.40803333
2009-2010	19,290,000,000	34,710,000,000	2.831658519	13.17	81.71289167
2010-2011	24,810,000,000	40,414,000,000	1.606688629	13.5	85.19381633
2011-2012	23,624,000,000	44,912,000,000	2.748405917	12.27	86.34338333
2012-2013	24,460,000,000	44,950,000,000	3.50703342	10	93.39519722
2013-2014	25,110,000,000	45,073,000,000	4.396456633	9.75	101.6288992
2014-2015	23,667,000,000	45,826,000,000	4.674707981	9.5	101.1000884
2015-2016	20,787,000,000	44,685,000,000	4.731147475	7.25	102.7692716
2016-2017	20,422,000,000	52,910,000,000	5.526735845	5.75	104.769117
2017-2018	23,212,000,000	60,795,000,000	5.554277437	6.725	105.4551621
2018-2019	22,958,000,000	54,763,000,000	5.836417498	7.7	121.8240689
2019-2020	21,394,000,000	44,553,000,000	0.98882944	7	150.2016
2020- 2021	25,630,000,000	61,657,000,000	5.6	11.14	167.8588



Figure 1

Pakistan Exports in US \$

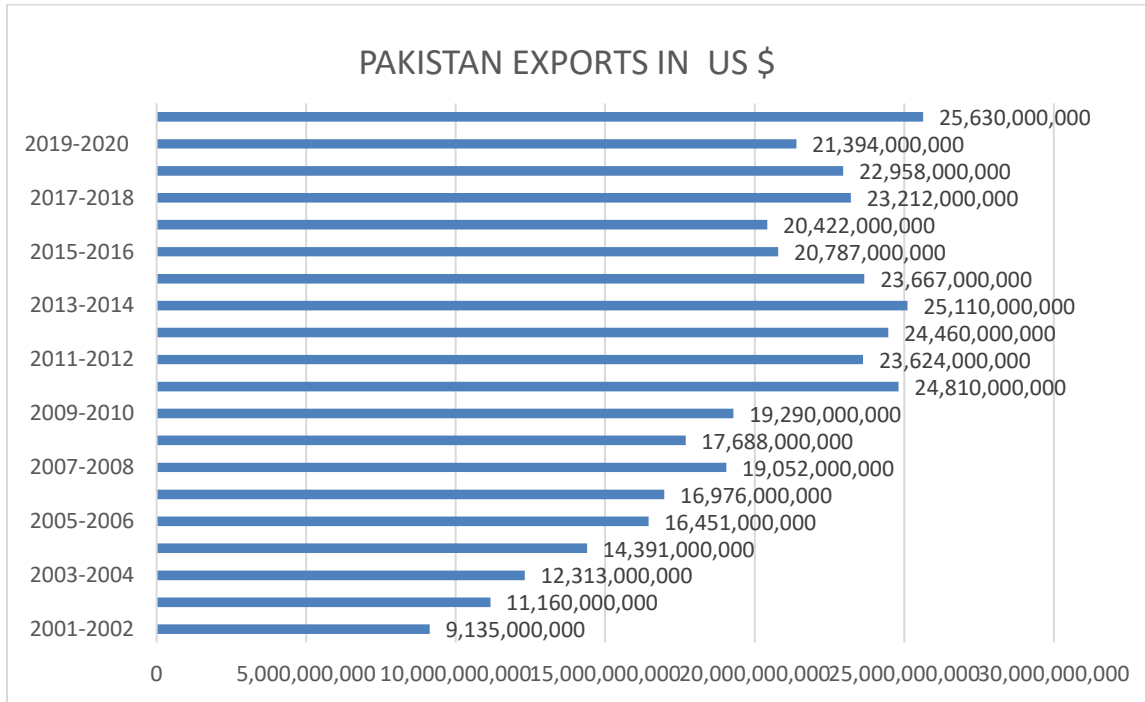


Figure 2

Imports of Pakistan in US \$

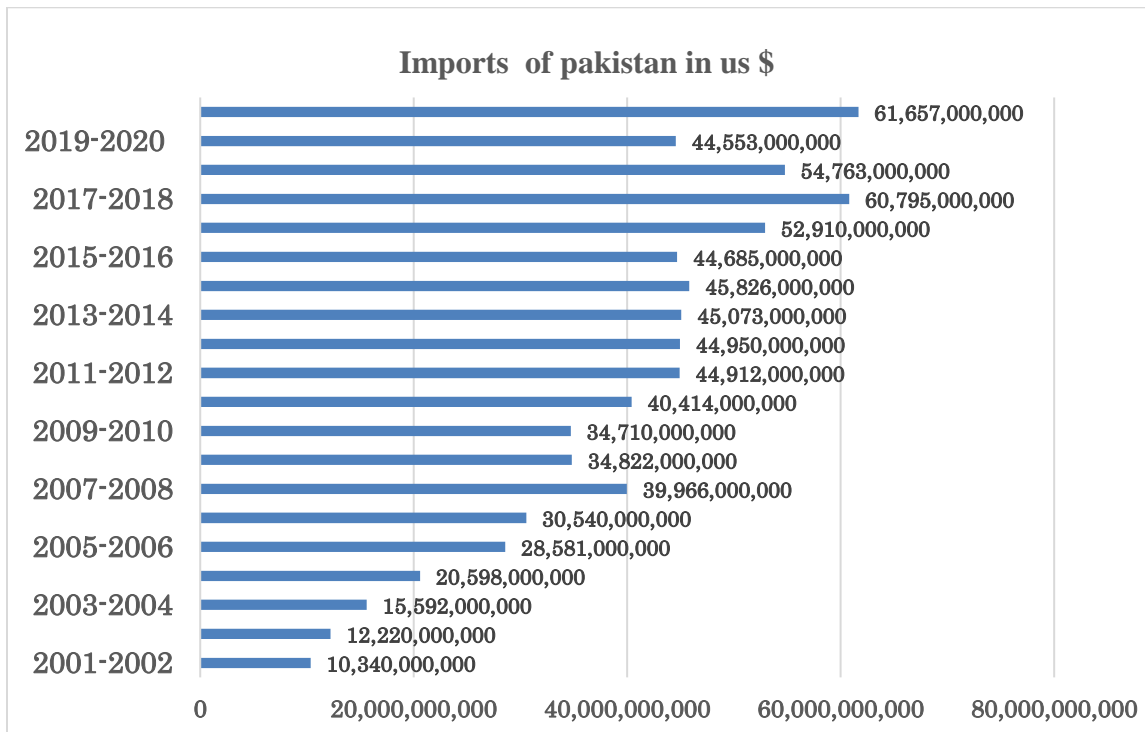




Figure 3

GDP Growth in Pakistan

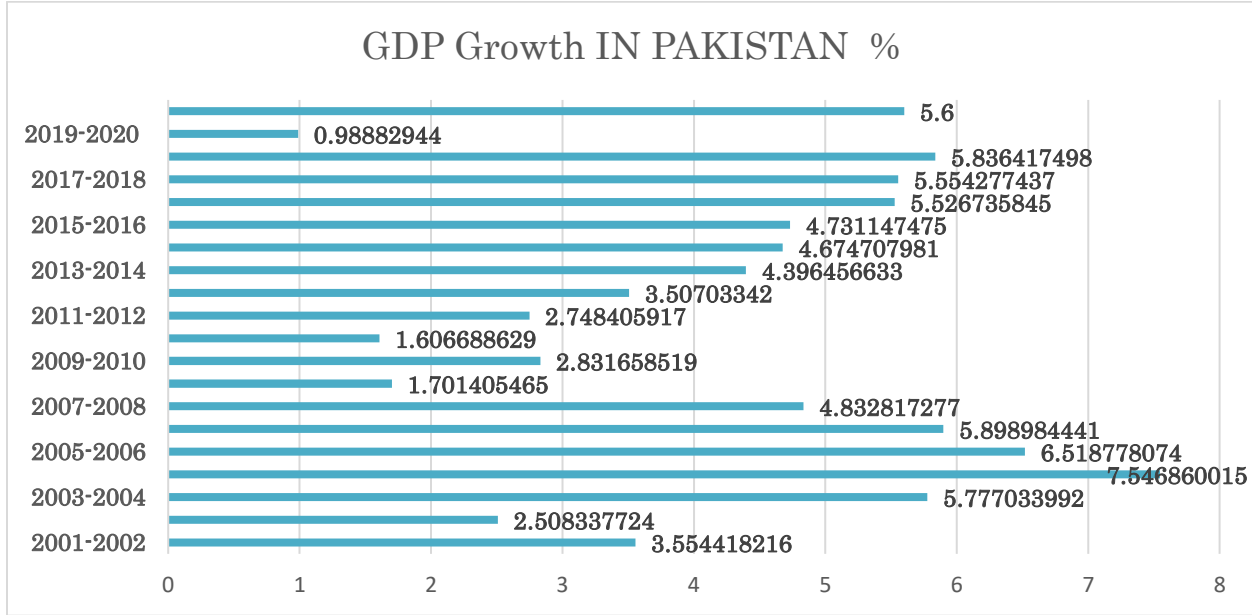


Figure 4

Discount Rate in Pakistan %

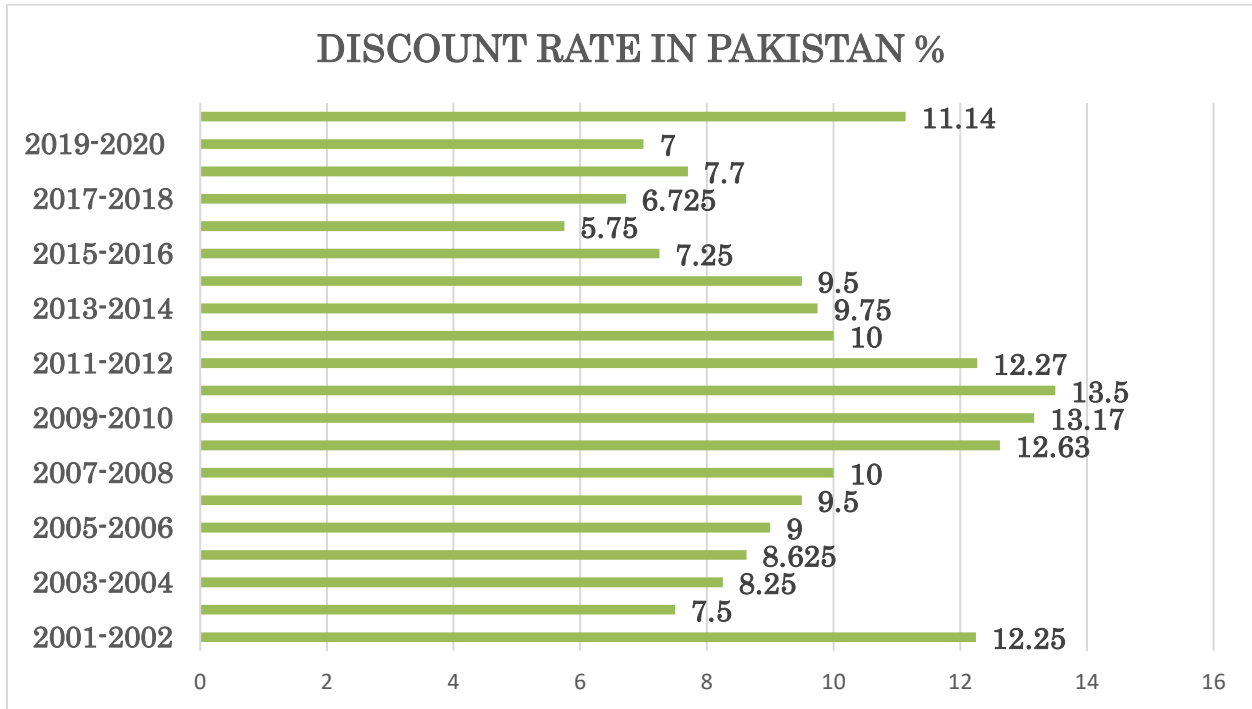
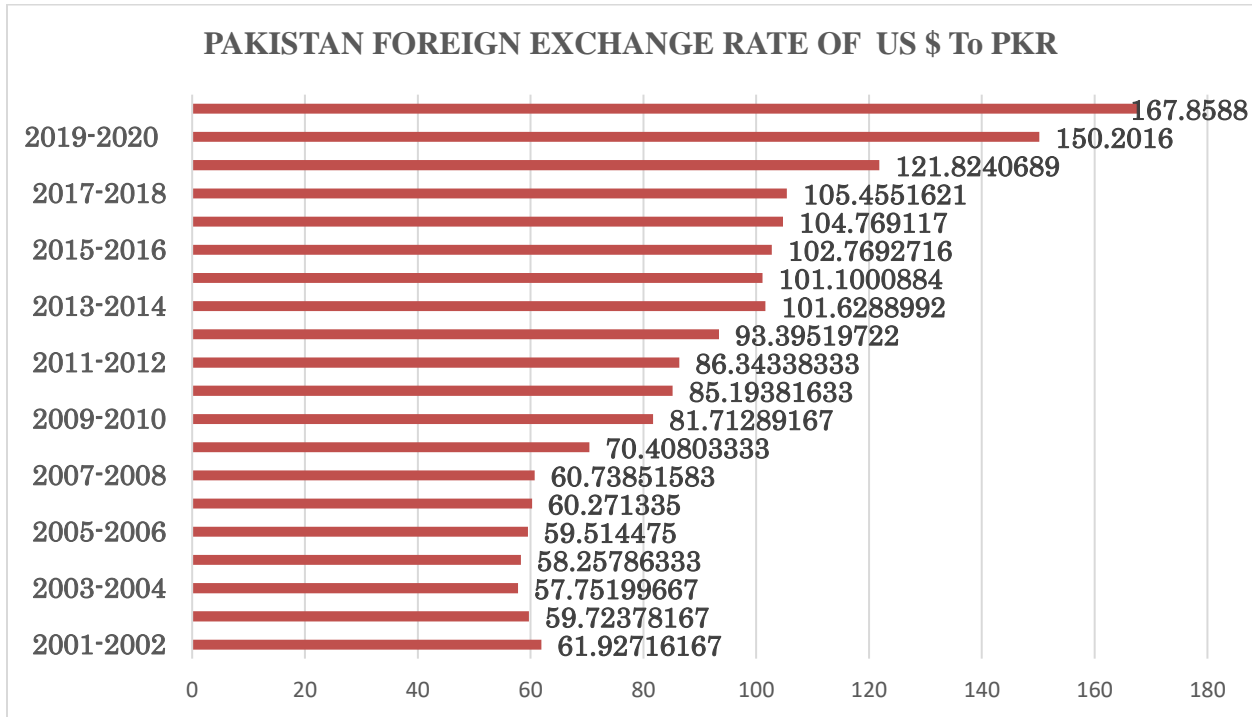




Figure 5
Pakistan Foreign Exchange



Pakistan is lacking efficiency and specialization in production resulting in higher cost per output despite intense efforts for export progression; therefore Pakistani products lacking demanded from both local and international markets due to high prices. Economic stagnation and recession leads to inefficient production process and thus lesser exports resulting an increase in imports. Pakistan is facing shortage of foreign direct investment due to which new industries can't be flourished and established. Pakistan is obsessed with the dilemma that exports are concentrated with just few specific items and trading partners. Historical evidence shows that exports of Pakistan are greatly concerted in five merchandise items and to seven nations only. Furthermore, trade deficit increased due to minor value addition and exports of conventional goods.

Fluctuating exchange rate due to financial instability also influence the quality and quantity of exports.

Appropriate standards are applied homogenously to both imports and domestic commodities in accord with global requirements. Imports from India were also permitted under the constructive list of commodities, which increasing and is mater of applied MFN (Most Favorite nation) or favored tariffs by SAPTA (South-Asian Preferential Trade Agreement) and SAFTA (South-



Asian Free Trade Area) agreements. Trading Corporation of Pakistan is the only public sector organization, authorized to manage imports and exports, however it does not have monopoly on the export. (Li, 2016)

World has become a Global village with the advancement of technology which has created ease for importers to send online orders for buying import products abroad as well as their delivery , transportation through containers by road journey, Railways Vessels or ships through sea voyage, airlines. Import is considered as a backbone of international trade. If the import is higher than the export then the balance of trade is considered as negative. The most important Pakistani imports also include electronics, machines, plastic, and clothes. It has been observed that developed countries import only those items from abroad which could not be produced in their country at cheap rate or whose cost of production is high. Besides these states also export a large, significant quantity of competitive products and earn handsome amount of foreign exchange and to reduce import they switch over to substitutes of such products.

In today's global economy consumers are used to seeing products from every corner of the world in their local grocery stores and retail shops. These overseas products –or imports –provide more choices to consumers and because they are usually manufactured more cheaply than any domestically produced equivalent ,imports help consumers manage their strained household budget. When there are too many imports coming into a country in relation to its exports -which are products shipped from that country to a foreign destination –it can distort a nation's balance of trade and devalue its currency. The devaluation of currency of a country can have a huge impact on the everyday life of citizens of a country because the value of currency is one of the biggest determinants of a nation economic performance and it's GDP. Maintaining the appropriate balance of imports and exports is crucial for a country. The importing and exporting activity of a country can influence its GDP, its foreign exchange rate and its level of interest rate and inflation.

In this equation, exports minus imports($X-M$) is equal to net exports, when exports exceeds imports, the net exports figure is positive. This indicates that a country has a trade surplus. When exports are less than imports, the net exports are negative. This indicates that a nations has a trade deficit. A Trade Surplus contributes to economic growth in a country. When there are more exports, it means that there is a high level of output form factories and industries of a country, as well as a greater number of people that are being employed in order to keep these factories in



operations. When a company is exporting a high level of goods, this also equates to a flow of funds into the country, which stimulates consumer spending and contributes to economic growth. When country is importing goods, this represents an outflow of funds from that country. Local companies are the importers and they make payments to overseas entities or the exporters. A high level of imports indicates robust domestic demand and a growing economy. If these imports are mainly productive assets, such as machinery and equipment, this is even more favorable for a country since productive assets will improve the economy's productivity over the long run. A healthy economy is one where both exports and imports are experiencing economic. (Kelly) We are producing electricity from natural gas, furnace oil through power companies at very high cost, but we have never thought about importing electricity from neighboring countries at comparatively low price, resultantly we have to bear long duration of load shedding which creates not only discomfort and burden of high bills of power for general public.

Michael Porter in his Theory of Competitive Advantage has mentioned that in order to compete on global level a country requires a strategy to increase a competitive edge over the others.

Vernon in his Product life cycle theory has narrated that manufacturing countries should allocate more funds for undertaking research, growth which will facilitate them to produce new innovative products.

According to the theory of Outlet for domestic surplus, eventually countries conduct global trade due to the reason of having extra production. However excess merchandises or some unexploited resources can be exported, e.g. a country who produced excess wheat in a year but had no extra warehouses, hence that country exported wheat at lesser price in global marketplace (Madura, 2015). But unfortunately this theory has been manipulated which has created shortage of wheat and sugar in Pakistan. Export is a great source of earning value of goods and services in shape of foreign exchange, which is utilized to make payments of bill pertaining to goods and services imported from abroad. (Cartney, 2015). The exchange of merchandise between two countries is called foreign trade it is the mainly conventional shape of global business dealings and it contributed as main player in creating Global annals (Cartney, 2015)

Assumptions

Imports have vital role in foreign trade and these have importance in foreign trade. Imports of Pakistan are significantly affected due to changes in export, foreign exchange rates, GDP, discount rate.



Review of Literature

Asian Development Bank has outlined the following strategic pillars for Pakistan, assistance of which will prioritize over the period 2021–2025:

- (i) Enlightening economic supervision to reinstate firmness and development,
- (ii) Creating elasticity through development of human capital and social protection to enhance yield and welfare of masses, and
- (iii) Enhancing effectiveness and development of private sector to create jobs and enlarge economic opportunities. (Bank, January 2020)

The Balance of Trade was well maintained (i) by controlling imports to consistently exclude cheap goods of consumers; and (ii) Grant of financial support to boost sale of goods in foreign countries through balancing the competitive price of an excess rated Forex. Relaxations of those restrictions on imports in last months of 1980 necessitated an urgent devaluation to avoid heavy inflow of imported goods of consumers detrimental to feasibility of local Manufacturing and moving towards an insecure balance of Trade shortfall. Conferring Marshall–Lerner depreciation will recover the Balance of Trade, if total foreign flexibility of demand for purchase of goods from abroad and local money flexibility of demand for selling goods to abroad is more than one. Decline in local currency will make exports cheaper in foreign markets hence demand for exports will increase and simultaneously make imports more expensive, resultantly demands for imports will decrease. They concluded that in order to improve volume of global business, the value of export should counterbalance by more quantity of exports and higher prices of imports must be compensated by less quantity of imports (Eikens, 8th edition). Findings of the study recommends that more attention be paid on changing the attitude of S.M.E ,their Managers about the nature of export markets rather than how export markets behave (Arsalan Ahed N. A., 2013)is more is highly required.

Study was conducted on FXI effects on the level of overseas currency conversion rate applying an involved panel of variables setting in a number of states and period' and it was observed that interference upsets position of foreign exchange rate significantly. Buying an overseas currency of one percentage of Gross Domestic Product cause a depreciation of real and nominal in the series of 1.7 -2.0 % and 1:4-1:7 respectively. Impacts observed were reasonably insistent indicating to half-life between 12 -2 months subject to the specifications. To conclude +ve and –



ve intervention emerge to be evenly useful, recommending that FXI is an effective tool both while confronting appreciation and devaluation. Generally, FXI is useful mechanism for managing macroeconomic issues (Gustavo Adler, 2015).

This study investigates and thoroughly examines how IMF loans have affected Pakistan's efforts to achieve economic stabilization. Variations in exchange rates affect the economy broadly. In general, terms used in international trade can change as a result of fluctuations in exchange rates. China and Japan are two economies, and there has been a lot of discussion about their international trade relations (Liu, 2024).

Changes in exchange rates directly affect how much money import and export businesses make. The selling price of export goods will drop due to the depreciation of the home currency, increasing export income. However, import costs will rise concurrently. An increase in the value of the home currency drives up import prices while decreasing export revenue. In order to sustain profits, businesses must modify their prices and costs. The competitiveness of exports is also greatly impacted by changes in exchange rates. Depreciation of currency increases export products' competitiveness and drives up prices. Competitive position is impacted by appreciation. To become more competitive, businesses must modify their exporting tactics. Changes in exchange rates have an impact on domestic demand as well. The price of imported goods rises and domestic businesses' market share rises as a result of currency depreciation. A stronger currency boosts domestic competition and lowers the cost of imports. Businesses should consider how changes in exchange rates affect their home market and strike a balance. (Liu, 2024).

The findings of our study could have a significant impact on how macroeconomic and trade policies are created at the national level by policy makers in order to create a long-term equilibrium between imports and exports. The study's findings show that, in order to solve Nepal's issues with foreign trade, a short- and long-term strategy must be put into place. By carefully examining trade and industry policies, including import and export policies, before enacting them, a long-term equilibrium between imports and exports can be maintained. In order to industrialize and achieve economic growth, the government must place a high priority on export diversification. Additionally, the government ought to support industrial production and the development of industries that replace imports. Nepal can improve the excessive trade



imbalance by increasing exports and reducing imports if the government implements policies to import capital goods and increase its production capacity (Devkota, 2022).

Pakistan Literature Review of Empirical Studies

It has been observed that economy of our country is diversified in nature comprising agriculture sector with 21%, manufacturing sector with 20.9% and services sector with 57.7% contribution to gross domestic product. Our Trade account had been in debit during long period and even now it is in the same position owing to our more reliance on purchasing merchandise and services from abroad This situation has also made impact on our balances of US \$. (Rashid Amjad, 2012) They conducted study of the effect of FDI on the overseas currency conversion rate, by means of contributory variables panel setting in a big model of state & period. There was strong indication that interference effects the position of the currency conversion rate in a significant manner. Lastly, they it was established that positive and negative interferences were similarly effective, and it was proposed that FDI is a convenient strategy instrument together while confronting rise & devaluation gravities. Generally, these outcomes pointed out that FDI is effective strategy tool for national income super vision, & their advantages must be adjudged relatively less on its effectiveness or not, and additional on its comparative expenses and profits as compared to other appliances (Rashid Amjad, 2012). According to view point of firms bottlenecks to export competitiveness comprise official inflexibilities, marketplace limitations, faults in physical arrangements, and the absence of a general commerce atmosphere It is necessary that such restrictions are eliminated , to create an atmosphere favorable to trade is established for exporters of manufactured goods, further energy load shedding shortages are great hurdles to manufactured exports and it should be resolved. (Rashid Amjad, 2012)They have analyzed recital of our country in last thirty years and concluded that it remained extremely pitiable if compared to other states of region which is due to elevated level of product focus and less superiority of goods level. They have proposed plan of environment to boost export effectiveness and suggested proposals for formulation of a policy structure, mainly a helpful exchange rate policy, to increase the yield of the sector (Rashid Amjad, 2012). Results disclosed that all variables are substantial at 5% B of the capital flows, remittances and long-term lending are weakly exogenous (suggesting that converse response affect from the real exchange rate to these variables can be ruled out). The adverse indication on all types of capital flow are in line



with Dutch Disease Theory Over all it was confirmed that Hypothesis of said theory holds and capital flow and remittances have developed decline in global competitiveness.

"What are the impacts of the International Monetary Fund (IMF) on the economy of Pakistan?" is the question that their research article attempts to answer. The question of whether the IMF program has helped Pakistan's economy grow overall or if it has only made the country's debt load heavier is concerning in this case. Benefits include resolving the balance of payments problem, stabilizing foreign exchange reserves, boosting exports, and supplying funds for imports. The devaluation of Pakistani currency, rising foreign debt, higher excise taxes, decreased investment, and Pakistan's control over the stock exchange were among the detrimental effects. The study has shown that the IMF affects Pakistan's economy in both positive and negative ways. A qualitative method of research is applied. to investigate the effects of the IMF on Pakistan's economy (Shah M. N., Winter 2023). Further exchange rate has remained over valued mostly in period of 1972 to 2009. (Rahim, 2010)Export Promotion strategy hypothesizes that export growth leads to improved resource distribution, making economies of scale and manufacture effectiveness through technical progress, capital creation, creation of service opportunities and hence economic development. The development based on economy remained focus of the economic discussion. However, outcomes were mixed. Furthermore, conclusions of the current enquiries conducted with reference to our country are also diversified. This paper re-enquired the economic development link of exports. A VAR model by means of the multivariate Granger connection method was conducted by M/s Toda and Yamamoto (1995)] for checking the connecting relation among the exports and the real production in our country from sixties to 2003 span. (Shah N. , 2004)

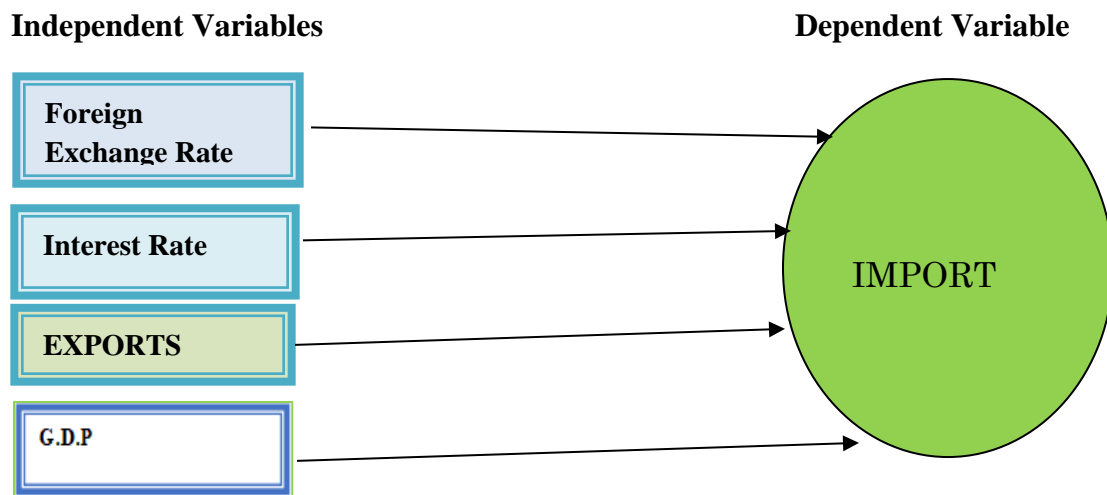
Causes for the dilapidated exports are low GDP, continual power crisis, high price of doing trade, lack of product and marketplace variation, inferior technology and lack of research & development, non-compliance of quality standards, safety and security, war on terror, unskilled labour, and low foreign direct investment (Sajad, Boosting Pakistan Export:What needs to be done , 2017).Findings of study reflects that there is –ve link among interest rate and currency conversion rate in long-run and no link in short- run, after controlling the influence of Consumer Price Index and GDP In case of increase in interest rate of our country the exchange rate our currency against US \$ will decrease ,due to high value inflation worth of domestic currency of our country will devaluate against US dollar ,however decrease the conversion rate of our



currency against Dollar due to appreciation of Pak rupee (Ali, How does interest rate affects exchange rate of Pakistan Evidence of ARDL bound Testing Approach, 2016). It has been established that Regression Investigation of once-a-month statistics of foreign exchange rate, exports, imports and balances of trade replicates that no important impact of fluctuation in foreign exchange rate exist during Oct, 2002 to July, 2015 on import, export and trade balance. However further reasons which mostly influence the performance of export. The results of Regression Analysis are in conformism with investigation carried out in past on impact of variations in foreign exchange (National Commssion on Tariff, 2015). Study observed the impact of inflation, FDI, exchange rate and capital stock on financial development by examining data of span 1975 to 2011. Multiple Regression was applied to check link among dependent variable Economic Growth and independent variables FDI, exchange rate and capital stock. Outcomes exposed that price increases. Foreign direct investment and exchange rate have substantial effect on Economic Growth, but capital stock did not have substantial effect on Economic Growth. FDI has a positive relation with GDP as it is considered as a locomotive for the financial progress of country. There is a need to invite investors by making non-violent atmosphere in the country. Reasonable price rises is indispensable for the progress but above the specific limit it can leads to the reduction of the progress. Nominal exchange rate has adverse link with economic progress of Pakistan. Model is free from Heteroscedasticity, autocorrelation, and functional is up to the mark which proposes the strength of the model. Moreover, both CUSUM and CUSUMQ are lying within the critical bounds. It indicates that our model is fundamentally stable. Our country is facing severe crisis and threats. Balance of trade is the utmost significant issue therefore we should export finished goods. Model of unbalanced development should be witnessed and manufacturing oriented agricultural production should be encouraged and issues of textile sector should be decided which is earning significant foreign exchange and quality of exported goods requires special attention on state level (Arsalan Ahed N. A., 2013). Pakistan's conduct trade with its adjoining countries developed swiftly over the last decade, these countries constitute the biggest marketplace for our exports. These selling of goods abroad are not only significant owing to total price, these also included new exportable items e.g crop and vegetables, cement, and metal productions to Afghanistan; jewelry to the UAE; and chromium ores to China. Given the development forecasts of the majority of the adjoining states, we can presume the prospective of Pakistan's exports will continue to grow. Now it is up to Pakistan to implement suitable and

attracting policies and environment for Chinese investment in industries producing export items. The UAE must be developed as foreign halfway point for accelerating sale of goods abroad and investment arrivals. Trade with neighbors will need a variation in Afghanistan, and building the obligatory preparations for overland trade and purchasing oil and gas from abroad. If effectively executed, said strategies will bring outcome of substantial rising change of propensity of growth rate for exports, which could add 2 to 3 percent to the GDP growth rate. Resultantly it would simplify the limitations on payments of exports and imports and assist to eliminate the "stop-go" progress cycle wherein our country was restricted since the nineties (Hayat, 2012). Pakistan's major exports yarn fabrics and clothing are playing a significant role for the agriculture and economic development. GDP in terms of imports has indirect correlation with the overall GDP of Pakistan. Pakistan purchase of goods from abroad comprises gasoline and gasoline products, eatable oil, chemicals, fertilizer, capital goods, industrial raw materials, and consumer products. Agriculture area is also the key basis of labor and contributes for more than half Man power of our country. In sale of goods abroad the said sector rules through selling of grains; yarn and fruitlets; semi processed and processed goods like cotton yarn, fabric, rugs and rawhide products. The incomes from sale of rice and cotton abroad amounts to eight percent of the entire export (Hussain A. R., 2016).

Figure 6
Conceptual Framework





Research Methodology

Research Design.

It refers to the overall strategy utilized to carry out research^[1] that defines a succinct and logical plan to tackle established research question(s) through the collection, interpretation, analysis, and discussion of data. (Claybaugh, 2020). The approach of Quantitative research method has been adopted for this study. This approach focuses on testing hypothesis and it analyzed through math & statistical analysis. It is mainly expressed in number, graphs and tables.

Population and Sampling Techniques

Data of imports, exports, foreign exchange rate, GDP & discount rate spread over span commencing from 1974 to 2020 on yearly basis is used in this study. We have used Simple random type of sampling techniques. Time Series secondary Data pertaining to dependent & independent variables from websites of SBP, World Bank & Bureau of Statistics. Our Sample comprises data of import, export, foreign exchange rate, GDP & interest rate w.e.f 1974 to 2020.

Table 2

Instruments selection

Variables:

Type of variable	Definition	Formula	Source of the data	Justification
Dependent	<u>Imports</u> : -Imports are defined as Goods & services bought by one country from another country	US \$	Websites of SBP, World Bank & Bureau of statistics	Significant role in foreign trade and relevant to study.
Independent variables	<u>Foreign exchange rate</u> “It is defined as the conversion rate of foreign into domestic currency	US\$ to Pak rupees	Websites of SBP, World Bank & Bureau of statistics	Significant role in foreign trade and it has link with imports.
Independent variables	<u>Discount rate</u> It is monetary policy rate fixed by SBP on periodical basis.	% percent	Websites of SBP, World Bank & Bureau of statistics	Significant role in foreign trade and it has link imports.
Independent variables	<u>Gross Domestic Product</u> Total goods and services	US \$	Websites of SBP, World Bank &	Significant role in foreign trade



	produced by a country in fiscal year.	Bureau of statistics	of and it has link with imports.
Independent variables	<u>Exports</u> Goods and services sold by a country to another country	US \$ Websites of SBP, World Bank & Bureau of statistics	Significant role in foreign trade

Hypothesis

HA = There is the impact of the exchange rate on imports.

HA = There is an impact of GDP on imports.

HA = There is the impact of a discount rate on imports.

HA = There is the impact of exports on imports.

Model Specification

Equation

$$Import_t = \alpha_0 + \alpha_1 \Delta DR_t + \alpha_2 GDP_t + \alpha_3 EXR_t + \alpha_4 Exp_t + e_t \dots \dots \dots (1)$$

Where

α_0 = coefficient of variable

EXP = changes in export

DR_t = change in discount rate

GDP_t = change in GDP

EXR_t = change in Exchange Rates

e_t = error term.

$$IMP_t = \beta_0 + \sum_{i=1}^p \beta_1 \Delta DR_{t-i} + \sum_{i=1}^p \beta_2 GDP_{t-i} + \sum_{i=1}^p \beta_3 EXR_{t-i} + \gamma_1 EXP_{t-1} + \gamma_2 DR_{t-1} + \gamma_3 GDP_{t-1} +$$

$$\gamma_4 EXR_{t-1} + U_t \dots \dots \dots (2)$$

β_0 = constant term

β_i = coefficients

γ_i = coefficient for long run relationship

Software

E views software is used



Data Analysis

Table 3
Descriptive Analysis

Date: 07/11/22 Time: 03:27 Sample: 1972 2021					
	PIMP	PEXP	PEXR	PGDP	PIR
Mean	0.100245	0.169263	0.062138	0.049779	0.102774
Median	0.045936	0.019946	0.045147	0.048000	0.100000
Maximum	0.691543	5.646460	0.196714	0.151239	0.170000
Minimum	-0.189534	-0.150496	-0.035580	-0.049200	0.057500
Std. Dev.	0.179330	0.824885	0.062131	0.028238	0.023314
Skewness	1.080868	6.422764	0.357028	0.076160	0.756855
Kurtosis	4.559126	43.17916	1.884772	7.595547	3.526759
Jarque-Bera	13.91195	3484.604	3.434153	41.40358	5.030550
Probability	0.000953	0.000000	0.179590	0.000000	0.080841
Sum	4.711523	7.955382	2.920480	2.339609	4.830400
Sum Sq. Dev.	1.479317	31.30004	0.177574	0.036680	0.025004
Observations	47	47	47	47	47

Above results show that there are 47 annotations.

Moreover it is observed that,

Median of forty seven annotations pertaining to PIMP is 0.045936 or 46%

Median of forty seven annotations pertaining to PEXR is 0.045147 or 4.5 %

Median of forty seven annotations pertaining to PGDP is 0.048000 or 4.8 %

Median of forty seven annotations pertaining to PIR is 0.100000 or 10 %

Median of forty seven annotations pertaining to PIMP is 0.045936 or 4.5%

We have observed in above results so as to Standard Deviation of PIMP is 0.179330 and probability of PIMP is 0.000953, probability of PGDP is 0.000000 and probability of PIR it is 0.080841 which is dispersal of figures as of its Median or Average. Skewed Dispersal is probability spreading in which insufficient number of clarifications lies beneath (-ve Skew) or over (+ve skew). Mean is called skewness of the asset or skewed spreading.

Unfavorable skewness imitates so as to there is probability of large unfavorable outcomes and positive skewness shows so as to there it is higher to ordinary probability of large probability results. (Haroon, 2005)Outcomes of above Table also reflected that PIMP bears +ve skewness of 1.080888, while PEXR bears +ve skewness of 0.357028, PGDP bears +ve skewness of 0.076160 , PIR bears +ve skewness of 0.756855, and PEXP has + skewness of 6.422764



therefore there is bigger than normal probability of big likelihood outcomes. Kurtosis is the size of ends of probability dispersion.

A weighty followed dispersion bears higher than normal likelihoods of massive confirmatory or unfavorable understanding. Kurtosis must not be muddled by skewness that routes the heaviness of solitary end. (Haroon, 2005). As of outcome of Descriptive Statistic at above table reflects so as to Kurtosis of PIMP is 4.559126, Kurtosis for PEXR is 1.884772, Kurtosis for PGDP is 7.595547, Kurtosis for PIR is 3.526759 and Kurtosis of PEXP is 43. 17916.

Unit Root Tests

Figure 7

Percentage of Interest Rate

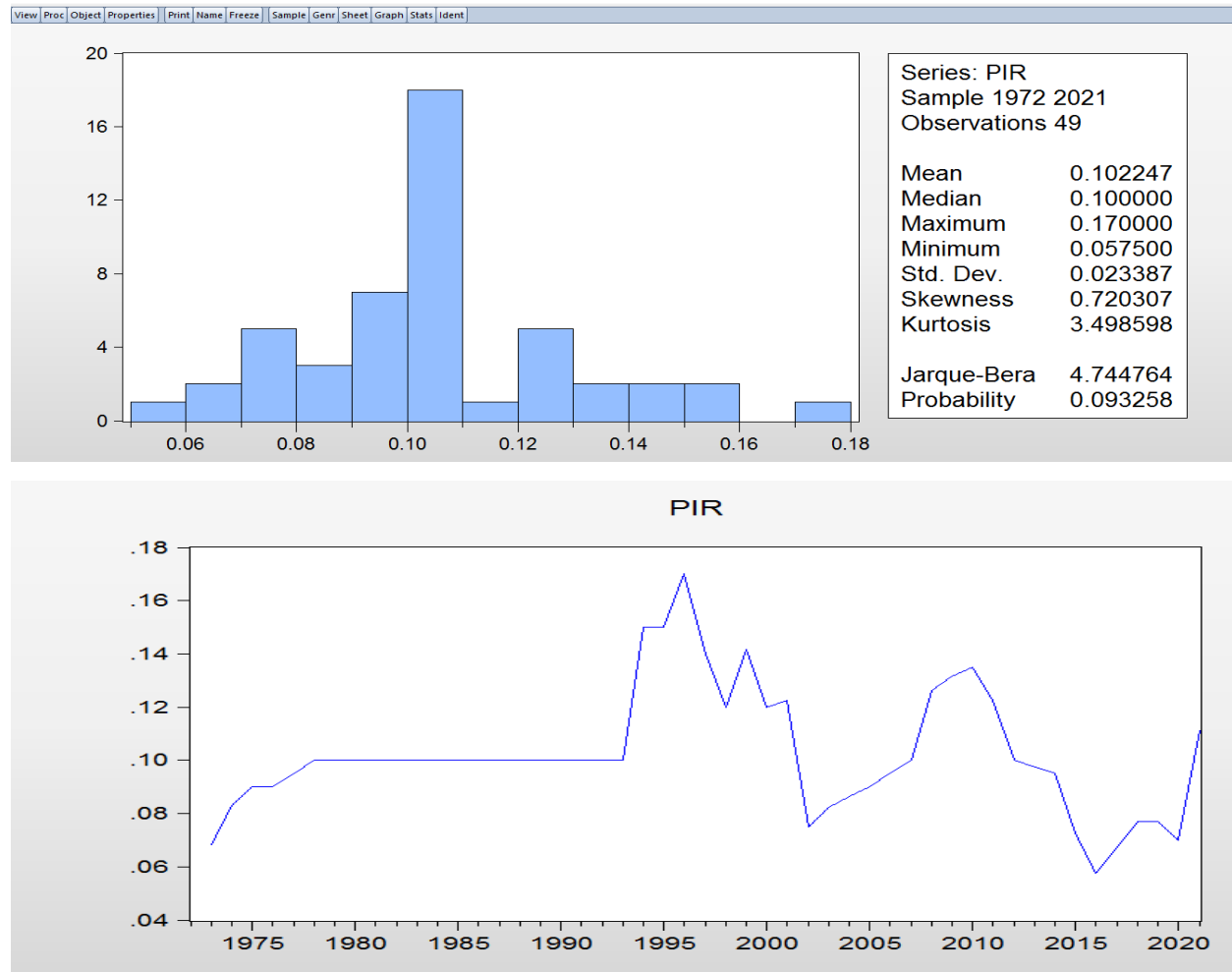




Table 4

View	Proc	Object	Properties	Print	Name	Freeze	Sample	Genr	Sheet	Graph	Stats	Ident
Null Hypothesis: PIR has a unit root												
Exogenous: Constant												
Lag Length: 0 (Automatic - based on SIC, maxlag=10)												
							t-Statistic					
							Prob.*					
Augmented Dickey-Fuller test statistic							-2.686125	0.0838				
Test critical values:												
1% level							-3.574446					
5% level							-2.923780					
10% level							-2.599925					
*Mackinnon (1996) one-sided p-values.												
Augmented Dickey-Fuller Test Equation												
Dependent Variable: D(PIR)												
Method: Least Squares												
Date: 07/11/22 Time: 03:23												
Sample (adjusted): 1974 2021												
Included observations: 48 after adjustments												
Variable		Coefficient		Std. Error		t-Statistic		Prob.				
PIR(-1)		-0.248420		0.092483		-2.686125		0.0100				
C		0.026251		0.009682		2.711211		0.0094				
R-squared		0.135586		Mean dependent var		0.000898						
Adjusted R-squared		0.116795		S.D. dependent var		0.015919						
S.E. of regression		0.014960		Akaike info criterion		-5.526055						
Sum squared resid		0.010295		Schwarz criterion		-5.448088						
Log likelihood		134.6253		Hannan-Quinn criter.		-5.496591						
F-statistic		7.215270		Durbin-Watson stat		1.785074						
Prob(F-statistic)		0.010023										

PIR has unit root because probability at first difference is less than 5 %

Figure 8

UNIT ROOT of Percentage EXP

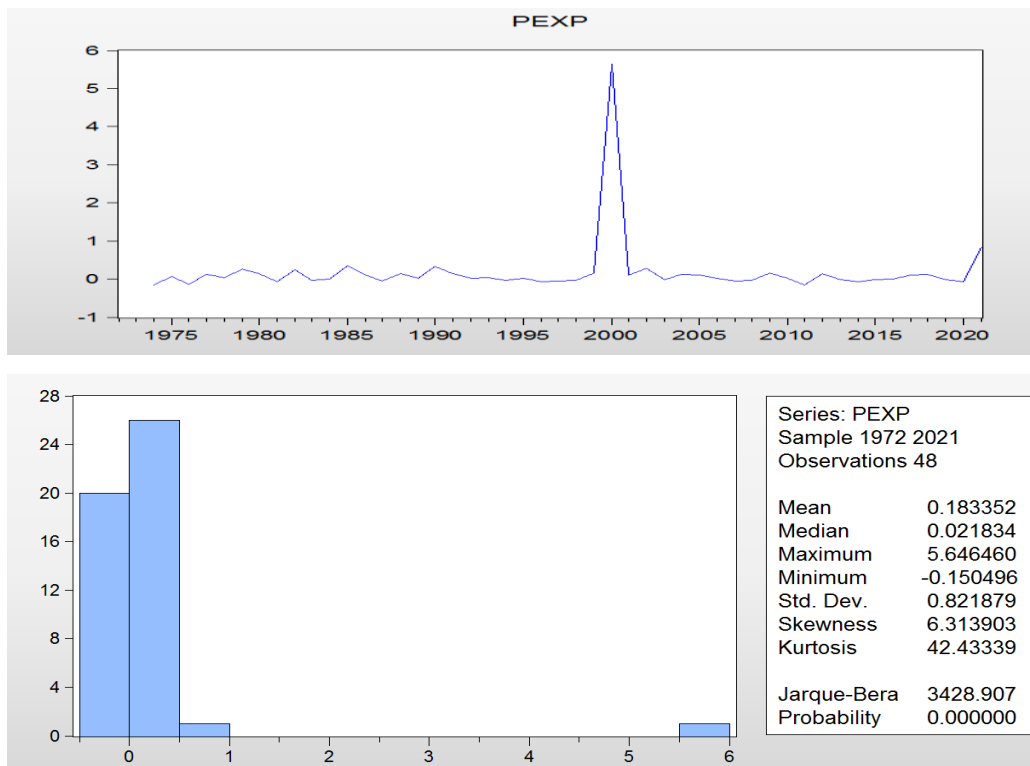


Table 5

Null Hypothesis: PEXP has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.678176	0.0000
Test critical values: 1% level	-3.577723	
5% level	-2.925169	
10% level	-2.600658	

*Mackinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(PEXP)
 Method: Least Squares
 Date: 07/05/22 Time: 09:05
 Sample (adjusted): 1975 2021
 Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PEXP(-1)	-1.000820	0.149864	-6.678176	0.0000
C	0.190594	0.124902	1.525950	0.1340

R-squared	0.497757	Mean dependent var	0.021191
Adjusted R-squared	0.486596	S.D. dependent var	1.170148
S.E. of regression	0.838437	Akaike info criterion	2.527067
Sum squared resid	31.63396	Schwarz criterion	2.605797
Log likelihood	-57.38608	Hannan-Quinn criter.	2.556694
F-statistic	44.59803	Durbin-Watson stat	1.988650
Prob(F-statistic)	0.000000		

PEXP has unit root as probability value is less than 5%

Figure 9

UNIT ROOT of PEXR

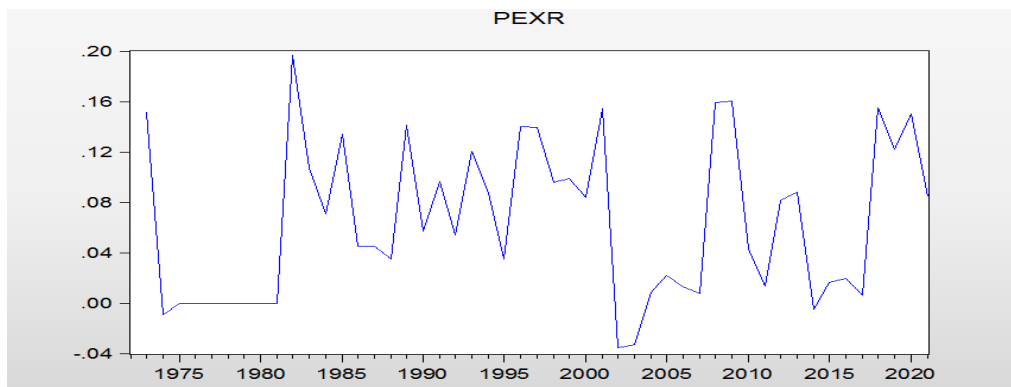


Figure 10

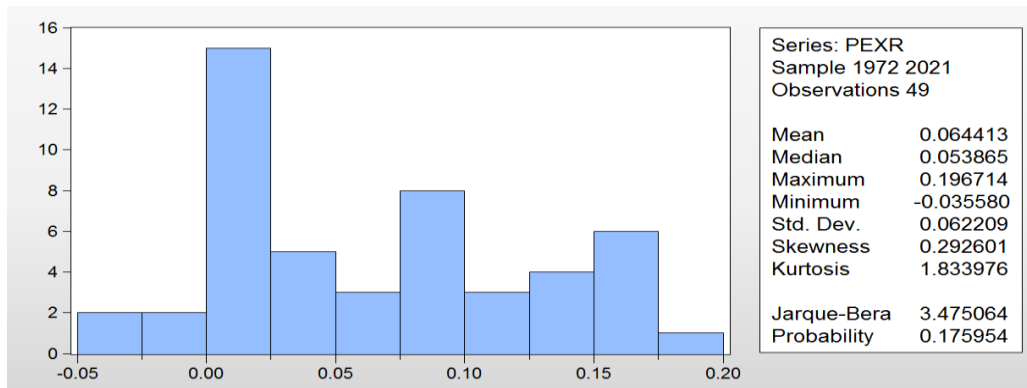


Table 6

Null Hypothesis: PEXR has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=10)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.087764	0.0001
Test critical values:		
1% level	-3.574446	
5% level	-2.923780	
10% level	-2.599925	

*Mackinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(PEXR)
 Method: Least Squares
 Date: 07/05/22 Time: 09:10
 Sample (adjusted): 1974 2021
 Included observations: 48 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PEXR(-1)	-0.699979	0.137581	-5.087764	0.0000
C	0.043405	0.012272	3.536883	0.0009
R-squared	0.360092	Mean dependent var		-0.001389
Adjusted R-squared	0.346181	S.D. dependent var		0.073252
S.E. of regression	0.059231	Akaike info criterion		-2.773968
Sum squared resid	0.161383	Schwarz criterion		-2.696001
Log likelihood	68.57522	Hannan-Quinn criter.		-2.744504
F-statistic	25.88534	Durbin-Watson stat		1.814531
Prob(F-statistic)	0.000007			

PEXR has unit root as its probability is less than 5%

Figure 11

UNIT ROOT OF PGDP

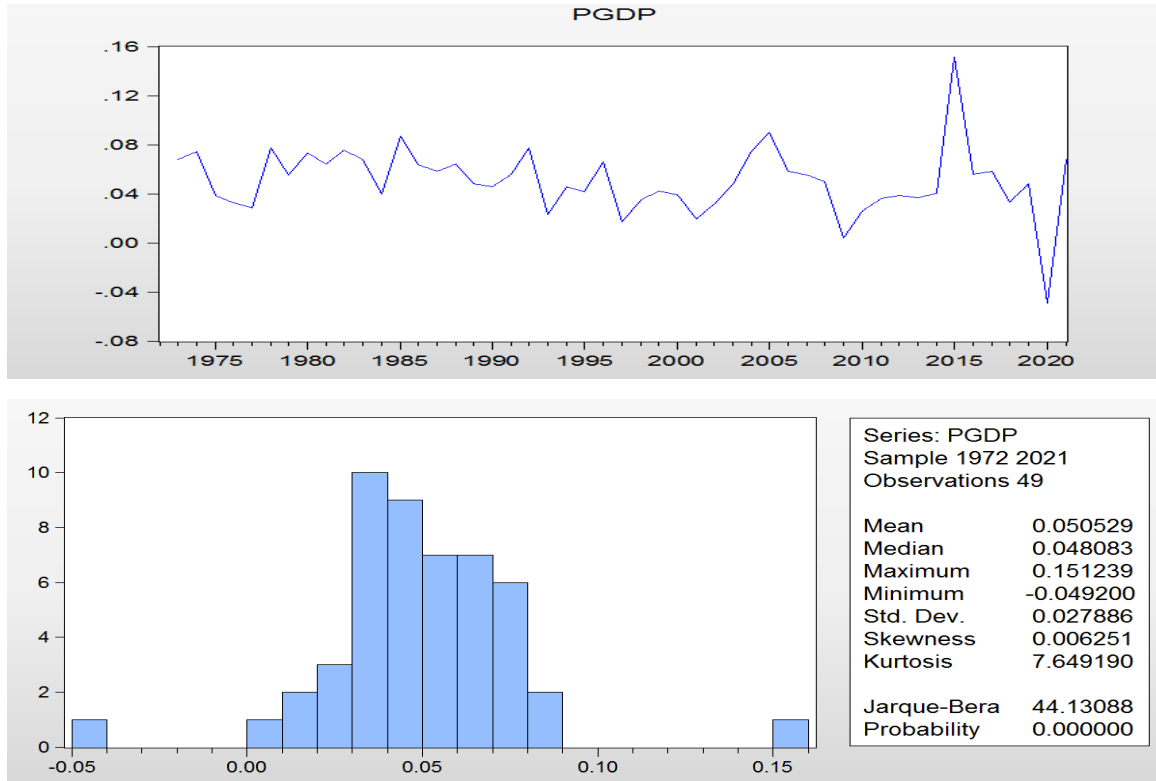


Table 7

Null Hypothesis: PGDP has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.192570	0.0000
Test critical values:		
1% level	-3.574446	
5% level	-2.923780	
10% level	-2.599925	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(PGDP)
Method: Least Squares
Date: 07/05/22 Time: 09:12
Sample (adjusted): 1974 2021
Included observations: 48 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PGDP(-1)	-0.909421	0.146857	-6.192570	0.0000
C	0.045621	0.008419	5.418584	0.0000
R-squared	0.454640	Mean dependent var		6.04E-06
Adjusted R-squared	0.442784	S.D. dependent var		0.037845
S.E. of regression	0.028250	Akaike info criterion		-4.254644
Sum squared resid	0.036712	Schwarz criterion		-4.176678
Log likelihood	104.1115	Hannan-Quinn criter.		-4.225181
F-statistic	38.34792	Durbin-Watson stat		2.004215
Prob(F-statistic)	0.000000			

PGDP has Unit root as its probability is less than 5 %

Figure 12

UNIT ROOT OF PIMP

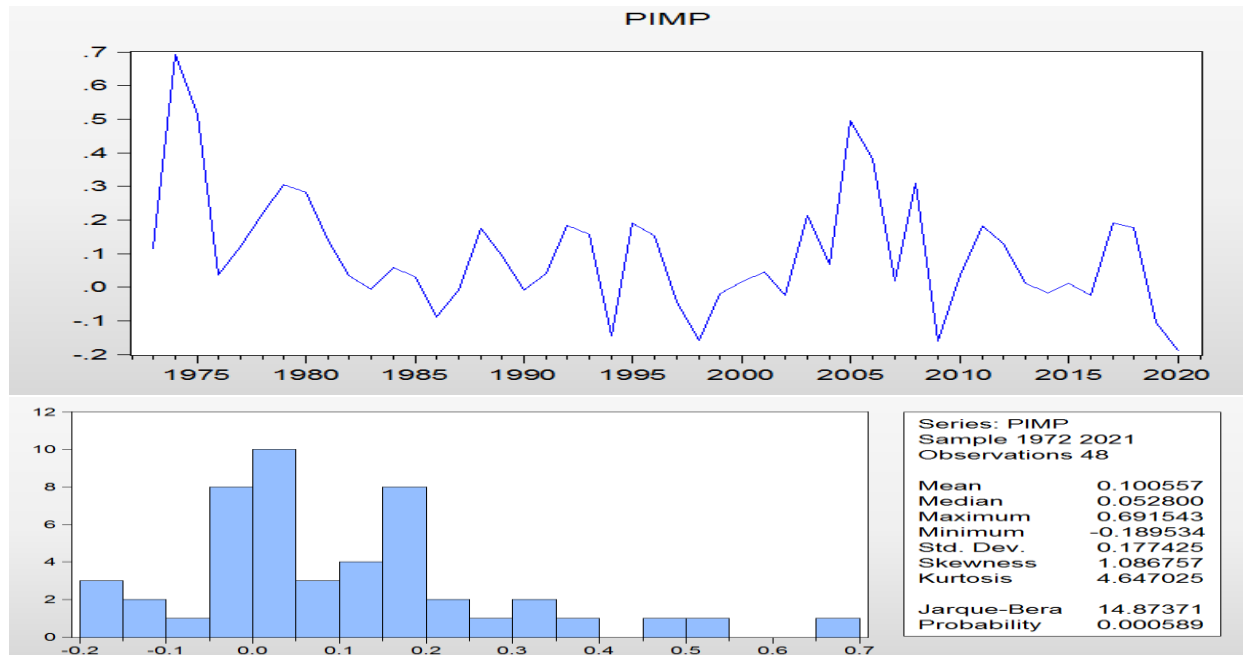


Table 8

Null Hypothesis: PIMP has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic - based on SIC, maxlag=9)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-4.606516	0.0005
Test critical values:			1% level	-3.577723
			5% level	-2.925169
			10% level	-2.600658
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(PIMP)				
Method: Least Squares				
Date: 07/05/22 Time: 09:13				
Sample (adjusted): 1974 2020				
Included observations: 47 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PIMP(-1)	-0.670301	0.145511	-4.606516	0.0000
C	0.065057	0.029479	2.206896	0.0325
R-squared	0.320447	Mean dependent var		-0.006483
Adjusted R-squared	0.305346	S.D. dependent var		0.206101
S.E. of regression	0.171777	Akaike info criterion		-0.643617
Sum squared resid	1.327832	Schwarz criterion		-0.564887
Log likelihood	17.12500	Hannan-Quinn criter.		-0.613990
F-statistic	21.21999	Durbin-Watson stat		1.642135
Prob(F-statistic)	0.000034			

PIMP has Unit root as its probability is less than 5%.



Regression

Table 9

Ordinary Least Square

View	Proc	Object	Print	Name	Freeze	Estimate	Forecast	Stats	Resids
Dependent Variable: PIMP									
Method: Least Squares									
Date: 07/05/22 Time: 09:26									
Sample (adjusted): 1974 2020									
Included observations: 47 after adjustments									
Variable	Coefficient	Std. Error	t-Statistic	Prob.					
PEXP	-0.010932	0.029744	-0.367520	0.7150					
PEXR	-0.940607	0.437535	-2.149787	0.0372					
PGDP	1.732258	0.800836	2.163062	0.0361					
PIR	0.700581	0.564275	1.241560	0.2211					
R-squared	0.202751	Mean dependent var	0.100245						
Adjusted R-squared	0.147129	S.D. dependent var	0.179330						
S.E. of regression	0.165613	Akaike info criterion	-0.677065						
Sum squared resid	1.179385	Schwarz criterion	-0.519606						
Log likelihood	19.91103	Hannan-Quinn criter.	-0.617812						
Durbin-Watson stat	1.504085								

PEXR & PGDP have probability value is less than 5 % which reflect significant effect on PIMP whereas probability value of PEXP is 71% & probability value of PIR is 22% reflecting insignificant effect on PIMP

Auto Regressed Distribution Lag

We have adopted conduct of regression through ARDL because unit root of PIR at first difference, while other variables have unit root at o level.

Table 10

Dependent Variable: PIMP				
Method: ARDL				
Date: 07/07/22 Time: 01:27				
Sample (adjusted): 1976 2020				
Included observations: 45 after adjustments				
Maximum dependent lags: 4 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (4 lags, automatic): PEXP PEXR PGDP PIR				
Fixed regressors: C				
Number of models evaluated: 2500				
Selected Model: ARDL(2, 0, 3, 0, 0)				
Note: final equation sample is larger than selection sample				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
PIMP(-1)	-0.029833	0.143379	-0.208073	0.8364
PIMP(-2)	-0.207732	0.113151	-1.835874	0.0749
PEXP	0.000578	0.020263	0.028539	0.9774
PEXR	-0.520838	0.300964	-1.730562	0.0923
PEXR(-1)	-1.439688	0.321936	-4.471972	0.0001
PEXR(-2)	-0.351690	0.388742	-0.904686	0.3718
PEXR(-3)	-0.792023	0.301702	-2.625182	0.0128
PGDP	0.309529	0.685954	0.451239	0.6546
PIR	1.845269	0.788963	2.338855	0.0252
C	0.087495	0.091162	0.959779	0.3438
R-squared	0.569765	Mean dependent var	0.077910	
Adjusted R-squared	0.459133	S.D. dependent var	0.145854	
S.E. of regression	0.107267	Akaike info criterion	-1.433868	
Sum squared resid	0.402715	Schwarz criterion	-1.032388	
Log likelihood	42.26203	Hannan-Quinn criter.	-1.284200	
F-statistic	5.150098	Durbin-Watson stat	2.181298	
Prob(F-statistic)	0.000184			

*Note: p-values and any subsequent tests do not account for model selection.



Above position of ARDL reflects that this model which is identified link among PIMP (dependent variable), & PGDP, PEXR, PEXP PIR are free regressors' variables, and presence of long run Co integration relationship for the variables is analyzed through totaling the F test statistic in ARDL. R square value is 0.569765 or 56 % showing how much the independent variables are explaining the dependent variable. Tinted figures of probability values of PEXR 0.0001 and probability value of PEXR (-3) is 0.0128 in above table are important whereas non-tinted p values are unimportant.

Outcomes of coefficients showed in case of 1 % change in Exchange Rate there is – ve 1.4 % alteration in Import, therefore a straight link at lag 1 ;while at lag 2 there is –ve 35 % alteration in PIMP . Besides outcomes of coefficient also showed that in case there is 1 % fluctuation in GDP there is +ve fluctuation of 30 % in Import. Outcomes of coefficients further showed that if there is 1 % fluctuation in Interest Rate there is + ve fluctuation of 1.845 % in Import.

Cointegration & Long Run

Since cointegration is essentially a long-run concept, tests for cointegration require long data spans rather than just large numbers of observations to have significant power. We illustrate this for four scenarios using Monte Carlo simulations popular cointegration tests.

Table 11

ARDL Cointegrating And Long Run Form				
Dependent Variable: PIMP				
Selected Model: ARDL(2, 0, 3, 0, 0)				
Date: 07/07/22 Time: 01:35				
Sample: 1972 2021				
Included observations: 45				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PIMP(-1))	0.207732	0.113151	1.835874	0.0749
D(PEXP)	0.000578	0.020263	0.028539	0.9774
D(PEXR)	-0.520838	0.300964	-1.730562	0.0923
D(PEXR(-1))	0.351690	0.388742	0.904686	0.3718
D(PEXR(-2))	0.792023	0.301702	2.625182	0.0128
D(PGDP)	0.309529	0.685954	0.451239	0.6546
D(PIR)	1.845269	0.788963	2.338855	0.0252
CoIntEq(-1)	-1.237565	0.171818	-7.202779	0.0000
CoInteq = PIMP - (0.0005*PEXP -2.5083*PEXR + 0.2501*PGDP + 1.4910*PIR + 0.0707)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PEXP	0.000467	0.016386	0.028516	0.9774
PEXR	-2.508343	0.418394	-5.995170	0.0000
PGDP	0.250112	0.566163	0.441766	0.6614
PIR	1.491048	0.630349	2.365433	0.0237
C	0.070700	0.070457	1.003444	0.3225



It has been observed in above table of long run coefficient that Probability records the p-values associated with individually different series in. P-values for PEXP is 0.9774, probability value for PGDP is 0.6614, p-value for PIR is 0.0237, and p value of PEXR is 0.00000, since p-values of PEXP, PGDP are more than 5%. So, we have rejected alternative hypothesis of PEXP & PGDP and accepted null hypothesis of PEXR. We conclude that no Unit Roots is present at every series is I (0).

Table 12

ARDL Bounds Test

ARDL Bounds Test
 Date: 07/07/22 Time: 01:36
 Sample: 1976 2020
 Included observations: 45
 Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	11.91396	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Test Equation:
 Dependent Variable: D(PIMP)
 Method: Least Squares
 Date: 07/07/22 Time: 01:36
 Sample: 1976 2020
 Included observations: 45

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PIMP(-1))	0.188581	0.115295	1.635638	0.1109
D(PEXR)	-0.440370	0.294744	-1.494075	0.1441
D(PEXR(-1))	1.179752	0.484996	2.432499	0.0202
D(PEXR(-2))	0.804871	0.317363	2.536120	0.0158
C	0.114965	0.107439	1.070045	0.2919
PEXP(-1)	0.009470	0.020301	0.466484	0.6438
PEXR(-1)	-3.185189	0.633389	-5.028805	0.0000
PGDP(-1)	0.155763	0.792166	0.196630	0.8453
PIR(-1)	1.662632	0.880636	1.887991	0.0673

F

Statistics in above table is 11.91396 which indicated presence of Co integration. It showed the null hypothesis of “no long-run relationship is to be present between the variables in equation” is rejected.” (Belloumi, p. 2014). As the F statistic exceeds the superior bound of the critical value band the immaterial hypothesis of no long run relationship between the variables is discarded. According to result of test there exists long-run link among PIMP, PEXR. PGDP, & PIR & PEXP



Table 13
 Autocorrelation.

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0.678235	Prob. F(2,41)	0.5131	
Obs*R-squared	1.495495	Prob. Chi-Square(2)	0.4734	
Test Equation:				
Dependent Variable: RESID				
Method: Least Squares				
Date: 07/05/22 Time: 09:38				
Sample: 1974 2020				
Included observations: 47				
Presample missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PEXP	-0.002287	0.031081	-0.073592	0.9417
PEXR	-0.044218	0.455048	-0.097173	0.9231
PGDP	-0.062739	0.853611	-0.073498	0.9418
PIR	0.061986	0.609283	0.101736	0.9195
RESID(-1)	0.157684	0.156487	1.007648	0.3195
RESID(-2)	-0.113634	0.170253	-0.667444	0.5082
R-squared	0.031819	Mean dependent var	0.002311	
Adjusted R-squared	-0.086252	S.D. dependent var	0.160104	
S.E. of regression	0.166866	Akaike info criterion	-0.624508	
Sum squared resid	1.141615	Schwarz criterion	-0.388319	
Log likelihood	20.67593	Hannan-Quinn criter.	-0.535628	
Durbin-Watson stat	1.790636			

Outcomes of BG serial correlation LM Test in above Table reflected that no such problem of Autocorrelation exists as p-value is >5%. So, we have accepted Null hypothesis.

Figure 12

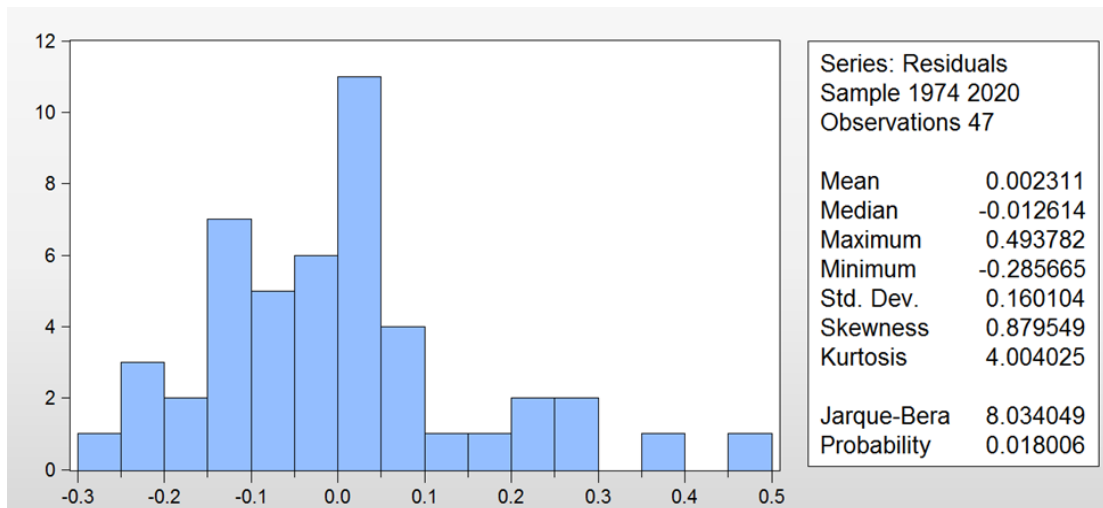




Table 14

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0.678235	Prob. F(2,41)	0.5131	
Obs*R-squared	1.495495	Prob. Chi-Square(2)	0.4734	
Test Equation:				
Dependent Variable: RESID				
Method: Least Squares				
Date: 07/05/22 Time: 09:38				
Sample: 1974 2020				
Included observations: 47				
Presample missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
PEXP	-0.002287	0.031081	-0.073592	0.9417
PEXR	-0.044218	0.455048	-0.097173	0.9231
PGDP	-0.062739	0.853611	-0.073498	0.9418
PIR	0.061986	0.609283	0.101736	0.9195
RESID(-1)	0.157684	0.156487	1.007648	0.3195
RESID(-2)	-0.113634	0.170253	-0.667444	0.5082
R-squared	0.031819	Mean dependent var	0.002311	
Adjusted R-squared	-0.086252	S.D. dependent var	0.160104	
S.E. of regression	0.166866	Akaike info criterion	-0.624508	
Sum squared resid	1.141615	Schwarz criterion	-0.388319	
Log likelihood	20.67593	Hannan-Quinn criter.	-0.535628	
Durbin-Watson stat	1.790636			

Outcomes of BG serial correlation LM Test in above Table reflected that no such problem of Autocorrelation exists as p-value is greater than 5%. So, we have accepted Null hypothesis.

Table 15

Heteroscedasticity

Heteroskedasticity Test: Breusch-Pagan-Godfrey				
F-statistic	1.138223	Prob. F(4,42)	0.3517	
Obs*R-squared	4.596619	Prob. Chi-Square(4)	0.3312	
Scaled explained SS	5.876894	Prob. Chi-Square(4)	0.2085	
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 07/05/22 Time: 09:38				
Sample: 1974 2020				
Included observations: 47				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.033049	0.033693	0.980907	0.3323
PEXP	-0.004854	0.007918	-0.613045	0.5432
PEXR	-0.076241	0.116427	-0.654842	0.5161
PGDP	0.311865	0.241841	1.289544	0.2043
PIR	-0.174374	0.300871	-0.579563	0.5653
R-squared	0.097800	Mean dependent var	0.025093	
Adjusted R-squared	0.011877	S.D. dependent var	0.044333	
S.E. of regression	0.044069	Akaike info criterion	-3.305837	
Sum squared resid	0.081567	Schwarz criterion	-3.109013	
Log likelihood	82.68716	Hannan-Quinn criter.	-3.231771	
F-statistic	1.138223	Durbin-Watson stat	0.819608	
Prob(F-statistic)	0.351720			



Above table reflected that Heteroscedasticity has been conducted through Breusch Pagan Godfrey test. Result showed that series are homoscedastic as p-value is >5%.

Table 16

Multicollinaerity

Variance Inflation Factors			
Date: 07/07/22 Time: 01:34			
Sample: 1972 2021			
Included observations: 45			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
PIMP(-1)	0.020558	2.568271	1.864724
PIMP(-2)	0.012803	2.119486	1.499896
PEXP	0.000411	1.163984	1.112718
PEXR	0.090580	2.825817	1.324070
PEXR(-1)	0.103643	3.030135	1.483472
PEXR(-2)	0.151121	4.224408	2.177203
PEXR(-3)	0.091024	2.534795	1.305423
PGDP	0.470533	5.973990	1.469828
PIR	0.622462	27.39843	1.321409
C	0.008311	32.50205	NA

Outcomes of Variance Inflation Factor at above table showed that there does not exist any problem of Multicollinaerity as all the Centered VIF (Variance Inflation Factor) values are lesser than 10 (O'Brien, 2007) and (Gujrati)

Discussion and Conclusion

We have adopted method of bounds analysis method to co integration formulated inside ARDL structure for analyzing presence of long run balance link among Import , GDP, Interest rate, Export as well as Foreign Exchange Rate .

Outcomes reflect solid proof that exchange rate, GDP, and interest rate plays meaningful role in concluding that the long run and short run response of import of our country

We have evidenced from analysis of our statistics that there are no issues of Multicollinaerity, Heteroscedasticity, Unit Root and Autocorrelation. Further figures has co-integration and bear long run link as well as all void suppositions regarding above stated test are discarded, fluctuations or rise in free variables viz GDP, Interest rate or discount rate & foreign exchange rate and export bear important effects on import of Pakistan.

Thus, the declining trade deficit that resulted in a lack of foreign currency due to changes in global commodity prices was a significant factor that led countries to adopt import substitution. Countries today are using import substitution strategies on purpose. Increasing industrial investment in a nation can help local businesses learn new technologies, cut imports, and boost



the production of goods made there (Role of the Industry Import Substitution Strategy in the Country Economy)

Import substitution industrialization is a trade & economic strategy that sponsors substituting overseas importing by local manufacturing (A Comprehensive Dictionary of Economics p.88, ed. Nelson Brian 2009.)It is based on the premise that a country should attempt to reduce its foreign dependency through the local production of industrialized products. The term primarily refers to 20th-century development economics policies, but it has been advocated since the 18th century by economists such as Friedrich List (Mehmet, 1999):and Alexander Hamilton (Joon, 2002) Import Substitution Industrialization policies have been enacted by developing countries with the intention of producing development and self-sufficiency by the creation of an internal market. The state leads economic development by nationalization, subsidization of manufacturing, increased taxation, and highly protectionist trade policies (Street, 1982).

It is concluded after observing completion of econometric tests, and assessment of manuscripts that there exists major effect of fluctuations in Gross Domestic Product, Interest rate (Discount rate), Export and Foreign exchange rate on the import of Pakistan.

Our objectives of analyzing data relating to our country import , Exchange Rate, and GDP at constant price and interest rate (Discount rate) and perceived so as to disparity into Foreign Exchange Rate, GDP and Interest (Discount rate) bear significant impact on import of our country.

Policy Implications of the study

To enhance sell overseas Government may grant security to employment, commerce; as well as encourage export it should make certain non-violent situation inside the country, suitable continuation of peaceful circumstances as well as uphold national safety.

Imports of luxury and unnecessary goods and items should be minimized and discouraged through imposition of heavy duty on such items.

Steps be taken by Government to build up and give safety to newly established factories and industrial units through giving way exemptions in tax for specific period, as well as further amenities. Those policies might be put into practice through Government which persuade buy and sell of elevated worth supplemented with sophisticated commodities;



Further take pains for increasing marketplace access for our buy and sell; complimentary/extraordinary commerce treaty might be considered again, besides as our country has been confronting commerce underperformance through associate countries ;as well as prudence among Asset, mechanized and Trade policies may be framed which assist Pakistan in accomplishment of expected purpose of rising sell overseas.

The following features of manufacturing that effect economic growth within a country namely accessibility of water, oil, gas & minerals. (Essential Question)

- i. (a)making expenses on development of in employees,
- ii. (b)savings in Investment commodities,
- iii. (c) Personal project.
- iv. (d) incurring expenses on improvement of human capital

State may ensure job and industry protection in order to improve trade balance with increase in exports. State should ensure proper maintenance of peaceful environment and national safety.

Proper care is needed for newly established industrial unit and these may be facilitated with tax free holidays etc. Incentives may be provided for sell abroad of value added merchandises

Features of production such as access to water ,petroleum, natural gas & minerals affects financial growth in a country (Essential Question) . State is required to ensure continual provision of these facilities to industrial units.

State may make investment in human resources, goods, because the availability of trainings to manpower and production of refined merchandise determine GDP of a country.

Our country requires investment in tools,, machinery, manufacturing plants, information technology. Industrial units having latest technology.

Entrepreneurs are required to be encouraged by the state because they run business by taking financial risks and create employment opportunities. Pakistan direly needs a Strategic trade policy and proper implementation thereon (Companies, 2000). A Businessman is a person who has a vision for production of goods or supply of services and they take the pains for their manufacturing. The said person has importance because they possess novel ideas and could utilize labour, speculation, as well as above stated assets to turn up their concepts as well as to the market. (Essential Question)Availability otherwise non-availability of such characteristics determine GDP of a country during phase of time.



Hence Government is required to emphasize to ensure suitable accessibility of natural resources such as gasoline, water, mineral deposits, flora etc. Investing in investment merchandise or investing in utensils, machinery, tools, industrial units, expertise, system, timber, machines, etc. Incurring amount on development of Human Capital means increasing all skill, competence, knowledge, and capabilities that manpower have, and the worth that they bring to the marketplace; and persuade private enterprise because they are the community who take hazards, carry out business, manufacture sell abroad merchandise as well as generate employment and take part in a significant part in sinking joblessness.. (Presentation on Economic Factors of Economic Growth)Private project motivate persons to sustain hazards, and accordingly produce superior things, merchandise, machinery and tools, etc. If a country has a large number of business persons then it has superior GDP (Essential Question)

Pakistan to a great extent wants a Long term Trade strategy along with suitable execution. (Companies, 2000) Our country is a rich in labour hence we should send our labour in shape of man power to other countries lacking in it. By following the footsteps of China we should take on Factors Endowment Theory regarding labour force and receive remittances from abroad as payments of foreign exchange.

Future research direction

There is a broad perspective available to researchers for conduct of research on this topic through analysis of more variables like supply of currency, inflation, Foreign Direct Index and price index under time series data: besides research may be conducted by comparative analysis of trade balance of two or more countries in any region such as group of SAARC member countries. Further based on the below stated reasons there are plenty of opportunities of future research on this topic.

- Provision of infrastructure facilities,
- Proportionate benefit in production of goods
- availability of skilled manpower,
- investment,
- minerals,
- water supply, petroleum and gas supply,
- technological developments and exploration,
- learning of skills as well as knowledge,
- dynamic production of extra ordinary nature,
- peaceful conditions safety and secure environment,



- Intra-industry trade
- Merger with the global world economy by manufacturing chains;
- Percentage of GDP to foreign trade
- Charges of conducting trade
- Marketplace Entry
- Direct Investment from abroad
- Price hike
- Saving rate
- Rate of Investment
- Average applied tariff rate, (National Commission on Tariff, 2015)

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