ABSTRACTS


Limits to further expansion of cultivated land and slowing returns to further input intensification accord a central role to productivity growth in meeting the challenges of agricultural growth in the future. There have not been many studies measuring total factor productivity growth in Pakistan’s agriculture. The most frequently applied techniques for measuring total factor productivity growth in agriculture are: (a) Arithmetic Index (AI); and (b) Tornqvist-Theil Index (TTI). Total Factor Productivity in this study has been estimated using both the Arithmetic and the Tornqvist-Theil indexing methodologies. It has been shown that the Tornqvist-Theil indexing procedure is more appropriate due to dependence of results for the Arithmetic index on the weights used. The TFP index for the period 1960–96 is computed with a gross output index that includes both crops and livestock products and the aggregate input index that, in addition to land, capital, and labour, also includes purchased intermediate inputs (fertilisers and pesticides). The results show that the TFP has grown at an average annual rate of 2.3 percent for the entire period (1960-61 to 1995-96). This accounts for about 58 percent of the total output growth in the country during this period. It is fair to say that productivity growth was a significant driving force in the performance of the agriculture sector in Pakistan for over 36 years. The chief source of growth in TFP has been the technological progress embodied in the high-yielding varieties of grains and cotton with supporting public investment in irrigation, agricultural research and extension (R&E), and physical infrastructure. Sustaining and improving on this productivity performance of Pakistan’s agriculture requires a strengthening and deepening of the agricultural markets and enhanced funding for the agricultural research system.


Liberalisation policies have a major impact on the profitability, employment, and incomes in agriculture sector, as well as on living standards and the poverty levels in the rural areas. In the wake of the IMF structural adjustment programmes and the new emerging trade scenario, the Government of Pakistan, in addition to eliminating input subsidies, is also reluctant to increase support prices for various crops. This has initiated a debate. One view is that the Government must support agricultural prices and farmers must be protected from the decline in market prices of agricultural commodities. The contrasting view is that the subsidies have made the agriculture sector highly dependent on government support, and in order to survive in the WTO trade regime the sector must become highly competitive, efficient, and self-dependent. This paper computes...
relative price changes in the crop sector to explore whether profitability in this sector has improved or deteriorated. Another goal is to gauge the impact of price changes on the standard of living of the farmers. For this purpose, various terms of trade are calculated. The terms of trade for the crop sector are defined as the ratio of the index of prices received by the crop sector and the index of prices paid by the sector. The paper also probes how movements in international crop prices affect the profitability in the sector and the standard of living of the farmers. The empirical findings, based on the data from 1983-84 to 2002-03, show that the purchasing power and profitability of the farmers in the crop sector have not improved over the last twenty years.


This paper analyses export specialisation of Pakistan’s non-agriculture production sectors during 1990-2000, by using the revealed comparative advantage (RCA) approach at HS 4-digit level. The paper provides an insight into the challenges and opportunities that Pakistan’s non-agricultural sectors face as they become rapidly integrated into global markets. The paper identifies those non-agricultural export categories in which Pakistan is losing, gaining, or maintaining its export competitiveness. The study examines the extent to which Pakistan’s leading non-agriculture product lines have witnessed a shift in comparative advantage away from the traditional labour-intensive production to the export of technology-based production activities. The study also provides an in-depth investigation of export specialisation of Pakistan’s non-agriculture production sectors by dividing key HS 4-digit non-agricultural product lines into six distinct groups based on their position in Pakistan’s RCA profile. To assess the relative competitive position of various manufacturing and mining activities, the study also provides a comprehensive analysis at the sectoral level.


This paper re-investigates the exports and economic growth nexus for Pakistan. The paper employs cointegration and multivariate Granger Causality Test [Toda and Yamamoto (1995)] to study the long-run and short-run dynamics among exports, imports, and real output growth over the 1960–2003 period. Results strongly support a long-run relationship among imports, exports, and output growth. Feedback effect between import and output growth and unidirectional causality from export to output growth was found. Nevertheless, the results do not confirm any significant causality between imports and exports.


Regional integration of the financial markets is the building-block for globalisation and internationalisation. Many regions around the world have recently been engaged in such regional economic and financial market integration to form the basis of a more complex international financial system. The recent developments in South Asia and the revived activities under the SAARC forum have raised some hopes for a more sustained economic development in the regional economies. It is timely, therefore, to investigate the prospects of regional financial market integration in the South Asian region. In this perspective, this paper analyses the currency market integration within four South Asian countries and with their major trading partners. For empirical estimation, we use data from a sample of four South Asian countries, namely, India, Pakistan, Bangladesh, and Sri Lanka. The paper examines the nature of the causal relationship between exchange rates in the sample countries and their major trading partners. Both the short-run and the
long-run causal relationships between these markets are examined using high-frequency data of exchange rates. The paper also explores whether the causal linkages between these variables are of similar intensity across the country and across the market. The nature of the mean and volatility transmission between stock and foreign exchange markets is explored through multivariate exponential GARCH model, which is capable of capturing asymmetries in the volatility transmission mechanism in both the short run and the long run within a co-integration framework. The departing feature of this approach is that it captures both linear and non-linear relationships, which are linked through second order moments. We believe that this to be fresh research on this issue for South Asia and it may have important implications for any future policy for the region.

7. **Attaullah Shah and Tahir Hijazi.** The Determinants of Capital Structure of Stock Exchange-listed Non-financial Firms in Pakistan. 605–618.

   In this paper, we study the potential determinates of the capital structure of non-financial firms listed on Karachi Stock Exchange. We analyse a sample of 445 firms listed on the KSE for the period 1997–2001. We have chosen tangibility of assets, size, firm growth rate, and profitability as independent variables, and measure their effect on debt/total asset ratio (proxy for leverage). Using the technique of panel data analysis, we observe that of the four independent variables, growth, size, and profitability have significant effect on leverage. However, we do not find tangibility as significantly correlated with leverage.


   This paper analyses long-term equilibrium relationships between a group of macroeconomic variables and the Karachi Stock Exchange Index. The macroeconomic variables are represented by the industrial production index, the consumer price index, M1, and the value of an investment earning the money market rate. We employ a vector error correction model to explore such relationships from 1973:1 to 2004:4. We find that these five variables are cointegrated and two long-term equilibrium relationships exist among these variables. Our results indicate a “causal” relationship between the stock market and the economy. Analysis of our results indicates that industrial production is the largest positive determinant of Pakistani stock prices, while inflation is the largest negative determinant of stock prices in Pakistan. We find that while macroeconomic variables cause stock price movements, the reverse causality is observed only in the case of industrial production and stock prices. Furthermore, we find that statistically significant lag lengths between fluctuations in the stock market and changes in the real economy are relatively short.


   This paper empirically analyses the relationship between stock indices in Karachi Stock Exchange (KSE) with exchange, employing time series techniques, that is, Unit Root Test, Johanson’s cointegration technique, and Granger Causality Test. The paper finds no cointegrating relationship between the stock market indices and the exchange rate. The research next performs the Granger non-causality test. The study finds that a causal relationship exists between the stock market general index and the exchange rate. In this regard, causality runs from the stock market general index to the exchange rate. We also find that causality runs from the exchange rate to the services sector index, which postulates that the exchange rate leads the services sector index. So, in this scenario, the exchange rate can be used as a policy tool for the services sector index and the overall general sector index for stabilisation of exchange rate in order to attract foreign portfolio investments. This result possesses certain policy implications.

The paper empirically identifies the determinants of growth in foreign direct investment (FDI) in Pakistan over the period 1961–2003. Our main interest is to study how different variables or indicators reflecting the trade, fiscal, and financial sector liberalisation attract FDI in Pakistan. The study uses the cointegration and error-correction techniques to identify the variables in explaining the FDI in Pakistan. The study considers the tariff rate, exchange rate, tax rate, credit to private sector, and index of general share price variables to see if they may explain the inflow of foreign direct investment. Also included are wages and per capita GDP to test for the relative demand for labour and market size hypotheses. All variables indicate correct signs and are statistically significant except for wage rate and share price index. The study clearly emphasises the role of these policy variables in attracting FDI and determining its growth in both short- and long-run in Pakistan, and also indicates a positive and significant impact of reforms on FDI in Pakistan.


This paper explores the saving-investment behaviour in Pakistan by identifying their patterns over time and across selected Asian countries. Further potential determinants were empirically tested, based on theoretical foundations of modelling for saving and investment behaviour. Savings in Pakistan for our sample period showed a positive response to GDP growth and government current expenditure while it remained insensitive to interest rates. On the other side, domestic savings and short-run expected returns positively affected investment whereas uncertainty reduced investment.


This paper attempts to examine the cost competitiveness of the manufacturing sector of Pakistan for the period 1972-73 to 2002-03. Given that the data on the value of cost expenditure has not been published after 1995, the paper relies on constructing a composite index of input prices and compares it with export price (taken as a proxy for output price, since the main focus here is on external competitiveness). The findings indicate that both the composite (weighted) factor input price and the non-factor input price indices have grown at a rate faster than the export price index during the sample period. Furthermore, the growth in the prices of energy, imported machinery, and wages stayed higher than that of the overall inflation. While investigating the pattern of productivity of the manufacturing sector, the paper reveals that although it increased over the sample period, its rate of growth has slowed down. And, for the most recent period, 1999-03, productivity growth has failed even to offset the extent to which input price increases have outpaced increase in the export price. This creates the concern that if this situation goes on, over the course of time, the profits eventually will become negative and will put some producers/exporters out of business.


FDI has been one of the defining features of the world economy over the past two decades. It has grown at an unprecedented pace for more than a decade. Liberalisation of the foreign trade regime is an integral part of growth of FDI. This paper investigates the trade policy regime followed by Pakistan that has influenced significantly both the amount of inward FDI received and economic growth. Our findings maintain that the Bhagwati Hypothesis Emphasis on both export promotion policy and inward FDI on the part of the government can get the desired result of economic growth.

This paper examines the validity of the purchasing power parity to evaluate whether the Pak-rupee vis-à-vis the US-dollar has been overvalued since the introduction of managed floating exchange rate. The Johansen multivariate cointegration technique is applied for the period 1982Q2-2002Q4. A single cointegrating vector is identified whose coefficients conform in broad terms to the restriction implied by the PPP theory, lending support to the interpretation of the model as describing a long-run relationship. This support is reinforced by the results derived from the adjustment coefficient, which is identifies clear short-run tendency for the exchange rate to revert to the equilibrium value defined by the estimated long-run model. Furthermore, exchange rate misalignment is also calculated using the estimated long-run relationship to evaluate whether the Pak-rupee vis-à-vis the US-dollar was undervalued or overvalued since the inception of managed floating exchange rate system. Calculated misalignment shows a substantial undervaluation of the Pak-rupee vis-à-vis the US dollar.


In the global trading arena, the regional integration perhaps represents the most important legacy of the 20th century. This paper focuses on the scope and promise of economic cooperation between the SAARC region countries. Descriptive statistics is used to provide the evidence for the argument that very high share of trade in the GDP of the region’s economies exposes them to external shocks in a potentially harmful manner, and these countries ought to be paying greater attention to increasing the size of their economies. In order to determine the importance of the external sector in the economies of the region, a simultaneous equations model is formulated and estimated, utilising the pooled data for the period from 1972–2001, by applying the 2SLS technique. The coefficients of two of the three external sector variables included in the model, namely, export earnings and trade balance, turn out to be significant, providing the evidence on the importance of the external sector in the economic growth of the SAARC region countries. Keeping in view that Pakistan needs to adopt sustainable growth strategies, the authors maintain that extended economic cooperation within the SAARC region is the most viable alternative for the country. The argument is substantiated with the help of inferential statistics, providing the evidence that exports to SAARC countries are positively related with the economic growth of Pakistan. The simulation output also shows that increasing and diverting the country’s exports to the SAARC region have positive impact in terms of growth projections. By estimating and simulating another model, it is inferred that in the short run, diverting exports to both the SAARC and ASEAN region countries appears to be a viable strategy to help Pakistan move towards greater integration within the SAARC region, and that the SAARC forums must make meaningful progress in terms of delivering concrete results.


Islam is one of the world’s major monotheistic religions. Its followers, spread all over the world and numbering about 1.5 billion people, constitute about one-fourth of the world’s population. [The
Economist (2003)]. Muslims are mainly concentrated in about 50 countries, most of which have had slow pace of fertility transition, mainly due to low level of socio-economic development, on the one hand, and lack of effective population policy, on the other. With the help of macro level data available on Muslim-majority countries, this paper examines fertility decline in these countries, their socio-economic indicators, and support for family planning. Examples from two neighbouring countries—Pakistan and Iran—are also given.


This paper empirically examines the existence of a common trend between the exchange rates of Pakistan and four regional countries (Bangladesh, India, Saudi Arabia, and Sri Lanka) with two of their major trading partners (the United States and Japan) as base countries. Results from cointegrating analysis show that the strongest evidence points to the existence of common stochastic trends between the Pakistani rupee, on the one hand, and the Bangladeshi Taka and the Sri Lankan rupee, on the other hand. There is no strong evidence for the existence of a common stochastic trend between the Pakistani rupee and the currencies of India and Saudi Arabia. Optimum Currency Area (OCA) theory seems to justify the formation of a currency union between Pakistan, Bangladesh, and Sri Lanka. The case of a currency union between Bangladesh and Pakistan is strengthened by a shared political past and a shared history of financial institutional development. The immediate impact of the formation of such union on Pakistan’s GDP growth will however be insignificant.


The study empirically investigates the effect of exchange rate volatility on exports growth between Pakistan and leading trade partners. The countries are selected to determine the bilateral relationship between Pakistan and the other countries under various regional economic blocks such as SAARC, ASEAN, European, and Asia-Pacific regions. Cointegration and Error Correction techniques are used to establish the empirical relationship between exchange rate volatility and exports growth, using quarterly data from 1991:3 to 2004:2. The results indicate that the volatility of exchange rate has negative and significant effects both in the long run and short run with major trade partners, namely, UK and US. A similar pattern was observed in case of Australia, Bangladesh, and Singapore, where the volume of trade with Pakistan is comparatively consistent and less volatile. The relationship between exports growth and exchange rate volatility for India and Pakistan is observed only in the long-run perspective. However, of countries like New Zealand and Malaysia, no empirical relationship is observed between export growth and exchange rate volatility.


The paper analyses different models to check the behaviour of exchange rate after the recent floating period in July 2000. It is found that the gap between the nominal and real exchange rate has widened after 9/11. Changes in the nominal exchange rate and real exchange rate are highly correlated and relative prices are not significantly correlated with the nominal exchange rate. Moreover, the exchange rate did not capture frequent changes in relative prices, which implies that PPP does not hold for the recent floating period. Real exchange rate always overshoots in response to exogenous shocks and then adjusts back to restore the equilibrium, although the adjustment process varies by country. The real exchange rate is not completely a random walk model and the movements are also explained by other fundamentals. It is safer to keep reserves in dollar and yen than in any other currency.

Although reducing rural poverty has been the key agenda of economic reforms in Pakistan, the rural poverty continued to rise during the 1990s. The causes of rural poverty are complex and multidimensional. The rural poor are quite diverse both in the problems they face, and the possible solutions to these problems are also different. The paper uses the most recent household data set available—PIHS 2001-02—to examine the causes of rural poverty, as to what accounts for its persistence and what policy measures should be taken to alleviate it. Poverty estimates using official poverty line suggest the high prevalence of rural poverty ranging from 39 percent to 48 percent in all provinces. Rural poverty is found to be strongly correlated with lack of asset in rural areas. The unequal land ownership in the country is found to be one of the major causes of rural poverty, as poverty level was the highest among the landless households followed by non-agriculture households. The incidence of landlessness is common in rural areas. About 67 percent households own no land in the country. Unusually, just 0.3 percent households own 55 and above acres of land across the country, suggesting a highly skewed landownership pattern. Gini Coefficient of landholding suggests that Punjab has the most unequal landownership pattern, followed by the NWFP, Sindh, and Balochistan. The highly unequal land distribution seems to have resulted in tenancy arrangements such as sharecropping, resulting in high prevalence of absolute poverty particularly in Sindh. A broad-based land reform programme, including land redistribution and fair and enforceable tenancy contracts together with rural public works programmes and access to credit, is critical to reducing rural poverty in Pakistan.


This paper quantitatively investigates transition of poverty in Pakistan using two-period panel data set of Pakistan Socio-economic Survey. Empirical results show that the incidence, intensity, and severity of poverty have increased over time. This analysis also identifies ‘the absolute poor’, ‘the transitory poor’, and ‘the non-poor’, and suggests that ‘the absolute poor’ households have increased significantly over time. The poverty transition portraits that about one-quarter of the households remain poor, while approximately fifty percent households remain non-poor. Analysis of poverty entries and exits over these two periods show that many households enter poverty while fewer households exit from poverty. The analyses also suggest that transition of poverty is closely related to socio-economic dimensions of the households such as school enrolment, child labour, employment status of the head of the household, and indebtedness of the households. The main message that emerges from this study is that poverty reduction should focus on the extremely vulnerable households, and should try to reduce entry into poverty while increasing exit from poverty.

Promotion of Intra-regional trade is the most important economic justification for regional economic blocs. This paper examines such prospects in the Economic Cooperation Organisation (ECO) region, a grouping of ex-RCD and Central Asian States. It is shown that the progress is extremely slow and the time table fixed for the implementation of the ECO Trade Agreement is ambitious, given the lukewarm will to cooperate, the unsettled state of affairs in Afghanistan, and the dirigistic legacy of central planning in the Central Asian States.

25. M. Asaduzzaman. Trade Liberalisation as an Instrument for Regional Co-operation. 925–931. (Abstract not received.)


27. Indra Nath Mukherji. South Asian Free Trade Area and Indo-Pakistan Trade. 943–958.

South Asian Preferential Trading Arrangement (SAPTA) became operational in December 1995, through a modest exchange of tariff preference among the contracting states. The concessions exchanged expanded progressively through the second and third rounds, and by end of October 1999 as many as 5550 products were conceded preferential concessions by all contracting states, of which 3439 products were offered exclusively in favour of Least Developed Countries (LDCs). India offered concessions on 477 products. Using highly disaggregated data from Indian sources, this paper highlights the trend in preferential trading between India and Pakistan on these products through the three rounds of negotiations covering the period 1996-97 to 2002-03. The hypothesis of the study is that the share of preferential trade in relation to bilateral trade (both for imports and exports) would increase with the offer of concessions and also lead to trade diversification in such products. The results of this study support this hypothesis. The paper examines the various constraints to bilateral trade and agrees that in case these were removed, the bilateral trade between the two countries would expand even further.