ABSTRACTS


This paper outlines some problems in the articulation of a national skill formation strategy seeking to sustain ‘the drive to maturity’ of the Pakistan economy. We examine the thought of two economists—Adam Smith and Amartya Sen—to identify market-, society-, and state-related skills that they theorise as necessary for sustaining an economy’s ‘drive to maturity’. We then briefly outline Michel Foucault’s social theory to contextualise these skill formation paradigms within the institutional structure characteristic of mature capitalism. We argue that integration within global capitalist order leaves little room for the articulation of such a skill formation national strategy. Pakistan is therefore likely to share the fate of the majority of the under-developed countries which are experiencing de-skilling and de-techonologising growth.


Training and skills development play vital role in development. The demand for vocationally trained and technically educated human resource rises with every step towards industrialisation and modernisation of production units and work premises. Therefore, skill and capital are complementary. The paper specifically reviews and analyses the status of vocational training related policies and practices and their impact on the development of human resource in Pakistan. The study revealed that there is a time lag of 3 to 10 years to harness the benefits of training. Therefore, government should plan accordingly. It also explores that there exists a wide gap between demand and supply of effective manpower and lack of co-ordination amongst government and private agencies. There is a need to update and revise the existing curriculums, enhance the status of the teachers, and strengthen the Institutions. Pakistan has favourable demographic transition trend, therefore, there is a need to exploit it properly. Public and private sectors should pursue demand based policies that promote growth in Human Resource Development.


The controversy over the likely effects of globalisation on economic well-being is well-debated in the literature, yet the subject remains open to further examination. This study explores the link between globalisation and governance in Pakistan. The analysis concludes that the benefits of globalisation in terms of improved social indicators are seriously undermined due to poor governance. The study suggests policies for improving governance in the country.

JEL classification: F02, 015, I

Keywords: Governance, Corruption, Globalisation, Social Indicators, Pakistan

A discussion is presented on demographic transition that was successfully completed by developed countries, whereas developing countries are still at various stages of this transition. The paper suggests that in developing countries the condition of poverty has a strong influence on population growth rates. The paper presents an analysis regarding approaches followed by different schools of thought on the relationship between population, poverty and the environment. These schools agree that poverty and population growth rates have strong links, but they provide contrasting explanations for this link. As a result of this, they suggest divergent policy options to reach the common goal of sustainable population growth.

*Keywords*: Poverty, Environment, Population, Malthusians, Boserupians


Developing countries are increasingly concerned about gender dimensions of the impacts of economic reforms initiated under the structural adjustment and stabilisation programmes. This article develops a gendered Computable General Equilibrium model based on the notions of production in paid economy and unpaid care economy pioneered by Fontana and Wood and applies it to Pakistan. The study assesses the impact of two types of shocks: trade liberalisation and fiscal adjustment. Results support the contention that trade liberalisation in the presence of compensatory measures overburdens women but reduces income-based poverty by all measures. In all other exercises, employment in the market sectors is decreased. The study concludes that despite significant changes in market employment, gender division of labour remains unequal within household economy.


Restricted translog production model is used to estimate the allocative efficiency of wheat growers in Peshawar Valley. It is found that average allocative efficiency is 72 percent. To increase the allocative efficiency, farmers need to increase the use of nitrogen and phosphorous and decrease the use of tillage and irrigation.


There is strong evidence in the literature that export and economic growth have a positive relationship. In Pakistan, with an agrarian economy, earnings from primary agricultural exports are vital for the overall growth process. Fruits are the traditional export commodities, which contribute more than half of total export earnings from primary agricultural commodities. The persistent instability in world market prices for primary commodities has depressed the export earnings from these commodities over time. This poses great challenges to a country like Pakistan. The present study aims at examining changes in the volume of export of citrus fruit from Pakistan caused by such factors as changes in domestic and export prices, national product, foreign exchange rate, etc. The study uses time series data for the period 1975–2004 for citrus exports and related domestic price, export price, GDP, and foreign exchange rate, employing the co-integration and error correction techniques for analysis purposes.

This paper is based on primary data collected from a survey of citrus producers and market intermediaries from the major citrus producing area of Punjab. Data were collected from 125 producers to overview the existing citrus marketing system followed by the growers and to identify the socioeconomic and technical constraints for citrus marketing functionaries. The survey results revealed that more than 90 percent citrus producers sold harvesting rights of their orchards to contractors. It was found that the overall producer’s share in the consumer’s rupee was 35 percent, followed by the contractor and the retailer obtaining 32 and 20 percent respectively. Other indicators reported were net profit margins, duration and type of contract, method of contract price determination, mode of payment, and conduct of auctions. The results of deconstructing marketing margin analysis reveal that (i) profit absorbs most of the marketing margin, (ii) retailers receive the highest gross return while the rate of return is the highest with other marketing agents, and (iii) the highest rate of wastage occurs at the level of contractors. Efforts are required to control the post-harvest losses in citrus marketing.


This study on farmers’ training in environment-friendly production practices for cotton crop was conducted in the Khairpur District of Sindh province. Data used in this study comprises baseline and post-IPM Farmer Field School (FFS) impact surveys conducted during 2001 and 2003 respectively. The programme impacts were estimated on gross margins and changes in farmers’ attitude towards environment and biodiversity. The effect of training on social recognition of farmers, their experimentation abilities, and decision-making skills were also examined. Beside single difference comparisons of change in production practices between trained and non-trained farmers, the difference in difference (DD) method was also used for comparisons among FFS farmers, exposed farmers, and un-exposed farmers from controlled villages. The stochastic production frontier model incorporating inefficiency effects is also estimated to analyse the impact of farmers’ training (through FFS) on productivity and efficiency at cotton farms in the area under study. The results show that better cotton yield and reduction in the cost of pesticides and fertiliser inputs enabled FFS farmers to fetch significantly higher gross margins (US$ 391/ha) than non-FFS (US$ 151/ha) and Control farms (US$ 25/ha). The total application of pesticide chemicals was largely reduced (44 percent) on FFS farms. The cost of inefficiency at FFS farms was lower (23.71 percent) as compared to those on non-FFS farms (30.50 percent), which implies that FFS farmers were able to maintain a higher level of technical efficiency. It is concluded that the FFS approach is not only cost efficient but also improves farm-level technical efficiency. Information generated through Agro-ecosystem analysis on pest and predator dynamics helps farmers to understand pest-predator interaction to allow nature to work with fewer or most appropriate interventions. A well-planned technical back-up support mechanism is recommended to be evolved through integrating the research system into farmer-led experimentation. The programme achievements show that the FFS approach in Pakistan has furthered from only crop management to systems management and community development approach, and that it should be supported further to enter the mass-scale expansion stage.


This paper analyses spatial market integration using monthly wholesale real price of onion in four regional markets located in each of the four provinces of Pakistan. Unit root test indicates that the price series in each location are stationary, and the series are represented as autoregressive model for each
location. The error correction model results show that the regional markets of onion have strong price linkages, and thus are spatially integrated.

**Keywords:** Error correction model, unit root, market integration, stationarity, onion market.


Pakistan’s agriculture has grown rapidly since the 1960s, with an average annual growth of about 4 percent over the four decades till the end of the century. Agricultural growth at this rate was sustained by 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. This rate of agricultural growth has significantly contributed to the overall economic growth of about 6 percent per year during this period. Sustaining this performance presents a considerable challenge for the public policy framework for agriculture, not the least for the agricultural research and extension system in Pakistan. This study analyses the impact of R&E investment on TFP growth in Pakistan’s agriculture within a distributed lag framework. The estimation of the productivity-R&E relationship with an Almon lag provided evidence of a strong relationship, explaining 96 percent of the variation in the TFP index. The marginal internal rate of return on R&E investment is estimated at 88 percent. This rate of return may look unusually high but it is well within the range of returns estimated in the context of developing and developed countries. The high rate of return is an indicator not only of under-investment in R&E but also of the constraints on research and extension services that prevent optimal performance.


This paper investigates the impact of volatility of exchange rates on the manufactured production of Pakistan’s economy. After a short introduction of the underlying theories and empirical literature, the relationship between these two variables is estimated. In the regression, the conditional variance of the real exchange rate is the measure of uncertainty (GARCH estimation). The results obtained are positive but are insignificant, and do not support the position that excessive volatility or shifting of exchange rate regimes has pronounced effects for manufacturing production. These results are consistent with what we obtain from the impulse responses. It is believed, however, that the thesis adds to the body of evidence, suggesting that exchange rate variability has no significant effect on manufacturing products.

**Keywords:** Exchange rate, Volatility, Pakistan


The paper evaluates Pakistan’s experience of managing capital inflows witnessed in recent years, particularly after the 9/11 events, which had implications for the conduct of monetary policy. The State Bank of Pakistan intervened in the foreign exchange market by purchasing excess supply, with the objective to contain volatility in exchange rate, and at the same time building up foreign exchange reserves. The market interventions led to surplus rupee liquidity, which had to be sterilised in order to ensure price stability. The paper estimated empirically the sterilisation coefficient by using OLS technique. Sterilisation coefficient for Pakistan during July2000–December2003 was −0.87, indicating that 87 percent of the increase in NFA was sterilised through selling of government securities.

**JEL classification:** E50, E51, E58, E65

This study investigates the nature of allocative inefficiencies in large scale manufacturing sector of Pakistan over the period of 1969-70 to 1990-91. The study employ translog cost function to examine allocative inefficiency with capital labor and raw material as inputs. We estimate translog cost function along with share equations for manufacturing sector as a whole. The analysis here after performed with and without distortion parameters. The relative price efficiency between each pair of inputs provide the evidence at aggregate level that raw material is over used as compared to labor, while other inputs are equally efficiently utilized. It turns out labor is most responsive factor to change in factor price. Study suggests that long run economic growth could be achieved through adjustment policies that correct input market distortions.


The link between public and private investment is investigated using annual data of the period from 1964–65 to 2004-05. The estimates based on structural cointegration approach indicate that both are cointegrated and public investment crowds in private investment. The study then used the Harris, et al. (2003) test to identify whether the existing cointegration vector is stationary or heteroscedastic. The findings of the analysis suggest that private investment can be enhanced by increasing public expenditures in infrastructure. The results of this study support the complementarity hypothesis, which states that stock of public capital crowds in private capital accumulation by increasing the return to private capital in private production technology.

JEL classification: C50, E22, E62
Keywords: Structural Cointegration Analysis, KPSS Test, Public Investment, Private Investment


In this study, the relationship between financial depth and economic growth is examined in an Autoregressive Distributed Lag (ARDL) framework for Pakistan utilising annual data for the period 1971-2004. The main empirical findings suggest that both in the long and the short run, financial depth exerted a positive effect on economic growth. The findings also suggest that in the long run, real interest rate had a significant and positive effect on economic growth. However, the short-run response of the real interest rate is very low, suggesting further acceleration of the liberalisation process.


This paper assesses the welfare impact of GST reform on Pakistani households between 1990 and 2001, a period that coincides with major GST reforms that have increased GST contribution to total tax revenue from 15 percent to 42 percent. As well as the tax burden having increased, we find that the distributional incidence has worsened; GST after-reform impact on welfare is proportional as compared to slight progressivity in the before-reform period. Our results, based on distributional characteristics developed by Feldstein (1972) and recently used by Newbery (1995), show that the welfare of the poor households has been reduced due to taxation of items such as sugar, vegetable ghee, and basic fuels, whereas rich households remain comparatively better off because most of the services remain out of GST tax net.

This paper presents an overview of the Pakistani mutual fund industry and also evaluates mutual fund performance using a survivorship bias controlled sample of funds. By the end of financial year 2004, 112 billion rupees were invested in mutual funds. The main purpose of this study is to examine the risk and return characteristics of Pakistan equity mutual funds and balanced funds. Risk-adjusted performance is evaluated using three evaluation techniques, i.e., Sharpe Ratio, Treynor Ratio, and Jensen differential measure. The overall results suggest that mutual funds in Pakistan are able to add value as indicated by their positive after-cost alphas. Our results are similar to the results of studies carried out on European mutual funds performance. However, our results deviate from most United States studies wherein it is investigated and stated that mutual funds under-perform the market by the amount of expenses they charge.


A key element of the Doha Round of trade negotiations is liberalisation of trade in industrial products, commonly known as non-agricultural market access (NAMA). These negotiations are important for developing countries as these will determine the market access opportunities through which they can improve their growth prospects. This paper examines the key issues of NAMA from the South Asian perspective, outlines a negotiating strategy for increased market access, and spells out some policy implications.


This study investigates the impact of exports on the economic growth of the South Asian countries. Specifically, it examines if the marginal factor productivities are different in the export and non-export sectors, and whether the export sectors of these economies generate positive production externalities. The required analysis is based on panel data on six South Asian countries for the period 1973-2002. Following Feder (1982), we have used the fixed effects approach for necessary estimations. The results show that the level and reallocation of resources particularly in favour of the relatively more efficient export sector affect growth positively. However, externalities arising from the export sector of these countries are not found as growth-enhancing due partly to their reliance on the production of low-tech labour-intensive products. As such, the results point out that these countries can accelerate their economic growth by exporting manufactured goods produced with modern technologies.


The paper examines the export-led growth (ELG) paradigm for Pakistan, using data of the period from 1970-71 to 2003-04. The paper uses a number of analytical tools, including Unit Root Test, Phillips-Perron Tests, Co-integration Johansen Test, and the Granger Tests. The paper sets three hypotheses for testing the ELG paradigm for Pakistan: (a) whether GDP and exports are cointegrated, (b) whether exports Granger cause growth, and (c) whether exports Granger cause investment. The time series data on GDP growth, export growth and investment GDP ratio (proxy for capital formation), and the labour employed were used. The data were tested for stationarity using the Augmented Dickey-Fuller (ADF) test and Phillips-Perron test (1988), and then the relationship between GDP growth rate and the growth rate of
other variables was determined using OLS with AR (1). The major finding of the present study is that growth rate of export, total investment, and labour employed have positively affected the GDP growth rate.


Reserves-holding policy has been a main area of concern for policy-makers, researchers, and planners since the beginning of the Bretton Woods system. As a result, issues related to the equilibrium of international reserves, its determinants, and the departure from equilibrium have been widely discussed in the debates of economic policy-making. In spite of its importance, no serious attempt has been made to work on the determinants of international reserves in the case of Pakistan. Therefore, we have made an endeavour to determine the long-run and short-run determinants of Pakistan’s international reserves-holding and, hence, we hope to contribute to the literature on reserves in the case of Pakistan. We have also considered the role of monetary disequilibrium in the short-run, along with the other determinants in the explanation of international reserves-holding. In the context of cointegration-error correction framework, we have analysed Pakistan’s reserve demand using the quarterly data over the period 1982:1-2003-2 and found that there exists a stable long-run reserves demand function in the case of Pakistan. The results also confirm the role of domestic monetary disequilibrium for changes in reserves in the short-run.


There is a growing debate in the emerging market on the choice of an appropriate monetary or exchange rate policy that could lead to a sustainable economic growth. Inflation targeting has become one of these policy alternatives and has recently been implemented in some of the emerging markets in Asia and Latin America. Given the recent remarkable economic performance of the Pakistan, this issue has also been discussed at various policy forums in Pakistan. An important pre-condition for the success of inflation-targeting is to identify the leading indicators of inflation and develop a model to reasonably forecast inflation. This is the main objective of this paper. Besides an overview of the experience, the main focus of the paper is to provide some preliminary empirical estimates for inflation equation and its causal relationship with other macroeconomic variables.

*JEL classification:* E5, E31, E42, E52, F3

*Keywords:* Economic Growth, Emerging Markets, Price Stability, Inflation Targeting, Granger Causality


This paper empirically investigates the pass-through of the changes in the interest rate on Treasury bills in Pakistan to money market rate (call money rate), banks’ deposit rate, and banks’ lending rate. The motivation for the study is that the effectiveness of the monetary policy transmission mechanism hinges upon the speed and extent of the pass-through of the policy rate to the individual elements of the transmission mechanism. Call money rate, banks’ deposit rate, and banks’ lending rate, being important elements of the monetary transmission mechanism, the examination of the pass-through to these rates will shed light on the effectiveness of the monetary transmission mechanism. The results are, by and large, in conformity with the literature on the pass-through: pass-through of the changes in the treasury bill rate to
call money is completed in the impact period, i.e., one month. The pass-through to savings deposit rate starts during the first six months and continues for quite long. In the case of six-months deposit rate and the lending rate, no pass-through is noticed during the first six-months. The pass-through occurs between 1.5-3 years in both the cases.


It is proposed that Islamic banking does not merely imply the interest-free banking system; rather, it is the banking in consonance with the ethos and value system of Islam and governed by the principles and rules laid down by Islamic Shariah.

The question arises as to why the Islamic financing system has not been fully realised in Pakistan. And what directions should the Government take for establishing a sustainable Islamic banking system?

The study is conducted according to the strategic management approach, exploring a practical route for developing growth-oriented Islamic banking system in Pakistan. Critical questions are raised to analyse the dynamics of Islamic banks in Pakistan. Then using a questionnaire, senior bankers are interviewed to add their insight. The study finally recommends strategic directions for developing a growth-oriented Islamic banking system in the country.


This study seeks to measure changes in technical efficiency levels within the banking sectors of the Indian sub-continent: specifically India, Pakistan, and Bangladesh, over the period 1993–2002. This study is done in the context of a number of sweeping deregulations across the sub-continent in the early 1990s, and the possible effect these may have had upon efficiency levels. A Malmquist Index of TFP change over the time-period in question is employed, along with a Tobit regression, in order to determine whether these significant measures of deregulation and financial modernisation have had the desired effect upon the Indian sub-continent in terms of technical efficiency levels. It is found that technical efficiency both increases and converges across the Indian sub-continent in response to deregulation. India and Bangladesh experienced immediate and sustained growth in technical efficiency, whereas Pakistan endured a reduction in efficiency during the middle years of the study, before rebounding to levels comparable to the rest of the sub-continent in the latter years of the study. These results indicate that the measures employed to modernise the financial sectors of these respective countries have had the desired effects upon levels of technical efficiency.

27. Syed Kanwar Abbas and Asad Zaman. Efficiency Wage Hypothesis—The Case of Pakistan. 1051–1006.

The object of this paper is to present an exposition of Efficiency Wage theory, and to test its basic assertions in the context of Pakistan. The Great Depression of 1929 showed that labour disequilibrium persists for long periods of time. One of the causes of this was rigidity of nominal wages, which was assumed without explanation by Keynes in his General Theory. Stagflation in the 1970s led to re-examination of Keynesian theories and a search for a satisfactory theoretical explanation of wage rigidity. Efficiency Wage theories provide an explanation by suggesting that worker productivity increases with wage. This means that firms may not have incentive to cut wages even when they are above equilibrium. Substantial empirical evidence for efficiency wages has been found in the context of advanced economies, but there is very little literature for developing
countries. Saygili (1998) has given evidence for efficiency wages in the Turkish economy. Nasir (2000) provides empirical evidence for a wage differential between private and public sectors in Pakistan, which conforms to efficiency wage considerations. In this paper, we show that the textile sector in Pakistan appears to offer efficiency wages, while other sectors conform to neoclassical competitive labour market theories.


In this era of trade liberalisation, when most developing countries are following export-oriented policies, the impact of trade liberalisation on labour markets has become an important area to explore. The experience of trade liberalisation in developing countries is quite varied, but understanding the effects of openness on their labour markets is a complex and demanding task as these countries have undergone significant structural changes and adjustments from 1980s onward. In accordance with standard trade theory, developing countries should specialise in the production of labour-intensive goods, thus increasing the relative demand for this factor. Pakistan’s trade policy has also declared exports as an important and leading sector for employment generation. However, so far, little evidence is available on the issue of trade liberalisation and labour markets which can help work out the trade-labour linkages for Pakistan. In that context, the present study is an attempt to investigate these linkages. Among various paths through which trade liberalisation is channelled to the labour market, one is that of labour demand elasticity. It is expected that trade openness might induce an increase in elasticity via a scale effect due to the increased competition in the output market, and via a substitution effect generated by expanding a firm’s production possibility set to include additional input. The main hypothesis of this study is that trade liberalisation might lead to an increase in labour demand elasticity and is expected to have a favourable impact on the employment generation in Pakistan. The study is carried out for labour engaged in the manufacturing sector in Pakistan, using panel data approach for the years 1970-1995. A labour demand equation is obtained from the solution of a firm’s cost minimisation problem. The impact of trade liberalisation on employment is not restricted to a wage elasticity effect; it also allows for a direct effect with globalisation acting as a demand shifter. Overall, we find a positive significant effect of trade liberalisation on labour demand elasticities. As Pakistan has adopted a stance in favor of trade liberalisation over time, and the effective rate of protection has reduced very sharply since the early 1990s, it is thus revealed from the results that there has been a consequential shift from capital-intensive production to more labour-intensive production that is in keeping with the perceived static comparative advantage, and, in turn, is expected to lead to increased employment generation because of the greater incentives afforded to labour-intensive exports in particular.


Using primary data from a union council of Punjab (Dhamyal), this article analyses the poverty and inequality at the lower administrative level. The analysis shows that 35 percent of the households are poor while there is wide variation of incidence of poverty among the seven villages of the union council. The highest magnitude of poverty in terms of incidence, intensity, and severity is found in the villages of Hayal and Mohra Bariyan. Location index also demonstrates that these two villages have high concentration of poverty as compared to its population share in the community. Income distribution by quintile shows that the bottom 20 percent households receive 6.7 percent of per capita income share while the upper 20 percent households receive 43 percent of per capita income share. Socio-economic dimensions of poverty reveal that a large number of earners, with large household size, a high dependency ratio, and a high percentage of illiterate head of the household, are marked in poor households. The housing and sanitation conditions of the community show that both poor and non-poor households are deprived of most civic amenities.

The conceptual basis of poverty in Pakistan remained limited to absolute notion of poverty which has been criticised on the grounds that it minimises the range and depth of human needs. The paper broadens the discussion on poverty and poverty measurement by examining the prevalence of relative poverty in Pakistan. Based on the moderate relative consumption poverty line of Rs 775 per capita per month, the prevalence of relative poverty was at 40.7 percent in 2001-02. On the other hand, half of the population was below the income-based moderate relative poverty line, implying that 77.5 million individuals were poor in Pakistan. At the province level, the results suggest the highest prevalence of urban poverty in the NWFP, followed by Sindh, Balochistan, and Punjab. On the other hand, rural Sindh was the poorest region in the country, followed by the NWFP and Balochistan. The trends implied by the concept of relative poverty suggest a more rapidly increasing trend in relative poverty because of rising income inequality. As a result, gains in income accrued to the richest at the expense of the poorest and the middle income groups, implying that the rich got richer and the poor got poorer over the last 15 years. These results suggest that adverse distributional outcome may be due to the pursuance of stabilisation and adjustment programmes within the framework of the “Washington Consensus” which put too much emphasis on removing macroeconomic imbalances and enhancing economic growth while giving no consideration to equity and poverty. While economic growth alone is not enough for poverty reduction, there is a need to raise PRSP spending in order to pursue an effective poverty reduction strategy with a focus on redistributive policies. While the country has already made a commitment to attain the Millennium Development Goals, economic policies need to be expansionary. Poverty reduction strategy should be based on the policies of building up the assets of the poor and increasing the demand for those assets. An expansion of health and education for the low-income households and measures that increase the relative prices of agricultural commodities and the wages of unskilled labour should be part of new poverty reduction strategy. Focusing on agrarian strategies, especially those also favouring rural industrialisation, can lead to more egalitarian growth. Rapid expansion of labour-intensive exports may contribute to faster growth in employment. Policies to support this should favour labour-intensive techniques, e.g., by not subsidising capital and by securing more credit for small enterprises.


The present study investigates the long-run interrelationship among the demographic variables and environmental indicators by using the Johansen-Juselius cointegration technique and error correction model to determine the short-run dynamics of the system related to time series data for Pakistan economy, over the period 1972–2001. The paper finds the existence of a cointegrating vector, indicating a valid long-run relationship among the variables. Moreover, demographic variables have a significant effect in the short-run on AL but their short-run coefficients have an insignificant impact on CO2 emission. The empirical evidence clearly support that high population growth rates have a deleterious impact on environment. The policy implication thereof is to enhance the need of lowering population in Pakistan which seems to be a burden on the existing resources and a challenge to the environment.


33. P. Wignaraja. Pro-poor Growth and Governance in South Asia—Decentralisation and Participatory Development. 1157–1171.