

# **Research Programme 2010-2012**

**[Revised November 2011]**

**Economic Reforms for Sustainable and Inclusive Growth**



**Pakistan Institute of Development Economics  
Islamabad**

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## INTRODUCTION

Economic reforms, so urgently needed if Pakistan is to move towards a more stable, sustained, and inclusive growth path, is the overarching theme of PIDE's research programme for the next biennium, 2010-12. Empirical and policy-oriented research on key economic and development issues including macroeconomic policies, international trade and industrial competitiveness, agricultural productivity and pricing, poverty and labour market, governance, and environment issues will, therefore, have a sharp focus on economic reforms needed to ensure more efficient, equitable and sustainable growth outcomes. PIDE's research programme will continue to reflect the Institute's commitment to provide high quality scholarly input and encourage discourse on Pakistan's key economic development issues.

In keeping with its tradition, the PIDE continues its endeavors to break into new areas of research that have contemporary relevance. To highlight a few such initiatives, first, research on environmental economics is being undertaken to better understand the link between environment and economic development, and to find ways to address environmental and climate change concerns for sustained economic development. Second, food security has emerged an important concern for developing economies like Pakistan. Research in this area will broadly focus on exploring options to make Pakistan a food-secure country. Third, the Institute is taking the lead in initiating research on the economics of conflict. In recent years, Pakistan has suffered immensely as a result of conflicts in some regions. However, little is understood about the economics of conflict. Studies in this area will provide insights into the underlying economic causes of conflict, assess the cost of conflict, and identify ways to address the challenges involved.

In the context of important economic changes that have emerged in the management of Pakistan economy, PIDE's research programme will help analyze the impact of the 7<sup>th</sup> NFC award and the 18<sup>th</sup> Constitutional Amendment in relation to (i) macroeconomic management and economic planning (ii) taxation (iii) mega projects (iv) social sectors, and (v) international experiences. It may also be mentioned here that the Pakistan Society of Development Economists (PSDE) Annual Conference, held in December 2010, addressed these issues, and its proceedings has helped focus on key issues identified in the debate and discussion. Another area on which PIDE's research will focus is the services sector not only because of its increasing share in GDP (more than 50 percent) but also because modern services (e.g., ICT) have played a dominant role in driving growth in the newly emerging economies (e.g., India).

Besides new areas of academic inquiry, research studies in important areas of economics — macroeconomics, international trade, knowledge economy, governance, economic growth — also promise to generate new insights and ideas, apart from deepening the understanding of current economic issues and challenges. To understand the poverty dynamics, PIDE has completed the third round of a longitudinal household survey in 2010, which would provide an effective data source to analyse the impact of current high inflation on the poor and vulnerable. The results of this survey will be available, analysed and disseminated during 2011-12.

### Excellence in Research

The PIDE remains committed to maintaining excellence in its research. Each study in the research programme will be peer-reviewed in seminars and through the process of international refereeing involving leading academic experts in the respective fields. This process would ensure that the research output is original, meets global academic standards in terms of methodology and content, has high academic and policy relevance, and contributes significantly to the mainstream theoretical and empirical literature.

Pakistan's economy is faced with myriad challenges that require coherent policy responses based on rigorous empirical research and scholarly dialogue. It is hoped that the research output will fulfill this critical need by generating cutting-edge knowledge to inform economic policies, as well as stimulate further interest and debate on key development issues.

## **Policy Research**

As a think tank serving the Government of Pakistan, PIDE has been actively involved in supporting policy-oriented research to assist the government in framing economic policies on key issues especially over the last two years. During 2010-12, PIDE will continue to support and contribute to governments efforts actively in devising a medium-term development strategy as well as in dealing with the planning, sectoral and environment, and climate change issues.

## **Pakistan Development Review (PDR)**

PIDE not only strives to conduct cutting-edge research but is also home of the internationally recognized economics research quarterly, The Pakistan Development Review. PIDE's own research, as well as research by leading economic scholars from around the world is submitted for consideration for publication in the PDR. PIDEs senior research staff initially review this research, suggest changes as required, and then pass on the revised article for formal review by a prominent external expert from outside Pakistan and one prominent reviewer from within Pakistan. Passing on their comments to the author(s) and then ensuring that there are incorporated in the revision is an important task undertaken at PIDE to ensure the high quality and academic respect that the PDR commands in academic and research circles.

## **Annual Conference and Proceedings of the Pakistan Society of Development Economists (PSDE)**

A major research output of PIDE is the papers presented and discussed at the annual conferences of the PSDE which focus on topics of both global and national socio-economic importance. PIDE senior staff plays a major role in organizing these conferences, from the call for papers to their selection and eventual publication as a Special Winter issue of the PDR, after the authors have incorporated the comments of the discussants and those arising from the floor. The published articles, including four Invited Lectures from prominent economists, provide a rich body of research and literature on selected themes. One topic for the 2010 conference was the 7<sup>th</sup> NFC Award and 18<sup>th</sup> Constitutional Amendment. The topic for 2011 is "Growth and Development: New Directions".

## **Major Focus Areas**

The research programme is focused on six broad thematic areas. The first under the rubric of Macroeconomics includes studies on macroeconomic stabilization, macroeconomic policies including fiscal and monetary policies, and further refinement and development of PIDE's multi-sectoral macro-model. The second major area of research is 'Trade and Industry' which encompasses studies on regional trade, competitiveness and exports, foreign direct investment, and firm level studies. Entrepreneurship, Innovation, and New Technology is the third major area of research. Studies on demography, poverty, and labour market dynamics form the fourth major area of research whereas the fifth area covers research on governance and institutions. Research on sustainable development issues including on environment, energy, water, and food security issues is the sixth major area of research focus.

The following schematic highlights the major areas of research at PIDE.

- I: Macroeconomics
  - I.1 Macroeconomic Stabilization
  - I.2 Fiscal and Monetary Policies
  - I.3 Macro-Econometric Model of Pakistan's Economy
- II: Trade and Industry
  - II-1 Regional Trade
  - II-2 Competitiveness and Exports
  - II-3 Firm Level Studies
  - II-5 Foreign Direct Investment
- III: Entrepreneurship, Innovation and New Technology
- IV: Demography, Poverty, and Labour Dynamics
  - IV.1 Population Dynamics
  - IV.2 Poverty, Labour, and Human Capital
- V: Governance and Institutions
  - V-1 Economic Reforms
  - V-2 Conflict, Security and Development
- VI: Sustainable Development
  - VI.1 Environment and Natural Resources
  - VI.2 Energy
  - VI.3 Food Security

**Table 1: Research Programme at a Glance 2010-2012**

No.	Thematic Focus	Number of Studies
I	Macroeconomics	32
II	Trade and Industry	19
III	Entrepreneurship, Innovation, and New Technology	1
IV	Demography, Poverty, and Labour Dynamics	33
V	Governance and Institutions	11
VI	Sustainable Development	18
Total		114

## I: MACROECONOMICS

Research on macroeconomic issues, so vital to design reforms and ensure macroeconomic stability, forms the core of PIDE's research programme. Studies in this area would include further development of PIDE's macroeconomic model, macroeconomic stabilization, and fiscal and monetary policies. On the fiscal side, new issues like the 7<sup>th</sup> NFC award, VAT reforms, and fiscal transmission mechanism will be the special focus of research that will help design, implement and monitor reform efforts at the federal and provincial level including the critical need to raise Pakistan's very low tax to GDP ratio. In addition, the research will examine issues pertaining to budget deficits, budgetary forecasts, tax buoyancy and tax evasion. Within the broad area of monetary economics, research shall focus on inflation targeting, transmission channels of monetary policy and exchange rate management. Given the persistently high

inflation for the last couple of years, a number of studies will be undertaken to explore the various dimensions of inflation and its causes and consequences.

### **Macroeconomic Stabilization**

In recent years, macroeconomic stabilization has become a major challenge in the face of a burgeoning fiscal deficit and ineffectiveness of the monetary policy to control inflationary pressures. Research studies in this area focus on the role of both domestic and external macroeconomic factors in promoting macroeconomic stability. In particular, besides examining the link between macroeconomic stability and economic growth, research studies aim to explore the role of external debt accumulation, and current account dynamics in macroeconomic stability. Another important area of research is the macroeconomic consequences of the imposition of the value added tax.

### **Fiscal and Monetary Policy**

Research on fiscal and monetary policy issues aims to identify prudent fiscal and monetary policies that can help achieve robust economic growth. A number of studies will be undertaken to explore various aspects of fiscal policy and its links with key macroeconomic variables. These studies shall focus on theoretical models to better understand the impact of deficit reducing policies on the economy, the role of fiscal policy in the determination of the current account, the twin-deficit phenomenon, the dynamics of the fiscal transmission mechanism, and the relationship among fiscal deficit, rate of inflation, and the rate of interest. In the area of monetary policy, studies shall focus on the inflationary impact of oil price hikes, the credit channel of monetary policy transmission, and the coordination of monetary and fiscal policies.

### **Macro-econometric Model of Pakistan's Economy**

The importance of an economy-wide macro-econometric model cannot be overemphasized. The PIDE has developed a preliminary model and its further development and refinement is a major part of the macroeconomics research program. The model being developed is based on latest econometric techniques and its specification incorporates recent advances in economic theory. The model will be immensely useful in understanding the structure of Pakistan's economy as well as in forecasting key macroeconomic variables over the short to medium term.

## **II: TRADE AND INDUSTRY**

International trade is viewed as a key driver of economic growth: it generates employment, provides more choices to consumers, and offers profitable opportunities to the businesses. Pakistan's economy has become increasingly open as a result of trade liberalization efforts. To fully benefit from an open trading environment, domestic firms must be able to compete internationally. A number of research studies will be undertaken to address different aspects of trade and industrial competitiveness. These will be focused on regional trade, competitiveness and exports, economic performance and efficiency at the firm level, and foreign direct investment.

### **Regional Trade**

In recent years, regional economic integration has become the cornerstone of trade policies in both developed and developing economies. As part of its trade strategy, Pakistan is also aiming to forge trade and investment linkages with other countries of the region. Recognizing the need for research-based policy

in this area, studies on regional trade will be conducted focusing in particular on trade potential within SAARC, ECO, and other bilateral/regional trade arrangements. The impact of granting MFN status and further opening up of trade with India will be systematically analysed.

### **Competitiveness and Exports**

In today's globalized world, countries are continuously striving to enhance their competitiveness to achieve an edge in the global markets. To fully benefit from an open trading environment, domestic firms must be able to compete internationally. A number of research studies will be undertaken, including in collaboration with the private sector (Chambers of Commerce and Industry, Pakistan Business Council, Industry/Sectoral Manufacturing and Trade bodies), to explore different aspects of trade and industrial competitiveness. These will be focused on various dimensions of export competitiveness including efficiency and product quality, learning and human capital, and market diversification.

### **Firm Level Studies**

Understanding the determinants of economic performance of the firms is a key aim of the firm level studies. Research in this area will focus on assessing the factors that play a pivotal role in export competitiveness of the Pakistani manufacturing firms. Other firm level studies include an analysis of dividend policies of corporate firms, capital structure of the manufacturing enterprises, mergers and acquisitions, risk- return behavior of mutual funds.

### **Foreign Direct Investment**

Foreign direct investment plays an important role in job creation, transfer of new technology, and skill development in host economies. Following the example of fast-growing East Asian economies, Pakistan actively pursues to attract foreign direct investment. Studies in this area will include an examination of the links between sectoral composition of foreign direct investment and economic growth, the perceptions of foreign investors about the business climate in Pakistan, and the role of international political relations in determining FDI flows.

## **III: ENTREPRENEURSHIP, INNOVATION AND NEW TECHNOLOGY**

Entrepreneurship is a key driver of innovation and economic growth. An entrepreneurial economy fosters new ideas and innovations that contribute to the development of new products and production processes raising overall productivity and hence economic growth. Research studies in this area will include an analysis of the determinants of entrepreneurship with a particular focus on key constraints to innovation and adoption of new technology. Also, research shall focus on examining the factors that can facilitate the adoption of new technology by export-oriented manufacturers in Pakistan.

A major study shall be launched to explore the links between innovation and productivity growth emphasizing measurement of innovation results, capacity and policy with particular focus on development and poverty alleviation. The study will not only help improve the understanding of innovation-productivity nexus in a developing country like Pakistan but also help in the design and implementation of policies that can galvanize the process of innovation in the private sector.

## **IV: DEMOGRAPHY, POVERTY, AND LABOUR DYNAMICS**

Population, human capital, labour market and poverty linkages are complex and multi-faceted because they operate at the individual, household, community, and national levels. While the size, growth, age structure and rural-urban distribution of a country's population have a critical impact on its development prospects, investment in people by empowering them with education, health, skill development, and provision of employment opportunities create the conditions to allow the poor to break out of the poverty trap. The research in the Demography, Human Capital, Poverty, and Labour Market Dynamics Division will focus on demographic transition, poverty dynamics, employment, human capital reproductive health, and internal and international migration. The research on these important social and economic issues will be carried out by examining the effectiveness of the both delivery of public services and policy reforms particularly in health and education sectors. The longitudinal household survey to be completed by December 2010 will serve as the major data source to accomplish the research objectives.

### **Population Dynamics**

After a sharp decline in the fertility rate during the 1990s, Pakistan is experiencing stagnation in the fertility rate. This stagnation has far-reaching implications for reaping the demographic dividend. Because of both the population momentum and high growth rate (2% per annum), Pakistan may face a longer period to achieve the target of replacement level fertility. There is a need to revisit the demographic dividend in Pakistan. Studies in this area shall carry out an in-depth analysis of the causes of fertility stagnation in Pakistan focusing in particular on poverty, illiteracy, and high infant mortality among women as possible factors influencing the fertility rate. Infant and child mortality still remain high in Pakistan. Research shall examine the trends in child mortality by province and regions (rural-urban) and assess the impact of physical and social infrastructure on child mortality. Health transition will be analyzed by examining the changes in disease patterns, maternal health, effectiveness of the delivery of health services and health expenditures.

### **Poverty, Labour, and Human Capital**

Poverty alleviation has historically come through economic growth, as increased levels of productivity contributed to increase in employment and income. However, the empirical research and experience of the developing countries show that growth is a necessary but not a sufficient condition for poverty reduction. There is a considerable debate in Pakistan on poverty numbers but little attention has been paid to its dynamics. The research studies to be undertaken in this area will go beyond the typical issues, like measurement of poverty, to investigate new questions revolving round understanding the dynamics of poverty reduction ('transitory' vs. 'chronic') and issues such as the feminization of poverty and time poverty. Issues related to poverty in urban slums and micro financing will also be covered under this theme. Moreover, poverty is a multidimensional phenomenon, and its dynamics may have serious implication for health, education, and food security in Pakistan. The consequences of poverty dynamics for health, education and food security will also be explored. Research will also examine the role of safety nets in mitigating the suffering of the poor.

The launching of the third round in 2010 of the longitudinal household survey is one of the major research initiatives of PIDE. Not only will this survey generate data to complete the research work on poverty, employment, health, education and fertility but it will also serve a data source for PhD/MPhil students to carry out in-depth research on important social and economic issues.

High fertility has serious implications for both the labour market in terms of providing jobs to the growing youth population and provision of health and education services. The development of human

capital that embodies new knowledge and ideas is an important objective of economic policy. Research in these important areas would focus on the multiplier effect of public expenditure on education, the role of medium of instruction in explaining the demand for education, higher education vs. primary/secondary education, education reforms, impact of globalization on women development, and the linkages between population growth and employment. Overseas migration, which has been a major source of job for Pakistani workers and inflow of foreign remittances, is also part of the research programme.

## **V: GOVERNANCE AND INSTITUTIONS**

### **Economic Reforms**

Pakistan has a long history of reforms. While it embraced the first generation of reforms [FGR] in an effort to reorient the economy from 'state-led' to 'market-led' growth in the early 1980s, its experience with the second generation of reforms [SGR] has been relatively recent. While the FGR [privatization, liberalization, deregulation and decentralization] are less demanding in terms of execution, the SGR [good governance, transparency, market supporting institutions, participation and social safety nets] are complex. This complexity notwithstanding, experience has shown that the second generation reforms are imperative for the first generation reforms to work effectively. More importantly, the last couple of decades have witnessed a convergence of opinion in favor of good governance. While the academia and development community rally behind reforming institutions for sustained growth, in Pakistan one sees paucity of research on the issue of reforms and governance.

At PIDE, the programme on 'Governance and Institutions' focuses on key reforms being undertaken in such areas as, the 18<sup>th</sup> Amendment, the 7th National Finance Commission award, administrative reforms, market-supporting institutional reforms, governance, democracy, and corruption. An important area of reform is the 18<sup>th</sup> Amendment and the devolution of powers to provinces under it. What are its consequences for not just fiscal management but indeed overall management of the economy? It is a big question and worthy of serious investigation. Therefore, PIDE had taken the lead in examining this issue as the theme of the 26<sup>th</sup> Annual General Meeting of the Pakistan Society of Development Economists (PSDE) in December 2010. The proceedings of the conference have provided important insights on the key issues involved, and helped identify areas needing more in-depth research.

On the issue of governance, the programme represents a healthy mix of cross-country studies, to bring in the international experience, as well as issues more pertinent to the national context. While the policy advice from multilateral donor agencies places good governance at the centre stage, empirical research on the issue has not come to a definite conclusion and debate about the determinants of long-run development still continues. PIDE has set out to make a contribution to this important topic. Research will also look at the role of good governance in encouraging private investment in South Asia. Further, studies on democracy, corruption, and their effect on growth are critical, as those on land tenure, agriculture productivity, and water use. These will help in informed decision making. Results of reforms being analyzed under macro and sectoral sections as part of PIDE research will be pooled together to give an economy-wide perspective to help shape the overall reform process.

### **Conflict, Security, and Development**

In recent years, conflict has emerged as a major problem in Pakistan, threatening economic stability. There is thus an urgent need to explore the causes of conflict as well as to identify ways of managing it. This would require a deep understanding of the social and demographic structure of the society, without losing sight of political conditions and institutional structure of the country. With this background in

mind, the newly established Centre for Economics of Conflict, Security and Development will undertake research to map different types of conflicts in selected districts and regions, examine the role of influential locals in conflict resolution and estimate the economic impact of the war on terror.

## **VI: SUSTAINABLE DEVELOPMENT**

### **Environment and Natural Resources**

Climate change and environmental degradation represent one of the greatest environmental and economic threats that humanity faces. Effects of climate change include biodiversity loss, shifts in weather pattern, increased drought, changes in quantity of freshwater supply, increased flooding and extreme weather events. These effects could in turn lead to changes in forest and crop yields, cause adverse impact on human and animal health and affect many types of eco-systems. Coping with the effects of climate change and environmental degradation is essential not only for economic development but for the very survival of mankind. Given the importance of the environmental issues, PIDE plans to undertake research on issues like the cost of climate change, its impact on forests and crop production and on issues involved in transfer of green technology to developing countries. A study on how best to adapt to climate change shall also be undertaken. Such an understanding will help in minimizing the risks imposed by disasters.

### **Energy**

Energy has emerged as the most critical issue in the economic development of Pakistan. Recent energy crisis has adversely impacted the performance of the economy and industrial sector has been particularly hurt. Using the simple labor productivity approach, research in this area attempts to quantify the cost of energy shortages in Pakistan. Another area of research is the inter-fuel substitution that may arise due to rapid increase in energy prices which may induce a change in the energy demand pattern.

### **Food Security**

Agriculture is an important income and employment-generating sector of Pakistan's economy. The sector contributes significantly to the GDP, and its forward linkages with manufacturing and services sectors add further to its importance in the economy. The livelihood of about two-third of the country's population that resides in rural areas directly or indirectly depends on agriculture and allied activities. The agriculture sector however faces various problems and lost its growth momentum resulting in greater poverty and food insecurity—particularly in rural areas. One of the major threats faced by this sector is climate change that has the potential to further damage the natural resource base particularly the land and water with serious consequences for food security in Pakistan. The recurring droughts and floods are a clear indicator of the severity of climate change and its consequences—the recent unprecedented floods in the history of Pakistan and spiraling food prices as a consequence are threatening the livelihood and food security of millions of vulnerable and poverty stricken people in rural and urban areas.

Ensuring food security at affordable prices has gained urgent attention worldwide, particularly in developing countries which are more vulnerable to the consequences of rising and fluctuating food grain prices. At the same time staying competitive is another major issue that confront the agriculture sector of the developing countries in this age of rapid globalization. There is need to adapt a holistic approach to food security, climate-change adaptation and mitigation besides pursuing pro-poor agricultural

development strategies. What needs to be done is a significant shift from conventional mono-cropping intensive-external-input dependent agriculture towards a more diversified sustainable agricultural production system which would significantly improve the productivity of the sector in general and the small-holder farmers in particular. That in turn would improve agricultural competitiveness, help ensure food security, and reduce poverty.

In this backdrop, research in the areas of agriculture, natural resources and food policy would focus on analysis of food security challenges facing Pakistan including, household level food security and the changing consumption pattern as a result of high food prices, supply and demand projections of food grains, competitiveness of agriculture sector, and Intersectoral linkages of agriculture sector with other sectors in Pakistan.

A major study on food security and climate change is being launched to examine the economic impacts of climate change on agriculture in different agro-ecologies using district level panel data. The study will explore the determinants of farmers' decisions to adapt in response to long-run changes in key climatic variables and assess how adaptation/non-adaptation may affect agricultural productivity and food security. The study will contribute to the formulation of policies, programmes, and action plans to adapt to and mitigate the adverse impacts of climate change on food security.

## **Appendix: Research Studies by Thematic Focus**

### **I. Macroeconomics**

#### **I.1. Macro Stabilization**

##### **The impact of Macroeconomic Stability on Economic Growth in Pakistan**

Macroeconomic stability is the precondition for the sustainable economic growth. The objective of his study is to investigate about the macroeconomic stability of Pakistan by using macroeconomic index.

##### **Impact of External Debt on Growth: Role of Macroeconomic Policies**

External debt is an important source of financing for developing countries through capital accumulation, infrastructure development and human resource development. The two-gap model of Chenery and Strout (1966) provides motivation for reliance on external debt. According to this model in less developed countries (LDC) the demand for investment cannot be met from domestic savings and exports earning are also insufficient to finance imports. Accordingly, domestic savings are insufficient to finance the level of investment in developing countries which are at their early stages of development. In order to fill the saving-investment gap, the less-developed countries tend to borrow from the developed countries. Following the Harrod-Domar Growth theory, developing countries like Pakistan, have unwieldy volumes of foreign debts which they cannot sustain. There is an increasing concern that large amounts of external debts are retarding growth and considerable amounts of these debts are utilized in debt servicing replacing up to great extent their socio-economic development oriented usage. World Bank (1990) concludes that capital inflows will be more effective in the countries which have stable macroeconomic policies and few distortions. Burnside and Dollar (1997, 2000) analyze the impact of foreign aid on economic growth in the presence of macroeconomic policies and find that aid is ineffective if sound macroeconomic policies are absent in the aid-recipient countries. There is also a possibility that external debt has detrimental effect due to the absence of sound macroeconomic policies.

##### **Current Account Reversal Effects and the Potential Policy Implications**

We aim to investigate current account reversal effects on real and monetary variables for Pakistan. Broadly, study discusses the following question: Does the current account deficit reversal matter for Pakistan's economy? Specifically we examine as to what are potential impacts of current account reversal on the real and monetary variables in Pakistan? What are the potential policy implications of the current account reversal effects?

##### **Impact of Value-Added Tax on Inflation**

Value Added Tax (VAT) is considered to be more efficient in raising revenue than sales tax and trade taxes. VAT is basically a consumption tax and has the capacity to affect each and every household directly. The government of Pakistan has a plan to levy VAT at 15% on most good and services. Many experts think that after the imposition of this tax the prices of foods and services will change by the same proportion. The resulting increase in price level would have adverse affects on fixed income group. This study will test under what assumptions this will indeed happen.

## **I.2. Fiscal and Monetary Policies**

### **Dynamic Effects of Changes in Government Spending in case of Pakistan**

This study analyzes the effects of changes in government spending on aggregate economic activity and the way these effects are transmitted in case of Pakistan for the period 1971-2008.

### **Testing the Fiscal Theory of Price Level in Case of Pakistan**

Price stability is an important goal of monetary policy in Pakistan. The present study attempts to uncover empirical evidence on the relative importance of fiscal policy and monetary policy for price stability in Pakistan.

### **Fiscal Policy and Current Account**

The relationship between fiscal policy and the current account is a well debated issue among academic economists and policymakers as the possible link between fiscal deficits and current account deficits leads to many studies analyzing the “twin deficit” hypothesis. This study seeks to analyze how the current account reacts in response to policies that first provide a fiscal stimulus and later on correct it with fiscal adjustment.

### **An Analysis for the Connection between Budget Deficit and Interest Rate**

The interplay between fiscal deficit and the rate of interest is of obvious interest to researchers and in particular, economic policy makers for making sound economic decisions. It is therefore of great concern to know how persistent quantum of fiscal deficit affects the interest rate and how fiscal budget deficits are affected by the variations of the market rate of interest. The existing body of empirical literature has extensively been focused in the developed countries especially in the case of US. However, a large number of studies have not generally found a statistically significant relationship between past or current federal borrowing and current real interest rates. Hence, this issue is still unsettled particularly for developing economies. There is a need for further investigation of this issue using data relatively relating to developing economies.

### **Expansionary Fiscal Contraction: A Theoretical Exploration**

The conventional economics view is that government spending and deficit reducing policies have negative effects on aggregate demand and output. Against this consensus is the view that a permanent program of government spending or tax reductions will lead to a large increase in private demand, operating through the expectations of permanently lower tax liabilities. Private spending may increase to counterbalance the effects of the fiscal contraction so the main impact of deficit reduction can be positive rather than negative. This view is referred to as expansionary fiscal contraction. This study seeks to provide a theoretical of explanation of the ‘expansionary fiscal contraction’

### **Fiscal Federalism in Pakistan: An Introduction**

The changes introduced under the 18<sup>th</sup> amendment have important implications for fiscal federalism. However, there is little awareness among the general public of what fiscal federalism means for Pakistan’s economic development. It is therefore important to provide a non-technical introduction to the subject of fiscal federalism in Pakistan. This could also include a discussion of the issues that have arisen due to changes in the federal structure of the country and the resource distribution criteria. The proposed booklet would serve as a ready reference for all those who want to understand the basics of the federalist structure of the country, resource allocation between the federation and the provinces as well as amongst the provinces and the debates that the 18<sup>th</sup> amendment and 7<sup>th</sup> NFC have generated.

### **The 7<sup>th</sup> NFC Award: An Evaluation**

The 7<sup>th</sup> NFC Award has made a fundamental departure from the past practice by introducing the multiple indicator criteria for the distribution of resources amongst the provinces. This has important implications and there is a need for a critical evaluation of the award in the light of the international best practices. Though Pakistan has now moved to the multiple indicator criteria, which is closer to the need indicator criteria, but still the distribution formula accords a rather high weight of 82 percent to the share of population. The 7<sup>th</sup> NFC has transferred more resources to the province with no condition attached to the use of these resources. The non-decentralization of revenue coupled with greater unconditional transfers could have adverse implications for the quality of governance at the provincial level and may also result in lax tax effort by the provincial governments. This study aimed to evaluate the state of fiscal decentralization in Pakistan against the yardstick of international best practices which may serve as baseline research study for next NFC Award.

### **Fiscal Decentralization and Macroeconomic Stability: Theory and Evidence from Pakistan**

The research on the relationship between macroeconomic stability and fiscal decentralization has been rather inconclusive about the benefits of fiscal decentralization. The current paper is the first to investigate the effect of fiscal decentralization on macroeconomic stability by using Misery Index at country level especially for Pakistan. The evidence that has been presented reveals a significant positive impact of fiscal decentralization on macroeconomic stability of Pakistan, although the results are much weaker for expenditure decentralization. Effectiveness of expenditure decentralization in curtailing macroeconomic instability is depending upon the level of revenue decentralization. In Pakistan, revenue decentralization is more effective than expenditure decentralization. To achieve long run economic development, the process of decentralization is helpful. The present developments under taken by the government of Pakistan in term of 7<sup>th</sup> NFC award and 18<sup>th</sup> Constitutional Amendment will have clear implications for the Pakistan's long term economic prosperity and macroeconomic stability. However, outcome of these reforms crucially depends upon the will of the political government.

### **Private Saving Behavior in Pakistan: An Empirical Investigation**

Saving is an important determinant of economic growth of a country. Almost all growth theories have considered this variable crucial in capital formation and hence economic growth. Therefore, the analysis of saving behavior and its determinants for policy implications are necessary and important. Generally, national savings are regarded to consist of three components; corporate savings, household savings and government savings. In developing countries like Pakistan the household sector accounts for a large portion of the total saving. The purpose of this study is to find out whether the potential explanatory variables of private saving are in line with economic theory or not and to describe the issues related with private saving behavior.

### **An Estimation of Tax Evasion in Pakistan**

Tax evasion is the main problem faced by the tax administration all around the world especially in developing countries. Tax evasion is practiced in different forms. Tax evasion also affects the productivity of the tax system by reducing the amount of revenue that can be raised under the statutory system. It affects the attitude of citizens toward their government, often building cynicism about the role of the public sector. This study attempts to estimate the magnitude of tax evasion in Pakistan and enhance the understanding of tax evasion.

### **Private Investment and Fiscal Policy in Pakistan**

To examine linear as well as non-linear impact of disaggregated fiscal policy variables on private investment in Pakistan.

### **Is the response of output to Monetary Policy Asymmetric? A Non-linear Vector Autoregression Approach**

This paper investigates Asymmetry in the response of output and prices to a monetary policy action. The Paper tests this hypothesis in a non-linear model including Output, Prices and Money Supply.

### **The Dynamics of Current Account and the Pakistan's Monetary Policy**

In this study we analyze the dynamic behavior of the sectoral output, inflation and exchange rate in the face of unsustainable position of current account. We explore the potential implications of dynamic behavior of the real and monetary variables for the Pakistan's monetary policy.

### **Monetary Policy Targeting Regimes: A Comparison**

Different monetary policy targeting regimes, i.e., inflation targeting, price-level targeting, nominal income targeting, have been followed across different countries of the world. It is crucial to know which policy regime is more effective and more appropriate to raise the social welfare to its full potential level. Therefore, a comparison among different regimes is necessary to be considered.

### **Measuring the Monetary Policy Stance**

The basic purpose of the study is to analyze the monetary policy stance in Pakistan through a monetary condition index.

### **Coordination between Monetary-Fiscal Policies: An Application from Monetary Disequilibrium Model**

Currently Pakistan has facing the problems of inflation, fiscal deficit, balance of payments deficit and low economic growth. The situation was triggered by the 2007 global financial crisis. The policymakers in Pakistan are struggling how to reduce these pressures. There may be thought that the simultaneous use of monetary, fiscal and exchange rate policy is the solution of the problem. However, the actual operation of transmission mechanism through which these policies affect the key macroeconomic variables is still not well under stood. This study will analyze these transmission mechanisms to gauge their effectiveness.

### **Credit Channel of Monetary Policy Transmission Mechanism**

The monetary transmission mechanism (MTM) is a process through which monetary policy triggers the changes in macroeconomic variables by certain transmission channels. A variety of transmission channels of monetary policy are identified and employed by different schools of thought to measure the effects of monetary policy on economic activities. The 'credit view' works through the bank lending channel and the balance sheet channel. The bank lending channel dominates the credit channels, which assumes that the banking system plays a significant role in the transmission of monetary policy and the business cycle. It focuses on the asset side of banks' balance sheets, assuming that contractionary monetary policy not only reduces the deposits and the liabilities of the banks, but also causes a decline of the supply of bank loans.

### **Exchange Rate Determination in Pakistan: Role of Monetary Fundamentals**

The exchange rate constitutes a vital pillar of macroeconomic management. After the Asian financial crisis of late 1990s; many policymakers argued that sound macroeconomic management in East and South-East Asian countries was undermined by deficiencies in exchange rate policies. It can be argued that inappropriate exchange rate policies may contribute to debt crisis, deterioration of external accounts and it may counteract the outcome of the economic reforms and free market policies. Therefore, there is general agreement that a country's exchange rate cannot be out of line with its long-run equilibrium level as misalignment of exchange rate results in significant welfare loss and efficiency costs. Moreover, exchange rate can be used to assess overvaluation/undervaluation of currencies, and it is tool for exchange rate policy making. From this perspective interaction between exchange and monetary

fundamentals provides useful bench mark for assessing the exchange rate determining process in Pakistan. Despite a strong need of examining the role of monetary fundamentals in the determination of exchange rate, no comprehensive study so far has been carried out on this important and challenging issue in Pakistan. Furthermore, no efforts have been made to measure the speed of adjustment in the system-wide context in Pakistan.

### **Provincial Budgets: Shares and Trends**

Provincial governments have low resource base, thus they have been dependent on federation to transfer them desired resources. This creates a dependency and additional costs due to issues in fiscal transfers.

### **Estimating Tax Buoyancy, Elasticity and Stability**

Tax responsiveness to changes in income is a crucial variable in projecting the tax revenues, and is a basic criterion for a good tax system. This response is measured by the concepts: tax elasticity, tax buoyancy, and tax stability.

### **Public Expenditure on Health in Pakistan**

Health is an important socio-economic but neglected sector in our country. The share of health expenditure as a percentage of GDP remains very low.

### **The Impact of NFC Award on Provincial Fiscal Management**

Pakistan is a federation comprising of five provinces, Pakistan is a federation comprising of five provinces, federally administered areas and Islamabad Capital Territory. Being a central type of government, maximum revenues are collected by the federal government and then redistributed between federal and provincial governments.

### **General Sales Tax (GST) and Inflation**

Pakistan has undergone a significant change in tax structure over the last fifteen years. In particular the role of GST has increased significantly over time.

### **Accuracy of Budgetary Forecast**

Budgets play an important role in determining the growth of the economies. Drastic variations in the budgeted, revised, and actual estimates of the Federal Government have far reaching implications on different stakeholders in the country. Therefore, there is a great need to analyze the possible reasons and consequences of instability in the budgetary forecast.

### **Fiscal Transmission for Pakistan**

Fiscal Policy is considered to have dynamic transmission mechanism, as it carries longer policy lags for different macro variables. However if the private agents have formed expectations about the fiscal policy; it is not unexpected. Further, with interaction to different monetary policy stances considering its solvency constraint, it has different impacts on key macro variables. In a standard case MP can react to the inflation and FP could focus on output and distribution.

### **Fiscal Deficit Impact on Macroeconomic Variables: A Survey**

Budget deficit has sturdy impact on macroeconomic variables in both developed and developing countries. Most of the developing countries meet in excess expenditure than their revenue, and trap in a budget deficit. Pakistan is one of the developing countries facing the same state of affairs. In budget deficit experience, developing countries are tugged to involve in debt financing, which is anticipated to be high inflationary and negatively affects other macroeconomic variables.

### **The Twin Deficits Phenomenon in Pakistan**

Both budget deficit and trade deficit have strong causal effect. There is general perception, that budget deficit encourages an increase in imports and turn down in exports resulting in trade deficits. But, twin deficits are not linked in the straightforward manner; there is some causal link between these two deficits.

### **Inflation and Exchange Rate in Pakistan**

It is very hard for developing countries to dole out its debt from revenues, and is borrowing to finance its debt servicing obligations, which is anticipated to be high, inflationary and negatively affects exchange rate. Chronic inflation and escalating depreciation of currency have become major concerns in developing countries.

## **II. Trade and Industry**

### **II.1. Regional Trade**

#### **Trading Patterns in the ECO Region**

This study investigates the trade potential in the ECO region. It concludes that intra-regional trade can increase by a factor of eight as a result of potential free trade agreement among the members of ECO.

#### **Regional Integration in South Asia: An Analysis of Trade Flows Using the Gravity Model**

The role of free trade agreements and regional integration has become an important feature in economic development. The significance of regional integration has pushed the SAARC countries to sign a free trade agreement. This study would deal with trade benefits from the free trade agreement of the SAARC countries. It assesses the trade potential and trade creation with member and non-member countries. The gravity model would be used to measure the bilateral trade flows and to access the trade effect for member and non-member countries.

#### **Determinants of Intra-industry (IIT) Trade in Final and Intermediate Goods between Pakistan and other SAARC countries**

Intra-industry trade (IIT) is an important component of the total trade volume. Numerous factors determine the magnitude of IIT amongst the countries of a specific region. The purpose of this study is to investigate whether the country-specific variables or the industry-specific variables play the key role in explaining intra-industry trade within the SAARC. The study will also estimate the magnitude of IIT between Pakistan and other members of the SAARC.

### **II.2. Competitiveness and Exports**

#### **A real time study on “Pakistan Competitiveness Survey”**

This study intends to investigate the export competitiveness of Pakistani firms in real time.

#### **Competitiveness, Learning and Wage Determination in Industrial Sector of Pakistan**

In this study we analyze the competitiveness of industrial sector and learning about the skills and its implications for the wage differential within industrial sector and allocations of workers across industries.

#### **Changing Comparative Advantage: A case study of Pakistan’s Footwear Industry**

The purpose of this study is to measure revealed comparative advantage of Pakistan Footwear industry and make comparison with India and China.

### **II.3. Firm Level Studies**

#### **Determinants of Export Performance of Pakistan: Evidence from the Firm-Level Data**

Exports are widely believed to play a crucial role in the development process. Access to the global market allows domestic firms to achieve economies of scale and thus enhance their profitability. Being a source of foreign exchange earnings, higher exports enable a country to meet its growth and development need through import of capital goods and raw material. Despite vigorous efforts to promote exports, Pakistan exports as a promotion of its GDP have made no significant gains over the years with the country's share in global exports standing at a meager 0.13 percent. This paper explores the determinants of export performance at the level of firms in respect of their characteristics and supply side constraints. This analysis is based on a survey of export-oriented firms in four major sectors.

#### **The Dividend Policy of Manufacturing Firms of Pakistan**

Explaining dividend policy has been one of the difficult challenges faced by financial economists. Despite enormous literature on the subject, the factors that influence the dividend policy and the manner in which these factors interact is not well established. This holds true for the financial market of Pakistan as well. An understanding of factors which determine corporate dividend decisions is important for several reasons. For example the pattern of economic growth depends on the flow of net corporate savings. To predict the magnitude of this flow of information on long-run dividend payout is required. Secondly to forecast the national income an understanding of dividend's contribution to personal income is needed. This study attempts to explore the factors that affect dividend policy of firms in Pakistan.

#### **Decomposition Analysis of Factors Effecting Capital Structure of Manufacturing Sector of Pakistan**

The purpose of the study is to examine the determinants of various components of debt: short or long-term debt and their categories in case of non-financial listed firms of Pakistan.

#### **Effect of Mergers and Acquisitions on Market Concentration and Interest Spread of Banking Industry in Pakistan**

The objective of the study is to assess whether the merger of Pakistani banks is a success or otherwise in terms of profitability, liquidity ratios, and net interest spread in case of Pakistan.

#### **Risk-return Behavior of Pakistani Mutual Funds**

This study investigates the risk-return behavior of Mutual Funds. The standard capital asset pricing model of Sharpe (1965) and Litner (1966), Fama and French three factor model (1993) and Carhart four factor models (1997) are used. The difference of return are evaluated in the bull and bear market by using Fabozzi and Francis (1988) model. All three models are modified to take account of high and low market conditions. Also, after 2005 nearly 50 mutual funds are listed on the three stock exchanges of Pakistan. While many of them are new comers there are over thirty funds with at least ten years of price and dividend record and their risk return behavior is investigated.

#### **Determinants of Board Effectiveness in case of Pakistani manufacturing firms**

The objective of the study is to examine for Pakistani manufacturing firms the determinants of board of directors' effectiveness and board composition which is important component of corporate governance.

#### **Market Diversification and Firm's Characteristics of Export-Oriented Manufactures in Pakistan**

Firm diversifies to maximize its profits; however, market diversification almost always involves many types of extra costs and requires extra skills. First of all, there is production cost involved which a firm must incur to modify its production in accordance with demand from new markets. This might involve investment in new technologies and human skills. Secondly, marketing diversification requires managerial and marketing skills, and knowledge about potential markets. On the other hand, besides

creating new opportunities of high profits for firms, market diversification makes firms less vulnerable to market-specific demand fluctuation. At macro-level, it induces spill-over effect in form of new complementarities and growth in related industries through forward and backward linkages.

In contrast to domestic markets, government do not have any, direct and indirect, decisive influence on export markets. Consequently, the decision to diversify has to be made by individual firms. This fact makes firm's characteristics core determinant of market diversification. In this paper, we intend to empirically examine how different firm-level characteristics affect the pattern of market diversification among Pakistani exporters of manufacturing goods.

## **II.4. Foreign Direct Investment**

### **What do Foreign Investors perceive about the Business Climate in Pakistan?**

It is often argued that FDI enables the recipient countries to acquire know-how and technology at a more rapid pace than otherwise would be possible. Despite a long history of the presence of foreign investors, the volume of foreign direct investment has remained low in Pakistan as compared with other developing countries such as India, China and Thailand. This study would attempt to explore the perceptions of foreign investors about a variety of factors that shape the business climate including infrastructure, amenities and utilities, regulatory framework, availability and quality of outputs, etc. This study would base on a detailed survey of foreign investors operating in Pakistan.

### **Role of Sectoral Composition of FDI on Growth in Pakistan**

Foreign direct investment (FDI) flows increased rapidly in the 1990s. This increase was particularly notable for developing countries. Presuming the positive impact of FDI on economic growth, many countries have undertaken reforms to attract FDI. However the surge in FDI flows has revived the debate about the cost and benefits of FDI. Although the sectoral composition of FDI matters, still not much empirical literature is available on this aspect of FDI. This study shall examine the impact of sectoral composition of FDI on the growth process in Pakistan.

### **Foreign Direct Investment and International Political Relations: Evidence from Selected Asian Countries (1990-2009)**

Economists and political scientists have argued that interstate diplomatic relations among the nations play an important role in the determination of foreign direct investment (FDI) inflows. Since, foreign investors are sensitive to the evolution of interstate diplomatic relations because they may suffer from the retaliatory consequences of deteriorating diplomatic relations, which ultimately hurt the flows of FDI. The role of interstate political relations as determinant of FDI has been generally ignored by the literature and focused only on the influence of economic and domestic political risks on trade and investment. This paper examines the impact of international political relations on foreign direct investment (FDI) for a panel of selected 11 South and South East Asian countries over the period 1990-2009 by employing dynamic Generalized Method of Moments (GMM) technique.

### **Foreign Direct Investment in Pakistan: The Role of International Political Relations**

U.S. geopolitics can shape economic and trade relations with Pakistan. History of Pak-US relations is volatile, with periods of generous aid packages followed by sanctions. This volatile relationship between U.S. and Pakistan can have implications for capital inflows to Pakistan. The present study tries to address this. Specifically, it poses the question: 'Does U.S.-Pak relation impacts FDI flows to Pakistan?'

### **Foreign Direct Investment, Financial Development and Economic Growth: Evidence from South and Southeast Asian Countries**

It is well-documented that foreign direct investment influences economic growth through various channels. Recent literature on FDI suggests that the positive impact of FDI on economic growth depends

on the absorptive capacity of the recipient countries. These capabilities among others include the development of domestic financial sector. The main objective of this study is to examine the role of financial development in transferring the technological diffusion embodied in FDI inflows for a panel of South Asian countries.

### **Determinants of Private Investment in South Asia**

Investment plays a very important and positive role in the progress and prosperity of any region. Private Investment contributes to economic growth through creation of employment, increase in exports and increment in foreign exchange earnings. The objective of this study is to examine the determinants of private domestic investment in South Asian countries.

## **III. Entrepreneurship, Innovation, and New Technology**

### **Industrial Vision and Policy Parameters in Pakistan**

This study reviews the existing structural problems, present a long run vision of the manufacturing sector by 2020 and suggest the government policies that facilitate in realizing the long run objectives. The study provides a comprehensive review of the existing industrial policy, and assuming that the manufacturing sector would be completely deregulated, investors would have no problem in implementing their decision and that the cost of doing business would be competitive. It spells out recommendations for rationalizing the incentive structure to realize the objective of high sustained growth with complete reliance on the private sector and the government's role to facilitate the investment and production activities.

## **IV. Demography, Poverty and Labor Dynamics**

### **V.**

### **IV.1. Population Dynamics**

#### **Fertility Stalling and its Implication for Demographic Dividend in Pakistan**

The fertility rate declined sharply in the 1990's. But recent surveys show stagnation in fertility rate. Poverty, illiteracy and high infant mortality among women are the main factors for stagnation in fertility. This exploratory study aims to look into the causes of fertility stagnation in Pakistan.

#### **Measuring the Middle Class in Pakistan**

Despite being an oft-repeated term, one hardly knows what actually being middle-class means in Pakistan. Is it an economic phenomenon that can be measured in terms of average income, wealth, occupation or is it a social category? The study, using theoretical and empirical tools, shall attempt to understand what exactly the "middle class" is in Pakistan. Being a multi-faceted phenomenon, the study shall take a holistic view to define and estimate the size of middle class in Pakistan.

#### **Epidemiological Transition in Pakistan**

Patterns of disease and death in Pakistan are changing, but there is a lack of any systematic study to assess the situation. It is now evident that this transition is complex and it is a continuous process with some diseases disappearing and others reappearing. The objectives of this study are to investigate the patterns, trends and distribution of health related problems prevalent in the country, and the changes in them over time. Impact of health intervention on these patterns and trends shall also be analyzed. An attempt shall also be made to examine the relationship of health conditions with other facets of human life like demographic, socio-economic and cultural factors.

### **Health Divide between Poor and Non-poor Households**

The health facilities available to general public are limited in Pakistan. Typically, the non-poor have greater access to health care services as compared to the poor. This health divide seemed to have worsened in recent years. This study shall focus on the extent to which the poor are able to utilize health services relative to non-poor.

### **Maternal Health Care Differentials in Urban and Rural Pakistan**

Maternal health care services depend upon many factors like poverty, socio-economic status, and geographic aspects. These services are relatively less in the poor areas of Pakistan as compared to the non-poor areas. The quality of available services is dependent on geography as well. This study shall thoroughly investigate the issue and will suggest measures to expand and improve the quality of maternal health services in the poorer areas of Pakistan.

### **Investigating Socio-economic Factors of Low Birth Weight in Pakistan and the Strategy to Overcome the Problem**

Health has remained a top priority of any society and maternal and infant health is one important component of the health programs. Low birth weight (LBW) is a major public health problem which contributes substantially both to infant mortality and to childhood handicap. This study shall examine the issue of LBW and identify major factors which cause LBW.

### **Public Expenditure on Health in Pakistan**

Unfortunately, in Pakistan health remains one of the most neglected sectors of the economy. The share of health expenditure as a percentage of GDP is very low. This study shall examine the actual pattern of government spending on health, both at the federal and provincial levels.

### **Poverty and Nutrition Nexus**

Malnutrition prevails highly in females during the reproductive age. Nutrition status of women depends upon, among other things, on the financial and economic status of the family. This study shall assess the prevalence of malnutrition in females during reproductive age, examine the effect of socio-economic and demographic factors on women health and shall generally explore the causes of women's poor health in Pakistan.

### **Nutrition Status of Women in Reproductive Age**

Malnutrition prevails highly in females during the reproductive age. Nutrition status of women depends upon, among other things, on the financial and economic status of the family. This study shall assess the prevalence of malnutrition in females during reproductive age, examine the effect of socio-economic and demographic factors on women health and shall generally explore the causes of women's poor health in Pakistan.

### **The Scale and Causes of Mental Health in Pakistan**

Mental health depends on biological factors as well as socio economic factors. This study shall attempt to identify the socio economic factors which determine the mental well being in Pakistan.

### **Understanding the Persistence of High Child Mortality in Pakistan**

While our neighbors like Bangladesh and India, have been successful in reducing the infant and child mortality, this still remains high in Pakistan. The persistence of the high poverty in Pakistan is one of the major reasons for high child mortality. The study shall examine the trends in child mortality by province and regions (rural-urban) and assess the impact of physical and social infrastructure on child mortality.

### **Regular versus Irregular Migration in a Security-threatened Globalised World**

Lack of education and employment opportunities constitute the major reasons for migration across international borders. States that do not allow legal migration for security reasons create an incentive for irregular migration. This study will seek to determine how migrant sending and receiving countries can get more of what they want without the sending and receiving countries renegeing on their respective responsibilities to ensure smooth migration.

### **Urbanization and Crime: A Case Study of Pakistan**

From economic point of view urbanization is good as it facilitates achievement of economies of scale and thus promotes growth of industries and development in the economy. However from social point of view urbanization encourage crimes as the rate of crime is higher in large cities and in urbanized areas. Several explanations have been provided on crime in the literature but none of these provide a sound analysis of linkage between urbanization and crime. That is the objective of this paper. For this purpose we used Johansen Cointegration method and the period of analysis is taken from 1964-2008. Besides urbanization, four other socio-economic determinants, which may influence crimes, are also analyzed. These are unemployment, inflation, income inequality and education. The results show a long run positive and unique relationship of urbanization with crimes in Pakistan. Since migration to urban areas is mostly in search of jobs, therefore the policy maker should plan for more industrial centers in rural areas. These industrial centers will provide employment and consequently, urbanization and crimes will be controlled.

### **Poverty in Urban Slum: A Case Study of Faisalabad**

Urban poverty in Pakistan has historically been lower than rural poverty. However, urban localities particularly in major cities of a country may also vary in terms of living conditions, job opportunities and the provision of urban services. The poor environment of urban slums generally may produce health problems for the dwellers, malnutrition among children and overall low economic and social status. There is a lack of information on the poverty profile of urban slums in Pakistan. The main objective of this study is to prepare a case study of urban slums in Faisalabad to understand the socio-economic status of the dwellers and compare this with profile of non-slum urban dwellers and the rural population.

### **Determinants of Housing Units' Inflation in Urban Areas of Pakistan**

The housing demand in the urban areas has increased very rapidly, in recent years, due to greater urbanization. This study shall analyze the factors which influence the housing prices and will furnish insights to the policy makers to overcome the shortage of housing units.

## **IV.2. Poverty, Labor and Human Capital**

### **Poverty Dynamics and Consequences**

In Pakistan poverty is cyclical in nature. The understanding of the poverty dynamics, movement of people into and out of poverty, and designing proper policies to address them are essential for the eradication of poverty. Poverty is a multidimensional phenomenon, and its dynamics may have serious implication for health, education, and food security in Pakistan. The objectives of this study are to examine the factors associated with these movements and assess the linkages between poverty and health status. This study is based on the new round of-panel household survey conducted in 2010.

### **Poverty and Inflation in Pakistan**

Since July 2008, inflation has remained high in Pakistan. This has adversely affected all segments of the society. Low income households are likely to be severely affected by high inflation. There is a lack of any systematic study to understand the linkages between poverty and inflation. The study will examine the impact of recent inflation on poverty in Pakistan based on the panel household survey conducted in 2010.

### **The Feminization of Poverty Hypothesis: Evidence from Pakistan**

Poverty is a deprivation of resources, capabilities or freedoms which are commonly called the dimensions or spaces of poverty. The term feminization can be applied to indicate a gender biased change in any of these dimensions or spaces. Because it implies changes, the feminization of poverty should not be confused with the existence of higher levels of poverty among women or female headed households. Feminization is a process; 'higher poverty' is a state. It is also a relative concept based on a women-men (or female-male/couple headed households) comparison, where what matters are the differences between women and men at each moment. This study is aimed at testing the "feminization of poverty" hypothesis for Pakistan. An additively decomposable poverty measure will be used to decompose the total poverty into male and female shares.

### **Time Poverty, Work Status and Gender: The Case of Pakistan**

Time poverty is different from monetary poverty. Financially poor people don't have money, but poor people do have time. Time poverty has a far reaching impact on our health, quality of life and society at large. Those affected might not even know they are afflicted by it and might harm their soul, soil and surroundings without realizing what's going on. The study is aimed at defining time poverty, and measure the incidence of time poverty in Pakistan, with reference to income, gender and occupations.

### **Poverty, Inequality and Employment in Pakistan**

The concept of inclusive growth demands for widespread expansion of opportunities so that all segments of the society can benefit from economic expansion. The idea of inclusive growth has been commonly explained through the employment, poverty and inequality nexus. This study has focused on the last decade (2000-2010) to review the poverty and inequality situation in Pakistan and also has examined the employment situation to explore the growth-employment-poverty-inequality nexus. During this period, the Government of Pakistan has developed Poverty Reduction Strategy Paper (PRSP) and the Medium Term Development Framework. In these policy documents, high sustained economic growth is considered necessary condition for poverty reduction. The poverty reduction strategy has given importance to transfer income programmes including Zakat, microfinance and more recently Benazir Income Support Programme (BISP). This study has reviewed these policies in particular to see the possible role of Islamic microfinance in employment generation and poverty reduction.

### **Trends in Income Inequality and Polarization in Pakistan for the Period of 1990-2006**

Income inequality and Polarization, in Pakistan, is increasing at the national level as well as in the provinces. Government policies are also increasing the income inequality and polarization. The objective of this study is to measure the extant of income inequality and polarization in provinces as well as at the national level, and to estimate and assess the variations to total inequality and polarization within the provinces.

### **Do Direct Transfers lead to Poverty Reduction in Pakistan?**

The direct income transfer programmes are initiated to partially offset the impact of inflation on the purchasing power of the poorer sections of the society. The broader objective of the programmes is to meet the redistributive goals of the poverty reduction strategy by providing a minimum income support package to the chronic poor. The objectives of this study are (i) to examine the targeting efficiency of direct transfer programmes including "Benazir Income Support Program", Zakat and Bait-ul-Mal and ii) to assess whether these programmes lead to poverty reduction in Pakistan.

### **Poverty Reduction in Pakistan: Lessons from the success of China against Poverty (Completed)**

This study has reviewed the poverty reduction mechanism through which China has been successful in reducing its poverty during last three decade whereas Pakistan could not succeed in its efforts. In late 1970s, rural poverty rates in both China and Pakistan were around 33 percent; it fell about 9 times by both rates and numbers in china during 1978-2005 periods, while in Pakistan it fluctuated and

remained high. The foundations of Chinese success are rooted in its solid political determination and powerful organizational ability. Successive policies and programs have also been launched in Pakistan, but they have not brought any real change in poverty mainly due to policy gaps, poor implementation, weak institutions and poor governance, low public spending, low human capital, population pressure and conflicts.

### **Some Estimates of Quality of Life: A District Level Analysis for Punjab**

The objective of this paper is to gauge and monitor their respective status of human and social development with precise data on a variety of key social indicators at district and down to tehsil levels in the province of Punjab where 55 percent of population resides.

### **Female Labor Force Participation and Household Expenditure Patterns**

Rising female participation has brought about changes at the economic, social and family levels. Employment has enabled women to achieve financial independence and changed bargaining power within the household. The interaction between female labor supply and consumption patterns has thus deserved increasing attention in literature and in the policy debate. Greenwood, Seshadri, and Yorukoglu (2005) argue that the diffusion of home appliances such as washing machines, freezers, etc played an important role in liberating women from housework and in propelling them into the workforce. The aim of this paper is to investigate the impact of female labor force participation on the consumption behavior of Pakistani households. We focus on expenses on different household items such as home appliances, household services, personal services etc. The analysis is based on micro data taken from the Pakistan Integrated Household Survey (PIHS) and Household Integrated Survey (HIES). These household surveys provide comprehensive information about household consumption expenditure, income, employment and different socio-economic indicators that are essential for analysis. The sample size of these household surveys is substantial enough to allow representative estimates to be obtained for each province and region. The Multinomial Logit model is used for the analysis at household level data. The study is a step towards increasing the understanding on female labor force participation.

### **Impact on FDI through Labor Market Competitiveness: A Case of Pakistan, India, Sri Lanka, and Bangladesh**

Foreign direct investment can influence a country's growth, employment and trade patterns more than capital flows and industrial structure. Labor market competitiveness, such as low wages, the size of the labor force and educated manpower plays an important role in attracting FDI. South Asian countries enjoy an edge over the developed world in terms of labor wages and its size. This study will examine the impact of labor market conditions on FDI in selected countries of South Asia.

### **Education Multiplier**

The governments of developing countries are shy of spending on education because the returns might accrue over a longer time span. Institutively, the public expenditure on education has positive multiplier effect on income and consumption. However quantified estimate of the relationship between public spending on education and different macroeconomic variables is not known. This study will attempt to estimate the multiplier effect of public spending on education.

### **The Influence of Medium of Instruction on Demand for Education**

In Pakistan, typically the pupils from English medium schools are able to secure white collar jobs. Therefore the returns to education for pupils from Urdu medium schools are perceived to be relatively lower. The lower return to education for the pupils of Urdu Medium schools, might have constrained the demand for education among the segment of population that has no choice but to send their wards to Urdu medium schools. This study investigates the question whether Urdu as the medium of instruction has caused the demand for education to remain at a lower level in rural areas of Pakistan.

### **Returns to Education in Pakistan**

The relationship between education and wage earnings has been extensively explored however a consensus is yet to emerge. In Pakistan the literature on the subject is scanty, narrow in scope, and with little attention paid to analysis of inter-temporal changes. The present study is an attempt to fill this gap. This paper will estimate the returns to education in Pakistan. The analysis will incorporate gender, age, location, and other important socio-economic variables.

### **Education Inequality in Pakistan**

The role of human capital in economic growth is well known. However the role of inequalities as a constraint to growth is also being debated. This study shall estimate and analyze the education inequalities in Pakistan among earners who are not currently enrolled. The data span is 2001-02 to 2006-07. Gender wise education inequalities will also be estimated.

### **Transition from School to Work in Rural Pakistan**

Household and community's socio-economic status compels children to leave school and join the labor market. The objectives of this study are to examine the specific characteristics of poverty that cause child labor and analyze the impact of child labor on socioeconomic outcomes.

### **Social Efficiency of microfinance: An empirical Investigation**

For all microfinance institutions (MFIs) in general, and for the socially driven MFIs in particular, the evaluation using the financial efficiency tend to overestimate their performance unless social efficiency is incorporated into the evaluation. Incorporating social efficiency in the performance evaluation of microfinance institutions is as important as the financial efficiency. However the issue of social efficiency in the performance evaluation is largely a neglected area of research in microfinance literature. This study will estimate the social efficiency of MFIs.

### **Development Disparities and Peculiarities: An Empirical Investigation**

Development disparities or imbalance refers to a situation where per capita income, standard of living, consumption situation, industrial and agriculture and infrastructure development are not uniform in different parts of a given region. The problems of regional disparities in the level of economic development are almost global phenomenon while its extent may differ in different countries. However, in recent years they have received a lot of attention because of their adverse implications for balanced economic development. Achieving balanced regional development remains as one of the key objectives of national development during the development plans in Pakistan. The focus of this study is the comparative analysis of the districts and sub districts in the province of Punjab to find out gap and rank of regional development. Inter and intra districts comparison in the areas of quality of persons and quality of conditions have been done by focusing on different dimension of development, i.e. economic well-being, health, education, gender, human development index, and social opportunities. The methodology of the study is based on Principal Component Analysis by employing data from the Multiple Indicator Cluster Survey, 2007-08.

## **V. Governance and Institutions**

### **V.1. Economic Reforms**

#### **Mapping Economic Reforms in Pakistan**

Pakistan embarked on an ambitious agenda of economic reforms in the early years of the 1980's. Since then, the process has gone through various stages encompassing the First Generation as well as the Second Generation of Reforms. Despite a host of studies evaluating the individual items on this agenda [privatization, trade liberalisation, deregulation, decentralisation] a holistic approach to these reforms is

lacking. It is now well understood that a piecemeal approach to reforms is counterproductive as these are interlocking and complementary in nature. This study will examine the reform process in its entirety to bring out important lessons for future reforms.

### **The Determinants of Long-run Development: Some Evidence**

This study empirically tests competing theories about causes of long-run development. Diamond (1997) had argued that the different evolutionary patterns of various continents can only be explained by their initial biogeographic potential. North (1990) however contends that productivity differences across nations (which are the major source of income differences) are attributed to institutional development. Olsson and Hibbs (2000) have developed a dataset measuring initial biogeographic potential. We will use this data along with institutional data to examine the empirical relationship of institutions and biogeography with long-run development. The study will use 2SLS technique of estimation to counter endogeneity problems.

### **Colonial Roots of Contemporary Educational Outcomes in Pakistan**

This study examines the contemporary educational outcomes in Pakistan with reference to the country's colonial history. Recent research into the causes of underdevelopment underscores the role of institutions and path dependence. Countries with colonial legacy and adverse geographic endowments have inherited weak institutions. One strand of research traces the lack of human capital in underdeveloped countries to the colonial education policy [Engerman and Sokoloff 2002]. This study tests this hypothesis for Pakistan using historical data on education.

### **Land Tenure and Agricultural Output/Productivity**

This study investigates the influence of land tenure arrangements, put in place during the colonial era in Punjab and Sind, on agricultural output/agricultural productivity, in the respective geographical areas. There is growing recognition among economists that history and initial conditions play an important role in shaping long-run development outcomes. For example, the nature and configuration of a country's elite and its initial economic and political inequality are determined in part by its geographic endowments and colonial legacy. Land tenure arrangements affected by the colonial rulers had the consequence of influencing not only the Landlord-Peasant relationship but also the power configuration at the local as well as national level. The Landlord-Peasant relationship in turn must have influenced agricultural output and agricultural productivity. Two different land tenure arrangements were put in place in the Punjab and Sind—*Mahalwari* in Punjab (excluding parts of south Punjab) and *Raitwari* in Sind. The former held the village community responsible for collection and payment of land revenue to the government while the latter assigned this task to the Landlord (*Zamindar*).

### **Traditional institutions and Natural Resource Management**

This study aims to look at the role of traditional intuitions in tribal areas of Gilgit-Baltistan. Mismanagement of natural resource leads to tribal conflict. It also studies different types of natural resources which are used for subsistence, ceremonial and commercial purposes. The study also examines how local people perceive and define nature and natural resources. This study will help the policy makers to understand dynamics of the conflict that frequently occurs between traditional/customary law, which governs the everyday behavior of tribal areas, and statutory laws.

### **Power Crisis in Pakistan: Crisis in Governance**

The existing power crisis which activated in 2006-07 with a gradual upsurge in demand and supply gap, is considered to be the worst of all such crises that Pakistan has faced since its inception. The present government when took over, recognizing the magnitude of the crisis and its effect on the people and the economy, undertook certain measures to address, manage and reduce the impact of power sector crisis which was crippling the economy extremely badly. But unfortunately, after the passage of almost four years the situation instead of improving is becoming worse day by day. Recently, the electricity

shortfall had surpassed 8000 MW (although it was for few days). The objective in this study is therefore to examine the issues and constraints faced by the power sector in Pakistan. The paper will try to evaluate the reasons behind the current energy crisis notwithstanding the present government's commitments/initiatives to solve power sector problems.

### **Can political regimes define growth trajectory for Pakistan? Direct and indirect impacts**

In this paper we will try to analyze the impact of political regime changes on economic growth in context of Pakistan. Also we will try to see long run dynamic of this relation using co-integration analysis.

### **Institutions vs. geography, which matters more for long term growth? A survey on currents of development historical perspective**

Is it institutions or geographical factors that determine the long term trajectory of development path or is the interaction of these two factors that matters, this hypothesis will be explored using historical evidence internationally and in perspective of Pakistan?

## **V.2. Conflict, Security, and Development**

### **Causality between Terrorism and Tourism in Pakistan**

To find out whether the relationship, if there is any, between terrorism and tourism is uni-directional or bi-directional by using the Vector Autoregression (VAR) and Granger causality test. The direction of causality will also be investigated.

### **Determinants of Terrorism: A Panel Data Analysis of Selected South Asian Countries**

Using panel data techniques, the paper explore the determinants of terrorism. The study finds that income inequality, inflation, political repression and education increase the incidence of terrorism.

### **Oblivion or Not: Assessing Effects of Terrorism on Higher Education**

Based on Survey of different universities of Pakistan, the study analyses the qualitative effects of terrorism on higher education. The study finds the enrollments decline and reallocation of resources, for ensuring security, affects the availability of services on campuses.

## **VI. Sustainable Development**

### **VI.1. Environment and Natural Resource Issues**

#### **Environmental Issues and Policy Response in Pakistan**

The paper reviews the trend and current status of environmental indicators in Pakistan. The paper highlights the fact that the policies to deal with conserve and control the degradation exist but lack of implementation makes them ineffective.

#### **Environmental Kuznets Curve for Carbon Emissions in Pakistan: AN Empirical Investigation**

The paper focuses on the relationship between environmental degradation and economic growth. The relationship is expected to be nonlinear as demand for environmental goods is low initially and rises after a threshold level of economic growth is achieved.

#### **Possible Effects of Climate Change on Pakistan Forests and it's Repercussions for the Economy**

Increase in deforestation is blamed for the global climate change. The paper intends to explore the reverse causality between deforestation and climate change and consequently on economic growth.

### **Cost of Climate Change for Pakistan**

The study intends to quantify the adverse economic impact of climate change, particularly on major crops in agriculture.

### **Intellectual Property Rights and Transfer of Green Technology**

The protection of IPRs encourages technology transfer from developed to developing countries. The study focuses on the experiences of Pakistan, Bangladesh and India.

### **Impact of Climate Change on Wheat Productivity: A Case of Pakistan**

Increase in temperature and precipitation are expected to reduce the agricultural productivity. The results of the study show that temperature rise is expected to reduce wheat production.

### **Green Growth: An Environmental Technology Approach**

The enforcement of environmental standards would help in transition towards green economy. The study shows that enforcement of IPRs has negative effect on development of better technologies. Environmental taxation, market size, and expenditure on R & D also influence adoption of green technologies.

### **Analyzing the economic impacts of climate change on agricultural production in different agro-ecologies of Pakistan**

This study tries to fill the gap in the literature by examining the impact of key climatic variables on agricultural production in Pakistan using district level panel data—incorporating the extreme events like floods and droughts.

## **VI.2. Energy**

### **The cost of Unserved Energy: Evidence from the Industrial Sector of Pakistan**

Recent energy crisis has affected the performance of the industrial sector significantly. Using simple labor productivity approach, the study tries to quantify this cost. The study finds that cost of production has gone up and also production losses are quite significantly, particularly in the energy intensive industries.

### **Inter-fuel Substitution in Pakistan**

Given the rapid rise in energy prices and its shortages the users demand pattern is expected to change. The study intends to examine the issue for Pakistan.

## **VI.3. Food Security**

### **Supply and Demand Projection of Food Grains**

The purpose of this study is to provide supply and demand projections for important food grains in Pakistan

### **Trends in Domestic Terms of Trade in Agricultural Sector of Pakistan**

The study will examine the trends in domestic terms of trade in the agricultural sector of Pakistan and determine the profitability and changes in standard of living of farmers.

### **Agricultural Productivity and Poverty: A Case Study of Pakistan**

This study will explore the relationship between agricultural productivity and poverty in Pakistan.

**Food Security Challenges in Pakistan: A Future Outlook**

The study will highlight threats to food security situation in Pakistan, focus new opportunities and suggest new dimensions/ways to deal the situation.

**Food Security and Access to Credit: Evidence from Pakistan**

Based on the PPHS 2009, the study will provide evidence about the linkages between food security and various lines of access to credit in Pakistan.

**Role of Agriculture in Pakistan's Economy: an Intersectoral Linkages Analysis**

The study shall help understand the linkages between agriculture and the rest of the economy. This would also investigate the existence of long-run growth relationships among various sectors.

**Agricultural Development and Rural Poverty Linkages in Pakistan**

The study would generate a comprehensive empirical base about the determinants of rural poverty alleviation in Pakistan. The results for this study would help the agricultural research planners, policy makers and development practitioners in the country for informed decision making.

**Irrigated Agriculture of Pakistan: Issues and Challenges**

The objectives of this study is to critically review the water related institutions and the efforts for increasing water availability for agriculture purposes in the country, to carryout economic analysis of alternative crops rotation for saving water and output enhancing, and to suggest policy recommendations for enhancing water productivity in Pakistan.