



AERC VOICE

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Applied Economics Research Centre
University of Karachi

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From the Desk of Editor

Dear AERC Colleagues and Readers, The 7th Issue of AERC VOICE Newsletter is being presented with great pleasure in order to introduce the achievements at the Centre, besides highlighting the events, activities, faculty's research and development, academic prowess and other accomplishment, attained so far. In this issue, an attempt is made to capture the excitement undertaken during the last three months. I sincerely look forward that this issue provides interesting material to read. Hoping further, the newsletter will encourage many readers, especially students, to use it as a platform to express their creativities and research skills. I now take this opportunity to thank all who have contributed their role in submitting the reading material for this Issue. Please do not hesitate to provide your feedback, valuable comments, and pertinent information for inclusion in our forthcoming issues. Moreover, we are anxiously waiting to see more readable material for publishing in our upcoming issues. I am grateful to my team for their hard work and wonderful support in making this issue possible for publishing and reading. I would like to extend my special thanks to Mr. Joseph Cyprian for his editing support. That is all for now, enjoy a happy reading!



Uzma Iram

MESSAGE FROM THE NEW IN-CHARGE OF AERC

The function of education and research is to teach one and learn to think intensively, constructively and positively. Intelligence and character is the goal of true education. I as Incharge of the AERC feel very strongly that all of us at the AERC need to move ahead with determination to build our institution with sincerity and hard work. Honesty, perseverance and dedication are the key to success, but we also need to always remember that intuitions are more important than personalities. I wish all the best for future endeavors of all the staff members of the AERC and anticipate cooperation and coordination from everyone to keep harmony and cordial environment all around.



Quote

The love of what you do, combined with your belief in what you do, will not determine your success. It will determine how hard you will work and how dedicated you will be to achieving it. Success just shows up from there.

Jeffery Gitomer

Citrus Fruit production in Punjab _ Pakistan

Muhammad Pervez Wasim

Fruits are one of the oldest forms of food known to man. According to "The Holy Quran", the fruits like grape, date, olive and pomegranate are the gifts and heavenly fruits of God. The world citrus production and percentage share has witnessed a period of strong growth since 1980's. Production of citrus (tangerines, lemons, oranges and limes) has all expanded rapidly. China has maximum production and world share of citrus. Pakistan in the top 15 countries world citrus production (2010 11) ranks 13 in terms of production and world share. Fruits are a vital part of Pakistan agriculture. Large area of the country are blessed with an ecological environment conducive to production of nearly 30 types of fruits of which citrus, mango, apple, grapes, dates, banana, melons and guava are relatively common. In total fruits area and production of Pakistan citrus ranks first and contribute 24 percent of area and 31 percent of production. Citrus fruit is grown in

all four provinces of Pakistan but Punjab produces more than 96 percent of citrus because of its greater population, soil fertility, favourable climatic conditions and adequate water. Though climatic conditions of Punjab are quite suitable for high yields and superb quality of citrus fruits, yet the average productivity per hectare is about 10 tonnes. This indicates that the environments and climate are friendly for citrus fruit production in Punjab but the problem is low per hectare productivity, increasing soil salinity in Faisalabad and Sahiwal districts, rootstocks with respect to soil conditions and the scientific approach to compete with rest of the citrus growing countries of the world.

District-wise time series data of Punjab for 22 years, 1990 91 to 2011 12, pertaining to area, production and productivity of citrus were collected from the Agricultural statistics of Pakistan.

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Globalization, Poverty and Environmental Degradation: Sustainable Development in Pakistan

Shaista Alam

The rapid pace of modernization, urbanization, and industrialization has led to serious environmental concerns in the developing countries like Pakistan. Over the past few decades, the natural resources have depleted remarkably resulting from accelerated pace of economic and social transformation. Economic changes such as large increase in population, agricultural output, industrial production, capital accumulation, and innovative technologies have transformed the country's natural resource base, both as a source of factor inputs and as a byproduct of pollution associated with economic activity. The continuously accelerated and unabated environmental degradation in the country is dangerous for people's health and livelihoods, the survival of species, and ecosystem services that are the foundation for long-term economic development. Economic development and poverty reduction efforts are increasingly constrained by environmental concerns, including degradation of forests and fisheries, lack of fresh water resources, and poor human health as a result of air and water pollution (Banister 1998; Chu and Yu 2002). Intensified crop and livestock production combined with misdirected incentives have contributed to increased production of chemical and organic wastes, natural resource and biodiversity loss, and soil erosion. Lack of an adequate supply of clean water, the explosive growth in population, and the artificial

methods of cultivation are the most severe environmental problem in many developing countries, In addition, water quality has been steadily infected by sewage; industrial effluent, urban and agricultural runoff, and saline intrusion. Levels of suspended solids in the rivers increased remarkably high in Pakistan. Biochemical oxygen demand, a key indicator of overall water quality, is also very high as compare to the level recommended by OECD (Organization for Economic Cooperation and Development).

The relationship between environmental degradation and economic activities becomes the major issue and comes to the focal point of research. The present study tries to find out the linkage between environmental degradation and economic growth and discusses the factors that affecting the environmental degradation and economic growth. In the past decade, many studies have been conducted to test the environmental Kuznut Curve (EKC) hypothesis. EKCs are widely based on the argument that when an economy is at the initial stages of economic growth it may increase pollution along with, once per capita income exceeds a threshold, not only does the structural changes in the economy, but also people can manage to pay for a cleaner environment (Beckerman, 1992; Shafik, 1994; Shafik and Bandyopahay, 1992). The improvement in environmental quality can

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Citrus Fruit production - Continued from Page 1

The compound growth rates are estimated by using log-linear functions on the time series data on area, production and productivity. The study reveals that in Sargodha and Gujrat districts and in Punjab province the increase in production growth was due to increase in both, i.e. area growth and productivity growth, but in Gujrat district and Punjab province citrus farming is profitable mainly due to; better soil fertility, favourable climatic condition, easy availability of formal credit system and lack of soil salinity. At Pakistan level the increase in production growth was mainly due to increase in area

growth. The study also confirms that the growth rates of Faisalabad and Sahiwal districts, significantly decreased. The study also indicates that at Punjab province level the area, production and productivity of citrus fruit recorded positive and significant growth. Though the productivity growth contributed more as compared to area growth in increasing production growth, the productivity growth of 0.61 percent per annum is very low as compared to many others citrus growing developing countries.

Globalization - Continued from Page 1

be achieved by advancing the technological mode of production (de Bruyn, 1997; Xiaoli & Chatterjee, 1997) or by exporting the "dirty industry" to low income countries (Rock, 1996; Suri & Chapman, 1998). The empirical research also supports the EKC along with theoretical models (Cole et al., 1997; Cropper & Griffiths, 1994; Grossman & Krueger, 1993, 1995; Roberts & Grimes, 1997; Selden & Song, 1994). Most of the studies deal environmental degradation with the problem of air pollution, while few researchers extend their test of EKC hypothesis to water pollution. The environmental degradation in terms of water pollution is measured as the rate of growth of emissions of organic water pollutants of Biochemical Oxygen demand (BOD). The poverty and environmental damage are complementary. According to "EKC" the early stage of development are unavoidably marked by conflicts between poverty reduction and environmental protection (Das-Gupta et al., 2005). Numerous studies have suggested that environmental damage can have particularly significance for the poor, because the poor are least capable of managing the environmental effects (Albla-Bertrand 1993; Myers and Kent, 1995).

In the globalization era, countries enhance their interdependence through international trade. For achieving the benefits of globalization, each country needs to faster its growth and economic development through international trade. For this purpose economic development and enhancement of trading activities play an important role in sustainable development of a country and reducing the environmental degradation (Cole 2004). Economic theory suggests that trade between countries with different levels of environmental protection could lead pollution-intensive industry to concentrate in the nations where regulations are lax. Developing countries frequently have less stringent environmental regulations than developed countries. Evoking this theory, nations that are attractive to industry due to their looser pollution controls are often referred to as "pollution havens". Managi et al., (2008) argued that trade is good for water quality and reduces BOD emissions not only for OECD countries but also for non-OECD economies. Water pollution in the developing nations is caused by animal and human waste, over application of fertilizers, industrial chemicals, urban runoff, and a general lack of pollution prevention laws and their enforcement. Access to adequate wastewater treatment facilities in the developing countries is very limited. As a result, water bodies in the developing nations are often used as open sewers for human waste products and garbage.

Economic growth is also associated with negative externalities, for example environmental degradation and poverty, while Economic Development is a an increase in the real income per capita as well as improvements in a variety of indicators such as literacy rates, life expectancy, poverty rates, welfare of the nation, quality of life and quality of environment. Economic development is however concerned with sustainability which means meeting the present needs without compromising future needs. Sustainable development may be defined as continuous increase in the socio-economic standard

of living of a country's population, normally accomplished by increasing its stocks of physical and human capital and improving its technology and environment. Jalal (1993) argued that "Sustainable development can be visualized in terms of a water tank having two leaks, one leak being 'poverty' and the other 'environmental degradation'. Sustainable development will thus remain a dream unless problems of poverty alleviation and control of environmental degradation are dealt with simultaneously".

The present study investigated the relationship between globalization, poverty, environmental degradation and sustainable economic development along with other socio-economic and demographic factors, such that education, industrialization and agriculture output, urbanization and population in case of Pakistan. The study demonstrated that expansion in intensive industrial and agricultural activities and rapid urbanization affect environment adversely, while increased globalization has caused to decrease the rate of environmental degradation. The evidence also suggests that industrial and agricultural output and globalization played positive effect on economic development, whereas rapidly growing population is a big hurdle to achieve economic development in Pakistan. The analysis suggested that poverty may cause to increase environmental degradation and it may slow down the process of economic development if it would not be alleviated. The education which is the indicator of human development generates the awareness in people to protect environment and it further improves the economic development of a country. The results further suggest that the effect of education is significant to reduce the environmental degradation; while it can play a positive role to attain sustainable development in Pakistan. As far as, the effect of water pollution on economic development concerned, it does not significantly affect economic development adversely. If we want to sustain our development, then we have to control water pollution and protect our environment. If we want to achieve sustainable development in Pakistan, we have to globalize our resources, increase the serious efforts of poverty reduction, own green and clean technologies to increase industrial and agriculture output, control growing population and urbanization rate.

According to Jalal (1993), "two leaks of sustainable development, i.e., poverty and environmental degradation", the present study found that two leaks are not significantly affecting sustainable development in Pakistan but their signs represent an alarming situation that poverty and environmental degradation may adversely affect sustainable development unless problem of poverty alleviation and control of environmental degradation are dealt with simultaneously in case of Pakistan. As far as globalization is concerned it can play positive and significant role in attaining sustainable development by protecting environment through adaptation of green technologies. Last but not least, there is need to enhance the level of education in Pakistan that can help to alleviate poverty, increase the awareness of environmental protection and generate the understanding to globalize resources.

Faculty Development

Dr. Samina Khalil got internationally-competitively selected to participate in an advanced course on Managing Risks in the face of Climate Change with full fellowship by the Center for Development Research, Wageningen, Holland, from March 23 to April 5, 2015. Disaster risk management is a broad concept that aims to avoid, reduce or transfer the adverse impacts of hazards on people, property and the environment through activities and measures for prevention, mitigation and preparedness. It involves the judicious design, implementation and evaluation of strategies, policies and measures that aim to:



- *Improve knowledge and understanding of disaster risk, including hazards, exposure and vulnerabilities, and capacities.*
- *Reduce disaster risk by the use of protective measures which aim at protecting lives and assets.*
- *Promote disaster preparedness, response and recovery practices; and facilitate and advance sustainable development.*

This advanced course successfully enabled the participants in developing a meaningful and in-depth insight in to the climate change issues and risk management strategies.

Dr. Samina Khalil presented a paper on Energy and Climate Change Interaction at the Sixth International Conference under the, “The Egyptian Society for Environmental Sciences (Genetics, Biotechnology and Sustainable Development in Safe Environment)” at Suez Canal University, Ismailia, Egypt, from 2-5 February, 2015.

Dr. Samina Khalil was invited by the research institute in Environmental and Natural Resource Economics, Heidelberg University, Germany, as a visiting fellow to represent South Asia in a policy orientated and consultative series of global meetings to share the latest insights on climate change adaptation and mitigation and the impact for local authorities from Nov 29th – Dec 2, 2014. Dr. Khalil emphasized that many countries struggle with the consequences of unsustainable growth programs, affecting the climate, people and natural resources. Local authorities and their inhabitants are faced with droughts, floods, air pollution, land degradation, deforestation and rising sea levels. By developing sustainable growth policies, local governments in partnership with the community, can improve the quality of life of citizens and contribute to protecting the global environment

GOOD BYE

Ms. Nighat Bilgrami

Wishing good bye this time to Ms. Nighat Bilgrami-Jaffery, In-charge AERC on successful completion of her service, we will surely miss one of our longest serving staff member. Ms. Bilgrami retired on 9th of August 2015 on attaining the age of superannuation after serving for 30 years at the Applied Economics Research Centre University of Karachi. Ms. Bilgrami started her career at the AERC in 1985 and retained the post of Senior Research Economist/Associate Professor for about 19 years. As In-charge of AERC since August 2013 Ms. Bilgrami has done excellent work to bring energy into the activities of AERC by fostering collaboration with other faculty members and students. Ms. Bilgrami’s retirement actually means that she is promoted to one of her best roles in life. **Congratulations!** She played the key role in organizing AERC conferences and producing the first Annual Report. Both the successful International Conference and AERC Annual Report 2015 are exclusively attributed to her credit. The continuous and constant publishing of AERC Voice (NEWSLETTER) is another achievement of Ms. Bilgrami and shows her inclination towards the recognition and growth of the Centre. She is a very popular member among the staff and students because of her intellectual curiosity, well-judged insight, encouragement, and her bright smile. We would like to thank her for everything and wish her every success and happiness in her future career.



Congratulation

NEW IN-CHARGE OF AERC

The editorial team of AERC Voice joins the entire staff to congratulate Dr. Samina Khalil [Senior Research Economist/Associate Professor] on being appointed as In-charge of AERC w.e.f. August 10, 2015, following the retirement of Ms. Nighat Bilgrami. Dr. Samina Khalil was accorded a warm welcome in a formal lively function on August 12, 2015.



Dr. Khalil joined the Centre in 1989 and has since held various positions, such as Editor PJAE, Member BOG, In-charge of Seminars and Head of PhD Program at AERC, etc. She attained her PhD degree in Environmental Economics and Management from the University of York, U.K. and M.Phil in Economics of Developing Countries from Cambridge University, U.K. besides attending and doing various Ph.D. courses. Dr. Samina Khalil acquired training in Environmental Economics and Natural Resource Management from the University of Berkeley [USA], University of Gutenberg [Sweden] and Shiga University [Japan]. She is the winner of many scholarships/fellowships: like Commonwealth Scholarship, Ford Foundation scholarship, Swedish International Development Agency (SIDA) scholarship, Japan International Cooperation Agency (JICA) scholarship. She is also a recipient of fellowships from Government of France, East-West Centre (Washington D.C. USA), and Higher Education Commission (HEC), Pakistan for research work in the areas of Environmental Economics and Natural Resource Management Policy and Sustainable Development. Besides research work, Dr. Khalil has rich experience in teaching courses like Microeconomics, Development Economics and Environmental and Natural Resource Economics. She is an HEC approved supervisor and also an advisor on numerous M,Phil and Ph.D. theses.

With corporate experience and rich background in academic and administrative matters, Dr. Khalil will make a fine contribution towards AERC further growth. We hope that she would handle all her fresh responsibilities with great determination and sincerity. We are fortunate to have with us such a gracious, friendly, responsible, and a generous colleague. We warmly wish Dr. Samina Khalil the best of success in her new position.

NEW GSP IN-CHARGE OF AERC

AERC Voice, along with all other staff would like to congratulate Dr. Shaista Alam on being appointed as the new GSP In-charge of AERC as on August 25, 2015. Dr. Pervez wasim (ex-In-charge GSP) had completed his tenure in this capacity. The high quality of Dr. Alam’s teaching is undoubtedly supported by the glowing recommendations she has received from current and former students. Dr. Alam places a very high value in engaging students towards the learning process. She is always innovative, flexible, and responsive to their needs. It’s a pleasure to work with a colleague, who knows how to make a friendly and inspiring working environment, anywhere and at any time. We are sure that the new GSP In-charge will lead the GS Program to new heights. We extend our best wishes to her for all success.



Seminar Series

The Applied Economics Research Centre (AERC) organize lectures under the auspices of Dr. Ehsan Rasheed Memorial Lectures Series. Dr Hafiz.A.Pasha was the guest speaker for a lecture on “Provincial Budgets of Pakistan” on June 16, 2015. Dr. Pasha is one of the distinguished economists of Pakistan and currently the Chairman of the Country’s Panel of Economists (an independent advisory committee formed by the government). In the seminar he discussed different issues of Pakistan’s economic policy related to financial budget 2015-16. Dr. Pasha stated: “There are two main reasons behind the low tax-to-GDP ratio in the country: one is the tax evasion and widespread corruption while the second equally important reason is the tax expenditures, exemptions and concessions



provided by the tax system.” All exemptions are provided to influential and elite class in Pakistan. Dr. Pasha added that there are 13,000 zamindars in the country with six million acres of land, but they don’t have any tax liability accordingly. This situation creates the tax system to be more regressive. Dr. Pasha placed all blame on FBR which lacks in the accountability process of corporate sector, and as such, billions of rupees worth tax are being evaded. According to Dr. Pasha, the increase in GST from 16 to 17 percent and introduction of import duty of 2 percent on non-dutiable products, raising taxes on high speed diesel oil, regulatory duty on furnace oil used to produce electricity increase the burden of indirect taxes on the people of Pakistan. He concluded the seminar by giving some suggestions to both FBR and the government, particularly emphasizing that “tax should be on all incomes irrespective of the source”.

Another lecture under the auspices of Dr. Ehsan Rasheed Memorial Lectures Series was organized by the AERC. The guest speaker Dr Shahida Wizarat delivered a lecture on: “Achieving food security in Pakistan”, on 30th July 2015. Dr Shahida Wizarat is currently serving the Institute of Business Management as Head of the



Economics and Research Department. Dr Wizarat informed the participants that Pakistan’s economy mainly depends on agricultural sector, which contributes 22 percent of GDP. Despite of the fact that more than 45 percent of the population belongs to the agriculture sector, there is food insecurity in the country. Although we have large rivers

and lots of coal mines still Pakistan is insecure in water and energy. The reason is mismanagement of resources and lack of interest of the management. Dr. Wizarat mainly focused on disadvantages of the use of genetically modified seeds and food items which are imported from United States, Canada and Australia. According to her research these genetically modified seeds are infected with some viruses, which enter into the food and is harmful for human health. The viruses cause different dangerous diseases, like cancer and arthritis. Genetically modified farming increases agricultural growth but it is not good to achieve food security on the cost of people’s health, because of insufficient nutrient value as the organic food possesses. Dr. Wizarat concluded that proper labeling on food items in the market be done, whether it is organic or genetically modified. People should by-pass markets and grow vegetables and other food items themselves and at the same time, pressurize the government to redistribute land to grow food.

Launching of Annual Report

The first AERC thematic Annual Report on “City Dynamics in Pakistan 2015” was officially launched on April 29, 2015. The honourable participants of the ceremony were Prof. Dr. Moonis Ahmar [Dean, Faculty of Social Sciences, Prof. Dr. Hafiz A. Pasha [Chairman of the country’s Panel of Economists (an Independent Advisory Committee formed by the Government)], Ms. Nighat Bilgrami-Jaffery and Muhammad Sabihuddin Butt. The program started with recitation from The Holy Quran, followed by a warm welcome to the honorable guests and audience for participating in the program.

Dr. Pasha was invited for the inaugural address. He congratulated and appreciated the efforts of the AERC team for timely completion



of this report. He provided informative discussion over this report. Further, he discussed the performance of the Government, especially in the social sector. Dr. Pasha emphasized that poverty is a more severe problem in Pakistan. He suggested that the government agencies, as well as social and political and other community organizations should organize programs to improve socio-economic conditions in the economy. The Annual Report deals with nearly every aspect and all factors that contribute towards the process and pace of urbanization in Pakistan. It provides the determinants of urbanization, agglomeration, clusters, drivers of city competitiveness, innovation at national and regional levels, which results in small shanty towns in urban cities. The aim of this Report is to provide a guideline to policy makers to formulate policies for urbanization in order to regulate the shanty towns. The industrial development policies to be prepared by policy makers will help the rural urban migrants to improve the socio-economic structure of the country. The summary of the Report, which comprises of seven sections, is given below.

Section 1 discusses the pattern and trends of urbanization at national, regional and international levels, while the urbanization’s characteristics and dynamics from Pakistan’s perspective are given in

Section 2. This section also explores the population dynamic which is an important factor in determining the degree of urbanization in any country. Within this section of the Report is provided the analysis of urbanization in Pakistan through projections and by highlighting their trends. Section 3 highlights about those cities which are always sighted as a core of economic growth in all eras of economic development in the world. Moreover, the supply and demand side factors are covered here by considering urban population, urban growth and city's economic output. The empirical evidence reveals that most of the demand side factors cause city growth in Pakistan. The pattern and trend of inflow and outflow of migrants in large cities of Pakistan are analyzed in Section 4. Nevertheless, cities provide a space for the migrated population entering into the labor force. The patterns of cities growth provide a reason to migrate not only for the population living in the nearby rural areas but also for the people from other districts interior areas.

The report revealed in the Section 5 that the urban clusters change, as the strong source of economic and employment opportunities

for a large number of poor population and locals, migrating from other areas. The economic benefits of urban clusters encompass a large number of people in a developing society.

Section 6 provides a composite indicator of city competitiveness for 13 larger cities to identify in order of priority among the most important bottlenecks to city competitiveness in Pakistan. The most important outcome is that city growth and productivity in Pakistan are being hampered by these three major factors: namely, (i) labor market rigidity; (ii) excessive burden of industrial regulations; and (iii) serious deficiencies in the provision of physical infrastructure. The ranking of cities in terms of innovations is given in Section 7 which shows that average cities in Pakistan are only 14% innovative. This Report shows that Hub city stands first in ranking, while Sheikhpura has the lowest rank among the 13 cities. The analyses also present that specialization in Wazirabad and Sukkur hinders innovation, while specialization in rest of the cities leads to innovation.

Alumni NEWS

Where are they Now!

Prof. Dr. Nuzhat Ahmad is an Alumni of AERC. After completion of MAS, Dr Ahmad obtained her Ph.D. in Economics from University of Sheffield, United Kingdom. During her tenure at AERC, she contributed a lot towards the development of its academic and research program and held the roles of Director of AERC, Editor, PJAE and In-charge GSP. She is currently associated with IFPRI (International Food & Policy Research Institute, Washington DC) as a senior Research Fellow. She has over 25 years of experience in research and teaching at the post graduate level and provided advisory services to the Government Pakistan. Dr. Ahmad has worked for various national and international agencies including, The World Bank, Asian Development Bank, UN Agencies, USAID, Inter-Agency Gender and Development Group, DFID, Overseas Development Institute, Harvard International Institute of Development, and the Aga Khan Foundation. Dr. Ahmad also worked as the Poverty Policy Advisor for United Nations Development Program, New York and performed as a representative of UNDP at high level of international forums. She has very rich experience in the fields of gender, poverty and social development, governance, environment, health and nutrition; education; urban and regional economics and public finance. Dr Ahmad has experience of working extensively throughout Pakistan including several field studies in urban and rural areas of Sindh, Punjab and NWFP provinces. She also acted as editor for papers by Urban Studies, a leading journal published in the U.K. Dr. Ahmad supervised several M.Phil. and Ph.Ds thesis at AERC and elsewhere. She retired from the AERC in August 2013 serving for after more than 8 years as Director. We heartily congratulate her on all her enormous endeavors during her bright journey of success and keep best wishes for more success and happiness.



AERC Voice is pleased to introduce Mr. Riaz Riazuddin as an Alumni of AERC. On completion his MAS from AERC, Mr. Raizuddin worked here for some years as an Assistant Professor/Research Economist. Currently he is working as Deputy Governor at the State Bank of Pakistan. Mr. Riazuddin assumed the charge in leading its monetary policy group of departments. He holds Master's degrees from the University of Karachi and Boston University, USA in Statistics, Economics and Economic Policy. He has been leading SBP technical teams in negotiating with IMF, World Bank and also representing SBP in policy level discussions. There are multiple research initiatives to his credit such as Financial Sector Assessment Reports, Inflation Monitor, SBP Research Bulletin and SBP Working Paper Series. Diversity of experience has enabled Mr. Riazuddin in handling research, teaching, and training assignments in interrelated fields of economics, banking and finance. This experience is combined with a multidisciplinary knowledge of economic planning, operations research, econometrics, development economics, population analysis and biostatistics. He proved his unique ability, not only in analyzing the public policy issues, but also to convey them in a simple, concise and readable form. He has been representing SBP at various forum such as Chairman, Working Group on Monetary Policy and Financial Sector Development; Director, Board of National Institute of Banking and Finance (NIBAF); and as member of Panel of Economists constituted by Government of Pakistan, Technical Committee on National Accounts and Technical Committee on Consumer Price Index of the Federal Bureau of Statistics, and Working Group on External Sector constituted by Government of Pakistan. We heartily congratulate him on all his enormous endeavors during his bright journey of success and keep best wishes for more success and happiness.



M.Phil. Thesis Series

Trade Openness, Size and the Saving-Investment Relationship: A Dynamic Analysis for Pakistan*Faizra Umer*

Faizra Umer has been rewarded her M.Phil degree under the supervision of Dr. Shaista Alam and Dr Mohsin Husnain Ahmad. Following dissertation investigates empirically the trade openness, size and saving-investment relationship over the period 1960-2011 in Pakistan. For investigation of trade openness, size and the saving-investment relationship this study employed vector auto-regression (VAR) to check simultaneity among trade openness, economic growth and saving-investment. Findings confirms the significant positive relationship among trade openness, economic growth; saving and investment of Pakistan in long run, but do not established significant short run relationship among trade openness, economic growth, savings and investment. Results suggested that external sector development should be given the importance for that relationship. For this purpose, availability of credit should be enhanced properly. This will on one hand increase saving rate in the country and on the other hand it enhance investment. The stability of trade policies at the peripheral front may possibly be the instructions to stabilize potential, thus leading to economic growth and savings-investment growth domestically.



This study further analyzes the impact of trade openness on economic growth during same time period for Pakistan. Two types of trade openness measures is used, trade volume and trade restriction. Moreover, result shows that the impact of trade openness on economic growth is not obvious in short run. The findings suggest that developing countries like Pakistan need to consider open trade policy as a long term plan of the country. The policy direction of Pakistan should emphasize on more liberal policies to enhance economic growth which will eventually lead towards poverty reduction in Pakistan.

The study also finds that physical capital (investment) and human capital (education) have advantageous effect on economic growth for Pakistan, so substantial growth in both investment activity and education required for the improvement in economic growth. This might be possible with the help of financial development systems and by the institutions. Majority of developing countries have labor intensive or unskilled labors, in addition of low level of education making major source of low economic growth. A significant amount of government funds should be allocated to the training for labor which will help and improve economic growth.

A key contribution of the study to the existing literature is that since earlier studies do not investigate the simultaneity between openness to trade, size of GDP and savings-investments.

Impact of Monetary Shocks on Real Economic Acitivity: A case Study of Manufacturing Industries in Pakistan*Zinaz Ayesha*

Zinaz Ayesha has been rewarded M.Phil degree under the supervision of Dr. Muhammad Nishat and Dr. Mohsin Husnain Ahmad. This research study provides empirical analysis on the disaggregated effect of monetary policy shocks on the output of five manufacturing industries of Pakistan economy. The core objectives of the study are to investigate how prices and output response to monetary policy shocks, to identify the timing and magnitude of response to monetary policy shocks at disaggregated level and to check the significance of bank lending channel in Pakistan. To achieve these objectives monthly data from 1993 to 2010 and Structural vector auto regression (SVAR) approach is used by applying the standard AD/ AS model. Long run restrictions have been applied presented by Blanchard and Quah (1989) to exactly identify the SVAR model and generated impulse response function and variance decompositions.



The results of impulse response function indicate that output response to monetary policy shocks differs across industries, where sugar industry remains more responsive comparatively, and output declines by 15% and 5% due to monetary shocks in basic and alternative models respectively. Fertilizer and textile industries remain least responsive, automobile and cement industries indicate moderate response to monetary shocks in the short run. Results also suggest that overall manufacturing industry seems to be less responsive to TB6 and LM2. Furthermore output in each industry reverts back to base line after 20 to 30 months, where results of basic and alternative models indicate that output bottoms out after 20 months in sugar and fertilizer industries, and 30 months in case of automobile, cement and textile industries. Results also suggest the significance of bank lending channel.

Variance decomposition results define that monetary shocks remain dominant factor in explaining inflation moreover comparative analysis suggests that TB6 as monetary policy variable provides better results than the M2.

These results suggest sound policy measures that the benefits of the policies need to be fully analyzed in terms of unequal distribution of income across sectors. It can be defined as; the potential sectoral effects of monetary shocks need to be taken into consideration for future designs of monetary stabilization policies. Along with the price stabilization, policy makers also consider output stability which is helpful in the attainment of fast economic growth. Improvement in the banking system through financial reforms and effective use of leveraging by corporate sector as a result of market based credit policies are essential steps for the improvement of mechanism of monetary policy.



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