Department of Economics

RESEARCH PROGRAM

The research program of the Department is centered around a series of projects which will yield working papers, policy briefs, newspaper articles and journal articles.

1. **The main projects of the Department are: ITC, Lahore School of Economics in WTO Chairs Programme**

ITC, Lahore School of Economics was the only institution from Pakistan, among seventeen other universities from least-developed and developing country members, selected as a member of the prestigious WTO's Chairs Programme. The role of the centre, being part of the WTO Chair Programme, would be to enhance knowledge and understanding of the international trading system among academics and policy makers in the country.

The objectives of the WTO Chair at the Lahore School of Economics are threefold: First, to further the understanding of trade related issues (including trade theory, implications of restrictions on trade, the role of international bodies like the WTO, etc.) amongst students, the business community, policy makers and other stakeholders. Second, to conduct timely, relevant, and broadly inclusive research on trade related issues which is not only of the highest academic quality but is also relevant to stakeholders. Third, to disseminate the findings of its activities (both research and stakeholder consultations) to a broader audience through an effective dissemination campaign.

2. **Managers' and Households' Attitude Towards Women Working in Factories: Role Model Firms and Information Interventions in Pakistan.**

Researchers: Waqar Wadho (Lahore School of Economics), Abu Siddique (Royal Holloway, University of London), Anri Sakakibara (Technical University of Munich)

Funded by PEDL major grant.

Women's work outside the home (WWOH) in Pakistan is among the lowest in the world, and barriers to female labor force participation (FLFP) have been attributed to persistent demand- and supply side information frictions and attitudes. On the demand side, information friction arises from hiring managers with incorrect information and beliefs about women's ability to carry out work. On the supply side, stigma against WWOH causes women and their family members to remain ignorant about obtaining information about suitable jobs and their true nature. This project seeks to examine the impact of reducing both supply- and demand-side information constraints through a randomized experiment with the goal of increasing FLFP. Our demand-side intervention will involve informing hiring managers of randomly selected male-intensive firms in the apparel sector of the success stories of female-intensive firms in the same sector. We will also incentivize hiring managers in the treatment group with the opportunity to visit role-model firms. Our supply side interventions consist of providing information on suitable jobs and working environments in factories, and inviting randomly selected women and their family members to visit firms to witness first-hand what WWOH may look like and the amenities provided for female workers. In the third treatment arm, we aim to provide both interventions to capture their potential synergistic effects. We will then assess whether role-model interventions and reductions in search costs for firms and workers are effective ways to increase FLFP. As downstream outcomes, we will also measure the effect on firm performance of firms that hire more women.

3. **Nudging Firms in Pakistan to Invest in Renewable Energy: The Role of Information Provision**

Researchers: Theresa Chaudhry (Lahore School of Economics), Azam Chaudhry (Lahore School of Economics), Phillip Garner (Utah Tech), and Nikita Grabher-Meyer (University of East Anglia)

In this exploratory study, we will design and administer a survey across a sample of enterprises in central Punjab to better understand the main structural, informational and behavioral barriers that prevent business owners from switching to greener energy sources. In particular, we will elicit respondents' personal preferences, beliefs and attitudes around greener energy sources, as well as their intended behavior or expected likelihood of adopting greener energy. In addition, we will conduct a randomized information experiment, embedded within the same survey, to test whether information provision targeted at changing specific respondents' beliefs is effective at increasing their intention of purchasing solar energy.

4. Female community-driven development and empowerment: An RCT in Pakistan

Researchers: Waqar Wadho (Lahore School of Economics), Andreas Landmann (Friedrich Alexander Universitat Erlangen-Nurnberg), Muhammad Karim (University of California San Diego), Fazal Ali Khan (University of Lisbon).

We study the impact of a community-driven development (CDD) program targeting only women on social, political, and economic empowerment. Our intervention combines social mobilization and support packages for poor households. We randomized the treatment across 23 clusters of settlements and sampled 2290 households from 150 settlements. We find indication that the intervention might have increased information about local government for the whole sample and strong evidence for strengthened perceptions about political participation, as well as access to public goods for women who assume a leadership role. We can only identify such heterogeneous effects on self-selected female leaders because our control group also received treatment and selected leaders after the midline. We find no significant effects on intrahousehold decision-making, household's economic well-being, and social cohesion.

5. Estimating the Impact of Foreign Demand Shocks on Firm-Level Emissions in Pakistan.

Researchers: Theresa Chaudhry (Lahore School of Economics), Azam Chaudhry (Lahore School of Economics), and Nida Jamil (Early Career Researcher, School of Economics, University of Edinburgh)

Pakistan has experienced limited export growth and, at the same time, has been negatively affected by higher pollution and climate change-related shocks. This implies that controlling emissions is an important issue for policymakers and other stakeholders. This research will look at the link between foreign demand shocks that occurred as a result of trade agreements signed by Pakistan and firm-level emissions. We will use the changes in product-level tariffs due to Pakistan's trade agreements to analyze how foreign demand shocks impact the level of energy usage and emissions by Pakistani manufacturers. We will also test to see if the destination of exports differentiates the size of these effects and if these differences can also be attributed to decisions made by firms, such as the use of new technology or changes in their product mix. These results will be critical for policymakers and stakeholders as they consider trade agreements and policies for industrial growth and lower emissions.

6. Measuring process innovation outputs and understanding their implications for firms and workers: Evidence from Pakistan

Researchers: Waqar Wadho (Lahore School of Economics), Azam Chaudhry (Lahore School of Economics)

New processes significantly affect firms and workers; however, due to a lack of quantitative metrics, our understanding of the measures, determinants, and impacts of new processes remains limited. Drawing on unique data from Pakistan, we analyze five different metrics of process innovation output: cost reduction, defect rate reduction, reduction in production cycle time, increase in production capacity, and improvement in product quality. We find that the breadth and depth of innovative capabilities, level of competition, and availability of market sources of knowledge are important inducers of process innovation, and that smaller firms are more likely to introduce new processes and are better able to transform them into higher output. All five process innovation outputs are associated with higher labor productivity and sales expansion; however, there is considerable heterogeneity in the size of these impacts. We did not find that adopting new processes led to lower employment.

7. Fixed Costs of Innovation as Barriers to Upgrading in the Surgical-Goods Sector in Sialkot

Researchers: Azam Chaudhry (Lahore School of Economics), Shamyla Chaudry (Lahore School of Economics), Amit Khandelwal (Yale University), Eric

Verhoogen (Columbia University) and David Atkin (MIT).

We propose to offer grants for innovations that increase exports and for innovations to produce new products (i.e. that have not previously been produced in Sialkot). The main goal is to evaluate the effectiveness of the grant program in promoting innovation among treated firms. We will also look for spillovers of innovations to other (untreated) firms through network links.

8. Does International Certification Cause Superior Export Performance? Evidence from Pakistan

Researchers: Waqar Wadho (Lahore School of Economics), Azam Chaudhry (Lahore School of Economics)

Using unique panel data from a homogenous sample of Pakistani firms, this study presents the causal impact of international certification on export performance. First, we show that firms with international certification are more likely to participate in exports and have higher export intensity than their counterparts. Identification is obtained using unique instrumental variable- ratio of non-rival firms' certification in the same district. Firms adopting international certification are 44 percentage points more likely to export than are non-certified firms. Also, exporting firms experience a large impact from certification on both their export volumes and export growth. Certified firms have 10 times higher export volume and 68% higher growth in their exports. Certified firms have broader knowledge networks, invest more in R&D, have higher product innovations, and exhibit higher labor productivity. These firms also have diversified product space; however, they do not produce more complex products.

9. Family control, management quality, and firm productivity in Pakistan

Researchers: Waqar Wadho (Lahore School of Economics), Azam Chaudhry (Lahore School of Economics)

We test the impact of family control on the adoption of standardized management practices in Pakistan and its subsequent impact on firm performance. Our results show that management practices are determined by firm ownership (family vs. non-family), and that family firms are better managed. However, family firms are heterogeneous in delegating management responsibilities to non-family members, and considering that they are homogenous may be misleading. Firms in which family managers outnumber non-family managers are poorly managed. Generally, the higher the family control, the lower is the management score. We also report that better-managed firms experience superior performance and that firm innovativeness is the main channel that explains this performance.

10. Understanding the Nature of Pakistan's trade policies over the last decade and testing their impacts on Pakistan's trade performance.

Researchers: Azam Chaudhry (Lahore School of Economics), Aymen Junaid, Gul Andaman

In recent years, the debate surrounding free trade versus protectionism has intensified, particularly as industrialized countries refocus on industrial policy. This argument is of particular importance to Pakistan which faces slowly growing exports but a high level of imports, which in turn has resulted in multiple balance of payments crises. This study will quantify the types of trade-restricting and trade-promoting policies and quantify the depth of these policies. This study will analyze the impact of trade policies on Pakistan's trade performance over the last decade. We will use the Global Trade Alert (GTA) database, which contains comprehensive data on cross-country trade policies, and evaluate the nature and extent of trade-enhancing and trade-restricting policies in Pakistan over the last decade. We will then empirically test the impact of these policies on Pakistan's export performance over this time. Both the methodology and the results will be shared with policymakers and other stakeholders to contribute to the debate on the success or failure of policies aimed at improving Pakistan's trade performance.

11. Using Pakistan's Product Space to Promote Higher Exports.

Researchers: Azam Chaudhry (Lahore School of Economics), Gul Andaman, Aymen Junaid

A persistent problem faced by Pakistan has been the balance of payments deficit. This is because Pakistan's exports have been considerably lower than its merchandise imports and also reflects that Pakistan's exports are mostly lower value-added products. This study will explore potential high value-added products that can become part of the export basket of Pakistan based on Pakistan's cumulative knowledge and capabilities. We will use Hausman's product space mapping, available in the Atlas of Economic Complexity, to explore which potential high-value-added products can be added to Pakistan's export basket. This framework identifies the products and sectors that the country can focus on based on its cumulative knowledge and capabilities and has special relevance to Pakistan because of its narrow manufacturing and export base and the persistent balance of payments crises that the country experiences. This can be used to identify important areas of industrial and export growth and can be shared with relevant policy makers and stakeholders.

12. High Costs of High-Quality Inputs as a Barrier to Upgrading in the Football Sector in Sialkot

Researchers: Azam Chaudhry (Lahore School of Economics), Shamyla Chaudry (Lahore School of Economics), Amit Khandelwal (Yale University), Eric Verhoogen (Columbia University) and David Atkin (MIT).

We develop an experiment to offer subsidies for high-quality rexine to a random subset of firms and examine if this subsidy spurs upgrading. We look at two related but distinct dimensions of behavioral responses by firms. First, since high-quality inputs are likely to be complements in production, the subsidy may induce firms to purchase complementary high-quality inputs and produce higher-quality footballs, using their existing technologies and production processes. Second, the subsidy may potentially stimulate learning and spur technological improvements in the production process, if for instance innovation has a higher return in high-quality segments of the industry or if producing higher-quality balls leads firms to transact with more knowledgeable buyers. Accordingly, we intend to track complementary changes in other inputs, shifts in the composition of output toward higher-quality footballs, and other process innovations.

13. Heterogeneous Adoption of Knowledge Capital and its impact on the firm's Performance

Researcher: Rabia Arif (Lahore School of Economics)

We will use detailed primary data already collected by the Lahore School from firms in the textile, light engineering and automotive sectors to explore two important aspects of innovation:

First, we explore the heterogeneity in the adoption of 'knowledge capital' (defined as the new set of knowledge acquired, produced and used in the value creation process) at firm level in textile, light engineering and automotive sectors in Punjab to estimate its impact on the firm level outcomes such as revenue, cost of production, quality of the final product and market price of the final product.

This heterogeneity in the adoption of knowledge capital is introduced in two distinct ways:

First, the uneven distribution of the sources of innovation acquired across firms in different sectors. The heterogeneous sources of innovation at firm level are introduced via five distinct ways i.e., technology (equipment), product, process, marketing and business model innovation. Amongst these five different types of innovation, we estimate how significantly each of these sources of innovation have affected firm level outcomes, in different sectors.

Second level of heterogeneity is introduced in terms of the variation in technology adoption across firms based upon its origin (local versus international technology), recent versus already established technology and how often a firm upgrades their respective technology to explore how it may affect the firm level outcomes in different sectors differently.

Next, we argue that organizational and market rigidities may play an important role to motivate (deter) the firm to innovate (or not to innovate). We determine the probability of the firms to engage in innovation (product, process, marketing and business) based upon these factors as well as explore whether different sources for funding the innovation at firm level may play a trivial role in the firm's probability to innovate across different sectors.

Last, we explore if any of these factors affect the firm level outcomes and the probability of innovation for the exporting and non-exporting firms any differently.

In addition to the analysis above, we explore one more important aspect of exporting firms in global market. We argue that global competition that the local exporting firms face, may affect their tendency to innovate in terms of its both intensity and direction. While intensity is measured on a scale from 0-5 as the aggregate of five heterogeneous sources of innovation at firm level i.e., technology (equipment), product, process, marketing and business model innovation.

14. Household Decision-Making Inefficiencies and Young Women's Skill Investment in

Pakistan

Researchers: Hamna Ahmed (Lahore School of Economics), Zunia Saif (Lahore School of Economics), Rebecca Wu (University of Chicago) and Emma Zhang (University of Chicago)

Despite the availability of incentivized income-generating skills-training programs for low-income women in Pakistan, organizations report low take-up and low completion rates

amongst female target participants due to family opposition and social stigma surrounding their income-generating activities. Low take-up is particularly puzzling among lower-income teenage girls who do not yet participate in the labor force, as the incentives represent over 10% of monthly household income. We aim to understand whether two inefficiencies in household bargaining can help explain such observed underinvestment in daughter's income-generating human capital by randomly varying incentives and information for a skills training program to the parents of interested female students.

15. From Jobs to Careers: Lifting Constraints to Women's Career Advancement in South Asia

Researchers: Hamna Ahmed (Lahore School of Economics), Farzan Afridi (Indian Statistical Institute and University of Toronto), Raymond Robertson (Texas A&M University) and Danila Serra (Texas A&M University)

In this project, we explore what are the most important demand-side and supply-side constraints on women's job-to-career transition in garment factories in Bangladesh, India and Pakistan? We test whether interventions such as targeting either managerial decision-making (demand-side), female workers' information about career possibilities and own skills and potential (supply-side), or female workers' support within the household, lift some of these constraints and promote women's career advancement in South Asia? This project is funded by G2LM:LIC

16. Empowering Women, Transforming Industries: A Green Transition Initiative in Pakistan

Researchers: Hamna Ahmed (Lahore School of Economics), Raymond Robertson (Texas A&M University) and Danila Serra (Texas A&M University)

The transition to the Green Economy provides a valuable opportunity for inclusive growth and women's empowerment. Any economic transition requires the acquisition of new skills and knowledge. Helping previously excluded groups gain these new skills and knowledge increases their potential value to employers and business partners. The goal of this project is to foster the Green Transition by facilitating the active participation and inclusion of women. This will be achieved through the implementation of training programs aimed at aligning women's skills with the changing needs of employers in the context of environmental conservation and green initiatives within the apparel industry.

17. Exploring the incidence of informal lending on SME financing and development in Pakistan

Researchers: Hamna Ahmed (Lahore School of Economics), Zunia Saif (Lahore School of Economics) and Emma Zhang (University of Chicago)

The goal of this exploratory research project is to generate data on the impact and prevalence of informal lending within registered SMEs in Punjab. We partner with the Government of Pakistan's Small Medium Enterprise Development Authority (SMEDA) to estimate whether the average cost of informal financing for SMEs is higher or lower than formal financing. The answer to this question will inform both who and how the government can best target its actions to strengthen private enterprise development. This research is funded by the Fama Miller Center.

18. The Global Gig Economy: Pakistan's Opportunity to Become a Leader in Service Exports?

Researchers: Theresa Chaudhry (Lahore School of Economics) and Hamna Ahmed (Lahore School of Economics)

Sustainable growth and balance of payments stabilization requires targeted policies to improve Pakistan's export performance. Decade after decade Pakistan has continued to have a narrow base of low value-added exports. Freelance employment can be a promising solution to low export revenue. In FY 2022, a total of 2.6 billion dollars' worth of IT exports were recorded of which freelancing export remittances accounted for 4 million dollars (The Express Tribune, 2022). Recently the prime minister has called for increasing IT exports to 15 billion dollars by 2026 (Radio Pakistan, 2023). Despite its huge potential, there is little research on growth of the gig economy for independent freelance workers in developing countries including Pakistan. Through this project, we hope to bridge this gap in the literature. We scrape data on Pakistan-based freelancers from the sites Guru.com and Freelancer.com to learn more about the landscape of freelancing in Pakistan.

19. Political Alignment and Crime

Researchers: Hamna Ahmed (Lahore School of Economics), Dareen Latif, Kate Vyborny (Duke University) and Punjab Police

We investigate how political influences affect the response to crime by police in Lahore, Pakistan. We test how an area's alignment with the political party in power affects the recording of and response to reported crime. To identify effects, we exploit variation in political alignment occurring over an election cycle when the party in power at the national level changed. We find that alignment with the party in power robustly decreases the seriousness with which police respond to citizen complaints. Alignment reduces the number of First Information Reports (FIRs) registered, particularly for lower level crime as well as the probability of a complaint moving to FIR. We explore potential mechanisms to explain our results; whether alignment changes response times of police action against crime and/or postings of police officials. We rule out the possibility that the results are explained by better crime prevention or reduced crime in politically aligned areas: policing resources and responsiveness in aligned areas actually decrease, and serious complaints once made are less likely to go to the FIR stage.

20. Learning Losses during COVID-19: Evidence from Pakistan

Researchers: Hamna Ahmed (Lahore School of Economics), Sadia Hussain, Kate Vyborny (Duke University) and Ijaz Bajwa (The Citizens Foundation)

We collaborate with The Citizens Foundation (TCF) to study the effect of prolonged school closure on learning outcomes. The research team plans to use a panel data providing test score before the lockdown in March, 2020 and another round of test score data after the reopening of schools in October, 2020. Data is used to understand how does the learning loss relate to (i) baseline learning levels; (ii) parents' education and compensatory activities during the school closure period and (iii) whether there are particular topics that were subject to more loss requiring dedicated targeting by teachers for re-building concepts in those areas.

21. Gender and Choice over Co-workers: Experimental Evidence

Researchers: Shamyla Chaudry (Lahore School of Economics), Shan Aman-Rana (University of Virginia), Clement Minaudier (University of Vienna) and Brais Alvarez Pereira (Universidade Nova de Lisboa). (Nov 2019 –To Date)

We study whether choice over co-workers matters for performance in gender-diverse teams. We carried out a lab-in-the-field experiment where students were randomly assigned co-workers meant to help them perform on tests. Co-worker allocation was randomized on two dimensions: (1) gender and (2) student preference for that co-worker at baseline. We find that randomly chosen male co-workers reduce the performance of females (12% of the average score), while preferred male co-workers have a positive yet statistically insignificant effect (6% of the average score). These effects are heterogeneous across the gender stereotype of the questions and materialize even though the two types of male co-workers have the same average ability. To investigate the mechanism behind these effects, we randomly allocated hints as an additional source of information across questions. We find that some (but not all) of these differences are driven by difficulty in accessing additional information or hints in the presence of random male co-workers.

22. Why are Cousin Marriages so common in Pakistan? Examining the Effects of Cultural Norms, Dowry, and Economic Development as Potential Drivers

Researchers: Mary Shenk (Penn State University), Saman Naz (East Tennessee State University), and Theresa Chaudhry (Lahore School of Economics)

We use the framework of intensive vs. extensive kinship patterns to study consanguineous marriage patterns in Pakistan, which has the highest rate of cousin marriage in the world. Our theoretical framework contrasts motivations to move from a strategy of solidifying/reinforcing kin networks (intensive kinship) vs. expanding existing kin networks (extensive kinship) in response to economic development. We predict that factors related to traditional, intensive kinship systems will increase the likelihood of cousin marriage, whereas higher market engagement and aspects of family, kinship, and marriage systems associated with extensive kinship systems, will decrease the likelihood of cousin marriage. We also discuss why cousin marriage rates in Pakistan are so high compared to other parts of the world.

23. Fertility and the Female Decision to be Self-Employed – Testing for Bidirectional Causation in Punjab, Pakistan

Researchers: Rabia Arif (Lahore School of Economics) and Ayesha Mir

Numerous studies, mostly from the developed countries, report a positive correlation between the number of children or fertility decisions and the choice of becoming self-employed amongst women. However, the direction of this relationship has remained ambiguous. Contingent upon the direction of causation between children and women self-employment, policies directed towards achieving a certain goal, such as facilitating women in maintaining an appropriate balance between family and work, may have varying ramifications on female self-employment. Using cross-pooled MICS data for the years; 2011 and 2014, this study aims at testing two competing hypotheses; first whether having more children influence women to prefer self-employment? Second, is it employment-specific attributes associated with self-employed females that impact their decision to reproduce? The paper contributes to the literature by testing for bidirectional causation between female self-employment and children using an instrumental variable approach for bringing exogenous variation in fertility and female self-employment decisions, respectively. Using this approach and controlling for various individual, household, and regional characteristics, the findings of this study reveal that the direction of causality runs from being self-employed to giving birth to children (fertility) in a positive manner, mostly driven by educated, middle-aged women dwelling in urban areas. There is no significant impact found of fertility on female self-employment decisions. Being self-employed is likely to lower the opportunity costs of raising (more) children, that is, forgone income and depreciation of skills, would be more prominent in dependent employment. This supports the argument that occupation specific characteristics, such as self-employment being self-run, flexible in terms of scheduling working hours and leisure time in between, routine-friendly, and exhibitive of lower incompatibility between mother and worker roles, bring a considerable degree of ease for women in raising more children. Thus, considering there is a higher degree of compatibility attached to self-employment as well as in expectations of raising a suitable heir of their family business, self-employed women in Pakistan may prefer having an additional child – a finding that has a tad bit of empirical evidence in the past literature.

24. The Effects of External Migration on Enrolments, Accumulated Schooling, and Dropouts in Punjab

Researchers: Rabia Arif (Lahore School of Economics) and Azam Chaudhry (Lahore School of Economics)

In developing countries, external migration tends to ease household income constraints because of the external remittances that are generated. Using data on the Punjab, this working paper attempts to determine whether the external migration of individuals in a household has a positive effect on children's schooling outcomes as measured by school enrolments, the accumulated level of schooling, number of days spent in school, and dropouts. We use historic migration rates to instrument for migration in an analysis of school outcomes for children aged 5–17, 5– 11, and 12–17 to determine which group is most affected by external migration. The results show that external migration has a significantly positive impact on the school enrolments of younger children, whereas the accumulated level of schooling among older children increases significantly if there is an external migrant in their households.

25. Determining the Extent of Gender Discrimination in Education Sector: A case of Pakistan

Researchers: Rabia Arif (Lahore School of Economics) and Maham Khalid

Gender bias in developing countries may restrict educational opportunities for girls in comparison to boys. This paper attempts to measure the gender disparity in education amongst children from 5 years to 18 years of age across Pakistan. Using the data from PSLM 2010-2011 and applying Oaxaca decomposition with probit estimation we measure the gender gap. The results interestingly show that although a strong bias exists against females in overall enrollment rates, but as we explore further, we see that males drop out of private schools more as compared to females and the accumulated level of schooling of the male adults is also lower than that of females. We find that much of these differences are not due to the endowment effects. Large negative deviation for males may be attributed to the unobservable pressure and society's norms regarding the role of males that affect them in an adverse manner.

26. Impact of Temporary External Migration & Remittances on Child Health Outcomes in Punjab, Pakistan

Researchers: Mydda Aslam and Rabia Arif (Lahore School of Economics)

Primary motive of temporary migration in developing countries like Pakistan is generally in response to the income constraint faced by the households. Therefore, to relax the resource constraint, migrants tend to remit back to their families in home countries. This study attempts to look at the impact of temporary external migration and remittances on child health outcomes as measured by height-for-age (HAZ) & weight-for-age z scores (WAZ) in Punjab, Pakistan. Further, we test for the presence of intra household resource allocation bias where boys get preferential treatment in term of health care as compared to girls. Using historic migration rates and number of banks in each district to instrument for external migration and remittances from overseas, respectively, we employ an Instrumental Variable Approach estimated through Two Stage Least Square and Treatment Effect Model. Our results suggest significant positive impact of external migration and remittances on both the indicators of child health outcomes. Further this study confirms the presence of increased bargaining power of women in households headed by females resulting in a greater share of resources being spent on girls relative to boys.

27. Measuring Mother's Empowerment Through Culture of Son Preference in Pakistan

Researchers: Aimal Tanvir and Rabia Arif (Lahore School of Economics)

This study highlights whether giving birth to a son plays a role in determining mother's empowerment in Pakistan and in particular, if the birth-order of the son has any additional impact in uplifting the mother's status within a household, using the Pakistan Demographic and Health Survey (PDHS) 2012-13. In Pakistan, the household's economic conditions make parents treat their sons and daughters differently and ultimately, giving preference to sons over daughters, in terms of education, health and nutrition, as the social and economic utility of a son, overpowers that of a daughter. In the presence of this culture of son preference, if women then give birth to a son or a number of sons, then it should help empower them. The results of the study show having a son significantly helps in empowering mothers in Pakistan. In contrast, the son's birth-order (both higher and lower) is not an important factor for improving mother's empowerment. Mother's empowerment is mainly driven by the number of sons, and age of the son, and these results are more pronounced in rural areas of Pakistan, and for mothers belonging to poor households.

28. Measuring Actual TFP Growth: Stripping away Omitted Price Bias and Demand Shocks

Researchers: Nida Jamil (Early Career Researcher, School of Economics, University of Edinburgh), Theresa Chaudhry (Lahore School of Economics) and Azam Chaudhry (Lahore School of Economics)

29. ITT Estimates of Impact of Ramadan Exposure on Mothers and Children

Researchers: Theresa Thompson Chaudhry (Lahore School of Economics)

30. The BOP Crisis in Pakistan, Stabilization versus Growth

Researchers: Moazam Mahmood (Lahore School of Economics) and Shamyla Chaudry (Lahore School of Economics)

Pakistan's BOP crisis, have increased in their frequency, duration and intensity, as preceding analyses of the current crisis have noted. This project will attempt to systematize some of the behavioural relationships that can be observed to hold over the past thirty years, and the efficacy of policy impact on them. It has been observed that there are large capital outflows. These comprise of the primary income account balance on the current account and domestic outflows from the capital account.

As a result, the researchers propose that the following relationship exists between these variables. As exchange rate goes down the capital outflows will increase unless the interest rate are increased. If interest rates are held constant with devaluation, it leads to capital outflows. Thus, one proposal that is likely to work is controls of capital as it stabilizes the economy and does not dampen growth.

31. Impact of Physical Distance on Health Facility Choice: Evidence from Kashf's Health Microinsurance Program

Researchers: Hamna Ahmad (Lahore School of Economics) and Dareen Latif

Health micro insurance offers a promising mechanism to protect the poor against risk and vulnerability. We study the impact of physical distance to hospitals on utilization of health services in the context of the Kashf Health Micro Insurance (HMI) Program in Punjab, Pakistan. We address three main research questions; first, what is the impact of physical distance on choice of health facility? Second, is the burden of physical distance greater for women? Third, whether the spread positive information influencing perceptions of quality could be a possible mechanism through which, the burden of distance may be reduced? We employ a Probit model with administrative data on hospitalization claims made between 2014 to 2017. Our findings show that as distance to panel facilities increases, individuals are more willing to make out of pocket expenditures at nearby non panel hospitals. Therefore, distance impedes individuals from making panel claims. Moreover, this negative impact of distance is more pronounced for women. Furthermore, we find that positive information influencing these perceptions regarding better quality of treatment at panel facilities helps in raising the incentive for individuals, especially women, to use panel facilities for treatment.

32. Barriers to Upgrading in the Sialkot Football Sector

Researchers: Azam Chaudhry (Lahore School of Economics), Shamyla Chaudry (Lahore School of Economics), David Atkin (MIT), Amit Khandelwal (Columbia University) and Eric Verhoogen (Columbia University)

The project has been developed under the *International Growth Centre (IGC)* and the *Private Enterprise in Developing Countries (PEDL)* initiative. In this project, the researchers investigate the extent to which high costs of high-quality inputs are a barrier to upgrading in the football sector. One of the primary inputs into football production is an artificial leather called rexine. They propose an experiment to offer subsidies for high-quality rexine to a random subset of firms and examine if this subsidy spurs upgrading. They will look at two related but distinct dimensions of behavioural responses by firms. First, since high-quality inputs are likely to be complements in production, the subsidy may induce firms to purchase complementary high-quality inputs and produce higher-quality footballs, using their existing technologies and production processes. Second, the subsidy may potentially stimulate learning and spur technological improvements in the production process, if for instance innovation has a higher return in high-quality segments of the industry or if producing higher-quality balls leads firms to transact with more knowledgeable buyers.

33. Institutional Capacity as an Organizational Challenge: A Field Experiment in Pakistan

Researchers: Hamna Ahmed (Lahore School of Economics), Kate Vyborny (Duke University), Simon Quinn (University of Oxford) and Asha Gul (University of New South Wales)

This project is a novel field experiment involving a large donor organization and over 800 recipient community organizations across Pakistan. The project involves two components: The first component aims to study whether community organizations can be incentivized to improve their performance through: (i) systematic self-assessment and reporting of defined Key Performance Indicators (KPIs), and (ii) A transparent non-financial rewards scheme based on these KPIs. *Pakistan Poverty Alleviation Fund (PPAF)* and *International Growth Centre (IGC)* have funded this component of the project. Initiated in 2014, four rounds of reporting and incentives for recipient organizations have been completed to date.

The second component of the project will explore (i) how each part of a large, complex organization (the donor) responds to new information on performance (of recipient community organizations) on KPIs; (ii) How the responses of both donor and recipients to new information and incentives relate to organizational characteristics of theoretical importance, including divergence of preferences between members of the organization; communication costs between parts of the organization; and decentralization of decision-making authority. This part will build on an existing initial stage of the research carried out in component 1 of the project. *National Science Foundation (NSF)* is providing support that will allow the continuation and strengthening of Component 1 and expansion of the scope of the study to cover component 2. A first pilot of this component was carried out in February 2018. The full experiment will be carried out in summer while the endline survey for the study is scheduled for fall of this year.

34. Overcoming Constraints to Female Labor Force Entry

Researchers: Hamna Ahmed (Lahore School of Economics), Farah Said, and Zunia Saif Tirmazee (Lahore School of Economics)

The project has been funded by the *Private Enterprise Development in Low-Income Countries (PEDL)* Exploratory grant, 2017 This study is a randomised controlled trial to test the impact of two low-cost interventions to overcome psychological and information constraints to female labor force participation (FLFP). The research questions that this project aims to address are, (i) does motivating female students and (ii) does providing information about the job market, promote female labor force entry.

The project focusses on female students, in their final year undergraduate degree, and enrolled in women only Public colleges in urban Lahore, the second largest metropolitan city in Pakistan, comprising of approximately 11 million people. While socioeconomic background, information on available jobs and job skills are significant determinants of entry into the labor market (Humphrey et al 2009; Jenson, 2012); studies have shown only modest impacts of job search assistance and skills training on employment and wages (McKenzie 2017). Further, skills training programmes in particular often suffer from low enrolment (Cheema et al., 2012, 2015) and high cost (Adhoho et al., 2014); suggesting it is time to think of new interventions that can complement traditional skills training programmes to promote employment. One possibility for these results may be presence of psychological barriers and low motivation as binding constraints to FLFP which this project aims to address.

35. Barriers to Product Upgradation in the Sialkot Surgical Goods Sector

Researchers: Azam Chaudhry (Lahore School of Economics), Shamyla Chaudry (Lahore School of Economics), David Atkin (MIT), Amit Khandelwal (Columbia University) and Eric Verhoogen (Columbia University)

The project has been developed under the *International Growth Centre (IGC)* and the *Private Enterprise in Developing Countries (PEDL)* initiative. In this project, they investigate the extent to which fixed costs of innovation are a barrier to upgrading in the surgical-goods sector in Sialkot. If there are externalities in the process of innovation, there may be an important role for governments in subsidizing the costs of innovation. A leading policy idea is to provide matching grants, in which governments provide supplemental funding for projects chosen by individual firms. However, there has never been a rigorous randomized evaluation of such a program (Campos et al, 2012). The research team is conducting such an evaluation in the surgical-goods industry in Sialkot and plan to offer matching grants for innovations that increase exports.

36. The Role of Information in Utilization of Health Microinsurance

Researchers: Sadia Hussain (Lahore School of Economics), Hamna Ahmad (Lahore School of Economics) and Muhammad Ahmad Nazeef (Lahore School of Economics)

We propose a randomized controlled trial (RCT) to (i) test the causal impact of providing information about program use and quality of local hospitals on utilization of health services in Punjab, Pakistan (ii) investigate whether, the impact of providing information on program use, more effective when seeded through social networks of clients. We will work with Kashf Foundation, a large microfinance institution in the country working solely with female borrowers from low to middle income groups. Kashf rolled out a large scale health microinsurance program in 2014. However, only 2.3 percent of the client-base used the program between 2014 and 2017. The primary objective of the study is to explore effectiveness of information dissemination in program use. Essentially we divide the clients into three categories: treated, spillover and pure control. Enrollees in the first treatment arm will receive information about the insurance program, its cost structure, services that it provides names of panel hospital, distance to the nearest hospitals and process of reimbursement. In the second treatment group, clients will be given contact details of a borrower who successfully used the health microinsurance program in the past and lives in close geographical proximity of the client. We also account for information spillovers across social networks by comparing program use across clients who were not assigned to the second treatment arm. Enrollees in the placebo group will not receive anything. This design will allow us to test for (i) the impact of information about the program (ii) the role of diffusion channels in determining impact of information on program use. The project fits the thematic focus of the Research Development Fund to improve the effectiveness of social sector delivery in Pakistan. The findings from this study will facilitate policymakers with regards to efficacy of providing health programs in Pakistan.

37. Essay on Identifying Constraints to Female Labor Force Entry

Researcher: Zunia Saif Tirmazee

Higher education (HE) is a critical part of the development of specialized skills and knowledge, contributing to skilled employment and growth. What is also noteworthy is that as opposed to the previous decades lately the girls' enrollment in tertiary education has risen substantially. At the same time the urban female labor force participation (FLFP) in Pakistan has been chronically low: urban FLFP stands at a mere 11.4% (Pakistan Jobs Diagnostic, 2017) which is less than half compared to that of Bangladesh. Moreover, the unemployment rate amongst girls having an education of intermediate and above is 20% compared to 5% amongst boys (Labor Force Survey, 2011). This is despite the fact that almost half the students at intermediate, graduate and post-graduate level in urban Pakistan are women.

Given this backdrop an in depth analysis of factors both from the demand and the supply side of labor markets is required to see what constrains the educated women from entering the labor force. In this respect my focus in this thesis is specifically limited to the gender wage gap and the employers' preferences from the demand side and the career aspirations of young female graduates from the supply side as potential constraints to female labor force entry.

38. A General Equilibrium Macroeconomics Model for the Pakistan Economy

Researchers: Moazam Mahmood (Lahore School of Economics), Azam Chaudhry (Lahore School of Economics) and Aimal Tanvir

The Pakistani economy has struggled to gain momentum over the last decade and economic policy makers have failed to understand the impact of key decisions (such as the multiple IMF stabilization programs) on economic outcomes. One major reason for this is the lack of a formal model of the Pakistani economy to project key economic variables over time. ITC researchers have developed a macroeconomic model for Pakistan's economy. The researchers have worked in collaboration to present a policy simulation tool which helps to provide estimates for macroeconomic aggregates using values for key policy variables. The model is both a policy simulation tool and both a didactic tool taught at the undergraduate level and will further the taught at the graduate level. The model can be used to simulate key macroeconomic variables such as: (i) aggregate demand, (ii) long-run growth rates, (iii) labor market outcomes, (iv) income distribution, (v) price levels, (vi) interest rates and (vii) exchange rates.

39. Business Confidence Surveys of the Business Community in Lahore

Researchers: Azam Chaudhry (Lahore School of Economics), Aymen Junaid and Theresa Chaudhry (Lahore School of Economics).

The Pakistani business sector is characterized by low productivity and low growth which in turn has had a major impact on export growth, economic growth and household incomes. While there has been research conducted on specific firm-level issues the business community, there has been very little work done on understanding the level of business confidence. In 2015, the ITC conducted in first annual business confidence survey to understand the perceptions of the business community regarding the prevailing economic conditions and the level of innovation being done. The results of this survey were summarized in the ITC's first Business Confidence Report. The ITC has continued to take the lead in understanding business confidence by conducting yearly survey and publishing yearly business confidence reports.

FACULTY RESEARCH PRESENTATIONS

Economics Faculty Research Paper Presentation held on 28th March, 2024

Fahad Irfan presented his joint research.

Exploring the Relationship between Religion and Risk-Taking Behavior: Findings from Australia's HILDA Survey

Fahad Irfan, Dr. Rabia Ikram, Harris Mazari

Abstract

Individuals exhibit heterogeneous risk preferences that influence both their economic and non-economic outcomes. Religion emerges as one of the significant determinants shaping these risk preferences. In Australia, where the religious landscape is evolving and superannuation options are available, there is a need to examine the interplay between religion and risk preferences. Using Australian longitudinal microdata, this research explores the relationship between religion and three dimensions of risk preferences: general, financial, and health risk. Our results show that individuals who follows a religion exhibit risk aversion in financial and health risk-taking behaviors. Among the religious groups, Christians are more likely to engage in health risk behaviours. Muslims display a greater aversion to risk across all three dimensions. Religiosity is negatively linked with health-risk behavior. The findings reveal that religious individuals tend to allocate a smaller proportion of their investments toward risky funds, showing a preference for safe investments such as life insurance. Similarly, religious individuals are less likely to engage in risky health activities such as smoking and alcohol consumption.

Economics Faculty Research Paper Presentation held on 14th March, 2024.

Sarah Asif Khan presented her MPhil Economics research.

Effect of In-Utero Exposure to Crop Burning on Health Outcomes of Children

Sarah Asif Khan

Abstract

In utero shocks have lasting impacts on a plethora of outcomes such as health, human capital, cognition and education. In the recent past, seasonal crop burning after harvest has been causing severe degradation of air quality and has led to worsening of health in those areas. Motivated by these 2 strands of literature our research question is that does in-utero exposure to air pollution and intensity of that exposure caused due to agricultural (rice) waste burning impact health outcomes of children after birth? We test this using pooled cross-sectional data from Multiple Indicator Cluster Survey (MICS) for the years 2011, 2014 and 2017 for Punjab. The primary health outcomes of interest are fever, coughing fits, and breathing difficulties in children.

Faculty Research Paper Presentation held on 15th February, 2024.

Dr. Zunia Saif Tirmazee discussed her ongoing research.

Insert Pics: Zunia Saif 15-02-2024, Zunia Saif 15-02-2024 (2 and 3)

Barriers to Entry: Decomposing the Gender Gap in Job Search in Urban Pakistan

Zunia Saif Tirmazee

Abstract

Gender gaps in labor market outcomes persist in South Asia. An open question is whether supply or demand-side constraints play a larger role. We investigate this using matched data from three sources in Lahore, Pakistan: representative samples of jobseekers and employers; administrative data from a job-matching platform; and an incentivized resume rating experiment. Employers' gender restrictions are a larger constraint on women's job opportunities than supply-side decisions. At higher levels of education, demand-side barriers relax, allowing women to qualify for more jobs but at lower salaries. On the supply side, educated women become more selective in their search.

Economics Faculty Research Paper Presentation held on 14th September, 2023.

Dr. Theresa presented her research on "Single and intergenerational impacts of prenatal Ramadan exposure."

Economics Faculty Research Paper Presentation held on 16th November, 2023.

Aaiza Hussain presented her MS Economics research.

Impact of Mothers' Autonomy on Child Stunting

Aaiza Hussain Zaidi

Abstract

Childhood stunting remains a significant global public health issue with adverse effects on children's well-being. In Pakistan, a public health crisis has arisen due to increased rates of stunting among children. The World Health Organization recommends a stunting prevalence of less than 2.5% in a healthy population. However, in Punjab, the largest province in Pakistan

in terms of both area and population, one in three children experiences stunting. Limited information exists on the impact of maternal autonomy on child growth, particularly in environments where decision-making at the household and community levels is predominantly controlled by men. This study explored the impact of maternal autonomy on child stunting, measured through height-for-age z scores, in children under 5 in Pakistan, using data from Punjab MICS 2017-2018. Employing binary logistic regression, the analysis revealed a significant correlation between increased maternal autonomy and a lower prevalence of child stunting. Notably, the study found that a mother's education reduces the likelihood of stunting for both sons and daughters within a household, while a mother owning a cell phone decreased the chances of stunting in male children and was not significant for female children. Furthermore, controlled variables such as Wealth Quintiles, Community characteristics, and Urban Area also proved to be significant factors for child stunting.

Economics Faculty Research Paper Presentation held on 30th November, 2023.

Mehrunisa Saleem and Sarah Asif Khan presented their MPhil Economics research (abstracts given below).

Family Control of Firms Pre and Post-Covid: Private benefits and Competitive Advantage

Mehrunisa Saleem

Abstract

The corporate landscape in Pakistan is predominantly shaped by family firms. This study aims to explore the factors influencing family control within these firms. In existing literature, two main rationales for family control are highlighted: private benefits and competitive advantage. According to the competitive advantage theory, all shareholders share in the firm's benefits, while under private benefits, family shareholders seize profits to the detriment of external shareholders. Taking inspiration from Villalonga and Amit (2010), this paper empirically tests these two theories to understand the motivations of family-owned firms in Pakistan before and after the COVID-19 pandemic. Notably, family firms exhibited better performance amid the financial crises triggered by the pandemic. The study seeks to quantify how COVID-19 has impacted the underlying motivations for family control in Pakistani firms. In addition, a descriptive analysis of firm-specific and industry characteristics will be conducted to identify factors influencing the likelihood of a firm being family-controlled and to shed light on the results obtained.

Long Run Health Effects of Exposure to Crop Burning During Early Life

Sarah Asif Khan

Abstract

Air pollution is one of the biggest threats to life expectancy in Pakistan, with a multitude of economic and health impacts especially in the developing years of an individual's life. Because burning is a simple and effective way to dispose residues from agricultural production, open burning is a common practice. Gases and particles are released in large quantities, which affect local and regional air quality and have a harmful effect on human health. Using agriculture fires carbon emissions data from 2008 to 2013, we study the causal impact of long run exposure to crop burning during early life on health outcomes in Punjab through a difference-in-difference approach. Low exposure versus high exposure districts will be compared based on the area cultivated with major residue creating crops, such as, wheat and rice.

Minutes of the Economics Faculty Research Paper Presentation held on 7th December, 2023.

Mahnoor Sajid presented her MS Economics research.

From Home to Economy: Analyzing Gender-Based Productivity Gaps in Home-Based Employment in Punjab, Pakistan

Mahnoor Sajid

Abstract

In developing nations such as Pakistan, the informal sector is increasing rapidly due to the challenges in offering formal employment opportunities to the growing labor force. One significant facet of the informal sector is home-based work, involving the production of goods and services within a residence rather than a conventional workplace. Although this form of employment has become integral to the Pakistani economy, serving as a backbone for various manufacturing industries, including but not limited to food products, leather and footwear, textile and apparel, wood and paper, and construction/infrastructure, the literature on the differences in productivity based upon gender in this industry is limited. In this paper we add to the literature in two distinct ways: First, we attempt to identify the difference

in productivity distinctly measured by the number of hours worked and the number of product pieces produced in the context of home-based work between females and males. Second, we explore a detailed interplay between gender and productivity based upon demographic characteristics and work-based characteristics of home-based workers. We use an exclusive dataset compiled by the Bureau of Statistics on home-based workers in Punjab during the fiscal year 2022-23. We introduce demographic variation in terms of education, marital status and family support given to the HBW. In addition, we introduce work-based variation based upon piece rate wage scheme as oppose to basic wage rate scheme, organizational contract as oppose to working through intermediary entities and exposure to basic vocational training. Our findings reveal that on average the productivity among female home-based workers is significantly lower than males, with a notable enhancement in productivity observed when females are paid through piece rate wage rate schemes. Last, we show that demographic characteristics may play an important role as we see education and familial support though insignificant but positively correlate with the productivity of female home-based workers. However, marriage emerges as a factor negatively influencing female productivity. The findings shed light on the intersection of gender, work-based characteristics, and demographics, providing valuable insights for policymakers and stakeholders aiming to address and mitigate productivity gaps in this evolving and essential sector.

FACULTY DEPARTMENTAL MEETINGS

Economics Faculty Departmental Meeting held on 22nd February, 2024

Dr. Azam Chaudhry discussed the Economics faculty research forms and research program.

Economics Faculty Departmental Meeting held on 1st February, 2024.

Amna Noor Fatima presented her MPhil Economics research.

Using Arrow Debreu General Equilibrium's First and Second Welfare Theorems to Analyse Poverty Reduction in Pakistan

Amna Noor Fatima

Abstract

This study examines poverty in Pakistan through an analytical lens using Arrow Debreu's intertemporal General Equilibrium, comprising the First and Second Welfare theorems. The First and Second Welfare theorems provide a comprehensive analytical lens to analyse poverty in Pakistan by identifying categories of the poor and then proposing plausible market mechanisms to eradicate poverty accordingly.

Economics Faculty Departmental Meeting held on 26th October, 2023.

Minal Shaukat and Onaiza Tanveer presented their MS Economics research (abstracts given below).

The Effect of International Certifications on Firm's Export Performance in Pakistan

Minal Shauket

Abstract

International certifications issued by credible certifying establishments signal firm's compliance with international product and process quality, and environmental and social safety standards. Certifications relax the binding constraints of information asymmetry regarding the quality of products offered by developing countries, as products originating from these countries are often misperceived to be sub-optimal in quality. The following study investigates the causal effect of widely adopted international certifications on firm's export performance for a developing country, Pakistan. We estimate our model using fixed effects and two-stage least squares to deal with the endogeneity problem arising from self-selection of firms into certification, reverse causation and omitted variable bias. The results indicate a significant positive impact of international certifications on firms' export participation, export sales and growth in exports.

Does access to clean drinking water contribute to better scholastic achievements in children?

Onaiza Tanveer

Abstract

In Pakistan, the accessibility to clean drinking water is a pressing concern for public health, as the nation grapples with issues related to both water quality and quantity. Prolonged consumption of contaminated water increases the probability of contracting diseases, which, in turn, can impact the cognitive and psychological growth of children. Using the recent cross-sectional provincially representative data, this study aims to investigate how access to piped clean water, the primary source of drinking water, influences the scholastic achievements of school-age children in Northern and Central Punjab regions of Pakistan from 2017-2018. To address the issue of potential endogeneity between the access to clean drinking water and learning outcomes, this study employs an IV approach using instruments that gauge water accessibility with the district area. The results suggest a positive and statistically significant effect of access to piped drinking water on children's learning outcomes. These positive outcomes highlight the need to expand and improve clean water supply schemes by the local governments, both in households and educational institutions.

Economics Faculty Departmental Meeting held on 7th September, 2023.

Dr. Azam Chaudhry, Professor, HoD and Dean: Faculty of Economics, chaired the meeting and the following was discussed:

- Updated course outlines
- Schedule of presentations to be held during the research paper presentations.
- Drafts of the new programs to be offered
- PhD and MPhil course outlines to be prepared, updated and discussed in the Economics Board of Studies meeting.

BOARD OF STUDIES AND BOARD OF FACULTIES

Board of Studies for Economics Meeting held on 29th February, 2024

The Economics Board of Studies meeting was chaired by Dr. Azam Amjad Chaudhry, Pro-Rector, Professor and Dean, Faculty of Economics, Lahore School of Economics.

The following were approved by the Economics Board of Studies:

1. Faculty Research 2023
2. Faculty Publications and Submissions 2024
3. Department/Institute/ Centre Five Year Research programmes 2024/29 developed in line with the Lahore School's Vision/Mission.
4. Lahore School of Economics Regulations 2024-2025

Additional Agenda Items BOS

1. Applied Field Assignment and Report
2. Undergraduate Research Projects and MBA Research Project

A note is to be added in the course outlines for the Research Project as follows:

"Students are required to submit the required certification (list of certifications and links are shared below) before submission of the Final Research Project.

Economics

1. Certification in Stata, Smart PLS, Python.

Proposed Course Codes for Research Project

Department of Economics

1. Applied Economics Field Assignment and Report (Internship) ECO 307
2. Research Project (Economics) ECO 412

- Alumni recommended technical courses offered in the summer.
- Dr. Theresa recommended use of data camp for skill development for faculty and students.
- Dr. Hafiz Rizwan recommended that research project course outline for BS and BBA be aligned.

Subject Experts

Dr. Hafiz Rizwan Ahmad

Assistant Professor, Department of Economics, Forman Christian College (A Chartered University) Lahore.

Alumni

Ms. Aleeze Malik

Pre-Doc Research Associate, LUMS.

Industry Representative

Mr. Raja Abdar Rahman

Associate, Survey Unit, Centre for Economic Research in Pakistan, Lahore, Pakistan.

Board of Studies for Economics Meeting held on 28th September, 2023

The Economics Board of Studies meeting was chaired by Dr. Azam Amjad Chaudhry, Pro-Rector, Professor and Dean, Faculty of Economics, Lahore School of Economics.

The following were approved by the Economics Board of Studies:

1. Courses of Instruction 2023-24
2. Lahore School of Economics Regulations 2024-2025
3. The Lahore School of Economics Vision, Mission and Values Statements.
4. Programme Mission, Skills and Values, Programme Objectives and Programme Outcomes for all Lahore School of Economics Academic Programmes

Subject Experts

Dr. Sohail Chand

Professor, College of Statistical and Actuarial Sciences. University of the Punjab, Quaid-i-Azam Campus, Lahore.

Dr. Hafiz Rizwan Ahmad

Assistant Professor, Department of Economics, Forman Christian College (A Chartered University) Lahore.

Dr. Hafiz Muhammad Ali Bhatti

Chairperson and Associate Professor, Department of Economics, Forman Christian College (A Chartered University) Lahore.

Alumni

Ms. Sharmeen Shahid

NetSol Technologies Inc. (NetSol Technologies Europe Limited)

Business Analyst, Client Services Department

Industry Representative

Ms. Rabia Zulfiqar

Pakistan Agricultural Coalition (PAC), Lahore, Pakistan

Senior Strategy Associate

Board of Faculty for Economics Meeting held on 4th April, 2024

The following were approved:

Agenda

1. Faculty Research 2023
2. Faculty Publications and Submissions 2024
3. Department/Institute/ Centre Five Year Research programmes 2024/29 developed in line with the Lahore School's Vision/Mission.
4. Lahore School of Economics Regulations 2024-2025

Board of Faculty for Economics Meeting held on 13th November, 2023

The following were approved:

1. Courses of Instruction 2023-24
2. Lahore School of Economics Regulations 2024-2025
3. The Lahore School of Economics Vision, Mission and Values Statements and Strategic Plan 2018-2028.
4. Programme Mission, Skills and Values, Programme Objectives and Programme Outcomes for all Lahore School of Economics Academic Programmes

FACULTY DEVELOPMENT WORKSHOPS

ECONOMICS FACULTY DEVELOPMENT WORKSHOP, SPRING 2024

Faculty was required to attend the Faculty Teaching & Development Workshops scheduled from Monday January 15, 2024 to Friday January 18, 2024.

Economics faculty presented and discussed their course curricula, CLOS and midterm exams. Recommendations were proposed to revise and update the course outlines during the four days' workshop held from 15th - 18th January, 2024.

1. Each Faculty member presented one course taught in Winter Semester 2023 covering the following:

Course Learning Objective (CLO)	Syllabi	Examination Question Paper	Mid-Term Exam Final Term Exam	CLO Analysis
			Frequency distribution of grades A (___%) B (____ %) etc.	Analysis by QEC office shared with the Faculty member in the following format:_% of CLO # 1/2/3/4etc was attained which was above/below the class average marks for this exam which was presented by the Faculty member.

2. The Faculty member discussed the following:
   i) Does the CLO Analysis correctly reflect the Course Learning Objectives (CLOs) achieved? Do the CLOs need to be modified?
   ii) Do the content of the course outline/lecture sequence need revision?
   iii) Do the discussion sessions-assignments, quizzes, projects etc. adequately cover the CLOs which were not achieved in examinations?
3. The presentation slots were of 30 minutes each (15 minutes for the presentation and 15 minutes for discussion and analysis).

ECONOMICS FACULTY DEVELOPMENT WORKSHOP, WINTER 2023

Economics faculty presented[1*] and discussed their curricula and recommendations were proposed to revise and update the course outlines during the two days workshop held on 21st and 22nd of August, 2023.

Centre for Research in Economics and Business (CREB) and the Innovation and Technology Centre (ITC) at Lahore School of Economics opened its 5th International Conference on Applied Development Economics (ADE), as an in-person event in Lahore in collaboration with the International Growth Center and Consortium for Development Policy Research. The conference is spread over three days from 23 – 25 August 2023 and includes presentations from international and local researchers working on issues related to economic development and sustainable growth in the developing world. It broadly focuses on the following thematic areas: Labour Markets, Industry and Trade, Political Economy and Institutions, Education and Health, and Climate Change with a crosscutting emphasis on gender. The aim of the conference is to (i) highlight recent research that can have lasting policy impact for sustainable growth in the developing world; (ii) provide early career researchers the opportunity to obtain feedback on their ongoing work; and (iii) to start a mutually beneficial exchange of ideas and discussions among researchers on potential collaborations. Dr. Shahid Chaudhry, rector of the Lahore School of Economics, in his inaugural remarks, talked about the peculiarity of Pakistan's current situation in terms of losing macroeconomic sovereignty in order to induce the rollover of external debt. This debt is 85 billion dollars which is small compared to the size of Pakistan's trillion-dollar economy (in Purchasing Power Parity terms). Lastly, Dr. Shahid thanked the international community gathered in the conference for helping the Lahore School of Economics push forward its vision of sustainable and equitable solutions to common challenges facing the world.

Moreover, the Faculty of Economics attended the 5th International Conference on Applied Development Economics (ADE)2** from, 23 - 25 August 2023. ADE 2023 featured plenary talks by Danila Serra (Texas A&M University), David Evans (Center for Global Development), Azam Chaudhry (Lahore School of Economics) and Theresa Thompson Chaudhry (Lahore School of Economics). The conference included presentations from international and local researchers working on development issues in low and middle-income countries.

Day 1: Wednesday, 23 August 2023

Session 1: Trade Policy and Skills

Trade-induced structural transformation and the spousal wage gap: Lessons from Vietnam.

Anri Sakakibara (King's College London)

Discussant: Rocco Zizzamia (University of Oxford)

There is little consensus on whether access to foreign export markets can promote gender equality in developing countries. This paper leverages the US-Vietnam Bilateral Trade Agreement (BTA) that came into force in 2001 as a natural experiment to explore whether the disproportionate expansion of the female intensive wearing apparel sector can trigger the structural transformation of the female labour force in a way which promotes gender equality at the household level. By using a difference-in-differences strategy and through relying on panel data, I find that women residing in provinces that were more exposed to the BTA were more likely to work in the wearing apparel sector and increased their income relative to their husbands. I then examine whether the improvement in labour market opportunities and relative income of women led to changes in the allocation of resources that could be indicative of higher female intrahousehold bargaining power. I find that household consumption of 'female-preferred' goods did not increase in provinces that experienced more exposure to the BTA. Tackling Household Decision Making Inefficiencies for Young Women's Skills Investment in Pakistan. Hamna Ahmed (Lahore School of Economics), Zunia Tirmazee, Rebecca Wu and Emma Zhang Discussant: David Evans (Center for Global Development) We study household decisions to invest in young women's digital skills through a short-term online training program in urban Pakistan. We randomised the split of a fixed, cash incentive for program completion between daughters and parents. We informed daughters about the incentive allocation, and cross-randomised whether parents received information about daughters' incentive. Under information asymmetry, assigning the entire incentive to parents increased program completion by 95 percent compared to assigning it to daughters. Once parents learnt about daughters' incentive, the incentive allocation had no impact on program completion. We reject the unitary household model in this parent-daughter context and provide evidence on bargaining behaviour supporting the efficient collective model.

1 * Schedule of presentations given below.

2 **ADE Conference schedule given at the end.

Session 2: Economic Behaviour

Memory, Trauma and Economic Behaviour Among Refugees: Experimental Evidence from Teaching "Positive Imagery"

Gharad Bryan, Alexia Delfino, Christian Johannes Meyer (University of Oxford), Ashley Pople and Benyam Worku

Discussant: Uzma Afzal (LUMS/ IDEAS)

We test the effectiveness of a psychological program designed to build "positive imagery" among a representative sample of Eritrean refugees in Addis Ababa. Drawing on studies in psychology and neuroscience, we hypothesize that past traumatic experiences distort mental images and memories, leading to pessimistic expectations and views on the future, risk aversion, and inaction. Our intervention trains refugees to vividly and precisely imagine a positive present and future in Addis Ababa. Our preliminary results indicate that the intervention leads to significantly more optimistic views of economic lives in the host economy. In the short run, we find that treated participants work more hours, have higher food security, and report improved wellbeing. The most likely mechanism seems to be a change in expectations about the future.

Marital Arrangement and Spousal Cooperation

Uzma Afzal (LUMS/ IDEAS), Abigail Barr and Daniele Nosenzo

Discussant: Christian Meyer (University of Oxford)

We conduct lab-in-the-field experiments to investigate systematic heterogeneity in cooperative decision-making across spouses in arranged and love matched marriages in Pakistan — where the former is the traditional practice and the latter is associated with modernization. Specifically, we test the hypothesis that unconditional cooperation is more prevalent between spouses within love matched marriages. We engaged married couples in a variant of a one-shot, two-person, sequential public goods game, in which we applied the strategy method to the second mover. By applying the hierarchical clustering analysis to the strategy data, we categorize spouses into cooperative types. We find that spouses in love matched marriages are significantly more likely to be unconditionally cooperative. We conduct a second round of experiments to investigate whether these findings replicate and if they can be generalized to couples living in more remote villages. We also test whether the observed differences in unconditional cooperation between spouses in love versus arranged marriages can be explained by the selection of unconditionally cooperative people into love marriages. We find that in villages close to the city love matched spouses are significantly more likely to be unconditionally cooperative. However, as distance from the city increases, the love matched effect declines. We interpret this as suggestive of less tolerance and, hence, less support for love marriages in more remote areas. The behaviour of husbands and wives in a corresponding series of inter-household games establishes that greater unconditional cooperation between spouses in love marriages close to the city cannot be attributed to a selection effect. Data from the third round of experiments shows that there is indeed a social norm against love matched marriages and that this norm is stronger in more remote villages

Session 3: Poverty and Social Protection

Experimental evidence on the role of coaching within bundled ultra-poor graduation programmes

Rocco Zizzamia (University of Oxford), Narayan Das, Stefan Dercon, Rozina Haque, Maliha Noshin Khan and Ashley Pople

Discussant: Timothy Kohler (University of Cape Town)

We investigate the role that coaching plays within ultra-poor graduation programmes – specifically, how sensitive the welfare benefits of graduation interventions are to the intensity and the type of coaching inputs. We do so through a multi-arm field experiment implemented in Bangladesh in 2016, in which experimental variation was built into the amount of coaching (weekly vs fortnightly) and type of coaching (individual vs individual and group-based) that recipients received. We measure six-year impacts through an end line survey conducted in 2022, following the COVID-19 pandemic shock. While the programme itself does lead to large and sustained impacts on household asset holdings, earnings, land holdings, and hours worked in high-productivity activities, variation in coaching plays no discernible role in explaining the variation we observe in these outcomes. Reducing the intensity of coaching within ultra-poor graduation programmes could be an effective tool in bringing such programmes to scale.

Can Cash Transfers to the Unemployed Support Economic Activity? Evidence from South Africa

Haroon Bhorat, Timothy Köhler (University of Cape Town) and David de Villiers

Discussant: David Evans (Center for Global Development)

Persistently high unemployment has plagued South Africa over the last few decades, while concurrently there has been a dearth of state-provided income support to the working-age economically active population. In response to the pandemic the government introduced the COVID-19 Social Relief of Distress grant – the country's first unconditional cash transfer targeted at the unemployed. At the time of writing, however, no causal evidence of the grant's effects exists. We adopt a doubly robust, semi-parametric Difference-in-Differences approach on representative panel labour force data to estimate the contemporaneous and cumulative causal effects of the grant on labour market outcomes. We find robust evidence that the grant increased average employment probabilities by approximately 3 percentage points, an effect largely driven by wage and formal sector employment. Employment effects vary by duration of receipt, with larger effects estimated for the short-term which reduce to zero with additional periods of receipt. We additionally find marginally significant effects on the probability of trying to start a business, but no evidence of any effects on job search. These findings suggest that the grant has performed a multi-purpose role in providing income relief while also enabling a path towards more favorable labour market outcomes.

Session 4: Mentoring session

Unintended Consequences of Government Support: Impact of Pakistan's Flood Relief Program on Adaptation Behaviour

Muhammad Bin Khalid (Yale-NUS College)

Discussant: Theresa Chaudhry (Lahore School of Economics)

This paper examines the effect of government support in form of village-level cash transfers on adaptation behaviour. After the devastating 2010 floods, the Pakistan government initiated the Watan Card program, under which all households in a village that was more than 50 percent flooded got a cash transfer. I find that while cash transfer recipients are 20 percent more likely to invest in personal adaptation, they are 22 percent less likely to work with other villagers to invest in community adaptation. Non-damaged households who get the cash transfer just because they reside in a flood affected village drive this negative effect. These findings hold even after conducting a series of robustness tests including a placebo test. Finally, I show that these findings are consistent with a simple economic model.

Intra-Household Bargaining Power and Expenditure Patterns-Evidence from Pakistan

Abdullah Mehta (Institute of Business Administration)

Discussant: Theresa Chaudhry (Lahore School of Economics)

When providing welfare benefits, it is essential to understand the distribution of power within beneficiary households and its effects on the utilization of resources. Using data from the 201819 Pakistan Social and Living Standards Measurement (PSLM), this study examines the impact of female bargaining power on household expenditure patterns. The results find that in lower income households, female bargaining power positively effects the expenditure shares of education and transport, and negatively affects those of tobacco, food, and health. However, these impacts diminish as income levels rise. Policymakers should aim to direct aid towards lower-income female beneficiaries to increase development spending on education and should undertake efforts to improve female health uptake amongst the poor. Regarding inflationary pressures, women are less susceptible to rising food prices, but are more vulnerable to increased transportation costs, and so aid programs and subsidies should be devised accordingly.

Day 2: Thursday, 24 August 2023

Session 5:

Women and Labour Markets

Wage Subsidies to Promote Female Hiring: Evidence from Pakistan.

Maurizio Bussolo, Jean Lee, Mahreen Mahmud (University of Exeter), Nayantara Sarma and Anaise Williams

Discussant: Danila Serra (Texas A&M University)

Pakistan has one of the lowest female labour force participation rates in the world. The firmside constraints to hiring women are not well understood. We conduct a randomised control trial with around 1200 firms in Pakistan that have a job opening for a technical/professional role advertised on the country's largest online job search portal. We offer a 6-month wage subsidy to a randomly selected half of the sample if they hire women for the advertised role. The subsidy offer is made via the Becker-DeGroot-Marschak (BDM) mechanism and it reveals that the average subsidy level required by managers to hire a female is 15%. We find that wage subsidy offers lead to an 11 percentage points increase in the likelihood of a female being hired. These effects are particularly large for firms that only had male employees at baseline.

A leaky pipeline: Decomposing the gender gap in job search in urban Pakistan

Elisabetta Gentile, Nikita Kohli, Nivedhitha Subramanian, Zunia Tirmazee (Lahore School of Economics) and Kate Vyborny

Discussant: Danila Serra (Texas A&M University)

Gender gaps in labour market outcomes persist in South Asia. An open question is whether supply or demand side constraints play a larger role. We investigate this using matched data from three sources in Lahore, Pakistan: representative samples of jobseekers and employers; administrative data from a job matching platform; and an incentivized resume rating experiment. Employers' gender restrictions are a larger constraint on women's job opportunities than supply-side decisions. At higher levels of education, demand-side barriers relax, allowing women to qualify for more jobs but at lower salaries. On the supply side, educated women become more selective in their search.

Collective Action and Women's Access to Resources

Saniya Jilani (Colorado State University)

Discussant: Fareena Malhi (Lahore School of Economics)

Despite various attempts (including reservations), women's involvement in the political landscape across patriarchal societies is restricted (Rosaldo, 1974). This scenario holds true for their involvement in political collective action movements (Shvedova, 2005). Pakistan, while being no exemption to this, is a site of political turmoil and requires a deeper understanding of the association of women and political participation. When studies suggest improving the empowerment of women in such economies by prompting more formal involvement, they tend to neglect fundamental constraints like the social and cultural landscape. In patriarchal systems, women's involvement in collective action is restricted geographically and their engagement is mostly found within localized protests along with their social network. This paper attempts to explore the intricate relationship between women's involvement in informal collective action and their empowerment. Thus, we pose the following question: Does female involvement in localized political events result in improved empowerment and access to health care? We utilize data on protests from ACLED while the data for access to pre/post-natal care and decision making are extracted from PSLM and HIES for the years 2010 to 2019. Our results indicate that in areas where women are the primary actors in political events, they are more likely to engage in sole decision making by 11.9 percentage points regarding the uptake of paid work. For pre and post-natal care, we observe a decline in utilization when women oriented, political events take place.

Session 6:

Political Economy

Political Identity and Foreign Aid Efficacy: Evidence from Pakistani Schools

Sanval Nasim (Colby College) and Andreas Stegmann

Discussant: Alix Bonargent (London School of Economics)

We conduct a field experiment to study whether concerns to preserve an anti-liberal self-image affect low cost, private school owners' willingness to explore a collaboration with a liberal Pakistani NGO. While explicitly revealing the NGO's liberal motivation to school owners has a significant impact on beliefs about the NGO's objectives, on average, we find only limited evidence that treated school owners are less willing to explore a collaboration with our partner NGO. However, heterogeneous treatment effects suggest that differences in political identity cause negative reactions among the minority of school owners expressing conservative beliefs during a seemingly unrelated follow-up survey.

Bridging the Gap between Research and Policy: The Effect of Early Stakeholder Engagement on Evidence Take-up

Alix Bonargent (London School of Economics and Political Science)

Discussant: Danila Serra (Texas A&M University)

Can involving policymakers in the production of research change research output and improve the capacity of the state to use evidence in decision making? This collaborative approach, sometimes called "co-creation", is increasingly put forward by donors and practitioners to bridge the gap between academia and policy, but its impact has yet to be rigorously assessed. This study investigates whether relaxing political constraints on partnership formation results in more collaboration between researchers and policymakers, and whether this translates into higher evidence take-up in programmatic decision-making. To address this question, this paper leverages a unique dataset of academic research projects in the field of development economics, which includes information on the level of policymakers' involvement at the proposal stage and tracks changes in policy decisions observed following project implementation. The timing of the funding call deadline relative to the election cycle of the country of implementation introduces an exogenous source of variation in the strength of the political constraint on partnership formation. Preliminary results suggest that collaboration with policymakers substantially increases the likelihood that changes in programmatic decisions are observed after project implementation. Findings also reveal that the emergence of partnerships coincide with the election cycle: they occur earlier in the term when political conditions are conducive to experimentation and reform.

Frontier governmentality

Adeel Malik, Rinchan Ali Mirza and Faiz Ur Rehman (Institute of Business Administration)

Discussant: Sanval Nasim (Colby College)

We examine whether frontier rule, which disallows frontier residents from recourse to formal institutions of conflict management and disproportionately empowers tribal elites, provides a more fragile basis for maintaining social order in the face of shocks. Combining a historical border that separates frontier from non-frontier regions in north-western Pakistan with 10kmby10km grid cell-level data on conflict in a spatial regression discontinuity design framework, we show that areas under frontier rule experienced significantly higher violence against the state after 9/11. We argue that the 9/11 tragedy represented a universal shock to grievances against the state which, in the absence of formal avenues of conflict management, led to a sharp surge in attacks against state targets in the frontier regions. We show that the surge in 'sovereignty-contesting' forms of violence in these regions was partly carried out through the systematic assassination of tribal elites upon whom the whole edifice of social order was built.

Session 7:

Mentoring Session

Conflicting choices: Lump Sum Transfer or periodic Cash Transfer—Evidence from Sindh

Shagufta Shabbar (Institute of Business Administration)

Discussant: Ali Hasanain (LUMS)

Evaluating long term impacts is usually not possible as pure control groups dissolve into treated ones. This paper makes use of data where the treated and control groups remained mostly unmarred. This setup of initial randomization of beneficiaries to treatment and control status has not received any form of researcher intervention and thus continues to induce random variation. We examine two types of social assistance i.e. lump sum transfer (LST) versus unconditional cash transfer (UCT) and determine which is more effective in enhancing household's income in the long term.

For evaluation a cross-sectional survey is conducted in a district of Sindh. Propensity Score Matching is employed to evaluate the treatment effects. The empirical analysis suggests that the static LST permanently increases the total household income. The difference in the household incomes of LST and UCT recipients in the long run is large and significant.

Monetary vs Social Cost - Impact on Tax Evasion and Labour Supply

Muhammad Nadeem Sarwar (Institute of Business Administration) and Asma Hyder

Discussant: Ali Hasanain (LUMS)

Low tax collection affects the quality and quantity of government services, debt accumulation, and the welfare of the people. Tax evasion, a widespread phenomenon in both developing and developed countries, is not only among one of the main reasons for low tax collection but it has labour supply implications as well. We propose social cost as an alternative punishment for tax evasion and test it against the existing monetary penalty as punishment for its effectiveness in controlling tax evasion and its impact on labour supply. The results of the lab experiment suggest that social cost punishment leads to decreasing tax evasion incidents but in case of evasion, the share of evaded income increases. On the other hand, the social cost punishment strategy positively affects labour efforts. Based on the findings, we suggest to test the social cost strategy on large scale, before implementing it at the country level.

Day 3: Friday, 25 August 2023

Session 8:

Education

Delivering Remote Learning Using a Low-tech Solution: Evidence from a Randomised

Controlled Trial in Bangladesh

Liang Choon Wang, Michael Vlassopoulos, Asad Islam and Hashibul Hassan (Jagannath University)

Discussant: David Evans (Center for Global Development)

The Covid-19 pandemic caused prolonged school closures worldwide. Children in resource poor settings were particularly affected given their limited access to remedial distance learning opportunities through the internet, television, and radio. To address the poor access to formal education, we designed an educational intervention consisting of a set of audio lessons that were delivered through mobile phones to primary school students using Interactive Voice Response (IVR). During the 15-week program period, parents could access the lessons for free by calling a designated phone number and listening to a lesson with their child at any time. We delivered the randomised intervention to 1,763 primary school children across 90 villages in Bangladesh during the 2021 Covid-19 school closures. The intervention improved the test scores of children in literacy and numeracy by 0.60 Standard Deviations (SD). Additionally, the intervention led to an increase in the amount of time that parents spent on homeschooling. The intervention was particularly beneficial for academically weaker students, those from the poorest strata, and those with less-educated caregivers. Our results suggest that this scalable and low-cost intervention could be leveraged in similar settings to address learning losses of marginalized students.

Estimating the impact of New School Head Policy in Sindh

Aatir Khan (Habib University)

Discussant: Jennifer Kumi (University of Oxford)

In this paper, I seek to evaluate the impact of the recent school head policy in the province of Sindh. I use a difference-in-differences model to estimate the impact of having a dedicated school head, as well as having a school head appointed to the school under this policy, on three separate outcome variables: school resources, student enrollment, and total teachers. I find that having dedicated school heads is positively linked to each of the outcome variables. Additionally, the school heads appointed through the subject policy also have a positive, albeit a smaller, impact on each of the three outcome variables.

Impact of Mindfulness-based Stress Reduction on Student Mental Health and Education Outcomes: Empirical Evidence from Pakistan

Jennifer Opare-Kumi (University of Oxford) and Zahra Mansoor

Discussant: Hashibul Hassan (Jagannath University)

Research shows that a significant proportion of mental health disorders surface in early childhood and adolescent years. Systematic reviews show that interventions focused on student mental health can lead to promising effects on the overall mental well-being outcomes and educational success of children. One such intervention is Mindfulness-based stress reduction (MBSR). However, there is limited evidence on the impact of MBSR programmes on student well-being and education outcomes. This evidence gap is particularly stark in lower-middleincome countries. To address this gap, our research study pilot-tests an MBSR curriculum in two low-cost private schools in Faisalabad, Pakistan. The study aims to understand the direct effects of MBSR on the mental well-being, behaviour, and the educational success of young people. Through a randomised controlled trial with 214 students, we observed a 0.34 standard deviation increase in the grit of MBSR students. We also find that MBSR led to a 0.30 standard deviation increase in prosocial behaviour, with a stronger effect observed in girls compared to boys. Additionally, the results show that MBSR improves student's behaviours related to mood, interactions with siblings and parents and stress experienced at home. This research study makes a valuable contribution by testing an Urdu based adaptation of MBSR using a battery of mental wellbeing, behavioural and capacity to learn research instruments. The findings offer rigorous causal evidence at the intersection of economics and psychology, contributing to the limited but growing literature on mental health interventions, particularly in low-resource settings.

Session 9: Environment

Role of credit and grants in building resilience and adaptation to floods Muhammad Karim (University of California - San Diego)

Discussant: Mahreen Mahmud (University of Exeter)

We assess whether access to loans helps households living in flood-prone areas to adapt better and become more resilient to floods. We further assess whether access to grants has a differential impact on loans. We do so by applying a regression discontinuity design exploiting the allocation of loans and grants based on an exogenous poverty score threshold in the Matiari district of Sindh. We find that households with access to loans diversified their income before the floods and are more likely to relocate temporarily during the floods. After the floods, we find access to loans increased labour supply and livestock in the non-flooded villages and increased income in the flooded villages. We did not find much evidence of the differential impact of grants and loans.

The Effect of Climatic Variables on Agricultural Yields: An Example from Pakistan

Ayesha Zehra (Research and Development Solutions)

Discussant: Azreen Karim (Bangladesh Institute of Development Studies)

Global warming is altering the world's climate—past trends coupled with future predictions show that global average temperatures will gradually rise. Warmer temperatures and variable weather patterns will have a detrimental effect on crop growth, leading to a decrease in agricultural yields. Tropical and sub-tropical countries are most vulnerable to climate change and will bear the brunt of its economic costs. In the past two decades, Pakistan in particular has experienced a gradual increase in average temperature, which carries serious consequences for its agricultural sector. The study was conducted using panel data on Punjab and Sindh from the Pakistan Rural Household Survey (2001; 2004; and 2010) to estimate the effects of marginal changes in temperature intervals and other climatic variables such as precipitation, humidity, and wind speed on wheat yield and rice yield. We estimated a series of fixed-effects and random-effects models to control for unobserved heterogeneity. The results suggest that if substituting one whole day from the temperature interval 23 – 26 degrees Celsius to the subsequent interval 26 – 29 degrees Celsius, wheat yield decreases by 14 percent. Substituting one whole day from the temperature interval 40 – 45 degrees Celsius to the next interval (temperatures greater than or equal to 45 degrees) leads to a 12 percent reduction in rice yields. The results also show that wind speed has a negative effect on wheat yield while humidity (proxied by dew) and precipitation fail to demonstrate statistical significance. The results indicate that rising average temperatures in Pakistan will have a detrimental impact on the agricultural sector and that future agricultural policies must be aligned with the risks of climate change.

Knowledge, perception or disaster experience? The determinants of household disaster preparedness behaviour in Bangladesh

Azreen Karim (Bangladesh Institute of Development Studies)

Discussant: Muhammad Karim (University of California - San Diego)

We examine the possible determinants of household disaster preparedness behaviour focusing on knowledge and perception and prior damage and employment channels of disaster experience. We utilize big data of 143,980 households and 12 natural disasters covering 64 disaster-affected districts in Bangladesh. We find disaster and climate knowledge and perception are strong predictors of preparedness adoption explaining around 1.46%-1.51% of formal education and nearly 7.39%-7.68% of female education compared to the mean. This finding strongly rejects potential possibility of endogeneity of income and wages as well. Our evidence strongly suggests that disaster preparedness is almost 76% effective in mitigating per capita net income loss via unemployment channel. However, demand-side policies are found not so effective in loss mitigation via production emphasizing government's various support package interventions. We strongly argue that integration of development and preparedness policies could further reduce the amount of climate losses implying integrated impacts across various SDG targets.

MANAGEMENT OF PAKISTAN ECONOMY – CONFERENCE

Lahore School of Economics Annual Conference on Management of Pakistan Economy

The Lahore School of Economics, Annual Conference on the Management of the Pakistan Economy, held in Lahore on the Burki campus (18-19 April 2024).

The Rector, Dr. Shahid Amjad Chaudhry, opened the conference, by highlighting key policy messages that emerged from the 17 papers being presented.

Dr. Moazam Mahmood, Seemab Sajjid, and Amna Noor Fatima presented evidence of that the Pakistani economy will grow at a rate of 2.3% in FY 2024 and showed that a combination of this low growth and high inflation will significantly increase poverty this year and in the coming years. They then showed that approximately 10% of taxes would have to be spent on transfers to lower income households to eliminate this poverty and that this would become larger over the coming years which implies that there must be a significant increase in transfers to households this year, through programs like the Benazir Income Support Program) and in the coming years to address poverty in Pakistan. Pakistan's economy was projected to grow at 2.3% over FY2024.

Dr. Ayesha Afzal and Ramsha Noor presented their paper that aims to provide a detailed analysis of Cash Transfers as a tool for poverty alleviation in Pakistan. Typically, cash transfers have two purposes: (a) poverty alleviation through the cash transfer in the short run and (b) accumulation of long-term human capital through health care and education in the long run. The existing components of BISP serve both purposes and the program has gained international approval for its implementation, ranking at 5th internationally in terms of targeted performance (World Bank, 2023). This study analyses the impact on the most economically vulnerable segment of the population for both the conditional and unconditional cash transfer programs being run by BISP in Pakistan. The Benazir Kafaalat Program aims to alleviate poverty at the lowest level of incomes by providing unconditional cash transfer. CCTs are used to improve health and education outcomes; given Pakistan's lagging performance, illiteracy among youth, infant and maternal health are of particular consideration. Cash transfers can be made conditional, subject to regular health checkups for mothers and children and mandatory school attendance to improve these outcomes.

The role of financial inclusion, especially for women and the modes of payment distribution are a crucial element in the success of the cash transfer program in Pakistan. Only 21% of Pakistani adults are financially integrated in 2022, compared to a global average of 69%. The two main things preventing people from accessing formal financial institutions are their lack of income and their lack of digital literacy. The use of smartphones and digital biometric identification can have a transformative effect and increase the amount of financial resources available while also drawing attention to potential risks related to data protection and other abuses. The paper also attempts to forecast the impact of a continued UCT program on the poverty levels in the country for 2024-2028, based on the forecasted values of macro-economic indicators including inflation rate, unemployment, current account balance, economic growth and investments as given by the IMF. The aim is to suggest appropriate policy measures focusing on broadening the UCT program under BISP while reducing the inherent inefficiencies.

Dr. Rabia Ikram and Muzzna Maqsood presented their paper on the Pakistan's economy which has experienced a significant shift in growth patterns, with an average GDP growth decline of 1.84 percentage points since the 1990s. This decline in growth aligns with a drop in investment growth, which decreased by an average of 3.11 percentage points (Ikram and Moazam, 2022). A key factor in this decline is the reduction in public investment, particularly in the electricity sector. Policy shifts during the 1990s led to the withdrawal of public investment from the electricity sector, as part of a structural adjustment program that emphasized privatization. This transition introduced private sector involvement in energy through the establishment of 18 independent power plants (IPPs), based on the belief that private entities would operate more efficiently.

However, this privatization policy, particularly in the energy sector, raises critical questions:

- How effective has the reallocation of resources from the public to the private sector been?
- Has the private sector adequately compensated for the reduction in public investment?
- Does the privatization argument holds in the favour of the private sector?

Using data from sources such as the Ministry of Energy (MOE), Central Purchase Power Agency (CPPA), State of Industry Reports (SOIR), and Power Statistics, a comprehensive time series dataset was compiled. Analysis of this data indicates significant changes in the energy mix, with the public-to-private generation ratio shifting from 70:30 to 40:60. Additionally, the generation mix has transitioned from low-cost hydel to high-cost thermal. This reallocation has led to a halving of the electricity growth rate post-reallocation (around 1994). The private sector's electricity generation cost has surged, reaching nearly double that of the public sector in 2023. The growing share of capacity purchase price relative to energy purchase price in total power purchase price implies a potential increase in costs for consumers.

Consequently, the efficiency hypothesis supporting privatization appears ineffective in Pakistan's energy sector. There is a clear need for reform, and the government faces two potential paths: restructuring the private sector or regaining control over the electricity sector under public domain.

Dr. Naved Hamid of the Lahore School of Economics and Dr. Murtaza Syed of the Asian Infrastructure Investment Bank discussed how high interest rates are necessary to combat inflation. They addressed common arguments against and said that even if inflation was a result of supply-side factors and if government borrowing was relatively less responsive to high interest rates, one of the most important ways to curtail inflation is still through interest rates. They also discussed that interest rate changes will be critically influenced by the amount of the fiscal deficit and the level of international commodity prices.

Dr. Moazam Mahmood and Shamyla Chaudry discussed that Pakistan's economy may have lost its high growth rate of 6%, driven by investment. Nevertheless, Pakistan's growth has plodded at 4%, switching to consumption as its driver of growth.

Earlier 6% growth was driven by investment. Latter 4% growth has been driven by consumption. Therefore, the days of Investment led growth are gone, perhaps irretrievably. But we now need Consumption led growth. Hence, we need consumption to be very high, for the consumption multiplier to work. But we persist in the misconception of needing high investment. Which requires a high savings rate. And we bemoan a Sub-Saharan African savings rate in Pakistan of approximately 12% of GDP

So we went searching for an estimate for savings, beyond the FBS 12% of GDP. And what we have found is that savings are much higher than the 12% estimate.

These are domestic savings. But are lost to domestic investment. Because they comprise outflows from domestic savings.

This has to be Keynes's revenge. Not only are savings a leakage from aggregate demand within the domestic economy. Which is the Keynesian model of the paradox of thrift. But part of these savings is a leakage out of the domestic economy, as outflows. So are lost to both domestic savings, and to domestic investment.

We propose a policy to give a market mechanism to reduce these outflows of domestic savings.

Dr. Rashid Amjad and Almazia Shahzad of the Lahore School discussed how the stop-go cycle of economic growth in Pakistan is caused by unsustainable fiscal deficits coupled with foreign borrowing. They then proposed that the only way to achieve growth and stabilization in Pakistan was to reverse the roles of the federal and provincial governments. The federal government should concentrate on meeting the external financing gap, accelerate economic reforms and manage the fiscal deficit while the provinces should engine for growth and job generation. He said that the provinces to incorporate growth and job generation targets into their annual development plans and also engage in private public partnernships to increase productivity and growth.

Dr. Azam Chaudhry, Gul Andaman and Aymen Junaid discussed how the most binding constraint in Pakistan was stagnant exports and presented a proposal for an export-led industrial policy. In particular, they talked about policy prescriptions like providing more credit to exporters, using Pakistan's trade and investment officers to promote products and reducing import tariffs on intermediate goods used by exporters. They then provided a template for identifying high value-added export goods for future exports.

Dr. Mujtaba Piracha and Dr. Muhammad Irfan of the Government of Pakistan discussed how Pakistan played a key role in the They explained how the WTO works and how Pakistan can use the forum to work in the country's favor keeping in mind Pakistan's macroeconomic situation. They discussed how to WTO framework stimulates investment and transfer of technology from abroad to stimulate growth and how research and stakeholders are essential to trade negotiations.

Dr. Theresa Chaudhry and Dr. Nida Jamil discussed the role of trade and trade policy in the regulation of CO2 emissions in the Pakistani textile sector and the possibility of transition to renewable energy sources solar energy.

Day 2 of the Lahore School of Economics Annual Conference on Management of the Pakistan Economy focused on issues related to innovation, female employment, skills development of workers and Pakistani trade. 8

Dr. Waqar Wadho and Dr. Azam Chaudhry of the Lahore School of Economics looked at the how family control of management in Pakistani textile firms affects productivity. They found that family controlled firm engaged in management practices that were as good as the management practices of non-family controlled firms and that better management practices led to greater labor productivity in firms. They also found that better management practices led to higher exports which is critical for Pakistan as it tries to increase exports. But they also found that family-controlled firms only benefited from better management practices if they delegated responsibility within the firm to professionals which provides important lessons for the business community as it attempts to expand production and increase exports.

Anum Ellahi of the Lahore School of Economics finds that Agricultural growth has been consistently growing from the years of 1990-2020. Agriculture sector is the second largest contributor towards GDP with rate of 24%. She uses the Cobb Douglas production function (Capital and Labour) and determines which of the factors have played a dominant role in agriculture. Agriculture Credit, fertilizer usage, labour and water availability have significant and positive impact on agriculture. These results are further strengthened by per hectare production analysis that Agriculture Credit per hectare, fertilizer usage per hectare, labour per hectare and water availability per hectare have positive and statistically significant relation with agriculture output per hectare. When comparing these results with elasticities, the paper finds that only agriculture credit and water seem to have a significant and positive relation.

Dr. Rabia Arif of the Lahore School of Economics looked at how innovation in the textile sector, the light engineering sector and the automotive sector differs. She found that most of the textile manufacturers surveyed were exporters and they engaged in product innovation to increase revenues and decreases costs. In the light engineering sector, firms engage in process and marketing innovations but this led to higher costs and lower revenues. In the automotive sector, larger firms engaged in product and marketing innovations to increase their revenues. The results showed that innovation in the textile sector, which is an export intensive sector, tend to be different from innovations in the light engineering and automotive sectors which mostly cater to the domestic market.

Dr. Hamna Ahmed and Zunia Tirmazee of the Lahore School of Economics and Rebecca Wu of the University of Chicago discussed the impact of a training initiative by the Punjab Skills Development Fund which focused on providing access to online training courses for workers in rural and urban Punjab. She found that workers who had completed the online training courses transitioned into work more than those who did not, and also gained more income after completing the courses. She found that the most commonly chosen courses were related to IT or finance related skills and that those who completed this most demanded courses tended to salaries of between Rs 40,000 and 75,000 per month. She then discussed the importance of incorporating online training to develop skills in Pakistan and how these skills can increase employment in Pakistan as well as potentially increase IT exports. 11

Dr. Zunia Saif Tirmazee of the Lahore School of Economics and Sakina Shibuya from the University of Wisconsin discussed the factors that may hinder firms from hiring women. They looked at the impact of social norms as well as economic factors like the cost of transportation for women and the cost of training for women in firms. Their results showed that social norms were less important in the decisions of firms on hiring women but rather it was economic factors like transportation costs that had the greatest impact on the willingness of firms to hire women. They explained how it was critical to increase female labor force participation in Pakistan and how addressing some of the constraints of the firms can impact female hiring and economic growth. 12

Dr Jamshed Uppal from the Catholic University of America discussed the institutional factors that have hindered investment and exports in Pakistan. He discussed the negative impact of the overvalued exchange rate in Pakistan over time and the fact that many export related initiatives have been taken advantage of by the most politically connected businesses. He also discussed how efforts to control capital flows out of Pakistan to contain capital flight tend to have the opposite effects since it scares away foreign investment which has happened for the last 30 years. Finally, he discussed how taxation can only be increased if there is increased participation by people in the decisions made in Pakistan.

Dr. Aadil Nakhoda from IBA Karachi discussed the potential impact of the Innovation Technology Agreement (ITA) would have on Pakistani imports. He started his discussion on the types of IT related goods being imported to Pakistan and found that the most commonly imported goods were cell phones and solar panels. He also discussed the trade barriers that exist in Pakistan on the import of IT related goods and found that these levels of barriers were higher than some countries like Vietnam but lower than countries like Bangladesh. He also discussed that imports could increase by up to USD 1.5 billion if Pakistan signed the ITA (with more than USD 1 billion of these imports coming from China) which could have adverse impact of the trade balance in Pakistan but that these IT imports could also make Pakistani workers and firms more productive which would make them more competitive which in turn could increase exports by up to 2%.

The Rector of the Lahore School of Economics, Dr. Shahid Amjad Chaudhry, concluded the conference with a discussion of how the dramatic fall in Pakistan's growth rate, with almost 0% growth last year and an expected growth of only 2% this year, has led to an increase in poverty and how transfers to low income households through programs like the Benazir Income Support Program (BISP) must be significantly increased to help lower income households. He also discussed how the provinces must take the lead role in development and economic growth, by investing in health and education and increasing productivity, while the federal government must focus on delivering macroeconomic stability and managing foreign debt during this period of stabilization. He pointed out that Pakistan has been susceptible to significant geopolitical instability over the last 3 decades while the other countries in South Asia have benefited from stability over this time period but that Pakistan needs to change its investment priorities to focus on delivering education, health and jobs to its people and also must develop a coherent industrial strategy combined with structural reforms to increase exports. 16, 15, 17 and 18

WTO CHAIRS

Annual WTO Chairs' Conference June 27, 2024

Dr. Azam Chaudhry, Dean Faculty of Economics at the Lahore School of Economics and WTO Chair for Pakistan presented his research on trade at the Annual WTO Chairs' Conference in Geneva, Switzerland at the WTO during a special panel discussion with Dr. Ralph Ossa, Chief Economist of the WTO. Dr. Chaudhry also discussed the main messages from the WTO's Annual World Trade Report 2024 which focused on making the benefits from trade more inclusive across countries and within countries.

Essential Insights of Economics for Public Policy Formulation and Implementation in Pakistan

April 05, 2024

Dr. Azam Amjad Chaudhry, Pro-Rector, Professor and Dean, Faculty of Economics, Lahore School of Economics and World Trade Organization (WTO) Chair for Pakistan was invited as a guest lecturer for the 120th National Management Course at the National School of Public Policy for a lecture on "Essential Insights of Economics for Public Policy Formulation and Implementation in Pakistan," on March, 18th 2024. This was the first lecture on economics given to the course participants and focused on understanding the issue of balance of payments constrained growth in Pakistan. The lecture also touched on other work such as the impact of Pakistan's free trade agreements, the impact of IMF stabilization policies on growth, and ideas on how to promote sustained and equitable growth in Pakistan.

MOTHER AND CHILD HEALTH CARE CENTRE

Lahore School of Economics Mother and Child Health Care Centre

November 29, 2023

Dr. Theresa Thompson Chaudhry, Professor, Department of Economics inaugurated the Lahore School of Economics Mother and Child Health Care Centre on 22 November 2023 at Lahore School's Burki campus comprising the Agriculture Economics Research Center and the Health and Sports Complex (spread across 70 acres and 12 acres respectively).

The Center will primarily be providing preventive care to all our Support Staff and their families as well as tracking their health records.

The inaugural ceremony included families of Lahore School Support Staff members. Faculty and Administrative Staff participated in the event. The highlights of the day were medical checkups and fresh farm fruit treats for nourishment.

ECONOMICS SOCIETY

We are delighted to share that two of our outstanding students from The Lahore School, Hamza Baksh Ghani and Samana Tatheer, proudly represented our institution at the 19th South Asian Economics Student Meet (SAESM). The prestigious event took place in Colombo, Sri Lanka, from January 22 to 24, 2024.

SAESM, recognized as a hallmark gathering for economics students across South Asia, offers a dynamic platform for young scholars to present their research, participate in rigorous academic discussions, and engage with peers and experts from across the region. This annual event aims to foster collaboration, intellectual growth, and the sharing of innovative ideas within the field of economics.

Hamza and Samana, with their dedication, commitment, and passion for the subject, have embodied the core values of The Lahore School, representing us with both excellence and enthusiasm. Their participation in such an esteemed conference is a testament to the high academic standards and intellectual curiosity fostered within our institution.

We are incredibly proud of their achievements and extend our heartfelt congratulations to them for making the most of this enriching experience. We look forward to seeing how they continue to contribute to the world of economics, and we are confident that their future holds even greater success.

We are thrilled to share that Amania Kamran and Muhammad Shahmeer, Presidents of the Economics Society at The Lahore School, along with Zoha Noor and Khawaja Abdul Muhaimin, were selected as part of an elite group of students for the prestigious Jenesys SAARC Exchange Program in Japan. Out of the eight Pakistani students chosen for this program, four hail from our institution, highlighting the exceptional talent and leadership present within our academic community.

The Jenesys SAARC Exchange Program is designed to promote regional understanding, foster connectivity, and enhance economic cooperation between participating countries. The focus of last year's program was particularly significant, as it aims to strengthen the economic ties and collaborative efforts between Pakistan and Japan. Through this unique opportunity, our students will be engaging with key stakeholders, policymakers, and fellow participants from across South Asia to explore ways of building sustainable partnerships and driving forward economic development.

Amania, Muhammad, Zoha, and Khawaja have all shown remarkable dedication to their studies and have been at the forefront of initiatives aimed at fostering economic thought and cooperation. Their participation in this exchange program is not only a personal achievement but also a proud moment for The Lahore School, as it reflects our institution's commitment to academic excellence and global engagement.

We are excited to announce that The Lahore School Economics Society sent a talented delegation, including Muhammad Ahmed, Shezeen Hafeez, Rumaisa Iqbal, and Hamd Shahid, to participate in the prestigious 'Epicnomics' competition held at Kinnaird College on the 23rd of November, 2023. After facing tough competition from teams representing various universities, our delegation emerged victorious, securing the first prize!

This remarkable achievement is a testament to the hard work, intellectual prowess, and teamwork of our students. Their success not only reflects their individual dedication but also highlights the strength of the academic and extracurricular environment at The Lahore School. Competing against the best and brightest from other institutions, Muhammad, Shezeen, Rumaisa, and Hamd showcased their exceptional knowledge and skills in economics, making our institution proud.

Last year, one of the highlights was the immensely successful Intra-Econothon, a competition designed to bring out the best in our students and give them a platform to showcase their economic knowledge and problem-solving abilities. The Intra-Econothon saw enthusiastic participation from students across all years, as teams went head-to-head in a series of challenging rounds, tackling real-world economic issues and theoretical puzzles alike.

The inter-econothon took place, took place on 6th March 2024, where numerous universities from across the Lahore participated. The 1st Place ent to Government College University (GCU), Lahore. While Beaconhouse National University (BNU) secured the 2nd place and Kinnard College secured the third place.

The event fostered a strong sense of competition and collaboration, as students not only tested their limits but also learned from one another in a dynamic and engaging environment. Organizing such a large-scale intra-school competition was no small feat, and we are immensely proud of the incredible work done by our team.

The success of the Intra-Econothon is a testament to the dedication of our society, the leadership of our presidents, and the meticulous planning by the organizing committee.

As we reflect on the moments shared, we recognize that this event has not only strengthened our understanding of economics but has also deepened the bonds within our community. The experience, the connections, and the shared growth will stay with us long after the final round ended. We look forward to more events like these in the future, where we can continue to learn, laugh, and grow together.

Lahore School Economics Society Hosts Intraeconothon with Vibrant Drum Circle Finale

The Lahore School Economics Society (LSE) recently organized a thrilling intraeconothon that captivated the student body and fostered a dynamic exchange of economic ideas. The event, designed to challenge students with stimulating economic debates and competitions, saw overwhelming participation from various academic disciplines, contributing to its resounding success.

Culminating in an energetic drum circle, the atmosphere shifted from intellectual rigor to communal celebration. The rhythmic beats of the drums brought students together, creating a sense of unity and shared accomplishment. This unique and engaging finale proved to be a highlight, drawing in large crowds who enjoyed the combination of entertainment and camaraderie.

The intra-econothon reflected LSE's commitment to not only nurturing academic excellence but also fostering a sense of community through creative expression. The event's success was a testament to the society's vision of merging academic engagement with cultural vibrancy, leaving students eagerly anticipating future activities.

Dr. Rabia Ikram

Dr. Rabia Ikram invited Ms. Saman Rai on 16th May, 2024 to present on "Population Welfare in Pakistan" at the Lahore School of Economics. As the head of the Population Welfare Department in Punjab and CEO of the Punjab Population Innovation Fund, Ms. Rai discussed the population dynamics of Pakistan and current population trends. Additionally, her role as a Development Economics lecturer at Punjab University added perspective.

The Punjab Population Welfare Department hosted international Women's day at Park Lane Hotel on 11th March 2024. Thé chief guest DG Saman Rai invited Dr. Rabia Ikram and other guests to address lady health workers and community workers. Dr. Rabia Ikram emphasized the critical importance of women's health and empowerment and the vital role that these dedicated healthcare professionals play in ensuring the well-being of women in their communities. By focusing on women's health, Dr. Ikram underscored the need for comprehensive care that addresses both physical and mental health needs. She also highlighted the significance of empowering women, enabling them to make informed decisions about their health and participate fully in society.

OPEDS

OPED

Is there a future for export-led growth in Pakistan?

May 20, 2024

Dr Azam Amjad Chaudhry

(The writer is the dean of the faculty of economics at the Lahore School of Economics and the WTO chair for Pakistan)

Pakistan is again in the midst of an economic crisis. The core issues of a balance of payments crisis, a halt in economic growth, soaring prices, increasing employment and rising poverty are interlinked and require fundamental reforms. However, the immediate problem is simple: Pakistan needs to export more and has financed growth over the last few decades with foreign borrowing, which must now be paid back. What should be just as simple is the answer: Pakistan is experiencing an export crisis and urgently needs a coherent policy to boost exports.

The continuous balance of payments problem in Pakistan can be described as a problem of balance of payments constrained growth, which means that whenever Pakistan grows at more than 4% per annum, we import so much more than we export that we run out of foreign exchange reserves. In many economies, this imbalance is made up through remittances or foreign investment. In the case of Pakistan, the former has stagnated and the latter is nonexistent. So, the only solution is to increase exports with a coherent export-based industrial strategy.

For decades, developing countries have heard the same story of how policy in general and industrial policy in particular don't work. Recent work on industrial policy looks at historical examples of industrial policy and has shown that industrial policy undertaken by some countries centuries ago still has positive impacts. The evidence clearly indicates that most countries that have experienced industrial growth have followed industrial policies.

Before discussing a potential export-driven industrial strategy, it's helpful to see what policies Pakistan has tried in the past. The first has been using import tariffs to promote import substitution and industrial growth. This strategy has not produced large-scale industrialisation and has failed to increase exports. Another policy was using export rebates and subsidised energy inputs, which no longer leads to export growth as specific industries now expect these to remain competitive. These are now effectively off the table in the face of IMF-mandated expenditure cuts. Another set of more successful policies used tools like reductions in tariffs on intermediate inputs for exporters, subsidised credit for exporters and tax refunds for exporters who prove that they have used imported inputs for export purposes.

A well-defined export-led industrial strategy must aggressively use the last set of tools mentioned above. Commercial banks have no incentive to lend to exporters if the interest rate remains high, meaning policymakers need to make credit available to exporters at lower rates. The State Bank's Temporary Economic Refinance Facility (TERF) programme and its financing scheme to promote solar energy usage by manufacturers are successful examples of this and should be aggressively expanded. At the same time, authorities should start lowering tariffs on imported intermediate inputs for exporters, which has been done successfully by other economies like India. The government should focus all expenditures on training by entities like TEVTA and all spending on education and infrastructure on export promotion. Also, as foreign markets start to tax imports based on emissions (with the EU Carbon Border Adjustment Mechanism coming into place over the next few years), the government needs to subsidise the transition by exporters to cleaner energy sources before Pakistani exports fall. Finally, the Pakistani authorities should start reducing regulations and red tape for exporters if they want to see investment increase and exports grow.

However, supply-side initiatives need to be coupled with policies to boost demand. Depreciation was supposed to take care of that since Pakistani goods became cheaper in foreign markets, even though our workers are effectively paid pennies for each good they produce. But a 50% depreciation in the rupee has only led to a 5-10% increase in exports. The reason is that the 50% depreciation was accompanied by at least a 50% increase in the costs of fuel for exporters (though it is greater since subsidies have also been removed), a 50% increase in the cost of imported machinery, and imported inputs and a doubling of the interest rate at which exporters need to borrow money after domestic prices skyrocketed. Also, foreign buyers renegotiated the dollar prices of the Pakistani goods they bought. It is time to accept that depreciation isn't the solution to our export problems.

So, policymakers must focus on other practical demand-side measures. First, the trade investment officers posted in foreign missions must be given product lists and export targets for their countries. The product lists need to be data-driven and identify countries and products that make up our current export destinations and export goods and new, higher value-added products. Policymakers can pair this with customs data and census of manufacturing industry data to identify firms that already produce and export these goods to help pair foreign buyers with Pakistani suppliers. Also, when our government negotiates trade agreements, we must gain market access for higher value-added export goods instead of raw materials and low value-added intermediate inputs. Finally, Pakistan has significant potential to export services like IT, health and education, which should be an integral part of any export strategy. I'm sure that we will hear the old mantra of 'picking winners', but modern evidence for industrial policy shows that countries experiencing export booms picked specific sectors and firms to take the lead.

No matter your opinions on industrial policy, no one can realistically deny that the current export strategy is not working. Some blame this failure on the idea that the Pakistani economy is inherently unproductive. Nothing is further from the truth, and if we hadn't hit a balance of payments crisis every five years, Pakistan's growth rate would have been at least 8-10% per annum. So, if the economy is productive, why don't exports rise? One of the leading causes is the instability in the system. Economic and political instability drives away foreign investment and scares domestic producers from increasing their capacity and moving into higher value-added products. But if stability does return, policymakers must be ready to take advantage of this by pushing an export-driven industrial strategy in a big way. If not, we'll be stuck in the same trap for years.

PUBLICATIONS

Actual/On-going 2024 (Author/s, Title of Publication, Journal, Year)

HEC W Category/Impact Factor Journal Articles

1. Ahmed, H. "Rainfall Shocks and Child Health in Rural Pakistan" Maternal and Child Health (Impact Factor – Submitted)
2. Ahmed, H., Mahmud, M., Said, F., & Tirmazee, Z. (2024). Encouraging female graduates to enter the labor force: Evidence from a role model intervention in pakistan. Economic Development and Cultural Change, 72(2), 919-957. (HEC W Category – Published)
3. Arif, R., & Chaudhry, A., Understanding how Complementarities in Innovation Affect Firm Performance: Evidence from Pakistan (Impact Factor – Planned)
4. Arshad, A., Zafar, F. & Nawaz, A. (2024) Digital Transformation of Service Delivery in Punjab's Health Sector - A Case Study of HIMS (HEC W category - planned)
5. Atkin, D., Chaudhry, A., Chaudry, S., Khandelwal, A.K. & Verhoogen, E. Investigating the extent to which high costs of high‐quality inputs are a barrier to upgrading in the Sialkot Soccer Ball Industry. (Impact Factor - Planned)
6. Chaudhry, T., "How Robust Are Intent-to-Treat Effects of Prenatal Ramadan Exposure on Child Outcomes?" (HEC W category - Under submission)
7. Ellahi, A. & Moeen, N., Identifying Supply factors for Agricultural Growth in Pakistan - A Time series Analysis for the year:1975-2020. (Impact Factor – Planned)
8. Ellahi, A. & Yasir, H., Self-Service Technology Adoption and Use in Pakistan- Exploring Age and Gender Impact (Impact Factor – Submitted)
9. Gentile, E. Kohli, N., Subramanian, N., Tirmazee, Z. S. & Vyborny, K.. (2023). Barriers to Entry: Decomposing the gender gap in job search in urban Pakistan. Journal of Labour Economics. (HEC W Category – Published)
10. Gentile, E. Kohli, N., Subramanian, N., Tirmazee, Z. S. & Vyborny, K.. (2023). Barriers to Entry: Decomposing the gender gap in job search in urban Pakistan. Journal of Labour Economics. R&R (Impact Factor – Submitted)

11. Ikram, R., Irfan, F. Mazari, H. Explaining Risk Preferences and Risky Behaviors using Australian HILDA survey (HEC W Category – Planned)
12. Jamil, N., Chaudhry, T. T., & Chaudhry, A., Self-Selection versus Destination based Learning by-Exporting: Firm Level Evidence from Pakistan (Impact Factor – Planned)
13. Jamil, N., Chaudhry, T., Chaudhry, A., "Measuring Actual TFP Growth: Stripping away Omitted Price Bias and Demand Shocks," (HEC W category - Under submission)
14. Jillani, H., Ellahi, A. & Zahid, H., Fintech Adoption for Sustainability: The Mediating Role of Behavioral Intention (Impact factor-Under Review)
15. Landmann, A, Karim, M, Wadho, W, and Fazal (2024). Female community-driven development and empowerment: An RCT in Pakistan. (HEC W Category - Planned)
16. Mahmood, M. & Sajid, S. The Need to Differentiate the Formal Labor Market from The Informal Labor Market in Pakistan, International Labour Review, 2024 (HEC W category - planned)
17. Moeen, N. & Ellahi, A., Impact Assessment of Child Health Across Wealth Quintiles: A Case for Punjab. (Impact Factor – Planned)
18. Quddus, S. & Nawaz, A. (2024). Assessing the impact of climate change on rural household vulnerability to food security in Pakistan: Empirical evidence from climate change impact survey. Environmental Science & Pollution Research, (Impact Factor - Submitted)
19. Rana, S.A., Delfino, A. & Chaudry, S. Gender and the demand and supply of advice in teams. (Impact Factor - Planned)
20. Wadho, W and Chaudhry, A (2024). Does International Certification Cause Superior Export Performance? Evidence from Pakistan (HEC W Category - Planned)
21. Shenk, M., Naz, S., and T. Chaudhry, "Intensive Kinship, Development, and Demography: Why Pakistan Has the Highest Rates of Cousin Marriage in the World," revise and resubmit at Population and Development Review. (HEC W category - planned)
22. Tirmazee, Z. S. (2021). Too much of a good thing? Increasing gender wage disparity in face of rapidly expanding post-secondary female education in Punjab, Pakistan. Journal of Economic Inequality. (HEC W Category – Submitted)

MS Research Projects Supervised

1. Minal Shaket (completed), Waqar Wadho (supervisor), Does International Certification Cause Superior Export Performance? Evidence from Pakistan, Department of Economics, 2023
2. Onaiza Tanveer (candidate), Zunia Saif Tirmazee (supervisor), Does Access to Safe Drinking Water Improve Child Welfare Indicators in Pakistan? Department of Economics, 2023

MS Research Projects (Ongoing)

1. Aaiza Hussain Zaidi (candidate), Shafaq Junaid (Supervisor), How does mothers access to information and her education affects child's stunting – A case study from rural Punjab of Pakistan, Department of Economics, 2023 (MS Project)
2. Mahnoor Sajid (candidate), Rabia Arif (Supervisor), From Home to Economy: Analyzing the Heterogeneity in the Gendered Production for the Invisible Labor Force in Pakistan. Department of Economics, 2023 (MS Project)

Research Publications (Actual 2023 & On-Going 2024)

Actual 2023 (Author/s, Title of Publication, Journal, Year)

HEC W Category/Impact Factor Journal Articles

1. Arif, R., Chaudhry, T. "Heterogeneous Effects of Emigration on Labor Market Activity and Investment Decisions in Punjab, Pakistan," Advances in Life Course Research, Vol. 56 (June), 2023, https://doi.org/10.1016/j.alcr.2023.100547 (Impact Factor)
2. Arif, R., Chaudhry, T., & Chaudhry, A. (2023). "Emigration's Heterogeneous Impact on Children's Wellbeing in Punjab, Pakistan." Child Indicators Research, 1-45 (Impact Factor)
3. Arif, R, Chaudhry A, Chaudhry T (2023) Empowered mothers and co-resident grandmothers: Two fundamental roles of women impacting child health outcomes in Punjab, Pakistan. PLOS ONE 18(11): e0285995. https://doi.org/10.1371/journal.pone.0285995 (Impact Factor)
4. Asharaf, N, Wadho, W, & Shahid, S. (2023). Faultlines in Family SMEs: The U-shape effect of family influence and control on innovativeness and performance. M@n@gement. Vol. 26 (3). (Impact Factor)
5. Chaudhry, T. & R. Arif, "The Impact of Consanguineous Marriage on Children's Human Capital in Pakistan," Journal of South Asian Development, November 2023, https://doi.org/10.1177/09731741231200380. (Impact Factor)
6. Jamil, N., Chaudhry, T., and A. Chaudhry, "Adjustments in markups after a Free Trade Agreement: An analysis of Pakistani firms gaining increased access to China," Journal of International Trade and Economic Development, June 2023, https://doi.org/10.1080/09638199.2023.2222419. (Impact Factor)
7. Tirmazee, Z. S. (2023). Unequal pay for equal education! A case of gender wage gap from Punjab, Pakistan. Argumenta Oeconomica, 1(50), 67-94. (Impact Factor)
8. Wadho, W, and Sadia, H. (2023). "Ethnic diversity, concentration of political power and the curse of natural resources." Economia Politica 40.1: 113-137. (Impact Factor)
9. Wadho, W and Chaudhry, A (2024). Measuring process innovation outputs and understanding their implications for firms: Evidence from Pakistan, Technovation. Volume. 131 (Impact factor)

HEC X and Y Category Journal Articles

1. Arif, R., Jamil, N., & Chaudhry, A. (2023). Strategic Trade Policy for Pakistan's Textile Sector in 2018: Enhancing High Value-Added Exports through Low-Priced Intermediate Input. The Pakistan Development Review, 145-166. (HEC Y Category)

2. Hashmat, F., Nawaz, A., Bradley, T. & Kamran, A. (2023) Community resilience, adaptive capacity and social empowerment under conditions of climate related shocks: A case of flood affected households in Matiari district of Pakistan, International Journal of Social Quality, Vol. 13(2) (HEC Y Category)
3. Tanvir, A., & Arif, R. (2023). "Measuring Mother's Empowerment through the Culture of Son's Preference in Pakistan." Journal of Research & Reviews in Social Sciences Pakistan. (HEC Y Category)

National Conference Papers

4. Mahmood, M., Chaudhry, A. & Chaudry, S. Relationship between Budgets and the Current Account, Management of Pakistan's Economy (Lahore School of Economics, 2023 (National Conference Paper)

International Conference Papers

1. Hashmat, F., Nawaz, A. & Kamran, A. (2023) Flood induced displacement in Matriari District Pakistan: A way forward. Paper presented at Development Studies Association (DSA) Conference at The University of Reading, UK (International Conference Paper)
2. Hashmat, F., Nawaz, A. & Kamran, A. (2023) Sustainable Development Goals and the impact of Microfinance on rural livelihood during Covid-19 in Pakistan. Paper presented at Development Studies Association (DSA) Conference at The University of Reading, UK (International Conference Paper)
3. Hashmat, F., Nawaz, A. & Kamran, A. (2023). An investigation of the impact of Covid-19 on Rural Households vulnerability to Multi-Dimensional Poverty Index. Paper presented at Development Studies Association (DSA) Conference at The University of Reading, UK (International Conference Paper)
4. Mahmood, M. Global employment growth in the long run/ Employment Prospects in Developing Countries: Implications of Technological and Demographic Trends (Columbia University)/2023 (International Conference Paper)

Lahore School Working Papers / International Working Papers

1. Arif, R., & Chaudhry, A., Understanding how Complementarities in Innovation Affect Firm Performance: Evidence from Pakistan, Innovation and Technology Center (ITC) Working Paper 04-2023, Lahore School of Economics, 2023. (ITC Working Paper)
2. Chaudhry, A., Andaman, G., & Junaid, A., A Roadmap to Diversifying Pakistan's Exports: Operationalizing the Product Space, Innovation and Technology Center (ITC) Working Paper 03-2023, Lahore School of Economics, 2023. (ITC Working Paper)
3. Chaudhry, A., Chaudhry T. T., Garner, P., & Grabher-Meyer, N., Promoting Investment in Solar Energy Across SMEs in Pakistan, Innovation and Technology Center (ITC) Report No. 03-2023, Lahore School of Economics, 2023. (ITC Working Paper)
4. Chaudhry, T., & Ahmed, H. "The Global Gig Economy: Pakistan's Opportunity to Become a Leader in Service Exports?" ITC Working Paper No. 13-2023, Lahore School of Economics. (ITC Working Paper)
5. Gentile, E., Kohli, N., Subramanian, N., Tirmazee, Z., & Vyborny, K. (2023). Barriers to Entry: Decomposing the Gender Gap in Job Search in Urban Pakistan. Asian Development Bank Economics Working Paper Series, (707). (International Working Paper)
6. Jamil, N., Chaudhry, T. T., & Chaudhry, A., Self-Selection versus Destination based Learning by-Exporting: Firm Level Evidence from Pakistan, Innovation and Technology Center (ITC) Working Paper 02-2023, Lahore School of Economics, 2023. (ITC Working Paper)
7. Mahmood, M., Chaudhry, A., Sajid, S. & Fatima, A.N. State of the Pakistan Economy (Fiscal Year-2024), ITC-Lahore School of Economics, 2023 (ITC Working Paper)
8. Mahmood, M., Chaudhry, A., Tanvir, A., Sajid, S. & Fatima, A.N. State of the Pakistan Economy (Fiscal Year-2023), ITC-Lahore School of Economics, 2023 (ITC Working Paper)
9. Arif, R., Jamil, N. & Chaudhry, ITC Working paper No.01-2023: "Low Priced Intermediate input and Export Boost, Proposing A strategic trade Policy to Achieve High Value-Added Exports: A case of Pakistan's Textile Sector". (ITC Working Paper)

MPhil Theses supervised (Completed)

1. Ali Shan (candidate), Nawaz, A. (Co-Supervisor), Impact of effective implementation of property rights on women empowerment: an important paradigm for development- evidence from the demographic and health survey of Pakistan, 2017-18, GIDS, 2023 (MPhil Thesis)
2. Seemab Sajid (candidate), Moazam Mahmood (supervisor), The Need to Differentiate the Formal Labor Market from The Informal Labor Market in Pakistan, Department of Economics 2023 (MPhil Thesis)

MPhil Theses supervised (On-going)

1. Khalida Khalid (candidate), Nawaz, A. (supervisor), The adnent of Hybrid Warfare: An issue of National Security. A cross country empirical analysis and implications for Pakistan, GIDS, On-going
2. Maheen Jahangir (candidate), Nawaz, A. (supervisor), Does access to informal savings (ROSCAS) reduce vulnerabilities during COVID times? Evidence from Micro-entrepreneur's survey of Semi-Urban areas of Punjab, GIDS, On-going
3. Sara Hameed (candidate), Nawaz, A. (supervisor), Vulnerability of Micro-Entrepreneurs in Semi-Urban Punjab during COVID Times: A Case of Microfinance Borrowers and State-led Ehsaas Program Beneficiaries , GIDS, On-going
4. Simran Tariq (candidate), Nawaz, A. (supervisor), Women's Empowerment and Ethnic Inequalities in Pakistan: A new Evidence from Pakistan Demographic Health Survey 2017-2018 (PDHS), GIDS, On-going

HEC X and Y Category Journal Articles

1. Arif, R. Does Empowering Women increase their Participation in Labor Force: A case of Pakistan. (HEC X/Y Category – Planned)

2. Arif, R. From Home to Economy: Analyzing the Heterogeneity in the Gendered Production for the Invisible Labor Force in Pakistan. (HEC X/Y Category – Planned)
3. Ikram, R., & Ismail, G.N. Spatial Determinants of Bilateral Remittances (HEC X Category – Planned)
4. Jamil, U., & Nawaz, A. (2024) Impact of Microcredit Program on Non-income Outcomes –A Case of Akhuwat Microfinance Organization in Pakistan (X category - planned)
5. Mahmood M., Chaudhry, A. & Chaudry, S. The Relationship between Fiscal policy and BOP constraints: A crisis is a terrible thing to waste. (Y category Planned)
6. Nawaz, A., Hashmat, F. & Kamran, A. (2024) The role of microfinance institutions in the progress towards the attainment of sustainable development goals during COVID-19: Empirical findings from Punjab, Pakistan (X category- planned)
7. Said, F., Musaddiq, T., Tirmazi, Z. & Zafar, M. Improved Nutrition and Sanitation in Sindh: Inducing Sustained Behavioral Change (HEC Y Category - Planned)

ABDC/ABS/ MLA Journal Articles

1. Ahmed, H., Dareen Latif, D. & Vyborny, K. "The unintended consequences of accountability: Quasi experimental evidence from policing in Pakistan" Journal of Public Economics (ABDC/ABS/MLA – Submitted)

Books

1. Ikram, R. & Mahmood, M. Macroeconomic Determinants of Growth- A Case Study of Pakistan, 2024 (Book)
2. Zafar, F. & Nawaz, A. Service Delivery: How Effective it is? Case Studies from Lahore, Lahore School of Economics, 2024 (Book – Planned)

Book Chapter

1. Mahmood, M. Global employment growth in the long run, Employment Prospects in Developing Countries: Implications of Technological and Demographic Trends (Columbia University Press)/2024 (Book Chapter)

Case Study

1. Said, F., Quinn, S. & Meki, M. & Zafar, M. Salon Microequity Project (Case study - planned)

Lahore School Working Papers / International Working Papers

1. Chaudhry, A., Understanding the link between Foreign Aid Flows and Unofficial Trade-Related Capital Outflows (Innovation and Technology Center (ITC) Working Paper – Planned)
2. Chaudhry, A., Understanding the Product Space of Pakistan's Exports (Innovation and Technology Center (ITC) Working Paper – Planned)
3. Understanding the link between Foreign Aid Flows and Unofficial Trade-Related Capital Outflows (Innovation and Technology Center (ITC) Working Paper – Planned)

International Conference Papers

1. Ahmed, H., Tirmazee, Z., Wu, R. & Zhang, E. Intra-household Incentive Targeting for Young Women's Skills Investment: Evidence from Pakistan, Midwest, International Economic Development Conference, University of Chicago, 5-6 April 2024 (International Conference Paper - Planned)
2. Hashmat, F., Nawaz, A. & Kamran, A. (2024) Navigating inequalities: A framework for policy resilience in the aftermath of Pakistan's recent floods. To be presented at DSA Conference in June 2024 at SOAS, University of London (International Conference Paper - Accepted)
3. Jahangir, M., Nawaz, A., Hashmat, F. & Kamran, A. (2024) The role of informal saving schemes of ROSCAs during Covid Times: Implications for Microfinance Institutions. Submitted to European Research Conference on Microfinance, University of Bergamo, Italy, June 2024 (International Conference Paper - Submitted)
4. Malik, S., Nawaz, A. & Kamran, A. (2024) A comparison of Microfinance and State-led EHSAAS program beneficiaries during Covid times in Semi-urban Punjab: Implications for hybrid model intervention. Submitted to European Research Conference on Microfinance, University of Bergamo, Italy, June 2024 (International Conference Paper - Submitted)
5. Quddus, S. & Nawaz, A. (2024) Fungibility of loans in Microfinance and the role of income and assets ownership: A new evidence. Submitted to European Research Conference on Microfinance, University of Bergamo, Italy, June 2024 (International Conference Paper - Submitted)
6. Subhani, A. & Nawaz, A. (2024) Examining role of education in altering violence-justifying altitudes of men and women under patriarchy: Empirical evidence from Rural Punjab. To be presented at DSA Conference in June 2024 at SOAS, University of London (International Conference Paper - Accepted)

MPhil Theses supervised (On-going)

1. Amna Noor Fatima (candidate), Moazam Mahmoor (supervisor), Using Arrow Debreu's First and Second Welfare Theorem to Analyse Poverty Reduction in Pakistan, 2024 (Mphil thesis – Ongoing)
2. Eeman Fatima (candidate), Moazam Mahmoor (supervisor), Estimating GDP Growth and Income Inequality using the Proxy of Night Light Data in Pakistan, 2024 (Mphil thesis – Ongoing)
3. Khalida Khalid (candidate), Nawaz, A. (Supervisor), The adnent of Hybrid Warfare: An issue of National Security. A cross country empirical analysis and implications for Pakistan, GIDS (MPhil Theses supervised On-going)
4. Maheen Jahangir (candidate), Nawaz, A. (Supervisor), Does access to informal savings (ROSCAS) reduce vulnerabilities during COVID times? Evidence from Micro-entrepreneurs' survey of Semi-Urban areas of Punjab, GIDS (MPhil Theses supervised On-going)
5. Mehrunisa Saleem (candidate), Theresa Chaudhry (supervisor), Family Control of Firms pre and post-Covid: Private benefits and Competitive advantage, Economics, (Mphil thesis – Ongoing)
6. Nisha Zeeshan (candidate), Nawaz, A. (Supervisor), Analyzing stakeholder responses to the covid-19 pandemic. A theory of reasoned action perspective on educational

changes in Lahore's private and public universities. A mixed method approach. GIDS (MPhil Theses supervised On-going)

7. Sara Hameed (candidate), Nawaz, A. (Supervisor), Vulnerability of Micro-Entrepreneurs in Semi-Urban Punjab during COVID Times: A Case of Microfinance Borrowers and State-led Ehsaas Program Beneficiaries, GIDS (MPhil Theses supervised On-going)

8. Simran Tariq (candidate), Nawaz, A. (Supervisor), Women's Empowerment and Ethnic Inequalities in Pakistan: A new Evidence from Pakistan Demographic Health Survey 2017-2018 (PDHS), GIDS (MPhil Theses supervised On-going)

RESEARCH TRIPS ABROAD

INTERNATIONAL CONFERENCES ATTENDED BY THE STAFF/FACULTY: 2023- 2024

Sr #	Name	Designation	Name of Conference	Country Visited	Title of Paper Presented	Dates of Conference
1	Dr. Zunia Saif Tirmazee	Assistant Professor	75th European meeting of the Ecometric society	Spain	A leaky pipeline: Decomposing the gender gap in Job search in Urban Pakistan	28th August- 1st September 2023
2	Dr. Ayesha Afzal	Professor	2nd Global Summit on Advances in Earth Science and Climate Change (Adv. ESCC 2023)	United Kingdom	The effect of Green Technology adoption in Entrpreneurial Innovation and Human Resource on Bank Risk and Returns in Europe	14th- 15th September, 2023
3	Dr. Hamna Ahmed	Assistant Professor	2023 Advances with Field Experiments Conference (AFE 2023)	USA	Tackling household decision-making ineffeciencies for Young Women's Skills investment in Pakistan	21st- 22nd September 2023
4	Dr. Hamna Ahmed	Assistant Professor	CDES Sustainable Development Conference 2024	Italy	The unintended consequences of accountability: Quasi-Experimental evidence from Policing in Pakistan	12th- 13th June 2024

INTERNATIONAL WORKSHOPS/ TRAININGS/ RESEARCH MEETINGS

Sr #	Name	Designation	Purpose	Country Visited	Organization/ University Name	Dates of Training
1	Dr. Zunia Saif Tirmazee	Assistant Professor	19th SAESM	SriLanka	Department of Economics, University of Colombo	22nd- 27th January, 2024