

Day 1: Wednesday, 4 September 2019

Session 1: *Poverty and Social Protection*

Can market design help the world's poor? Evidence from a lab experiment on land trade
Gharad Bryan (London School of Economics), **Jonathan deQuidt** (Stockholm University),
Tom Wilkening (University of Melbourne) and Nitin Yadav (University of Melbourne)

Discussant: Sanval Nasim (Lahore University of Management Sciences)

Market design has increased efficiency in complex reallocation problems in the developed world. Because reallocation may be necessary for development, there is potential for market design to contribute to reducing poverty. A key constraint is that low levels of literacy and numeracy may preclude the poor from benefiting from complex market designs. To understand the importance of this constraint, we conducted a lab-in-the-field experiment with Kenyan small-holder farmers. Farmers traded land in a hypothetical environment where theory suggests a package auction would thicken markets and reduce exposure risk. Comparing performance in a more complex package auction to a simpler continuous double auction we show that the added complexity increased efficiency, reducing the gap to the first best by around 26%. We find no evidence that the added complexity increased inequality.

Agricultural transformation and farmers' expectations: Experimental evidence from Uganda
Jacopo Bonan (Politecnico di Milano), Harounan Kazianga (Oklahoma State University and Centro Studi L.d'Agliano) and Mariapia Mendola (Universita` di Milano–Bicocca, Centro Studi L.d'Agliano and IZA)

Discussant: Zunia Tirmazee (Lahore School of Economics)

Agricultural technology adoption plays an enormous role in the process of economic development. However, knowledge gaps remain regarding why some potentially profitable technologies are rapidly adopted, while others are not. This paper contributes to the literature on technology adoption by showing how ex-ante price expectations and heterogeneity in these expectations shape adoption rates of newly introduced oilseed crops in Uganda. Building on a large-scale governments extension service program, we use a randomized controlled experiment to study what drives smallholders working in subsistence farming to adopt new cash crops (i.e., oilseeds) and turn into commercial farmers. Our research design combines heterogeneous farmers expectations about returns to technology adoption with differences across regions induced by the random assignment of the extension program. The results show that the adoption of the new crops increased by 14.7% in the treated group relative to the control group at endline. We provide evidence showing that farmers who under-estimate the price of oilseeds at baseline were more likely to adopt the new crop, presumably because the treatment made them adjust their beliefs on oilseeds profitability upward.

Beyond Remittances: Heterogeneous Spillover Effects of Emigration on Labor Market Activity and Investment Decisions in Punjab, Pakistan

Rabia Arif and Theresa Chaudhry (Lahore School of Economics)

Discussant: Simon Quinn (University of Oxford)

Numerous studies have either explored the causal effect of remittances alone or simply the existence of an external migrant on a variety of household level development outcomes. In this paper we test that the impact of emigration does not wear off after controlling for the amount of remittance and find that emigration may affect the home countries through numerous channels (knowledge, psychological, behavioral and cultural spillovers or changes in HH composition etc.) as well. Using a large data set collected from several rounds of the UN-funded MICS survey conducted in Pakistan between 2003 and 2014 that covers individual and household level information, we explore how emigration in particular affects the labor market activity and investment decisions of those household members who have remained in their home country. We use a new instrument that fulfills the relevance condition as well as the exclusion restriction for endogenous migration decision. This IV is a composite interaction of three orthogonal variables: the number of adult males, historic diaspora rates, and the deviation of night light intensity from its mean that encourages individuals to migrate abroad is used to correct for the endogenous migration decision at household level.

For individuals in migrant sending households, we find a significant positive shift in domestic labor market activity from lower status employment categories, including not working at all, unpaid family work and manual labor to higher status activities and entrepreneurship, such as self-employment and becoming an employer. We also find higher investments in property, bank deposits, agricultural land, livestock, poultry and fishery by the individuals in migrant-sending households as compared to the non-migrant sending households. The results become stronger when we see the impact on “vulnerable groups”. Probability of being an employer increases significantly i.e., by 6.9% purely driven by females, by 6% driven by younger individuals and by 4.9% driven by lesser educated individuals. The withdrawal of individuals from labor market as laborer is by 34.6% purely driven by females, by 70.1% driven by younger individuals and 68.3% driven by lesser educated individuals. Reduction in unpaid family work by 41.7% is also driven by females. Finally, we see a reduction in individuals not working at all by 40.1% purely driven by individuals in rural areas. Rents and agricultural land ownership increases by 4.6% and 59.3% respectively in rural areas. Investments in livestock, poultry and fishery increases by 9.2% which is purely driven by females. On the whole, we find that migration can be a force for women’s empowerment, rural development, and positive social change for younger and lesser educated individuals.

Session 2: *Gender I*

Encouraging female graduates to enter the labour force: Do role model interventions work?

Hamna Ahmed (Lahore School of Economics), Mahreen Mahmud (University of Oxford), Farah Said (Lahore School of Economics) and Zunia Tirmazee (Lahore School of Economics)

Discussant: Jonathan deQuidt (Stockholm University)

This study is a randomised controlled trial to test the impact of a low-cost intervention to overcome psychological constraints to female labour force participation (FLFP). Our main research question is: can motivating female students through role models promote female labour force entry? We focus on final year undergraduate students enrolled in women-only colleges in urban Lahore, the second largest metropolitan city in Pakistan, comprising of approximately 11 million people. We aim to motivate students through a documentary of educated women who are successfully employed in the labour market. Our study will evaluate the impact of this intervention on the following outcomes – whether the respondent applies for a job, reports a subjective improvement in aspirations, self-belief and sense of control; and an improvement in measures of effort exerted in order to secure employment. Preliminary results from the first follow-up survey show that on average, students exposed to the documentary report a higher locus of control and a greater job search effort relative to control students. Such improvements in treated students psychological state of mind and effort expended for finding a job may be instrumental in facilitating their entry into the labour market. Our study is particularly relevant in the context of Pakistan, which suffers from chronically low female labour force participation: between 1992 and 2014, urban female labour force participation increased from 7.3 to 11.4% only and this rate is less than half compared to Bangladesh (Pakistan Jobs Diagnostic, 2017).

Transport, urban labor markets, and women's mobility

Erica Field and **Kate Vyborny** (Duke University)

Discussant: Ayesha Ali (Lahore University of Management Sciences)

In many contexts with conservative norms or high crime, female workers may face greater restrictions on their physical mobility within the city. This limits women's opportunities in the labor market and the pool of workers that firms can attract and retain. In this study, we test the overall impact of transport to work on men, women, and the differential impact for women of women's-only transport. We experimentally vary access to a subscription service for daily commuting, and study how this affects job search. In preliminary results of the study, we find that female jobseekers' probability of applying to a position increases substantially when the job is accessible by the commuting service, while male jobseekers' decisions are unaffected. Women respond to both mixed-gender and women's-only transport offers, but the impact of the women's-only transport offer on the application rate is larger.

Plenary Address: *Addressing Pakistan's chronic fiscal deficit*

Ijaz Nabi (International Growth Centre) and Anjum Nasim (Institute of Development and Economic Alternatives)

This paper compares Pakistan's macroeconomic outcomes with India and Bangladesh in 1995-2018 and points out key structural weaknesses resulting in frequent balance of payments crises, which has landed Pakistan under the tutelage of the IMF for 9 out of the last 19 years. A review of the IMF engagement shows that while the standby and EFF programs succeeded in bringing about short run macro-economic stability, they failed to address the core structural weaknesses. Lack of fiscal consolidation appears to be one of these core weaknesses. This consolidation can be achieved through higher tax collection *and/or* better expenditure management. The research this paper draws upon, addresses both taxes and expenditure. The focus here, however, is on increasing fiscal space through better expenditure management and greater public sector efficiency.

Session 3: *Gender II*

Cash transfers, aspirations and goal-setting: Impact on female empowerment
Mahreen Mahmud, Kate Orkin and Emma Riley (University of Oxford)

Discussant: Morgan Hardy (New York University, Abu Dhabi)

In this study with 3,000 married women from non-polygamous households in rural western Kenya we evaluate an experiment that provides economic resources to the household and a psychological intervention to a randomly chosen half of the primary female respondent in the household to understand if this improves the bargaining process in the woman's favour by looking at her economic position in the household and experience of intimate partner violence. The psychological intervention is a video based aspirations boosting intervention that shows the story of two role models similar to the study respondents. The women are shown in consultative relationships, setting and achieving goals to improve the economic status of the household. The video screening is followed by a face to face goal-setting exercise. The experiment randomised villages into one of the following four arms: cash transfer alone, psychological intervention alone, combination of cash transfer and psychological intervention and a placebo group who receives a video based psychologically inactive intervention. We want to isolate the separate effects of the economic and psychological interventions on women's outcomes (her economic activity and control of resources) to understand if each was sufficient on its own or if women require the combination in order to be able to bargain for greater resources without facing a backlash in the form of increased violence.

It's getting crowded in here: Experimental evidence of demand constraints in the gender profit gap

Morgan Hardy (New York University, Abu Dhabi) and Gisella Kagy (Vassar College)

This paper considers market-level contributors to the well-documented gender profit gap amongst micro-entrepreneurs. In a study of Ghanaian garment makers, we combine a firm census and market research survey and find a gender gap in the market-size-to-firm ratio and disproportionate self-reports of “not enough customers” from female owners. We develop a simple model and discuss implications of potential gender differences in demand constraints. As experimental corroboration, we show that female-owned firms expand production and experience profit increases in response to random demand shocks, while male-owned firms do not. Nationally representative data echoes our experimental findings, showing more crowding in female-dominated industries.

Session 4: Gender III

Intrahousehold consumption allocation and demand for agency: A triple experimental investigation

Uzma Afzal (University of Nottingham), Giovanna d'Adda (University of Milan), Marcel Fafchamps (Stanford University) and **Farah Said** (Lahore School of Economics)

Discussant: Saher Asad (Lahore University of Management Sciences)

We conduct lab experiments to investigate demand for consumption agency in married couples. We find subjects are often no better at guessing their spouse's preferences than those of a stranger, and many subjects disregard what they believe or know about others' preferences when assigning them a consumption bundle. This confers instrumental value to individual executive agency within the household. We indeed find significant evidence of demand for agency in all three experiments, and this demand varies with the cost and anticipated instrumental benefit of agency. But subjects often make choices incompatible with pure instrumental motives – e.g., paying for agency even when they know their partner assigned them their preferred choice. We also find female subjects to be quite willing to exert agency even though, based on survey responses, they have little executive agency within their household. We interpret this as suggestive of pent-up demand for agency. Indeed, data from a field experiment shows female demand for agency to fall as a result of an empowerment intervention.

Exploring the issue of vulnerable employment in Pakistan: A case of female contributing family workers

Zubaria Andlib and Aliya Khan (Quaid-i-Azam University)

Discussant: Kate Vyborny (Duke University)

The share of workers in vulnerable employment is directly linked to the share of people living in poverty. In order to explore the factors that are associated with vulnerable employment, the present study discusses the case of high share of female contributing family workers in total employment of women in Pakistan. The study used the household level data from Labor Force Survey 2014-15 and applied binary probit model for the empirical estimation. According to the empirical analysis most of the young girls of age 10 – 14 years are engaged as unpaid or contributing family workers. It is also observed that as compared to never married women, ever married women are more likely to be engaged as contributing family workers. Large household size is also positively associated with women to be engaged as contributing family workers whereas migration is negatively associated with the probability of women to work as contributing family workers. The study also found the evidence of disguise unemployment for all those women who are working as contributing family workers. In order to steer the female contributing family workers away from vulnerable employment towards decent wage employment the study provides useful insights for policy makers to improve the quality of employment for women in Pakistan by investing in different skill development programs for female contributing family workers.

Day 2: Thursday, 5 September 2019

Session 5: Political Economy, Governance and Institutional Capacity

Measuring and limiting corruption in the Pakistani bureaucracy: Evidence from list and endorsement experiments with high ranked bureaucrats

Shaheen Naseer and **Waqar Wadhwa** (Lahore School of Economics)

Discussant: Verena Wiedemann (University of Oxford)

Despite the introduction of several anti-corruption interventions in recent years, corruption remains ubiquitous in developing countries. The likelihood of successful anti-corruption reform would involve answers to two basic questions. The first and, may be the most basic question is: how prevalent is corruption? The second question is: what are the effective approaches that can be brought to limit corruption in public offices? This paper attempts to shed new light on these two questions by using unique survey experiments with high ranked Pakistani bureaucrats. We use sensitive survey techniques, which take into account the *social desirability bias* associated with corruption. More precisely, we use two list experiments to estimate the rate of overall corruption and misuse of public funds in the Pakistani bureaucracy, and we use these list experiments and an endorsement experiment to test the effectiveness of four anticorruption policy interventions—wage incentives, community monitoring, auditing, and social sanctions. Our results show that at least 69% of bureaucrats are engaged in corruption, and 63% in the misuse of public funds. We found that social sanctions, wage incentives and community monitoring could reduce corruption. Furthermore, both wage incentives and community monitoring would be less effective for higher grade officials.

Who is paying the price? The response of consumer prices to political disruptions in Ethiopia and Pakistan

Verena Wiedemann (University of Oxford)

Discussant: Maryiam Haroon (Lahore School of Economics)

During times of political disruptions market participants typically face substantial uncertainties about the feasibility of future economic transactions and potential limitations to their freedom of movement. Related precautionary measures aimed at mitigating such uncertainty can be costly. This paper studies the impact of political violence and protest-induced supply chain disruptions on consumer prices in Ethiopia and Pakistan. I combine i) retail prices from 119 Ethiopian and 40 Pakistani market towns, ii) geolocations of the origin and transport routes of 56 consumer products with information on potential disruptions to the supply chain in form of protests and political violence. Preliminary findings from Pakistan suggest either very limited cost associated with a temporary increase in fragility or firms choosing to almost fully internalize any cost associated with observed events.

Promotion incentives for improved service delivery

Naureen Karachiwalla, Katrina Kosec, **Saher Asad** (Lahore University of Management Sciences), Masooma Habib, Clare Leaver and Attique Rehman

Discussant: Muhammad Meki (University of Oxford)

Low quality public service delivery is almost ubiquitous in rural, low-income economies. The extremely low learning levels in many countries are a direct result of this poor service delivery; for example, educators are often absent or not on task. On paper, most educators are held accountable through promotions. Many countries have performance evaluation systems that are supposed to inform promotions, and promotions are the main mechanism by which salaries are determined, and promotions are supposed to incentivize high effort. In practice, most of these processes fail to incentivize high effort and produce effective service delivery because they do not measure relevant metrics, and promotions are not based on these metrics but rather on seniority and connections. We reform two civil service promotion metrics and systems for educators in Pakistan and randomly allocate schools to identify the causal impacts of these new metrics and systems. For teachers, we create a Performance Evaluation Report (PER) that measures teacher and student attendance, teacher pedagogy, and student learning. For school principals, we create a School Inspection Report (SIR) that measures principal attendance, teacher attendance, student attendance, and teacher pedagogy. Teachers and principals compete with other teachers or principals in their school district for promotions based on the scores of three random visits. The PERs and SIRs are conducted by personnel from the District Education Office on tablets, capturing photographic and video graphic evidence of how scores on each component are generated. We find that both treatments have null effects on attendance and test scores. However, we find that inspectors are deviating from the given protocol, and this behaviour is captured on videos. Inspectors deviated from protocol on the pedagogy component in 25% of schools and on the oral test component in 43% of schools. We show evidence regarding the correlates of these behaviours.

Session 6: *Firms and Entrepreneurship I*

Learning management through matching

Girum Abebe (Policy Studies Institute), Marcel Fafchamps (Stanford University), Michael Koelle (University of Oxford) and **Simon Quinn** (University of Oxford)

Discussant: Azam Chaudhry (Lahore School of Economics)

What is the effect of exposing motivated youth to firm management in practice? To answer this question, we place young professionals for one month in established firms to shadow middle managers. Using random assignment into program participation, we find positive average effects on wage employment, but no average effect on the likelihood of self-employment. Within the treatment group, we match individuals and firms in batches using a deferred-acceptance algorithm. We show how this allows us to identify heterogeneous treatment effects by firm and intern. We find striking heterogeneity in self-employment effects, but almost no heterogeneity in wage employment. Estimates of marginal treatment effects (MTE) are then used to simulate counterfactual mechanism design. We find that some assignment mechanisms substantially outperform random matching in generating employment and income effects. These results demonstrate the importance of treatment heterogeneity for the design of field experiments and the role of matching algorithms in intervention design.

Microequity for microenterprises: Evidence from artefactual field experiment and survey

Muhammad Meki (University of Oxford)

Discussant: Waqar Wadho (Lahore School of Economics)

Access to finance is often listed as one of the most important constraints on the expansion of small firms in low-income countries. However, several recent studies have revealed limited impacts of conventional microcredit on microenterprise performance and household outcomes. In this paper I use artefactual field experiments in Pakistan and Kenya to explore one mechanism by which fixed-repayment debt contracts may lead to sub-optimal business investment. I investigate the potential for 'microequity contracts', which involve performance-contingent repayments, to stimulate more profitable investment choices by micro entrepreneurs. The sample consists of microenterprise owners who are part of two larger field experiments that provide them with equity-based asset financing. Results reveal that microequity contracts were successful in stimulating more profitable investments, and that the effects of and take-up of such contracts was particularly strong for the most risk- and loss-averse individuals. In the final part of the paper, I present qualitative insights into the challenges of actually implementing microequity contracts outside of a lab setting. Using a field survey and interviews with microfinance field officers and managers, I discuss the practical implementation challenges due to costly state verification, adverse selection into profit-sharing contracts and moral hazard caused by inappropriately-tailored sharing ratios.

Session 7: *Firms and Entrepreneurship II*

The comparative advantage of firms

Johannes Boehm (Sciences Po and CEP/LSE), Swati Dhingra (Centre for Economic Performance, LSE, and CEPR) and **John Morrow** (Kings College London)

Discussant: Theresa Chaudhry (Lahore School of Economics)

Multiproduct firms dominate production, and their product turnover contributes substantially to aggregate growth. Theories propose that multiproduct firms grow by diversifying into products which need the same know-how or capabilities, but are less clear on what these capabilities are. Input-output tables show firms co-produce in industries that share intermediate inputs, suggesting input capabilities drive multiproduct production patterns. We provide evidence for this in Indian manufacturing: the similarity of a firm's input mix to an industry's input mix predicts entry into that industry. We identify the direction of causality from the removal of size-based entry barriers in input markets which made firms more likely to enter industries that were similar in input use to their initial input mix. We rationalize this finding with a model of industry choice and economies of scope to estimate the importance of input capabilities in determining comparative advantage. Complementarities driven by input capabilities make a firm on average 5% (and up to 15%) more likely to produce in an industry. Entry barriers in input markets constrained the comparative advantage of firms and were equivalent to a 10.5 percentage point tariff on inputs.

Management in Pakistan: Performance and conflict

Ali Choudhary (State Bank of Pakistan), Renata Lemos (World Bank) and John Van Reenen (Massachusetts Institute of Technology)

Discussant: Shaheen Nasir (Lahore School of Economics)

Working with the Pakistan Bureau of Statistics we collect data on management practices in Pakistan covering 2015 and 2010 in about 4,500 manufacturing firms. We find very large variations within and between the provinces in our survey. Average management scores are well behind those of the global frontier (such as in the US) although there has been some improvement over the last decade. Higher management scores are associated with superior firm performance as measured by productivity, profitability and jobs growth. Firms which have more skilled employees, who are larger, older and/or more export oriented have more structured management practices. We find that areas (tehsils) in Pakistan that had the largest increases in terrorist activity over the 2005-2015 period also had the biggest deterioration in management practices. This suggests another (hitherto unexplored) channel through which conflict depresses economic performance.

What drives entrepreneurship in major cities of Pakistan?

Naveed Iftikhar (Public Policy Advisor)

Discussant: Sadia Hussain (Lahore School of Economics)

This paper attempts to answer to the question: What drives the creation and expansion of business firms in cities? Pakistan is currently one the world's most rapidly urbanizing countries with an annual urbanization rate of 3%. The study explores the determination of firm creation through a panel data analysis of ten cities of Pakistan from 2002 to 2014. The study also reports key results of focus group discussion with IT sector entrepreneurs in Lahore and Karachi regarding factors leading to the expansion of small firms. The analysis indicates higher levels of tertiary education, an increase in the share of professional employment in labor force and greater net migration towards cities are all associated with higher rates of firm creation. The growth in the size of a city in terms of population has been found to have a positive effect on entrepreneurship. Entrepreneurs who participated in the focus groups shared key factors that led to survival and growth of their firms. Entrepreneurs also shared that the overall quality of urban policy and a city's ability to attract talent are important considerations for an entrepreneur. In terms of policy implications, the potential of small and young firms including startups must be realized as they contribute to job creation and productivity improvement.

Session 8: *Norms and Behaviour*

Air pollution information in the developing world: Behavioral responses and willingness to pay

Arman Razaee (University of California), Husnain F. Ahmad (The University of the South, TN.), Matthew Gibson (Williams College), **Sanval Nasim** (Lahore University of Management Sciences) and Fatiq Nadeem (Institute of Development and Economic Alternatives)

Discussant: Jacopo Bonan (Politecnico di Milano)

Economic theory predicts that forecasts are an important determinant of welfare. In developing countries, however, agents may have difficulty forming accurate, precise forecasts because of limited information and human capital. This plausibly limits the scope for optimal responses to uncertain future events. We study the effect of two randomized interventions on forecast formation and behavioral responses. The first is the provision of day-ahead air pollution forecasts. The second is training in forecasting techniques aimed at reducing behavioral biases. We estimate impacts on forecast error in air pollution and travel times. Measured responses include willingness to pay for protective face masks and changes in time use. We examine effects on proxies for the variance of utility, which broadly reflects forecasting and responses to uncertainty. Finally we elicit willingness to pay for our forecasts, an important input to cost-benefit analysis of air pollution monitoring.

Countering Misinformation on Social Media Through Educational Interventions - Evidence from Urban Pakistan

Ayesha Ali and Ihsan Ayyub Qazi (Lahore University of Management Sciences)

Discussant: Mahreen Mahmud (University of Oxford)

The increasing availability of low-cost mobile Internet access in developing countries has led to widespread use of social media platforms. Concurrently, we have also observed an increasing trend in the spread of misinformation on such platforms. We carry out a household level survey to capture the trends in social media use among low and middle-income users in Pakistan. Using a list of actual news stories circulated on social media we create a test to measure the extent to which users are likely to believe misinformation. We evaluate the effectiveness of two interventions for countering misinformation in a randomized control setting. Our first intervention educates users about common features of misinformation through a video, while our second intervention in addition to the video provides feedback to users about their past behaviour in engaging with misinformation. We find that showing the video alone has no effect while showing the video and giving personal feedback increases the ability of treated users to identify fake news by 8% relative to the control group.

Notes