Among the most striking trends in the global economy in the last forty years have been the rise in wage inequality in the developed and developing countries and the increasing trade in intermediates between them. Industries in these countries have also increasingly adopted skill-biased technology. In my research, I examine the interaction between trade and technological change and its implications for the labor markets in developed and developing countries.

"Does Offshoring Lift All Boats? The Role of Induced Technology Adoption and Innovation," proposes a novel mechanism by which imports of intermediates from developing countries (offshoring) can induce skill-biased technology adoption and innovation in developed countries. Unskilled intermediates imported from developing countries substitute for domestic unskilled workers employed by firms in advanced countries (direct channel). Simultaneously, firms produce more skilled intermediates leading them to adopt more skill-complementary equipment capital, and also innovate to produce new products in response to profit opportunities (indirect channel). Using a panel of U.S. manufacturing industries for the period 1974-2005, and using fluctuations in exchange rates to identify exogenous variations in intermediate imports, I show that this indirect channel is strongly supported in the data with doubling of imported intermediates increasing technology adoption by 13% and innovation intensity by 40%. Offshoring causes 9% skill-upgrading (non-production relative to production workers) and 10% increase in the skill premium, primarily through the indirect channel. I show that, although offshoring increases the wage gap between skilled and unskilled workers, it increases the wage payments to *both* groups of workers. I develop a two-country trade model to understand these results theoretically. Quantitative results from the model confirm the dominance of the indirect channel. Normative analysis using the model suggests that the gains from offshoring are much larger for both skilled and unskilled workers and inequality between them is lower in the presence of the indirect channel.

How does trade with advanced countries affect technological change and skill premia in developing countries? "Skills, Transaction Costs, and Offshored Tasks - Implications for Wage Inequality in Developing Countries" answers this questions, using wage and employment trends in India. As the second most populous country and one that has grown at over 8% per year after greatly liberalizing trade in the early 1990s, India provides an ideal laboratory to study the impact of trade on technology adoption and the skill premium in a developing country. Using data from a national household level survey, I find that between 1983 and 2005, wage gaps rose between narrowly defined skill groups, and that industries upgraded their skill-mix. However, inequality within these demographic groups remained constant, or even declined slightly. This is in sharp contrast to the trend in advanced countries where within-group inequality has been

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rising over the past five decades. These patterns are suggestive of more nuanced underlying factors than trade-induced skill-biased technological change. I suggest that workers in Indian industries perform tasks that require only general skills, so that while the demand for more educated workers with basic skills increases (increasing between-group inequality), the demand for finer skills within these groups remains unchanged (keeping the within-group inequality nearly constant).

In ongoing work with Anusha Chari, I look at another aspect of the Indian economy. The Indian growth experience has been unique in that it is services driven with little contribution from a largely stagnant manufacturing sector. The growing share of services in the countrys GDP, however, has not been accompanied by a similar growth in its employment share. We attribute this puzzling phenomenon to sectoral misallocation of resources resulting from industrial and labor market regulations.

During the recent election campaigns, politicians claimed that the reason for the sluggish job growth is that U.S. firms offshore their production activities. "Is Offshoring to Blame for Jobless Recoveries?" (joint work with Saif Mehkari) sheds light on this issue. We show that whereas a standard business cycle model based on the Heckscher-Ohlin framework would support the hypothesis, a more generalized framework may not. In particular, allowing for offshoring-induced technology adoption and innovation we show that if any jobless recovery does occur, it is short lived. Firms in our framework efficiently restructure the use of labor as the economy recovers resulting in both a faster short run recovery and higher long run growth. In the model, a policy that encourages vocational training of labor following a recession leads to higher welfare, than one which discourages offshoring in recession hit industries.

My other work in progress extends this body of research. "Income, Demand for Variety, and Innovation" (with Paulina Restrepo-Echavarria and Saif Mehkari) examines the innovation response of Southern firms to the growing trade and its implications for the skill premium. "Sectoral Resource Misallocation, Capital-Skill Complementarity and Growth" (with Nan Li and Paulina Restrepo-Echavarria) explores the role played by sectoral allocation of skilled and unskilled labor, and skill-complementary capital in explaining the different growth experiences of developed and developing countries.

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