Vietnam and the Consequences of Technological Innovation for Developing Countries

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Much of the public debate around the impact of automation on workers has been concentrated on advanced economies; less well understood or discussed are the consequences of automation for developing countries. This is particularly true for countries like Vietnam that have staked their future economic growth on sectors vulnerable to technological substitution in the coming years. Adidas’s construction of a fully automated “Speedfactory” in Germany—to be completed later this year, as part of a larger project to “re-shore” manufacturing and cluster production, distribution, and consumer bases—is emblematic of a trend with worrying implications for countries like Vietnam. Without the global need for cheap labor, Vietnam and similar developing countries may struggle to attract international business and foreign direct investment (FDI), and hence follow the traditional path of industrialization and integration into global supply chains, with implications for regional political stability.

Vietnam began its current period of growth and industrialization in 1986, when Hanoi began a series of economic reforms known as “Doi Moi.” Between 2000 and 2010 Vietnam more than tripled its per capita GDP. Mirroring the traditional model of industrialization, workers have moved from agriculture to industry and services. In 2005, agriculture, industry, and services, respectively employed 57.9 percent, 17.4 percent, and 24.8 percent of Vietnam’s workforce. By 2014, these numbers have changed to 46.8 percent, 21.2 percent, and 32.0 percent, with industry and services contributing most to Vietnam’s GDP in that year and those following. By 2016, Vietnam had an overall GDP growth of 6.2 percent and is projected to continue at similar rates over the next several years. Rising wages in China, coupled with greater demands by Chinese workers for better working conditions, have helped Vietnam become a more competitive off-shore manufacturing hub. Recent data bear this out: 2016 saw FDI inflows to Vietnam hit a record high. Like previous “Asian Tiger” economies, Vietnam is expected to absorb lower-skilled manufacturing jobs as China moves up the value chain, continuing its development and high rates of economic growth. Yet this expectation follows a growth model that may soon be outdated with the rise of automation. Of the Association of Southeast Asian Nations (ASEAN-5), which includes Cambodia,
Indonesia, the Philippines, Thailand, and Vietnam, Vietnam is expected to be hit hardest by technological substitution, with 70 percent of its current overall workforce at high risk of being displaced in the near future. This suggests that if Vietnam continues to follow its current growth model and prioritizes absorbing low-skill, low-wage manufacturing, then it may endanger its long-term development for short-term gain.

One of the areas where Vietnam currently lacks the ability to address increasingly automated production processes is in workers’ skill levels. Hanoi faces a significant skills shortage in the face of these changes. Around 75 percent of Vietnam’s workforce currently do not have a secondary degree, leaving three-fourths of the current workforce without the necessary skills to either find immediate, viable employment when they are displaced or take up the high-skilled jobs demanded by the new sophisticated production processes. With so much of the workforce unskilled, immediate investment in education and retraining—a common proposal in the developed world—is a must. Yet this may be an incomplete solution, given that current technological innovation is creating far fewer jobs in low-skill, low-income sectors than it displaces, leaving large portions of the population unemployed, regardless of retraining. Looking to and investing in alternative industries less susceptible to automation due to their inherent complexity or interpersonal human nature—such as human health and social work—are possible but still relatively untried solutions. Regardless of the specific path chosen, Vietnam must begin to think of solutions lest they risk the possibility of mass unemployment.

While automation’s threat to Vietnam is principally economic, significant attendant spillovers exist for both Vietnam and the greater East Asian region. As with Adidas’s Speedfactories, when international corporations cluster manufacturing, distribution, and consumer bases together, the scope and significance of global and regional value chains linking developing and developed countries shrinks. In their wake rise supply chains located in already developed regions, both limiting the ability of developing countries to integrate into global markets and breaking key economic linkages at the global and regional level. While such a breakdown does not directly cause conflict, political
science research has shown that a lack of economic linkages between countries increases its likelihood. In a region like East Asia, host to both conflicting territorial claims and extensive regional value chains, that also often feed into larger global value chains, the possible breakdown of economic linkages is especially dangerous. Despite China’s relationship with Vietnam as one of its biggest trade partners, territorial disputes in the South China Sea consistently threaten peaceful relations and regional stability. As of 2014, the year in which a contentious riot broke out across Vietnam against Chinese factories and Chinese-owned business, a poll found that 74 percent of survey respondents in Vietnam believed China was a threat, with 84 percent of those polled concerned about China’s territorial ambitions. Even if Hanoi is able to continue its current trade relationship with China and position itself to absorb the jobs from China, significant domestic turmoil could arise as Vietnamese workers are progressively replaced by technology and left unemployed, which could potentially spill over into conflict.

Though Vietnam is a specific case, its situation is not unique. Globally, developing countries face a similar crisis, with 87 percent of jobs in the developing world threatened by automation in the next two decades, nearly double the number of jobs threatened in the United States. Solutions proposed by and in the developed world—such as universal wage or population-wide retraining—are unrealistic for developing countries whose budgets could not fund universal wages or whose educational institutions are either too few, ill-equipped, or nonexistent to retrain displaced workers. While advanced economies must address the problems caused by technology domestically, they should not ignore the wider problems for developing countries abroad, and their potentially dangerous, noneconomic spillovers.

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Ibid.

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