

Mini Symposium: Selected Papers from AEDC 2022

The past 3 years have seen world economic growth rates plunge due to the pandemic, and Asia is no exception. According to the Organisation for Economic Co-operation and Development (OECD), most Asian countries had negative economic growth rates during the onset of the coronavirus disease (COVID-19) pandemic in 2020 (OECD 2022). Although growth rates have since recovered, many Asian countries are facing new challenges associated with pandemic-related issues such as increased government debt, geopolitical decoupling, and reduced trade flows.

This mini symposium gathers four papers from the *Asian Development Review* seminar conducted during the Asian Economic Development Conference 2022. Each paper addresses a unique aspect of COVID-19 and the post-COVID-19 challenges faced by Asian countries.

Halim, Hambali, and Purnamasari investigate the impact of COVID-19 on Indonesia's labor market. They exploit the exogenous timing of the pandemic spread across different regions of Indonesia to identify the pandemic's impact. Utilizing multiple rounds of Indonesia's National Labor Force Survey from 2016 to 2020 and adopting the difference-in-differences methodology, they find that the pandemic had mixed effects on different sectors of the Indonesian labor market. While COVID-19 narrowed gender gaps in employment participation through the "added worker effect" among women, it also lowered overall employment among both gender groups. This paper finds that the added worker effect is primarily driven by women in rural areas without a high school education who have entered the informal sector or taken up agricultural employment or unpaid family work. For men, the pandemic adversely impacted employment across the board in all sub-populations. In urban areas, there was a sharp decline in employment for all workers, especially among males. Among those employed, both women and men are working fewer hours and earning lower wages than they did before the pandemic. There are also worrying signs that many high school youth (aged 15–18 years) have been induced away from school enrolment to take up jobs or have decided to eschew both education and employment,

threatening Indonesia's progress in transitioning toward an economy that provides more middle-class jobs.

The COVID-19 pandemic also highlighted another important issue for developing countries: how to measure economic activities with limited resources, especially during periods of chaos such as a pandemic. Puttanapong, Prasertsoong, and Peechapat introduce a new approach for monitoring regional development by applying satellite data with machine learning algorithms. Satellite data that represent physical features and environmental factors were obtained and arranged into provincial indicators by developing a web-based application on the Google Earth Engine platform. Using four machine learning methods, they investigate the factors that influence predictions of provincial gross domestic product measures. They show that integrating open satellite data and machine learning methods can provide an alternative framework for facilitating a timely and costless monitoring system of regional economic development. These innovations will be even more beneficial during the post-COVID-19 recovery period for developing countries.

The remaining two papers investigate the long-term challenges in the post-COVID-19 era. One paper relates to climate change and the other to the potential impact of declining fertility and aging.

Estrada et al. investigate the differential impact of the Paris Agreement on companies and industries that have different carbon emission levels. They look at the impact of Paris Agreement ratification (PAR) on the debt financing decisions of publicly listed companies in member countries of the Association of Southeast Asian Nations. They show that, during the first year after the announcement of PAR, firms in high-emitting sectors have debt-to-asset ratios (leverage) and debt-to-equity ratios (financial leverage) that are, on average, 1.8% and 4.2% lower than firms in low-emitting sectors, respectively. This impact becomes more pronounced in later years. For example, by the fifth year after PAR, the high-emitting sectors' leverage is an average of 3.6% lower and their financial leverage is 1.1% lower than the low-emitting sectors. Meanwhile, there is evidence that firms in high-emitting sectors borrow significantly less than firms in low-emitting sectors after the PAR announcement. These impacts reflect changes by financiers and investors under heightened transition risks. This paper calls upon policy makers to employ instruments to support a smooth transition toward a low-carbon growth path.

Meng examines the demographic challenge facing the People's Republic of China (PRC) and many Asian countries concerning rapid fertility decline and an increase in the relative share of the elderly population. She asks if the reduction of the working-age share of the population impacts the labor supply in the PRC and, in turn, its economic growth. She takes a historical perspective to examine whether, in the PRC's

4-decade period of rapid economic growth, the significant increase in the share of the working-age population contributed to an increase in the labor supply and domestic economic growth. By examining population censuses and survey data from 1982 to 2015, this paper documents that, although the PRC's working-age population's share in the total population (WAPS) increased significantly during this period, the working-age population's share in the labor force remained constant due to the sharp decline in the labor force participation rate among the young and women. In addition, the data show that the decline in youth labor force participation was largely related in the increase in their education. This historical analysis indicates that (i) changes in the labor force participation rate can largely offset changes in the age composition of the workforce, (ii) the quantity–quality tradeoff which occurred during this period may be the key to the PRC's fast economic development. This paper then estimates the association between regional variations in economic growth and changes in factors such as population size, WAPS, migration, and education. The results confirm that it was the substantial increase in the education level of the workforce and the reallocation of the workforce from a low-productivity sector (agriculture) to higher-productivity sectors that drove the PRC's growth momentum. The results lend little support to the view that an increasing WAPS played a major role in the PRC's economic growth over this period and, hence, suggests that in the future changes in the labor force participation rate, the workforce's reallocation from low-productivity to high-productivity sectors, and an increase in the average education of the workforce may well offset aging effects. Therefore, aging may not present such a serious challenge to growth as is often suggested.

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Reference

Organisation for Economic Co-operation and Development (OECD). 2022. "Society at a Glance: Asia/Pacific 2022." <https://www.oecd-ilibrary.org/sites/384c9ab9-en/index.html?itemId=/content/component/384c9ab9-en> (accessed 28 June 2023).