



### BACKGROUND NOTE

## What jobs in a “smart” and sustainable economy?

**T**echnology advances and major changes in the global economy could make it difficult to reach the ambitious objectives of reducing inequality and achieving full employment, both of which are high on the development agenda. In both developed and developing countries, large swathes of the economy are now exposed to major upheavals: “smart” agriculture, the digital revolution and the automation of work are all transformations likely to bring a radical change to the structure of employment—an issue that is all the more pressing in light of the population growth experienced by some countries. Moreover, these transformations tend to call into question the place of salaried employment, which has enabled the developed countries to build their social protection systems, and to polarise earned income. A hefty challenge thus lies ahead for the coming decades: how can the promises of economic efficiency offered by technology innovation be coupled with full employment and the reduction of inequality worldwide?

### 1. CONTEXT

The question of employment and inequality is core to the economic and social challenge for the upcoming decades. What is at stake is both the quantity and quality of jobs, in both developed and developing countries. How can we ensure decent jobs for people in societies of the future, in a context where rural outmigration is not easily absorbed by the secondary and tertiary sectors and where technology innovation heightens the risk that the need for labour will decline in some sectors?

In developing countries, the hypothesis of economic development based on the “classical” Lewis Path no longer holds: this posits that surplus labour created by agricultural modernisation helps to feed industrialisation, which in turn provides the inputs needed to improve farm productivity, which ultimately narrows the rural and urban income gap. However, only a small number of industrialised countries and those in transition have actually followed this economic growth pathway, which gives rise to a low share of farm labour in the active population. In the rest of the world, the agricultural population is on the contrary increasing.

In many of these countries, the amount of land per agricultural worker is not sufficient for rural and urban incomes to converge, and employment opportunities in the secondary and tertiary sectors remain limited. Labour productivity in these sectors is in fact already very high, unlike what happened when the rural exodus occurred in Western countries. Moreover, industry is suffering from weak global demand and now struggling to absorb surplus agricultural labour. Growth in industrial production is likely to slow down in the future, constrained by overcapacities that are out of step with saturated markets in industrialised countries and decelerating growth in some developing countries. Moreover, even assuming that the surplus agricultural labour can be absorbed by the other economic sectors, some studies show that these could only pay low wages to this mass of workers—which would transfer the economic and social inequalities of the countryside to the cities (Dorin *et al.*, 2013). In urban areas experiencing an influx of low-skilled labour, how can these workers be guaranteed a job and how can it be ensured that the informal economy does not adversely affect their chances of benefiting from additional guarantees over and above the wages they are paid?

The employment challenge is by no means absent in developed economies. As these countries struggle to reduce their unemployment rate or as they engage in increasingly fragmented forms of employment that are polarising salaried workers and those in precarious jobs, the digital revolution and automation are shrinking the need for labour in some of the sectors that employ low-skilled workers. This issue could become even more pressing over the coming decades given that advances in new technologies now mean that machines can accomplish “non-routine cognitive tasks” previously performed by skilled workers. For instance, the availability of information, notably in the form of “big data”, enables artificial intelligence systems to recognise objects, analyse situations and make decisions accordingly. Although these advances bring huge productivity gains, some extreme scenarios estimate that nearly 47% of jobs in the United States will be under threat from automation (Frey and Osborne, 2013). What’s more, the increasing growth of micro-entrepreneurship now possible thanks to digital platforms—Uber being the most widely publicised example in recent years—calls into question the principles underpinning salaried

employment and social protection, which is already under pressure in post-growth economies (Chancel & Demailly, 2013).

## 2. ISSUES/SOLUTIONS

In both developing and developed countries, technological progress is raising concerns about the disappearance of the need for labour in some sectors, and about mounting job insecurity. New technologies do however help to generate productivity gains, drive discussion about the work-life balance and create new jobs. How can these evolutions be supported to make sure that they further the achievement of the sustainable development goals of reducing inequality and ensuring full employment?

Today, a great many initiatives are seeking to find possible answers to this question. Within the agricultural sector, actors are trying to develop models that offer productive and gainful employment, are labour-intensive, limit land consumption and are well-adapted to economies based on exploiting limited natural resources. This implies in particular more effectively integrating the different agriculture-related value chains (Lanckriet & Ruet, 2015), rethinking the agri-food chains so that value-added is more equitably shared with the more labour-intensive segments of the chain (e.g. by developing short circuits) or remunerating social amenities. When the transition to less labour-intensive models seems inevitable, it then becomes necessary to try to open up new opportunities for workers (mainly low-skilled workers) and here the fundamental issue is that of training.

As for the changes in work brought about by the digital revolution, many countries have launched processes for reflection on how to adapt the regulatory and fiscal frameworks to these new forms of work, which are not constrained by the status of employed worker and sometimes combine several types of activity. See for example, France's Terrasse report on the collaborative economy (Terrasse, 2016), and the nascent reflection of some companies on their employees' status and the setting-up of adapted social protection systems.

## 3. OBJECTIVES OF THE SESSION/QUESTIONS

- How can the sources of employment and movements of human capital be reconsidered in light of the loss/creation of jobs in different sectors?
- How can the gains generated by new technology advances be shared with employees without creating market distortions?
- How can education and training systems be effectively adapted?
- How can the status of employees and their salary levels be safeguarded? How can we avoid polarising employment, with privileged employees on the one hand and workers with insecure jobs on the other?
- How can we reconfigure the way in which work is integrated into the economy and social systems?

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