The Sixth IMF Statistical Forum

SESSION VII: IS ALL FOR THE GOOD IN THE DIGITAL AGE?

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SESSION TOPIC

Although digitalization has improved life in many ways, the digital age is also a time of growing polarization of income and wealth distributions, and of high levels of market monopolization in industries with strong network and scale effects. Technologies such as artificial intelligence could potentially have effects that exacerbate inequality and monopolization. Welfare can be negatively affected. What are the measurement implications, and what data are needed to support policy responses?

SUMMARY OF PRESENTATIONS

1. Income and Development in a Digital Age (*Ian Goldin*)

The presenter addresses the implications of technological disruption on income and wealth by focusing on the future of work, productivity and public policies. Technological developments including robotics and artificial intelligence have the potential to change the nature of work as repetitive and rule-based tasks are increasingly automated. While new jobs will arise, the geographical location of these and the quality and quantity of the disruption in labor markets pose significant transitional and job matching challenges.

There are several factors which will determine which countries will be able to ride the wave of technological developments: (i) the price of capital; (ii) the availability of skilled workers; (iii) the proximity to markets to allow increased customization and quicker delivery; and (iv) the politics of protectionism to disrupt the existing global supply chains. The advanced economies and some emerging and developing countries are, therefore, at clear advantage.

In the longer term, however, the knowledge gap may become less important as technology advances allowing for the income dispersion associated with skills to narrow. The wide disparities between countries may also narrow. But this is unlikely to change the dynamics of the coming decade, where greater inequality within and between countries may be expected.
The bigger question related to income and development in the digital age is the impact of technology on productivity growth. The slowdown in productivity cannot be simply attributed to one reason. Rather, it is the combination of several factors including measurement issues,

inflexible labor market, demography, firm structures and technology. More importantly, it is the need to invest in the renewal of economies to address the disruptions associated with digital and other technological change.

2. *From the Amazon (jungle) to Amazon (warehouses): How Anthropology Can Help Us to Rethink the Digital Economy* (*Gillian Tett*)

The speaker focusses on a seemingly "ancient" practice of barter to explain the fundamentals of the digital economy and how it impacts consumers and current policies. Barter is at the heart of the digital economy—users are bartering huge amounts of data with tech companies for better and customized services. The author draws in from works of anthropologists like David Graeber and Karl Polanyi who argue that economies are based on "exchanges" and money is just one form of it.

Barter, which is the bedrock of the digital economy, has led to a technological revolution which has introduced unimaginable levels of efficiency and convenience. Yet, in the statistical indicator of development and progress, these non-monetary transactions are excluded. When valuing tech companies, there are no established methods to account for non-monetary exchanges. Further, anti-trust laws, are centered around a key-idea—harm to consumers which is typically analyzed in terms of 'prices'. But, this principle cannot be applied to the non-monetary exchanges of the digital economy.

In the future, there is a possibility that digital property rights will be established which allow users to own and sell their data, doing away with the barter system. However, it is unlikely to happen soon. Apart from technological complexity, there is no pressing demand from users. This is because users simply want to reset the terms of trade, and not abolish this rather efficient barter. So, going forward, policy makers may need to adopt a wider anthropological view of economy based on "exchanges" and put in place systems to facilitate this barter and reap the gains of it, while protecting consumer interest and accounting for it in modern statistics.

QUESTIONS AND ANSWERS

Questions and comments focus on: (i) slowdown in productivity due to the shifting focus of firms from core activities to compliance/social media marketing; (ii) the impact of digitization on social capital; and (iii) whether the risks of the digital economy outweigh the benefits. The speakers agree that while there is no evidence indicating social media engagements and compliance activities act as cost-centers for firms, the topic merits more study. As for social media, despite certain negative effects like distraction, there are positive externalities too including the proliferation of online communities which help build social capital especially for migrants and refugees. The speakers concur that there is no clear answer on whether the challenges of digital transformation offset the gains. Nevertheless, there is a need to understand these complex issues using statistics and apply sound judgement to revamp laws and policies in order to address the changing conditions like the EU has with the General Data Protection Regulation, a regulation on data-protection and privacy.