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The topics addressed in this issue of Economic Research are the following: (i) *Survey of Health, Ageing and Retirement in Europe*; (ii) *Edging towards a national minimum wage? Initial context, recent developments and the road ahead*. (iii) *Output growth decomposition in Cyprus*

"Survey of Health, Ageing and Retirement in Europe"

Nikos Theodoropoulos and Georgios Voucharas

The Survey of Health, Ageing and Retirement in Europe (SHARE) is the largest pan-European longitudinal data collection study that collects information on the population aged 50 and over. It provides data on health status, socio-economic status, family, and social networks. The survey is repeated every two years in the same individuals and households. This makes it very important for studying the behaviour of individuals as well as for policymaking. The SHARE survey was launched in 2004 with the participation of 11 European countries, and to date 530,000 interviews have been conducted with 140,000 people from 28 European countries and Israel: In 2020, data collection on COVID-19 was launched to study the social, economic and health consequences and effects of the pandemic, which consists of two data collection waves.

The *SHARE Bulletin* (November, 2021), available online at https://www.ucy.ac.cy/erc/en/publications/share-bulletin, provides information on the impact of the COVID-19 pandemic on Cyprus in the fields of health, labor market and economy, using data from the first and second research "SHARE Corona Survey". As the COVID-19 pandemic continues to evolve all over the world, vigilance on epidemiological control measures is considered vital. Given the severity of the situation, governments and policy makers need to puzzle out the impact of the pandemic toward a more effective decision-making.

"Edging towards a national minimum wage? Initial context, recent developments and the road ahead"

Louis N. Christofides

In Cyprus, a *national* minimum wage (MW) does not currently exist. Legally binding wage minima exist in the *non-union sector* and collectively bargained 'indicative' starting salaries provide (non-binding) benchmarks for the occupations of the *union sector*. However, a political momentum has developed towards the adoption of a national MW. A recent and unusual (trilateral) agreement for the *unionised* Hotel sector specifies binding MWs for 19 low-income occupations. The legal mechanism enforcing these minima is the one currently used in the *non-union sector* (a Ministerial Order). The Hotel agreement involves the government in micromanaging the occupational wage structure in the Hotel sector. But it also smooths the

way towards the adoption of a national MW: it raises the lowest monthly salary in Hotels to the prevailing MW level in the non-union sector (EUR 870 pm) and shifts a large mass of Hotel employees from the left tail of the wage distribution to their new (January 2020) minima. This development leaves employees in restaurants, a large group with special needs, to be brought under the umbrella of a possible national MW. The Hotel agreement may ease-in a future national MW, but its philosophy may prove hard to retract. One large union wants this mechanism applied to the multitude of 'indicative' wage minima in the union sector, in effect giving some aspects of all CB agreements legal force. This paper considers possible architectures and levels for a possible national MW. It also discusses the labour market implications of and likely reactions to the Hotel agreement and to a possible national MW.

"Output growth decomposition in Cyprus"

Neophyta Empora and Theofanis Mamuneas

This bulletin examines the multifactor productivity growth (TFP growth) of Cyprus and assesses the evolution of the production inputs, as well as their growth enhancing performance for the period between 1996 and 2020. Unlike earlier releases of this commentary, the analysis here is not limited to the traditional inputs, (Labor and aggregate capital), but also accounts for human capital and further disaggregates the capital input into its major investment categories: Information and Communication Technology (ICT), Research & Development (R&D), Infrastructure and Other physical capital. This allows estimating each capital's contribution to output growth.

Examining the evolution of the capital inputs in time shows all capital inputs have been increasing until around the year 2010. After 2010, Infrastructure, Other physical capital and Human capital decreased slightly, only to start picking up again in 2016 and eventually reach or even overcome (in the case of Human capital) their pre-crisis levels by the end of 2020. ICT and R&D capital stocks show a different pattern. ICT capital increases up to 2010 and then experiences a fall that is persistent until 2020. It seems that the investment that took place after 2010 was simply not enough to replace the part that had been depreciated. On the other hand, R&D capital kept growing exponentially throughout the sample years.

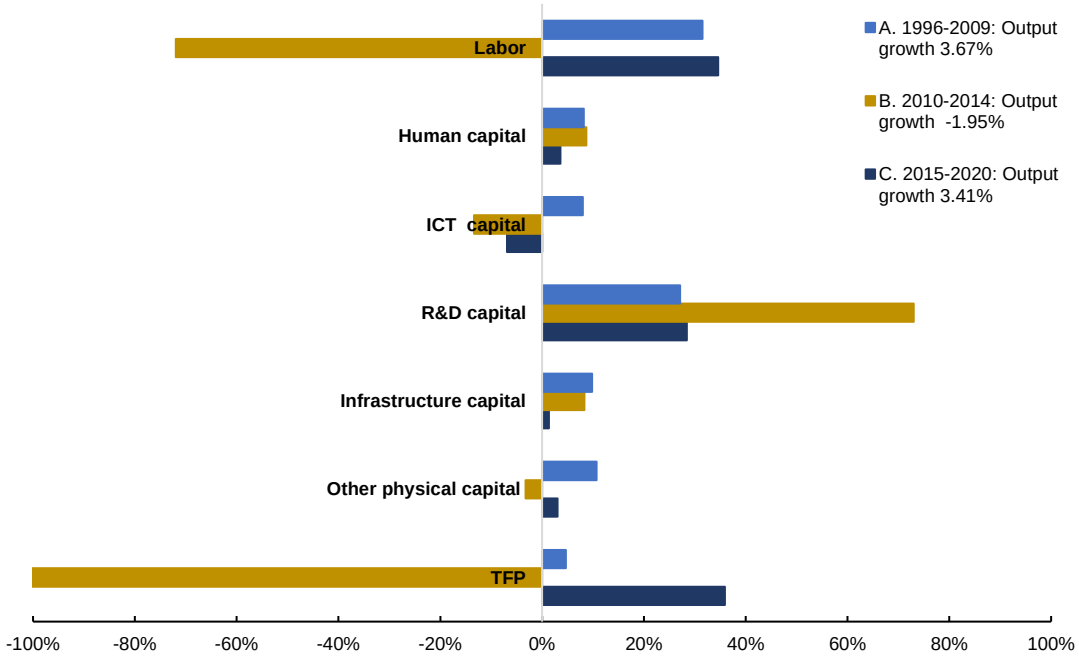
Productivity growth is estimated using two measures of the capital input: the aggregate capital stock (to assess the updated estimates of productivity growth in Cyprus) and the individual capital stocks. The disaggregation of the capital input diminishes "measurement errors" and results in lower estimates of TFP growth. The estimates show that while the two TFPs move together throughout the sample years, the TFP growth rate that accounts for the aggregate capital stock is higher than its individual capital stocks counterpart.

The analysis shows that the Cyprus economy slowed down by 5.6 percentage points, between the pre-2010 and 2010-2014 periods: average growth fell from 3.67% to -1.95% (Figure 1). This was mostly due to reductions in

the Labor, TFP and ICT capital contributions. In fact, during the period of the economic crisis in Cyprus (2010 – 2014), R&D capital, Human capital and Infrastructure capital were the only positive contributing factors of output growth. After 2015 the economy displayed a remarkable improvement: it accelerated by 5.4 percentage points relatively to the 2010-2014 period (almost reaching the pre-2010 growth levels, averaging to a 3.41% growth rate). During these last 5 years, all factors, except ICT capital, positively contributed to growth, with TFP, Labor and R&D capital being the major contributors - contributing around 36%, 35% and 29% to output growth, respectively. For all periods, except the pre-2010 period, the ICT disinvestment had a negative contribution to output growth.

The international literature indicates that R&D and ICT investments are crucial drivers of economic growth. Although in Cyprus R&D investment is constantly rising during the last decade, the R&D expenditure as a percentage of GDP is the lowest among the member states of the European Union. Moreover, the disinvestment in ICT is hampering economic growth. The need for investment in digitalization remained unaddressed for a long time and this could impede Cyprus' growth prospective. Under the Recovery and Resilience Plan (RRP), Cyprus currently addresses these issues by employing measures that will increase investments in ICT as well as in the rest of the capital stocks. Together with the necessary reforms of the public and local administration, the judicial, and the labour market, the RRP will facilitate the path towards improved productivity and significantly affect GDP growth.

Figure 1: Output growth decomposition, % Contribution*
(average annual percent changes)



Source: Statistical Service of Cyprus, Eurostat and authors' calculations.
*The percentage contribution is calculated as: (Output elasticity of input x average Input Growth) / average Output growth. For TFP this is calculate as: (average TFP growth / average Output growth).