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Session One

Digital CAREC and post-COVID-19 economic recovery

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Improved health conditions and digital transformation: a post-COVID-19 analysis

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This research work does not represent any institutional opinion.

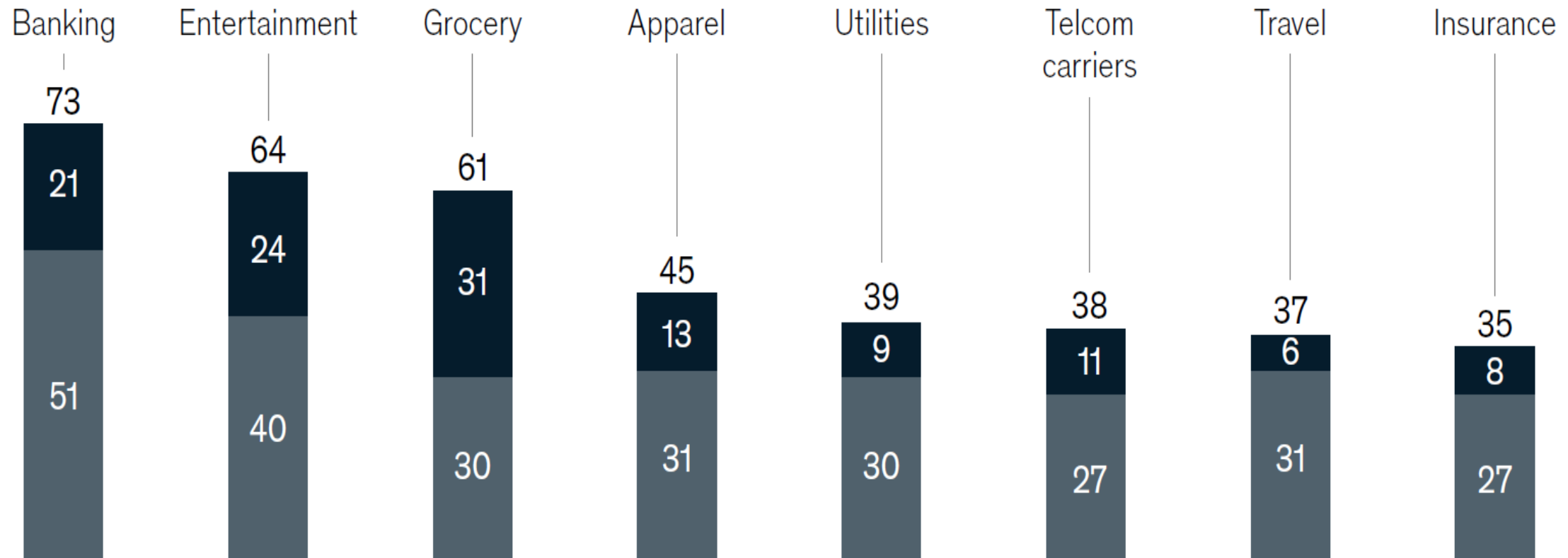
Introduction

- ▶ The COVID-19 pandemic has triggered a digital transformation and the digital technologies have become essential tools to operate businesses in the new environment.
- ▶ It becomes important to analyze the role of recent digital transformation to examine digital dividends in a more resilient future.
- ▶ Using a CGE framework, the present research work identifies how digital transformation can be helpful to accelerate the lost economic growth in the CAREC region.
- ▶ Hence, we use the latest GTAP database version 11, which is a global input-output table of 142 regions and comprises 65 sectors.

Adoption of IT

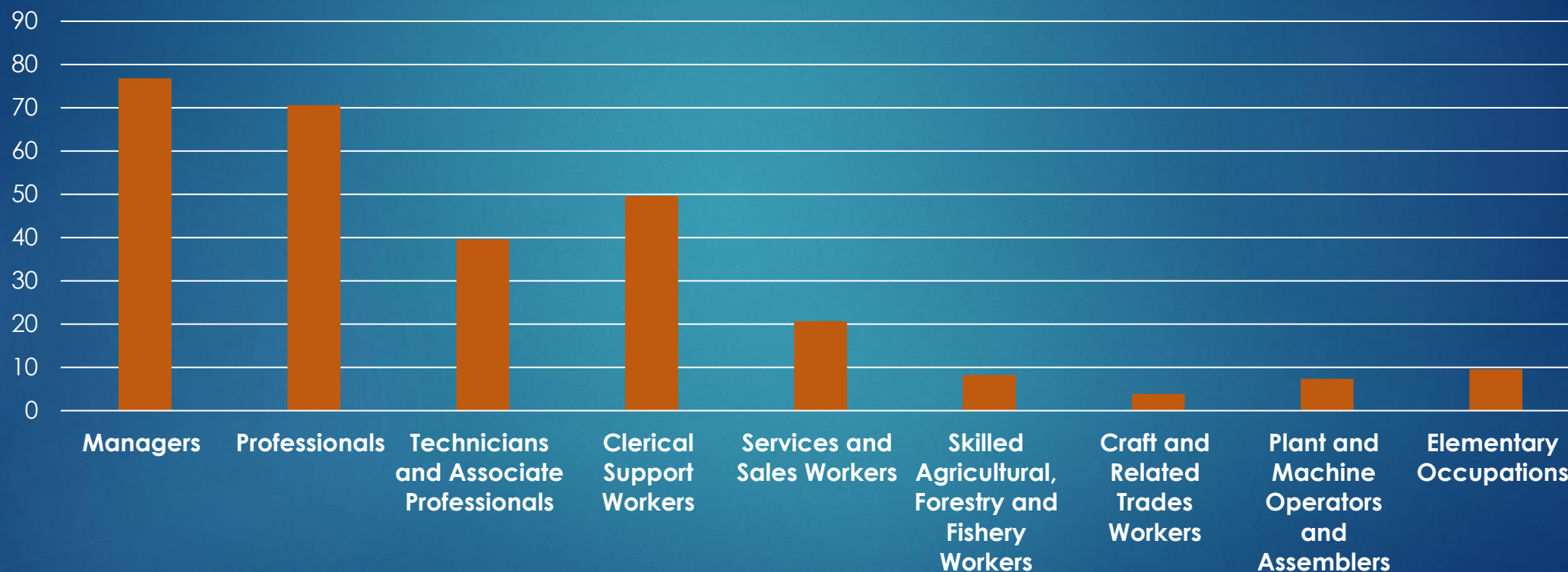
Digital adoption, by industry, % of digital access

■ Regular users ■ First-time users



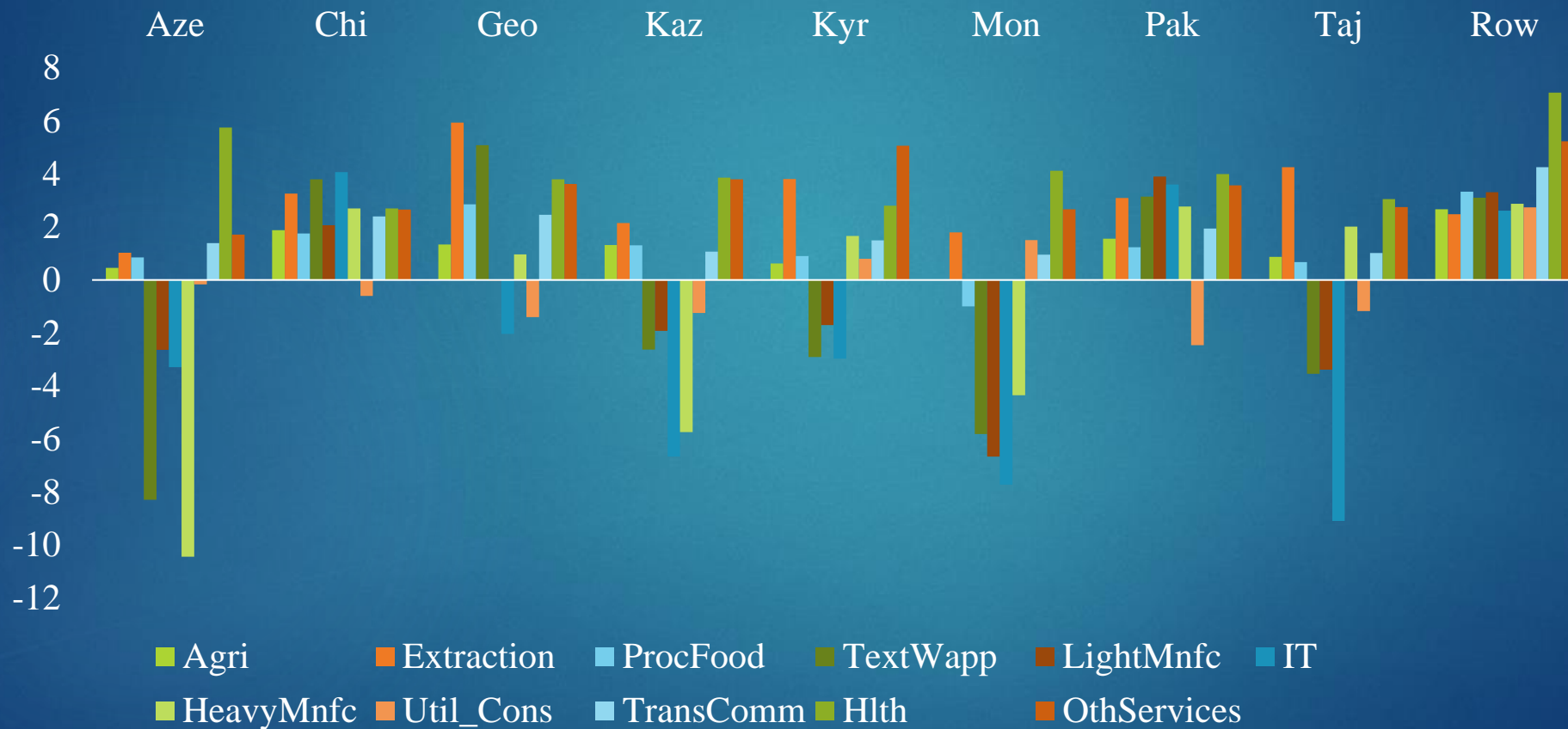
Source: Gottlieb et al. (2020) and Dingel and Neiman (2020)

Working from home, %



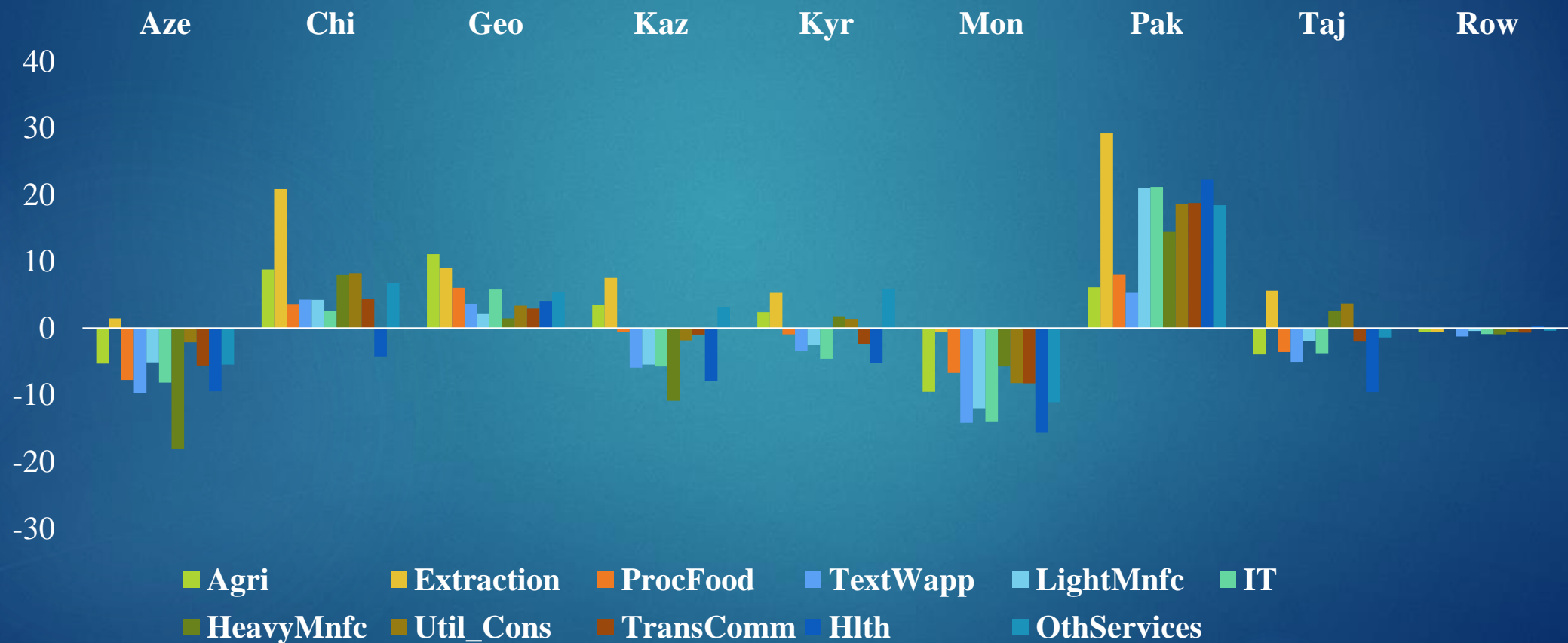
Source: Gottlieb et al. (2020) and Dingel and Neiman (2020)

Sectorial output, %



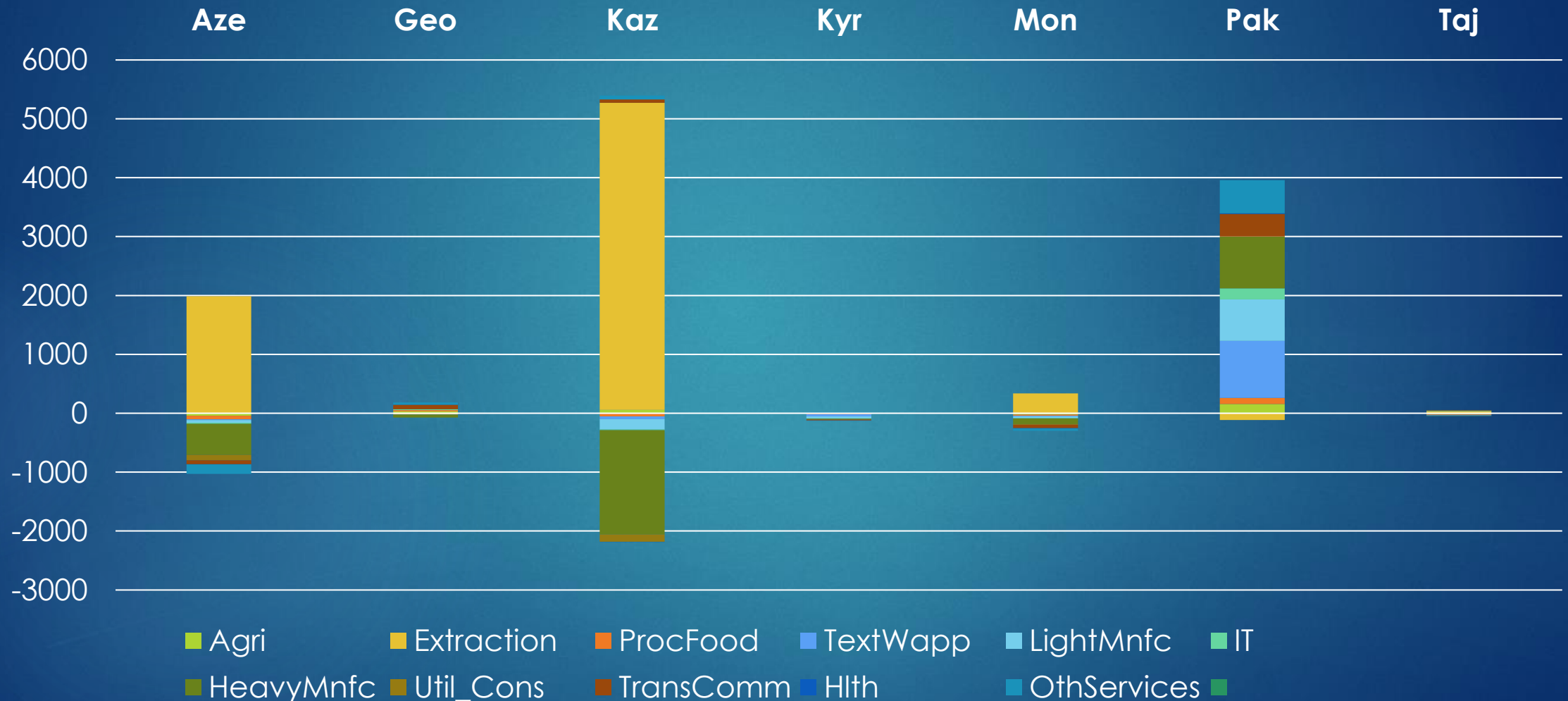
Source: Own calculations

Net exports, %



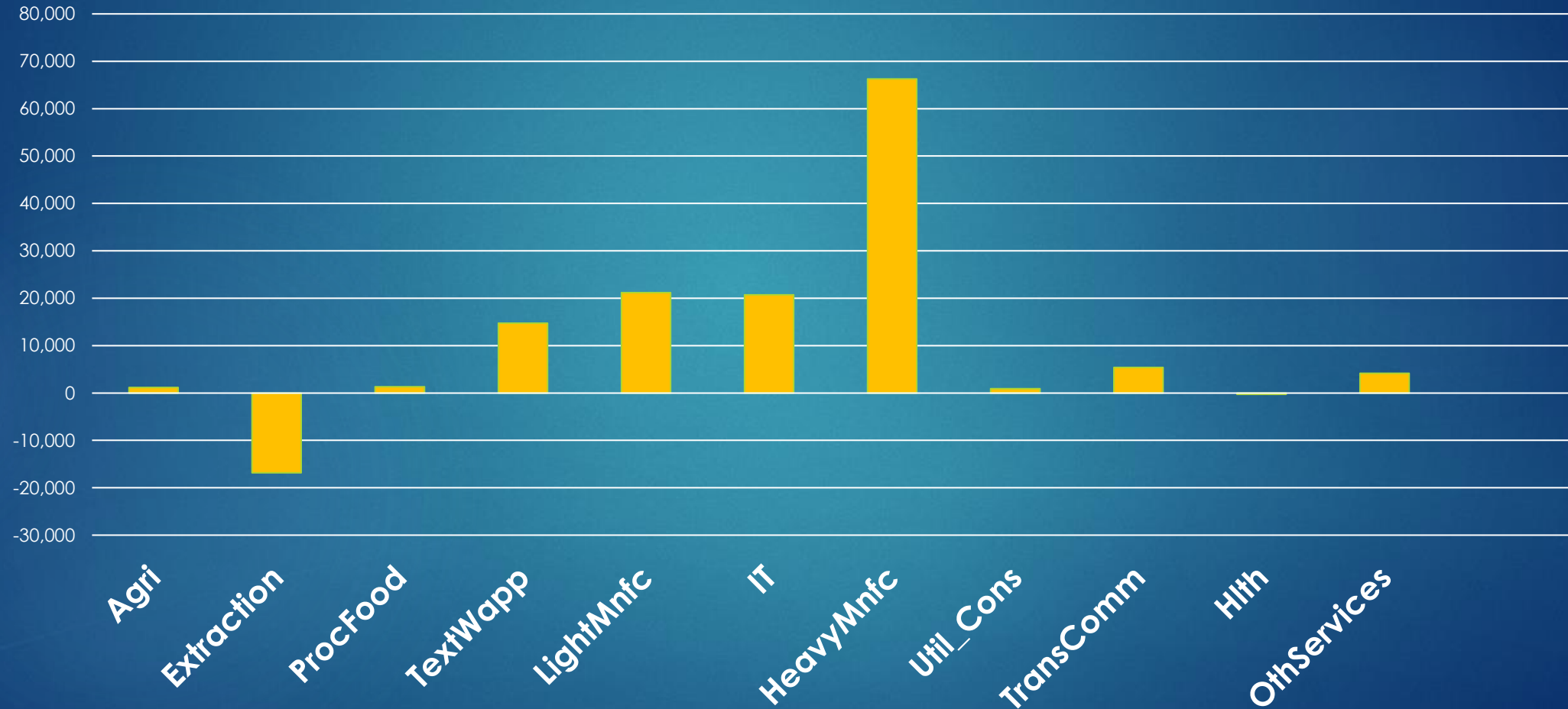
Source: Own calculations

Trade balances, USD million



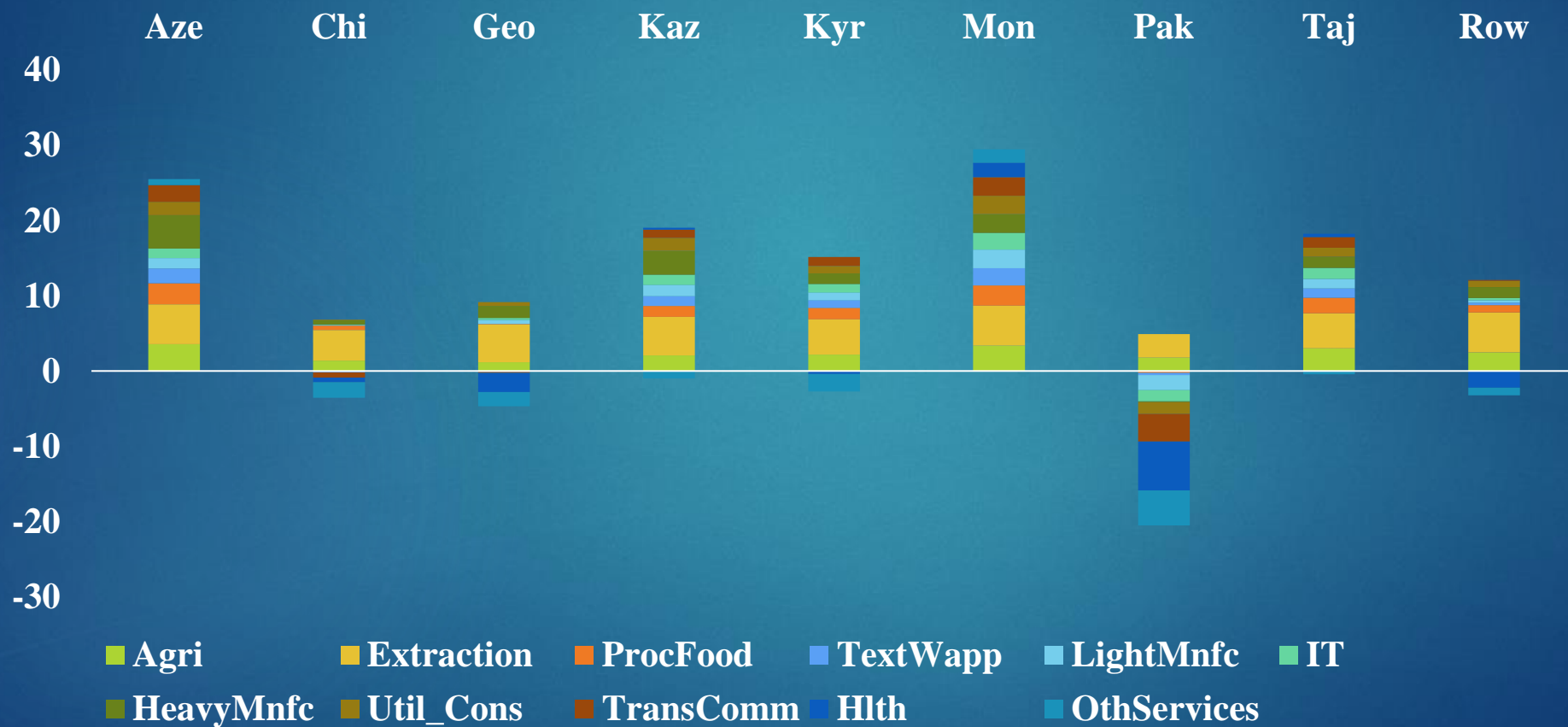
Source: Own calculations

Trade balances in China, USD million



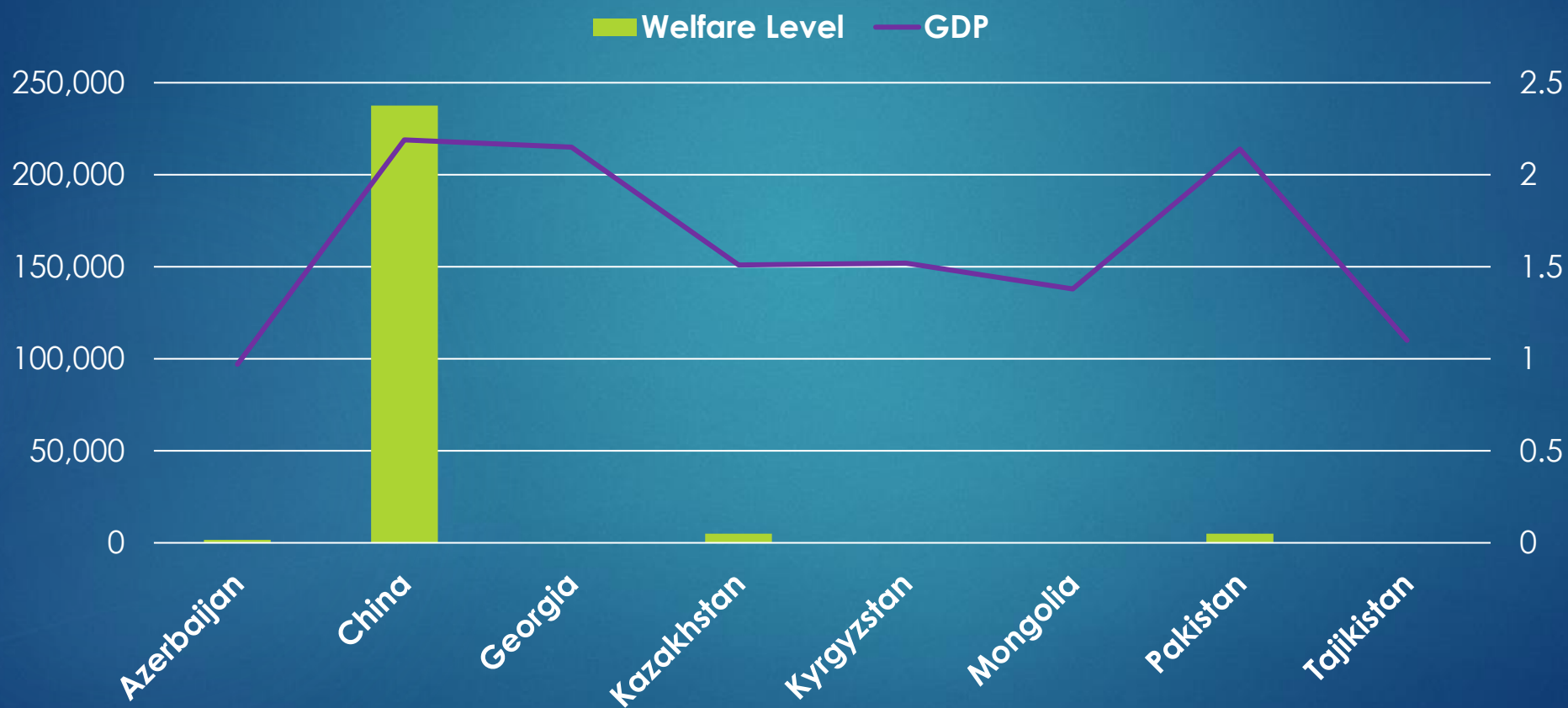
Source: Own calculations

Market prices, %



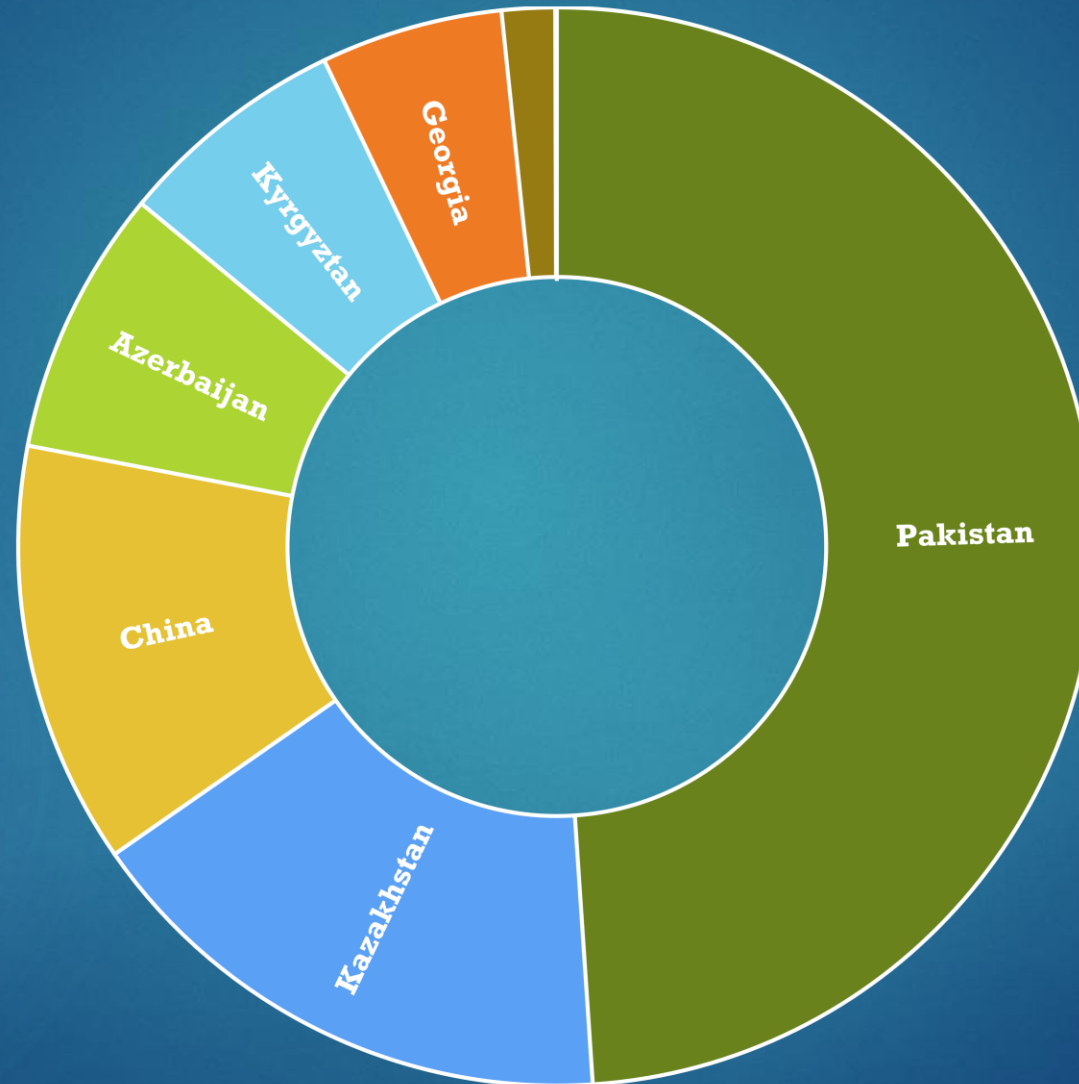
Source: Own calculations

Welfare level, USD million, & real GDP, %



Source: Own calculations

Direct health cost of COVID-19, USD million



Source: Own calculations, data (No. of COVID-19 Cases) accessed on Oct 30, 2020

Recommendations

- Smaller CAREC economies need to upgrade their IT infrastructure as promoting the use of IT can offset the direct economic cost of COVID-19 in the short-run.
- In the long-run, there is a need to invest more in the health sector to ensure the availability of required vaccination infrastructure at the micro-level.
- Lower tariff rates in the CAREC region will promote more regional trade, coupled with a higher regional welfare level.

Limitations

- The present research work is based on a static CGE framework.
- Long-run fixed investment costs are needed to provide a better understanding of total health related costs to COVID-19.
- It does not consider the role of unskilled labor force.