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28th May 2020

Online Info Day

Development of a Master Programme in the Management of Industrial Entrepreneurship for Transition Countries (MIETC)

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Analysis of market needs

Task 2.3

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Aim of market needs analysis

- To determine *skills in shortage* for industrial sector based on participatory approach of stakeholders engagement (industry, HEIs, graduates, employees, policy makers).
  - Educational institutions can contribute to reduce the skills mismatch and shortage by providing the educational program which respond to skills need of market.

Methodology

- *Quantitate analysis* based on the statistical data: Constructing labour market and industrial indicators to analyse market characteristics from supply and demand side
- *DELPHI analysis* for assessing the skills that will be required in the future (online Survey for key experts)

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Stakeholders complement each other views

- *Higher Education Institutions (HEI)*: Researchers can have a deeper knowledge of the labour market from the scientific point of view. They can evaluate the potential of their resources to *implement a success master*.

- *Graduate students:* Feedback from previous educational programmes, effective way of acquiring skills and how to improve *the master* and what labour market expect.

- *Employers:* They will be employing the future students and they know the *skills they require*. Students can do internships in their companies.

- *Employees:* They have good knowledge about *how their skills are retributed* in the labour market and what they should improve.

- *Policy makers:* Future skills requirements for *the country better development*. Potential available incentives and grants for students.

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DELPHI analysis

- *Online Survey* for stakeholders (all surveys will be *anonymous*).
  - *Questions about:* skills shortages, skills hard to find, trainings required, policy incentives.
- Two rounds:
  - *First round:* Stakeholders receive survey online together with short explanation on the quantitative results
  - *Second round:* Stakeholders receive survey online together with descriptive results from first round. The objective is to arrive to a consensus.
- Results will be analysed and combined with the empirical analysis.

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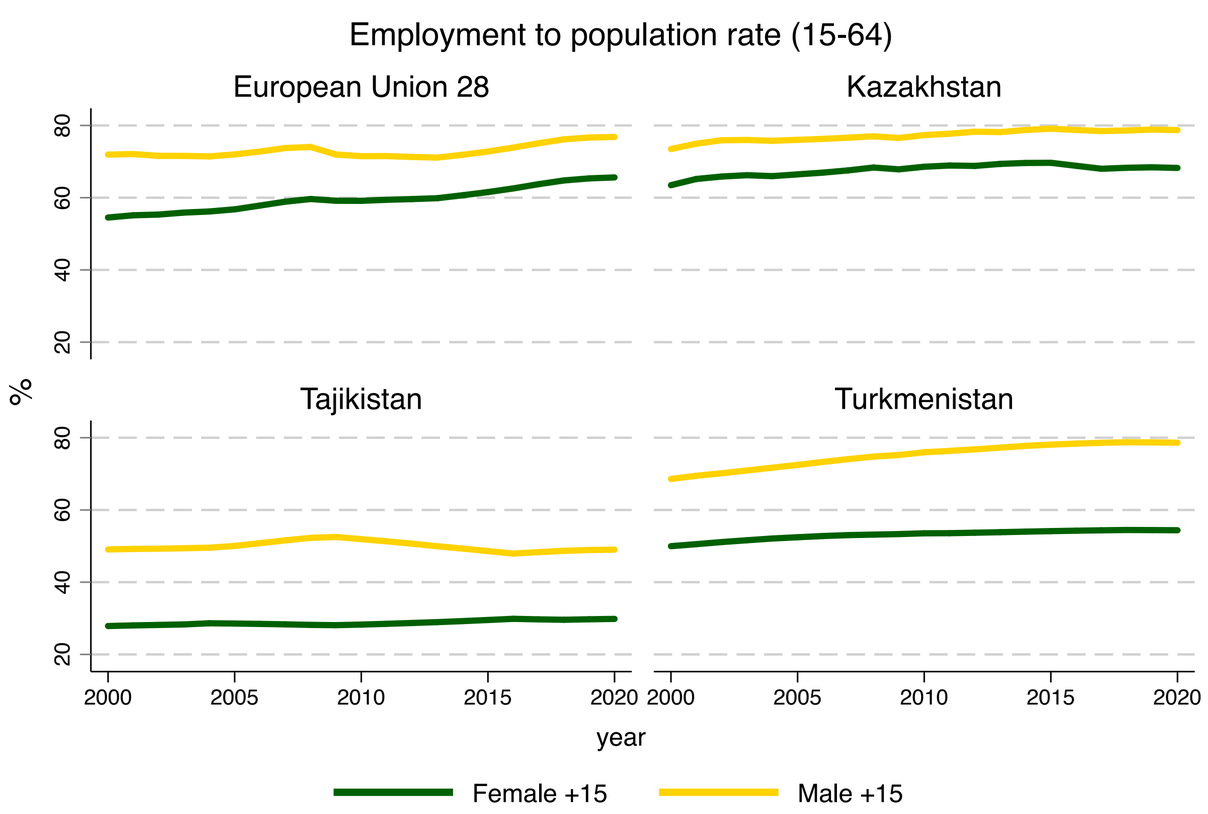
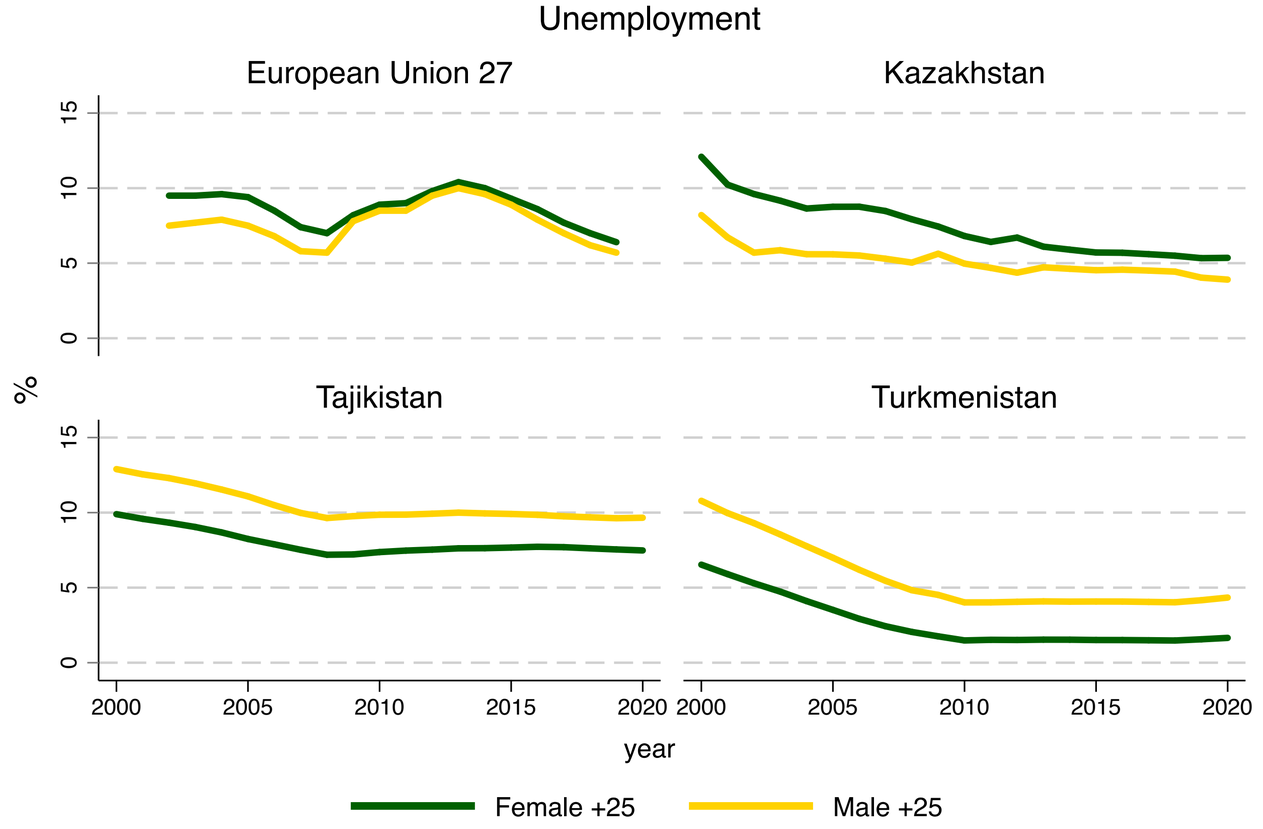
First result from empirical analysis

- Kazakhstan performs well in the aggregated labour maker indicators
  - Women shows lower employment rates and higher unemployment rates than men



Source:Own elaboration based on data from the International Labour Organization (ILO) and EUROSTAT



Source:Own elaboration based on data from the International Labour Organization (ILO) and EUROSTAT

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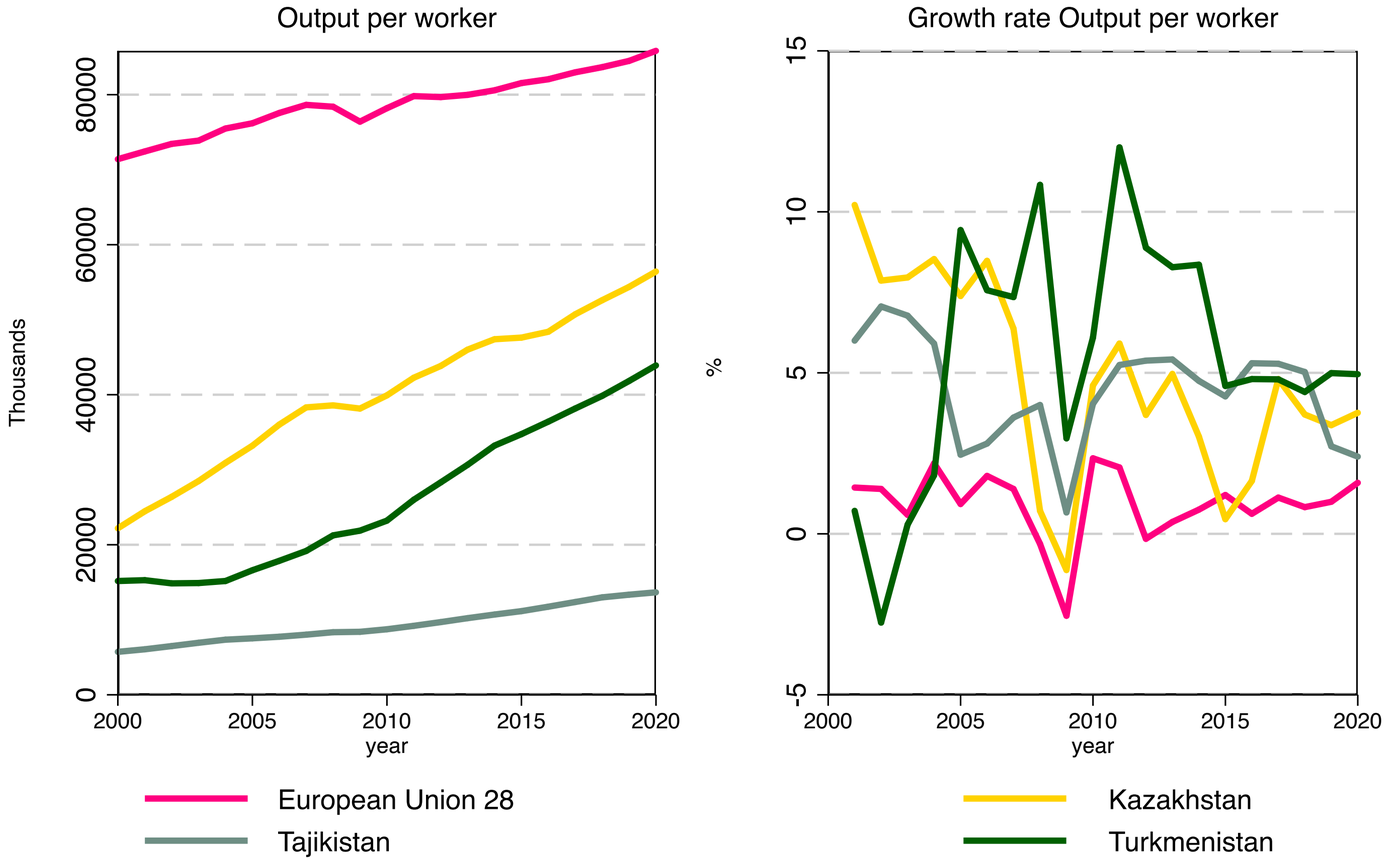
Output per worker in $ PPP

- Kazakhstan shows a *lower productivity* level than EU28 but higher than the rest of central Asian Countries. However, the *productivity growth rate* had been *higher* that EU28 in the last years.



Source:Own elaboration based on data from the International Labour Organization (ILO)

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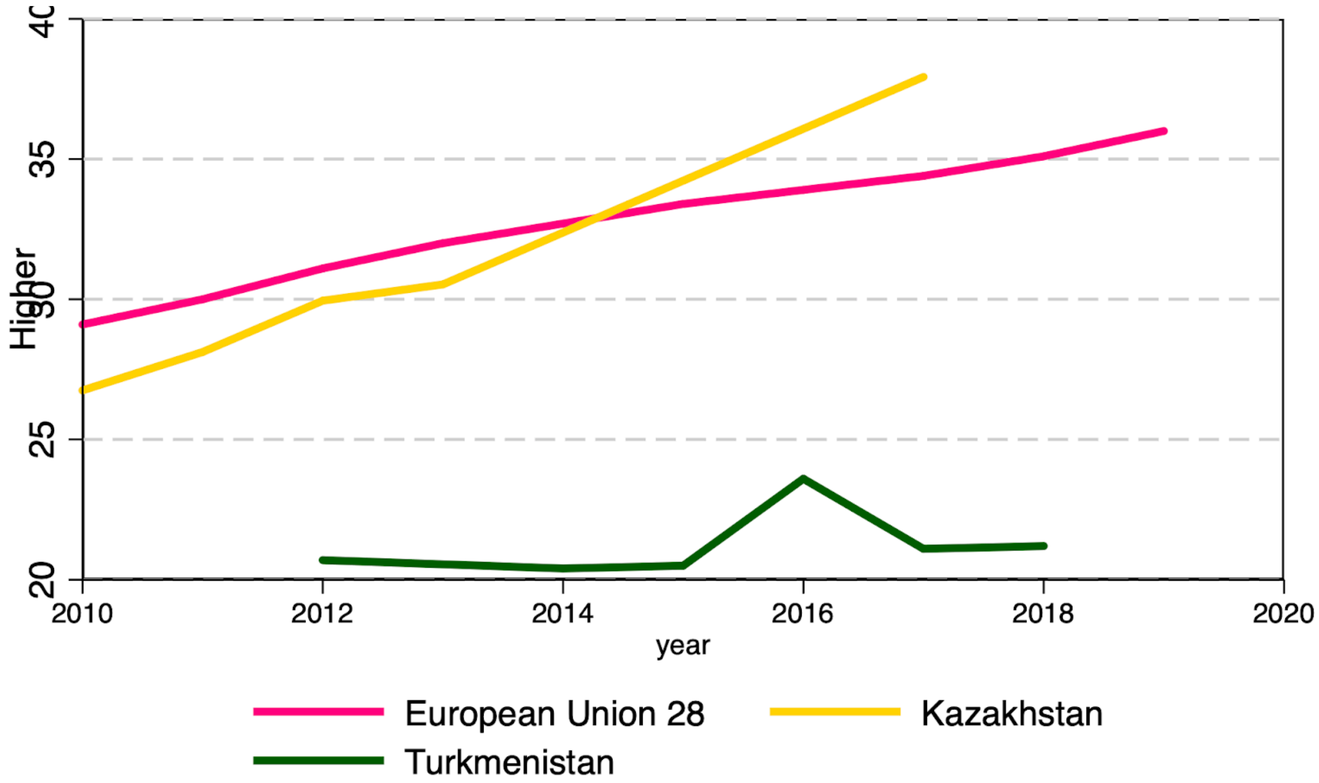
Share of workers with tertiary education



Source:Own elaboration based on data from the International Labour Organization (ILO), EUROSTA

- Kazakhstan shows *higher workers with tertiary education* than EU28, so the explanation of lower levels of productivity may be in the skills acquired.

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Percent of firms identifying an inadequately educated workforce as a major constraint

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Firms set in *regions* such as Atyrau and Almaty or the cities Nur-Sultan and Almaty had *difficulties to find skilled workers*

Employment distribution by occupation in 2019

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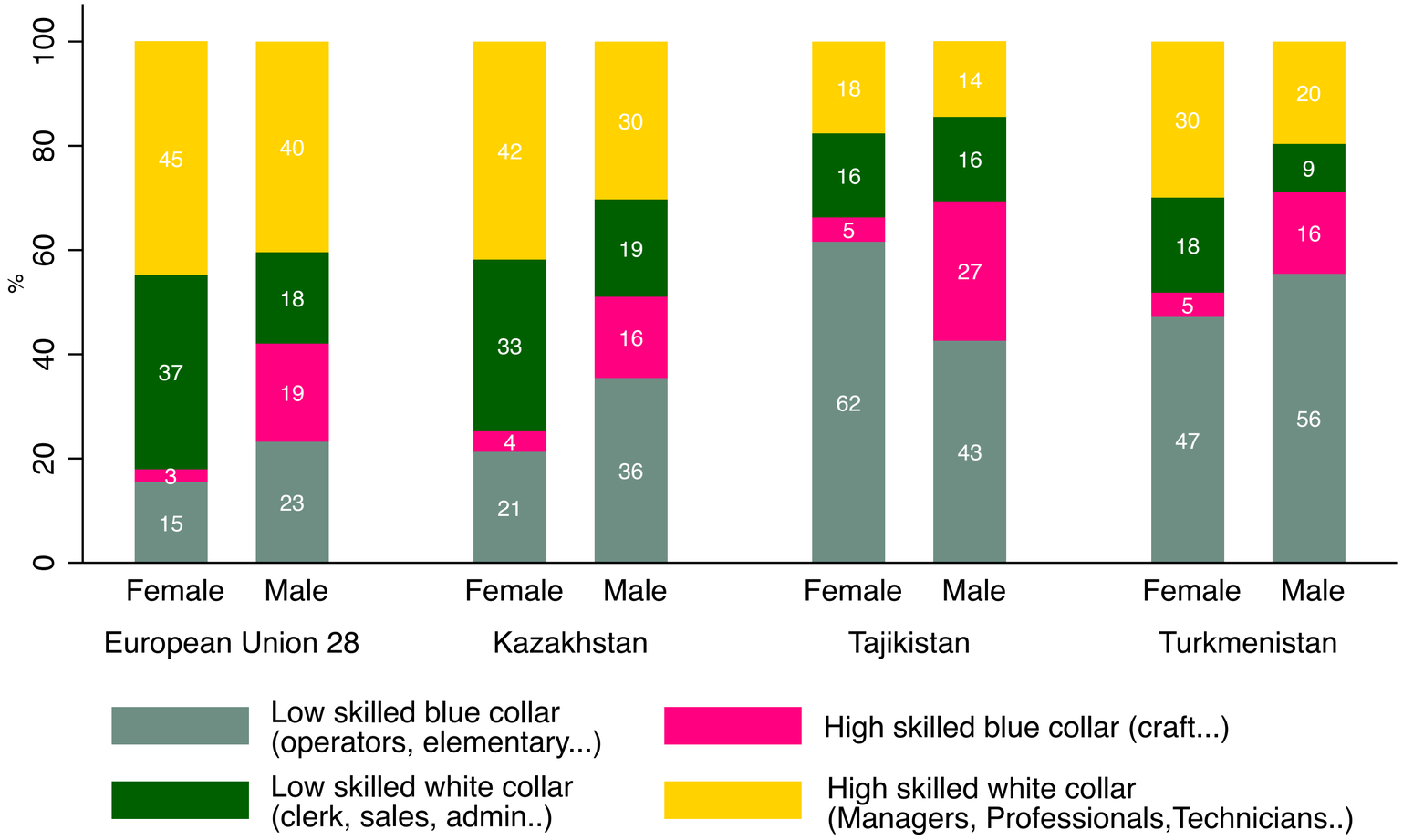

Source:Own elaboration based on data from the International Labour Organization (ILO)

- Kazakhstan is employing *lower levels of qualifications* compared with EU28, what it can *affect productivity level* and *future growth*
  - Although, it looks like women are working in the higher skilled occupations, this is not true when we analyse the top managerial positions either in Kazakhstan and EU28

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Occupation shortages and surplus (2015-2017)

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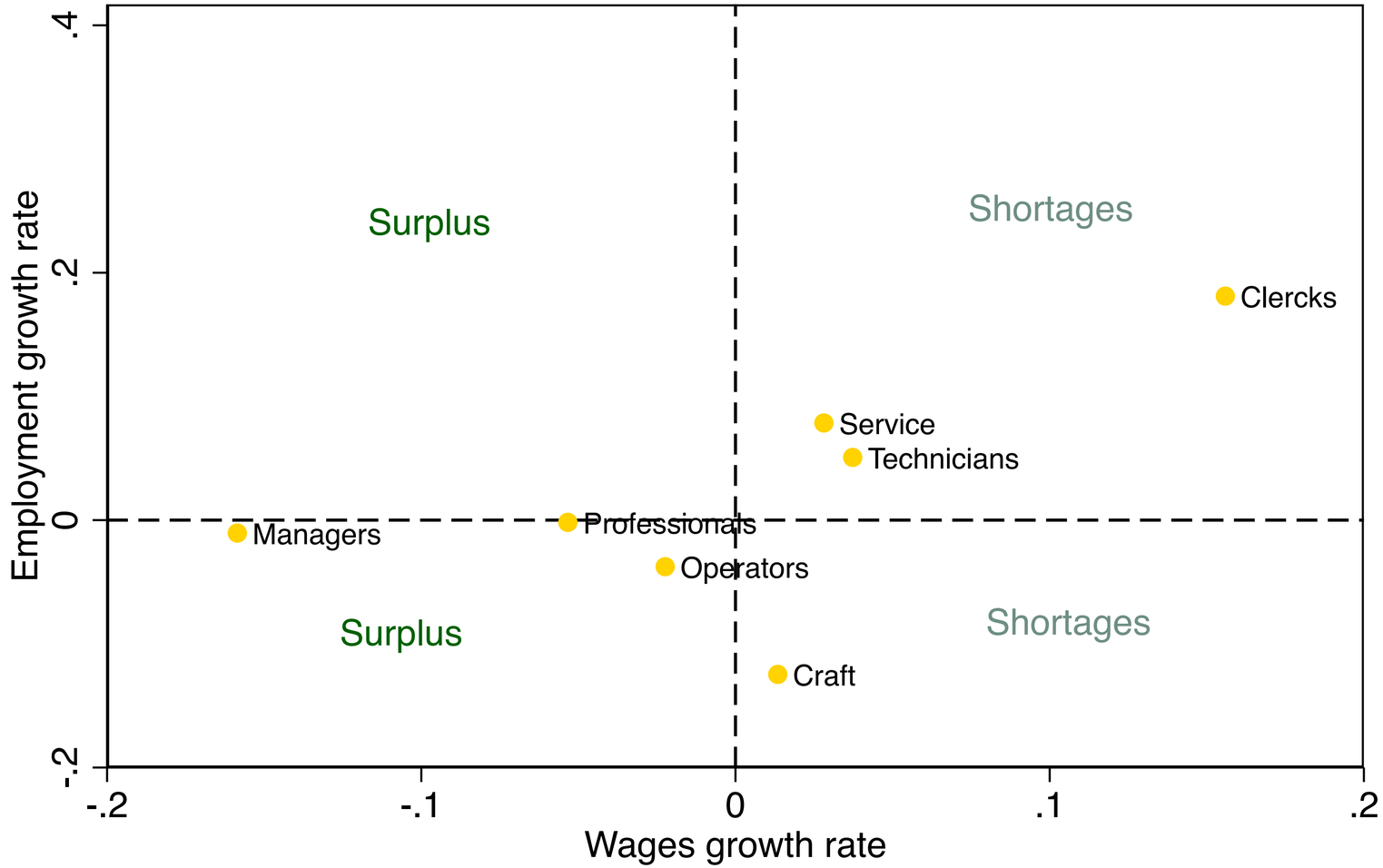
- Labour market pressures from 2015-2017 show that there is *shortages* in *technicians* and surplus in managers and professionals



Source:Own elaboration based on data from the International Labour Organization (ILO)

% of adults scoring high values

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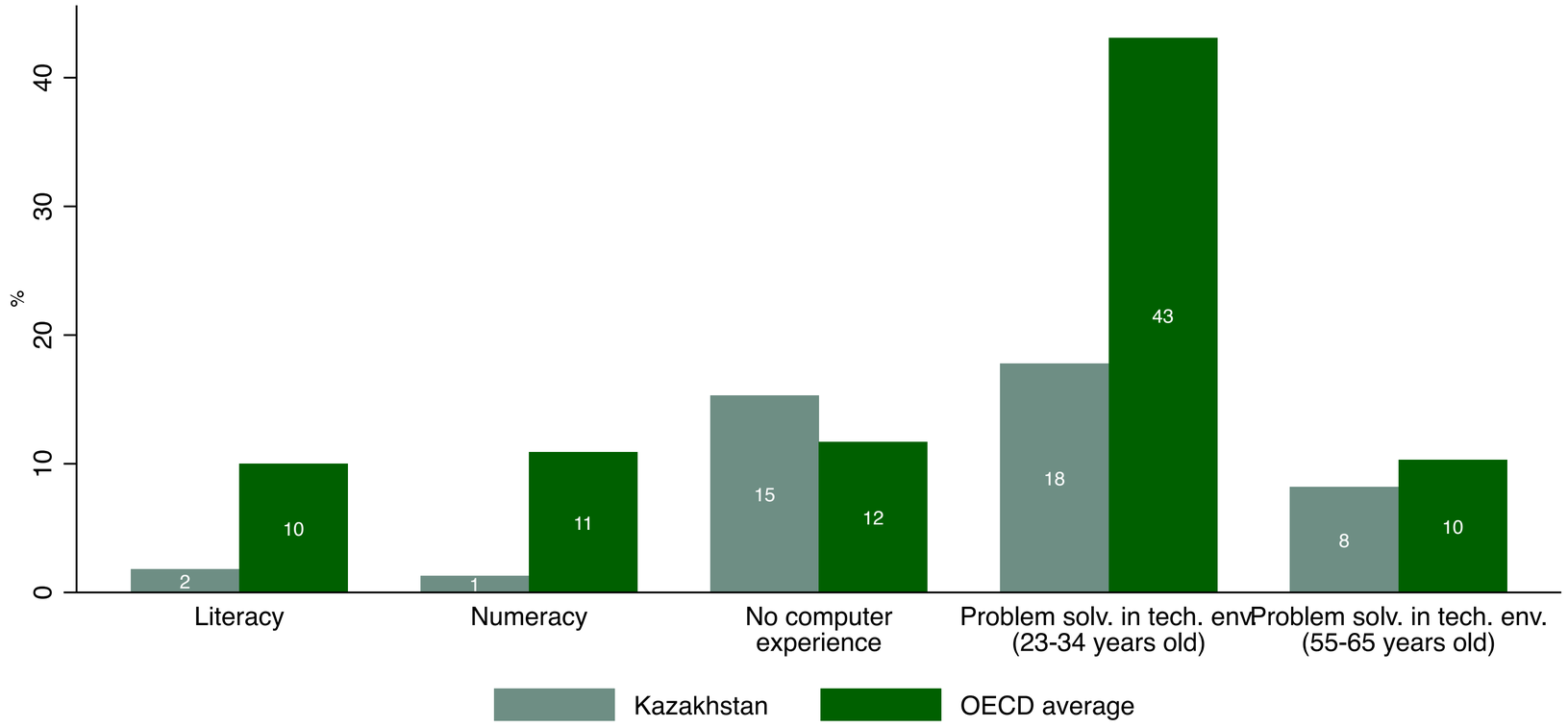

Source:Own elaboration based on data from PIAAC (OECD)

- *Lower* % of adults in Kazakhstan *score* high in *literacy, numeracy* and *problem solving in technology-rich environments* than OECD, particularly young adults

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To sum up: Main results for Kazakhstan

- Good performance in the main aggregate indicators for labour market and high growth of productivity rate in last years however:
  - L*ower productivity* in Kazakhstan than EU28 associated to lower level of skills or skill mismatch:
    - *Lower performance* in numeracy, literacy and problem solving in technology-rich environments than OECD (lower level of skills)
    - *Skills shortages* in technicians and surplus in managers and professionals (we are updating to recent data) (skill mismatch)
  - *Women* higher unemployment rate that men however there are more share of women in high skill occupations
    - Barrier entry problem or promotion difficulties
  - Important *regional differences*
- We are taken into account other relevant information such as *environmental*, *urban/rural* information that can be important on future skills
- DELPHI analysis will allow to detect additional skill that have not been identified in the quantitative analysis
  - *STAKEHOLDERS* are *key* for the assessment of the market needs and the project development

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Рахмет!

Thank you!

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