Conference on European Economic Integration 2018

Panel on “Industrial Policy and Investment”

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European Bank
for Reconstruction and Development

Two structural trends:

1. Early de-industrialisation
2. Early ageing

Three policy responses:

1. Education: Better-skilled workers
2. Health care: Healthier workers
3. Migrants and/or robots: Other workers

Industrial peaks are happening earlier…

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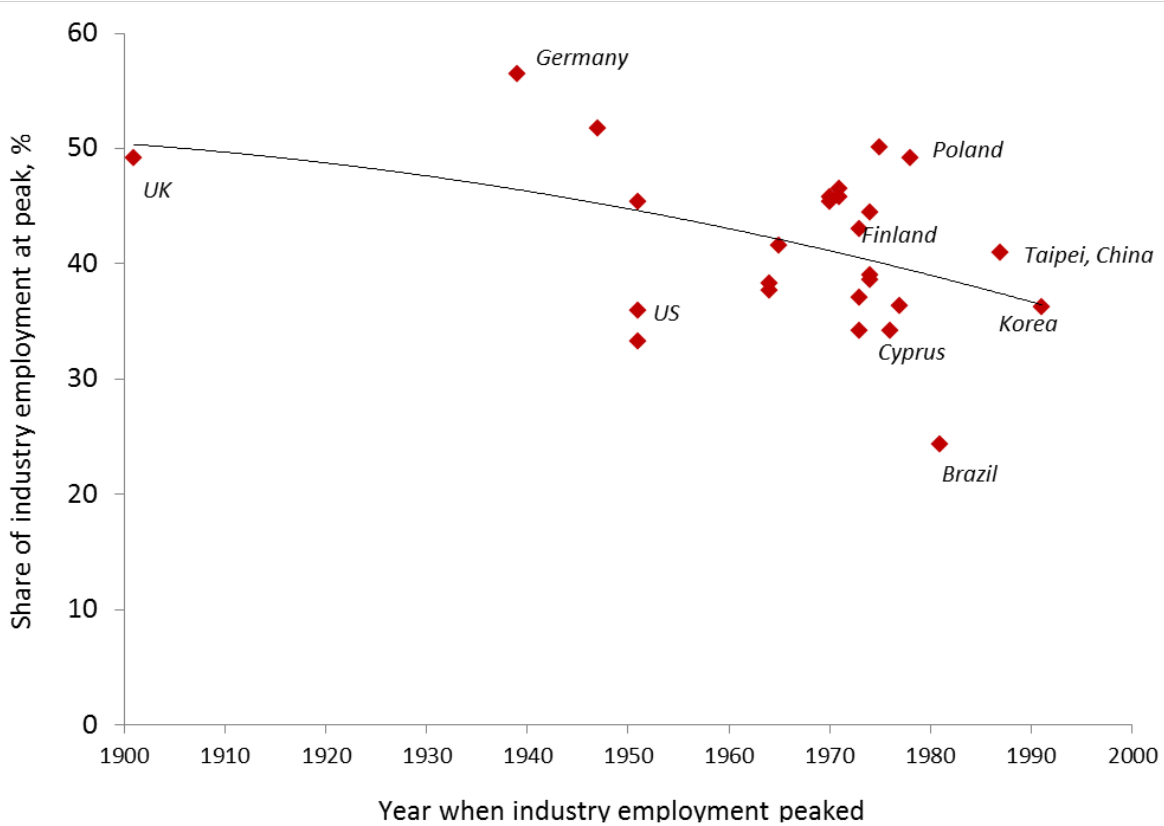
Share of employment in industry and year when industry share peaked, by economy (%)



Source: Sposi, Yi and Zhang (2018).

…and when countries are still relatively poor

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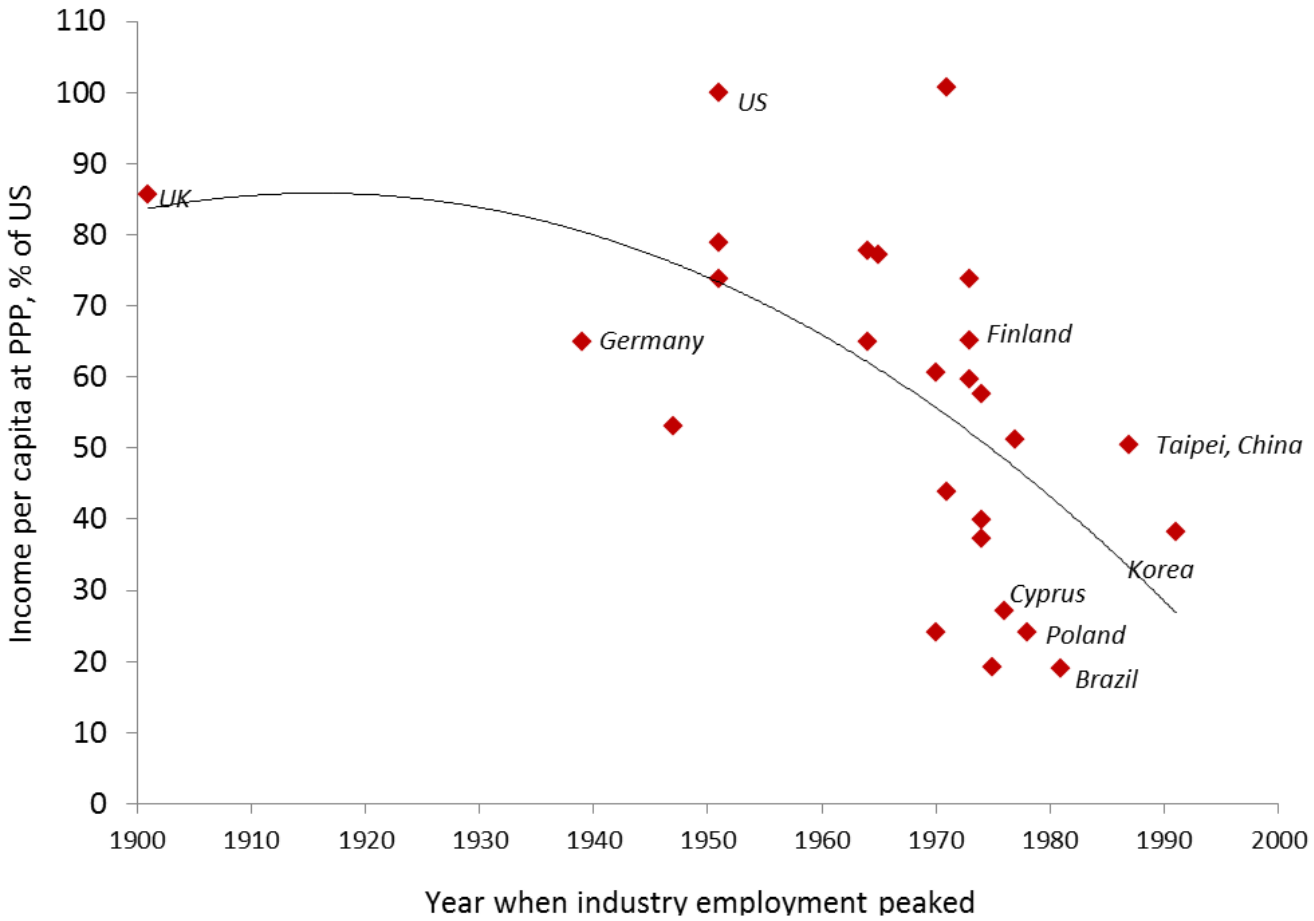
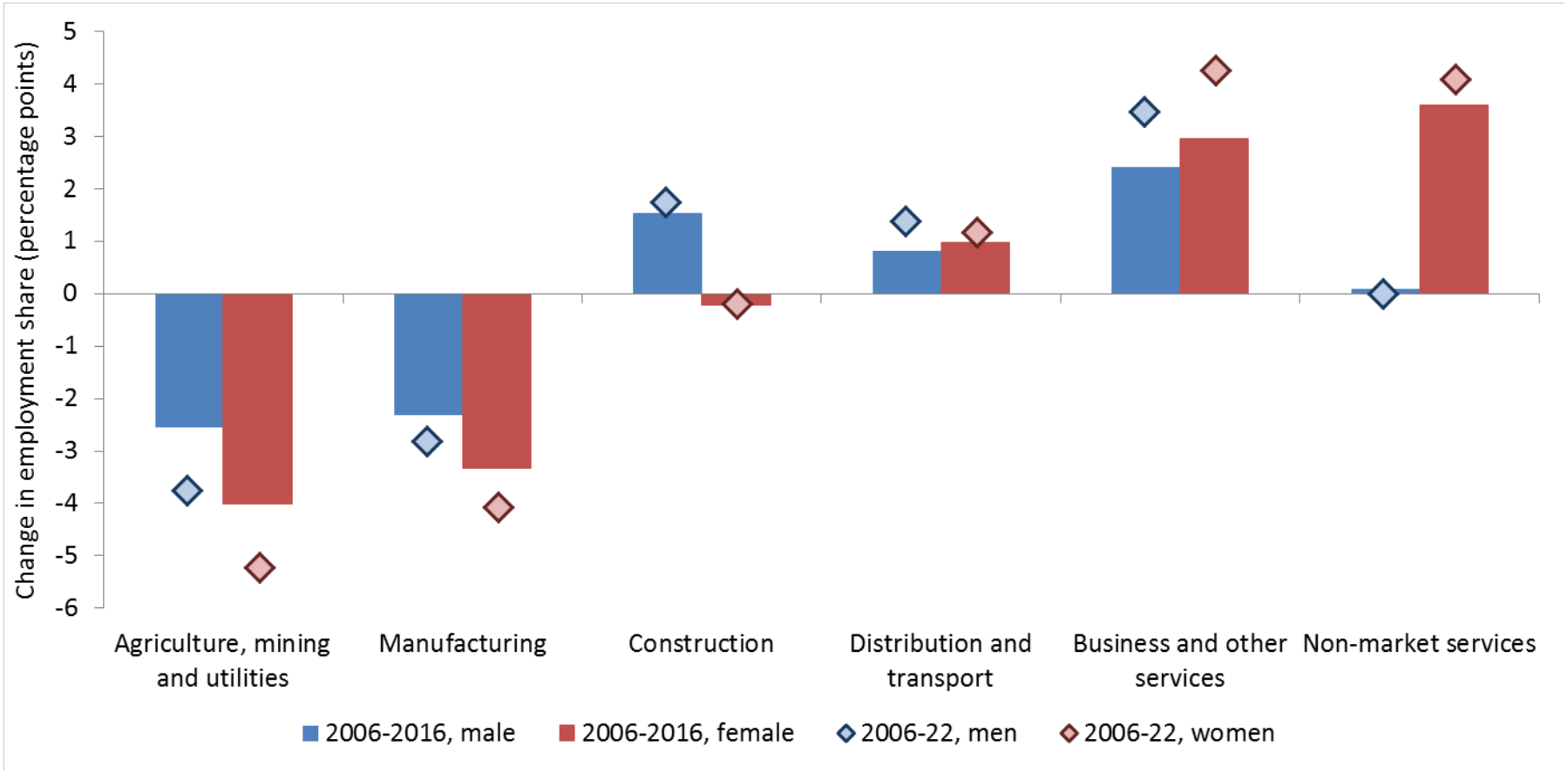
Income per capita at PPP, % of US, in the year when a country's industry share of employment peaked



Source: Sposi, Yi and Zhang (2018).

Many CESEE economies are de-industrialising too…

Changes in employment shares by industry, past and projected



Source: ILO, authors' calculations. Averages weighted by labour force. Non-market services comprise ISIC sectors O (public administration and defence), P (education), Q (health care and social work) and R, S, T, U (other services).

…and technology is hollowing out middle-income jobs in these countries as well

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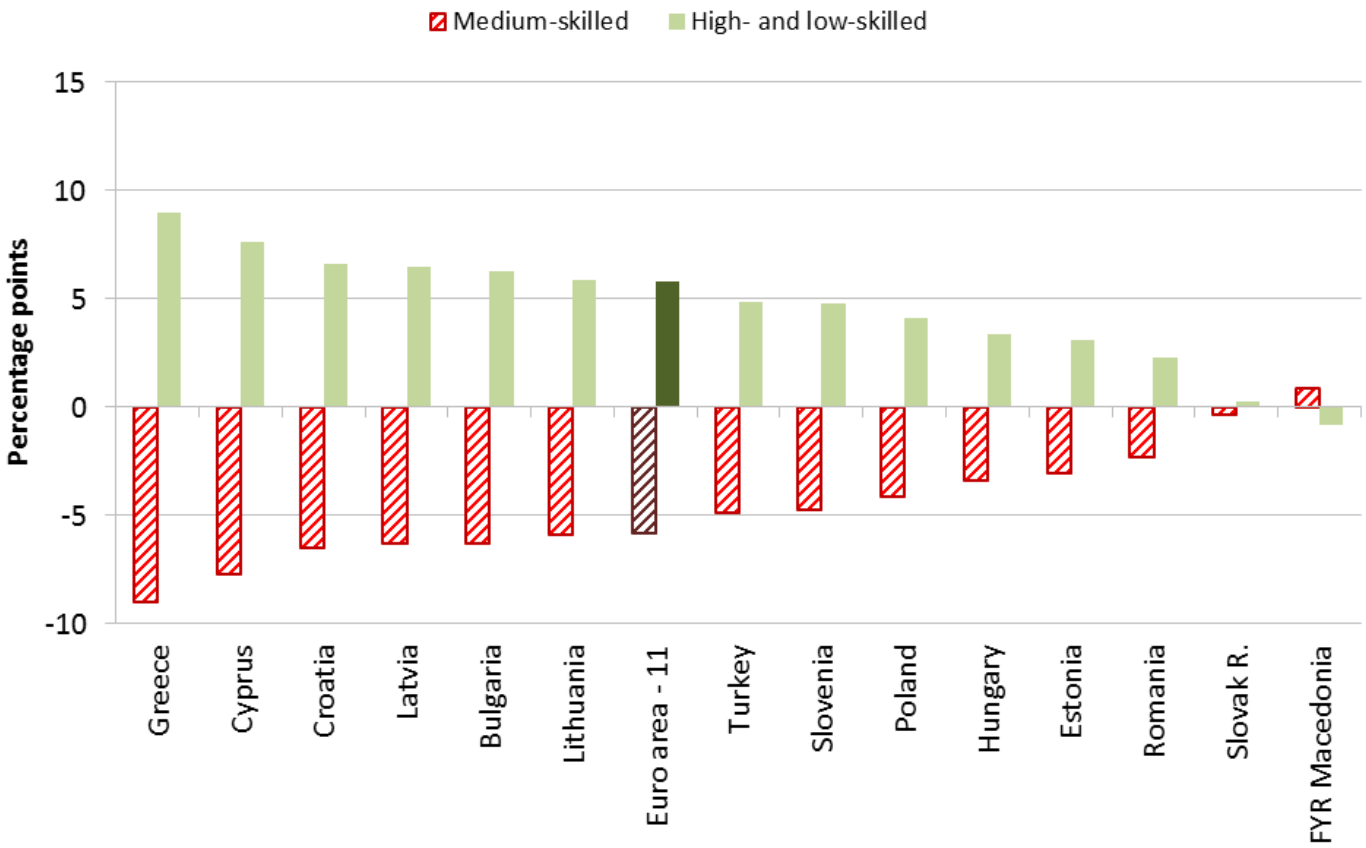
Change in the share of employment by skill level, 2006-16, percentage points



Sources: OECD, Eurostat and authors' calculations. Jobs are classified under the ISCO-08 major groups. High-skilled occupations comprise managers, professionals, technicians and associate professionals (groups 1-3). Medium--skilled occupations comprise clerks, craft and related trades workers, and plant and machine operators and assemblers (groups 4, 7 and 8). Low-skilled occupations comprise service and sales workers (group 5) and elementary occupations (group 9). Agriculture and armed forces are excluded (groups 0 and 6). Euro area average is based on 19 countries.

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1. Early de-industrialisation
2. Early ageing: growing old before getting rich

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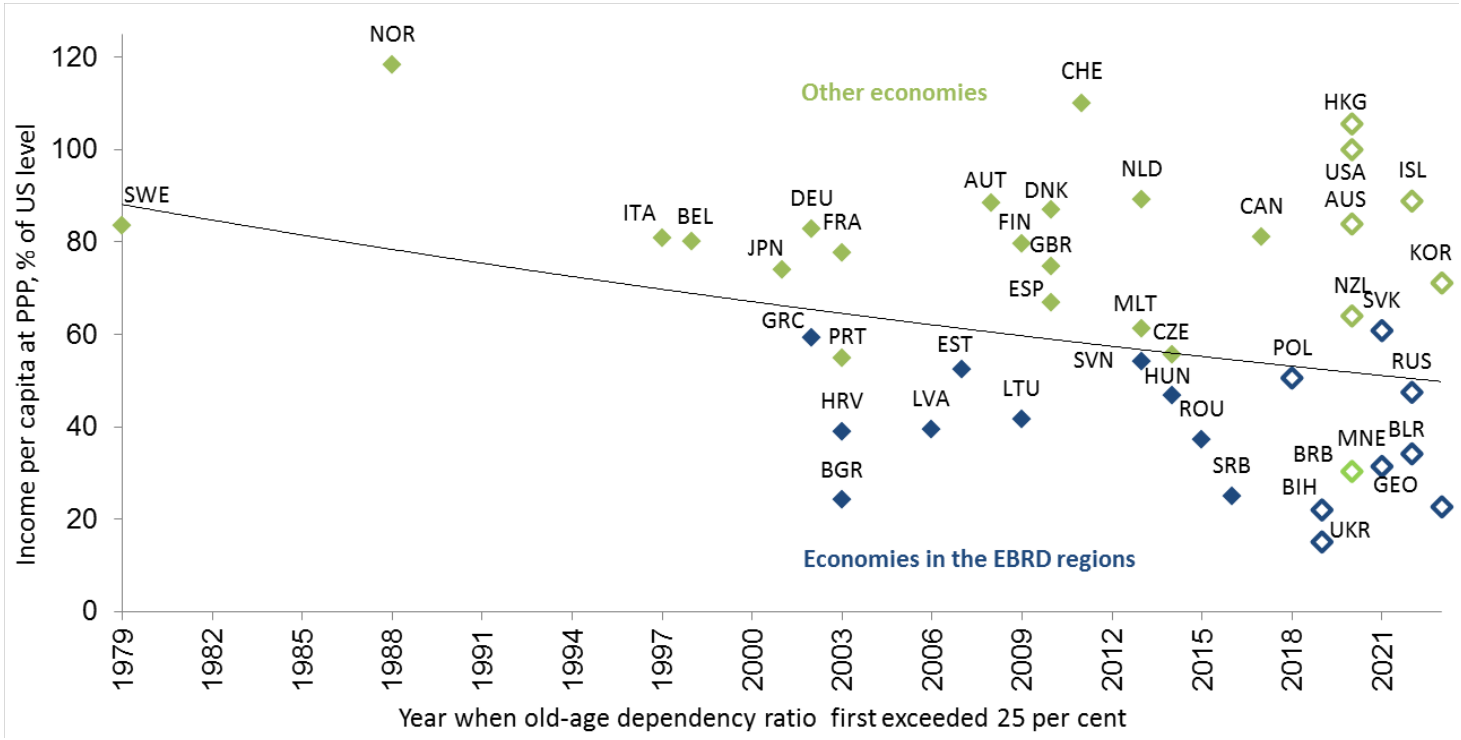
Emerging Europe is growing old before it is getting rich

Countries reach the old-age dependency ratio of 25 per cent at ever lower per capita income levels relative to the US



Source: IMF, UN and authors' calculations. The old-age dependency ratio is the number of people aged 65 or over as a percentage of the number of people aged between 15 and 64.

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Skills shortages: Increasingly hampering firms in their day-to-day business

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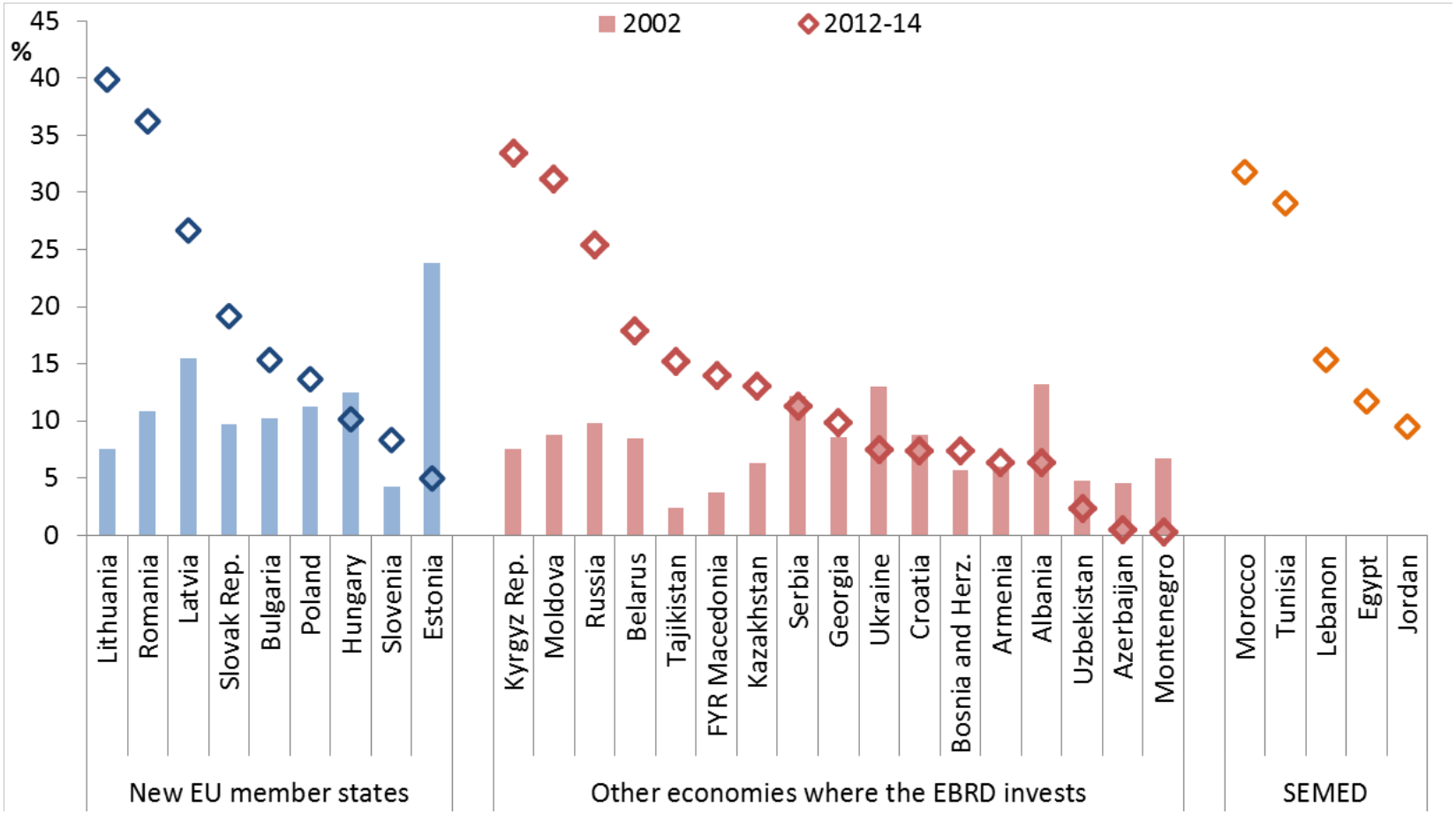
Percentage of firms reporting skills as a major or severe constraint to their operations



Source: BEEPS and authors' calculations.

ICT skills remain weak in particular, especially among older workers

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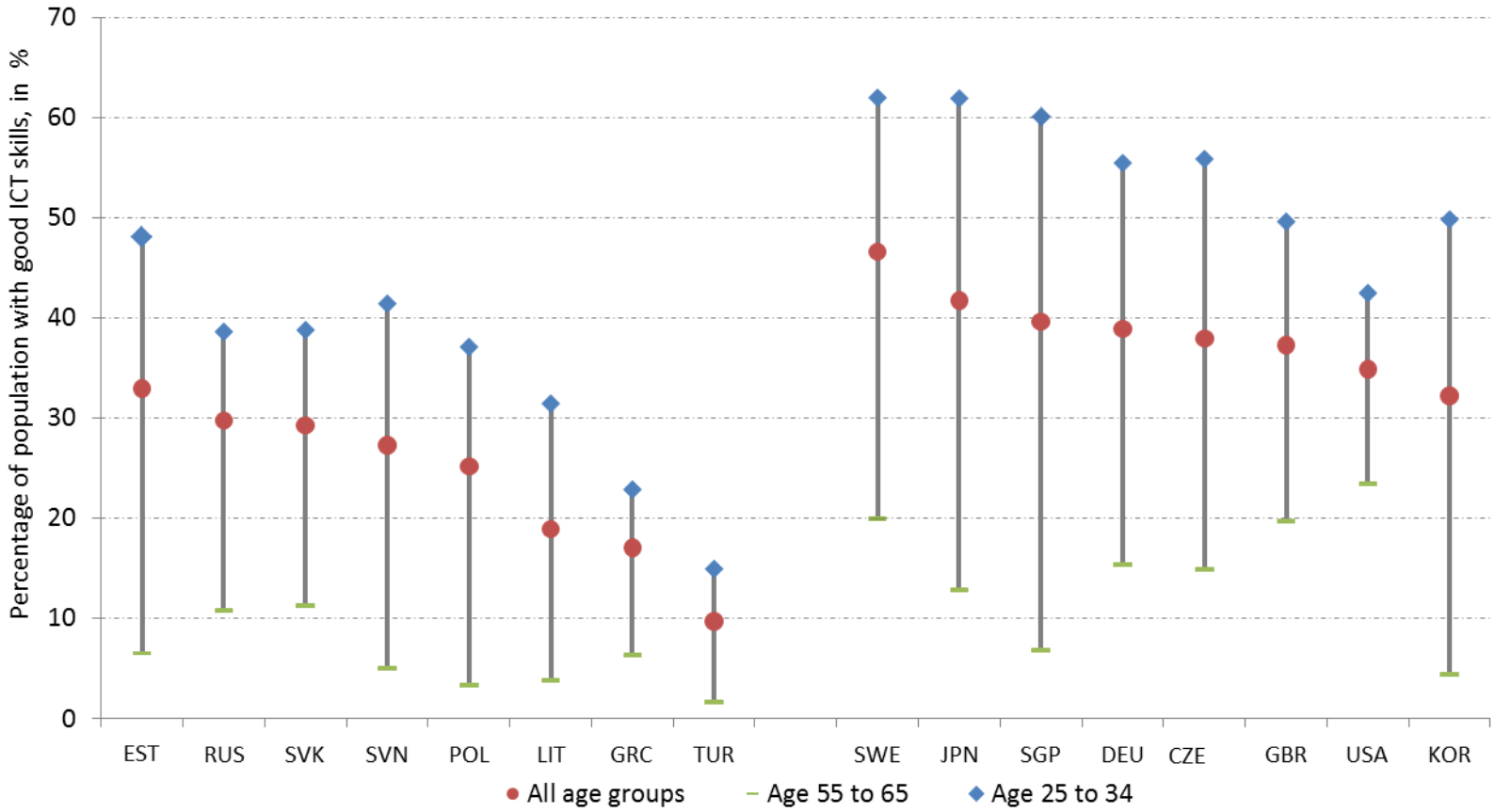
Closing the gap in ICT-related skills will help leverage the benefits of future technological transformation while minimizing the disruptive impact of digitalization on the labour market

Share of population with good ICT skills, by age group



Source: OECD and authors' calculations. Good ICT skills correspond to level 2 or 3 results in PIAAC. Surveys conducted in 2011-14.

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Labour force participation among 50+ age bracket remains surprisingly low…

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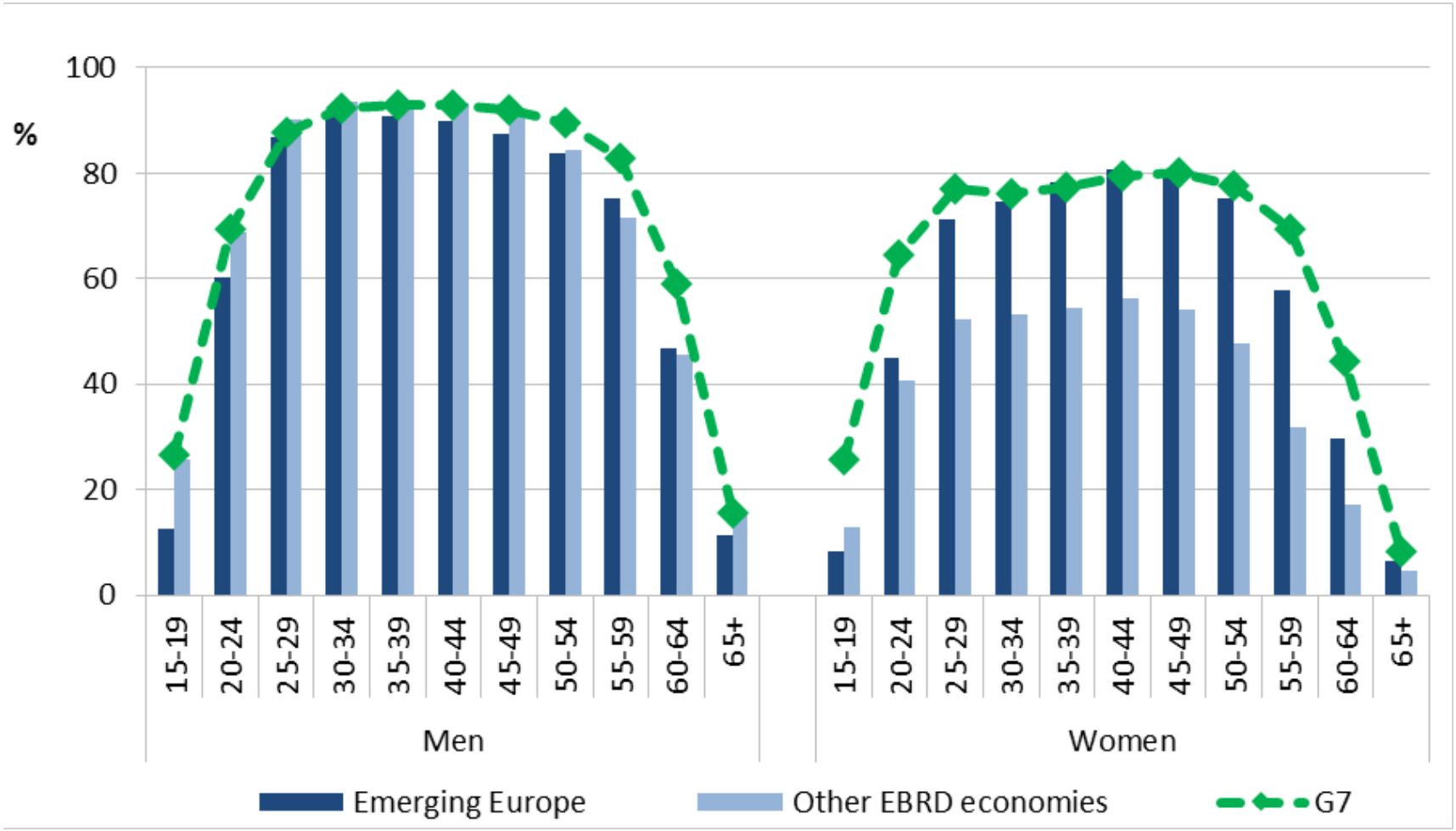

Source: ILO and authors' calculations. Data for 2017 or latest available.

… as self-assessed health declines rapidly with age

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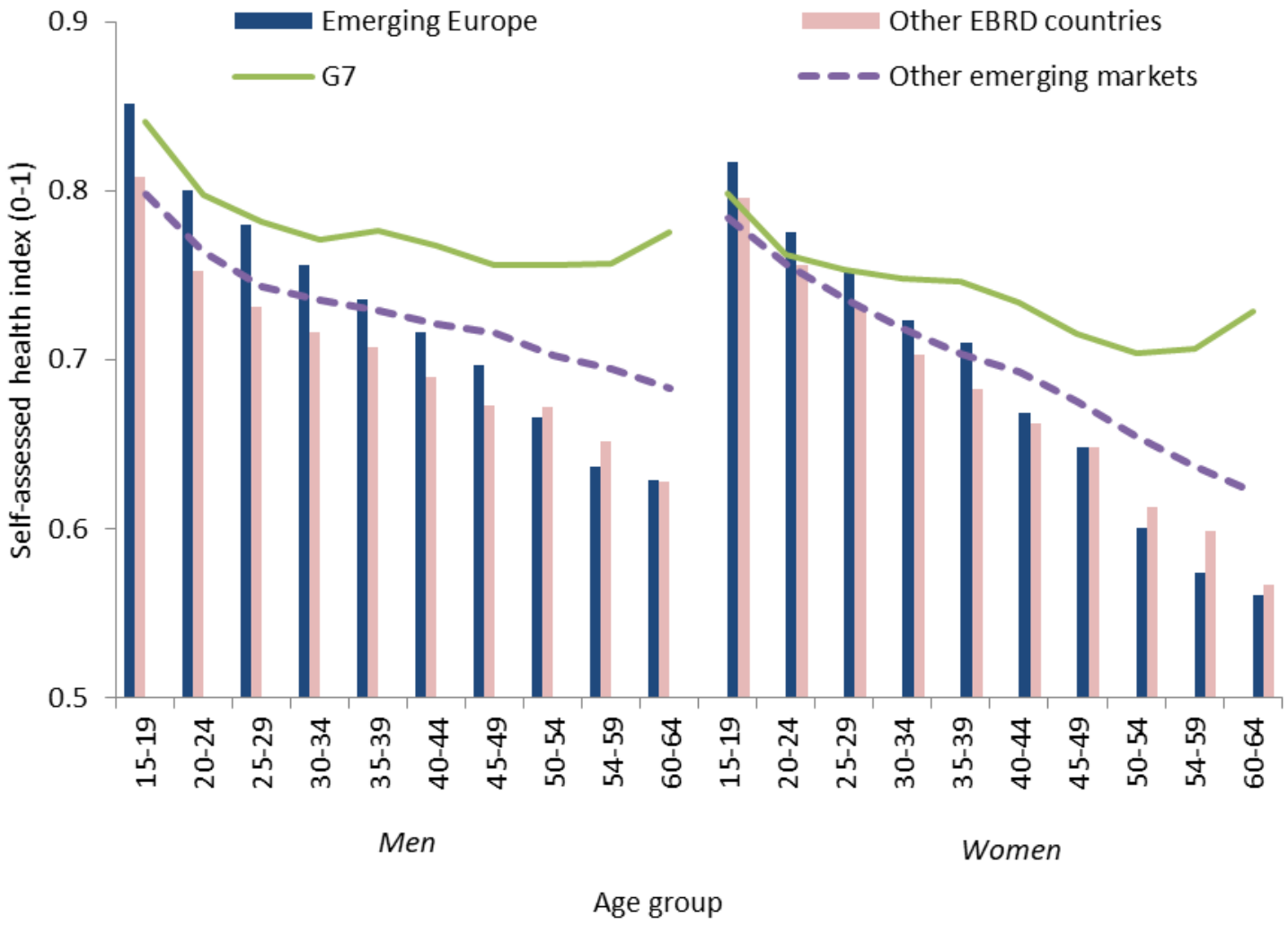

Source: Gallup World Poll and authors' calculations. Emerging markets refer to all economies with GDP per capita above US$ 1,100 at market exchange rates that are not advanced economies based on the IMF definition.

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Rise of the robots is stronger in ageing countries

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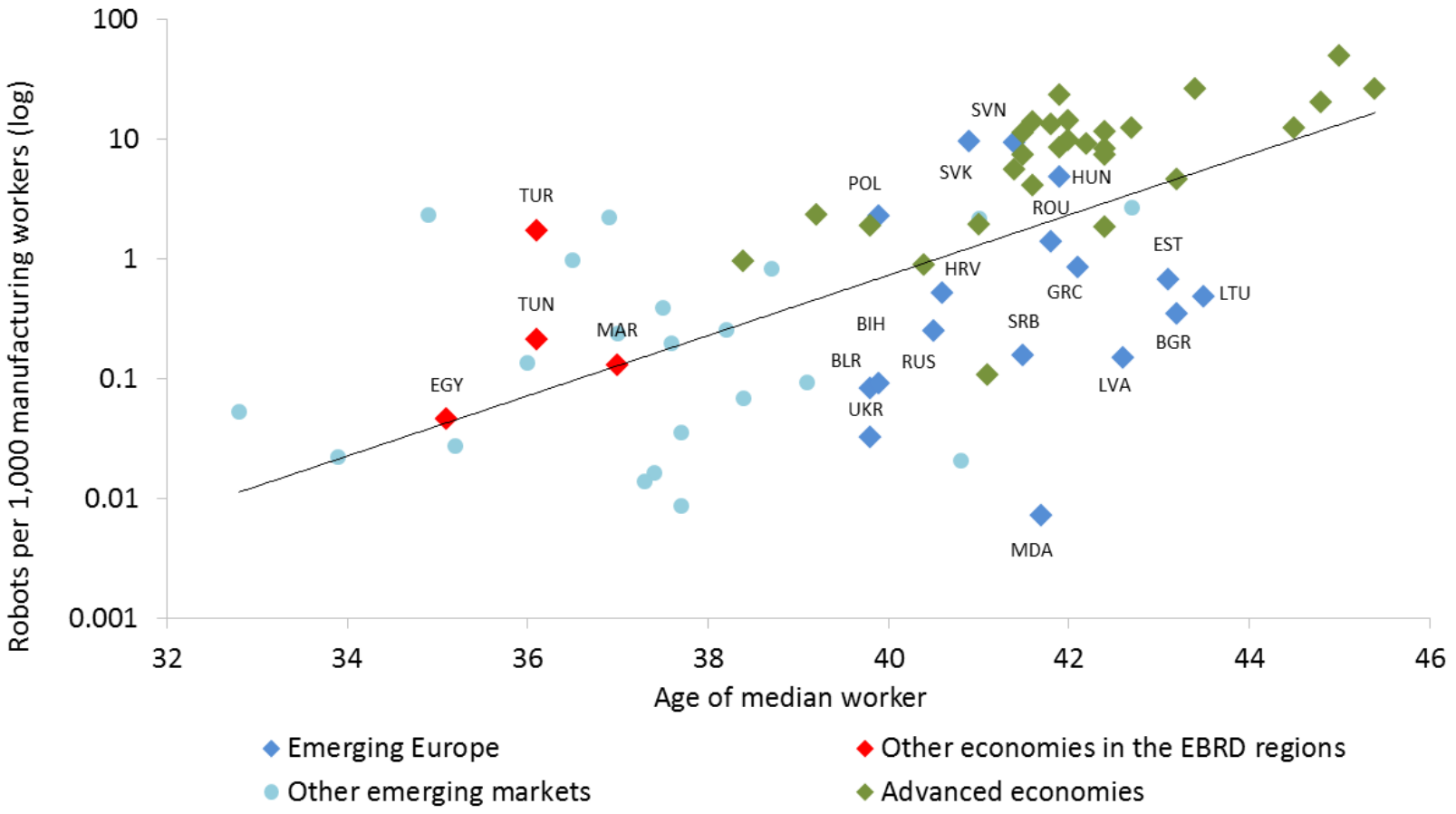
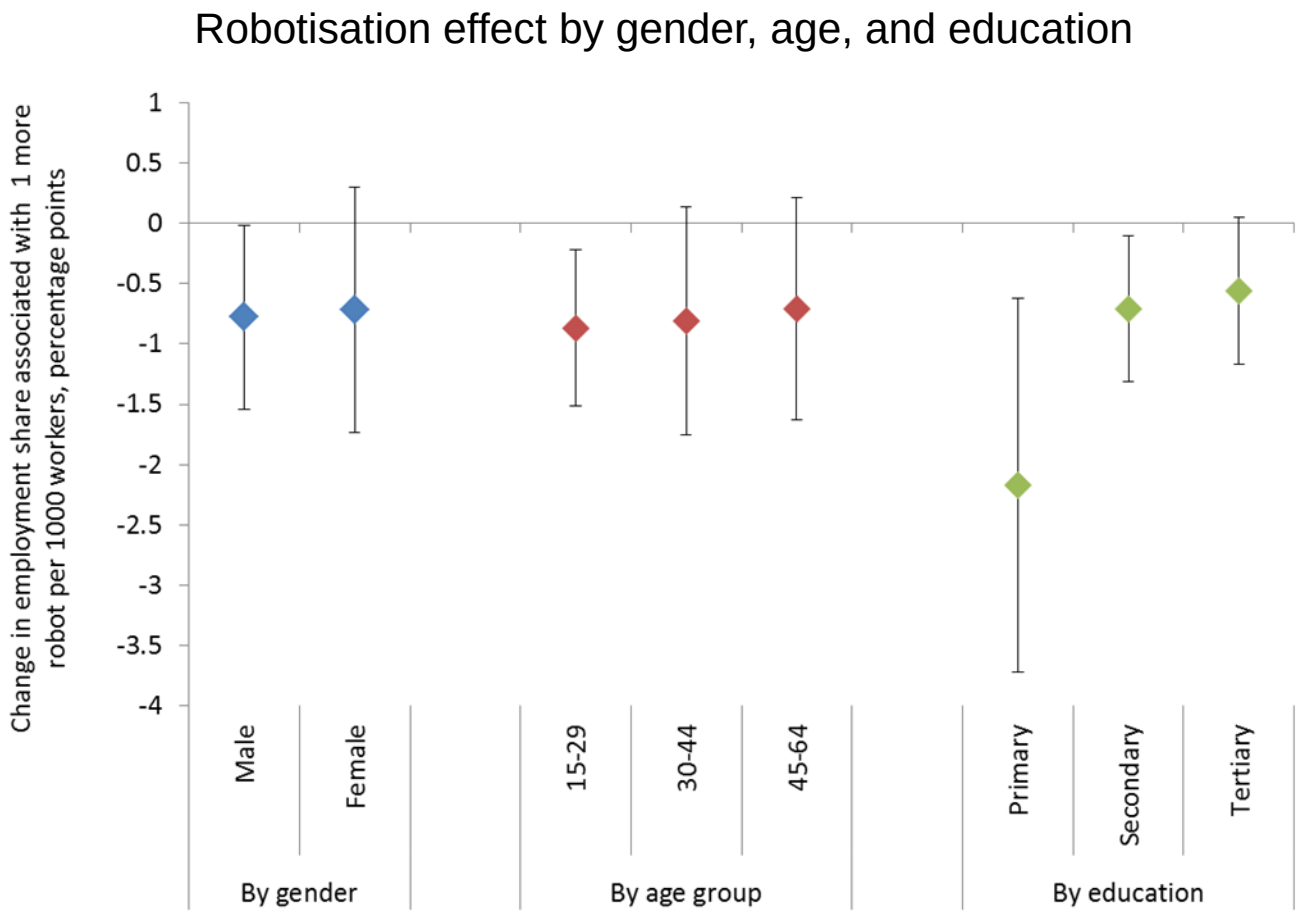
As labour force shrink in Emerging Europe and labour costs rise, incentives to automate jobs may be stronger than in other EMs

Robots per worker and median age of worker



Source: International Federation of Robotics (IFR), ILO and authors' calculations. Based on data for 2017 or the latest year available.

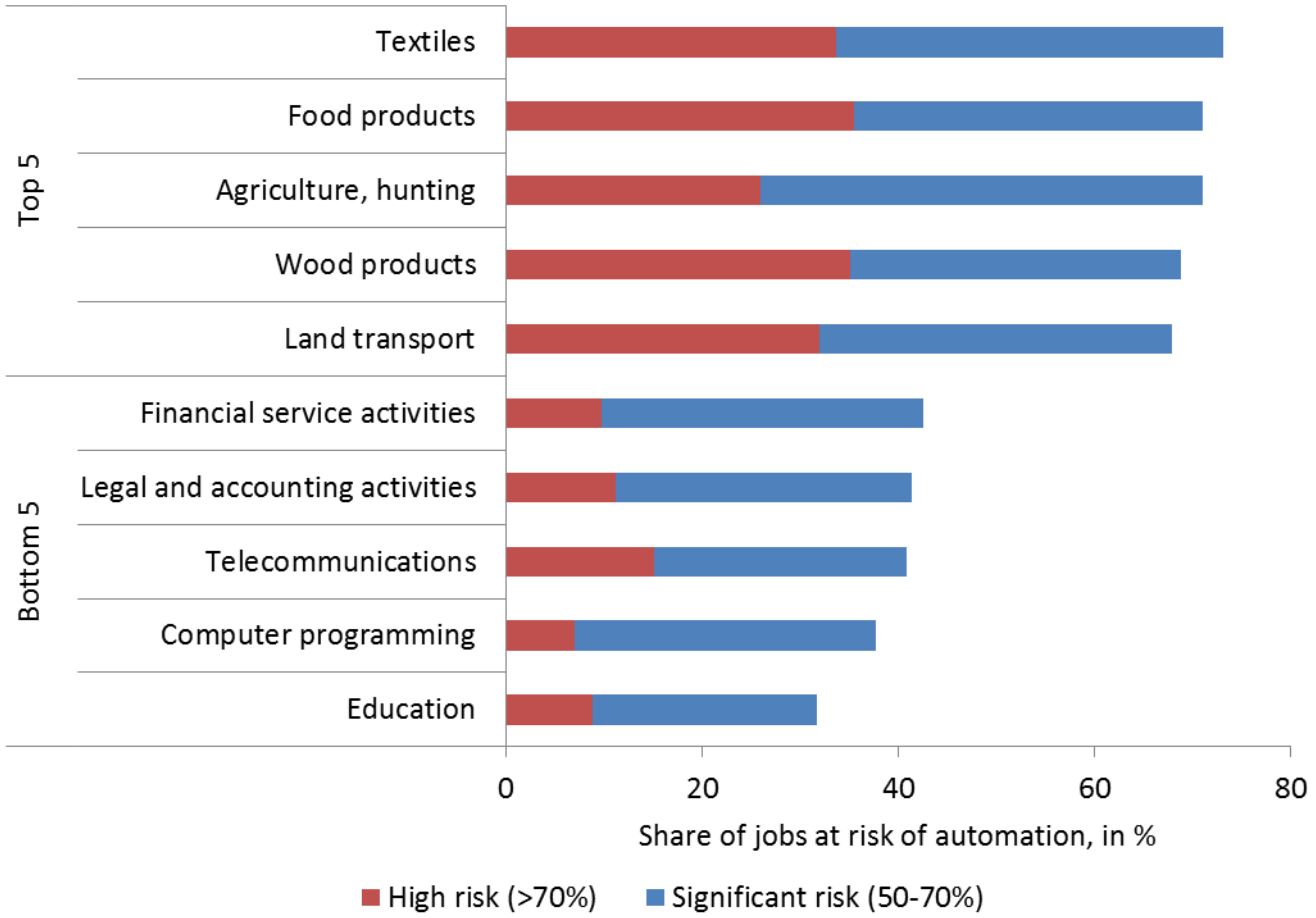
Robotisation has so far led to a small drop in employment in Central / SE Europe (0.2% of labour force)



Source: Eurostat, IFR and authors' calculations. Based on instrumental variables (IV) regression estimates for individual demographic groups where the dependent variables is change in employment to labour force ratio over 2010-16, 95% confidence intervals shown.

Automation is expected to affect primary sector jobs most and services least

Industries expected to be most and least affected by automation in the EBRD regions



Source: Authors' calculations based on Nedelkoska and Quintini (2018). Based on 2-digit ISIC classification (rev. 4). Jobs are at high (significant) risk of automation if at least 70 per cent (50 to 70 per cent) of tasks involved are at risk.

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