



Outline of the presentation

- Adoption of new technologies
- Labour market and skills
- Product markets and competition
- Summing up: Main policy challenges



Productivity & Competitiveness

Adoption of new technologies

New goods and services

Skills

Management

Education / training

Re-allocation

Innovation capability

R&D

Venture capital

Insolvency regime

Intellectual property rights

Economic environment

Infrastructure

Relative costs

Taxation

Regulations / competition

Attitude towards technology

Social protection

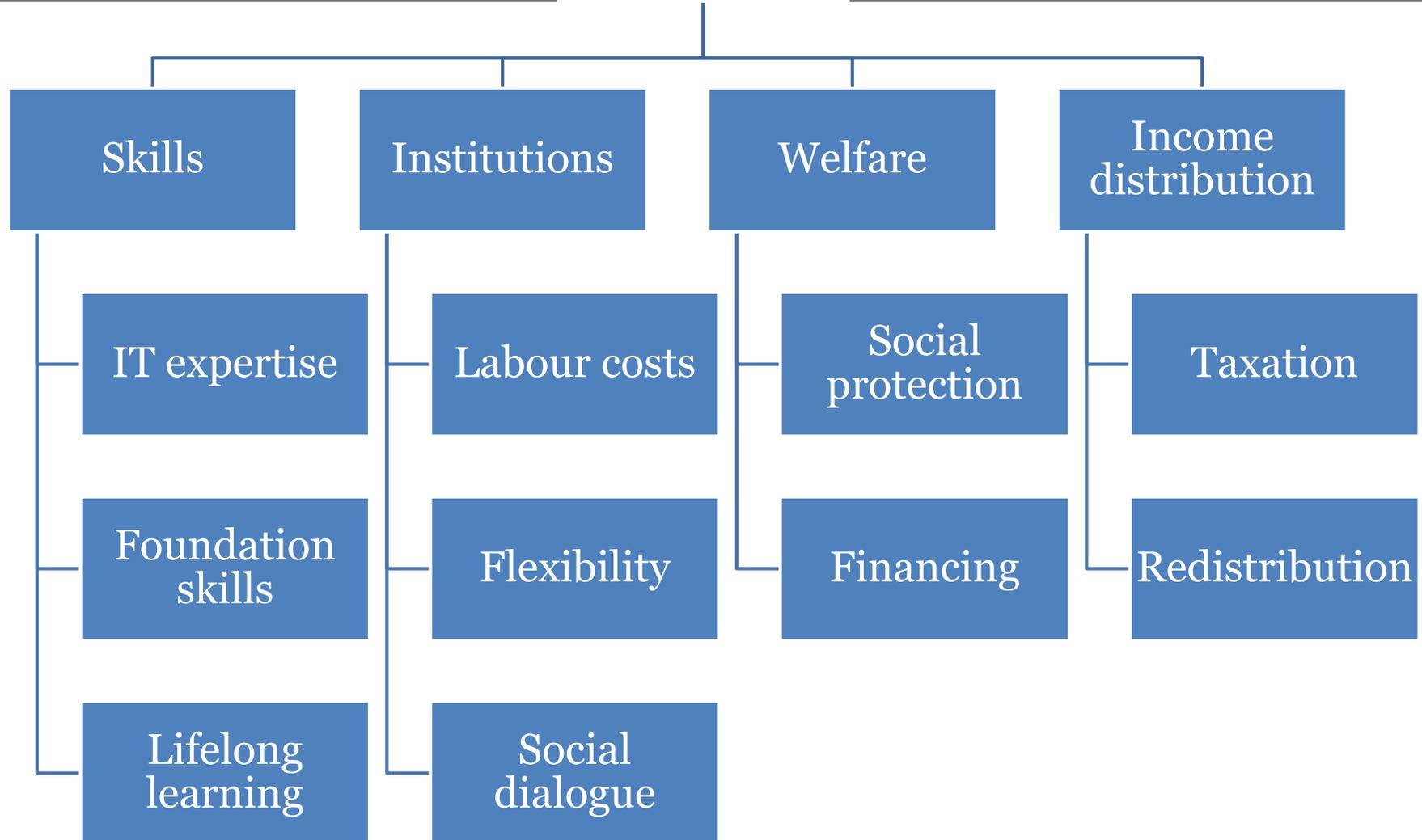
Active labour market policies

Social dialogue

Cyber security

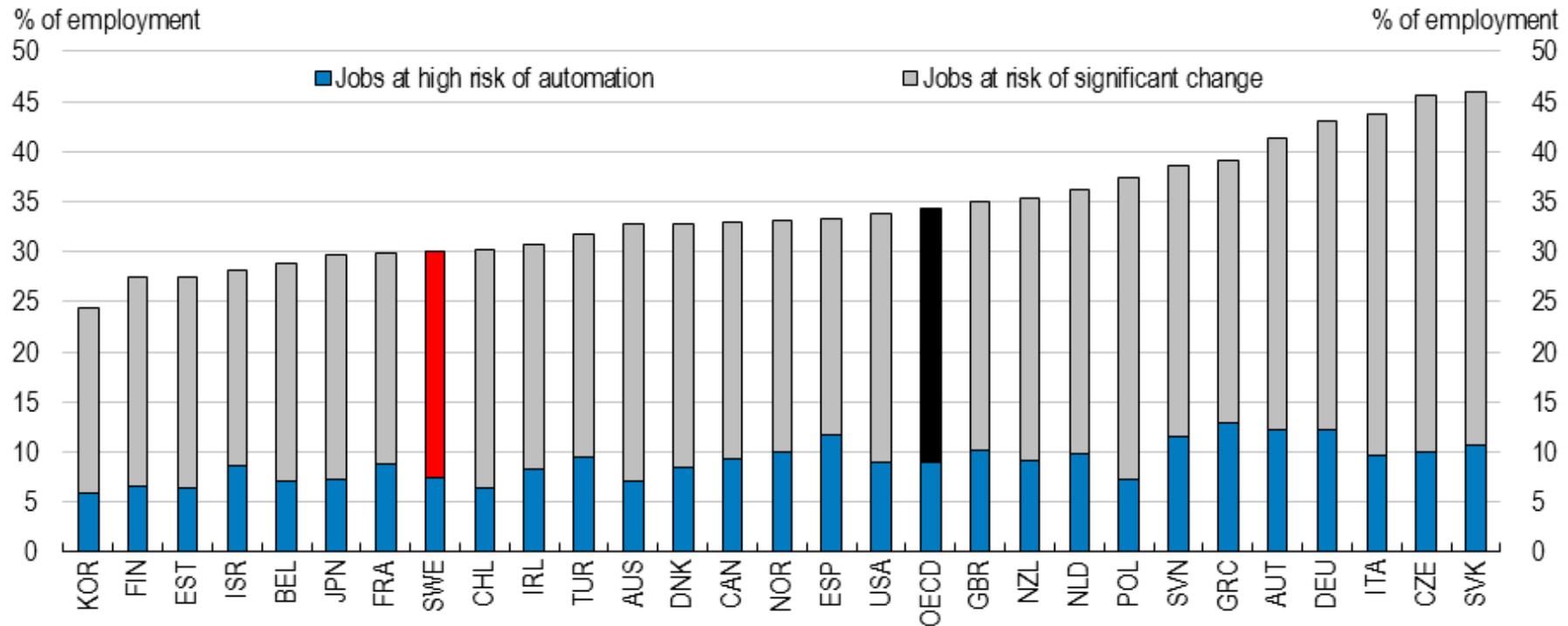


Labour market





Many jobs are at risk of automation



Note: Based on the analysis of the task content of individual jobs using the *OECD Adult Skills Survey* (PIAAC). Jobs are at high risk of automation if the likelihood of being automated is at least 70%. Jobs at risk of significant change are those with the likelihood of being automated estimated at between 50 and 70%.

Source: OECD (2017), *Employment Outlook*.

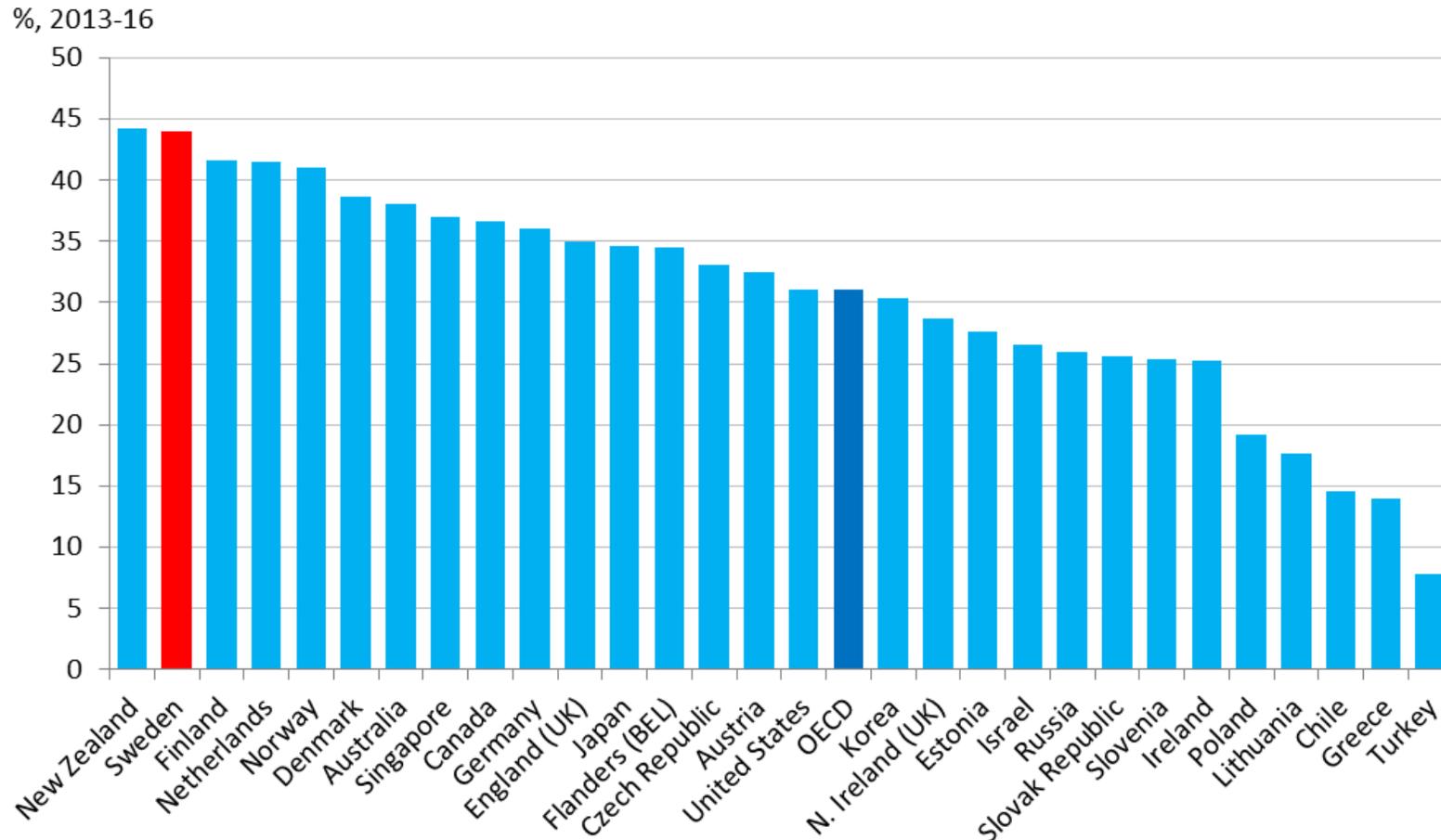


Consequences?

- Job destruction but also new opportunities
- Cost-cutting or improved production processes and innovation?
- Competitiveness gains (cost and non-cost)
- Re-shoring
- Productivity gains -> purchasing power -> demand for other goods and services -> new jobs
- Income distribution: equity and macroeconomic effect
- Welfare policy design and financing
- Job transitions



A large share of Swedes has high proficiency in problem solving in technology-rich environments

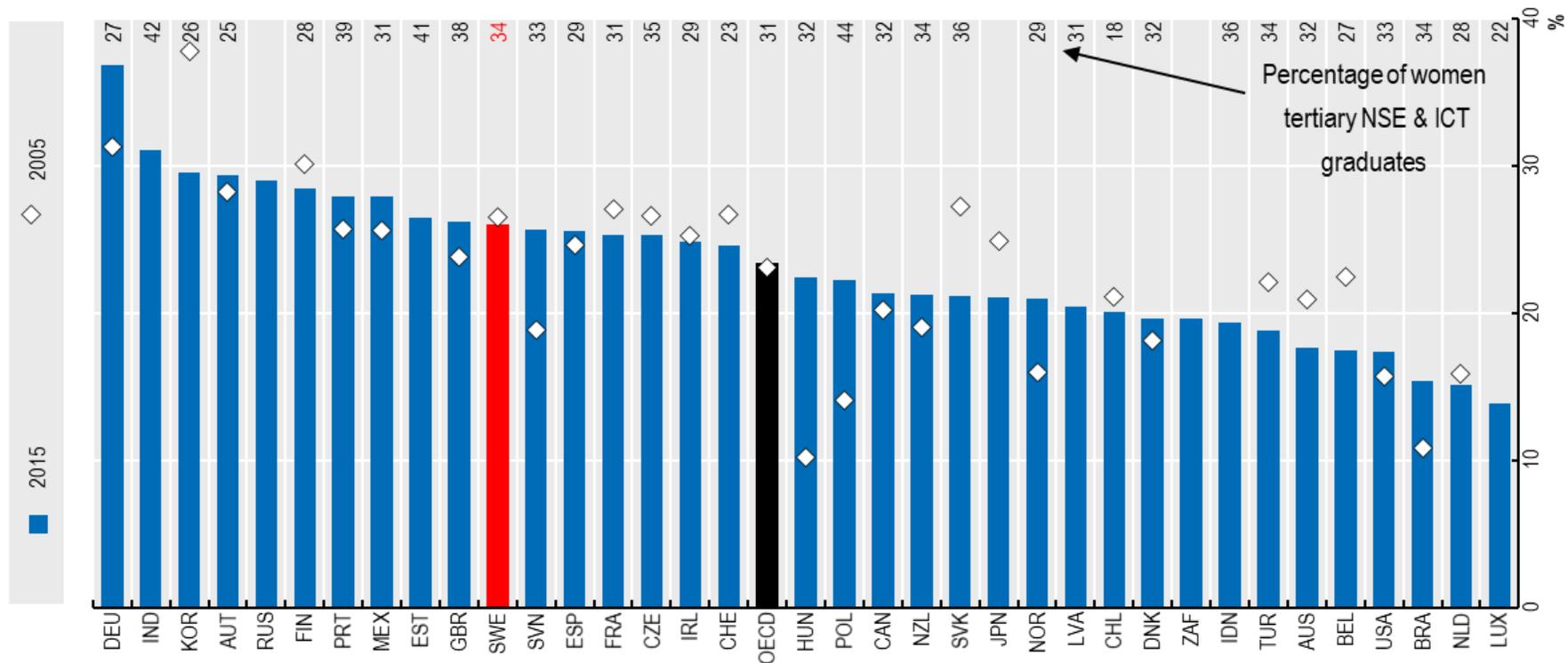


Source: OECD (2016), *Skills Matter: Further Results from the Survey of Adult Skills*.



Sweden has many science graduates

Tertiary graduates in natural sciences, engineering and ICTs (NSE & ICT)
As a percentage of all tertiary graduates

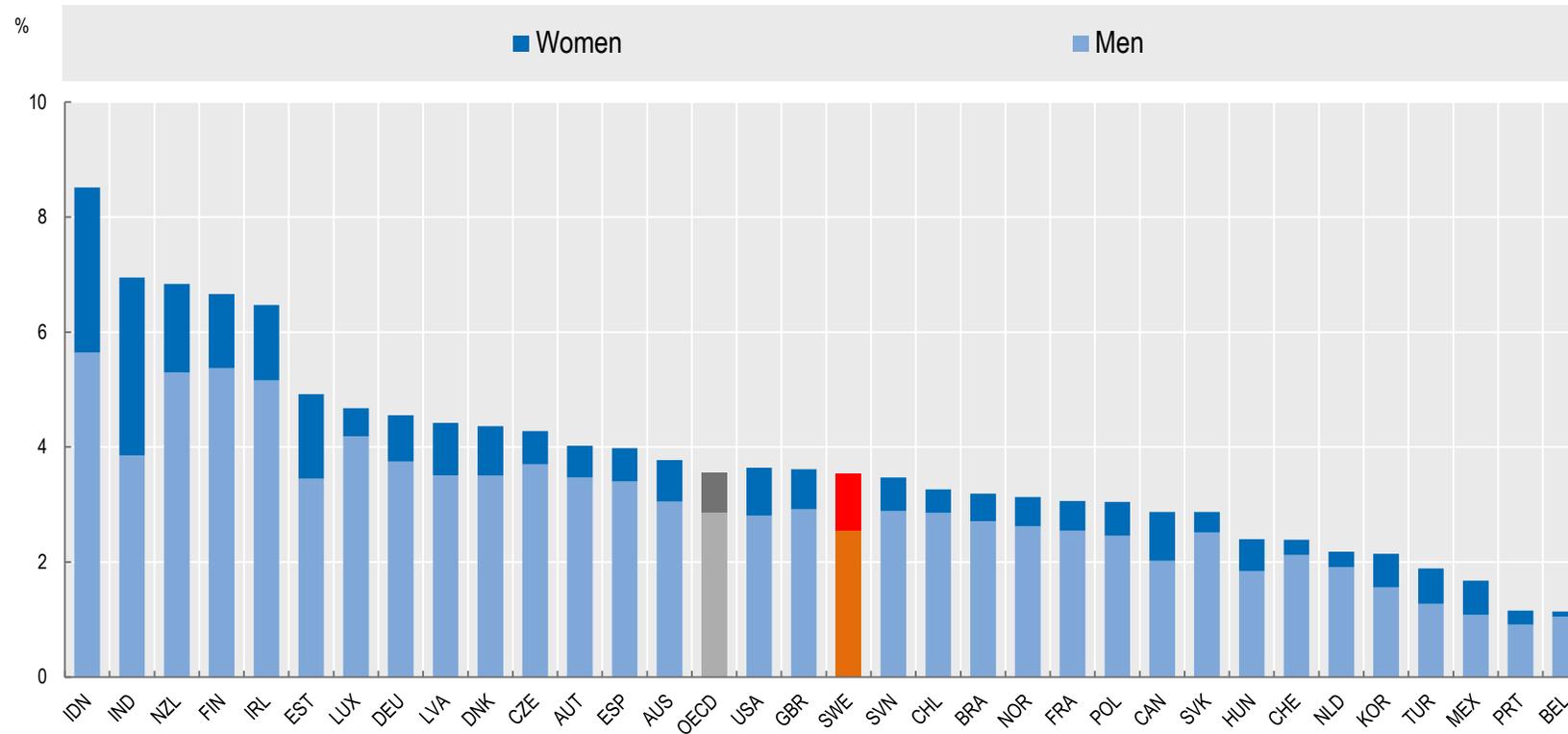


OECD, based on OECD (2017), *Education at a Glance 2017: OECD Indicators and OECD (2007), Education at a Glance 2007: OECD Indicators*, OECD Publishing, Paris.



The proportion of ICT graduates is close to the OECD average

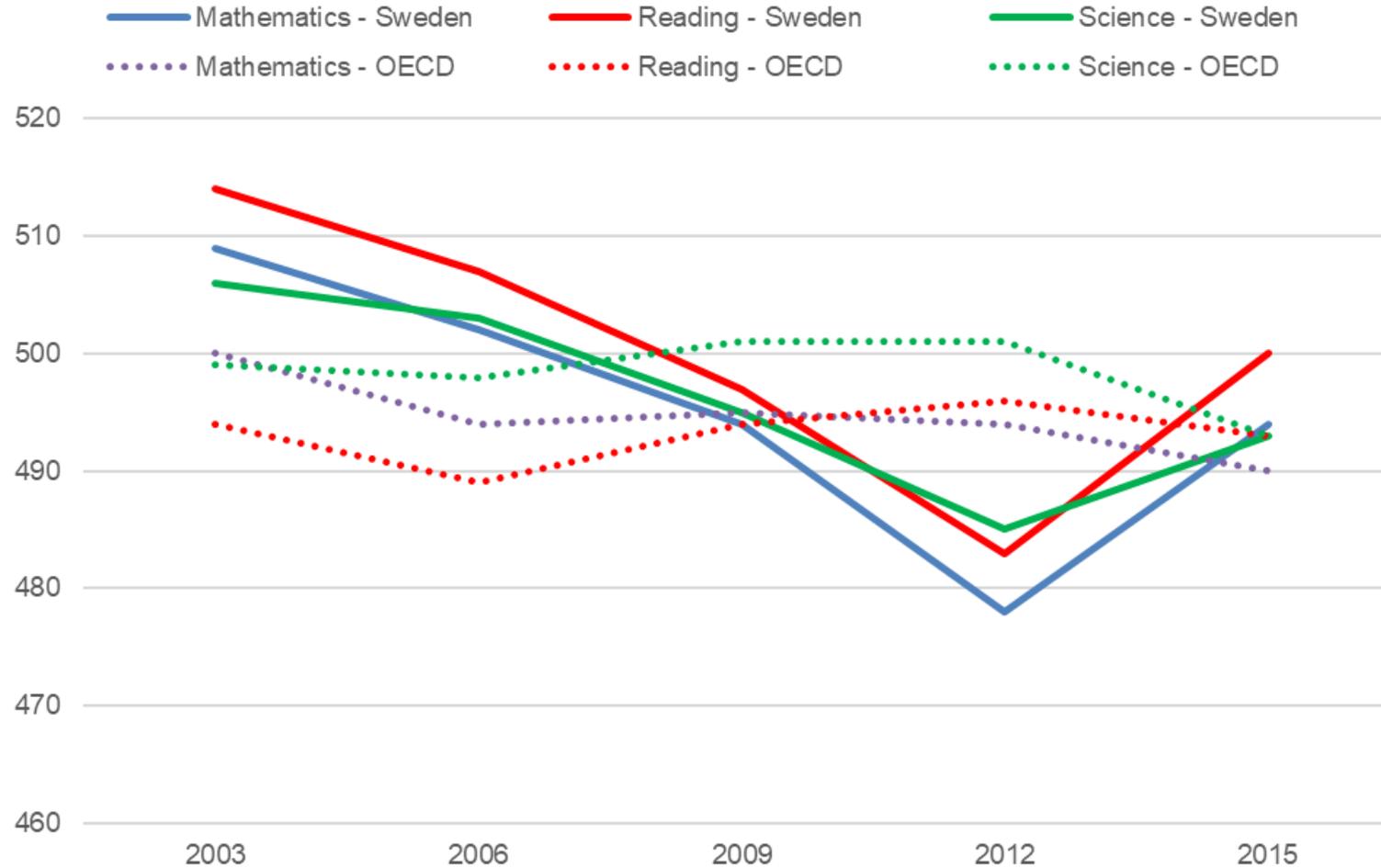
Tertiary graduates in Information and communication technologies, 2015
As a percentage of all tertiary graduates



Source: OECD calculations based on OECD, Education Database, September 2017.



Results for 15-year-old students (PISA) are still disappointing

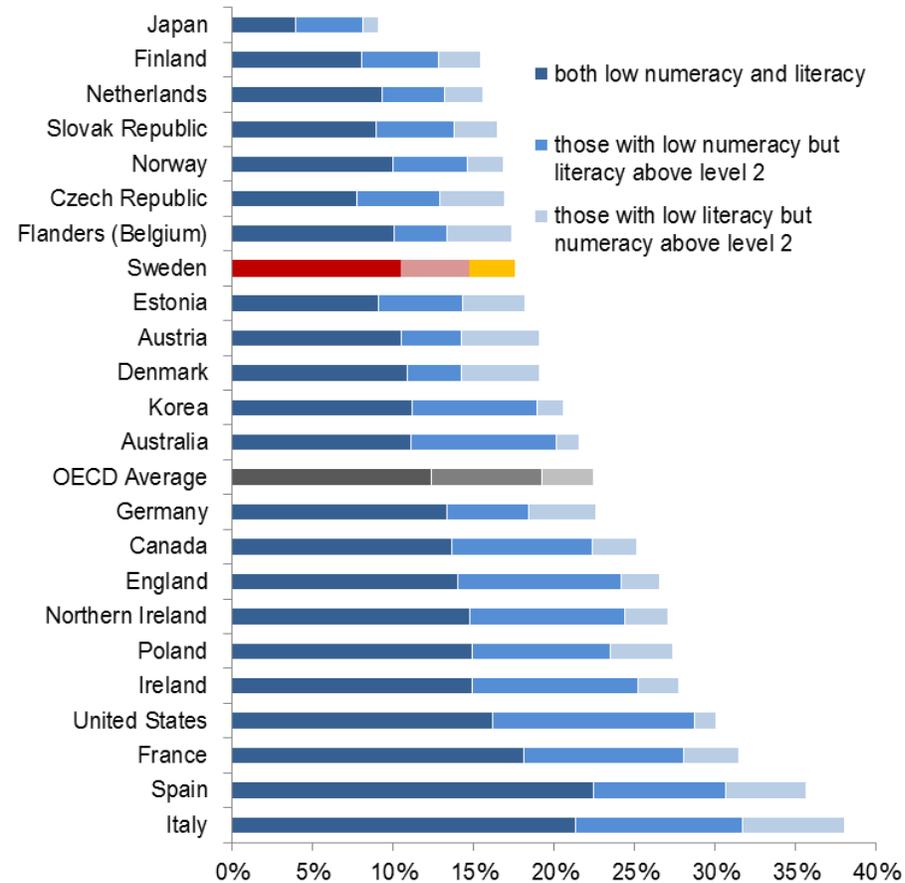


Source: OECD, Programme for International Student Assessment (PISA).



A significant share of adults has weak foundation skills

Percentage of adults aged 16-65 lacking foundation skills (2012)

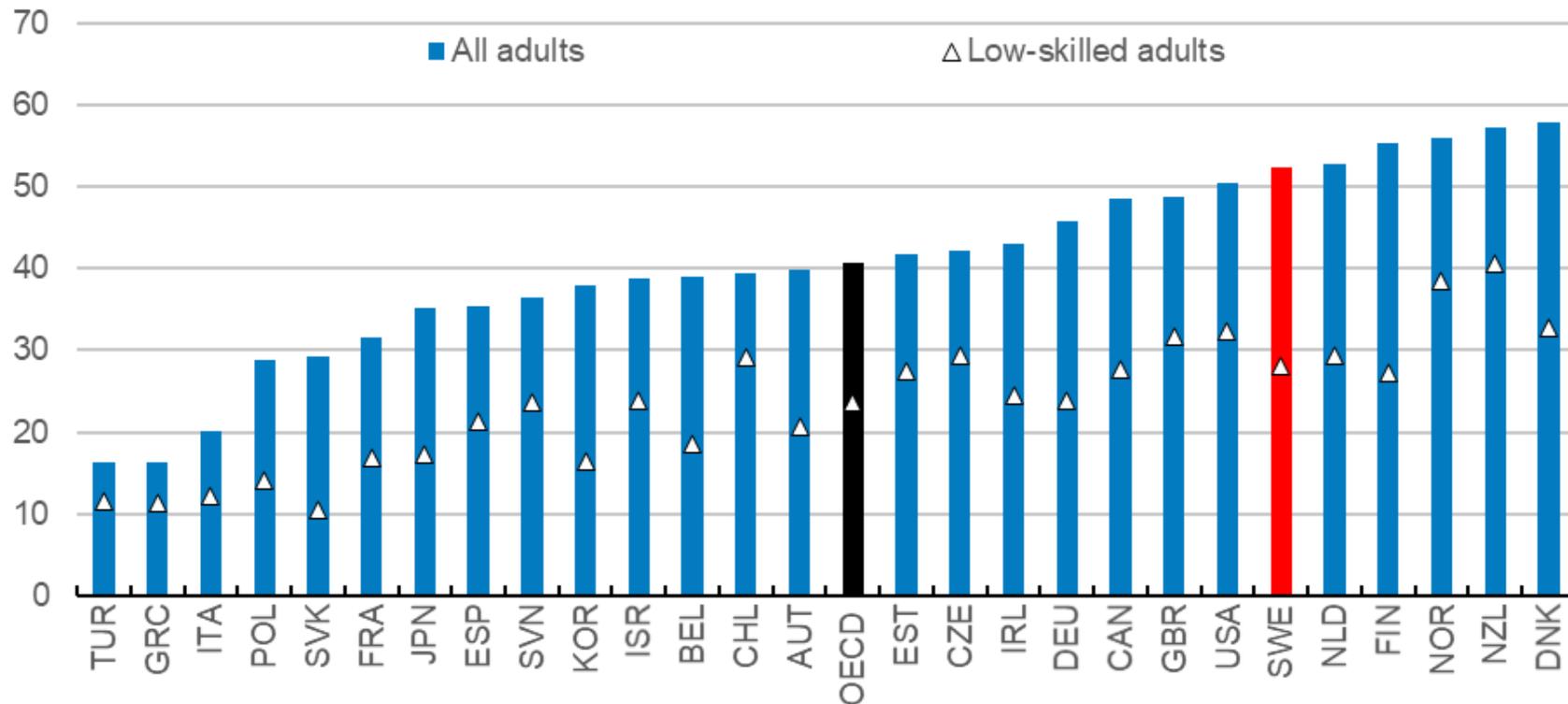


Source: Musset, P. (2015), "Building Skills for All: A Review of Finland", *OECD Skills Studies*.



Lifelong learning: the low-skilled receive less training

Percentage of adults (aged 15-64) receiving training over a 12-month period



Note: Low-skilled adults are defined as people scoring at or below a PIAAC literacy score of 225 points.

Source: OECD Survey of Adult Skills (PIAAC), 2012, 2015.



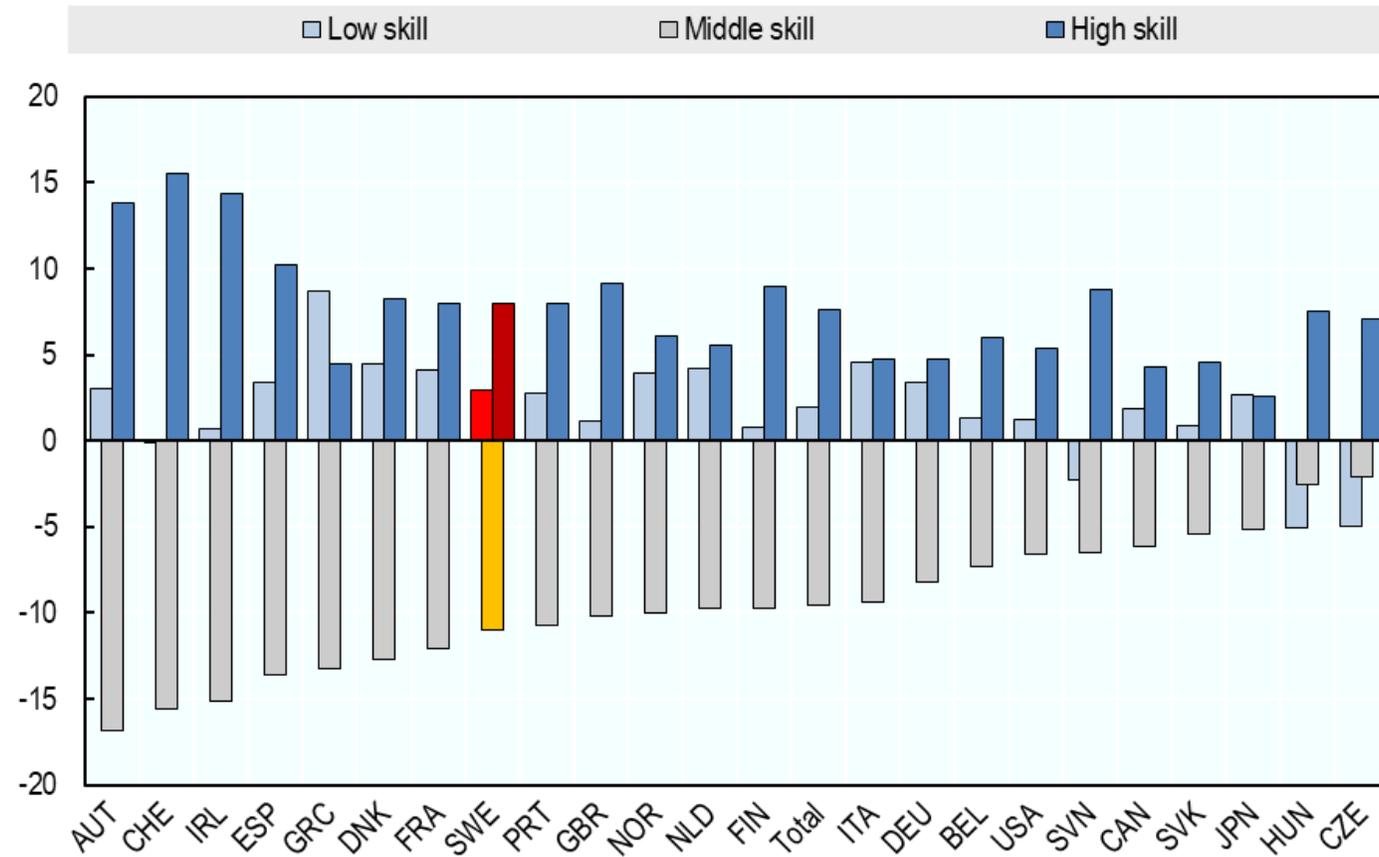
Lifelong learning: some policy directions

- Compatibility between training and employment (e.g. time flexibility, training leave, on-line learning)
- Responsiveness to different and evolving needs
- Recognition and certification of learning
- Co-financing, tax credits and allowances
- Widen coverage (e.g. individual learning accounts, vouchers)
- Unemployed: training in active labour market policies (e.g. adaptation of supply, career guidance)



Labour markets are becoming more polarised

Percentage point change in share of total employment, 1995-2015



Source: OECD Employment Outlook 2017.



Challenge to the welfare model: is a universal basic income (UBI) a solution?

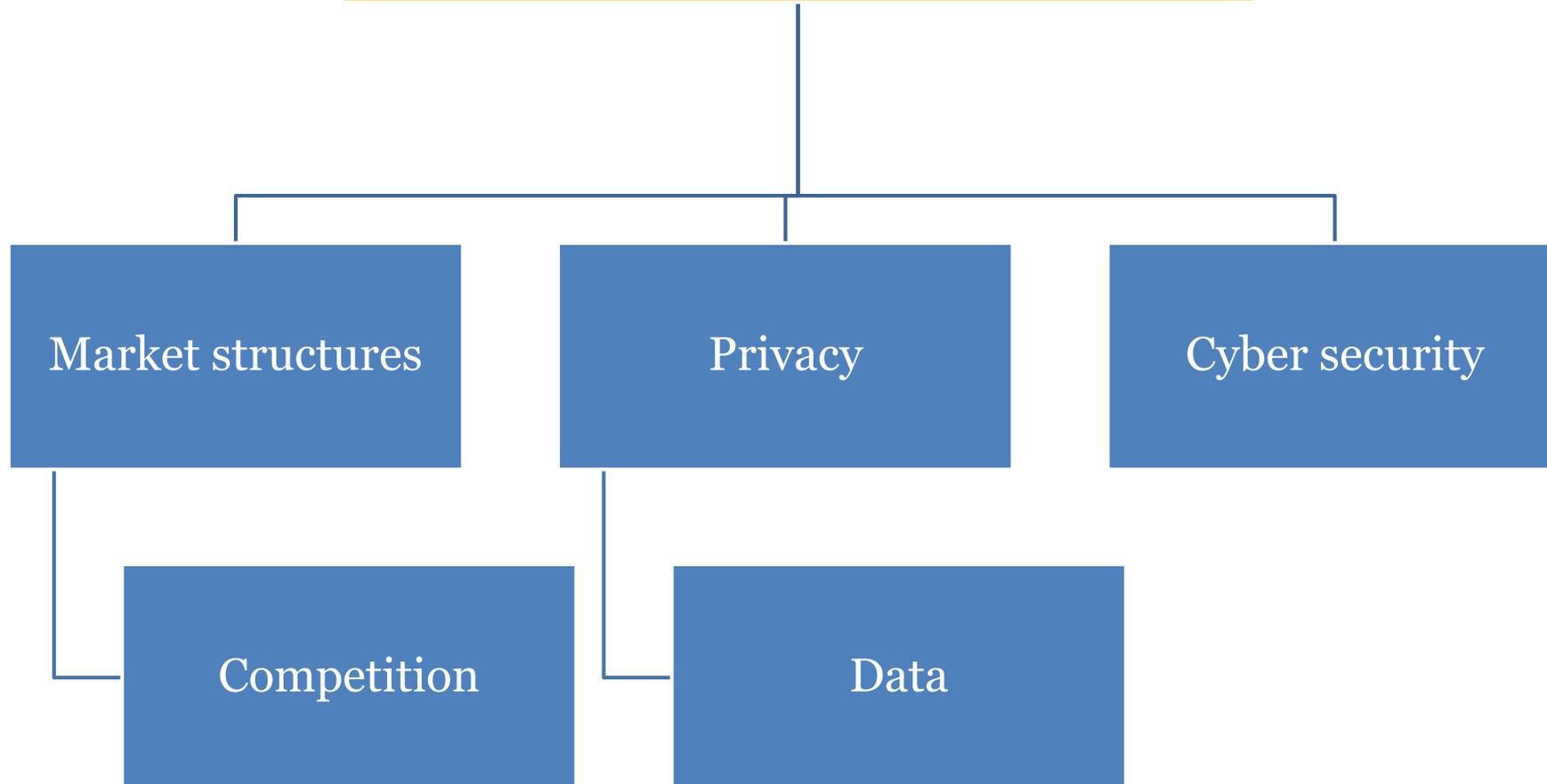
- Advantages: simple, comprehensive (no stigma), income security, greater flexibility for managing work and other activities
- A budgetary neutral implementation of UBI would be very far from avoiding poverty
- The introduction of UBI would have large distributional implications
- Poverty rates could in fact increase in countries with tightly targeted income support
- Some targeted benefits may have to be kept
- Impact on work incentives?
- Impact of removal of conditionality of benefits?

Sources:

- OECD (2017), “Basic income as a policy option: Can it add up?”, Policy Brief on the Future of Work.
- Pareliussen, J., H. Hwang and H. Viitamäki (2018), “Basic income or a single tapering rule? Incentives, inclusiveness and affordability compared for the case of Finland”, *OECD Economics Department Working Papers*, No. 1464.



Product markets



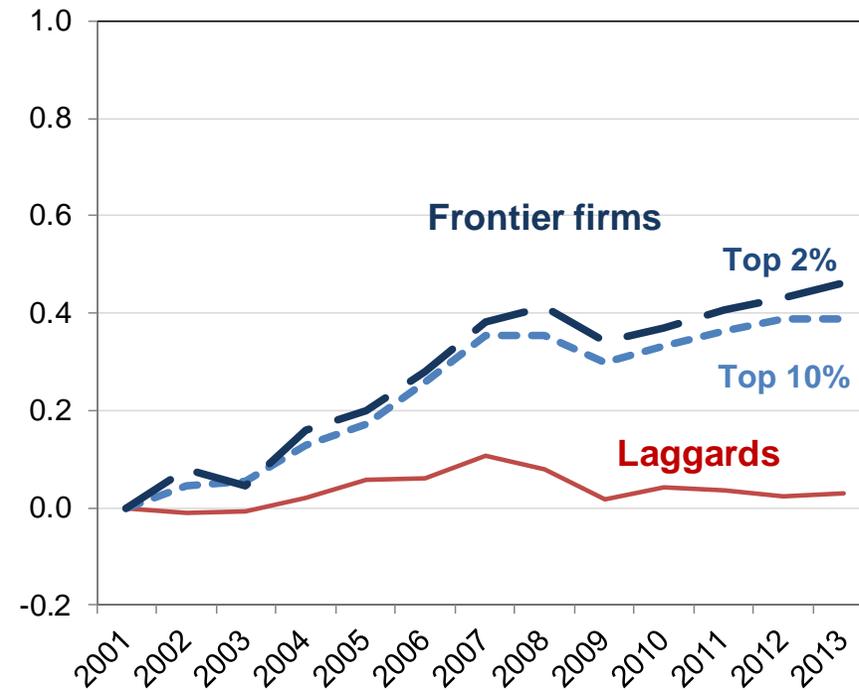
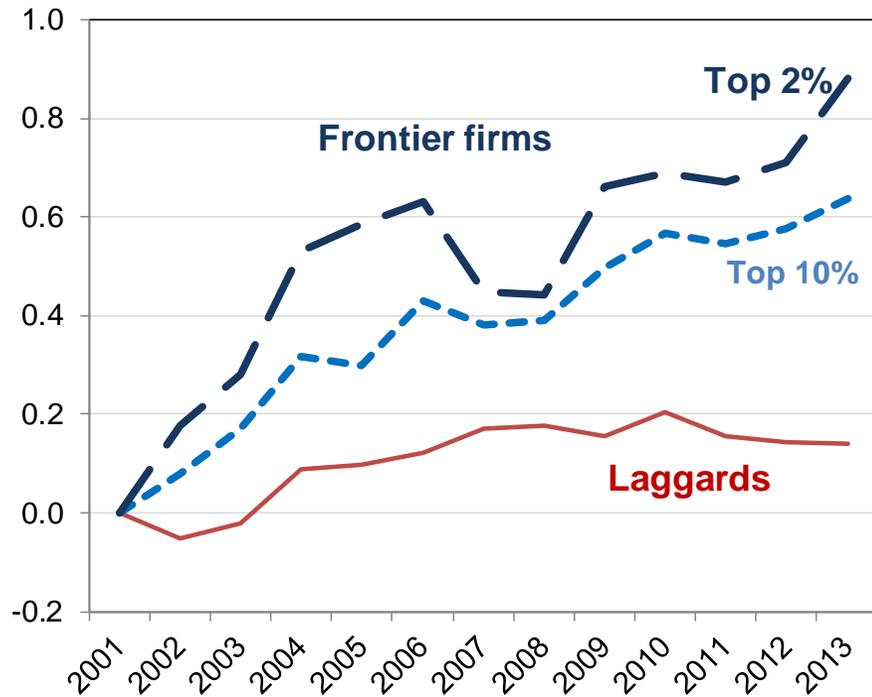


The productivity divide in the digital era: “winner-takes-all”? OECD sample, 24 countries

Multi-factor productivity is becoming more dispersed
(in logs; 2000 = 0; average across firms by productivity percentiles)

ICT services

Non-ICT services



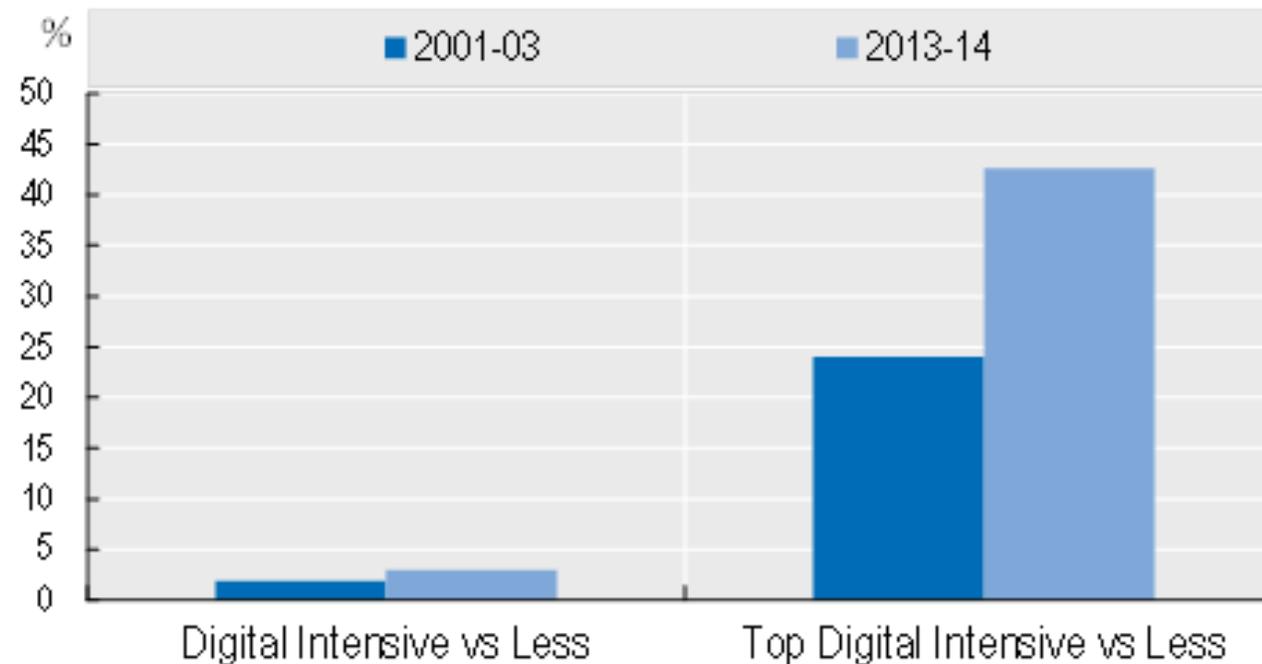
Source: Andrews, D., C. Criscuolo and P. Gal (2016), “The Best versus the Rest: The Global Productivity Slowdown, Divergence across Firms and the Role of Public Policy”, *OECD Productivity Working Papers*, No. 05.



Rising mark-ups in digital-intensive sectors

Concerns for competition?

Differences in firm-level mark-ups across sectors
(average across countries)



Note: Digital intensive sectors score above the median of all sectors on a synthetic indicator of digital intensity. Top digital intensive sectors stand in the top quartile.

Source: Calligaris, S., C. Criscuolo and L. Marcolin (2018), “Mark-ups in the digital era”, *OECD Science, Technology and Industry Working Papers 2018/10*.



Summing up: Main policy challenges in adaptation to technological change

- Adapting regulations to changes in technology and the global business environment to avoid hampering innovation, while protecting citizens/consumers and ensuring a level playing field for businesses
- Developing innovation capabilities and building adequate infrastructure
- Education: ICT skills, foundation skills and lifelong learning
- Labour market: ensuring flexibility, preventing exclusion and polarisation
- Adapting the welfare system to new forms of employment
- Adapting the tax system to globalised and digitalised business models



THANK YOU !