



An Roinn Airgeadais
Department of Finance

The emerging impact of AI on employment patterns in Ireland

Damian Hrynczuk, Department of Finance
Presentation at 14th Annual NERI Labour Market Conference
26th May 2026

Introduction and context



- Department of Finance has been active in assessing potential impact of AI
 - AI: Friend or Foe? – published in June 2024.
 - Found that 63% of employment is relatively exposed to AI.
 - Ireland's labour market one of most exposed globally.
 - Increasing share of job postings in Ireland that mention AI.
- Key Questions
 - Given this exposure - are we seeing any emerging impacts of AI on Irish labour market?
 - How do these impacts vary by sector / age? Are they consistent with theory?

Literature review

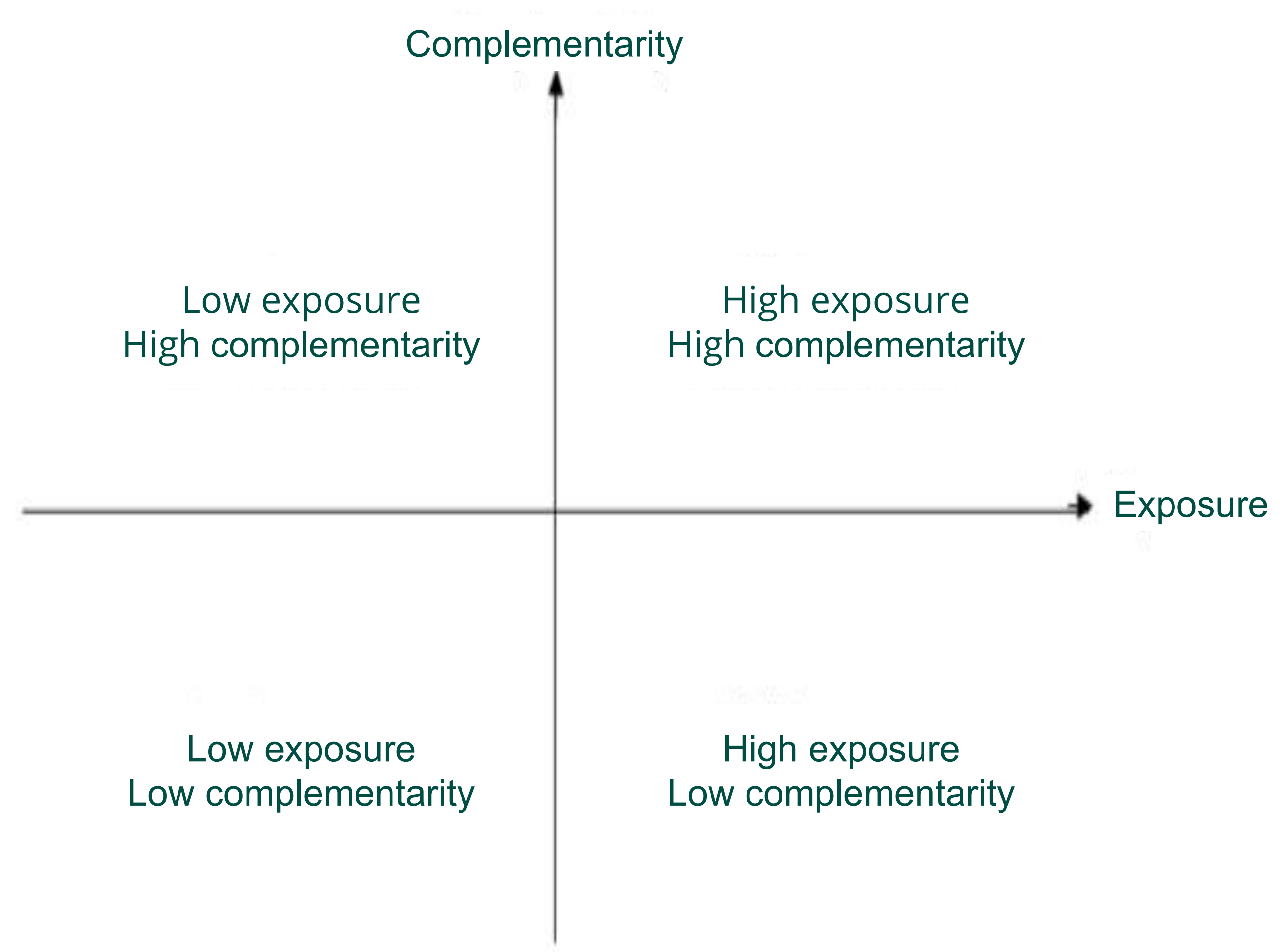


- **Internationally** – work done by the International Monetary Fund (2023; 2026).
 - Estimates of global labour market exposure range between 18-40 per cent.
 - Generative AI adoption has been reducing entry-level hiring in the United States.
 - 60% of current jobs in the United States did not exist in the 1940s (Autor, 2022).
 - World Economic Forum: 170 million jobs created by 2030.
 - Literature broadly split: ‘optimists’ and ‘pessimists’
- **Domestically**
 - AI: Friend or Foe: 63 per cent of employment in Ireland is relatively exposed to AI (greater than advanced economy average of 60 per cent)
 - Economic Insights – Volume 1 2026: 11 per cent of job postings in Ireland mentioned AI-related terms as of November 2025

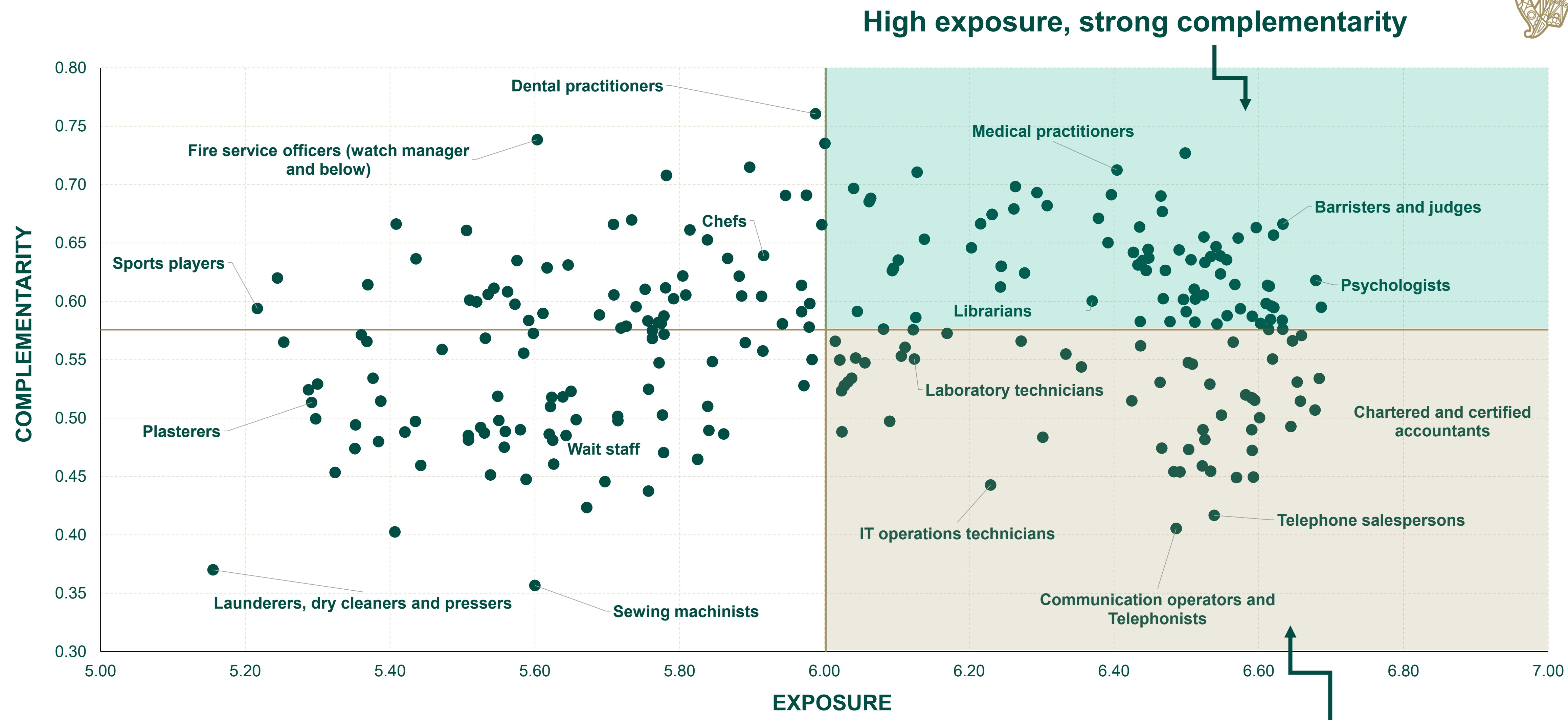
Methodology

- Methodology taken from Department's Friend or Foe paper which provides (i) AI occupation exposure (AIOE) and (ii) complementarity-adjusted AIOE (C-AIOE) indexes for occupations in Ireland.
- This was based on indexes developed by Felten et al (2021) and the IMF (2024).
- AIOE and C-AIOE are measures of **relative** exposure and complementarity.
- Using the median values of AIOE and C-AIOE, occupations can be split into four categories.

Conceptual Framework for AI Exposure and Complementarity



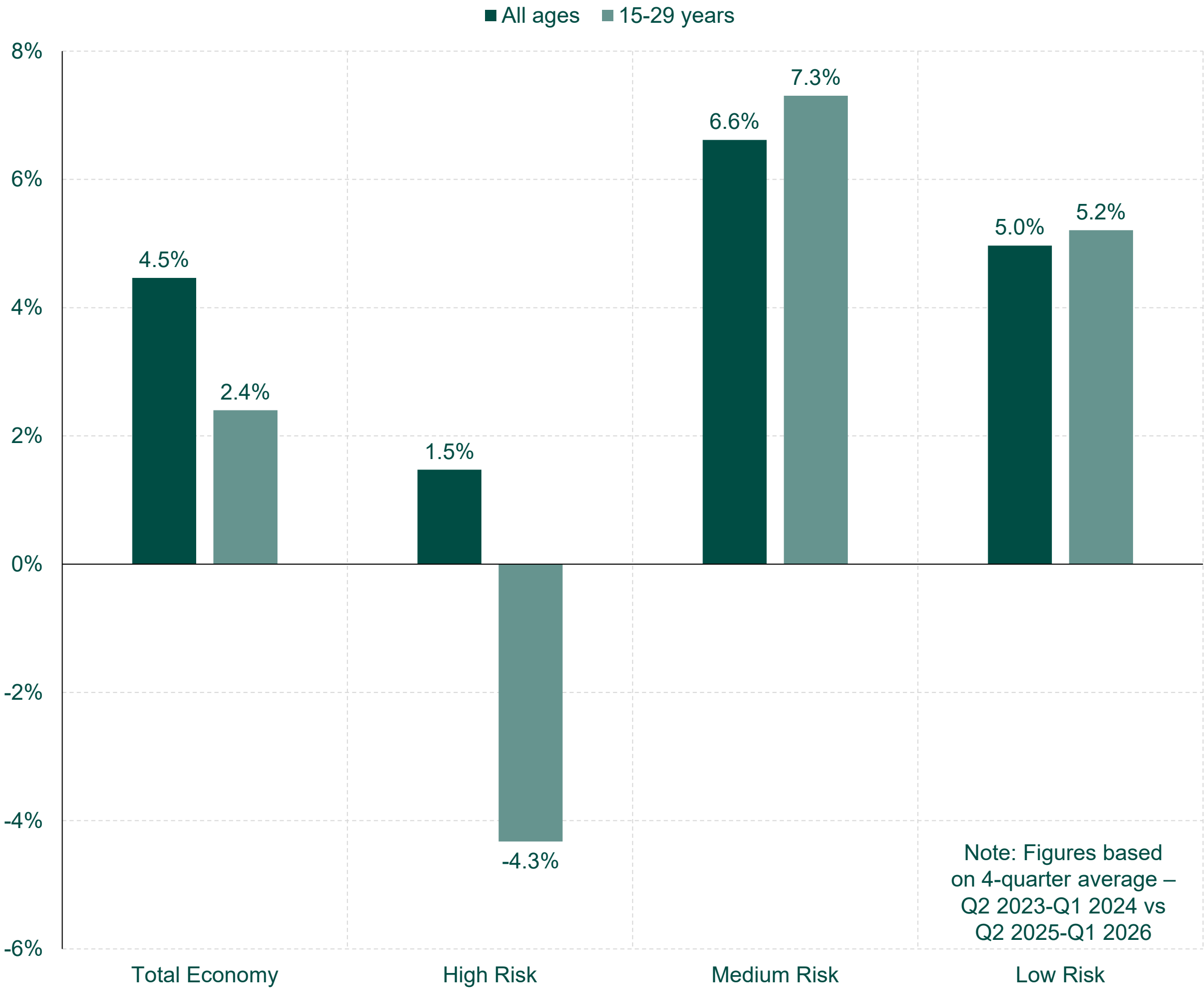
AI Exposure and Complementarity



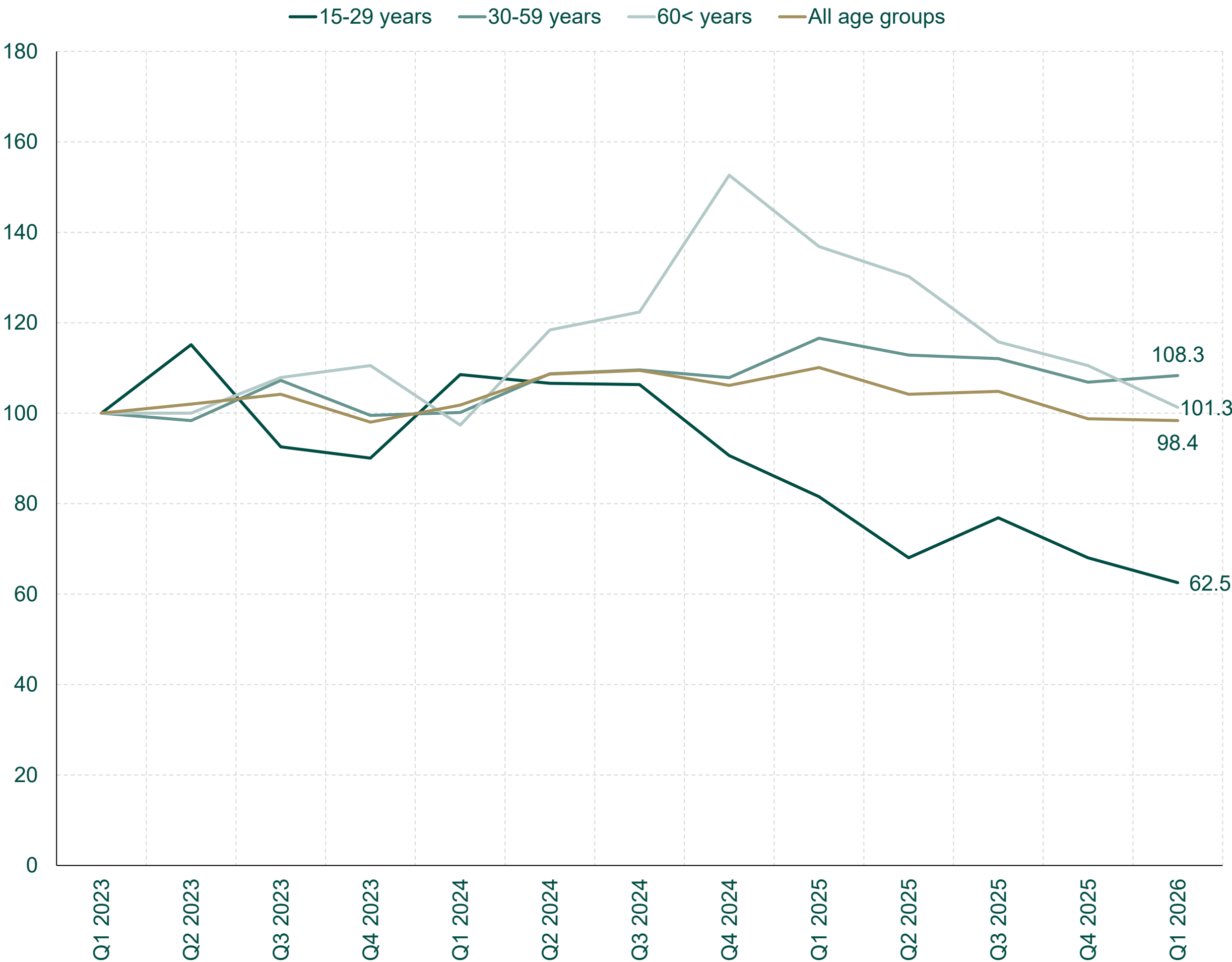
Employment Growth Across Highly Exposed Sectors, 2023-2026



Employment growth across sectoral categories by age



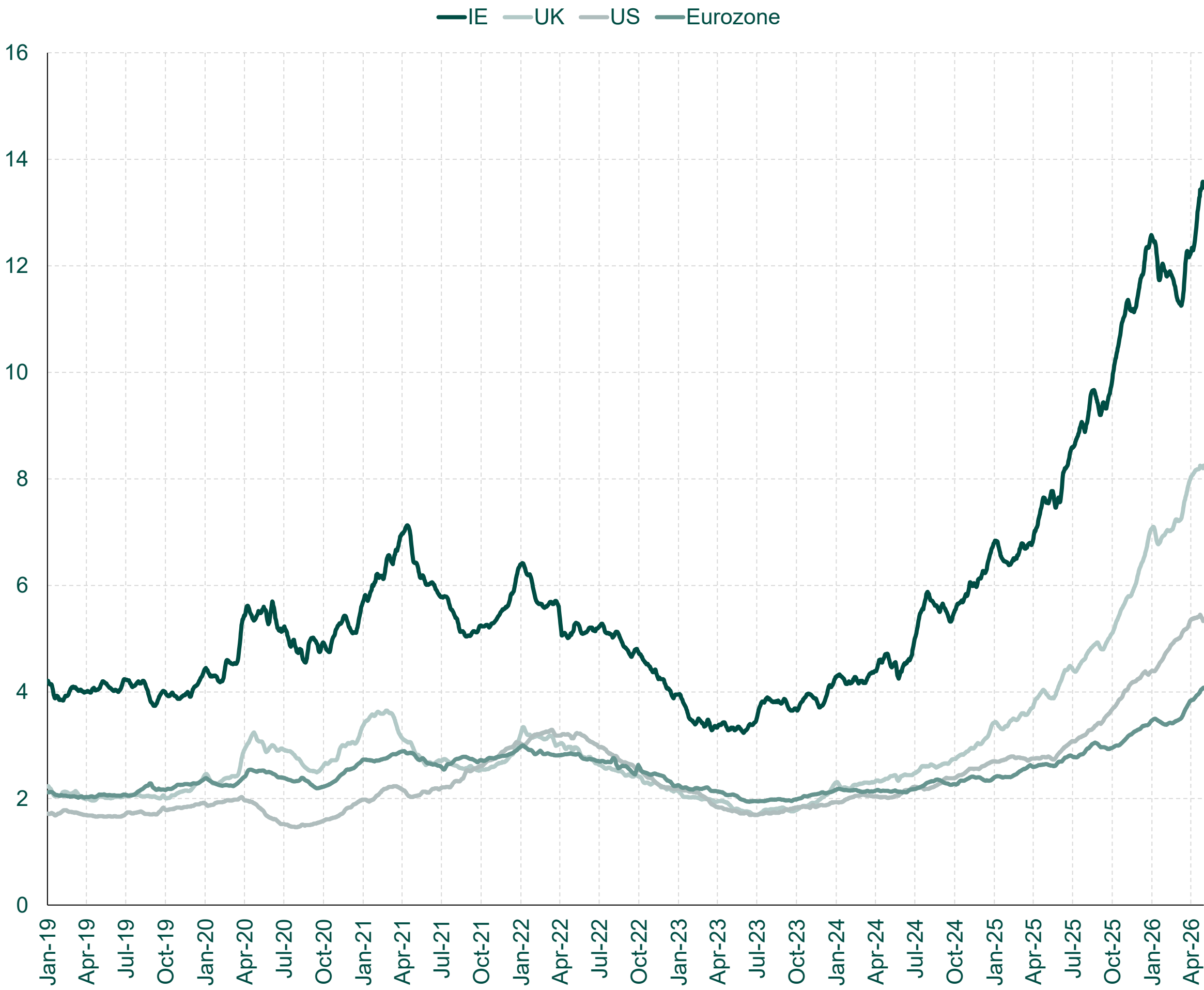
Employment in ICT sector by age (Q1 2023=100)



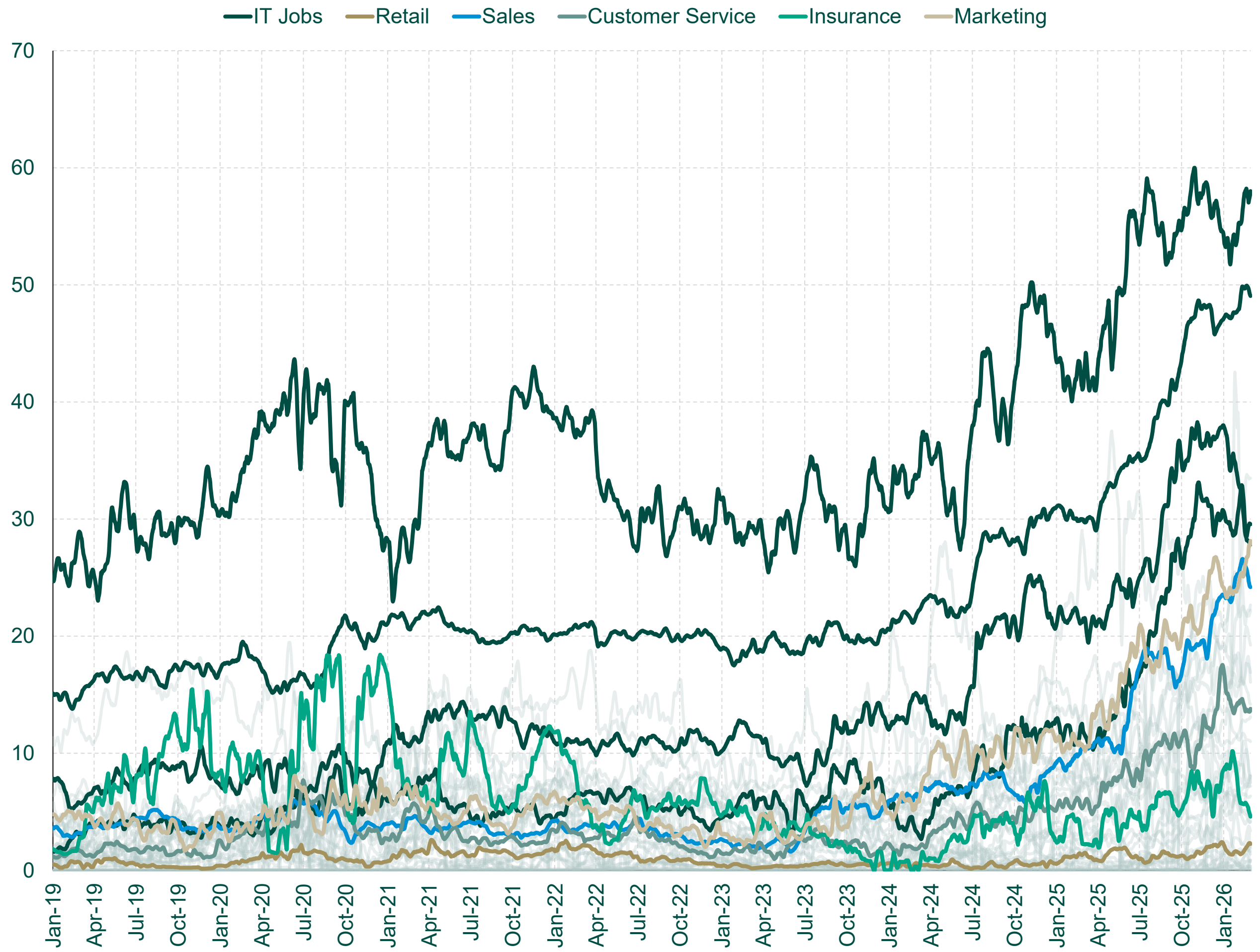
State of play between supply and demand



Share of job postings containing AI terms, per cent



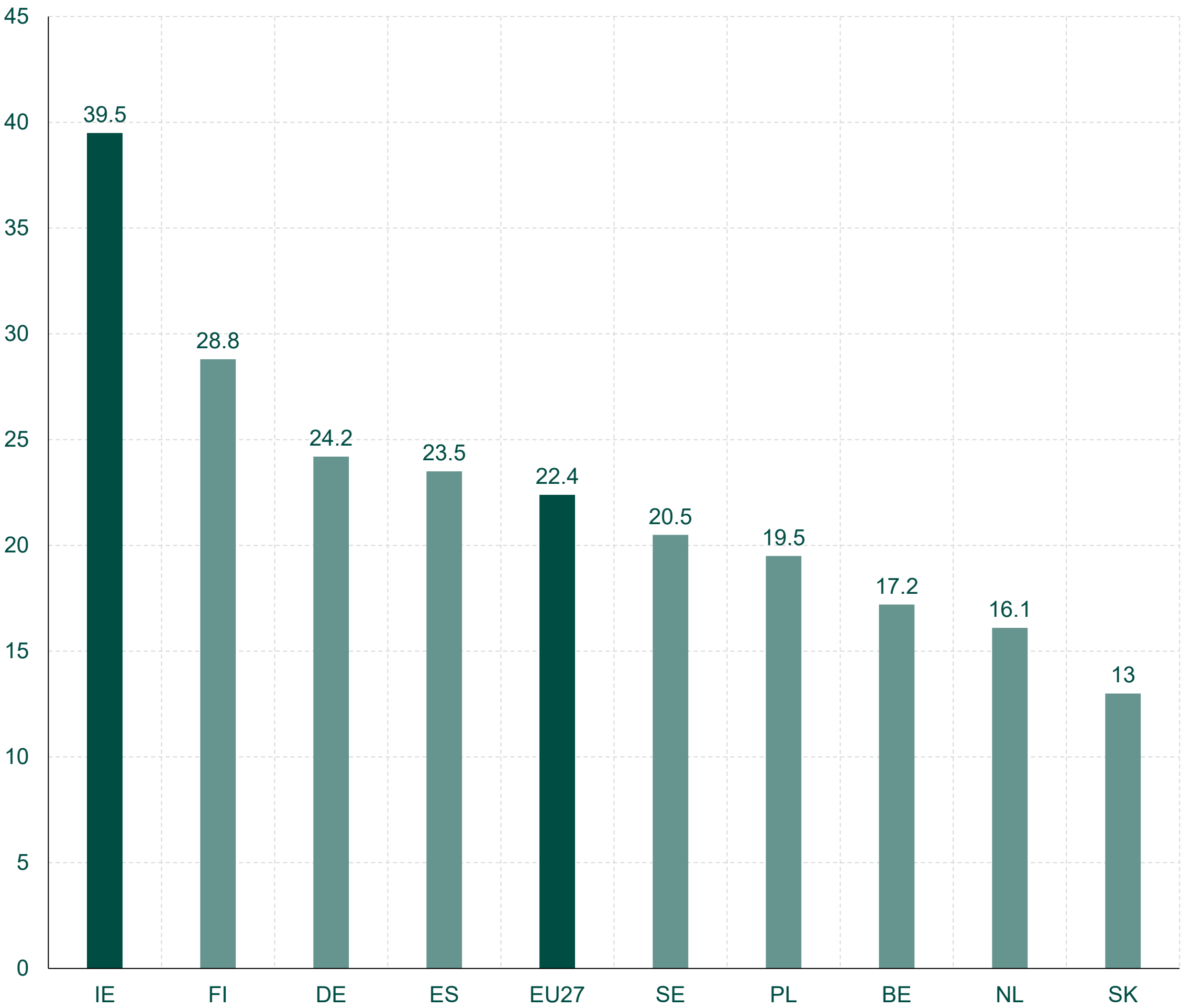
And on sectoral level, per cent



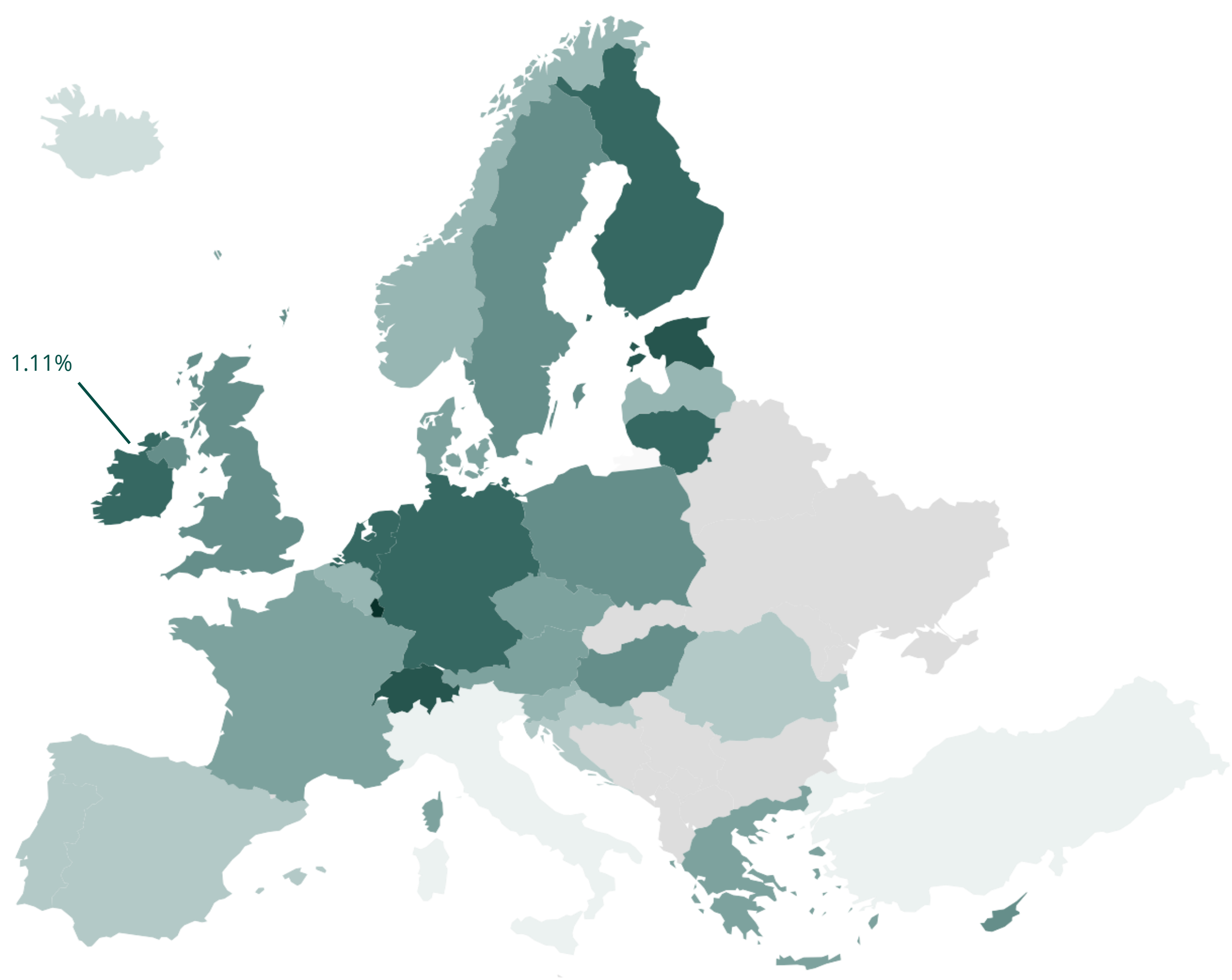
State of play between supply and demand



STEM Graduates per 1000 people aged 20-29, 2023



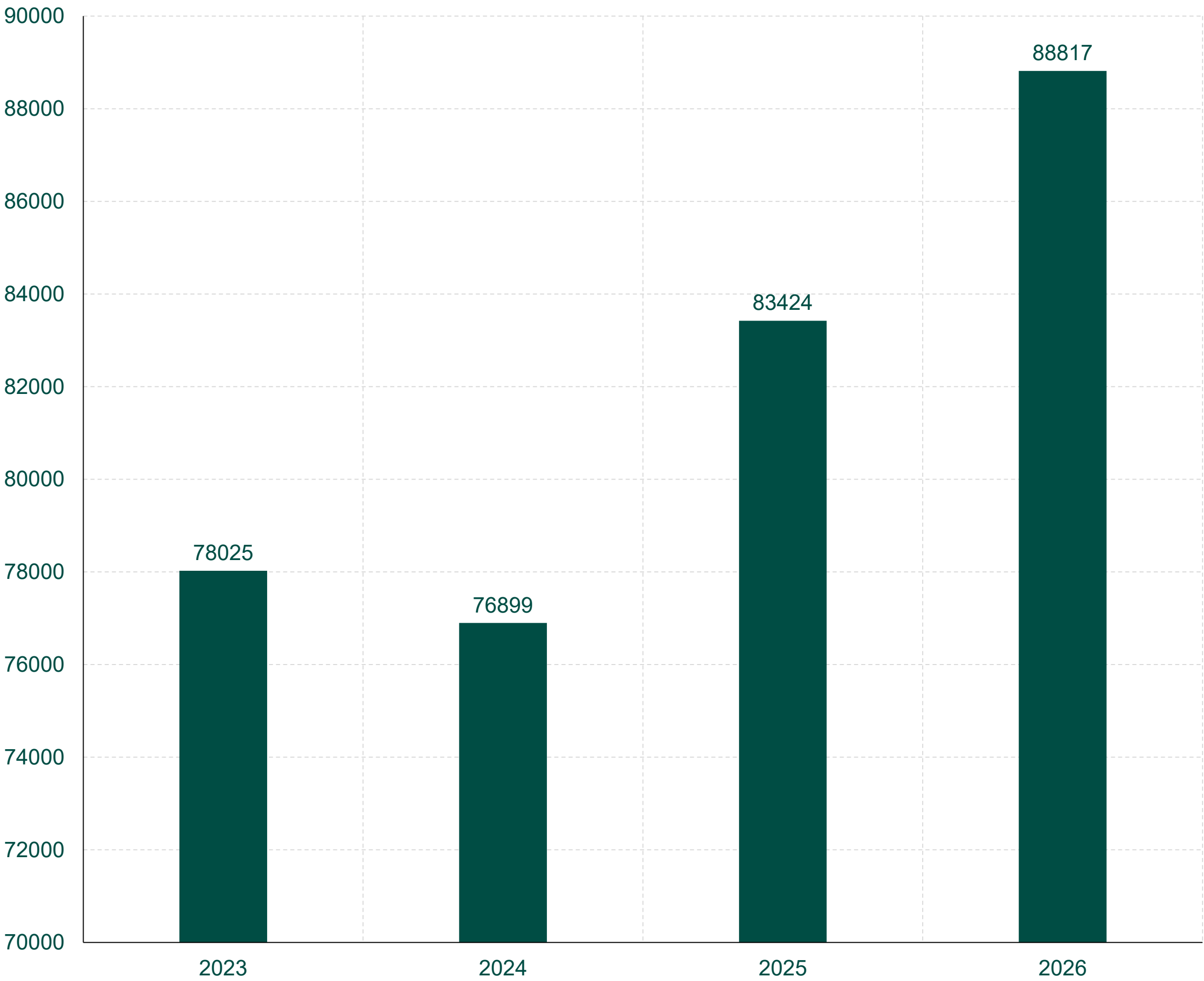
AI Talent Concentration in Europe, per cent



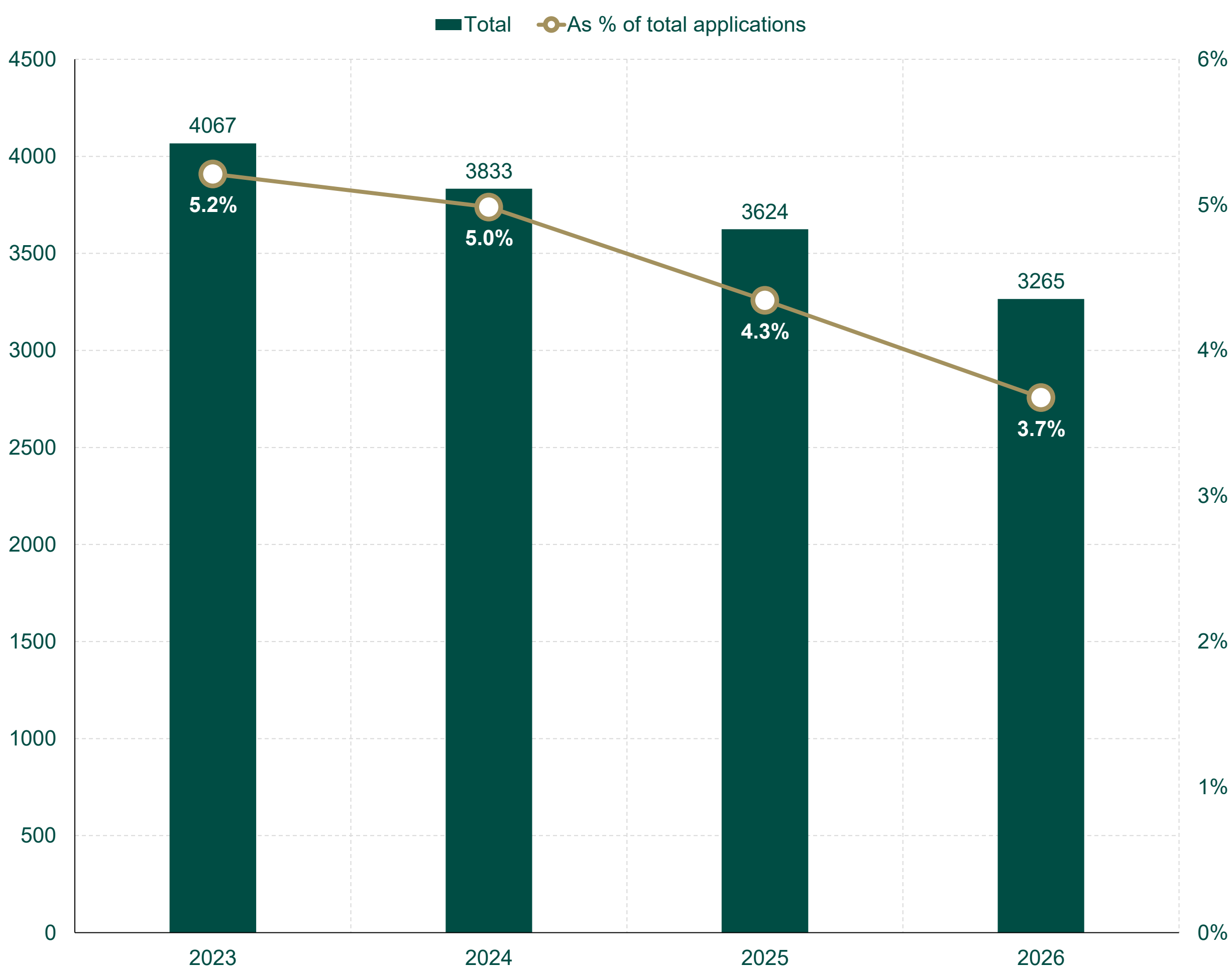
State of play between supply and demand



CAO applications in 2026



of which ICT Degrees chosen as first preference



Outlook and conclusion



- Impact of AI still remains uncertain.
- Optimistic view
 - AI skills are in demand in the labour market.
 - Ireland's labour market is well prepared to benefit from continued AI diffusion.
- Pessimistic view
 - 'At risk' sectors have experienced weaker employment growth recently.
 - With younger workers especially affected.
- These are early signals, not final conclusions.