

Summer School – Higher School of Economics - June 2018

Higher Education's Contribution to Economic and Social Development

Pedro Teixeira
CIPES and U. Porto

The rising influence of Economics in Social Issues

Economics and Social Sciences:

- A modern issue – professionalization and clarification of boundaries among Social Sciences;
- Competitive intellectual claims – evolving boundaries;
- Advantages of Economics – age, academic institutionalization, formalism, value-free;
- Past attempts of redefining boundaries and object of study (Smith, S. Mill, Marx, Comte, Pareto, Weber, Schumpeter);
- Growing separation between 1930s-1950s – debates in the 1930s about economic imperialism, changes in economics (rising orthodoxy);

Economics and Social Sciences:

- Changes in postwar economics: formalism; abstraction; deductive reasoning; diminishing methodological and analytical pluralism;
- 1950s-1980s: little interaction, caricature, few exceptions (Harvard in the 1950s, Becker, Hirschman, Arrow, Schelling), Rational choice sociology;
- The development of applied fields: Education, Health, etc
- Generations of economics imperialism:
- Old-style economics imperialism (Becker) regarded with skepticism by economists up to late 1980s;

Neoclassical Economics

Institutionalism

Methodological Individualism

Importance of Institutions and Social Organizations

Deductivism and Abstract Reasoning

Inductivism and Empirical evidence

Simplification, Representative agents

Complexity and Diversity of behaviour

Economic System following mechanical laws

Complex economic interrelationships

Mathematization and Models

Historical Studies

Economics as self-sufficient

Economics as a Social Science

Old Institutionalism

New Institutionalism

USA – Early XXth Century

USA – Post-1970s

Wesley Mitchell, John Commons,
Thorstein Veblen, Clarence Ayres

Ronald Coase (NB 1991) Douglas
North (NB 1993), Oliver Williamson &
Elinor Ostrom (NB 2009)

Alternative to Neoclassical Economics

Adapted version of Neoclassical Ec.

Development of Empirical Economics
and major Historical Studies

Bounded rationality, expectations,
property rights, organizational
complexities

Economics and Psychology, Business
and Market studies, Regulation

Norms and Social Networks

Significant Policy influence

Influence in Business and Policy areas

The Growing Influence of Economics:

- **Basic concepts – cost-benefit, incentives, competition and choice, entrepreneurship;**
- **Methods and tools of investigation;**
- **Maximizing, rational, individual behavior;**
- **Stress on efficiency and equilibrium;**
- **Rigour, testing, evidence;**
- **Signs of intellectual success – capacity to influence others, substitution, adoption of tools by others, multiple examples of applications;**

Economic and Growth Development – The Role of Higher Education

Major Phases in Economic Debates about Growth and Development:

- **Classical Political Economy – Growth as major topic, accumulation and Investment, mechanization, social question;**
- **Marginal Revolution and Neoclassical Economics – decreasing attention, focus on allocation issues, growth as “inevitable”;**
- **Keynesian Period – renewed attention to Growth, importance of the State, rise of Development Economics;**
- **Neoliberal Period – deregulation and privatization, trust in markets, entrepreneurship, mono-economics;**

Postwar Debates about Growth and Development:

- Harrod-Domar Model (1940s) – emphasis on physical capital, complementarity of factors;
- Solow (NB 1987)-Swann Model (1956) – Labour and Capital, substitutability of factors, residual, technological progress;
- Denison/Abramowitz, etc (1950s-1960s) - Growth-accounting, searching for explanatory factors;
- Crisis (1970s) – theories and data, loss of prominence;
- Renewed interest (1990s onwards):
 - Robert Lucas (NB 1995) revised Solow Model (1988);
 - Paul Romer – endogenous growth theory (1986,1990);

Role of Education in Debates about Growth and Development:

- **Classical Political Economy – Education and social behaviour, limited attention to productivity, some references to HC;**
- **Marginal Revolution and Neoclassical Economics – education as a social issue, industrial efficiency;**
- **Keynesian Postwar Period – increasing attention, role of education and training, mainly quantitative and exogenous;**
- **Recent Period – qualitative dimensions, formal and informal education, contextualization and interaction with other factors;**

Education and Growth – Major Developments:

- **K. Arrow (1962) – learning by doing, diffusion of knowledge;**
- **Nelson and Phelps (1966) – education facilitation flow of technological information and absorption;**
- **Lucas (1988) – education and HC as additional explanatory factor, importance of skills and knowledge in L productivity;**
- **Paul Romer (1986/1990) – importance of knowledge and new ideas (more than resources), innovation and technological advance, externalities and spillovers from research; (non-rivalry);**
- **Role of institutions – importance of factors facilitating new ideas, innovation and dissemination of knowledge;**

Implications of Recent Theories of Growth:

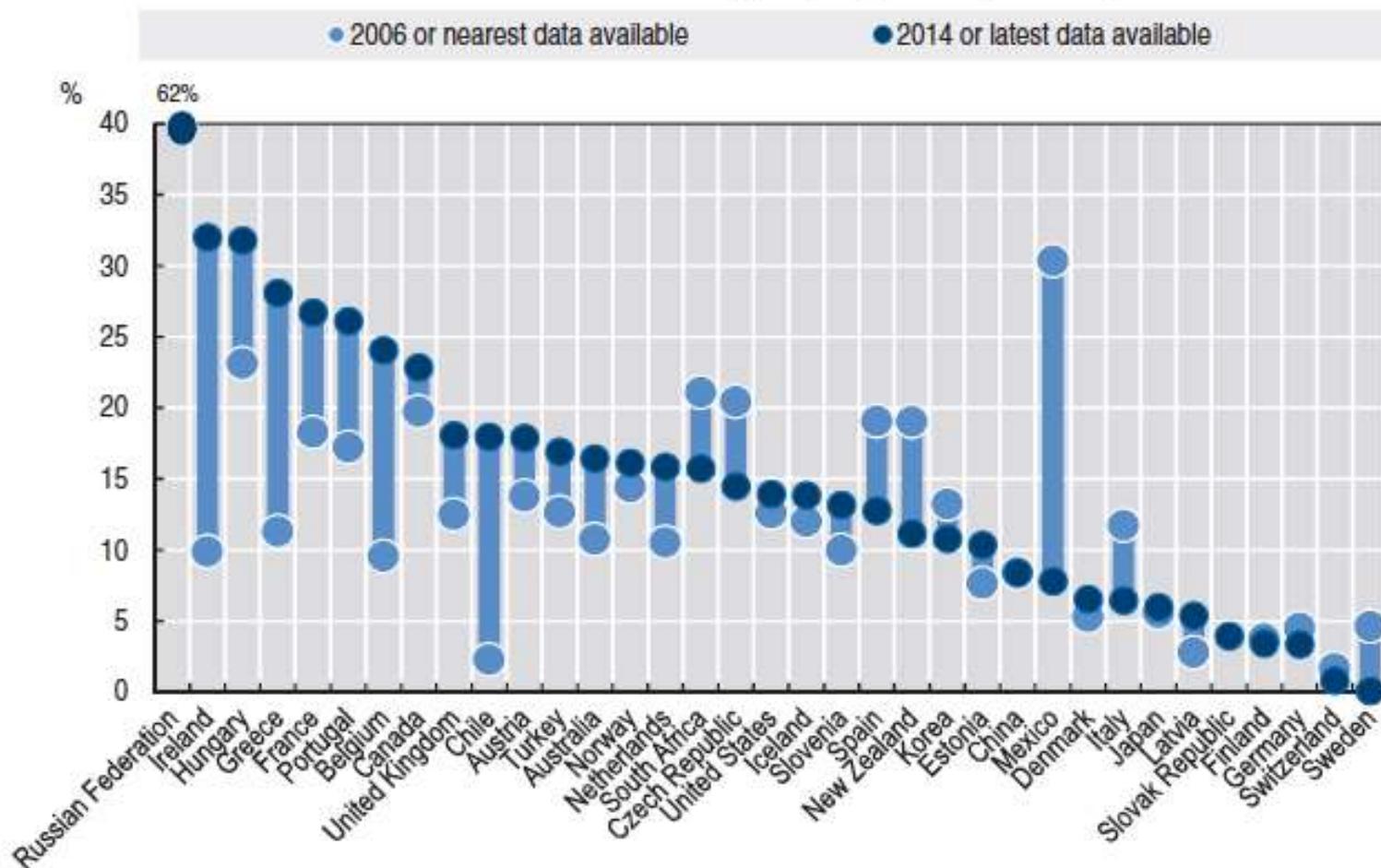
- **Convergence between countries is not inevitable;**
- **Importance of physical and human capital may be underestimated (residual);**
- **Greater stocks of HC and more investment in R&D enhance the rate of economic growth;**
- **Externalities require social investment and a greater role of public policy (growth potential, better allocation of resources, more HC);**

Role of Education in Growth – Institutional and Policy Implications:

- **Governance and Strategy – National Strategies and Plans, Evaluation, Monitoring;**
- **Skills – impact for innovation, quality and orientation of education and training, S&T careers;**
- **Importance of Public Research – Size, Composition, Orientation, PPPs, Societal Challenges;**
- **Innovation in Firms and Entrepreneurship – Tax Policies, Subsidies, Different Profiles;**

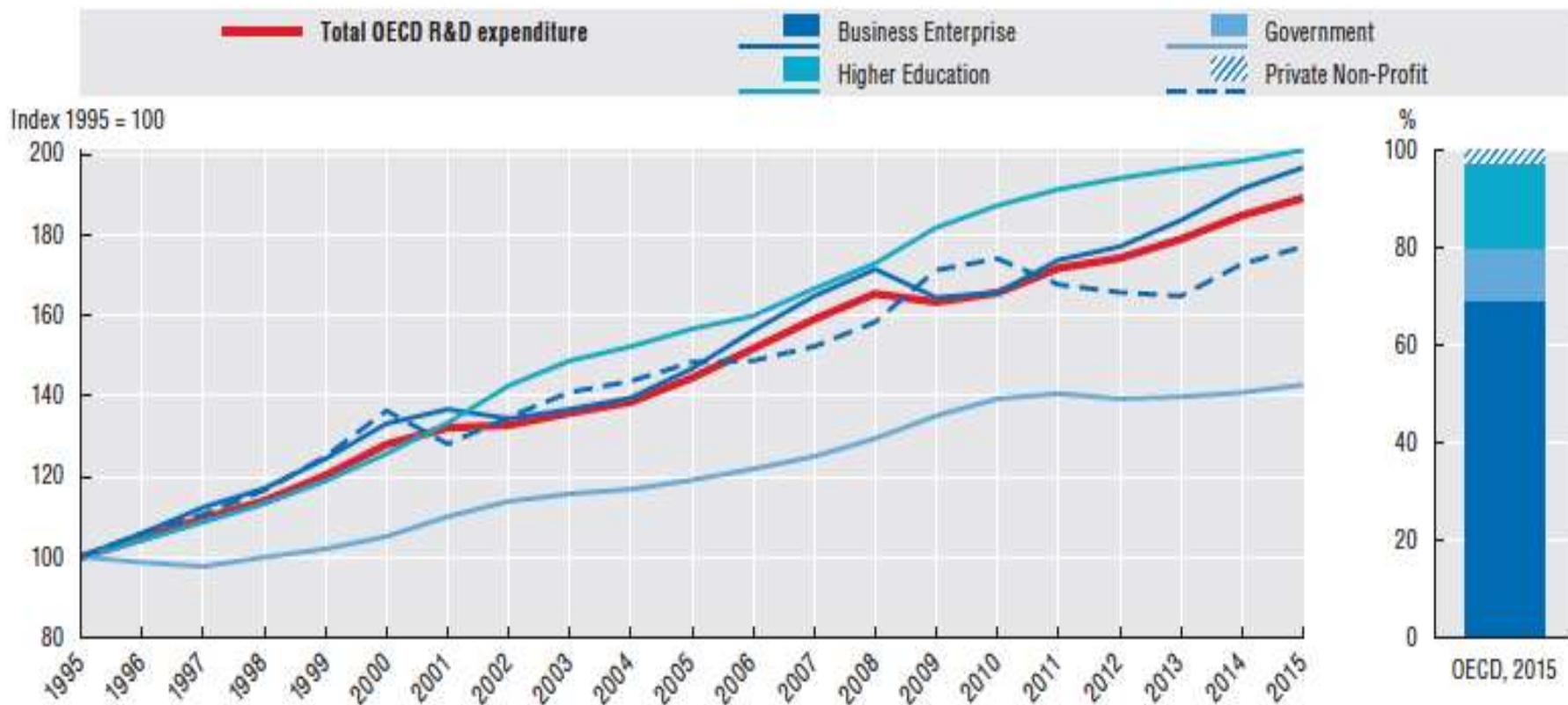
Figure 4.7. **Public support to business R&D has increased significantly over recent years**

Panel 1. Combined direct and indirect financial support, as a percentage of BERD, 2006 and 2014



13. R&D expenditures by performing sector, OECD area, 1995-2015

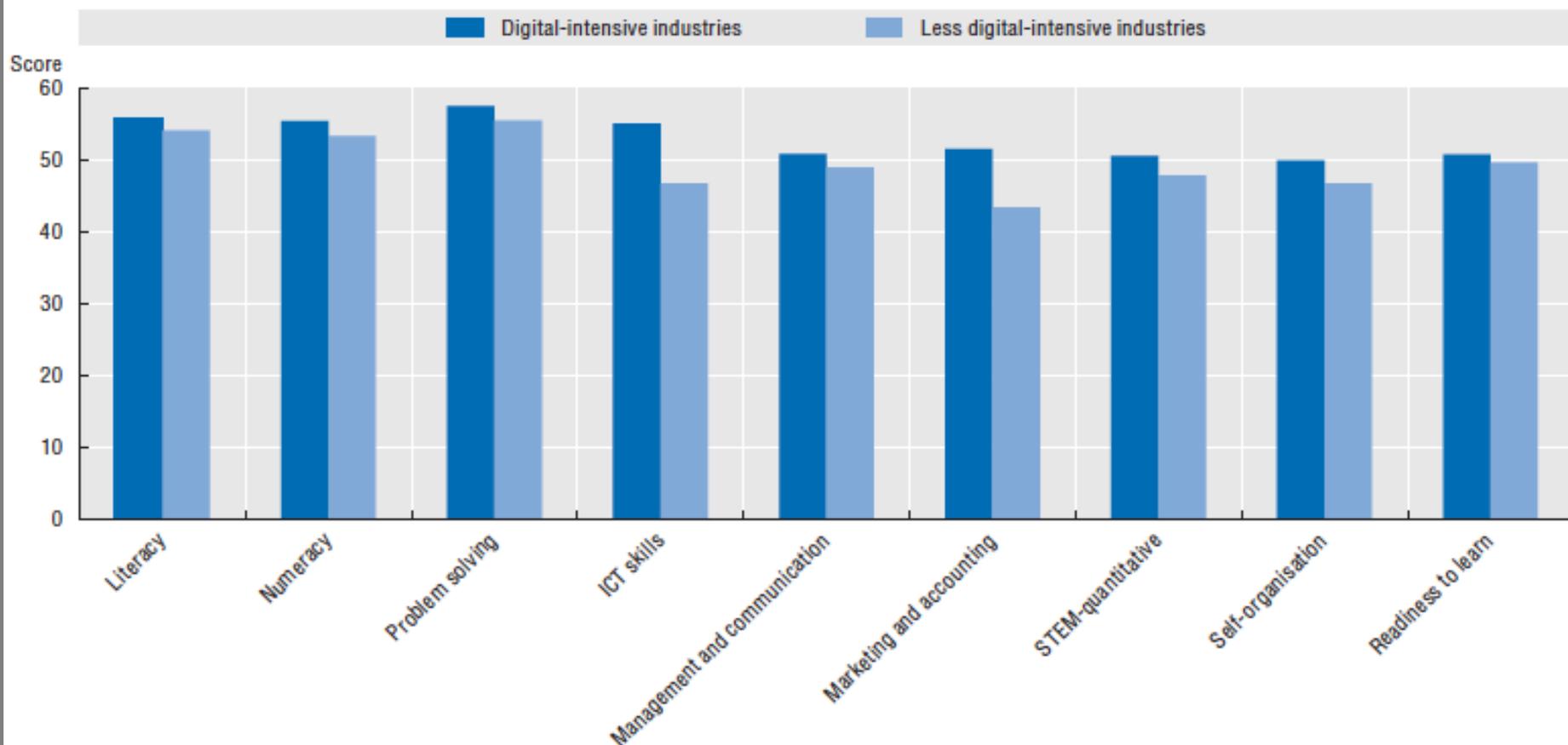
Constant price index (USD PPPs 1995 = 100) and share of GERD in 2015



Source: OECD, Main Science and Technology Indicators Database, <http://oe.cd/msti>, July 2017. See chapter notes.

32. Skill levels in digital and less digital-intensive industries, 2012 or 2015

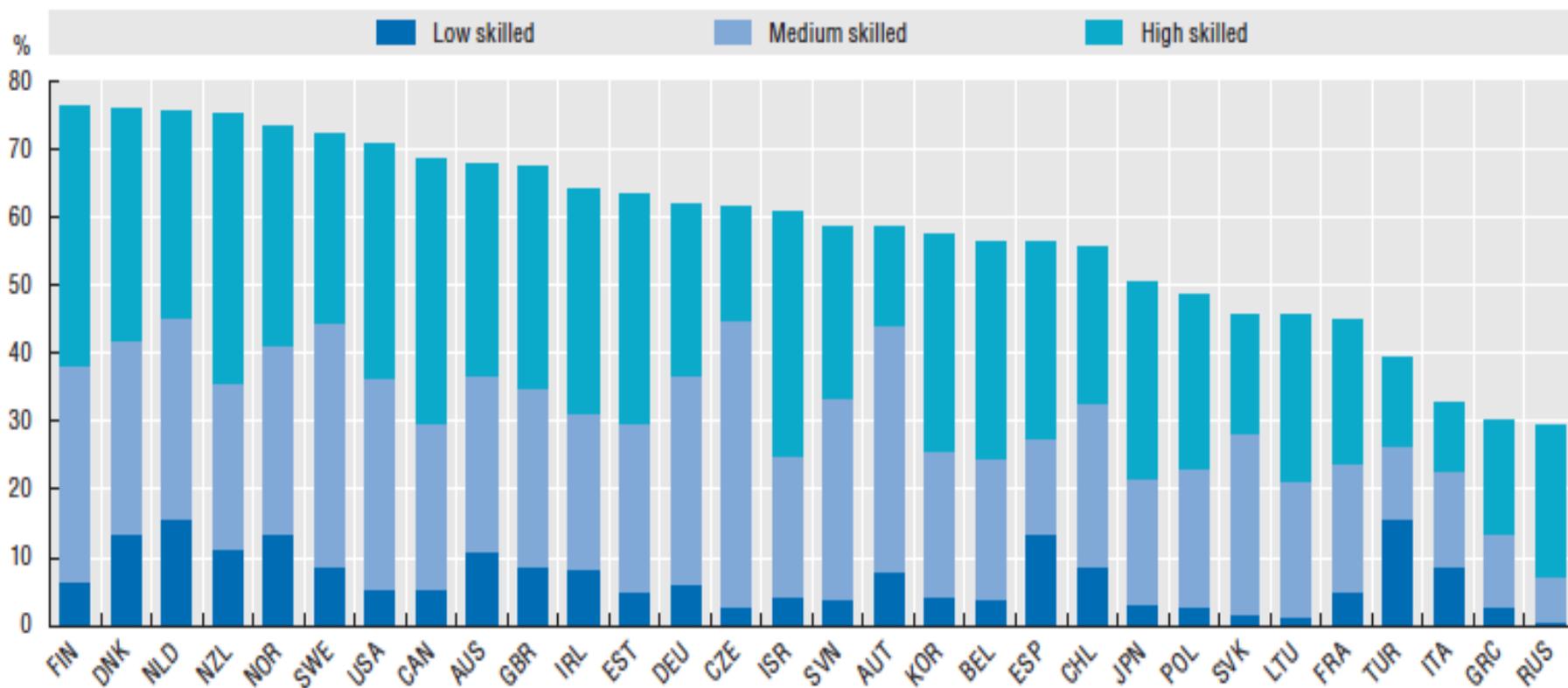
Cross country averages



Source: OECD calculations based on the OECD Programme for International Assessment of Adult (PIAAC) Database, June 2017. See chapter notes.

40. Workers receiving firm-based training, by skill level, 2012 or 2015

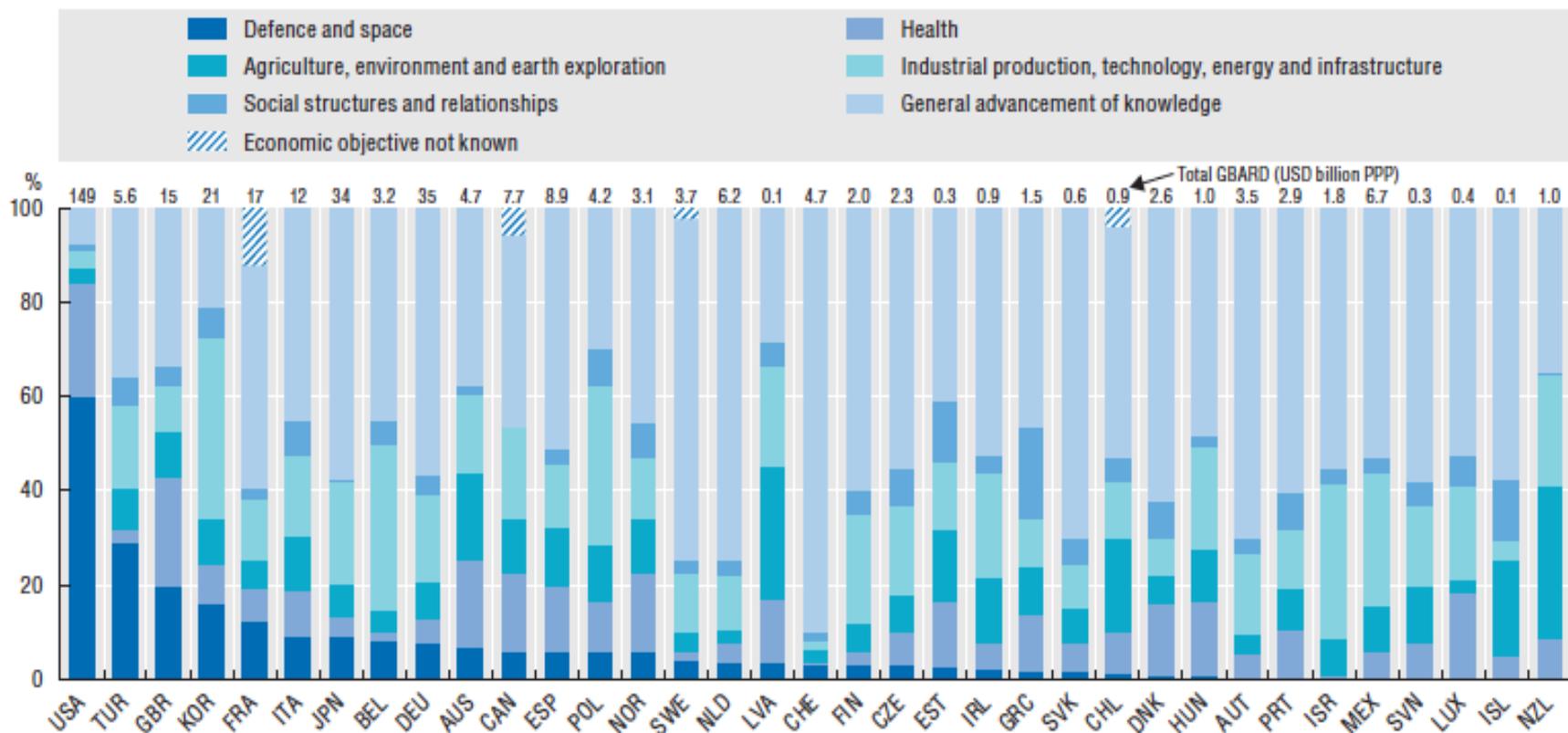
As a percentage of total employed persons



Source: OECD calculations based on the OECD Programme for International Assessment of Adult Competencies (PIAAC) Database, June 2017. See chapter notes.

63. Government R&D budgets, by socio-economic objective, 2016

Share of total government budget allocations for R&D



Source: OECD, Research and Development Statistics Database, <http://oe.cd/rds>; Eurostat, Statistics on Research and Development, July 2017. StatLink contains more data. See chapter notes.

Implications of an Economization of Higher Education

Attempts of System Reform:

- **Manipulating Supply and Demand Forces**
- **Fostering Institutional Autonomy**
- **Different Forms of Competition**
- **Developing Quasi-Markets**
- **Changing Public-Private Mix**

Systemic and Institutional Changes - HEIs as quasi-economic organizations:

- ***Governance and Management:*** corporate-market approach to governance and decision-making, role of external stakeholders and their internalization, Legitimacy of decision-making (academic vs. Managerial);
- ***Funding:*** Diversification of structure of revenues, Performance-based and contractualized public funding, Linking Funding and Services;
- ***Human Resources:*** growing Autonomy and decline of public sector regulations, assessment of performance and differentiation;

Reconceptualizing the HE Sector:

- **Can HEI be considered a firm?**
- **Is Higher education a business?**
- **Who are HE customers?**
- **Do we have a higher education demand and supply?**
- **What is the price of higher education services?**

Higher Ed as a peculiar business:

- **Multi-purpose units**
- **Nonprofit dimension**
- **Price loosely related w/ marginal cost (below)**
- **Duality of customers**
- **Customer-input technology**
- **Controlling supply and choosing customers**
- **Variability of the production function**

Thank you!

Questions? Comments? Complaints?...

pedrotx@fep.up.pt