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Productivity and Digitalisation in Europe: Paving the Road to Faster Growth

By Bart van Ark

Policy brief builds on body of work by The Conference Board

- ***Recent Changes in Europe's Competitive Landscape and Medium-Term Perspectives: How the Sources of Demand and Supply Are Shaping Up***, The Conference Board Report for DG ECFIN, European Economy Economic Papers 485, Brussels: European Commission, 2013 (Bart van Ark, Vivian Chen, Bert Colijn, Kirsten Jäger, Wim Overmeer and Marcel Timmer).
- ***Unlocking the ICT growth potential in Europe: Enabling people and businesses. Using Scenarios to Build a New Narrative for the Role of ICT in Growth in Europe***, The Conference Board, Report for DG Connect, European Commission, Brussels, 2013 (Desirée van Welsum, Willem Overmeer, and Bart van Ark).
- ***Communication Networks, ICT and Productivity Growth in Europe***, The Conference Board, Report for Telefonica S.A., 2014 (Carol Corrado and Kirsten Jäger).

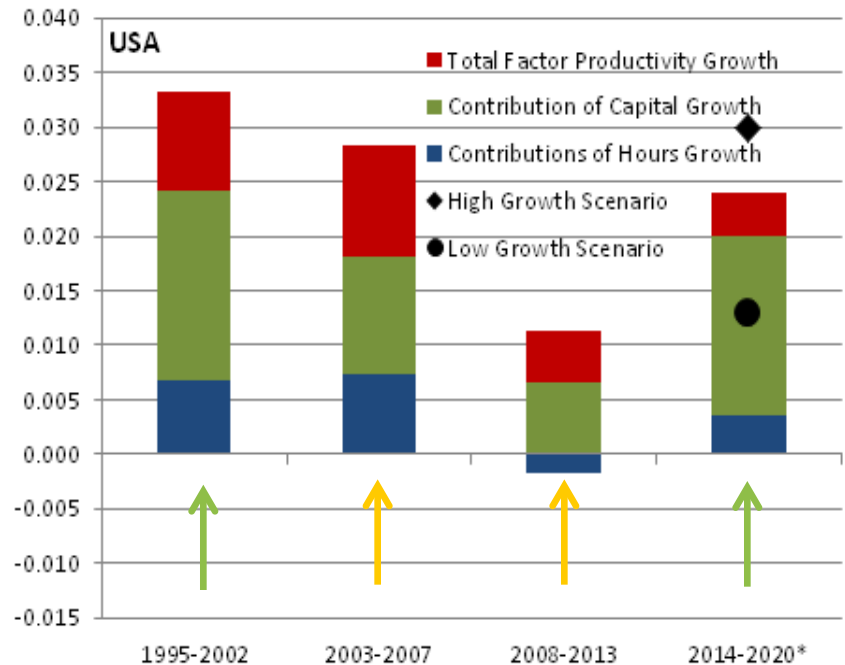
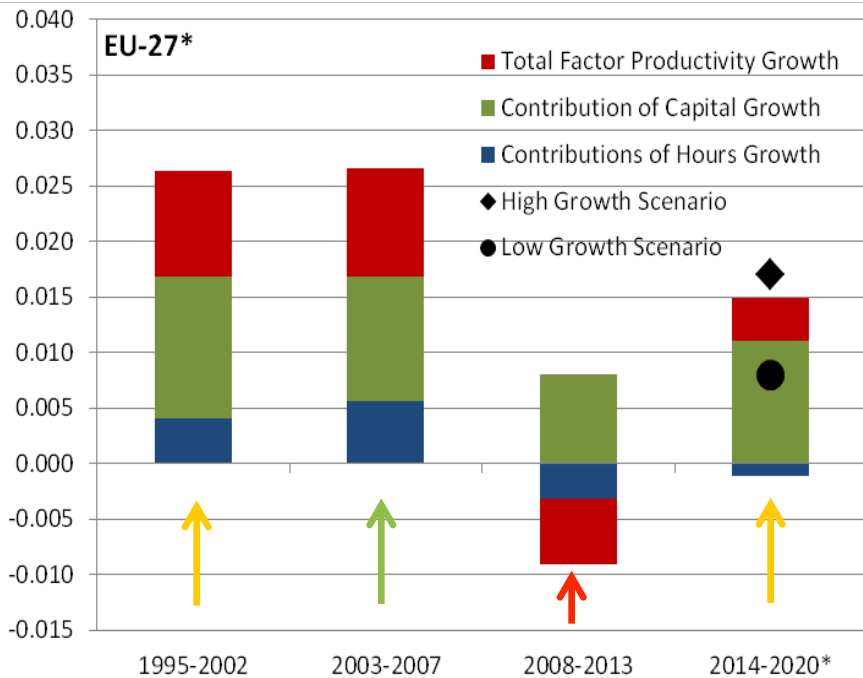




Bumps on the road

Despite weak demographics and low investment, increase in productivity is key to a sustainable recovery in Europe

Average annual GDP growth in the EU27 (excl. Croatia) and USA, 1995-2013 and 2014-2019 projections,

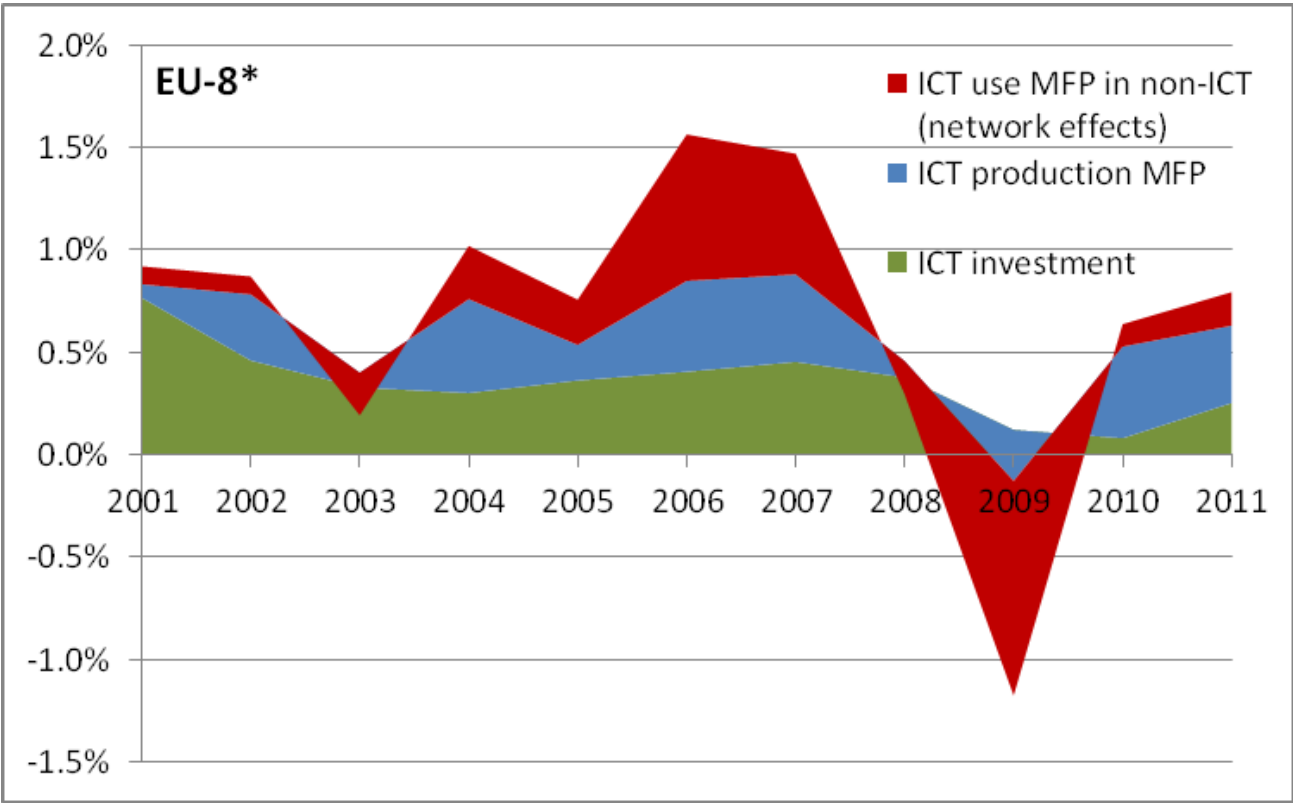


- 1995-2002: ICT investment hype: EU showed smaller investment effect than U.S.
- 2002-2003: dot-com crash hurts U.S. investment ;EU productivity growth held up on average
- 2008-2013: Economic crisis pushes Europe in deep productivity crisis; US retains positive TFP growth
- 2014-2019: Recovery in Europe slower due to demographic weakening and lower investment



ICT was good for about 1 %-point of EU GDP growth before crisis; since then 10 times less as ICT use effects in non-ICT sector collapsed and slowly recover

Growth Contributions from ICT Production, Investment and Use in Non-ICT sector, 2001-2011



* EU-8 includes Austria, Finland, France, Germany, Italy, Netherlands, Spain and the United Kingdom





Paving the road

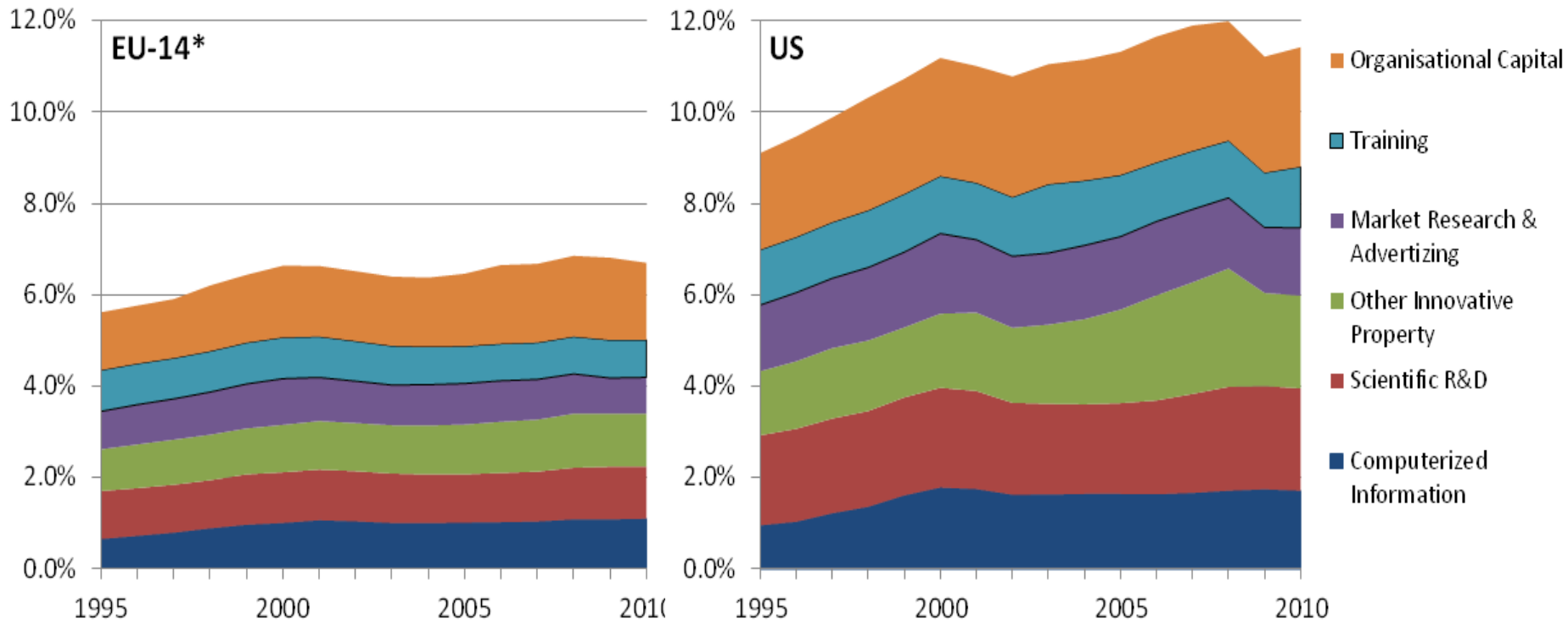
Productivity through digitalization is the key to returning to a sustainable growth path in Europe

- Improved economic conditions as represented by a rise in GDP can only be sustained through growth in labour productivity.
- The potential of digitalisation to accelerate growth will come primarily from the use of these technologies by industries in the non-ICT sector
- As more companies adopt technology and innovations spread across the economy, the impact on productivity at macro levels becomes more visible
- The rapid diffusion of high-speed networks and mobile devices has the potential to empower consumers and businesses to drive demand in new ways
- Countries with large internet economies are receiving more revenue growth and consumer surplus affiliated with broadband diffusion
- The combined downturns and subsequent economic stagnation may have potentially eroded some sources of long-term growth, such as skills and ICT investment, which need to be restored



Europe should build on its ability to maintain intangibles as driver of knowledge and grow them faster especially in non-tech innovations and competencies

Investment intensity of intangible assets as a % of GDP for 14 EU economies and the US (1995-2010)



EU-14 refers to the EU-15 before 2004, excluding Sweden and Denmark, but including Slovenia





Bring in the troops

A commitment to productivity growth through innovation and digitalisation is key to achieve the Europe 2020 goals

- The EU is well positioned to benefit from the potential of ICT investment and digitalisation.
- There is no unique “European” problem making growth more difficult than anywhere else in the advanced world.
- Structural reforms are necessary starting point to help to reallocate resources away from less to more productive activities and sectors
- Policies that drive single market integration are the most important prospect for a European growth bonus beyond individual states
- Pre-conditions for reaping ICT-driven growth benefits need to be secured by a high-quality and affordable infrastructure in all sectors
- Governments should play a key role in making the necessary investments and reforms to the educational system



Three policy principles drive productivity through digitalisation

1. Pre-conditions for reaping ICT-driven growth benefits need to be secured by a high-quality and affordable infrastructure in all sectors
 - ✓ Should be matched by investments in the soft infrastructure to raise the share of intangible relative to tangible investment in the economy – government can provide appropriate investment conditions
2. Government and business should work together to foster the skills and willingness to use ICT and support overall ICT readiness
 - ✓ Provide and facilitate platforms, especially at regional and local level
 - ✓ Government can lead by example
3. Governments need to focus on facilitating a regulatory environment in which businesses in the ICT and non-ICT sector can thrive (and fail).
 - ✓ The single digital market is the first step towards creating larger network effects from the use of ICT

