



HRVATSKA NARODNA BANKA

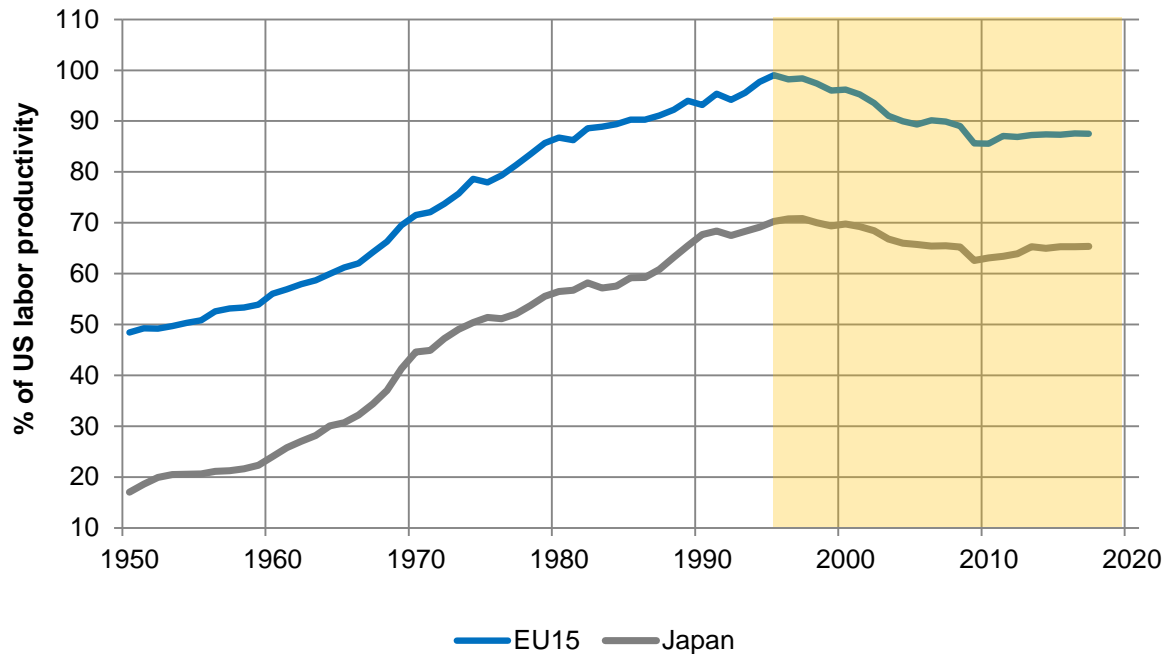
Globalisation Dynamics – EU and US perspectives

Boris Vujčić, Governor

boris.vujcic@hnb.hr

After almost half a century of catching – up, Europe started to lag behind the US...

Labour productivity, EU15 and Japan relative to the US

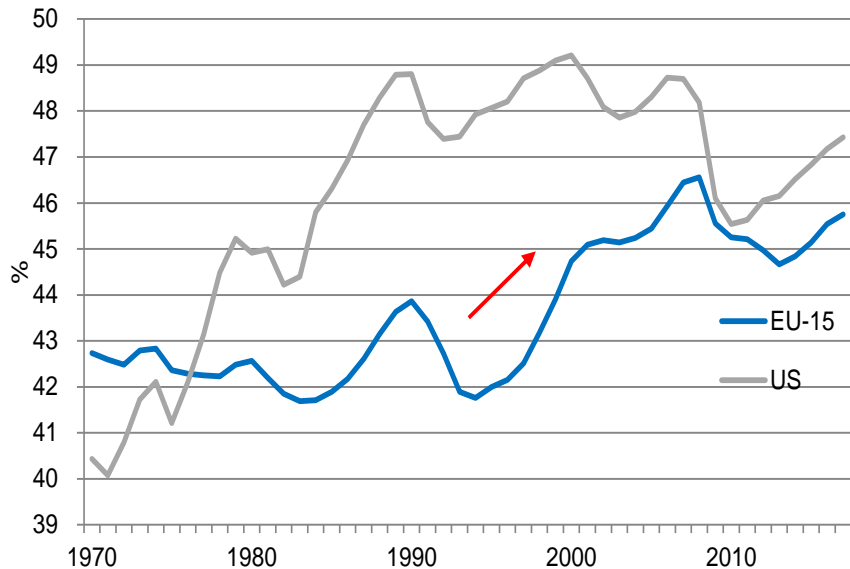


Note: GDP per hours worked in 2016 US\$, United States =100

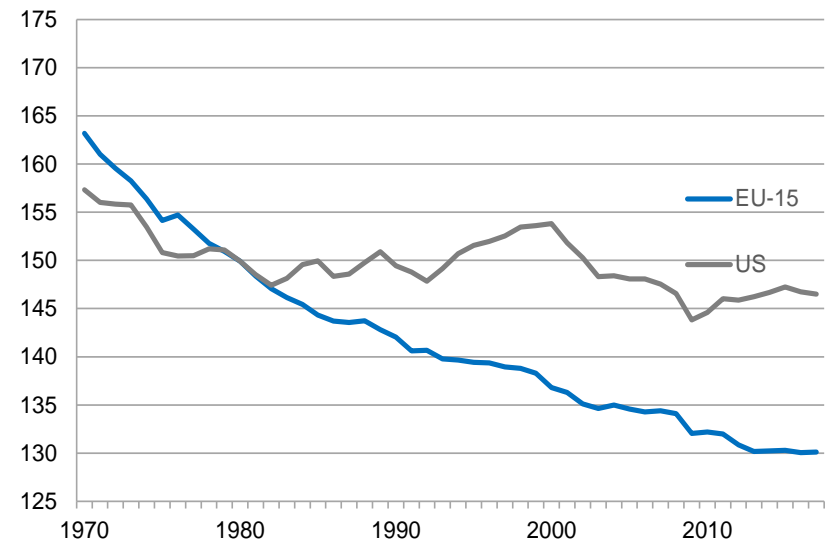
Source: Total Economy Database, Conference Board (2017)

Partly attributed to labour market developments...

EU employment as a share of total population



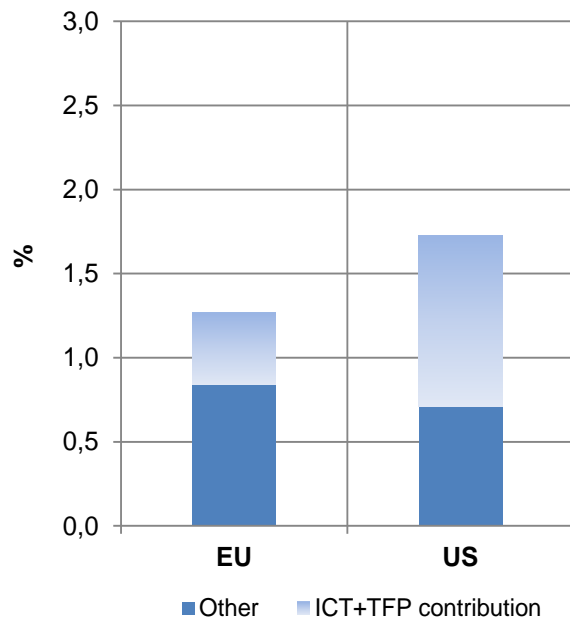
Average monthly hours worked



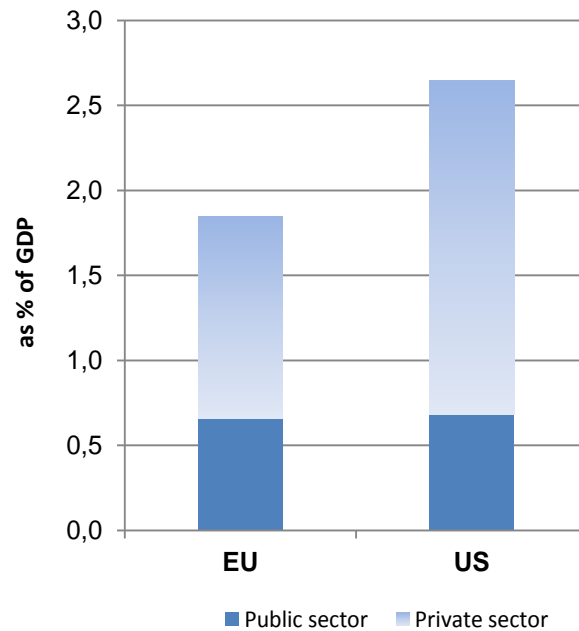
Source: Total Economy Database, Conference Board (2014), World Bank

But ICT revolution might explain much of the difference ...

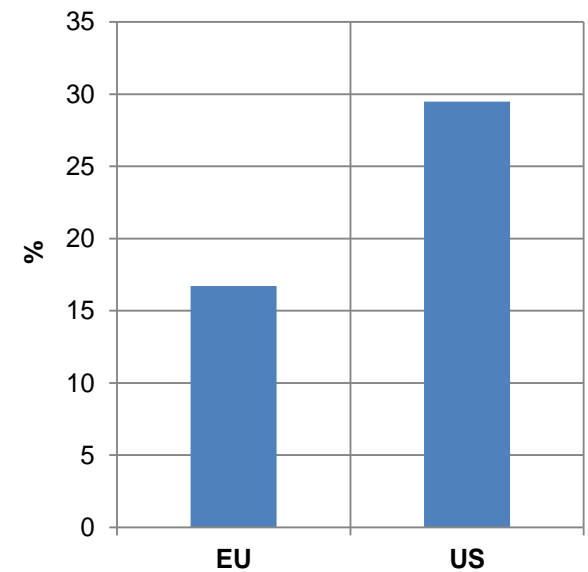
ICT and productivity growth, 2000-2013



Expenditure on R&D, 2000 - 2013



Investment in ICT, % of total investment, average 2000-2010

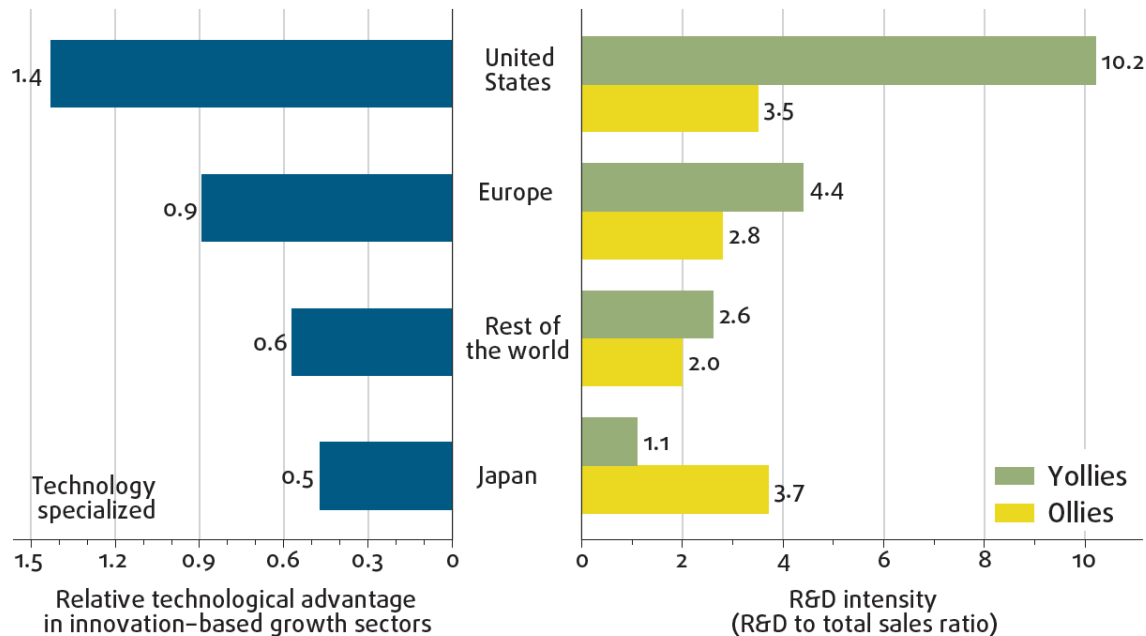


Note: ICT investment EU aggregate is an average of Austria, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden and United Kingdom

Sources: European Commission, OECD, van Ark

US firms, especially young ones, specialize in technologically advanced and R&D-intensive products...

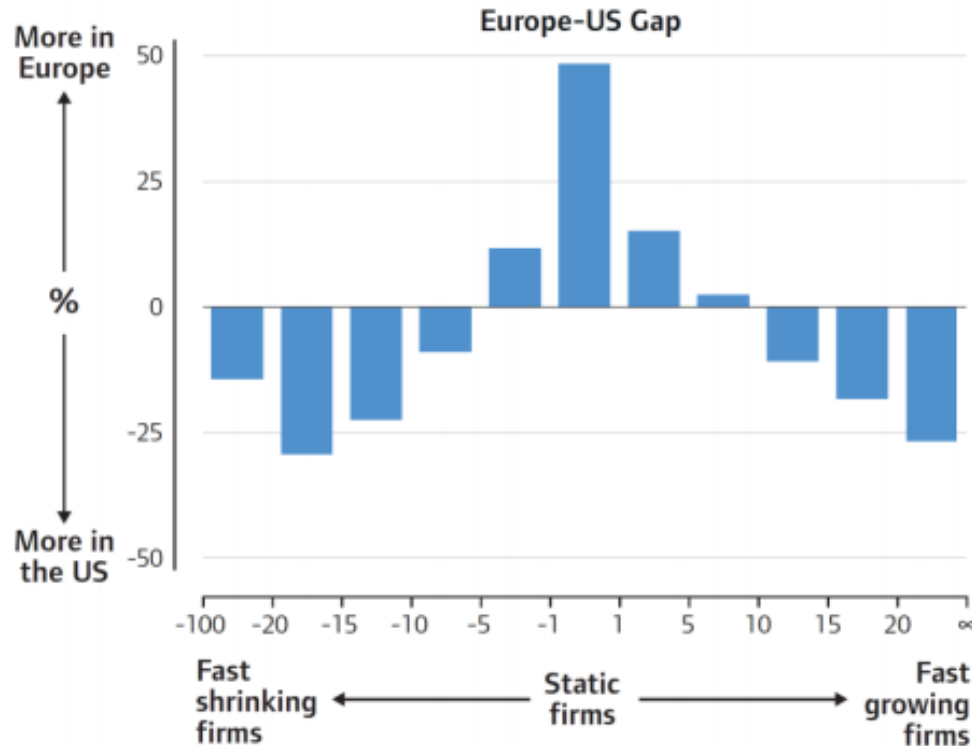
Europe specializes in old sectors, the US in new



Note: R&D intensity is measured as the ratio of R&D spending to total sales, for firms established after 1975 (young leading innovators or “Yollies”) or before 1975 (“Ollies”). The relative technological advantage is calculated as the share of each region or country (say Europe) in the R&D of a particular sector (say the Internet) relative to the share of Europe in world R&D; values greater than 1 indicate the region is technology specialized in the sector.

Source: Bruegel and World Bank staff calculations, based on the European Commission’s Institute for Prospective Technological Studies R&D Scoreboard

Europe is lagging in business dynamism ...

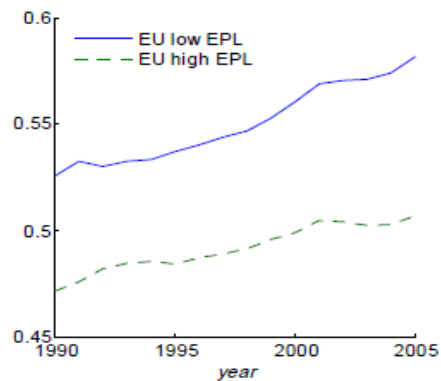
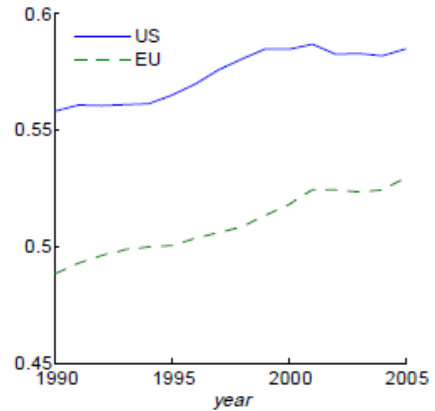


Source: Biosca, A. B., A look at business growth and contraction in Europe, 2011, 3rd European Conference on Corporate R&D and Innovation

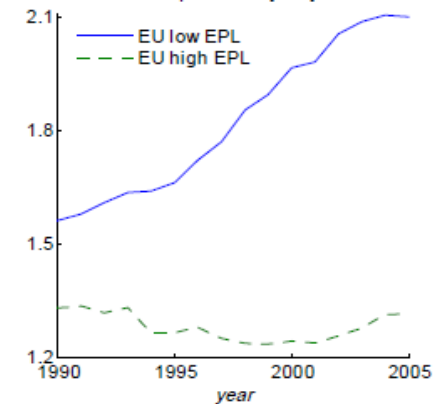
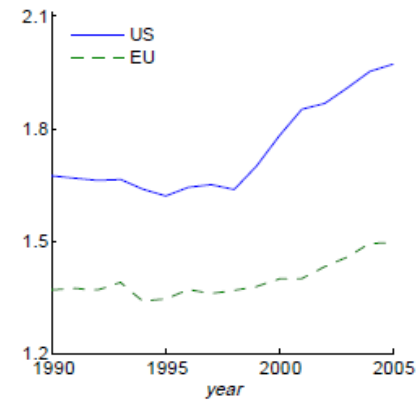
Why were firms like Facebook, Google and eBay created in the US and not in the EU?

Labour market institutions not conducive to adopt risky ICT investment decisions ...

Employment share in ICT intensive sectors



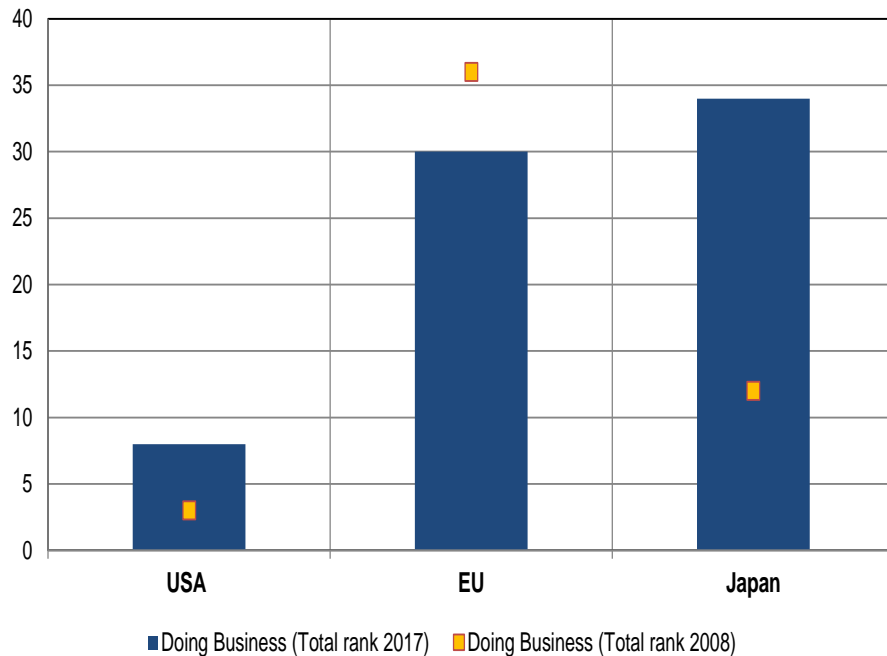
Labour productivity growth in ICT intensive sectors



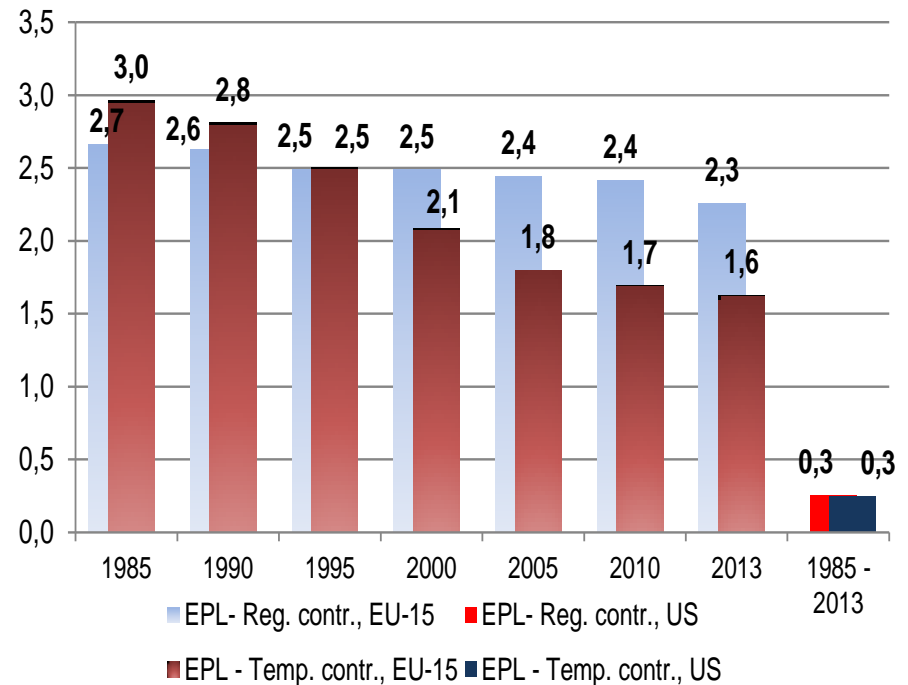
Source: Bartelsman, Eric J, Pieter A Gautier, and Joris de Wind (2010), "Employment Protection, Technology Choice, and Worker Allocation", IZA DP No. 4895

Creative destruction and growth of existing businesses constrained by institutional framework ...

Europe must make it easier to do business



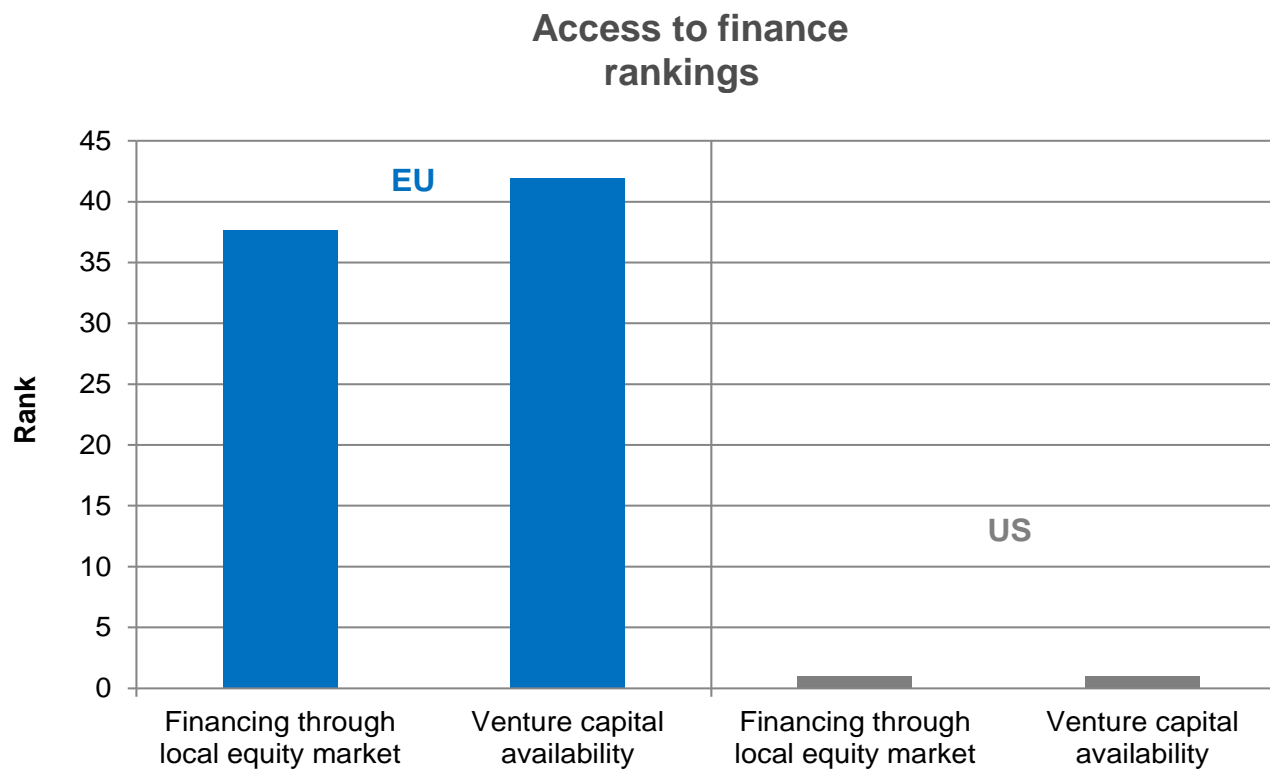
Source: Doing Business



Note: Reg. contr. denotes regular contracts and Temp. contr. denotes temporary contracts

Source: OECD

Further development of financial markets needed to boost growth of young firms ...

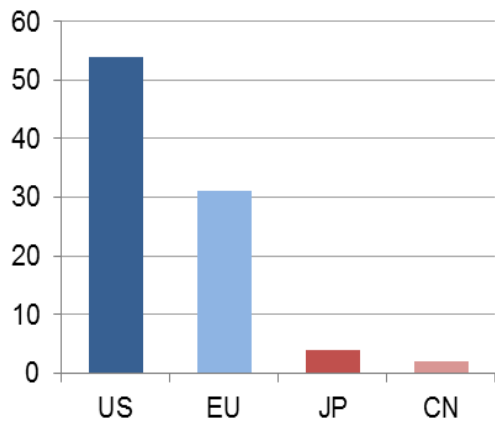


Note: EU is a GDP weighted average of EU28 country rankings

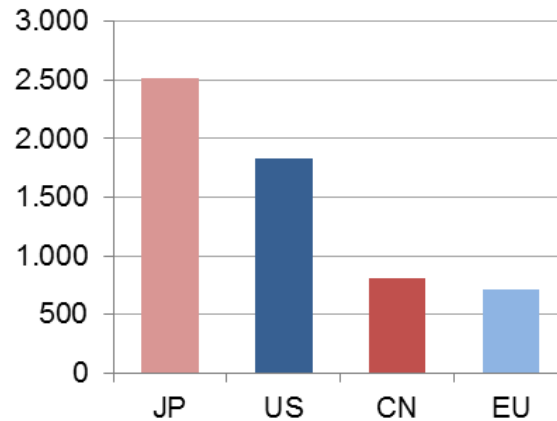
Source: Global Competitiveness Report 2017-2018

More efforts in education and knowledge transfer needed

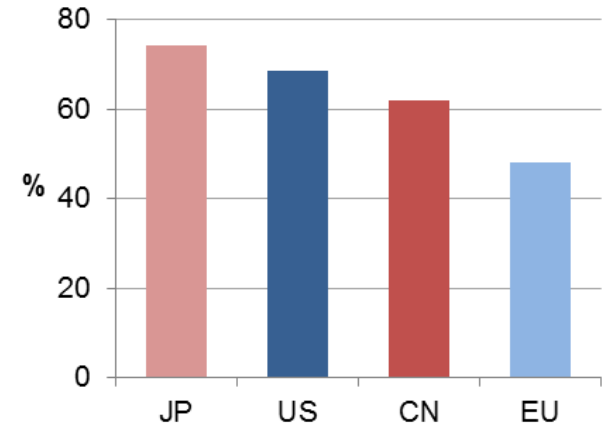
Number of universities in Top 100 (Shanghai Index, 2016)



Total patent applications per million people (2014)



Share of researchers in business sector (% of total researchers, 2014)



Note: Last available data for the US is 2012.

Sources: Shanghai/ARWU index; OECD; European Commission; WB; WIPO