Capital market drives innovation and development of digital economy

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Wuzhen, October 20, 2019
The impact of digital technologies on Gdp growth

- The future of industry is digital. Progress in technologies such as big data, artificial intelligence and robotics, the Internet of Things and high-performance computing is already transforming the very nature of work and society as a whole.

- To have a measure of the impact of digital infrastructures on economic growth, a study conducted by the World Bank in 2009 shows that a 10 percentage point change in terms of broadband penetration generates an increase of 1.21 percentage points of GDP growth per capita in developed countries.

- According to the World Economic Forum, the so-called Fourth Industrial Revolution is rapidly driving transformational disruption across every sector. By 2022, over 60% of global GDP will be digitized. An estimated 70% of new value created in the economy over the next decade will be based on digitally enabled platforms.

- The level of technology adoption in EU, however, is higher for Big data, cloud tech, internet of things, robotics and mobile services and lower for 3D printing and artificial intelligence (5%).
Economic impact of digitization

Global compared to the Americas region (2017)

Source: ITU
ITU-Impact of fixed broadband on Gdp

Global model compared to the Americas region model (2017)

Source: ITU
ITU - Economic impact of mobile broadband

Global sample compared to the Americas region (2017)

Source: ITU
Digital technology adoption in Eu

Level of technology adoption among all survey participants (N = 94)

Source: Digital Transformation Scoreboard 2018
Innovation, intangible assets and capital markets

• The role of capital markets to get funds for innovations in the digital transformation is crucial.

• Fostering innovation and fully developing digital potential requires an alliance between research, the private sector and governments. A close collaboration between the three can lead to tremendous breakthroughs and innovative growth. In the knowledge economy research produces innovations, the private sector creates business uses for those innovations and the Governments support innovation by creating a policy environment for innovators to thrive.

• Intangible assets are the key to growth in the knowledge economy. It is equally true that innovative entrepreneurs can find it hard to secure the financing to kick-start their projects. Adverse selection and moral hazard become more acute when firms are younger, projects are inherently riskier, and investment returns cannot be easily appropriated.

• Intangible industries, indeed, work differently than tangible industries. Products you can’t touch have a very different set of dynamics in terms of competition and risk and how you value the companies that make them.
Capital markets and digitization

• In this context, with the growing importance of intangibles, only business capable of successfully developing intangible assets and countries that will be able to create favorable contexts for intangible investments will thrive.

• Intangible investments are often less obvious and less understandable and for this reason they are valued less when a company goes bankrupt. This makes it more difficult to use them as collateral for obtaining loans, which means that debt financing is less used than capital financing in an intangible economy.

• The role of capital markets in procuring funds for innovation is therefore crucial in fostering innovation and fully developing digital potential.

• Digitalization therefore changes how we can finance efforts to achieve the sustainable growth. Exemplary cases illustrate this fact in practice. Technology-driven innovations such as mobile payments systems, artificial intelligence, big data and blockchain are being innovatively deployed, for example, to accelerate financing for small and medium sized businesses.

• Digitalization opens the way to the citizen being a far more active participant in the financial system itself. Access to financial services is a key part of this change but is only a stepping stone to greater involvement.
Fintech, venture capital: The role of capital market in the digital age

• The digital age is affecting not only industry adoption of new technologies but financial sector, too.

• FinTech (financial technology) firms are generally start-ups that offer a specifically targeted financial service, and Big Techs, globally active technology firms with a relative advantage in digital technology that may add financial services to their range of offerings, are both increasingly – though differentially – stepping on banks’ traditional turf, disrupting financial intermediation. Fintech is growing quickly in China and US. Less in Europe.

• Venture capital represents a huge opportunity to translate innovation into new entrepreneurship (start-up) both industrial and financial, and is a driving force for economic development and employment increase.

• Data show huge differences in venture capital investments per person, stemming from 228$ in Us to 5$ in Italy.
Fintech disrupts financial Intermediation at various levels leading to changes in financing system structure

Source: Bruegel.
Size of Fintech in US, China, EU

Size of Fintech and financial intermediation (including banking, stocks and bonds) in US, China, EU excl. UK and UK, 2015 ($ billions)

Source: Cambridge Centre for Alternative Finance (2016).
Fintech growth


Source: Bruegel on Cambridge Centre for Alternative Finance (2016).
Note: Fintech as expressed here encompasses all lending and crowdfunding activities reported by the Cambridge Centre for Alternative Finance. For a taxonomy of included categories, see Cambridge Centre for Alternative Finance (2016). Average growth rates have been computed over the last two years of available data, 2015 and 2014.
Venture capital investments per capita in euro, 2018

Sources: The Economist Intelligence Unit; Ocse, Crunchbase (European average includes UK).
CDP aims at supporting enterprises that invest in innovation

**Equity**
- Management company controlled by CDP active in the Venture Capital market
- Launch of new Venture Capital funds to support innovative startups
- Promotion of collaboration opportunities among largest CDP’s portfolio companies on innovation programs

**Debt**
- Loans to support innovation (e.g. Fondo Rotativo per le Imprese)
- Loans backed by European guarantees
- Risk sharing instruments for innovative firms

CDP intends to allocate up to 20% of the mobilized resources of its 2019-2021 Business Plan to support innovation and up to 15% to sustain energy transition.
Cassa Depositi e Prestiti (CDP) and Equity

• In Italy the new CDP Business Plan (2018-2021), as in Germany for KfW and in France for Caisse de Dépôts, put as priorities innovation (up to 20%), energy transition (up to 15%) and sustainability as a general framework of working.

• Increase of financial resources dedicated to the support of Venture Capital with a target size of 1 billion euros.

• Launch of new initiatives to support start-ups along their entire life cycle, from the initial development to the industrialization of business ideas.
## Business Plan Guidelines

### Increase in addressing capacity and public coordination

- Asset management company controlled by CDP: **acquisition of 70% stake of Invitalia Ventures SGR** giving birth to the main Venture Capital operator in Italy

## Actions

### Increase of available financial resources for investments

- Increase of financial resources dedicated to the support of Venture Capital with a **target size of 1 billion euros**

### Extension of support along the entire VC chain

- Launch of new initiatives to **support start-ups along their entire life cycle**, from the **initial development** to the **industrialization of business ideas**