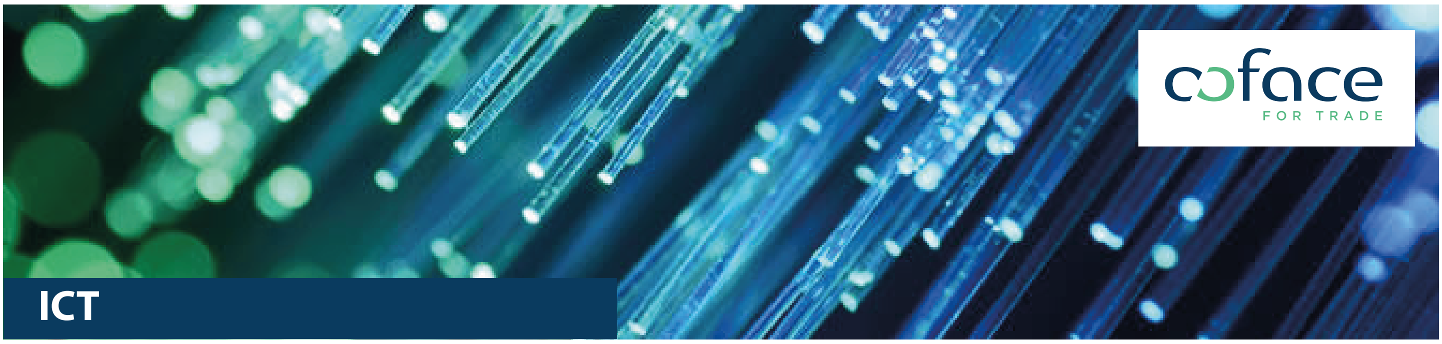


ICT

COFACE REGIONAL SECTOR RISK ASSESSMENT

- North America: Medium
- Latin America: Medium
- Emerging Asia: Medium
- Central Europe: Medium
- Western Europe: Low
- M. East & Turkey: High

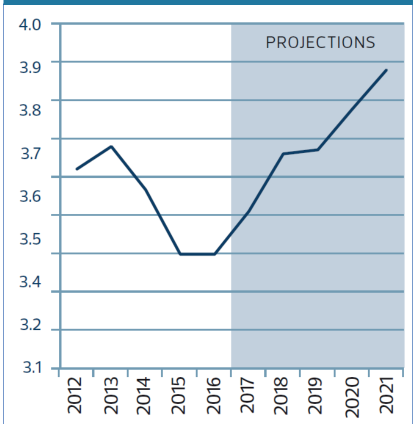
+ STRENGTHS

- Globalisation of internet access and market penetration opportunities in developing countries
- Reduction in the cost of electronic equipment
- Dynamic deployment of 4G
- Strong growth in the African market
- Exponential growth of digital goods and services markets

- WEAKNESSES

- Saturation of some hardware markets (tablets, smartphones, PCs) in advanced economies
- Increased competitive pressures
- Long-term challenges in relation to rare mineral reserves

GLOBAL INFORMATION TECHNOLOGY SPENDING FORECASTS TO 2021 IN TRILLION US DOLLARS



Sources: Statista

RISK ASSESSMENT

According to the European IT Observatory (EITO), the sector represented USD 3.5 trillion in 2017, with growth of 2.5%; the United States and the European Union account respectively for 30.7% and 19.9% of the total market. As the sector matures, the credit risk increases. This context increases the competitive pressures on actors in the sector leading to consolidation and the erosion of the various actors' margins.

The growth in Internet traffic is supported by the democratization of access (lower prices, infrastructure development) as well as by the increase in online services (voice, video, payment). According to CISCO, the leading company in IT and network, the volume of data exchanged should triple by 2020, when one in two people in the world will be an internet user.

In 2017, the sector has continued to reshape the economy and raise macroeconomic level performance standards through the expansion of the Internet of things, robotics, IT security, virtual reality, and 3D printers. These fields are the sector's growth prospects with innovative products such as 3D printers, virtual reality, and autonomous vehicles.

DEMAND

According to the International Data Corporation (IDC), global consumption should increase by 4.5% in 2017. This is a clear improvement over the 2.5% in 2016. This growth should hold steady at 4% in 2018. In addition, the demand for digital services should show growth of about 3% in 2017, then a little bit less than 3% in 2018.

Given the saturation of the advanced markets-tablet and computer sales fell 8% and 4% respectively in the United States in 2017, for a market of USD 19.5 billion - the Chinese and Indian markets will drive sales up with consumption increasing 10% in 2017. The Chinese market will represent a quarter of smartphone users in 2018. In addition, global spending for smartphones grew by 7% in 2017, an excellent performance compared to 1% in 2016, resulting from product innovation, value-added growth and the penetration of new markets. According to the IDC, despite the growing importance of innovative technologies, mobile phone and cloud sales continue to be the mainstays of ICT demand. Smartphone sales are estimated to have grown by 2% in 2017, reaching USD 55.6 billion according to the EITO and a third of the world's population. Cloud services consumption is still very well set with an annual growth of 12% up to 2020 according to supplier forecasts and the IDC.

Over half the population worldwide will use the internet in 2019, with approximately a 6% increase in 2017 and a downward trend in the growth of internet users. This democratization is a result of wireless internet access, and therefore 3G and 4G network infrastructure investment, which supports mobile demand. Connection costs are falling in advanced economies with market concentration. In addition, embedded payment systems are speeding up demand. The number of Near Field Communication (NFC) technologies installed to facilitate mobile payments is expected to triple between 2015 and 2018 according to IDATE, a European institute specialized in the digital economy.

SUPPLY

The sector is consolidating around giants: Google, Facebook, Apple, Amazon, Microsoft, Tencent and Alibaba represented a USD 4 trillion market in 2016. The sector's maturity has slowed sales growth and eroded margins for producers and distributors in 2017 – which is not yet the case on the Indian market. Given the competitive pressures, investment in innovation is expected to increase by 18% in 2018, especially in Asia Pacific and the United States.

The slowdown in phone sales is weakening manufacturers. Samsung confirmed its global leading position in 2017 with a fifth of sales, but recorded a 5% decrease in its telephony profits in comparison with 2016. In contrast, Apple recorded slight growth in profit, capturing some of Samsung's market share, thanks to new products and good performances in emerging countries. The number of Chinese players has significantly increased: eight of the twelve world leaders are Chinese and have cost-cutting strategies and innovative distribution channels that lower prices. The fifth leader, Huawei, plans to make an initial public offering (IPO1) in 2018 that could amount to USD 50 billion.

Android, Google's mobile operating system, has continued to maintain its global leadership on operating systems (80% market share in 2017) since 2010. Semiconductor competition is exacerbated by Chinese players. The turnover of the American leader Qualcomm is down since 2015. This group is also engaged in lawsuits against Apple for the use of its patents. In addition, in late 2017 its American competitor, Broadcom, began taking steps for a hostile takeover. The group aims at diversifying its offer with computer and automobile equipment and is focusing on technology (power and augmented reality).

Telecommunications are being jostled by the internet services provided by Google and Facebook that make their original business (voice and messaging) obsolete. Journalism is also struggling to reinvent its model: readers are less inclined to pay for information and advertising revenues are not only insufficient but also captured by 84% by Google and Facebook. Music streaming is expanding: the leader Spotify is expected to go public at USD 20 billion.

1 IPO: Initial Public Offering. The first sale of stock by a company to the public, via the capital market