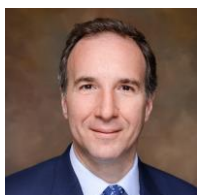




**PRICE  
POINT**

January 2018

Timely intelligence and  
analysis for our clients.



Gonzalo Pángaro  
*Portfolio Manager, Global  
Emerging Markets*

## Emerging Markets

# THE GROWING IMPORTANCE OF DIGITALIZATION TO EMERGING MARKET INVESTORS

---

### KEY POINTS

- Digitalization has deep structural significance for emerging market equity investors.
- Emerging market companies, originally perceived as fast followers in technology development, are now innovating at a faster pace than many of their developed market counterparts. Huge resources, along with a number of tailwinds, should further support this trend in the future.
- China is at the forefront of this change. The current developments within Chinese technology companies have the potential to deliver strong and recurring earnings growth for a number of years ahead.
- However, there are always winners and losers from change and disruption. What is important is the ability to identify who will be the beneficiaries of this fast-paced change.

---

The growth of the information technology sector within emerging markets (EMs) has been quite remarkable in recent years. Since 2012, the IT sector's size within the MSCI Emerging Markets Index has doubled to almost 28% of the index (Figure 1). That's bigger than the technology weighting in the S&P 500 Index at around 24%.<sup>1</sup> Much of the change has been driven by digital companies, with companies like Tencent, Alibaba, and Baidu in the Internet Software & Services industry having enjoyed colossal growth in recent years. This changing composition of the index is redefining what it means to invest in emerging markets equities as an asset class.

### EM TECHNOLOGY COMPANIES INCREASINGLY DRIVING INNOVATION

This is a relatively new development though. For decades, innovations originated in developed countries and were slowly transferred over to EMs. Then emerging markets labor cost advantage led to several of them, especially in Asia, becoming low-cost

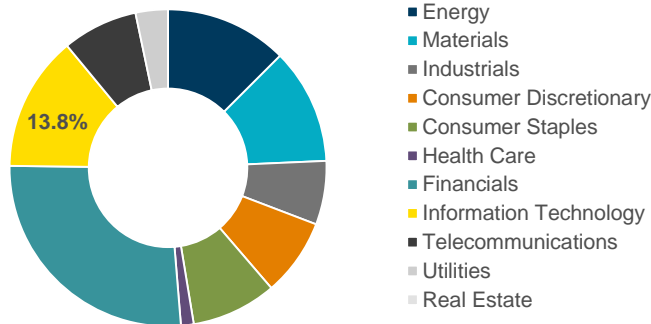
---

<sup>1</sup>Information technology weighting in the S&P 500 Index was 23.8% as of December 31, 2017.

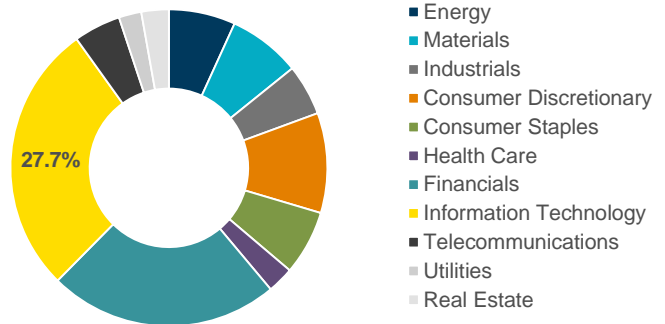
### Figure 1: Technology—The new driving force within emerging markets

MSCI Emerging Markets Index—Sector Composition

As of December 31, 2012



As of December 31, 2017



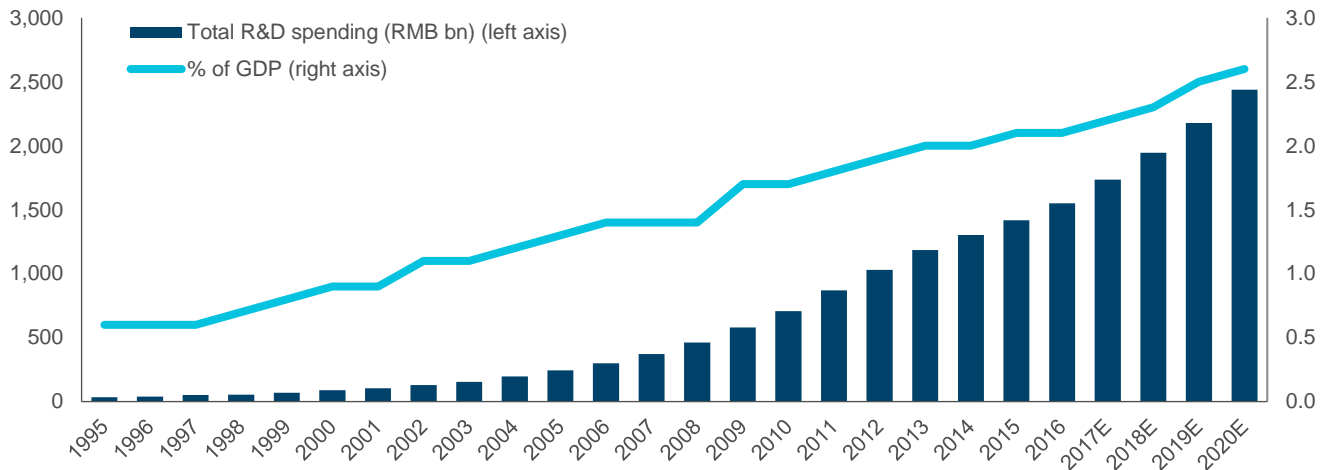
Sources: MSCI and FactSet.

MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed, or produced by MSCI.

assembly bases for global electronic brands. However, we are now seeing a real step change in how fast EM technology firms are developing. Chinese internet companies are now innovating at a faster pace than many of their western peers in areas like artificial intelligence (AI), for example. Chinese spending in research and development (R&D) is already higher than in Europe, and not that far off the levels in the U.S. We believe such trends in R&D can lead to an even further rise in the innovation curve (Figure 2).

### Figure 2: From Copycat to Innovator—China’s rapid journey

As of September 30, 2017



Sources: National Bureau of Statistics of China, Credit Suisse estimates.

Innovation is rising sharply in other countries beyond China. For example, South Korea and Taiwan are leading the way in high-tech areas such as semiconductor development and camera lens sets for smartphones.

#### CHINA IS AT THE FOREFRONT OF THIS INNOVATION CURVE

China is the clear standout in terms of its development of a homegrown digital economy. E-commerce as a percentage of total retail sales is 15.5% in China compared with 8.1% in the U.S.<sup>2</sup> and is still growing. In the

<sup>2</sup>As of the end of 2016. Source: National Bureau of Statistics of China.

gaming sector, China is ahead of the U.S. and has become one of the largest online gaming markets in the world. Digital advertising spending in China is also at a greater share of the overall advertising spending compared with the United States.

Why has it grown so fast? The “traditional economy” has much to do with it. A market that is less mature is much easier to disrupt. Retail is a great example. In China, there is not what we would call “traditional high streets,” and there are very few big-brand chains. The shopping experience is generally not a good one, with poor retail infrastructure. This has allowed e-commerce to exploit the gap and disrupt the market very rapidly.

Mobile payment is also a good example. Credit card penetration has been historically low, but now many consumers are leapfrogging straight to mobile payments directly, which is why Alibaba’s Alipay and Tencent’s Tenpay have been growing at extraordinary rates. Given the technology advantage, mobile payments now account for 75% of total online payments in China.<sup>3</sup> Alibaba itself handled 73% of e-commerce transactions in China last year.<sup>3</sup> In absolute size, that’s around US\$500 billion, which is almost as much as Wal-Mart and Amazon in North America combined.

#### **POSITIVE POLITICAL CHANGE BEING DRIVEN BY TECHNOLOGY**

Along with disrupting many sectors, new technology advances are also helping to push forward real political change and reforms within emerging markets.

With most people now having access to information on their mobile phones, which many didn’t have before, this is forcing politicians to be much more accountable for their actions. It is much more difficult to get away with corruption and incompetence in this digital age. We have seen the likes of Dilma Rousseff in Brazil being impeached and the Kirchners being ousted in Argentina. In India, Prime Minister Modi won the election back in 2014 on an anticorruption platform, helped and supported in part by the increasing use of technology in campaigning.

China is also chipping away at the lead held by the United States in terms of artificial intelligence. After dominating in the fields of online search, e-commerce, online games, and social media, companies like Baidu, Alibaba, and Tencent are pushing ahead with expansive and exciting AI programs. AI was already deeply rooted in many of their core internet services, and these companies are now folding machine-learning technology into their services with the aim of improving information discovery and monetization efficiency.

We expect these companies to narrow the AI gap with their U.S. counterparts quite significantly over the coming years. They have ample government support in terms of regulation and research funding, abundant engineering talent, deep pools of private sector investment, and large amounts of digital data for deploying machine-learning techniques to existing products. Indeed, Chinese policymakers have already stated that they want China to be the dominant force in AI by 2030.

#### **WHAT ARE THE RISKS?**

There has been much talk about the Chinese government taking a 1% investment stake in some of the internet companies. We are monitoring this closely. At this point, we are comfortable with this somewhat symbolic investment and believe the government is unlikely to insert its influence in ways that could jeopardize the growth of these leading companies.

U.S. platforms actually appear under greater government scrutiny than Chinese companies. By contrast, Chinese companies are seen as playing a key role in their economy. And with President Xi Jinping

stating that he wants China to be the economic, political, and military leader of the world in 20 years’ time, he needs China to have a robust and fast-growing technology industry to help support that.

Another risk is competition from the big U.S. internet companies. When they are able to compete freely, they had historically gained market share, as their scale and network effects play out. But in some parts of the EM world, the local players are able to compete.

<sup>3</sup>Source: Credit Suisse.

MercadoLibre, one of Latin America's most popular e-commerce sites, has exhibited strong execution over time, combining e-commerce with a payments platform and improved logistics. The company has become one of the largest in the region. But recently Amazon has begun to shift more of its focus to Latin America. We are watching developments closely but still believe that MercadoLibre is strong enough and well positioned in key markets to compete with Amazon.

In Russia, there are a number of interesting, innovative companies. Yandex (a portal and internet search platform that was created a year before Google) is now Russia's largest technology company.<sup>4</sup> Mail.ru (a social networking and gaming company) also performed strongly and now reaches over 80% of Russian internet users on a monthly basis.<sup>5</sup>

Meanwhile, technology and innovation is also hitting the banking sector. Sberbank, the dominant bank in Russia, is using digitalization to expand. During a recent meeting with the company, the senior management mapped out their strategy for creating a digital ecosystem with the aim of becoming a one-stop service center for their clients. They had clearly researched the potential threats coming from Fintech and internet companies moving into the banking sector. To better position themselves for the threat, they have increased investment in technologies that will create mass personalization for their clients with individual offers based on big data (AI), while also extending their remit beyond purely financial services. In fact, their goal is to use their new ecosystem to become the No. 1 Fintech company in Russia. A lofty ambition, but a great example of how digitalization is offering up huge opportunities for these companies.

## Technology is now affecting a wide range of sectors within the EM world, and we are spending a lot of time determining who will be the beneficiaries in this new era.

### WHAT DOES THIS ALL MEAN FOR INVESTORS?

We believe that the rise of technology companies and the innovation they are driving within emerging markets is a meaningful shift in direction and is perhaps underappreciated by the market. Many observers originally viewed these EM internet and technology companies as just “copycats” of what U.S. internet companies were doing. Alibaba would become the eBay of China, and Tencent would mimic Facebook's success. This does not reflect the reality today. For example, Alibaba is able to harvest data to improve user experiences and conversion rates well beyond what many U.S. firms can accomplish.

Technology is now affecting a wide range of sectors within the EM world, and we are spending a lot of time determining who will be the beneficiaries in this new era. For us, it is important to identify who can innovate at the right pace and direction to generate the best earnings growth in the years ahead. Encouragingly, we are finding many examples that are using digitalization to create greater value for shareholders.

In summary, we believe the emergence of technology as a driving force has huge implications for the whole asset class, and, in some ways, is changing how investors should view emerging market equities. The fast pace of change and disruption happening in emerging markets today is also widening the gap between the winners and losers. Therefore in our view, only those investors with the right approach and sufficient resources will be able to find the best opportunities to position themselves for the next stage of this exciting story.

---

<sup>4</sup>Based on market cap.

<sup>5</sup>Company figures for Mail.ru are based on data on a monthly basis.

## INVEST WITH CONFIDENCE®

T. Rowe Price focuses on delivering investment management excellence that investors can rely on—now and over the long term.

To learn more, please visit [troweprice.com](http://troweprice.com).

---

### Important Information

The specific securities identified and described above do not necessarily represent securities purchased or sold by T. Rowe Price. This information is not intended to be a recommendation to take any particular investment action and is subject to change. No assumptions should be made that the securities identified and discussed above were or will be profitable.

This material is being furnished for general informational purposes only. The material does not constitute or undertake to give advice of any nature, including fiduciary investment advice, and prospective investors are recommended to seek independent legal, financial and tax advice before making any investment decision. T. Rowe Price group of companies including T. Rowe Price Associates, Inc. and/or its affiliates receive revenue from T. Rowe Price investment products and services. **Past performance is not a reliable indicator of future performance.** The value of an investment and any income from it can go down as well as up. Investors may get back less than the amount invested.

The material does not constitute a distribution, an offer, an invitation, a personal or general recommendation or solicitation to sell or buy any securities in any jurisdiction or to conduct any particular investment activity. The material has not been reviewed by any regulatory authority in any jurisdiction.

Information and opinions presented have been obtained or derived from sources believed to be reliable and current; however, we cannot guarantee the sources' accuracy or completeness. There is no guarantee that any forecasts made will come to pass. The views contained herein are as of the date written and are subject to change without notice; these views may differ from those of other T. Rowe Price group companies and/or associates. Under no circumstances should the material, in whole or in part, be copied or redistributed without consent from T. Rowe Price.

The material is not intended for use by persons in jurisdictions which prohibit or restrict the distribution of the material and in certain countries the material is provided upon specific request.

It is not intended for distribution to retail investors in any jurisdiction.

**Australia**—Issued in Australia by T. Rowe Price International Ltd. (ABN 84 104 852 191), Level 50, Governor Phillip Tower, 1 Farrer Place, Suite 50B, Sydney, NSW 2000, Australia. T. Rowe Price International Ltd. is exempt from the requirement to hold an Australian financial services licence in respect of the financial services it provides in Australia. T. Rowe Price International Ltd. is authorised and regulated by the UK Financial Conduct Authority under UK laws, which differ from Australian laws. For Wholesale Clients only.

**Canada**—Issued in Canada by T. Rowe Price (Canada), Inc. T. Rowe Price (Canada), Inc.'s investment management services are only available to Accredited Investors as defined under National Instrument 45-106. T. Rowe Price (Canada), Inc. enters into written delegation agreements with affiliates to provide investment management services.

**DIFC**—Issued in the Dubai International Financial Centre by T. Rowe Price International Ltd. This material is communicated on behalf of T. Rowe Price International Ltd. by its representative office which is regulated by the Dubai Financial Services Authority. For Professional Clients only.

**EEA**—Issued in the European Economic Area by T. Rowe Price International Ltd, 60 Queen Victoria Street, London EC4N 4TZ which is authorised and regulated by the UK Financial Conduct Authority. For Professional Clients only.

**Hong Kong**—Issued in Hong Kong by T. Rowe Price Hong Kong Limited, 21/F, Jardine House, 1 Connaught Place, Central, Hong Kong. T. Rowe Price Hong Kong Limited is licensed and regulated by the Securities & Futures Commission. For Professional Investors only.

**Singapore**—Issued in Singapore by T. Rowe Price Singapore Private Ltd., No. 501 Orchard Rd, #10-02 Wheelock Place, Singapore 238880. T. Rowe Price Singapore Private Ltd. is licensed and regulated by the Monetary Authority of Singapore. For Institutional and Accredited Investors only.

**Switzerland**—Issued in Switzerland by T. Rowe Price (Switzerland) GmbH, Talstrasse 65, 6th Floor, 8001 Zurich, Switzerland. For Qualified Investors only.

**USA**—Issued in the USA by T. Rowe Price Associates, Inc., 100 East Pratt Street, Baltimore, MD, 21202, which is regulated by the U.S. Securities and Exchange Commission. For Institutional Investors only.

T. ROWE PRICE, INVEST WITH CONFIDENCE and the Bighorn Sheep design are, collectively and/or apart, trademarks or registered trademarks of T. Rowe Price Group, Inc. All rights reserved.