Growth Markets Centre – Opportunities and strategies for growth in maturing markets
January 2017

Winning in maturing markets

In this report

pwc

Foreword

At the beginning of 2016 many growth markets were experiencing a drop in economic performance and weaker growth predictions, which led to several commentators and investors questioning the future role of these markets as leaders of global growth. In their view, the growth markets' era was over. However, as PwC's Growth Markets Centre argued throughout 2016, growth is now projected to return to certain developing markets by 2017 – most notably Brazil, Nigeria and Russia – whilst events in a number of developed markets such as the UK and the US have brought uncertainty to their short and medium-term growth prospects.

These events, coupled with the need for local and multinational companies to find new investment destinations, have led to three key questions being asked repeatedly by business leaders in the past year. First of all, what is the true nature of growth in developing markets, followed by which growth markets show strong potential for a sector and finally what business model should a company adopt to ensure it succeeds profitably in these complex regions?

Most people who consigned the growth markets to history in early 2016 used one or perhaps two negative economic data points to support their argument. However, as we will see in part 1 of this report, it was more of a cocktail of several domestic and external factors which have impacted growth markets. Inflation plagued most markets outside of East Asia, especially those in Latin America and Africa, and the adverse economic consequences of populist domestic policies and questionable foreign policy actions have all impacted the economic prosperity of growth markets over the past year. The effects of these domestic factors were exacerbated by a number of external issues which were somewhat beyond the control of growth markets. These included falling global commodity prices, speculation around rising interest rates in the US and a number of unfortunate environmental disasters.

Despite all these factors, capital inflows are on the rise again with investments into growth markets equity funds reaching a 58-week high in August 2016, and we have begun to see reducing budget deficits in key growth markets such as Russia, South Africa and Turkey. Even concerns about China's growth have somewhat subsided thanks to improved communication about its fiscal policy. Other Asian markets such as India and Bangladesh are registering strong growth of 7% or more, while Southeast Asia continues to provide safer havens for investors, with continued growth of 4.8% over the past year – fuelled by a range of factors including higher infrastructure spending in Indonesia, expanding manufacturing activity in Vietnam and growing private consumption in Thailand and the Philippines.

These positive traits are coupled with a recent return in appetite for growth markets' risk by investors, which is quite understandable given the accumulation of cash on the books of large corporates and the unpredictable year ahead in developed markets. In 2017, we will see a number of key elections in Germany, France and the Nordics, and continuing uncertainty as to the consequences of Brexit and the election of President Trump in the US. In fact, global growth predictions indicate the dawn of a new era for growth markets from 2017 onwards, and despite the recent turbulence, these markets will still account for the majority share of global growth over the next five years. However, it would be wrong to paint all growth markets with the same brush of optimism. Many growth markets, such as Nigeria and Iran, are at an early stage in their economic growth journey, with more nascent institutions than in more established growth markets such as India and China.

Assuming companies appreciate that the growth markets era is not over, the next question they face is which growth markets will provide profitable growth for their company? In response to this question, part 2 of this report focuses on identifying major growth opportunities in six sectors across three classifications which are fundamental to the development of a growth market into a mature economy. These sectors include the agriculture and social sectors to enable human development, the manufacturing and retail sectors to support institutional development, and the financial services and connectivity sectors as growth platforms to enable inclusive and sustainable growth across the economy.

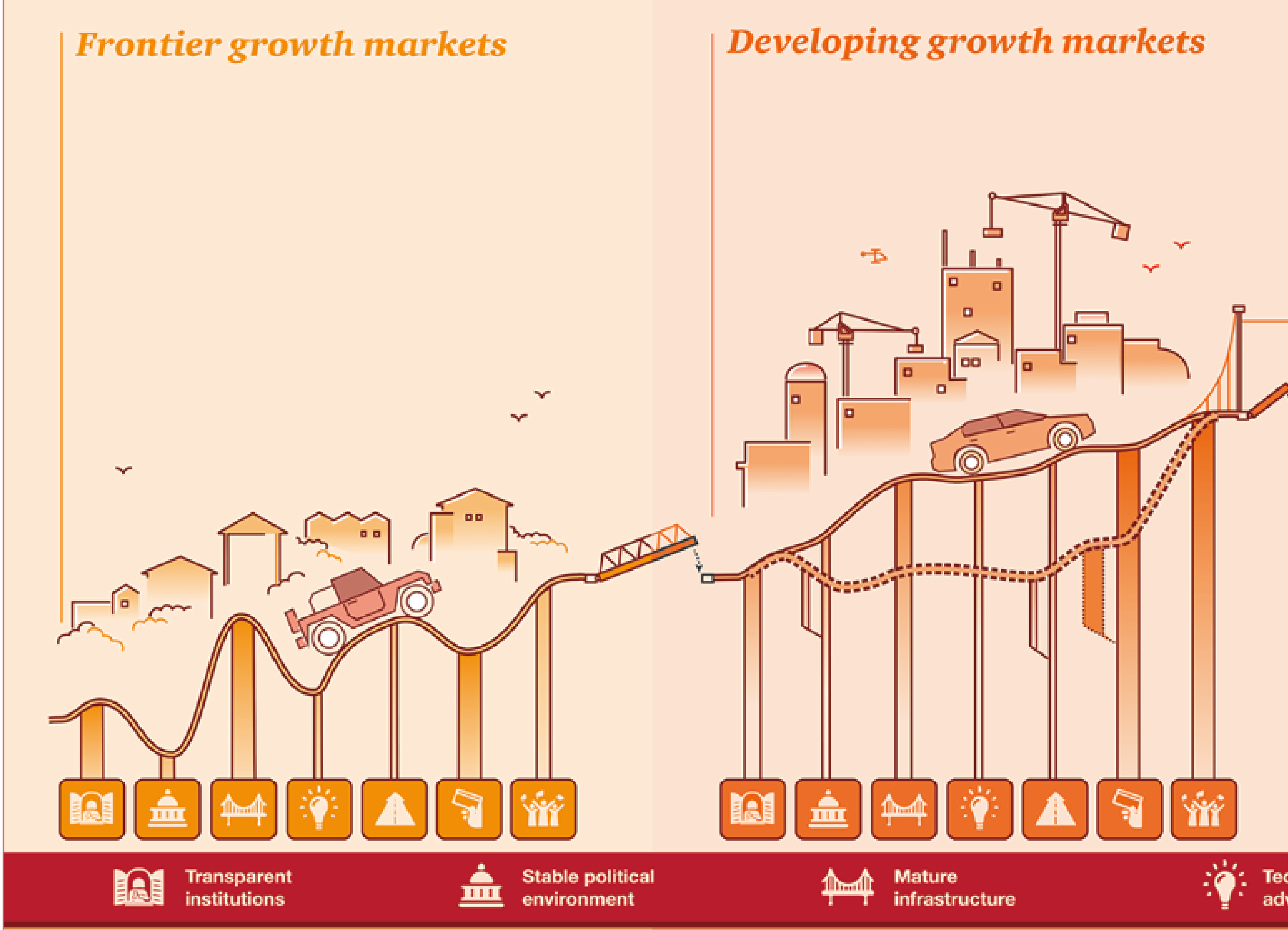
From the analysis in this report we can see that the market and operational landscapes across these six sectors are being impacted by evolving demographic and consumer dynamics, the emergence of new technologies and business models and also the need to address resource and infrastructure gaps to enable long-term growth. These 'shifts' in growth are creating opportunities for companies across the spectrum, from large multinationals looking to lead the change to smaller enterprises playing key roles in local supply chains and next-generation entrepreneurs leading the development of new products and operating models. For example, the need to address resources and infrastructure gaps in certain growth markets is creating new opportunities in the agriculture, transport and communication sectors, whilst changing demographic and consumer dynamics are increasing the demand for health products and tertiary education, and new technologies and business models are helping to create stronger propositions in sectors such as manufacturing, retail and financial services.

In order to succeed profitably in addressing these opportunities, we believe that companies need to adapt the business models which have made them so successful in developed markets in two distinct ways, which we analyse in part 3 of the report. First of all they need to adapt existing capabilities or develop new ones to capture sustainable profitability in growth markets focusing on the foundations of operational efficiency, innovation and go-to-market excellence. However, in order to succeed, these core capabilities need to be developed as part of a more flexible operating model in order to operate effectively in 'maturing' markets.

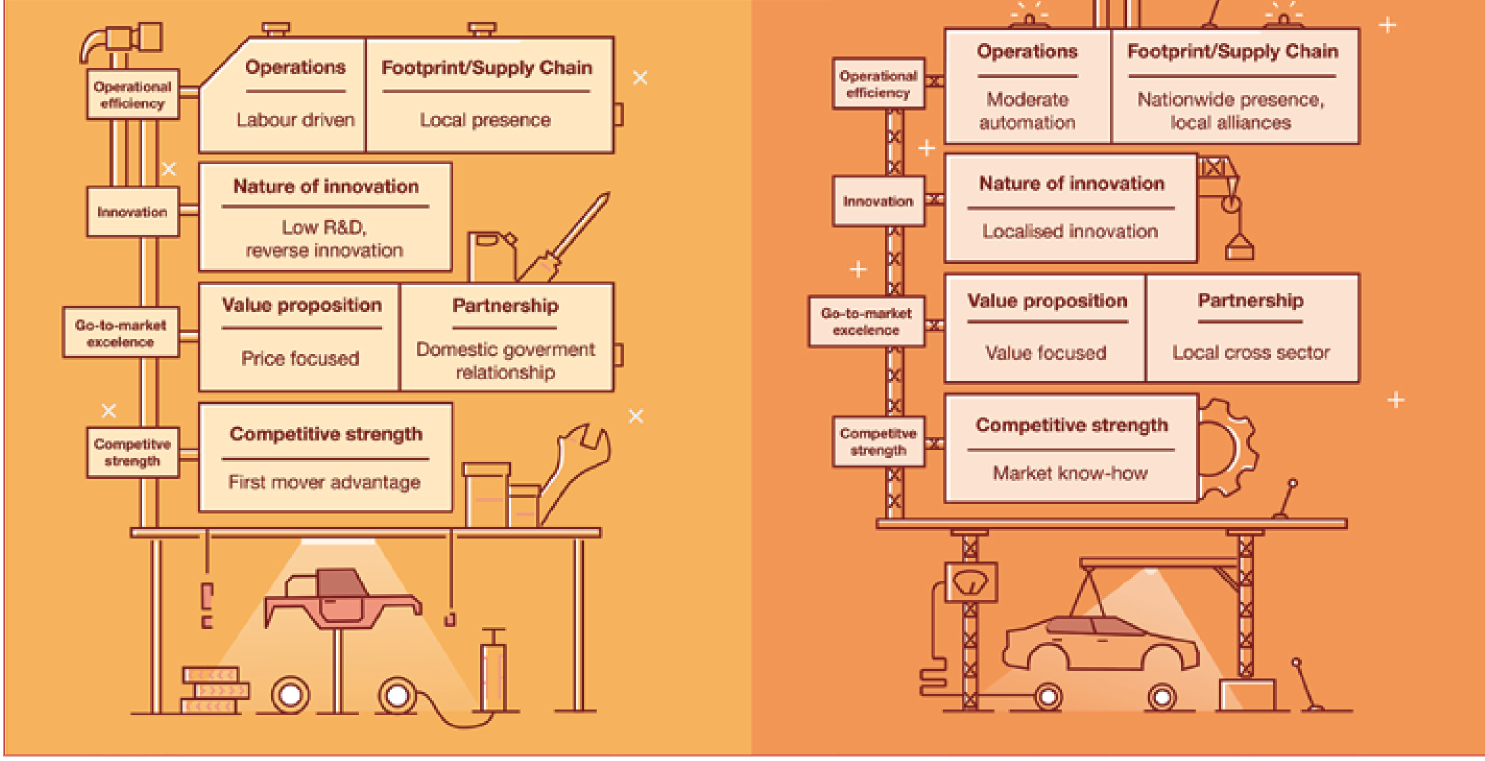
In our view, growth markets are not 'volatile' in the developed markets sense, but rather 'maturing'. Companies ought to get used to the fact that whilst growth markets may experience fast growth in their formative years, their rates of growth will vary along their journey to becoming developed market economies. However, their institutions will continue to strengthen through this journey, enabling them to recover from each drop in growth quicker than the previous time. These are the characteristics of growth markets.

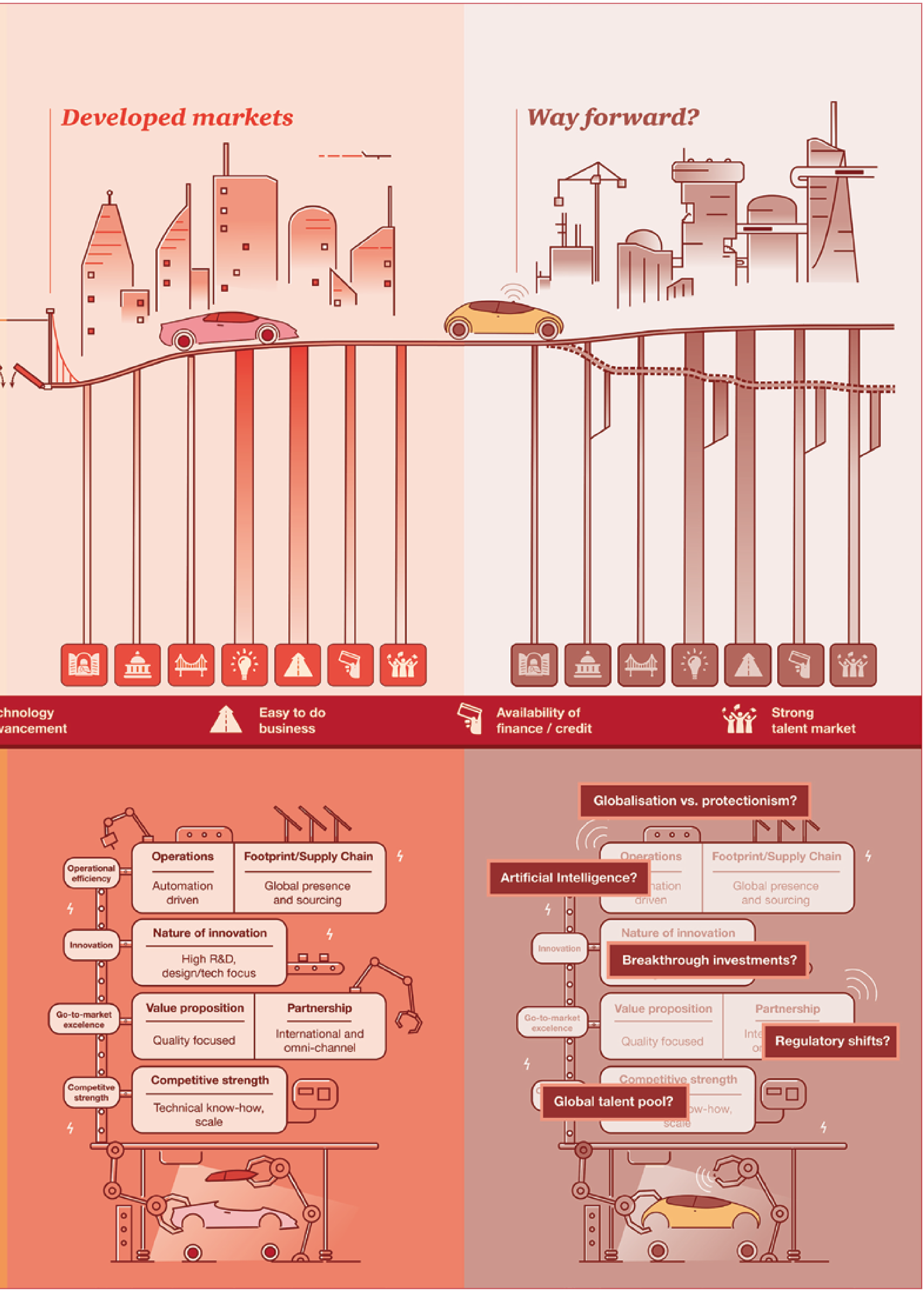
David Wijeratne
Growth Markets Centre Leader

Growth markets' economic journey



Capabilities for success





Developed markets
Way forward?
chnology
vancement
Easy to do
business
Availability of
finance / credit
Strong
talent market
Operational efficiency
Operations
Automation driven
Footprint/Supply Chain
Global presence and sourcing
Innovation
Nature of innovation
High R&D, design/tech focus
Go-to-market excellence
Value proposition
Quality focused
Partnership
International and omni-channel
Competitive strength
Competitive strength
Technical know-how, scale
Globalisation vs. protectionism?
Artificial Intelligence?
Breakthrough investments?
Regulatory shifts?
Global talent pool?

Part 1: Maturing markets
A journey to stable growth

The slowdown across many growth markets over the past 18 months has prompted a number of commentators to openly question the role these markets will continue to play in global growth – with some making rather broad brush statements that the era of the growth markets is over.

These comments have fuelled a perception, but what is the reality?

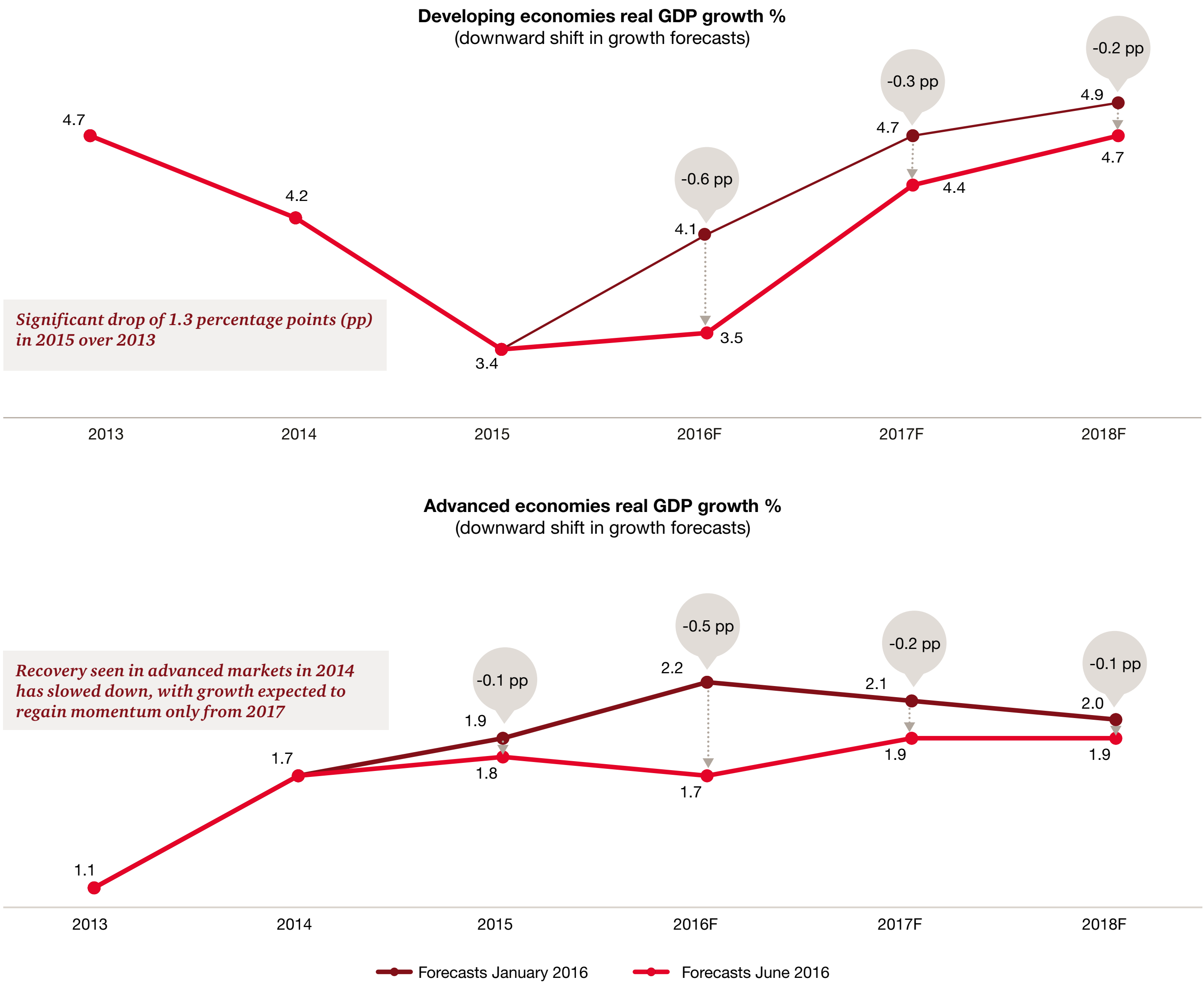
Economic uncertainties raise apprehensions

There is no denying that average growth across developing markets has slowed down in recent months. In 2013, real GDP growth for developing economies was at 4.7%; however, this declined sharply to 3.4% in 2015, and while the World Bank predicts that growth in these economies is on the rise again, it will take until 2018 for real GDP growth to return to figures of 4.7%. On the other hand, the situation is somewhat less encouraging for developed markets, which are predicted to remain below 2% annual growth over the next three years.[1]

Rising uncertainty is also reflected by the performance of equity markets in developing and frontier markets, which have collectively performed worse than developed markets since 2012. This highlights the decline in investor confidence that growth markets will continue to deliver the stellar growth witnessed in the early part of the millennium.[2]

However, before writing off the potential within growth markets, it is essential to understand the factors behind the economic volatility being witnessed in these regions, and to analyse whether these factors are based on fundamental shortcomings or if they are more momentary and localised in nature.

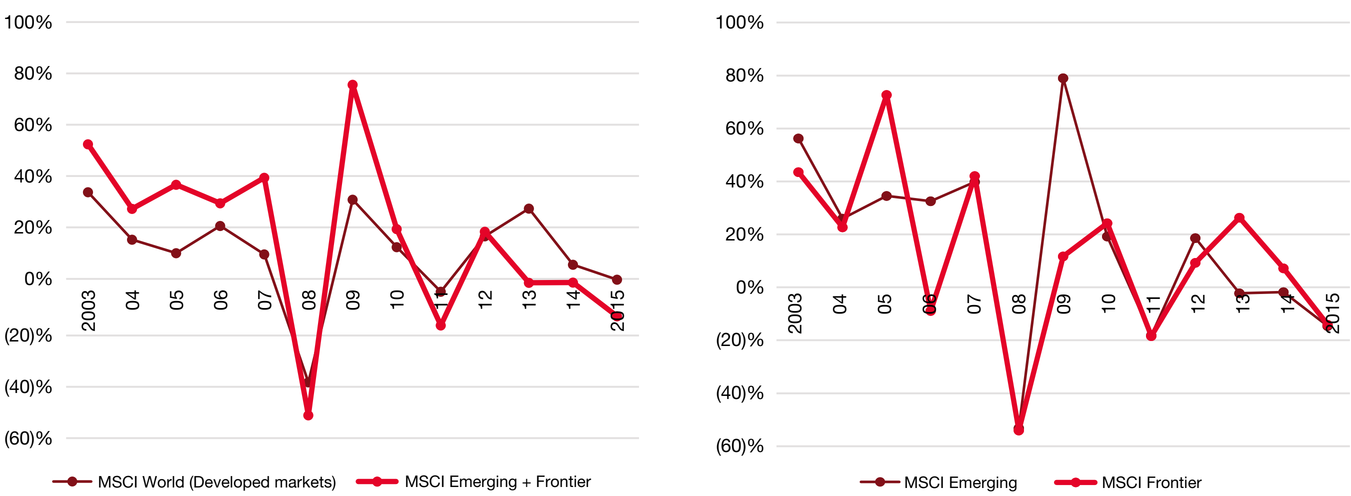
Figure 1.1: Real GDP growth – historical trends and predictions



Source: World Bank Global Economic Prospects, June 2016

As highlighted in the sections that follow, the recent stagnation in the pace of real GDP growth is the result of a combination of domestic factors within certain growth markets, and a set of external factors that have played a role in exacerbating the situation. While the domestic factors impacting growth emanate from economic and political policy decisions being taken by national governments, external factors have emerged from global market linkages and environmental exigencies that remain somewhat out of the control of developing economies.

Figure 1.2: Comparison of equity indices (annual performance, %)



Equity markets in emerging and frontier countries recorded stronger growth over developed regions before 2011, while their performance has declined in recent years

Unlike emerging countries, equity markets in frontier nations recorded much stronger performance over 2013 – 2014, but were majorly impacted by global headwinds in 2015

Source: MSCI, May 2016

Domestic factors behind rising volatility

Inflation has been a challenge across growth markets since 2013, with average inflation remaining between 3 and 5% in 2015 across all growth markets except East Asia, as compared to a global average of 1.5%. The situation has become worse for many oil exporting countries in the Middle East, Latin America and Africa, which have seen a rise in inflationary pressures in recent times. The causes of these higher inflation rates vary, from adverse weather conditions and severe droughts impacting agricultural production across parts of Africa, to poor supply chain and logistics networks in South Asia and Sub-Saharan Africa, leading to high amounts of wasted produce. The sharp depreciation in currency rates over the past two years in key Latin American markets such as Brazil and Argentina has also pushed inflation there to a high of 9-10%.[3]

Regardless of the wide-ranging causes of these elevated inflation rates, they have had a negative impact on business prospects in the affected regions, as high and volatile rates of inflation create market uncertainty and lead to increased production costs, while hampering private consumption. Therefore, investors in these markets tend to adopt a more cautious 'wait and see' approach, postponing key decisions about consumption and investment. Challenges to economic growth have been further exacerbated by the reactionary monetary tightening in many developing economies such as Nigeria, Egypt, Argentina and Brazil, to prevent large scale capital outflows and currency depreciations amidst growing divergence in interest rates in developed markets.[4]

Whilst high inflation has plagued many growth markets, the domestic situation and foreign policies of regional heavyweights such as China, Brazil and Russia have also had global ramifications. China's self-imposed economic transition from manufacturing to services, coupled with a shift from investment to consumption-driven growth, has led to lower demand for commodities. Many of these were sourced from other growth markets, particularly across Southeast Asia – which are now feeling the impact of a slowdown in Chinese demand. The IMF estimates that 'a 1 percentage point slowdown in Chinese growth leads to a 0.3 percentage point decline for other Asian countries'. However, even though the ongoing rebalancing in the Chinese economy has slowed growth in the recent past, its ambition to reduce its excessive reliance on low value-add manufacturing is expected to position the Chinese economy more strongly in the long term.[5]

Brazil, once the darling of developing economies, has faced a tough 18 months as it comes to grips with the extent of mismanaged populist policies and a corruption scandal which together led to the impeachment of President Dilma Rousseff. Significant spending on higher pensions and tax breaks to industries led to a sharp growth in fiscal deficit, from 2% of GDP in 2010 to 10% of GDP in 2015, with the situation being worsened by the drop in global commodity prices.[6] However, the pledges made by Michel Temer's new administration to control government spending have brought some respite to the declining economy, with the IMF predicting that there is light at the end of the tunnel, returning Brazil to growth of 0.5% in 2017.[7] Brazil's economic woes were mainly the result of poor domestic economic policies and questionable leadership, and it is hoped that the country might just be saved from a prolonged recession with some prudent fiscal policies which are less populist in nature than those which led to the current situation.

Russia faces economic sanctions from the US and the European Union, including restrictions on foreign investments which have caused growth prospects to deteriorate amidst falling oil prices. While the Russian economy witnessed a strong recovery in 2010, registering GDP growth of 4.5%, these factors have resulted in a sharp contraction of 3.7% in 2015. Inflation figures also jumped from 6.8% in 2013 to a high of 15.5% in 2015, while retail sales and capital investments fell by 10% and 8.4% respectively in 2015 over 2014.[8]

> ***"The turn in China's investment cycle and end of the commodity price boom again have exposed underlying structural weakness in many growth markets – unbalanced economies, inefficient tax and regulatory policies, low political support for economic reform, and often poor institutions vulnerable to corruption. Looking ahead, successful growth markets strategies will require a fundamental understanding of where the economic, political, and institutional environment is improving, and where it is not."***
>
> **Alexander Kazan**
> Managing Director
> Emerging Markets Strategy, Eurasia Group

External factors behind rising volatility

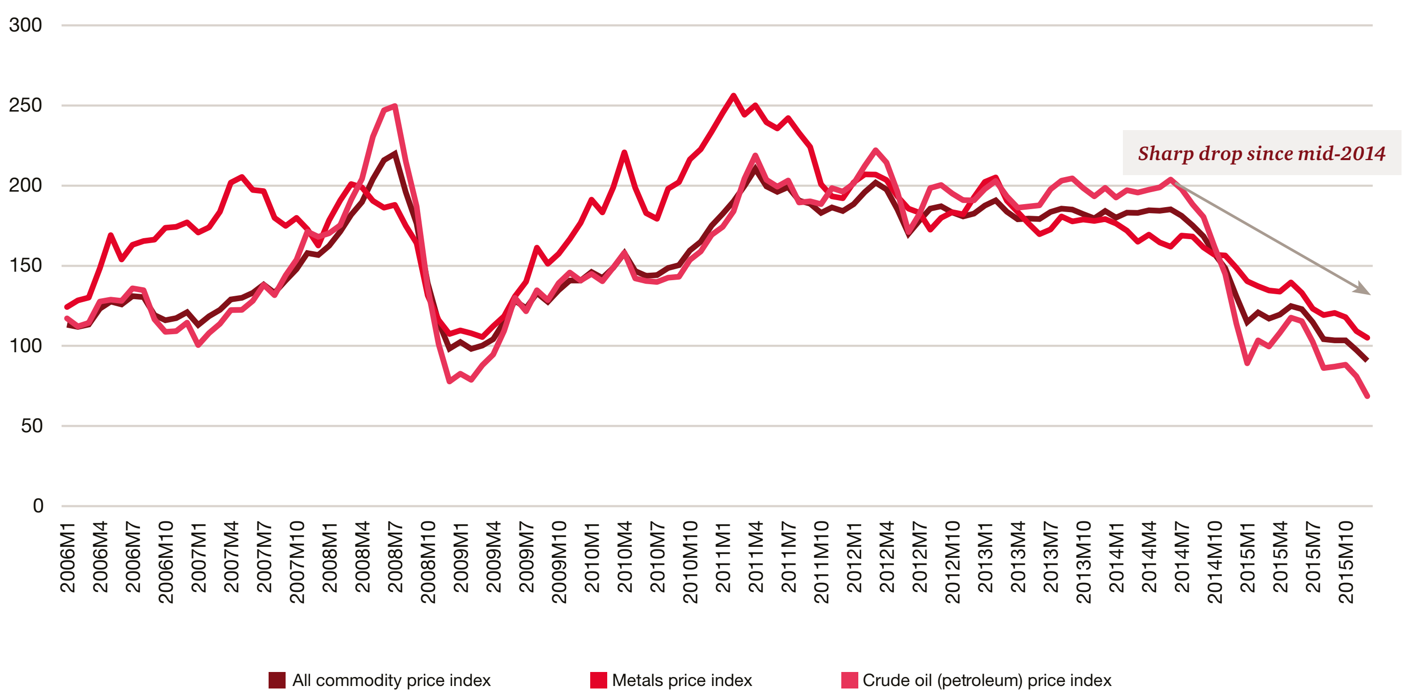
As we have seen with China, Brazil and Russia, many of the causes of the economic slowdown across developing economies originate at home. However, the effects of these actions (or inactions) have been compounded by a set of external events that have not been wholly within their control, although they could, to some extent, have been predicted and accounted for.

The drop in commodity prices has compounded the economic downturns in Brazil and Russia, since the two countries account for more than 40% of commodity exports from growth markets. However, this drop in commodity demand was somewhat telegraphed, with China stepping away from manufacturing, the US becoming less dependent on oil imports through the development of shale gas and OPEC's history of refusing to reduce oil output, even in light of Iran re-entering the oil market. The slowdown in regional heavyweights such as Brazil and Russia has in turn had spill-over effects on other markets which have trade and financial linkages with the two regional leaders. As per World Bank estimates, a 1 percentage point drop in growth in Brazil or Russia could reduce growth in its neighbouring countries by up to 0.5 percentage point on average over two years.[9]

Nevertheless, the dramatic drop in commodity prices since 2014, and in particular that of crude oil, is the most obvious external factor impacting commodity-exporting developing economies. This is especially true of those which have been largely dependent on the revenues of commodity exports, such as Saudi Arabia and Nigeria. Both Nigeria and Saudi Arabia have seen sharp drops in GDP growth estimates over 2015-16, as compared to a much stronger performance in 2014. This can largely be attributed to the drop in crude oil from a height of USD 115 per barrel in June 2014 to a low of USD 35 in February 2016.[10]

This is in comparison to those commodity-importing developing economies which have managed to maintain high and stable GDP growth during this period of declining commodity prices. Many of these importing countries, such as India, have been able to take advantage of the reduced oil price to lower or remove fuel subsidies altogether. These precious funds have then been reallocated to developing much-needed infrastructure to facilitate the development of the rest of the economy. For example, India's import bill for crude oil is estimated to have reduced by a significant USD 48 billion in one fiscal year alone, denoting a 43% drop in crude import costs in FY 2016 as compared to the previous fiscal year.[11]

Figure 1.3: Commodity price indices (2005 = 100)

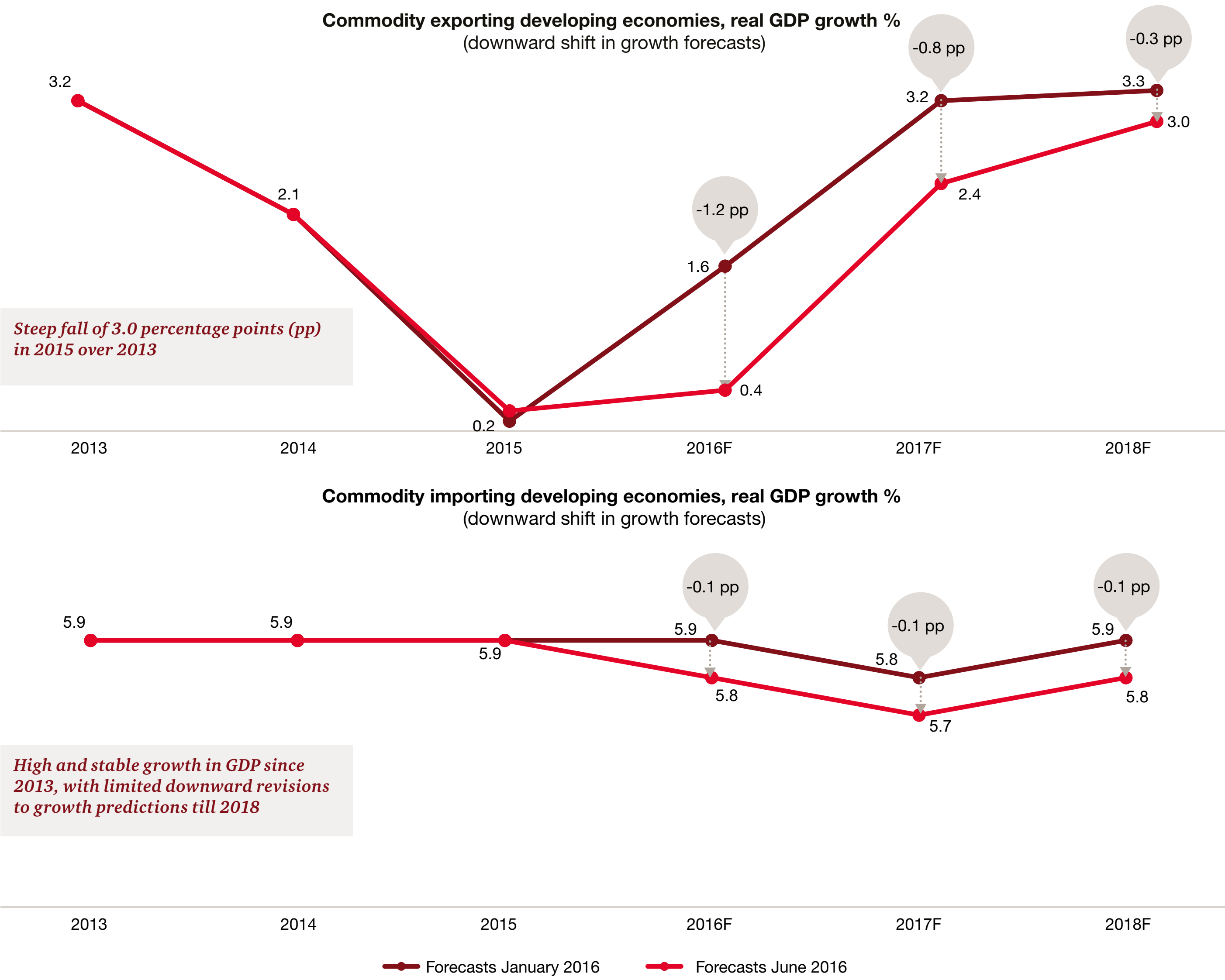


Source: International Monetary Fund, 2016

> *"Emerging market performance has become much more diverse over the last few years, with commodity exporters like Brazil, Nigeria and Russia suffering particularly marked downturns. Growth markets will no doubt remain volatile, but the shift of global economic power to China and India in particular has continued as these economies are still growing much faster than those of the US, Europe or Japan. This continues to drive relatively strong growth in the ASEAN economies, with increasing trade and investment links spreading across the Asian growth markets as a bloc."*

John Hawksworth
Chief Economist, PwC UK

Figure 1.4 Real GDP growth – commodity exporting and importing developing economies

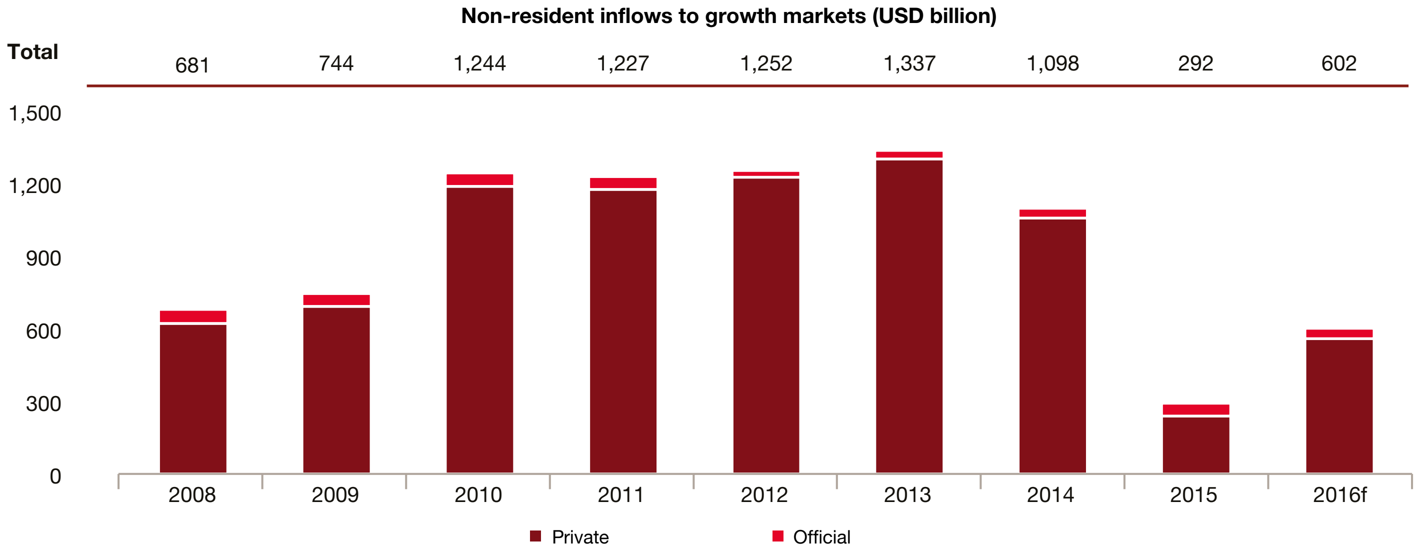


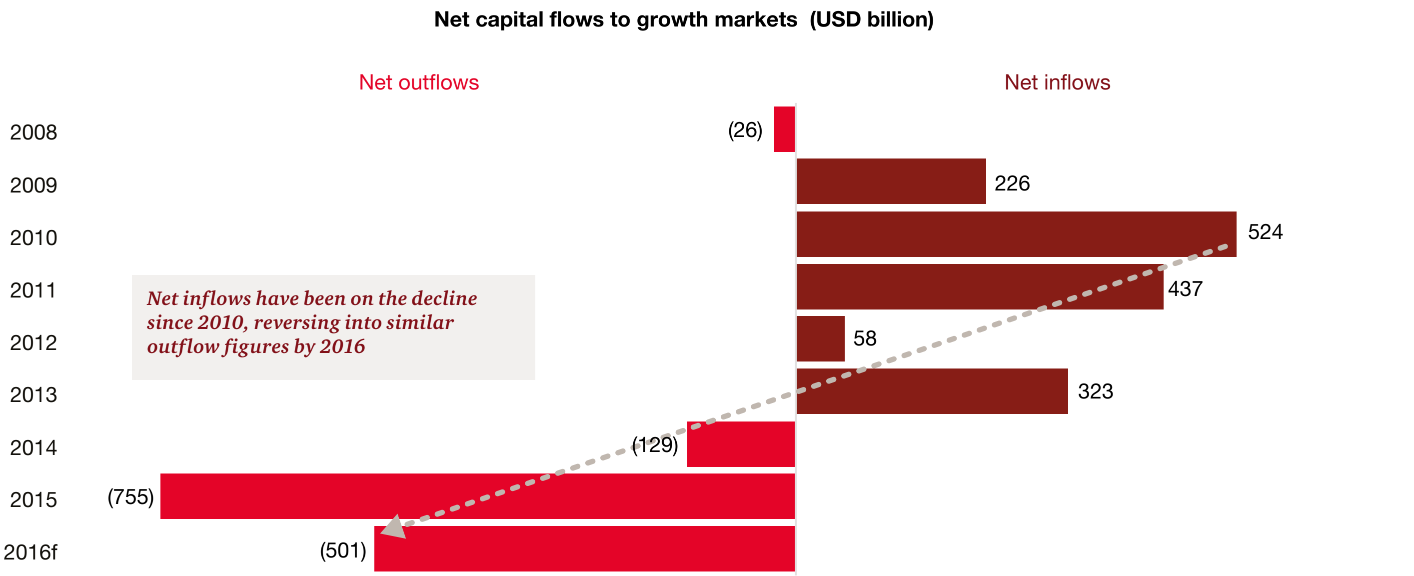
Source: World Bank Global Economic Prospects, June 2016

Another ingredient to the cocktail of activity which has impacted developing markets' growth over the past 18 months has been the decision of the US Federal Reserve Bank to increase interest rates in December 2015, which made US-based equities a more attractive (re)-investment option than those based in developing markets, especially given the other events occurring in these markets. These increased rates, in contrast to monetary easing in Europe and Japan, led to a stronger dollar, which put pressure on growth markets and companies with high amounts of US dollar-denominated debt, especially in the energy sector. The trend poses significant challenges to developing markets which are in need of investments to push economic growth. Large-scale capital outflows have increased downward pressure on local currencies, with many markets in Africa and Latin America being forced to increase interest rates despite weak economic conditions.[12]

This cocktail of domestic and external events, combined with the associated factors of weakening local currencies and downward predictions of relative near-term returns, has negatively impacted the risk appetite of global investors, especially banks. This can be seen through the reversal of capital flows into the growth markets since 2013, as seen in figure 1.5. Even though this negative trend is estimated to have subsided in 2016 due to a significant improvement in private inflows into growth markets, including a rise in equity investments and private credit, net outflows will still be substantially high at USD 500 billion – though down from USD 750 billion in 2015. While overall inflows are expected to rise to USD 600 billion in 2016 from USD 290 billion in 2015, the figure remains significantly less than an average inflow of USD 1.2 trillion between 2010 and 2014.[13]

Figure 1.5: Capital flows to growth markets





Source: Institute of International Finance, April 2016

One point of caution here is to note that not all the money coming out of growth markets is a retraction of investment, as growth markets-based companies have also taken advantage of the increasing US interest rates and more stable business environment. For example, deeper analysis of rising capital outflows from China indicates that around 50% of cumulative outflows from China were in fact due to residents making investments in foreign assets over the period spanning Q2 2014 to Q4 2015 – the period of net outflows from growth markets.[14]

Moreover, not all causes of the current cooling off in growth markets are the consequences of political or economic actions. Unfortunately many developing economies also suffer the consequences of extreme environmental conditions. Since 2013, we have seen devastating typhoons and tsunamis across Southeast Asia, severe droughts in parts of Sub-Saharan Africa, and floods and mudslides in Brazil and Mexico. The El Niño phenomenon has dramatically impacted agricultural output across Africa, Asia and Latin America, which has also contributed to the aforementioned heightened inflation and the resulting tightening of monetary policies.[15]

Challenging times for market players

The unpredictable nature of growth markets is not a new characteristic to most businesses operating in these complex markets. Many of those who have entered and expanded into growth markets within this millennium have done so during a period of somewhat consistent high growth, and have not had to dramatically review their strategic plans or operations while riding the waves of growth. However, the current situation demands that companies take a good look at their growth strategies and how they execute plans in order to ensure that they can ride through this turbulent time with confidence while retaining profitability.

Unfortunately many foreign companies appear to be adopting a 'wait and see' approach, which can dramatically impact their long-term growth prospects in growth markets. It is understandable that a board might prefer to focus on operational improvements or on improving efficiencies rather than on investing further into a growth market venture, or on entering a new geography during a period of uncertainty. However, adopting a purely inward strategy or waiting for the ill winds to pass could actually further impede a company's long-term growth prospects, exacerbating the negative impact of the volatile circumstances that they are trying to weather.

From the numerous interviews carried out by the Growth Markets Centre over the past year across developing economies worldwide, we have seen that the companies which not only address operational efficiency opportunities but also look for different ways to grow in periods of uncertainty are best placed to succeed in growth markets in the medium to long term. These companies adopt flexible strategies and operations which enable them to adapt to the maturing and less business-friendly conditions, which is more of a common characteristic of growth markets than an anomaly. They understand the dangers of retreating from a market during challenging times, as market dynamics and consumer needs evolve even during periods of increased uncertainty. Companies that are not in tune with these changes find themselves behind the competition when they begin to re-engage with the market once economic certainty has returned. With a more flexible short-term growth strategy, companies are able to identify areas of strategic advantage which they can protect and even focus investments into, as we will see in more detail in part 3 of this report.

Case study
Casas Bahia in Brazil

Casas Bahia, one of the most valuable retail brands in Brazil, clearly understood the prevalent market challenges, the needs of its consumers, the ways to navigate high credit risks and the limitations regarding margins to craft an exemplary business model targeting the BoP (Base of the Pyramid) consumer segment.

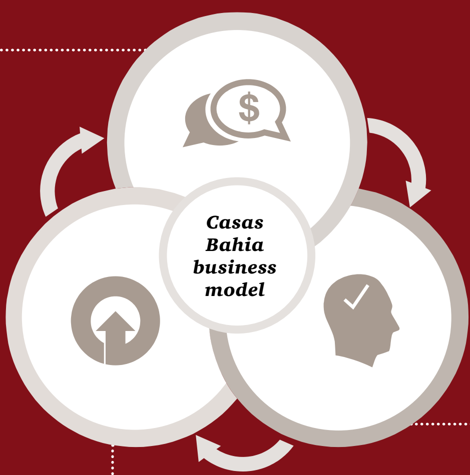
Other than its innovative approach to serve the unserved segment, Casas Bahia's greatest achievement has been to understand the emotional needs and buying habits of low-income consumers, and then to translate their aspirations into reality by providing affordable household products and offering easy access to credit. Casas Bahia proved itself to be a fine example of how companies can translate consumer aspirations into real experiences and unlock the enormous purchasing power they hold.

While many of its competitors saw BoP customers as undesirable, Casas Bahia saw them as an opportunity. It made products such as television sets, refrigerators and washing machines accessible to its customers from lower economic segments, even with almost 65% having no formal jobs. It further adopted unique, innovative platforms and established exemplary credit processing systems to make high-ticket retail items affordable through easily accessible, flexible and tailored credit.[16]

Figure 1.6: Casas Bahia business model

Casas Bahia's unique selling proposition

- Debts can be renegotiated
- Passbook strategy
  - Instalments paid in stores
  - Cashier cross-sells products
- Easily accessed credit
  - Fast track credit approval (immediately for value R$600)
  - Proof of home address and not blacklisted in SPC (credit bureau)
  - Debt renegotiation
  - High number of instalments



Key capabilities

- Credit risk management
  - Sales assistants from the community to leverage local knowledge and provide support to credit decisions
  - Salespeople educate customers to buy in accordance with their budgets, in order to prevent default and avoid customer frustration – results in very low default levels (less than half of its closest BOP competitor)
  - Delivery and furniture assembly teams check data accuracy

Bahia customers are from C/D/E social classes, and almost 65% have no formal jobs. Currently, payments can be made in up to 18 instalments for home appliances; further credit is offered to those customers who have fully paid the last purchase.

Positional assets

- Store locations are in low income traffic areas – e.g. close to bus/metro terminals
- IT integrated credit scoring and tracking

Once the customer finances the purchase, he or she has to go to the store every month to pay the passbook, unless the client opts to add a bank fee. More visits result in more opportunities to deepen the company's relationship with the customer.

Source: Company website, PwC Analysis

Growth markets through a different lens

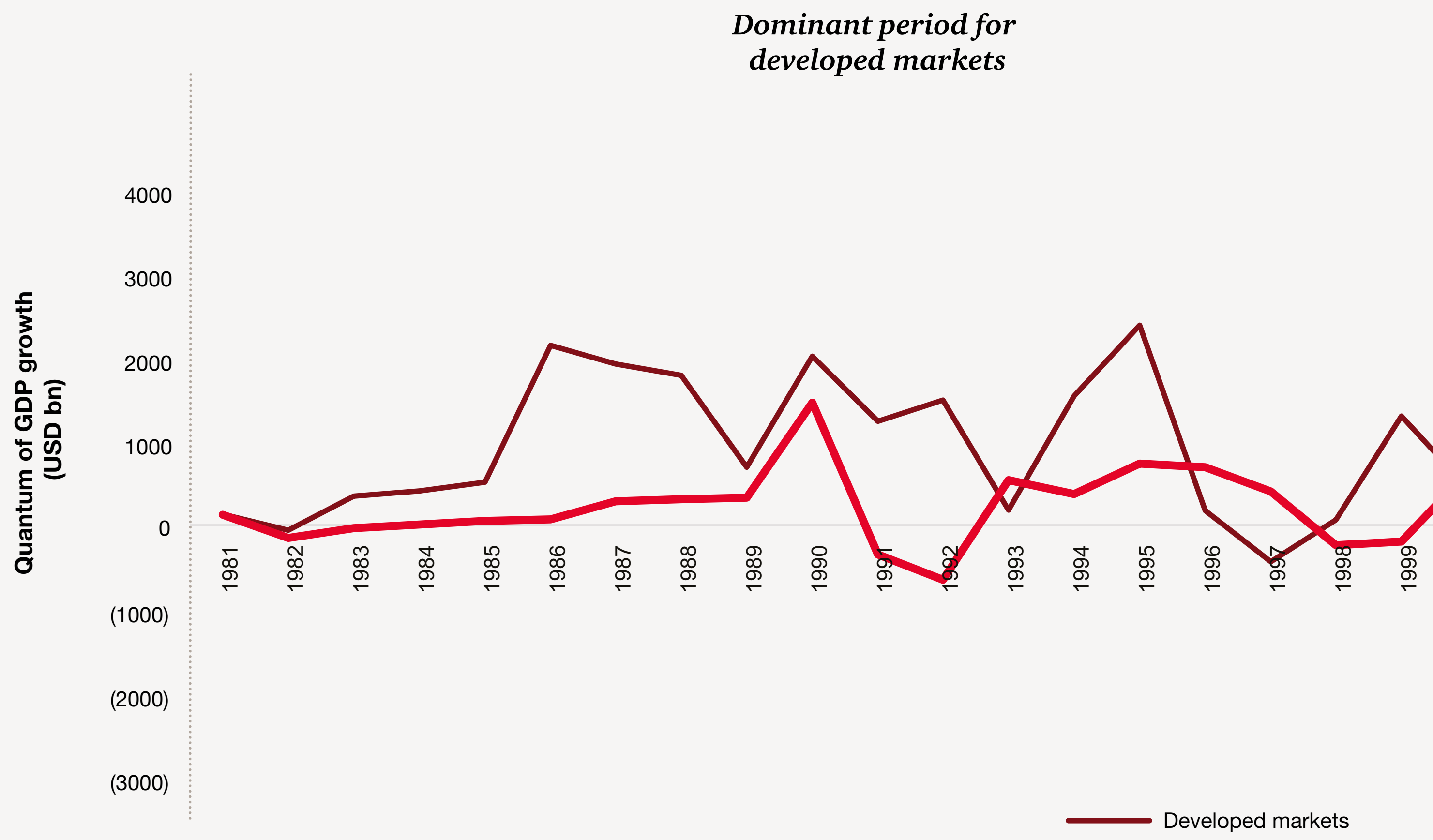
A key factor of developing a successful and flexible growth market strategy is the ability to understand the fluctuations in market dynamics and how they differ from developed regions. Many people characterise growth markets as being extremely unpredictable and volatile, making it difficult to plan and manage investments over as long a period as they would in a developed market. However, companies and business planners who have either experienced growth markets over a long period of time – that is, more than 30 years – or who look at growth in developing markets through a different lens than for developed economies, appreciate that changes in market conditions are more of a defining characteristic of a high growth developing economy. It comes with a growth market, it is a part of their DNA. Just as people mature at varying rates at certain times in their lives, growth markets also go through some turbulent times in their journey to becoming mature and stable economies.

Volatility or characteristic behaviour

If we define 'volatility' as frequent and severe fluctuations in economic growth and then look at growth in both developed and developing economies, we will see that, contrary to expectations, growth in developed markets has fluctuated more often than in growth markets over the past 30 years, particularly in recent years.

Looking at figure 1.7 we can see that between 1981 and 2015, developed economies have experienced 15 separate drops in absolute GDP growth, versus 12 across growth markets. Even before the onset of the new millennium, a period which is largely recognised as a dominant period for developed markets, they experienced no fewer than six drops in growth compared to four in developing economies between 1981 and the year 2000. Moreover, the depth of drop in absolute growth has also been much larger in developed markets than in developing economies during all major economic slowdowns in recent years, such as during the dot-com bust in 2000–01, the sub-prime crisis of 2008–09 and the more recent global

Figure 1.7: Quantum of GDP growth (in USD bn, 1981–2021)

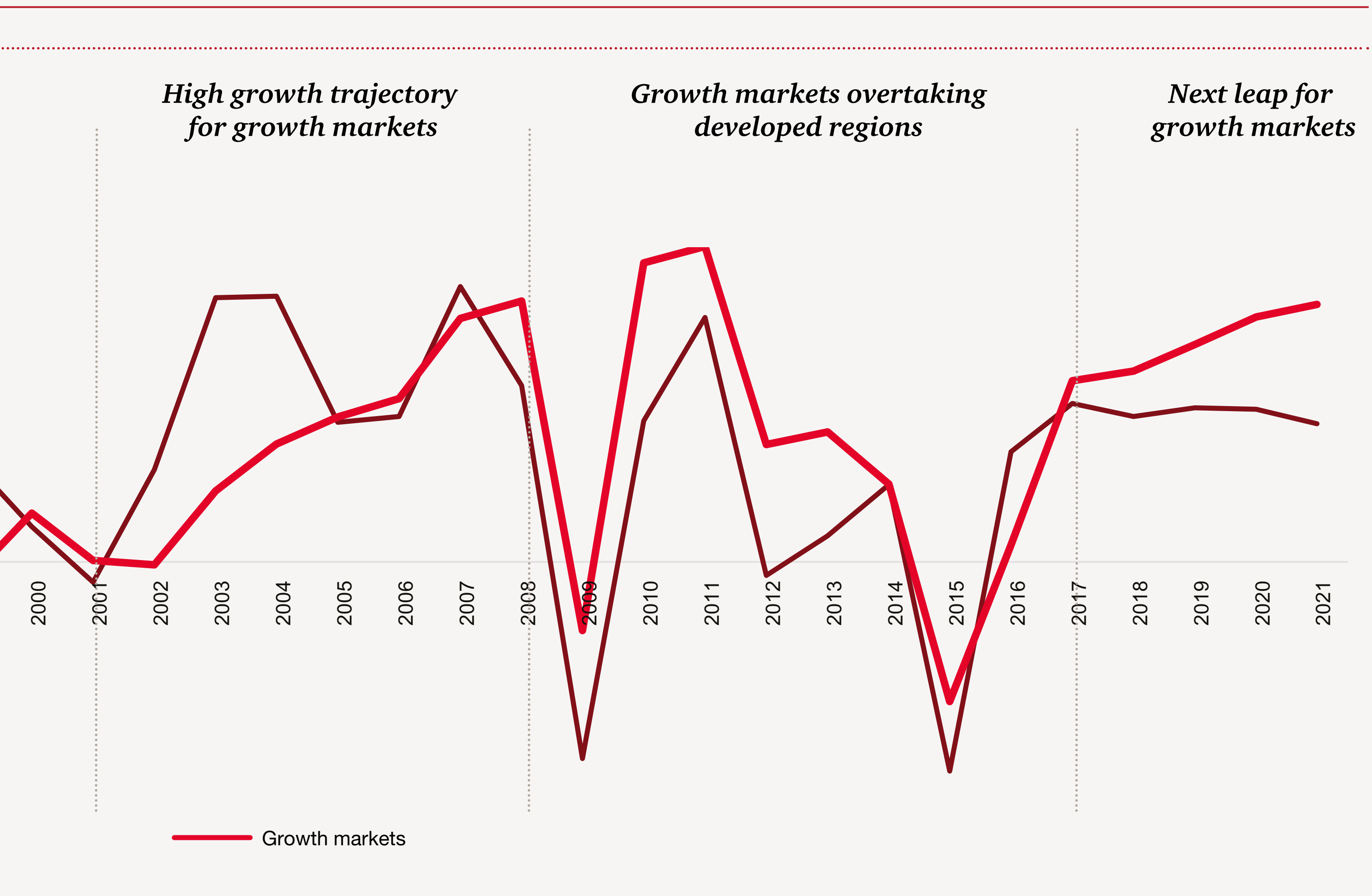


Source: World Economic Outlook, IMF, October 2016 slowdown in 2014–15. Two of these crises, the dot-com and the sub-prime crisis, were predominantly caused by the developed markets, and in fact only the current slowdown, as we saw earlier, has as much to do with growth markets as the developed parts of the world. This combines with the fact that we have grown accustomed to seeing consistent growth in these developing economies over the past 30 years, and in particular over the last 15 years.[17]

To be more accurate, growth markets are not necessarily volatile but maturing in nature. Companies looking for growth opportunities in these regions should therefore be aware that as these economies grow towards being more stable and mature, there will be periods of slower growth instigated by multiple factors that are not always solely related to or in the control of the growth market in question. However, one thing is consistently true: these markets are maturing and yet to reach their full potential.

The growth potential of both developing and developed markets is usually measured as a percentage change in GDP, which is useful but does not always reveal the true picture of a region's growth trajectory, as the size of developing market economies (in terms of GDP) is typically much smaller than developed markets, and hence their percentage growth figures, both positive and negative, appear higher compared to developed regions.

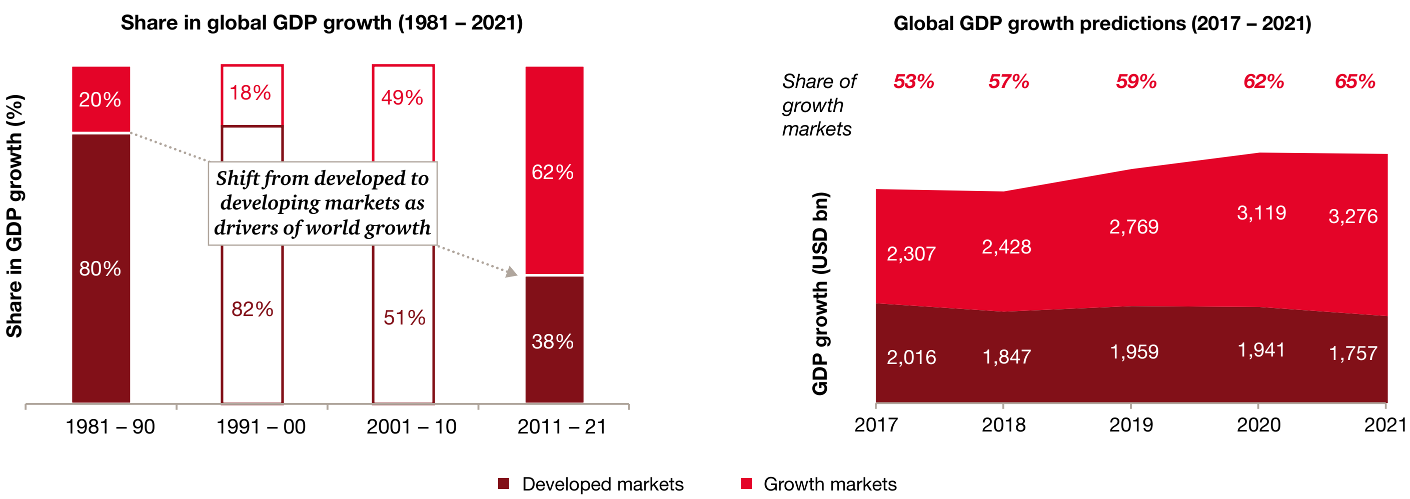
To get a more accurate picture of trends in growth markets, in this report we have looked at the actual quantum of growth rather than merely percentage change in GDP. As you can see, growth markets experienced a modest period of quantum growth during the 1980s and 90s, but shifted gear after the dot-com crisis in 2000–01, recording a period of steady high growth until the financial crisis of 2008–09. A major shift has occurred in the real balance of economic power since 2008, with developing economies bypassing advanced economies in terms of the quantum of GDP growth. By and large this has remained the case ever since. Despite the current global slowdown, the next major surge in terms of real quantum growth is expected to take effect from the end of 2016, returning these growth markets to the heights experienced in 2011–12 – and more importantly with absolute growth reaching 1.9 times that expected in developed markets by 2021.



As shown in figure 1.8, the share of growth markets in global growth is expected to rise significantly in the current decade, averaging more than 60% over 2011–2021, growing from a low of 20% during the period spanning 1981 to 1990. Despite the recent slowdown, growth markets will continue to register a rising share in global GDP growth over the next five years, reaching almost two-thirds of GDP growth by 2021.[18]

Therefore, given that the growth markets are not necessarily 'volatile' but instead 'maturing' and that high levels of quantum growth are expected to return to these markets, it is important that companies start to prepare for the future with more positive and flexible strategies and operating models, rather than retreating and focusing only on operational efficiencies for the short term.

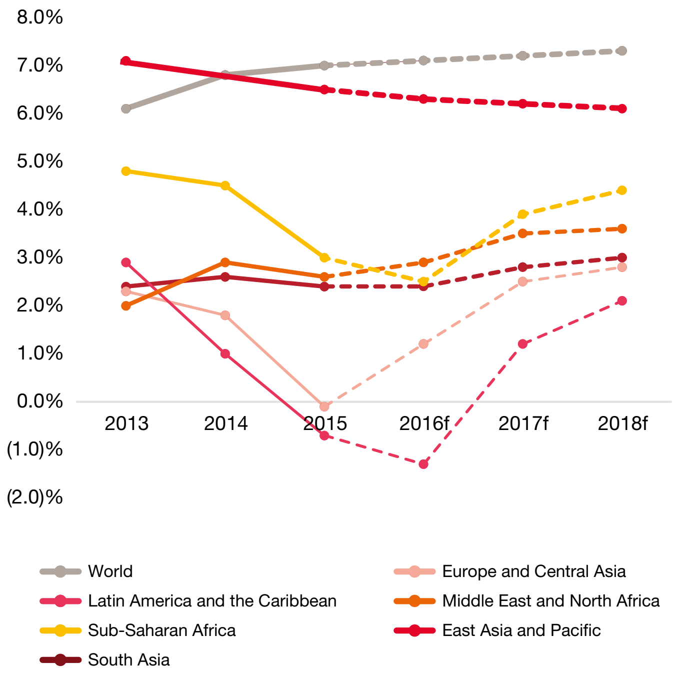
Figure 1.8: Share in quantum of GDP growth (1981 – 2021)



Source: World Economic Outlook, IMF, October 2016

Figure 1.9: Real GDP growth by region and leading growth markets

Growth in real GDP (%) – Growth markets by region



Understanding regional growth variations

Although we can see that developing economies are experiencing slower than anticipated growth at present, despite what certain publications have stated, not all markets are experiencing similar rates of slower growth, and in fact some are maintaining previous levels or are growing at an even greater rate.

Looking from a purely one-dimensional lens of percentage growth in GDP (Figure 1.9), we can see that while overall growth in growth markets slowed down from 4.7% in 2013 to 3.4% in 2015, East Asia continues to maintain annual growth of more than 6% and South Asia has improved upon its growth figures from 6% in 2013 to 7% in 2015. However, it is the stagnation in other regions, especially in Latin America and Europe and Central Asia, which is dragging down growth market figures.[19]

Key markets showing positive growth include China – even at a reduced rate of 6.9%, it is relatively healthy, especially considering the high quantum of growth of USD 568 billion – and others such as Indonesia, Turkey, Poland, Egypt, India, Bangladesh and also Iran, which is expected to witness a steep jump in growth in the coming years following the easing of economic sanctions (see Figure 1.9).[20]

Growth in real GDP (%) – Leading markets by region

Region	Country	2015	2018f
East Asia and Pacific	China	6.9%	6.0%
	Indonesia	4.8%	5.5%
Europe and Central Asia	Turkey	4.0%	3.2%
	Poland	3.6%	3.3%
Latin America and Caribbean	Mexico	2.5%	2.6%
	Argentina	2.1%	2.8%
Middle East and North Africa	Egypt	4.2%	4.8%
	Iran	1.6%	4.1%
South Asia	India	7.6%	7.7%
	Bangladesh	6.5%	7.0%
Sub-Saharan Africa	Nigeria	2.7%	1.6%
	Angola	2.8%	2.4%

Highlighted cells indicate growth rates exceeding average figures for growth markets in 2015 (3.4%) and 2018 (4.8%)

Source: World Bank Global Economic Prospects, June 2016; IMF Forecasts, October 2016

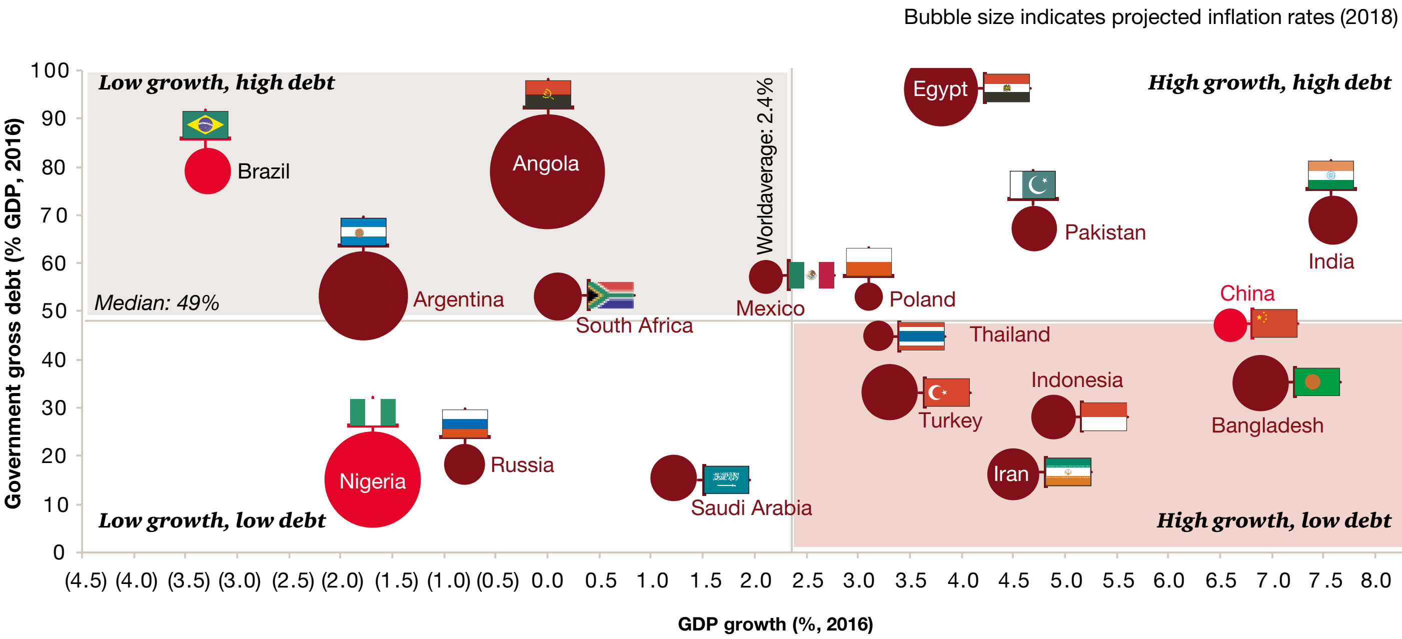
However, looking at growth through such a one-dimensional lens can be misleading, and therefore including additional perspectives such as the level of gross debt and predicted inflation provides a much more robust view of the growth prospects across developing markets.

Figure 1.10 looks at growth markets through these three lenses. It shows that while lower GDP growth is not favourable, high debt levels add to the risk, as they lead to lower capacity for countries to provide financial stimulus to push through recovery measures. Furthermore, high inflation expectations worsen the problem by forcing countries to pursue more restrictive monetary policies, which impede growth and do little to stimulate growth. Therefore, with this in mind, countries with lower than average GDP growth and high levels of debt, such as Brazil, Argentina, Angola and South Africa, would appear to be riskier markets at this time. High inflation expectations in Angola and Argentina further increase the risks for these markets.

That being said, it's important not to make broad-brush decisions and write off these nations as investment destinations. As well as being aware of immediate and short-term growth trends in the overall economy, we must also consider the state of basic fundamentals that underpin growth – and, as discussed in part 2, look at business conditions and market potential that surround individual sectors and sub sectors within these economies.

As we will see in the sections that follow, the fundamentals within even some of the relatively 'high risk' markets such as Brazil and Nigeria remain strong and will support their route to recovery over the next couple of years. Moreover, stagnated conditions in regional leaders such as China are also expected to improve in the medium term, considering the existence of strong drivers of economic growth. Ongoing policy reforms in many growth markets, including India, are further opening doors to new opportunities for private sector firms, and are expected to significantly boost economic growth in the medium to long term.

Figure 1.10: High and low risk developing economies



- High risk markets, with lower than average GDP growth and high debt levels
- High expected inflation levels in Angola and Argentina further increase the risks for these markets

- Low risk markets, with higher than average GDP growth and low debt levels
- South Asian markets, China and Bangladesh emerge as more favourable than other counterparts

Source: World Economic Outlook, IMF, October 2016

Brazil
Fundamentals drive a return to growth

Immediate and short-term growth predictions for Brazil are not highly encouraging, especially against the backdrop of President Rousseff's impeachment. However, core economic fundamentals remain fairly robust – in particular with its growing middle class consumption, improving human development and rising digital penetration which, taken together with the positive messages from President Michel Temer, indicate that the market could recover to positive growth by 2017-18.

"Brazil is heading to regain the position of the most promising market in Latin America. Consumer and business confidence are rising and the economy will return to modest positive rates of growth in 2017, driven by a recovery in industrial production, trade surplus position and domestic consumption together with a more competitive exchange rate and a pro-investment infrastructure boom."

Otavio Maia
PwC Brazil Advisory Leader

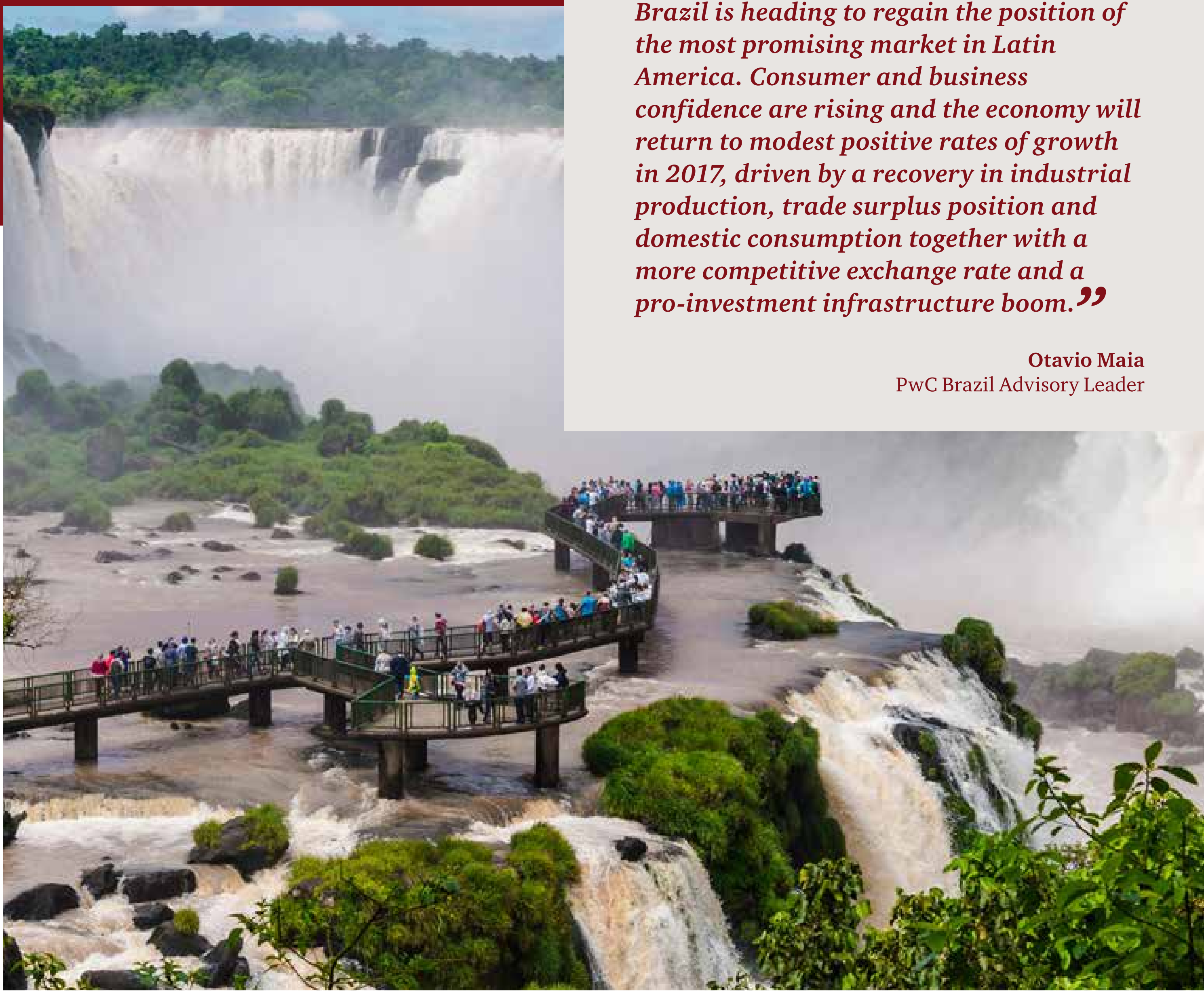
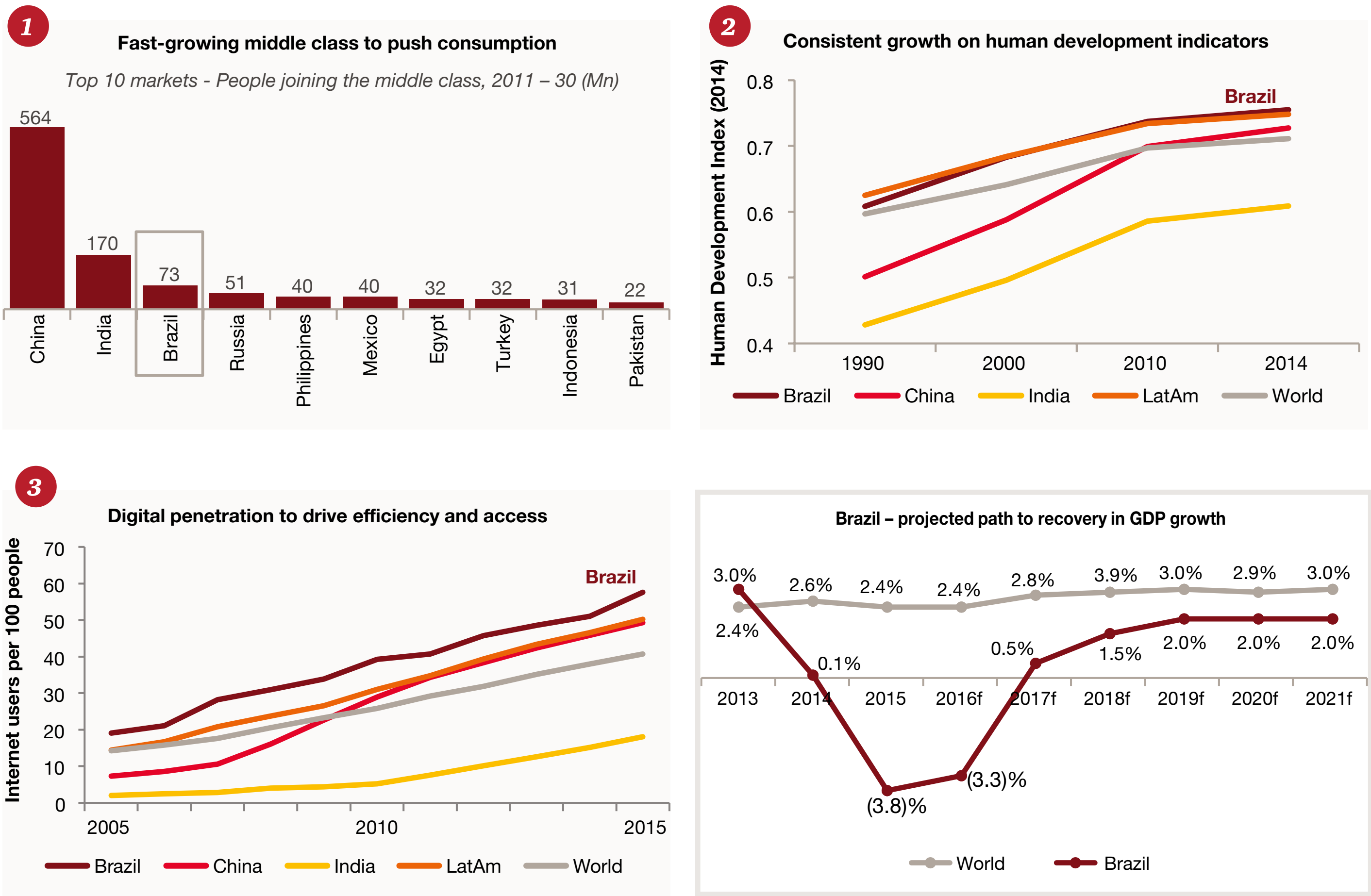


Figure 1.11: Factors driving economic recovery in Brazil



Source: World Bank; IMF; Rising Middle Class, Global Outlook, PwC & Switzerland Global Enterprise

Factor 1: Fast-growing middle class to push consumption

Brazil ranks third among growth markets in terms of expected growth in the absolute size of the middle class by 2030. With 73 million people entering the middle class income bracket, more people are projected to join the middle class in Brazil by 2030 than the current population of France or the United Kingdom.[21]

Factor 2: Consistent growth on human development indicators

Brazil continues to perform strongly on human development indicators, in particular those on education, income and health. Ranked 75th among 188 nations worldwide on the Human Development Index or HDI in 2014, Brazil's performance is stronger than the world average and that of current global growth leaders such as India (ranked 130).[22]

Factor 3: Digital penetration to drive efficiency and access

Brazil has been able to improve digital penetration by a high 38 percentage points between 2005 and 2015, making it more digitally connected than many of its regional and global counterparts and providing a platform to enable greater access to products and services through low cost, technology-enabled operating models.[23]

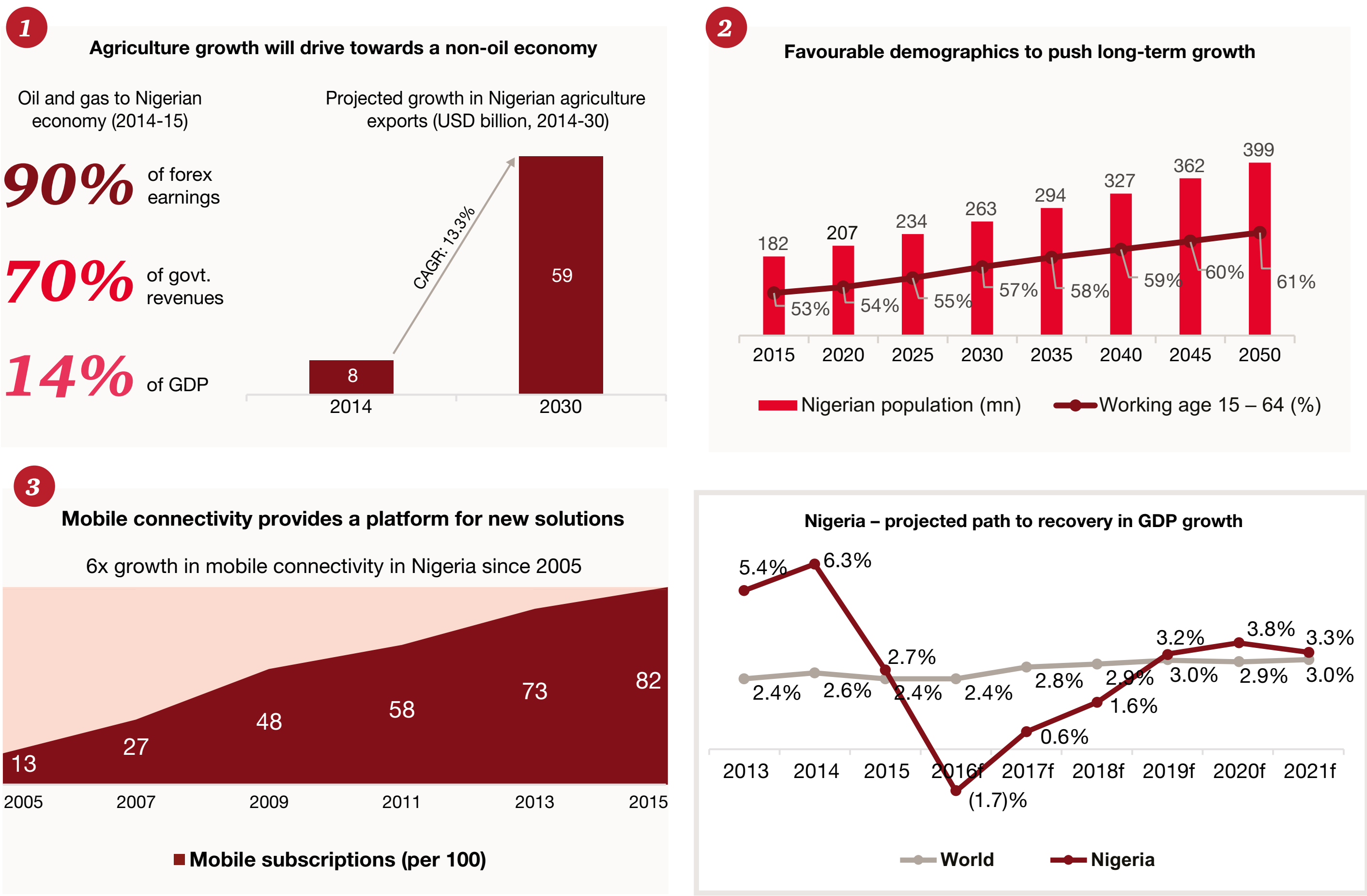
Nigeria
Diversifying towards a non-oil based economy

Once the shining star of the African continent, Nigeria has seen its economic growth stutter in recent times mainly due to a fall in commodity prices and the flotation of its currency, the Naira. However, the country's economy does have a sizeable and growing non-oil component and together with its growing working class, which is getting ever more connected, the long-term prospects are still positive.

"Nigeria has the potential to feature among the world's ten largest economies by 2050, but diversification to sectors such as agriculture, retail and information and communications technology (ICT) will be essential to achieve this target. Challenges related to corruption, inadequate infrastructure and low skill levels will also need to be tackled to make the transition to a non-oil economy."

Dr Andrew S Nevin
Financial Services Advisory Leader and Chief Economist
PwC Nigeria

Figure 1.12: Factors driving economic recovery in Nigeria



Source: World Bank; IMF; PwC Nigeria: Looking beyond Oil, March 2016

Factor 1: Agriculture growth will drive towards a non-oil economy

While the fall in commodity prices has severely impacted the Nigerian economy, the country is increasingly focusing on economic diversification to become less reliant on oil revenues.[24] Agricultural growth is expected to play a major role in this objective, since it has the strongest inter-industry linkages, both backward and forward to the rest of the Nigerian economy. Sector reforms such as the Agriculture Transformation Agenda in 2011 have strengthened seed and fertiliser supply, created new Staple Crop Processing Zones (SPCZ) and have improved financing to the agriculture sector. Continuing reforms coupled with improvements in crop yields and land under cultivation could lead to a six-fold rise in agricultural exports, reaching USD 59 billion in 2030, compared to only USD 8 billion in 2014.[25]

Factor 2: Favourable demographics to push long-term growth

The Nigerian population is expected to grow by 119% from 2015, to reach 399 million by 2050, making it the third most populous country in the world. With more than 60% of the population falling within the working age of 15–64 years, this young workforce will be able to support the growth of Nigeria's services sector, whilst also driving domestic consumption.[26] Pushed by rapid urbanisation, household consumption expenditure in Nigeria is projected to grow by 8% annually to reach USD 1.1 trillion by 2030, from USD 317 billion in 2014.[27]

Factor 3: Mobile connectivity provides a platform for new solutions

Mobile penetration across Nigeria has grown to six times over the period from 2005 to 2015 and is paving the way for new solutions to emerge across a range of sectors, from healthcare and education to financial services, targeting many of the challenges that have typically remained unaddressed due to lack of awareness, affordability or accessibility.[28]

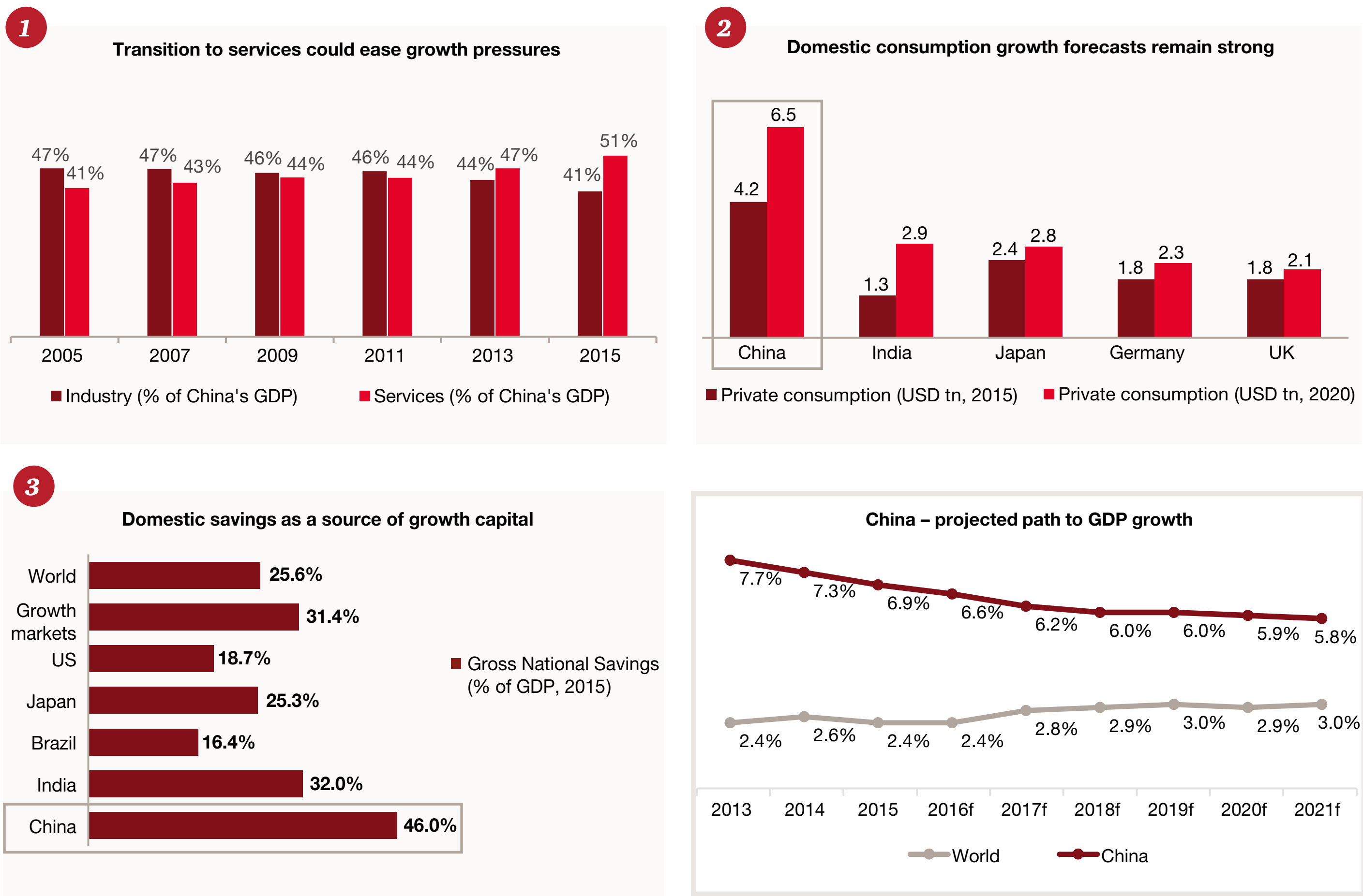
China

Services driving long-term growth

Much has been said over the past year about China's 'slowing economy'. However, as mentioned earlier, the sheer size of the Chinese economy and the quantum that 6.9% GDP growth signifies means that China is still going to be a leader in global growth, as it continues to move to a more stable and mature economy.

> *"As China is in economic transition from investment and export-led growth to consumption and services, the share of services as a percentage of GDP reached more than 50% at the end of third the quarter in 2016. Services has become the most significant driver for economic development and consumption is expected to contribute 70% to GDP growth in 2016."*
>
> **Andrew Li**
> China Central Advisory Leader, PwC China

Figure 1.13: Factors driving economic growth in China



Source: World Bank; IMF, AliResearch

Factor 1: Transition to services could ease growth pressures

A major factor behind slower growth in China has been its decision to rebalance the economy from being predominantly 'manufacturing' towards one which is more services and consumer-oriented. The first signs of this shift are already visible, with services accounting for more than half of the Chinese economy in 2015 (for the first time in history), with a 10 point difference over industry.[29]

Factor 2: Domestic consumption growth forecasts remain strong

China continues to boast of a strong and growing domestic market, creating new opportunities for incumbents and potential entrants. Even if real GDP growth falls to 5.5% per year, private consumption in China is forecasted to grow by USD 2.3 trillion by 2020. This is almost equivalent to adding the current size of the Japanese market (in terms of consumption) to the Chinese consumer economy over the next five years.[30]

Factor 3: Domestic savings as a source of growth capital

With a gross savings rate of 46% (of GDP), China has the second highest domestic savings rate in the world after Qatar, and it is expected to maintain a high rate of between 37% and 40% until 2019–21, whilst also maintaining 6% GDP growth over these years. The high level of domestic savings provides the Chinese economy with a rich source of capital to drive economic growth, more importantly amidst falling capital inflows from developed regions into growth markets.[31]

India

Policy reforms leading the way

Policy shifts play a major role in shaping a country's business environment, with governments the world over initiating reforms from time to time to highlight national priorities and to push for greater and more inclusive socio-economic development. Regulators further look at using policy tools to create the right environment to drive the government's growth agenda and enable competitive markets to flourish while safeguarding consumer interests.

"With the central government focused on pushing policy reforms to contain fiscal deficit, for ease of doing business in India, and expansion of the tax base alongside improvements in the macro environment, we can expect market recovery to gather momentum in the year ahead. The building blocks for a sustainable economic revival are in place for perceptible changes on the ground in the days to come."

Deepankar Sanwalka
PwC India Advisory Leader

These policy shifts are considered by many to have played a key role in enabling the Indian market to achieve strong economic growth in recent years, even bypassing its regional counterpart China in percentage growth in 2015. Several initiatives launched by the national government since 2014 have aimed at improving business conditions for the private sector, including domestic and foreign players, established firms and entrepreneurs, and it is currently on the verge of implementing a landmark tax reform to introduce a unified value-added tax structure in the country.

The Indian tax environment at present remains highly fragmented, with goods and services subjected to multiple indirect taxes at the national and state level, a system often described as a 'tax on tax' regime. The Goods and Services Tax (GST) Bill is designed to erase this cascading effect by regrouping all central and state-level taxes and levies within an integrated central GST and a state GST – thus helping to create a common market for goods and services. The bill is expected to impact the market in many ways, including a possible reduction in the prices of manufactured goods, subject to the tax level finalised by the government, expansion of the tax base, reduction in tax evasion, lower compliance and procedural costs and an improvement in the state of logistics in the country. According to estimates by the National Council of Applied Economic Research (NCAER) in India, implementation of the bill could further push GDP growth in India by 0.9% to 1.7% in the medium term.[32]

Other government initiatives such as the 'Make in India' program to boost domestic manufacturing, 'Startup India' to encourage entrepreneurship and 'Digital India' to improve digital connectivity, coupled with policy changes such as a recent relaxation in Foreign Direct Investment (FDI) norms, are also expected to have a positive impact on the country's economy. Job creation remains a challenge for the Indian government, and it believes that large-scale employment opportunities leading to sustainable economic growth will be driven by the proliferation of start-ups. Hence, key reforms have been initiated to encourage growth in entrepreneurship. Standard procedures on public-procurement from startups have been relaxed, with 100% exemption being given from taxes on profits made in any three out of their first five years. Startups are now allowed to self-declare their compliance with nine different laws through a mobile app, while legal and financial support in term of Intellectual Property Rights is also being offered. Stable economic growth coupled with a large domestic market has already helped attract funding of USD 12 billion for startups in the last two years, and the trend is expected to receive a further boost with the government's backing.[33]

Foreign direct investment (FDI) in India has grown by 53% in the past two years to reach USD 55 billion in FY 2016, with new announcements being made to further attract growth capital from overseas, most notably in sectors including passenger airlines, defence, broadcasting carriage services and pharmaceuticals, by opening these sectors to 100% foreign ownership subject to certain conditions. Other steps have also been taken to make it easier to do business in India, such as the opening of single window online portals to simplify procedures, the launching of special management teams to facilitate investment proposals from key partners such as Japan and South Korea, and advancements made in infrastructure development projects such as the Smart Cities Mission, the Delhi-Mumbai Industrial Corridor, the Dedicated Freight Corridor and National Investment and Manufacturing Zones in the country.[34]

The return of optimism over growth markets in the second half of 2016 substantiates the point that these markets are actually 'maturing' in their growth journeys and the volatility witnessed over 2015 – H1 2016 will eventually give way to a resurgence in positive economic activity. According to the Institute of International Finance (IIF), non-resident portfolio flows to growth markets moved past a sluggish start to 2016, to touch USD 25 billion in September 2016 and a total of USD 64 billion in Q3 2016, the best quarter for portfolio inflows since 2014. Investors are now once again increasing their exposure to growth markets amidst low to negative rates and rising economic and political uncertainties impacting mature markets, in the face of the formation of new governments in multiple geographies including the US, Germany and France, pending Brexit negotiations impacting Europe and weak growth forecasts for Japan in 2017.

"Emerging markets face a number of development challenges: building infrastructure, upgrading education and health systems and harnessing new technologies among others. The other side of the coin is that these challenges represent significant investment opportunities at a time when investors are searching for return – true opportunities to do well while doing good."

Jennifer Blanke
Chief Economist, Member of the Executive Committee
World Economic Forum, Geneva

Part 2: Growth sectors
Industries building the new economies

We proposed in Part 1 that what many people are labelling as volatility in growth markets is in fact a characteristic of these developing economies, as they mature into more stable markets. Therefore instead of fearing and withdrawing from these markets during times of increased uncertainty, business leaders ought to be looking at understanding these economies even better, so that they can shape their organisations in a way that enables them to continue being profitable.

If we accept the argument made in Part 1 that the growth markets era is not over, and that different markets are now going through their maturity journeys at different paces, the next step is to uncover pockets of opportunities from across the portfolio of growth markets and understand their implications for the corporate sector. These growth opportunities for the private sector could arise for a wide variety of reasons, including the existence of large infrastructure or resource gaps, expected shifts in demographics and consumer requirements and the emergence of new technologies or business models impacting economic and human development in growth markets.

In this section we look at the performance and future opportunities of six key sectors in growth markets worldwide, spread across three major categories which are essential to achieving balanced growth.

In order to select these sectors, the Growth Markets Centre team identified key sectors by percentage contribution to the cumulative GDP of six regional heavyweights, including China from East Asia and the Pacific, Russia from Europe and Central Asia, Brazil from Latin America and the Caribbean, Saudi Arabia from the Middle East and North Africa, India from South Asia and finally Nigeria from Sub-Saharan Africa. The shortlisted sectors, as seen in figure 2.2, make up more than 60% of the GDP across these six regional leaders.[35]

Human development

This category includes sectors that are essential to improving the standard of living of individuals living in growth markets, thus indirectly driving consumer spending and business opportunities. By selecting these sectors we avoid the narrow and somewhat flawed viewpoint generated by looking only at sectors that have a high direct contribution to economic growth. Human development sectors will be fundamental to growth markets developing into mature economies that bring prosperity and inclusive growth across different demographic segments. As highlighted by the United Nations Development Programme, 'development is also about expanding the richness of human life, rather than simply the richness of the economy in which human beings live'.

Institutional development

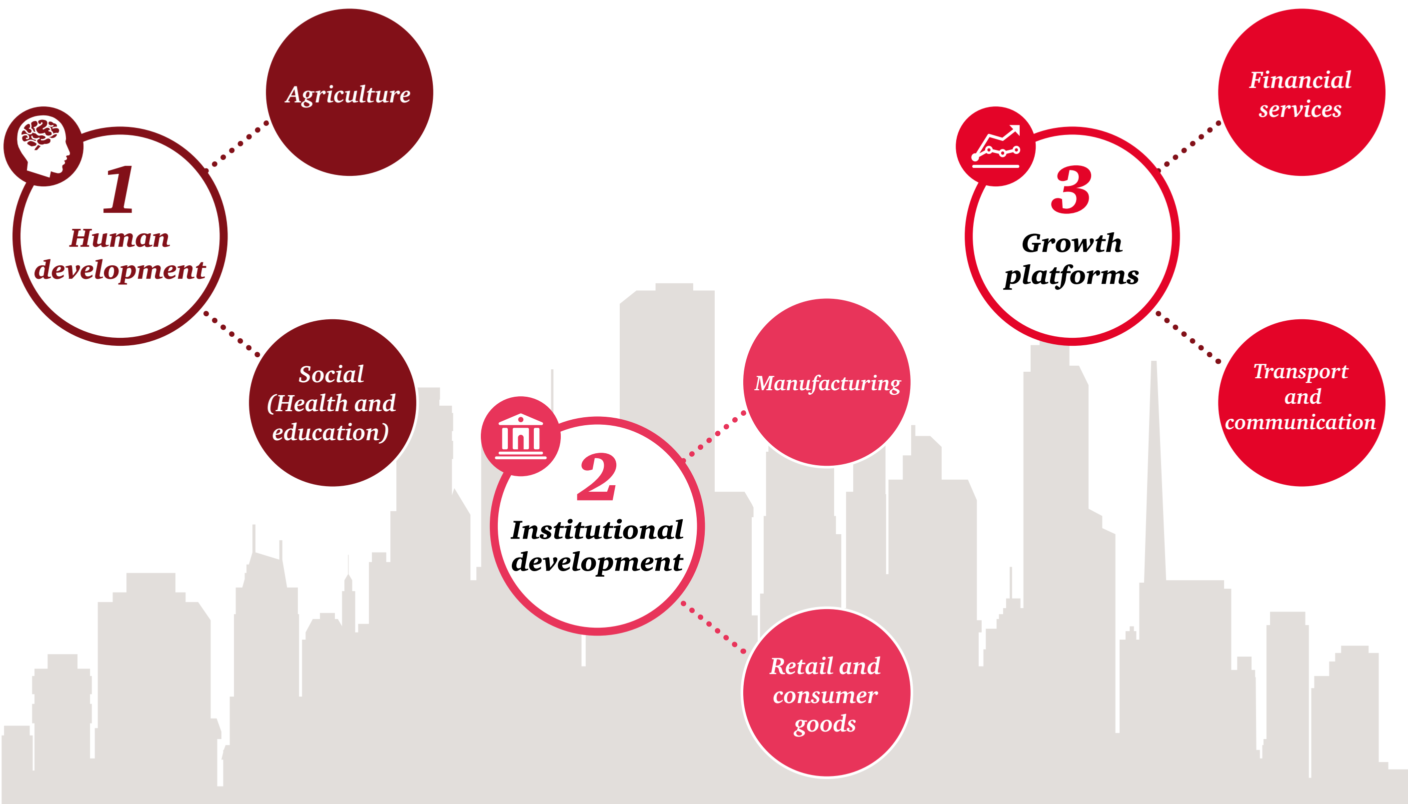
This category includes sectors that play a major role in driving the engine of the national economy in growth markets. These sectors make a significant direct contribution to economic growth and are important levers to create more productive jobs, further driving private investment and household spending. They are essential to the generation of economic value by creating products that meet customer demand, and thereafter to capture economic value by supplying these products to the customer through appropriate channels. It's becoming ever more important to understand opportunities in this category amidst ongoing developments in the production landscape and fast-changing consumption patterns.

Growth platforms

This category includes sectors that provide a support base to promote national growth by establishing the foundations for other sectors to flourish. These sectors, which we have labelled as growth platforms, help to bridge some of the voids which characterise many growth markets and make them so challenging to operate in. As well as their direct contribution to national output, these sectors play a more important role of providing resources essential for national growth, and of reducing market inefficiencies that slow down the pace of development.

We have then selected the two highest ranked sectors within each of the three categories – i.e. human development, institutional development and growth platforms – which we believe are crucial for a growth market to achieve balanced growth. These categories have been detailed below.

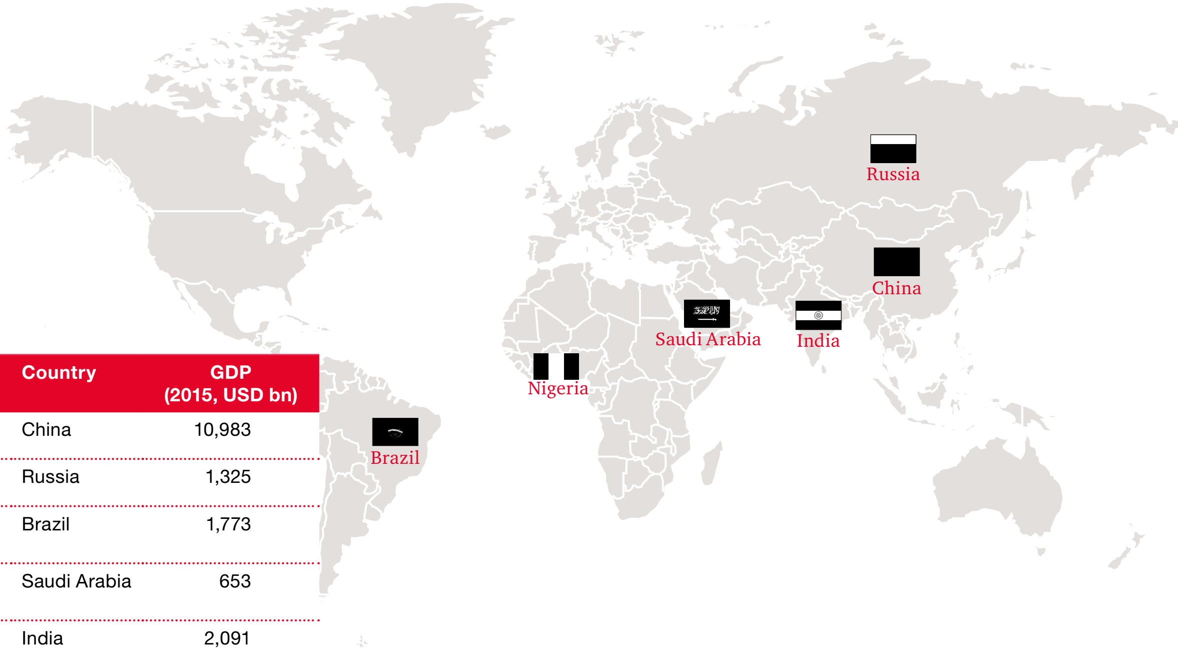
Figure 2.1: Key sector groups for balanced growth



Source: PwC analysis

Figure 2.2: Sector contribution in economic output – leading growth markets

Largest developing economies by region – represent 60% of overall developing economies



Region	Country	GDP (2015, USD bn)
East Asia and Pacific	China	10,983
Europe and Central Asia	Russia	1,325
Latin America and Caribbean	Brazil	1,773
Middle East and North Africa	Saudi Arabia	653
South Asia	India	2,091
Sub-Saharan Africa	Nigeria	490
Top six (Total)		**17,315**

Largest sectors – share of GDP in top six developing economies by region

Share of six focus sectors

63%

24% *Manufacturing*

11% *Retail*

10% *Agriculture*

8% *Real estate*

7% *Transport and communication*

7% *Construction*

6% *Public administration*

6% *Financial services*

6% *Mining*

5% *Education/ Health*

2% *Utilities*

8% *Others*

Source: BMI Research, International Monetary Fund, 2016

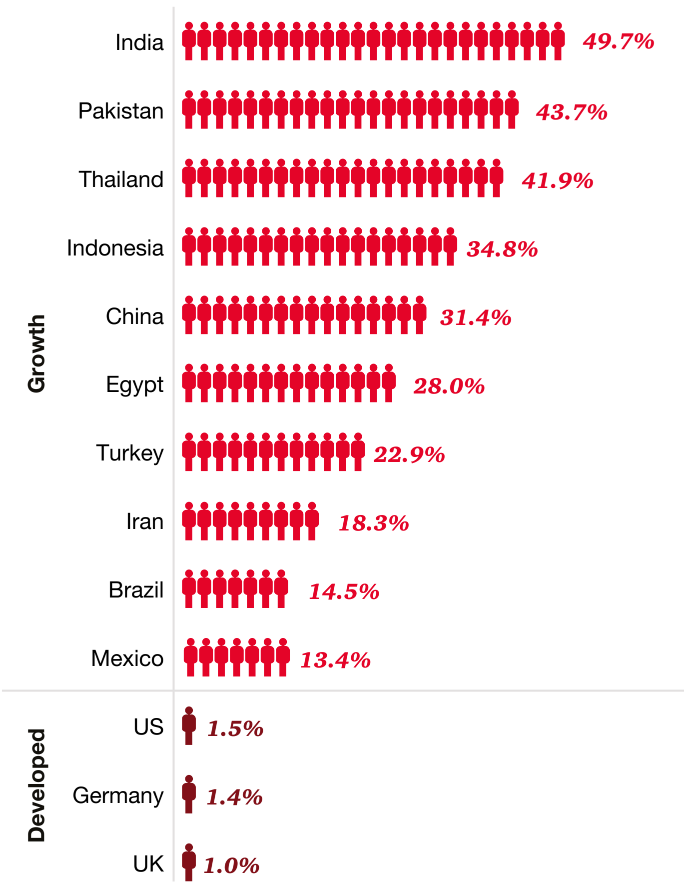
Human development: Agriculture

Relevance to national growth

Agriculture, in its variety of forms, has always been key to a nation's economic development, and even though it may no longer hold the majority share of GDP in many economies, it still accounts for more than 10% of Gross Value Add (GVA) in many developing economies such as Indonesia, India, Pakistan, Bangladesh, Nigeria, Thailand and Egypt. In addition, the socio-economic importance of the agriculture sector is evident from the fact that a large majority of the global agricultural labour force (more than 90%) still lives in developing countries.[36]

Agriculture accounts for more than a third of the total labour force in key agriculture markets such as India, Pakistan, Indonesia and Thailand. This is in stark comparison to developed markets such as the US, the UK and Germany, where it accounts for only 1–2% of the workforce. Therefore, sustaining growth in agriculture is of high importance to growth markets where the sector is a primary source of livelihood, not only to promote prosperity but also to avoid social and political unrest. Agriculture is also a critical sector for global markets, to prevent resource scarcities amidst rising population numbers and consumption levels. World population is expected to surpass nine billion by 2050, and according to UN projections, agricultural production will need to increase by 70% by 2050 over 2010 to prevent food shortages. Thus, enabling growth in agriculture will be imperative to achieving social wellbeing and sustainable development in the coming decades.[37]

Figure 2.3: Share of labour force in agriculture, 2013 (%)



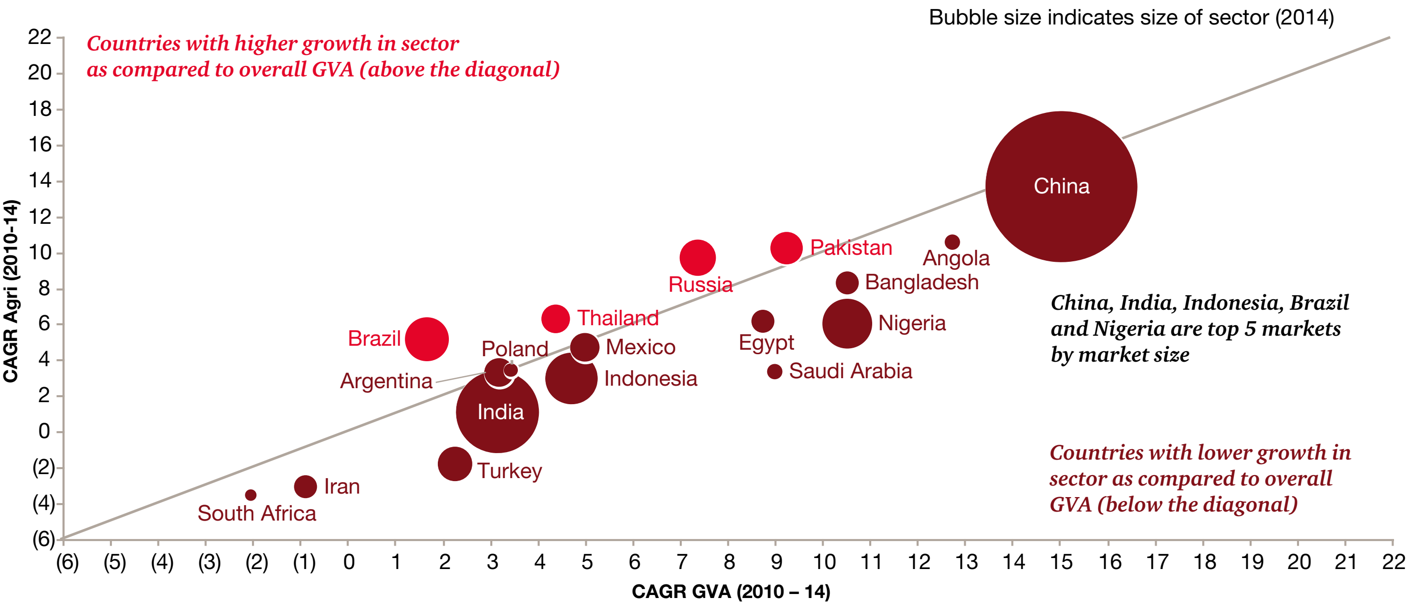
Source: Food and Agriculture Organisation, United Nations, 2016

> ***"What will it take to feed 9 billion hungry people? The march of globalisation means that trustworthy and untrustworthy food systems are mixing. Increasing crop yields will not be enough by itself. The real opportunity is to produce more food better – by improving integrity, transparency and trust throughout the supply chain to feed the global demand for higher quality food."***
>
> **Craig Armitage**
> New Zealand Primary Industries Co-Leader and Global Leader – Food Trust, PwC New Zealand

Key growth markets

As we show in figure 2.4, since 2010 the growth of the agriculture sector has actually outpaced national growth in a number of markets, including Thailand, Pakistan, Russia and Brazil. However, the sheer size of the leading markets and the opportunities within them cannot be ignored when looking for attractive investment destinations. Together, the top five markets by sector size, namely China, India, Indonesia, Brazil and Nigeria, account for a significant 78% share of the agriculture sector in the set of growth markets under consideration in this report (countries depicted in the chart). Despite growing slower than the overall economy, the agriculture sector in China stands out, recording double digit growth in value-add and accounting for the largest size of the market among other developing counterparts.[38]

Figure 2.4: Sector growth compared to overall GVA growth



Source: Food and Agriculture Organisation, United Nations, 2016

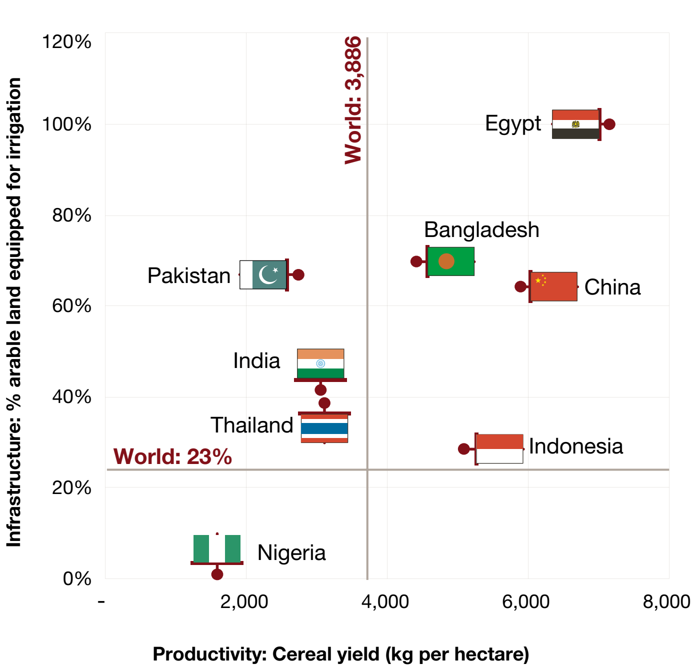
Growth trends and opportunities

Knowing which markets have current and future potential for strong growth is of course key, but it is equally important to know which segments within a sector in an identified growth market are most ripe for future growth. Market developments and growth opportunities in the agriculture sector are spread across both sides of the value chain – firstly, on the production of agriculture, enabling farmers to be more efficient and to deliver higher yields – and secondly on the consumption side, addressing the ever-changing food and drink preferences of consumers in growth markets.

Input gaps drive technology investments

As indicated by figure 2.5, in terms of production, major agriculture markets such as India, Pakistan, Thailand and Nigeria are still well below the global average for cereal yields. Irrigation is vital to healthy production, but with only 1% of agricultural land under irrigation in Nigeria and less than 50% in India, Indonesia and Thailand, the lack of efficient water supply and distribution is severely restricting the ability of these markets to fulfil their potential to produce food, as outlined by the availability of arable land.[39]

Figure 2.5: Productivity and infrastructure gaps, 2014



Source: Food and Agriculture Organisation; World Bank

These gaps provide opportunities for companies with expertise in facilitating efficient agriculture to enter or expand into these growth markets. Whether it is with high quality inputs such as seeds, chemicals and fertilisers to increase crop yields, farm machinery to enable more effective sowing and harvesting or new solutions using decision support technologies, satellite imagery and sensors, there is a role to play for all these firms in improving agricultural productivity and improving crop yields in growth markets.

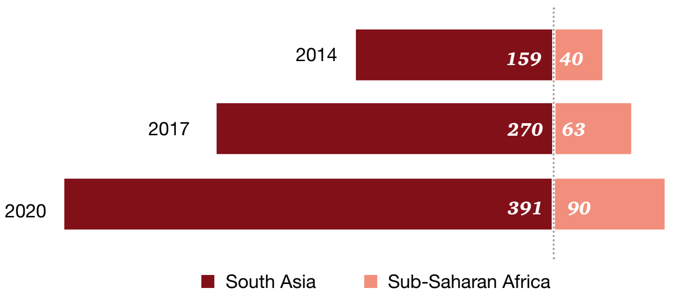
The growing level of investments in agricultural technology start-ups worldwide is a promising development, with figures reaching USD 4.6 billion in 2015, nearly double 2014 levels. Areas such as biological products to increase crop yields, drones and robotics, food e-commerce, and irrigation and water technology have been key drivers of investments in growth markets. Globally, India and China emerged as major investment destinations, ranking in second and eighth position respectively in terms of the total number of deals funded worldwide in 2015. As well as multiple food start-ups, India's Jain Irrigation (irrigation technology) and China's DJI (drones) stand out as upcoming ventures looking at covering gaps in their domestic agricultural markets through technology-driven solutions.[40]

Mobile services empower new-age farmers

Services will also have a key role to play in improving agricultural productivity across growth markets. The use of Mobile Value Added Services (MVAS) is already on the rise to help overcome some of the information and supply chain issues which plague many of the growth markets, particularly in Sub-Saharan Africa and Asia. The ability of MVAS to connect to farmers in remote locations with weaker infrastructure has enabled them to access essential information which extends their knowledge of agricultural methods and practices and also provides access to real time data on the weather, buyers and prices. This enables farmers not only to improve production, but also to reduce dependency on middle men who diminish their earnings. Beyond the farm, MVAS is also supporting the distribution of produce, by reducing wastages and enabling efficient management of distribution networks, such as through services enabling traceability and tracking systems.

Agricultural Mobile Value-Added Services or Agri-MVAS is already making a difference, and according to the Groupe Special Mobile Association (GSMA), almost a hundred such solutions of Agri-MVAS were deployed throughout Asia, Africa, the Middle East and Latin America by early 2015, with six of these solutions also offering mobile financial services to farmers. Africa had the highest number of deployments solutions (52), followed by Asia (37), Latin America (6) and the Middle East (3). In terms of future potential, agricultural workers with mobile connectivity are expected to account for 47% of the total labour force in South Asia and Sub-Saharan Africa by 2020, with 30% of them expected to be Agri-MVAS users.[41]

Figure 2.6: Market size – Agri Mobile Value-Add Services (USD Mn)



Source: GSMA Intelligence

The potential for MVAS is expected to grow in leaps and bounds in the coming years. As we can see in figure 2.6, the Agri-MVAS market is expected to more than double by 2020, with South Asia leading the way. With over 50 million users, South Asia is expected to have the highest number of Agri-MVAS users by 2020, as compared to 30 million in Africa.[42]

With this expected growth and widespread need for MVAS across key agricultural markets, mobile operators have a vital role to play in expanding their rural coverage to facilitate the effectiveness of farmers and food distributors. Investing now will enable mobile operators not only to grow immediate direct revenues, but also to develop strong loyalty and new cross-selling opportunities with millions of new customers in the less penetrated rural markets. The importance of the sector only grows further for mobile operators witnessing saturation and high competition in their traditional urban customer base.

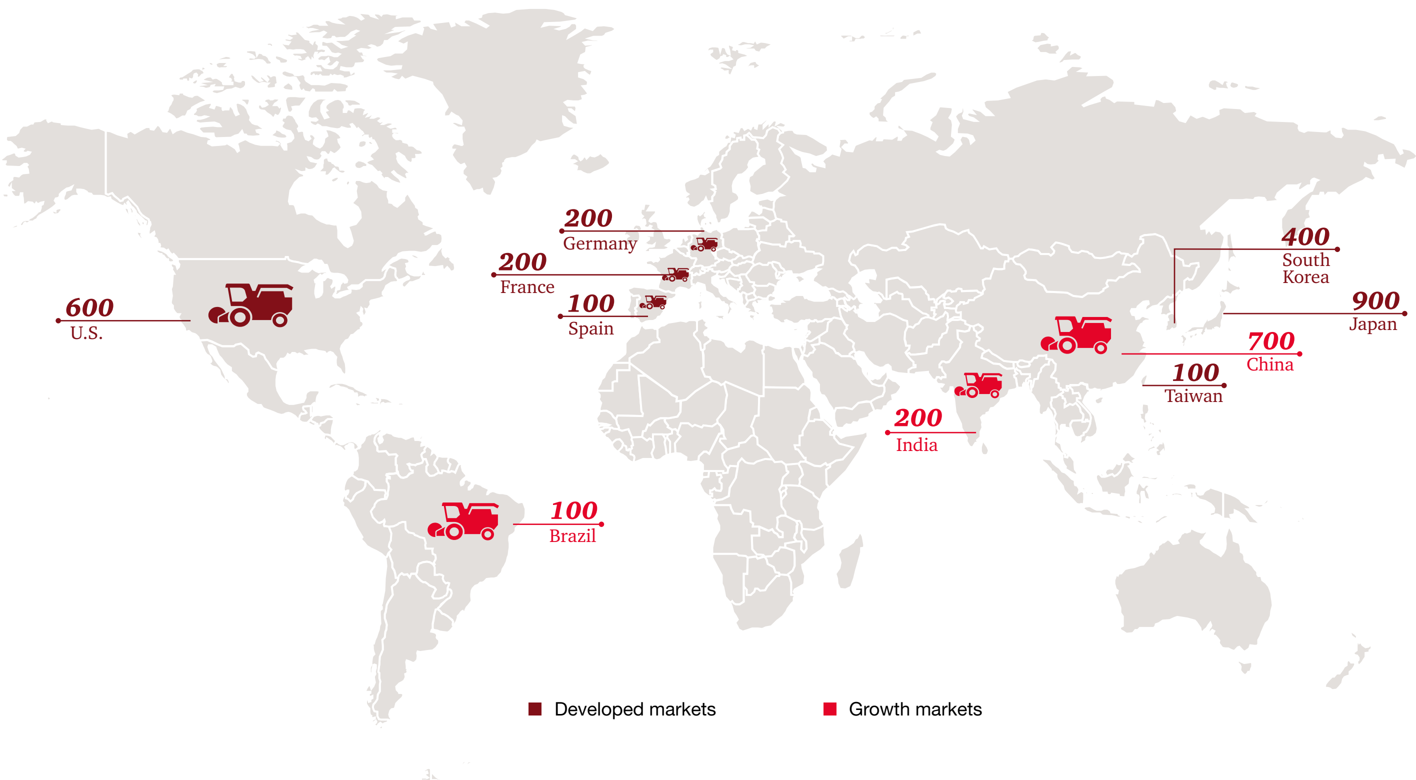
Machine to Machine applications gain adoption

Contrary to common perception, Machine to Machine (M2M) applications are not restricted to the industrial sector alone; they are also seeing rising adoption in the agricultural sector in growth markets. M2M applications are increasingly being adopted in China, India and Brazil to monitor key assets such as irrigation systems and other machinery. In fact, in 2014 growth markets accounted for more than 40% of all M2M cellular connections globally. For example, irrigation sensors have been deployed on blueberry farms in Chile to optimise the use of water remotely, as per the plant's irrigation requirements. Another example is the deployment of a mobile-based remote control system for agricultural water pumps called Nano Ganesh, developed by a device manufacturer called Ossian Agro Automation in India. According to estimates, users of Nano Ganesh have been able to save around 1,000 litres of water, one litre of fuel, three to five units of electricity, two hours of labour and two hours of machine time per day.[43]

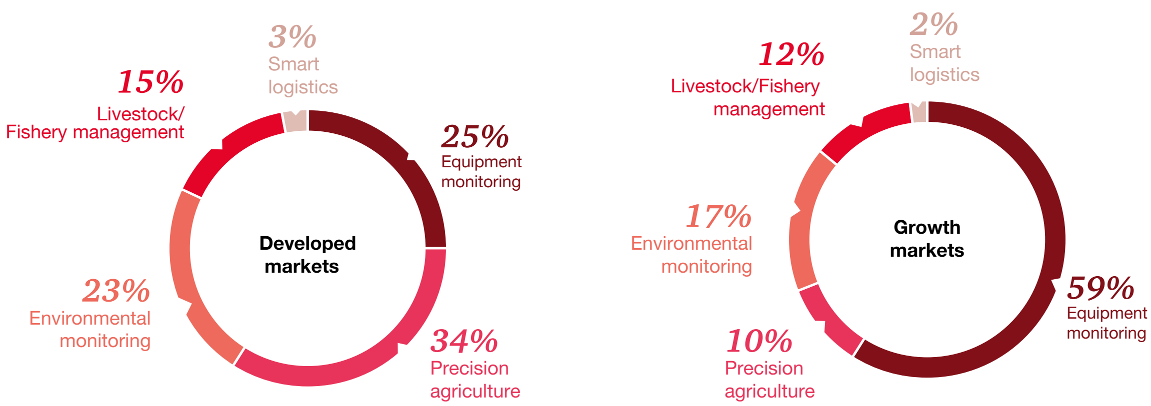
The adoption of M2M differs between growth markets and developed regions in terms of specific application areas. Precision agriculture has been less popular in growth markets due to the need for higher initial investments and advanced data collection mechanisms for such applications, while it accounts for the leading share of deployments in developed regions. M2M applications in growth markets are at present dominated by equipment monitoring solutions, due to lower costs and the need to maintain and track capital-intensive assets such as storage tanks, irrigation pumps, and tractors and fishing boats etc. This trend is expected to create growth opportunities not only for mobile operators but also for M2M solution providers, equipment manufacturers, chipset and module manufacturers and start-ups focusing on application development. Moreover, the need for other key areas such as precision agriculture will undoubtedly grow in the years to come, as data becomes more accessible and new business models emerge that reduce the cost burden on crop producers.[44]

Figure 2.7: Machine-to-Machine adoption in agriculture (2015)

Top 10 markets – No. of M2M connections in agriculture (thousand units)



Key M2M applications – % share in no. of deployments



Source: Food and Agriculture Organisation; World Bank; GSMA Intelligence

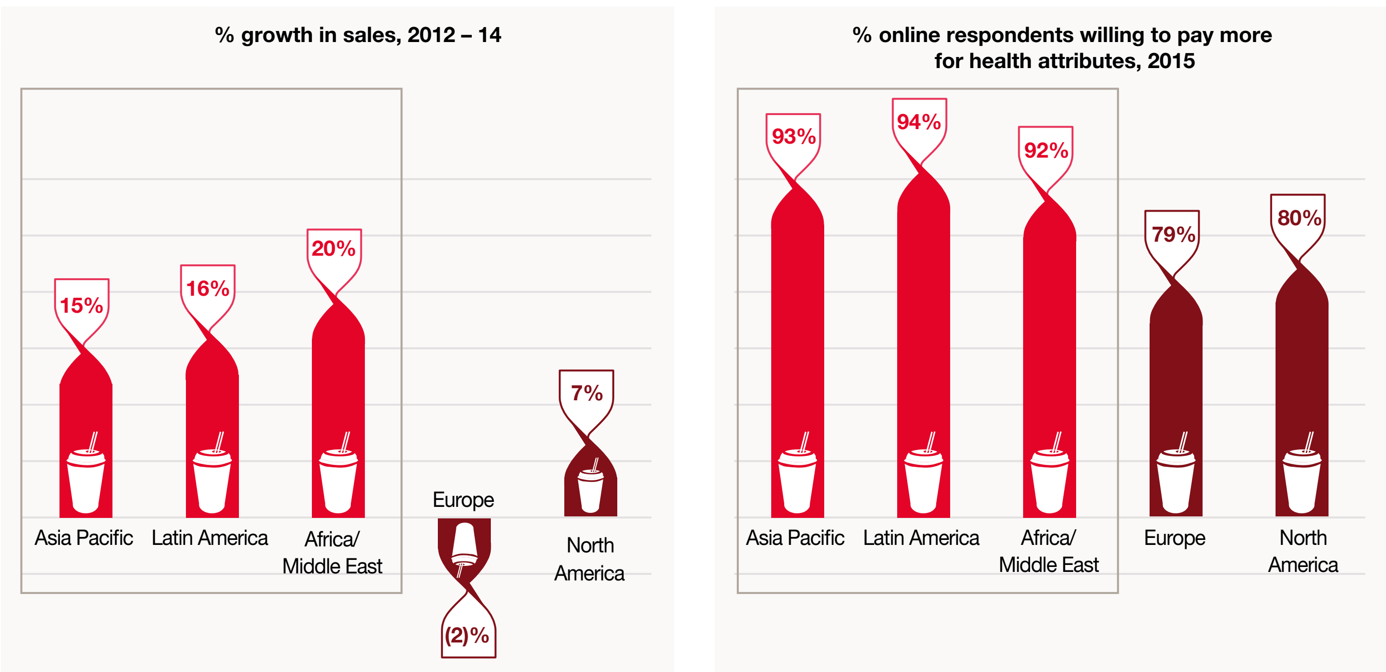
Health becomes consumer priority

Whilst there are several opportunities to enable these growth markets to feed the world in a more efficient and sustainable manner, it's important to remember that these markets are significant consumers too, with changing preferences. One growing area is within the health food category, including products such as water, dairy-based products, fruits, sports drinks, tea, vegetables and yogurts. Changing consumer preferences across Asia, Latin America, Africa and the Middle East are creating new opportunities for products that promote healthy living. As seen in figure 2.8, health food categories reported the strongest sales growth in developing regions between 2012 and 2014, and the willingness to pay a premium for these healthy goods is actually higher in developing markets than in developed regions of Europe and North America.[45]

Growth markets consumers are not only looking towards healthier diets, but are also complementing this with an expectation of higher standards in the way food is produced and sold. Public scandals, especially social media furores regarding contamination in food products, have led to the enforcement of stricter food safety regulations in many growth markets. For example, new food safety regulations came into effect in China in October 2015, imposing stricter controls on food production and management and providing greater enforcement powers to local authorities. Additional provisions have also been introduced for food products that have dominated safety incidents in recent years, such as health foods and infant milk formulas. Furthermore, new national and international standards are also gaining prominence worldwide, even in growth markets. These include standards based on consumer values such as halal, kosher, vegetarian, organic and non-GMO (Genetically Modified Organisms); new environmental standards such as FairWild Standard, Forest Stewardship Council Standards, Marine Stewardship Council Standards, the Carbon Trust Standard; and standards around animal welfare such as cage-free or Dolphin Safe standards.[46]

Market players who are quick to adopt these new standards and certification requirements as part of their go-to-market strategies will be able to better position themselves against domestic and foreign competition, as non-adherence could result in losing competitive ground and even reputational damage. Companies also need to better manage public relations and strengthen their crisis management skills in today's digitally connected world, to better respond to unsubstantiated claims and minimise their impact.

Figure 2.8: Health food* category comparison by region



*Health food category includes products such as water, dairy-based shakes, fruits, sports drinks, tea, vegetables and yogurt

Source: PwC Analysis; Nielsen Global Health and Wellness Report, 2015

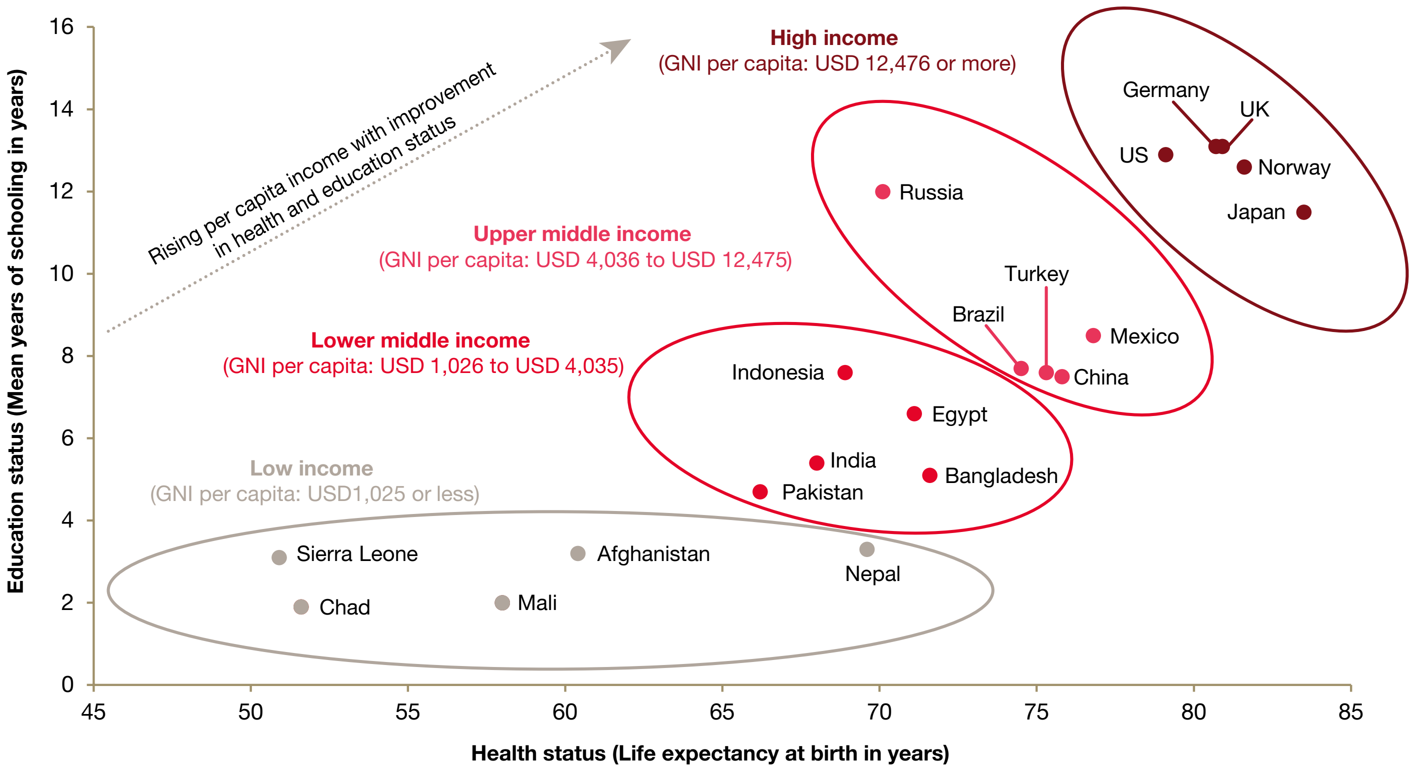
Human development: Social sector (Health and Education)

Relevance to national growth

In addition to the impact on food sustainability and nutritional quality made by the agriculture sector, human development achieved through enhanced healthcare and education status has a strong direct impact on worker productivity, and thus on overall economic growth. While access to healthcare services is essential to prevent and cure diseases that curb productivity and performance, education is a fundamental platform to long term and sustainable growth, as it enables people to better themselves and their communities by preparing individuals to utilise other services effectively, such as health, financial services, technology solutions etc. Figure 2.9 shows us that there is a very strong correlation between the levels of education and health status, and per capita income levels, as better education and health enables access to more productive and better paid jobs while improving performance and efficiency levels at the workplace.[47]

High-income countries have achieved this status on the back of significant investments in the social sector. For example, in 2014 health expenditure stood at a high 17%, 11% and 9% of GDP in the US, Germany and the UK respectively, as compared to only 5.5% in China and 4.7% in India.[48] While growth market governments almost uniformly acknowledge the importance of health and education for social and political stability and economic prosperity, many appreciate that they do not have the capacity and the capabilities required to provide universal access without private investment – thus opening doors to new opportunities for private players in these markets.

Figure 2.9: Health and education status – impact on per capita income, 2015



Source: United Nations Development Programme, World Bank

Key growth markets

We can see from Figures 2.10 and 2.11 that healthcare spend has grown faster than the overall economy in only a few markets, including China, India, Thailand, Indonesia, Nigeria, Egypt and Saudi Arabia, while household spending on education has grown by double-digit figures in China, Bangladesh and Egypt over the last five years. China and Brazil were the two largest markets in terms of both healthcare and education spending in 2014. On the other hand, a sharp reduction in household spend on education in Mexico could be attributed to the growing influence of government institutions and funding in the sector. At present, Mexico has among the largest proportion of students in public institutions in Latin America, with 92% of students at the primary level and 68% of students at the tertiary level in public institutions.[49]

Figure 2.10: Healthcare spending growth compared to GDP growth

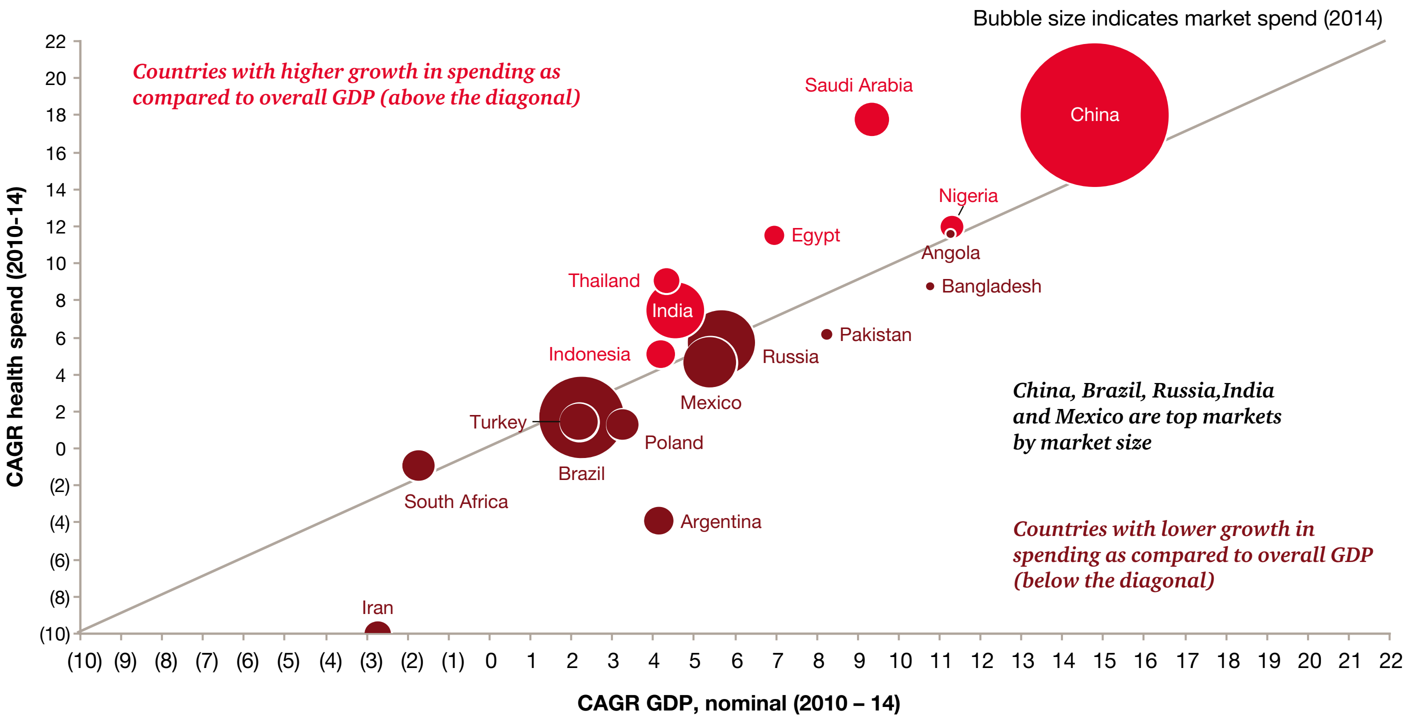
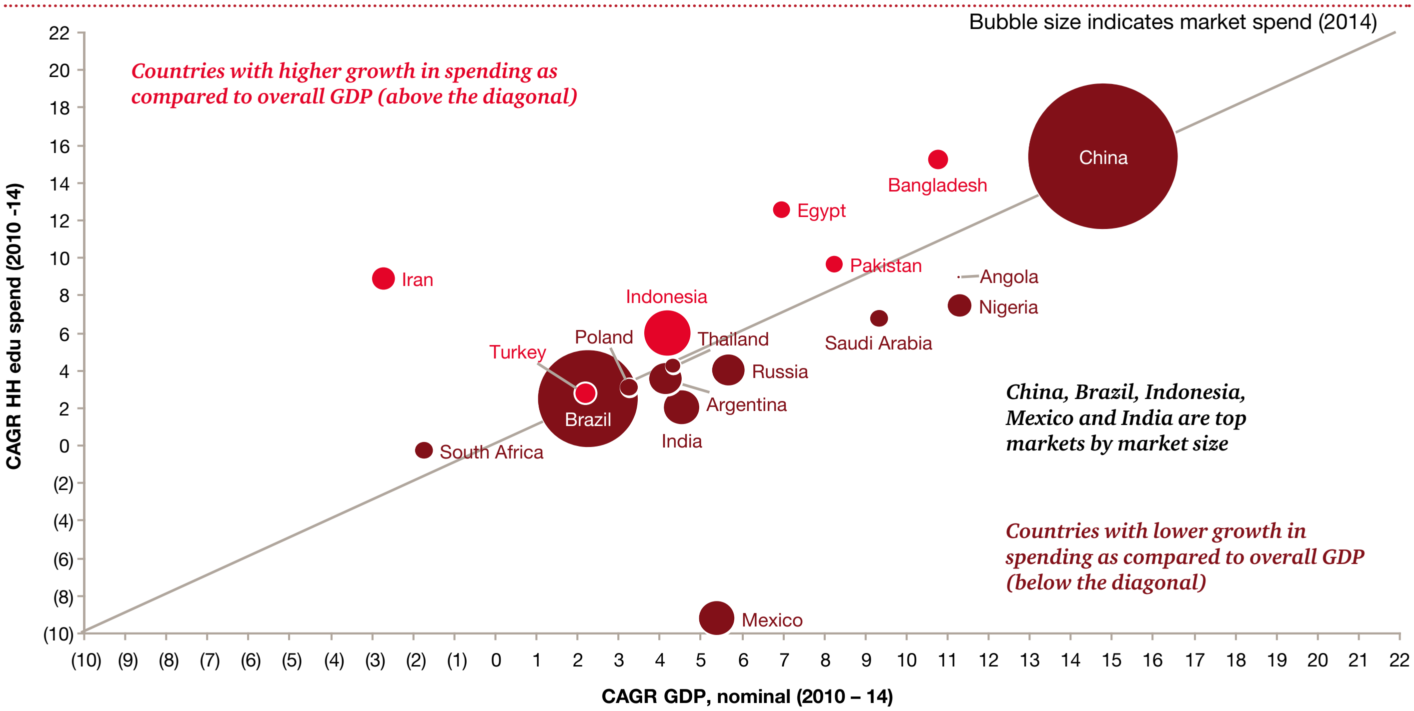


Figure 2.11: Growth in household spend on education compared to GDP growth



Source: BMI Research, International Monetary Fund, 2016

Growth trends and opportunities

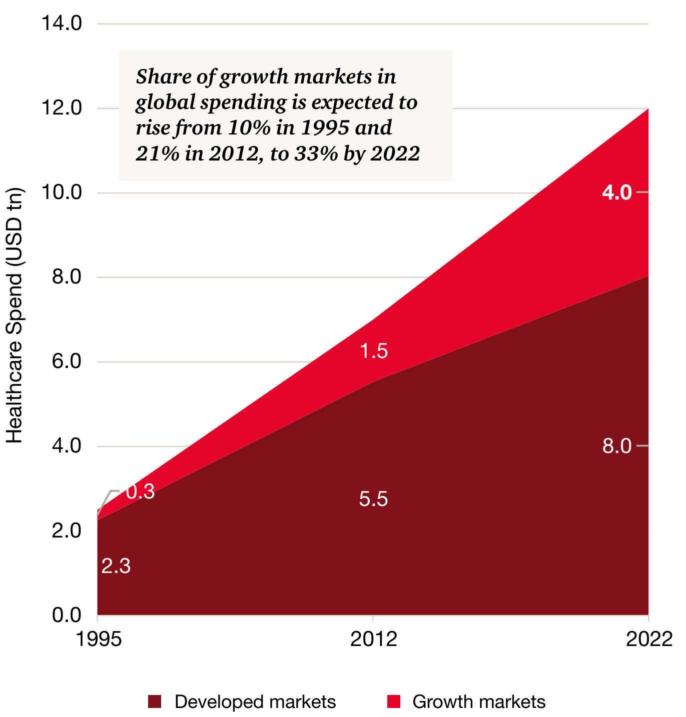
Growth markets co-lead growth in healthcare spending

We can see that a change is happening across global markets, with the share of growth markets in global healthcare spending rising from only 10% in 1995 to a modest 21% in 2012. However, pushed by the need to cover large infrastructure and resource gaps, health expenditure is expected to grow annually by 10.7% in growth markets as compared to a low 3.7% in developed economies by 2022. Based on this rate, growth markets are expected to account for a formidable 50% share in growth in healthcare spend over the period from 2012 to 2022, with the opportunity size touching USD 4 trillion in annual spend in growth markets by 2022.[50] This projected growth in spending will create new opportunities across the healthcare value chain including those for life sciences companies, medical device manufacturers, pharmaceutical companies and delivery service providers.

The adoption of technology-driven solutions is also expected to grow, with growth markets looking at low cost and less resource-intensive options to bridge existing gaps. In this context, digital health is emerging as a major growth area worldwide, garnering USD 13 billion in investments over 2014 and 2015. Major areas driving investments included workflow solutions and clinical decision support systems in the B2B space, and areas such as patient experience, wellness solutions and e-commerce in the B2C segment. Demand for wearable solutions supporting monitoring and tracking of healthcare status is also expected to rise in growth markets.[51]

The growing influence of digital health is also creating opportunities for providers of cloud-based and open source systems to support these applications. For example, healthcare cloud adoption is rising strongly among both public and private hospitals in growth markets such as the Philippines and Malaysia. Government health facilities in the Philippines have recently adopted an open source electronic health record system called CHITS (the Community Health Information Tracking system), while the Mary Johnston Hospital in Manila, Philippines, has implemented a cloud-based solution called HarmoniMD to avoid higher deployment costs associated with legacy systems. This digitisation of health information is expected to serve as the bedrock for large-scale implementation of technology solutions such as telemedicine, mobile health applications or e-prescription solutions in the coming years.[52]

Figure 2.12: Shifts in global healthcare spending (1995–2022)



Source: World Economic Forum, 2014; StartUp Health Insights, 2016

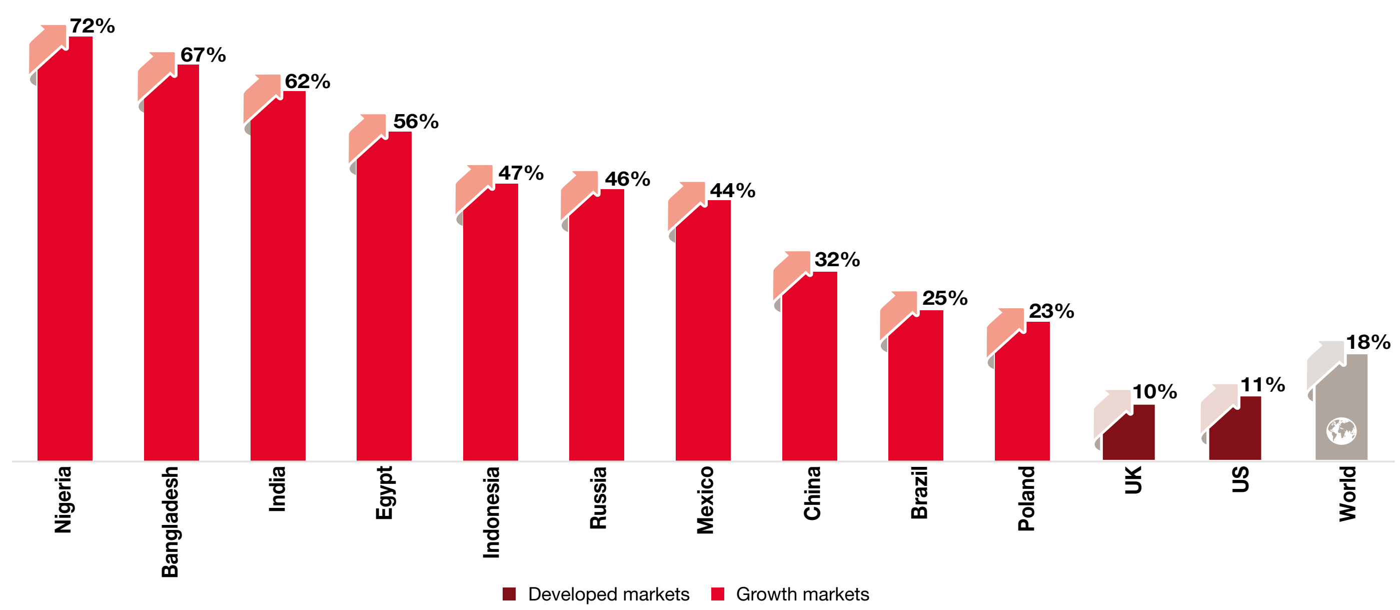
Private health insurance to make strong inroads

The wider provision of healthcare and drugs in growth markets only answers one part of the conundrum faced by people in these markets. The other is affordability. Most growth markets have limited healthcare insurance coverage, which makes paying for healthcare very expensive for those who need it.

As we can see in figure 2.13, out-of-pocket expenses constitute a significant percentage of health expenditure in growth markets – the figure being proportionately almost six to seven times higher in South Asian economies such as India and Bangladesh and emerging African nations such as Nigeria, than in developed countries.[53]

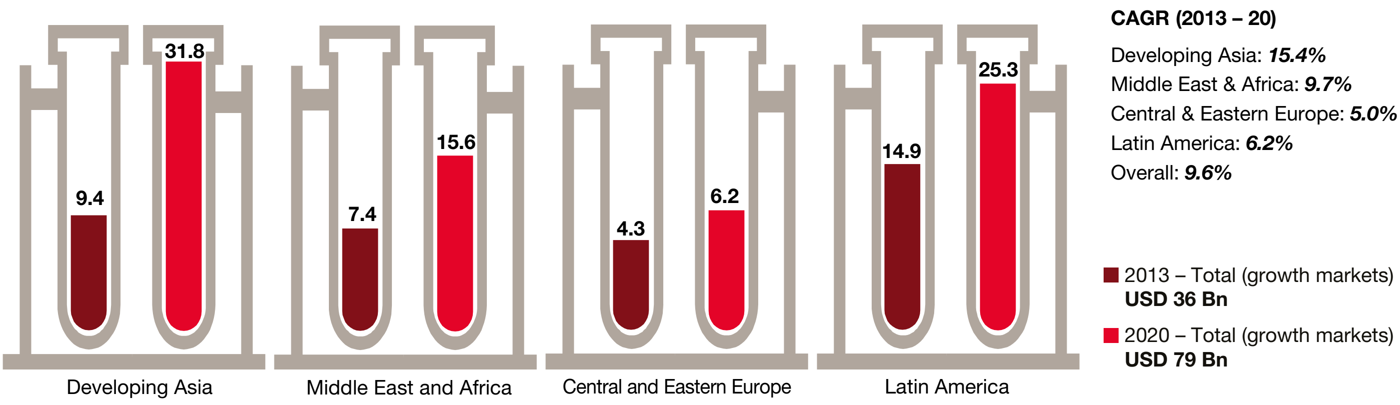
This emphasises that those who can afford healthcare have to pay for most of it themselves, without insurance assistance, but it also shows, more worryingly, that a large proportion of the growth markets' population could be priced out from accessing healthcare. In this context, considering the limited support from the public sector, increasing the penetration of private health insurance will be essential to expanding coverage of healthcare services by making them more affordable – especially in markets with less than 5% penetration of private health insurance, such as India, Bangladesh, Nigeria, Egypt and Indonesia.[54]

Figure 2.13: Out of pocket expenses (as a % of patients' total healthcare expenditure, 2014)



Source: World Bank; Swiss Re Economic Research

Figure 2.14: Medical insurance premiums in growth markets (USD bn)



Source: World Bank; Swiss Re Economic Research

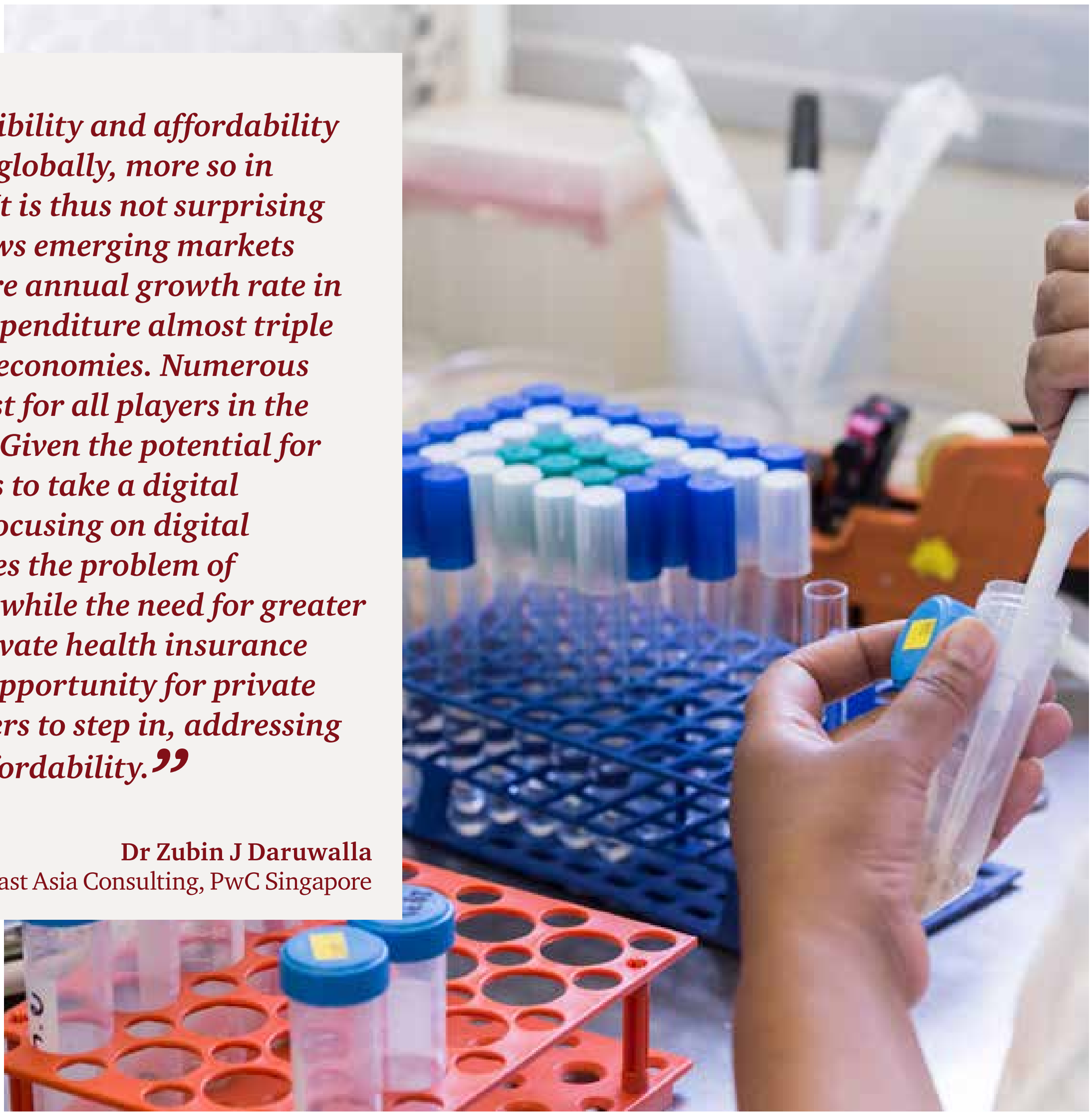
As disposable incomes rise for those within the emerging middle class, the demand for private healthcare is projected to increase across growth markets, growing annually by 10% until 2020, compared to a projected global growth of only 3.2%. Asian markets will lead the way, with 15.4% annual growth, indicating an opportunity worth USD 32 billion by 2020 (see figure 2.14).[55]

However, medical insurance companies would need to understand the varying regulatory landscape and the role played by national governments and non-profit institutions within these markets, prioritising entry into those with lower regulatory and competitive pressures. For example, China is considering preferential tax treatment for health insurance providers to expand coverage. The authorities are also extending incentives to push the development of new innovative insurance products in the Shanghai Pilot Free Trade Zone, especially for foreign-invested professional health insurance institutions.[56]

Market development costs could be high in these markets considering the need to educate consumers. Many people who have recently entered the emerging middle class and whose disposable incomes have increased are understandably quite cautious as to how they spend that income. Most want to see an immediate return for what they buy, and therefore retail and consumer goods companies are able to get a higher share of this disposable spend as there is a visible return on the expenditure. Healthcare insurance does not have that obvious and immediate return. Considering the limited reach and awareness of health insurance at present, providers may also need to enter into new partnerships to minimise risks by sharing market development costs including distribution and promotion costs. For example, the National Health Insurance Scheme of Nigeria entered into an alliance with Salt & Einstein MTS, a financial service aggregator, and MTN Nigeria, a mobile phone operator, to launch Y'ello Health Cover, a mobile health insurance product targeted at lower-middle income customers, especially in rural areas.[57]

"Healthcare accessibility and affordability remain problems globally, more so in growth markets. It is thus not surprising that evidence shows emerging markets having their future annual growth rate in terms of health expenditure almost triple that of developed economies. Numerous opportunities exist for all players in the healthcare space. Given the potential for emerging markets to take a digital healthcare leap, focusing on digital solutions addresses the problem of accessibility well, while the need for greater penetration of private health insurance provides a great opportunity for private insurance providers to step in, addressing the problem of affordability."

Dr Zubin J Daruwalla
Director, Healthcare, South East Asia Consulting, PwC Singapore



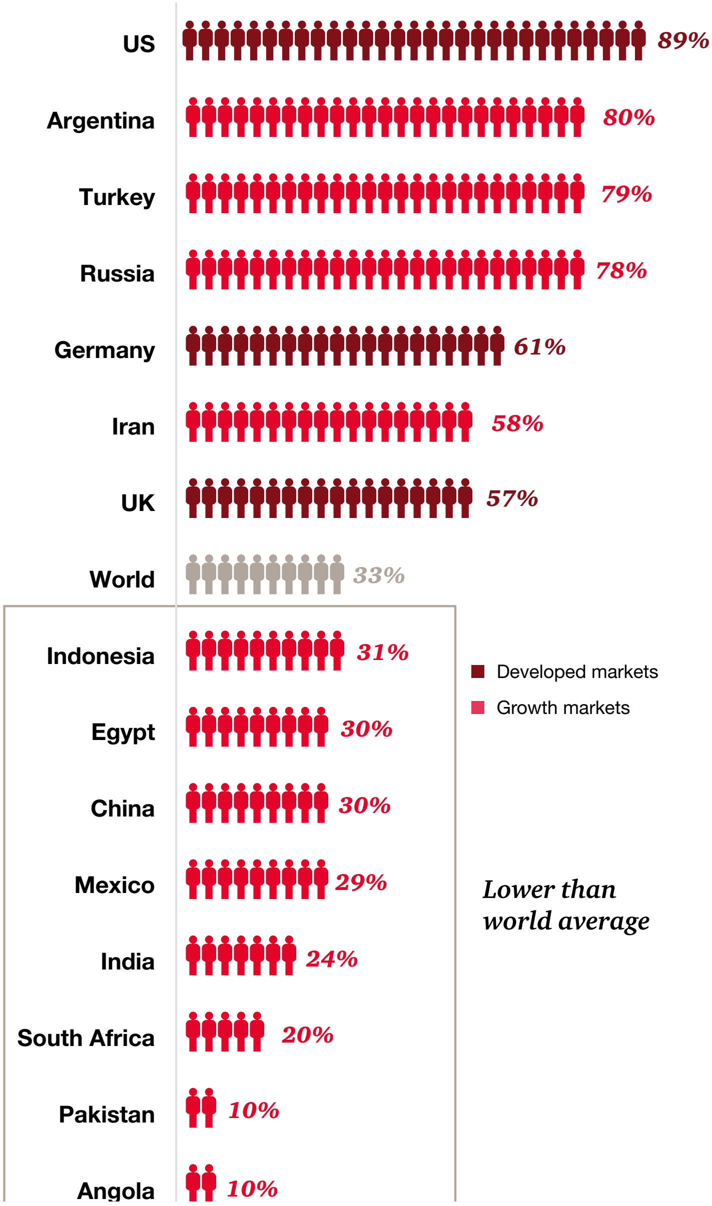
Demand for tertiary education will drive private sector participation

Access to higher education has a major impact on economic growth as it prepares individuals for more productive and income-generating jobs. While enrolment in primary and secondary education in growth markets has improved in recent years, the same cannot be said for tertiary education. Currently, almost two-thirds of prospective students do not have access to tertiary education in many growth markets, including large economies such as China, India and Mexico, where enrolment figures are still below the world average. Moreover, demand for higher education is only expected to increase further with rising urbanisation levels and middle-class expansion in growth markets – further increasing the burden on existing infrastructure and resources.[58]

Limited access to quality higher education in growth markets also leads many high-performing students to study abroad. This barrier not only prevents talented students who have the ability and ambition to attend university from doing so, but also leads to a leakage of talent from growth markets where it is most needed. This emphasises the critical need to enable greater access to tertiary education in growth markets. The ambitious plans of many growth markets to advance their economies as quickly as possible further emphasise this need.

However, it is unlikely that governments alone will be able to fill in the necessary gaps, and therefore private participation in education is being encouraged in growth markets in Latin America, Southeast Asia and Sub-Saharan Africa. While many Latin American countries such as Brazil, Chile, Peru, Paraguay and Colombia have already achieved high rates of private participation (more than 50% of tertiary enrolment), concerns also exist over the quality of education provided by large-scale proliferation of private institutions.[59] This has led to other markets taking a more cautious approach to inviting private players to support tertiary education needs. Therefore, private players would need to understand the varying regulatory requirements in these markets and calibrate their entry model accordingly. For example, India currently restricts entry for profit-making companies except those which form a trust structure, while regulations in Brazil are more relaxed in this respect. However, considering the significant level of unmet demand and the nascent stage of private participation, early entry into the sector could enable companies to strengthen their position in the longer term.[60]

Figure 2.15: Gross enrolment ratio* – tertiary education (2014)



Source: World Bank; Times Higher Education

*Ratio represents total enrolment in tertiary education regardless of age, expressed as a percentage of the total population of the five-year age group following on from secondary school completion

Online learning solutions to fill education gaps

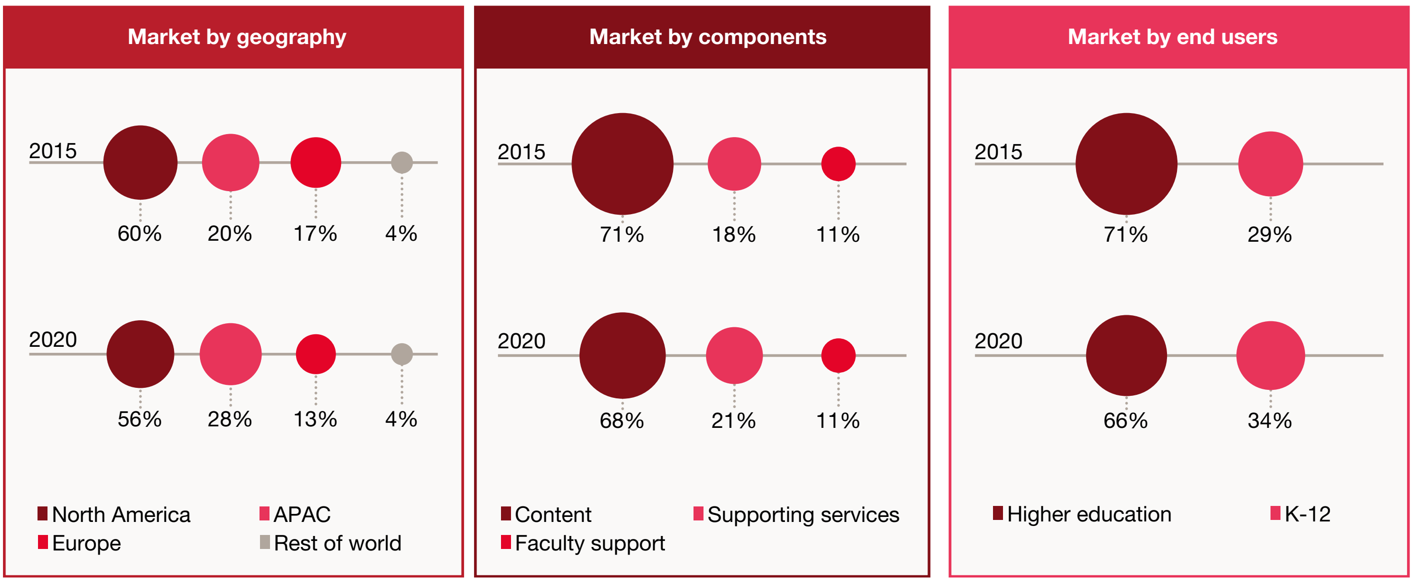
Another major opportunity area for private players looking for a low risk and measured approach to expanding into the education sector in growth markets is via e-learning solutions. According to estimates, the global e-learning market is projected to reach USD 126 billion by 2020, growing at a high CAGR of 17.8% over the next five years. The Asia-Pacific region is expected to lead this growth worldwide, averaging a high annual rate of 26% over the next five years with key growth markets including China, India, Myanmar, Thailand, Malaysia and Vietnam. Improvements in digital infrastructure, policy push and a rising demand for online higher education will drive e-learning growth in these markets. See fig 2.16.[61]

Within e-learning, it is projected that content providers will continue to account for more than two-thirds of the market, driven by rising demand from professional and vocational program providers. Demand for supporting services including tools and software to develop and deliver online learning is expected to grow at the highest CAGR of 21%, while the need for customised support from experts in higher learning programmes will drive growth in the faculty support segment. Given existing gaps in tertiary education infrastructure, demand for higher education content is expected to continue its market domination by 2020, driven by distance learning and packaged content in growth markets, especially Asian economies. Supporting this growth is also the need for market-specific content in non-English formats which address local needs and cultures. While the K-12 segment (primary and secondary education) is expected to record a high annual growth rate of 21% between 2015 and 2020, it will be driven more by rising adoption of online learning solutions in schools in developed markets such as the US and the UK.[62]

"Access to higher education in emerging markets is becoming harder, both for foreign and resident students. The cost or attractiveness of studying overseas is impacted by currency shifts, a reduction in government scholarships, cultural concerns and visa controls. For resident students, capital for new infrastructure to meet the demands of a growing population is increasingly limited. These factors are amongst others driving students and employers to take advantage of more online solutions to complement traditional delivery models. The quality of content in local languages is lagging behind the tools, however, and few have yet to monetise content creation. The increased participation of large employers looking for rapid, scalable training solutions may be the most promising source of funding to help develop this sector."

Sally Jeffery
Global Education Sector Leader,
PwC Middle East (UAE)

Figure 2.16: Global e-learning market (2015–2020)



Source: Technavio, Docebo

Institutional development: Manufacturing

Relevance to national growth

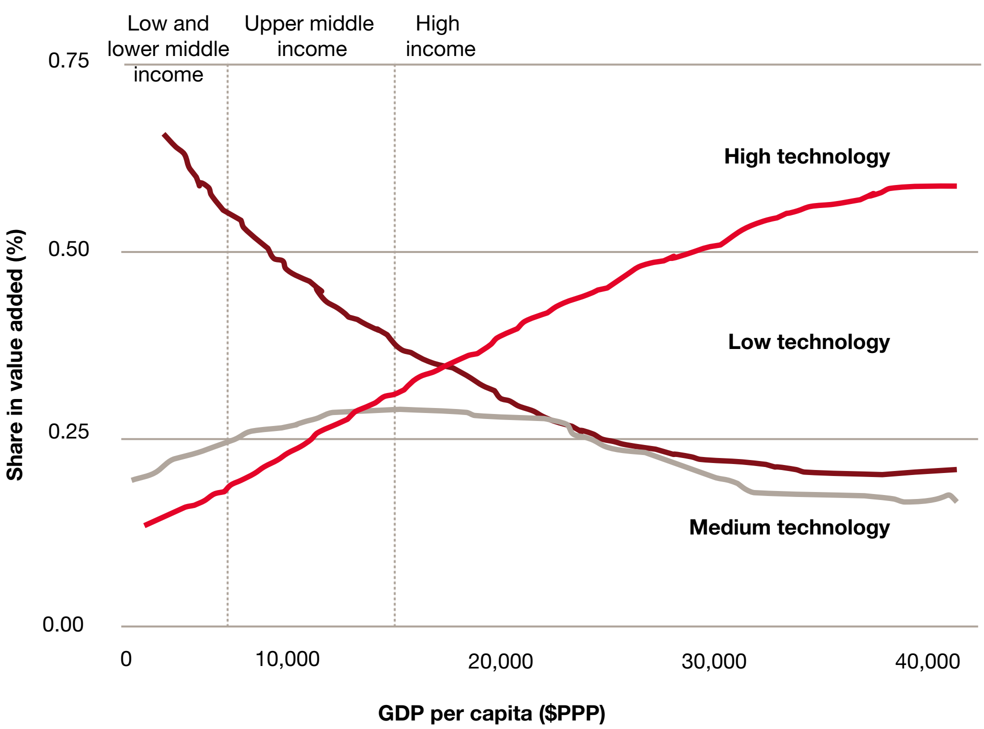
Manufacturing is a major provider of productive employment in the early growth stages of an economy, further stimulating innovation in the longer term. The industrial revolution which ran from the mid-18th century to the early 19th century propelled the growth of many of today's developed markets to new levels, through more efficient and productive manufacturing which facilitated mass production on an immense scale. This phenomenon has proved to be a successful formula for economic growth in recent times as well, as Fig 2.17 shows. It can be seen that between 1960 and today, countries which have been able to significantly increase their GDP per capita levels have done so through structural shifts in the manufacturing sector – shifting over time from low tech to high tech manufacturing.[63]

As shown in figure 2.17, the shares of each type of industry change as countries improve their per capita GDP. While low-tech industries dominate the economy at low income levels, mainly to create greater employment, productivity gains propelled by high-tech industry have made it the leading contributor to high-income economies. South Korea is a key example of a successful transformation made on the back of technology-driven manufacturing. Per capita GDP for South Korea increased to 20 times that of 1960 by 2010, backed by significant investments in R&D and high-tech manufacturing by large industrial conglomerates known as chaebols, and support from research and educational capacity created by the government. These steps pushed the share of medium and high-tech industry to more than 80% of total manufacturing value-add by 2008, thus creating more productive jobs and enabling a sharp rise in per capita income in the five decades since 1960.[64]

Key growth markets

Today's growth markets are moving through this manufacturing evolutionary journey at different speeds, as seen in figure 2.18. Some of the largest growth market manufacturers by share of GDP are making a play to be regional hubs for certain industries, such as Thailand, Indonesia and Mexico with the automotive sector, Bangladesh with textiles and apparel, Poland with food and beverages and Turkey with machinery and commercial vehicles. Others, such as Nigeria, are moving to diversify their economies from being too dependent on commodities, with growth in manufacturing being driven by sectors such as food and beverages and tobacco products. China, as we can see in figure 2.18, has witnessed slower growth in the manufacturing sector as compared to overall GVA growth

Figure 2.17: Changes in the shares in manufacturing value added by income and technology group (since 1960s)



Low-tech industries are denoted by labour-intensive production processes and low capital intensity

Medium-tech industries are primarily capital-intensive and resource-processing industries

High-tech industries are mainly capital and technology-intensive industries

Source: Industrial Development Report, United Nations Industrial Development Organisation since 2010, but given the breadth of industries that it covers it is still by far the largest manufacturer, both among growth markets and worldwide. India, Russia, Brazil and Mexico represent the next four largest manufacturers among growth markets in terms of manufacturing value-add in 2014.[65]

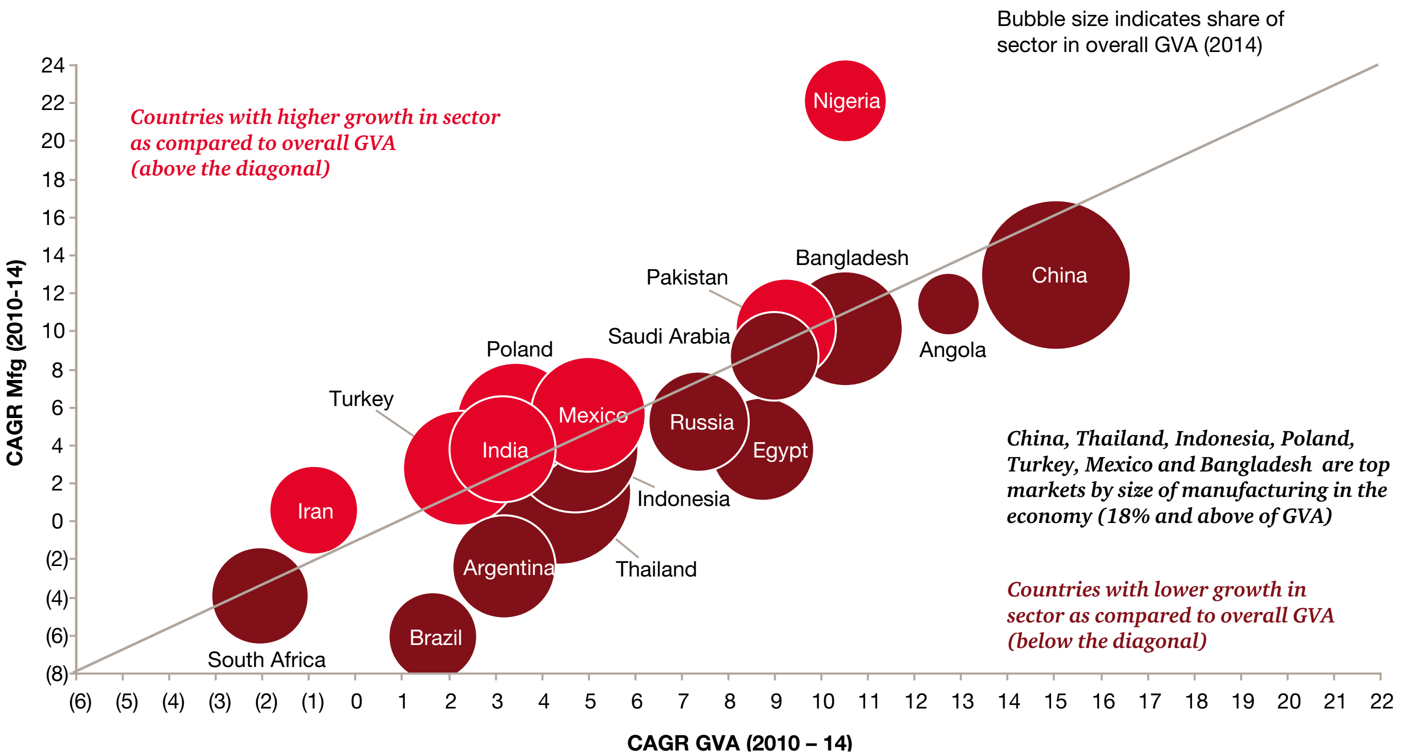
Growth trends and opportunities

Growing shift towards high-tech manufacturing

The growth markets have tipped the scales in global manufacturing over the last 40 years, with a notable progression across all types of manufacturing – to a point where they are now responsible for almost 60% of all low and medium technology manufacturing worldwide. However, what is even more noteworthy is the remarkable speed at which these markets have managed to grow their share in high-tech manufacturing to the current level of almost 50% of global manufacturing value-add.

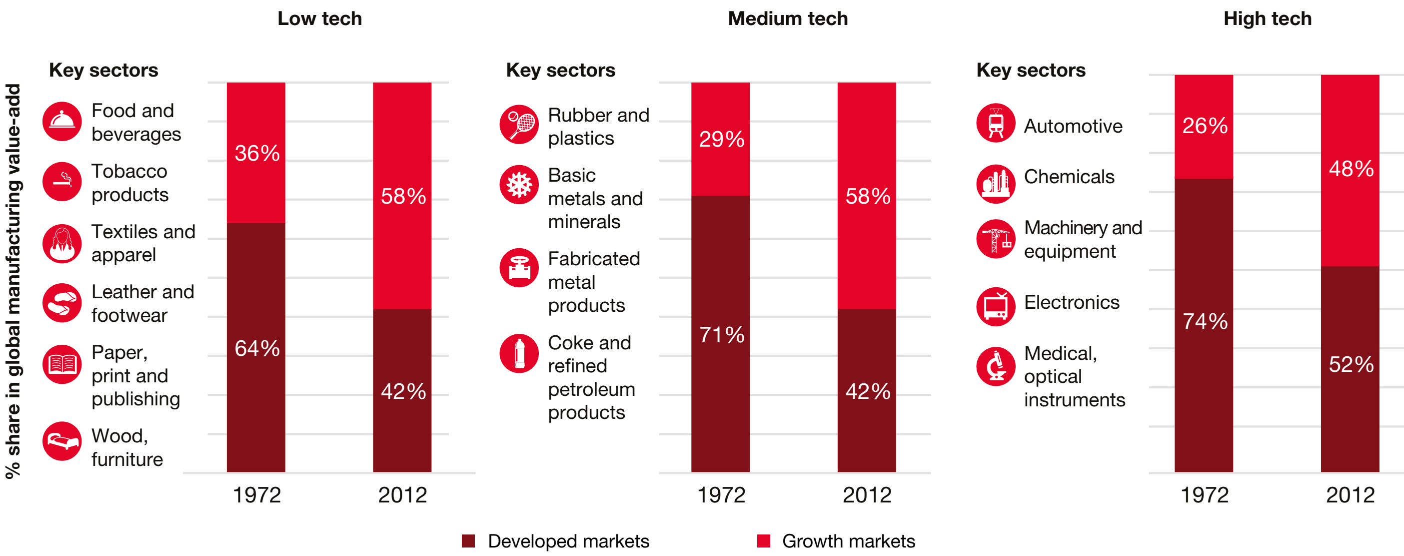
Asian industry has experienced the most significant change in technology structure among growth markets, with the share of high-tech sectors rising by 10 percentage points at the expense of the low-tech share. Leading manufacturing centres such as China and India are looking to further move up the value-chain by focusing on high tech segments such as automotive, aerospace, electronics and medical devices in the coming years. By comparison, Latin America has seen a limited shift over time, with only a small decline in high-tech manufacturing due to growth in medium-tech sectors, while Africa lags behind in terms of technological sophistication, with its share of high-tech manufacturing in 2012 reaching levels similar to those seen in Latin America and Asia in the 1970s.[66]

Figure 2.18: Sector growth compared to overall GVA growth



Source: BMI Research, International Monetary Fund, 2016

Figure 2.19: Shift in manufacturing activity, by type of industry (1972–2012)



Source: Industrial Development Report, United Nations Industrial Development Organisation, 2016

Case study
High-tech manufacturing growth in Asia

Pushed by aspirations to create new jobs and improve per capita income levels, growth markets in Asia are leading the shift towards high-tech manufacturing in the region, as done in the past by their developed market counterparts such as Japan and South Korea. Increasingly moving away from low-tech manufacturing, the Chinese industry has already surpassed Japan in terms of high-technology exports from the region.

According to figures released by the Asian Development Bank, China's share in Asian exports of high-tech goods such as medical and precision instruments, pharmaceuticals, and aircraft and telecommunications equipment grew fivefold to touch 44% in 2014 from a low of 9% in the year 2000. The number of enterprises engaged in high-tech manufacturing in China is also estimated to have tripled to almost 30,000 from fewer than 10,000 in 2000. On the other hand, the share of low-tech goods in Chinese exports fell significantly from 41% in 2000 to 28% in 2014. Similarly, the share of low-technology goods has dropped from a majority 60% of Indian exports in the year 2000 to only 35% in 2014.[67]

While China continues to dominate the global manufacturing landscape, it has witnessed a slowdown in industrial activity in recent years, facing issues around overcapacity, rising wages and diminishing sector margins. This has prompted the government to launch the 'Made in China 2025' programme to upgrade Chinese industries and move up the manufacturing value-chain, while meeting the goals stated in its 13th five-year plan of doubling per capita income by 2020 from 2010 levels.

The principles of the plan are to place innovation at the centre of manufacturing, to enhance collaboration among industries to create synergies and foster efficiency, and to focus on quality and human talent. It prioritises 10 sectors as key focus areas to realise this vision: information technology, robotics, aerospace, maritime equipment, modern railway equipment, alternative energy vehicles, power equipment, agriculture equipment, advanced materials and biopharma and medical products. Putting this into action, the government intends to open 40 manufacturing innovation centres, while also increasing local content in manufacturing of core components to 70% by 2025. It further plans to increase its manufacturing budget by 50% from 2015 to USD 780 million in 2016, while additional five-year industrial plans on software, big data and new materials are also expected to be announced in the coming months.[68]

Similarly India, the other major economic powerhouse in Asia, has also announced plans to increase its focus on high-tech manufacturing as part of the 'Make in India' initiative aimed at raising the contribution of the manufacturing sector from 16% of GDP in 2015 to 25% by 2025.[69] Reflecting the growing interest generated by the Indian market among global manufacturers, the United Nations recently announced India as being on the path to becoming a 'pivot' for high-tech manufacturing in the coming years.[70]

Pushed by policy reforms, competitive labour costs and a large domestic market, global manufacturers are increasingly looking at establishing manufacturing plants in India. For example to target its growing market for electronic products, which is expected to touch USD 400 billion by 2020. China's Lenovo has set up two factories in India, and plans to raise the value add from its India operations from 20% at present to 30% by 2017 and to 100% over the next five years. Similarly, a consortium of Japanese and South Korean firms is building a new chip fabrication facility at an investment of USD 1.2 billion.[71] Aerospace and defence represents the other major growth area, with players such as Airbus planning to increase their sourcing from India from USD 500 million in 2015 to USD 2 billion by 2020. According to estimates from PwC's Strategy&, defence capital spend by India is expected to grow between 6 to 10% annually from 2016 to 2020, with opportunities worth USD 90 – 100 billion expected to materialise over this period. While public sector units dominate the market at present, capacity constraints and the need for growth capital are creating scope for greater private participation across the industry value chain.[72]

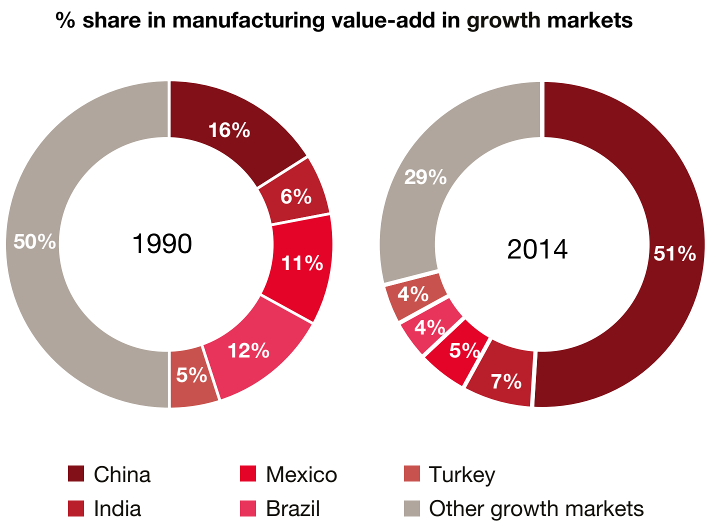
Changing cost dynamics create new production centres

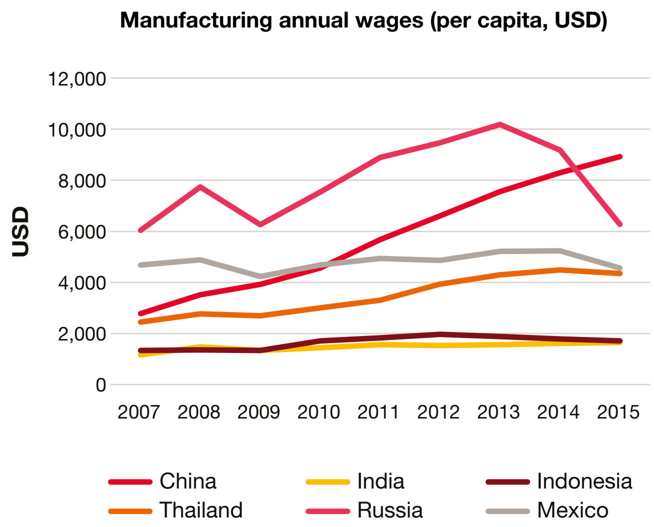
Given the demand for low- and medium-technology goods, fuelled by growing disposable incomes in developing markets and the cost arbitrage in manufacturing that affords most growth markets compared to developed ones, it is understandable that the share of production of these types of goods will always remain substantial. However, the markets producing these goods will change as their education, skill development and wage cost dynamics change – while there will always be a need for low- and medium-end technological goods, given the projected growth in global population and subsequent demand.

As we can see in figure 2.20, China emerged as a leading contributor to manufacturing output among growth markets at the expense of leading Latin American markets such as Brazil and Mexico over the past 15 years.[73] However, the inherent advantage of a cheap labour force is fast eroding in the Chinese industry, paving the way for new players to emerge. Manufacturing wages in China have seen steep growth over the past few years, rising by more than 15% annually from 2007 – 15, leading many firms in labour-intensive sectors to shift base to lower cost locations in India, emerging ASEAN countries and Mexico. In fact, the recent decline in Russian wages has also grown hopes of triggering a manufacturing revival in the country over the next few years. This trend provides the opportunity for the next frontier of growth markets, such as the Philippines, Vietnam or Myanmar, to join or even replace today's fast-maturing manufacturing economies in low- and medium-tech sectors in the coming years. Already many textile and clothing companies have started shifting base from China into Vietnam. Clothing exports from Myanmar have also risen sharply from USD 700 million in 2011 to USD 1.7 billion in 2014. Most recently, H&M, a leading European retailer, shifted its production facility into Myanmar from China, and it also plans to open a second plant to boost its local production capacity. Many other global clothing retailers have also signed supply contracts with local garment factories in Southeast Asia in 2015 – 16.[74]

In this respect, given the ability and desire of leading growth markets to move towards more technologically advanced manufacturing, global companies will need to re-evaluate their location strategies. New flexible strategies will be needed to consider not only labour costs, but also additional factors such as regulatory support, infrastructure readiness, and the proximity and buying power of local or regional markets. This will be required to sustain competitive advantage in an environment of rising cost pressures on low and medium-tech manufacturers, such as for certain categories of automotive components. Automotive original equipment manufacturers (OEMs) have increased pressures on supplier margins in recent years, amidst more stringent fuel-economy and safety norms and growing consumer demand for new features. While many auto suppliers are increasingly shifting base to low-cost locations, this has also triggered a new wave of industry consolidation being led by suppliers in growth markets to improve competitiveness at home and expand presence to international markets.

Figure 2.20: Shift in manufacturing competitiveness





Source: Industrial Development Report, United Nations Industrial Development Organisation, 2016; BMI Research; Bloomberg

A new era of industry drivers

New production technologies to influence the manufacturing landscape

Compounding a growth market's desire and ability to become more technologically advanced is the fact that advancements in technology itself are changing the face of manufacturing. Four technologies in particular are expected to have a significant impact on manufacturing in growth markets in the coming years.

Internet of Things (IoT)

What is it: IoT involves expanding the power of the internet to connect machines, computers and the workforce to enable new levels of information monitoring, collection, processing and analysis.

Case example: Stanley Black & Decker monitors production in Mexico using mobile devices and Wi-Fi RFID tags, increasing equipment effectiveness by 24% and labour utilisation and throughput by 10% each.

How to react: Companies need to start today by understanding the most valuable data to be collected for their businesses and determining the effectiveness of analytical models to be employed for data assessment. They also need to focus on skill development and understanding hiring requirements to prepare for IoT adoption in the coming years.[75]

Robotics

What is it: Automation is on the rise with robots being used across industries for material handling, operations, assembly and inspection. Rapid improvements in vision and touch technologies are further pushing the trend.

Case example: China has been a major market with volume of shipments of multipurpose industrial robots doubling to an estimated 75,000 units in 2015 over 2013. Figures are projected to double again to 150,000 units by 2018.

How to react: Cobotics (collaborative robotics) is emerging as a new path, with robots complementing the workforce rather than replacing it. This is due to rising apprehensions over a decline in innovation and ideation with less human intervention. Cobotics is mainly being looked at for manufacturing complex parts in automotive and aerospace industries at present, combining the precision and speed of robots with human employees' intelligence to think and adapt.[76]

Advanced materials

What is it: Cheaper, lighter and more energy-efficient materials are increasingly being adopted across different manufacturing sectors such as wind energy equipment, automotive, railways, electrical equipment and aerospace and defence. For example, by using advanced materials, automakers could reduce the weight of major components by as much as 75%.

Case example: Advanced composite materials are increasingly being adopted for aero-structures for commercial and military aircraft, offering around 20% improvement in strength-to-weight ratio over metals. Lower weight results in lower fuel consumption, while the need for fewer riveted joints reduces failure and lowers maintenance costs. For example, carbon composites have five times the strength and are also 60% of the density of aluminium, providing significant potential for weight reduction.

How to react: Companies need to understand the investments required to modify existing systems and processes, and the customer's willingness to pay for product improvements brought about by the application of advanced materials. They also need to analyse whether significant competitive advantage could be gained through early adoption of such technology.[77]

3D printing

What is it: Still in its infancy, 3D printing technology produces solid objects from digital designs by building up multiple layers of plastic, resin or other materials under computer control.

Case example: BAE Systems, headquartered in the UK, has adopted the technology to create a critical injection-moulded plastic part for a regional jetliner, saving more than 60% on the cost of the part, avoiding retooling costs and reducing production lead times by two months.

How to react: Prepare for adoption in the longer term by piloting it for prototype development to help reduce development time, or to manufacture high precision, low-volume components, or to make tools for key manufacturing processes.[78]

Regionalisation on the rise amidst growth market integration

Advancement in manufacturing activity in growth markets has also been driven by a rise in inter-connectivity between global markets through trade agreements and regional coalitions such as the ASEAN Economic Community (AEC) or the Pacific Alliance in Latin America. This has facilitated regional sourcing and has resulted in growing trade in intermediate goods, coupled with the tendency of companies to establish regional manufacturing hubs. For example, the share of intra-ASEAN value-added manufacturing inputs in ASEAN exports has grown by nearly 10 times between 1990 and 2011, from USD 56 billion to USD 514 billion.[79] Already, intra-regional exports account for more than 60% of total exports in many East Asian economies such as China, Malaysia, Singapore and Thailand.[80]

Expanding from domestic markets for sourcing and selling has become an imperative to remain competitive. Figure 2.21 below illustrates the extent of globalisation in the manufacturing value chain, taking automotive as an example.

Thailand is a major automotive producer in ASEAN, accounting for a 48% share of regional production in 2014. As shown in the table, the Thai automotive industry is largely connected to global markets. It exports an incredible 78% of its automotive production, with non-domestic inputs accounting for a high 75% share in value-add in auto exports. The industry has an extensive supply base spread across 61 countries, and further exports products to 57 markets worldwide.[81]

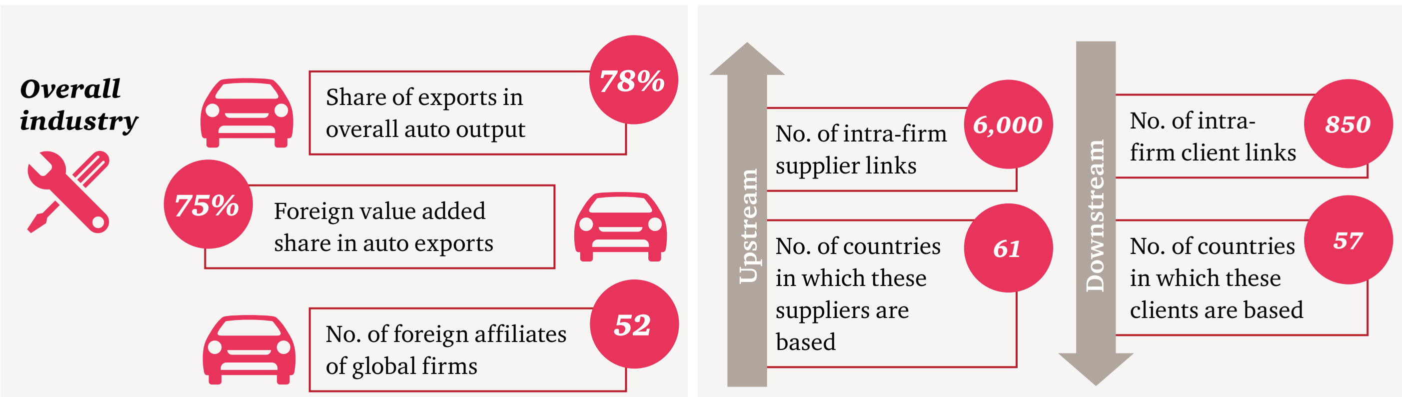
The benefits from facilitated regionalisation through improved market integration do not come automatically to companies, and in fact, a lack of knowledge of regulatory frameworks and relevant treaties could lead to companies paying more in customs and tax than necessary, leading to loss of competitive advantage over global competition.

Therefore, companies have to focus on stronger due diligence before entering new markets to finalise their manufacturing locations – taking into consideration new factors such as trade policies, number and span of free trade agreements, shipping costs and so on. Companies need to understand if there is a need for local manufacturing presence to target high growth segments or to enable significant cost advantages over imports, or whether multiple regional markets could be targeted from a single manufacturing hub offering strong industry and trade incentives. They need to build and acquire the required skills to manage vendors and partners across such complex value chains, which places even more importance on areas such as the identification of the right local partners, creating and enforcing appropriate compliance processes, and deciding on suitable contractual terms.

> *"The next wave of leaders in this complex and evolving industrial revolution will build an ecosystem that's relevant, developing strengths in data analytics with systems communication and cross-functional teams of experts. They will get closer to their customers' needs by co-creating suites of service packages and expand opportunities as they create new partnerships outside their core areas of expertise."*

Barry Misthal
Global Industrial Manufacturing Sector Leader, PwC Switzerland

Figure 2.21: ASEAN auto hub in Thailand



Source: ASEAN Investment Report, United Nations Conference on Trade and Development, 2014

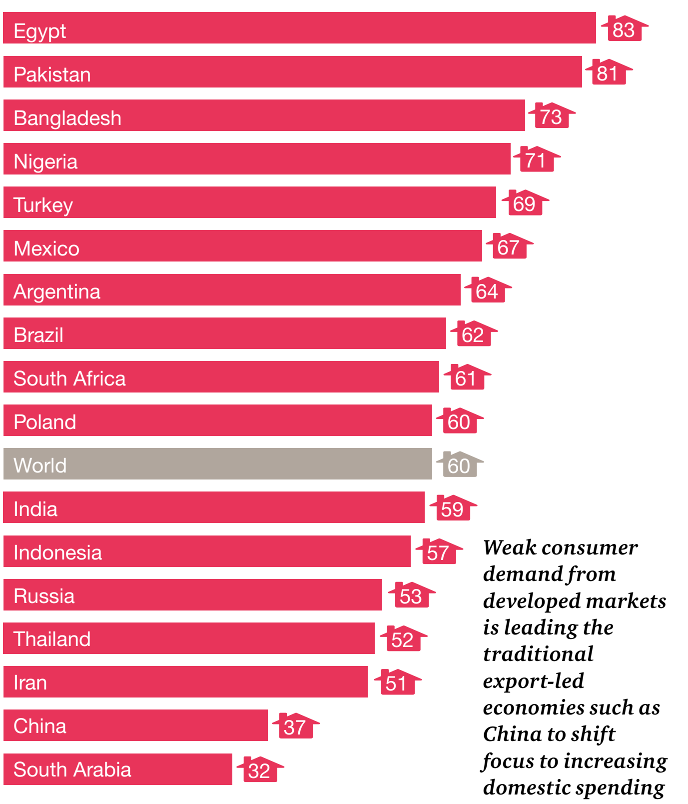
Institutional development: Retail

Relevance to national growth

The strength of a growth market's retail sector is a good measure of its economic potential, as most developing economies depend on domestic consumption to drive economic growth. As we can see in figure 2.22, household expenditure makes up more than 50% of the GDP of most growth markets, and as household spending increases, so does a growth market's GDP, see figure 2.23.[82]

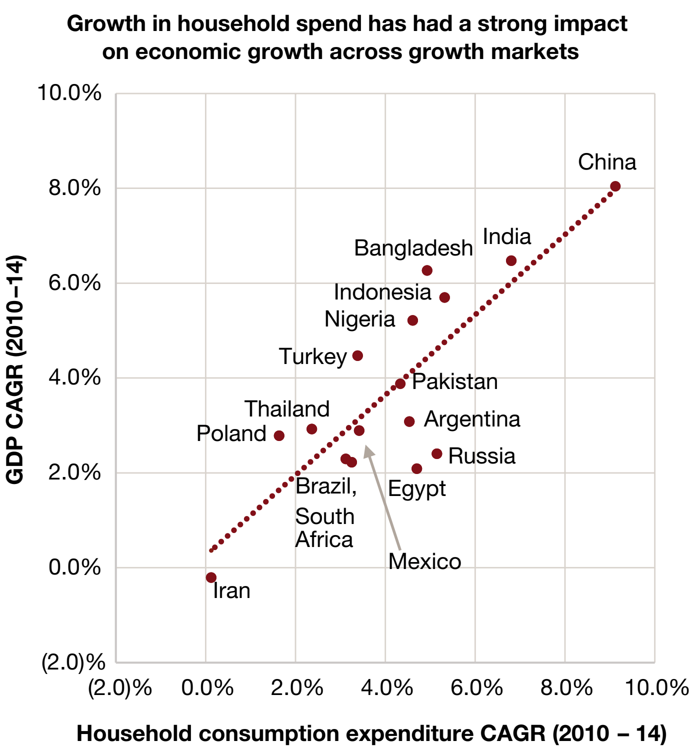
Domestic consumption is one of the most important drivers in keeping a growth market's economy moving in the upward direction. Most growth markets are therefore keen to facilitate domestic spending, particularly within the new emerging middle class, to keep their economy moving along towards a more mature stage. When consumer confidence drops and people begin to save more, fearing that times might get harder in the near future, the growth of an economy tends to slow down. We can see this having happened in a few growth markets over the past 18 months. One stark example is in Brazil, where since former President Rousseff's re-election in 2014, a series of scandals and policy stagnation has led to a drop in consumer confidence and subsequent fall in household spending and economic growth. Recent figures released by the National Confederation of Trade in Goods, Services and Tourism (CNC) reflect a 21% drop in consumption intent in Brazil in July 2016, as compared to the previous year.[83] Similarly in China, growth in per capita expenditure dropped from 7.7% in Q2 2015 to 6.6% in Q2 2016, as a result of people becoming more cautious about the rate of China's future growth. The slowdown of China's GDP growth over the same period, from 7.3% in 2014 to an estimated 6.7% in 2016, also correlates to this drop in consumption.[84]

Figure 2.22: Household expenditure as % of GDP (2014)



Source: World Bank; UN Population Division

Figure 2.23: Household consumption and GDP growth

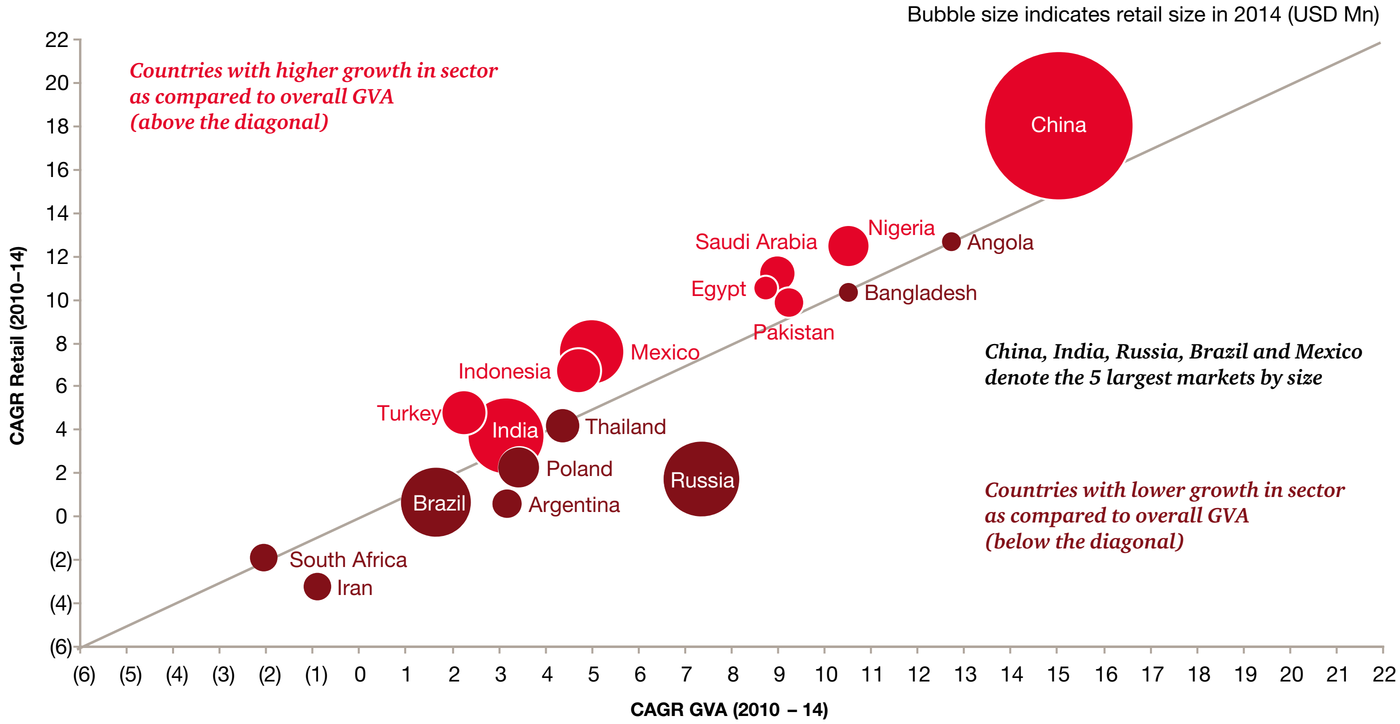


Source: BMI Research, International Monetary Fund, 2016

Key growth markets

As shown in figure 2.24, the retail sector has either matched pace or has grown faster than the overall economy for most growth markets besides Brazil, Argentina, Iran, Russia and Poland. Markets such as China, Saudi Arabia and Nigeria have recorded high double digit growth rates despite the reasonable size of the sector. Even cautious consumer spending in China is at a higher rate than in many other markets, and given its size, retail is set to continue being a strong growth sector in the country. The size of retail value-add in China is in fact 3.5 times the level of India's, the market ranked second in retail value-add among growth markets under consideration in this report.[85]

Figure 2.24: Sector growth compared to overall GVA growth



Source: BMI Research, International Monetary Fund, 2016

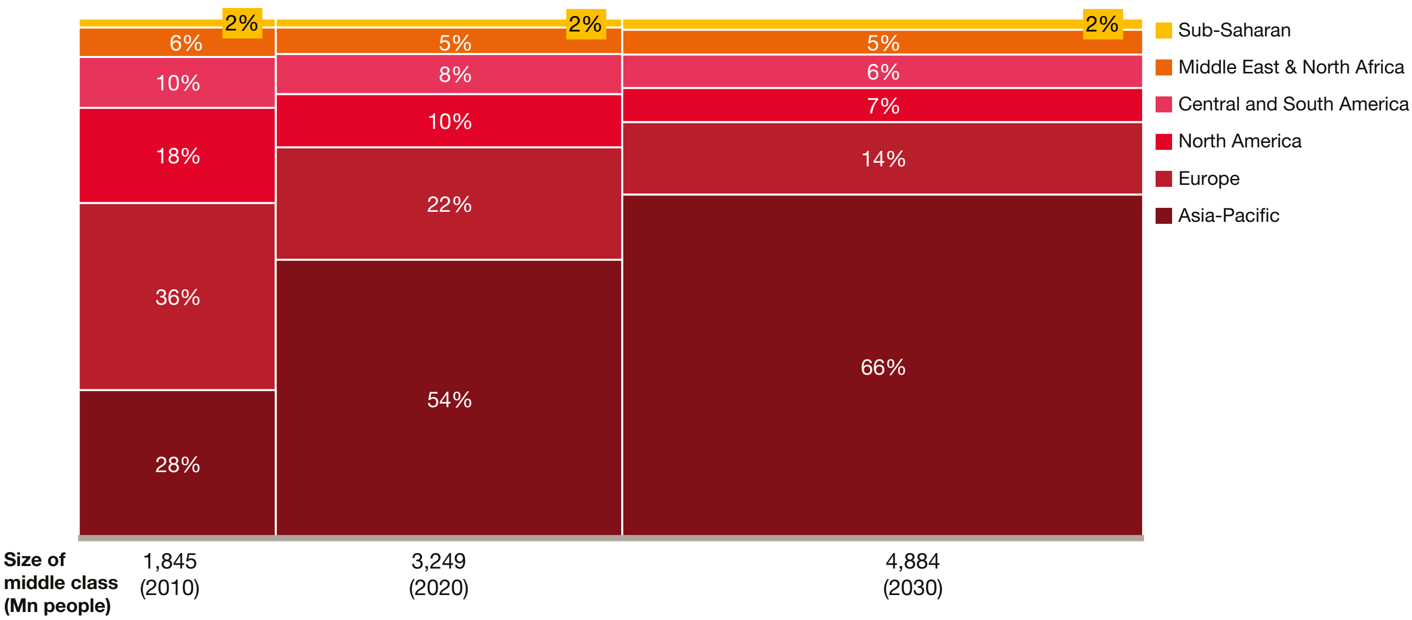
Growth trends and opportunities

Middle class expansion to drive long-term growth

The size of the middle class is estimated to grow from 1.8 billon people in 2010 to a massive 4.9 billion worldwide by 2030, with growth markets leading growth in the segment. For many years the middle class in growth markets have been expected to lead global consumer spending, based on their ever-growing personal wealth coupled with an eagerness to improve their standards of living. As we can see from figure 2.25, until 2010, a significant 46% of the world's middle class lived in growth markets, but by 2020 this will have increased to almost 70% and by 2030 to nearly 80%. Developed regions such as North America and Europe will witness a significant decline in share, constituting only 21% of the middle class by 2030, compared to 54% in 2010.[86]

While an additional 2.7 billion people are expected to join the middle class by 2030 in Asia (almost equal to the sum of the current populations of India and China), the numbers in other developing regions, including the Middle East and North Africa, Sub-Saharan Africa and Central and South America will also rise by a significant 336 million by 2030 compared with 2010.[87] This emerging middle class with its higher willingness to pay for quality and value is expected to drive opportunities across the sector, particularly for discretionary and aspirational product categories such as consumer durables, clothing, entertainment and leisure and automobiles.

Figure 2.25: Projected growth in middle class by region (2010–2030)



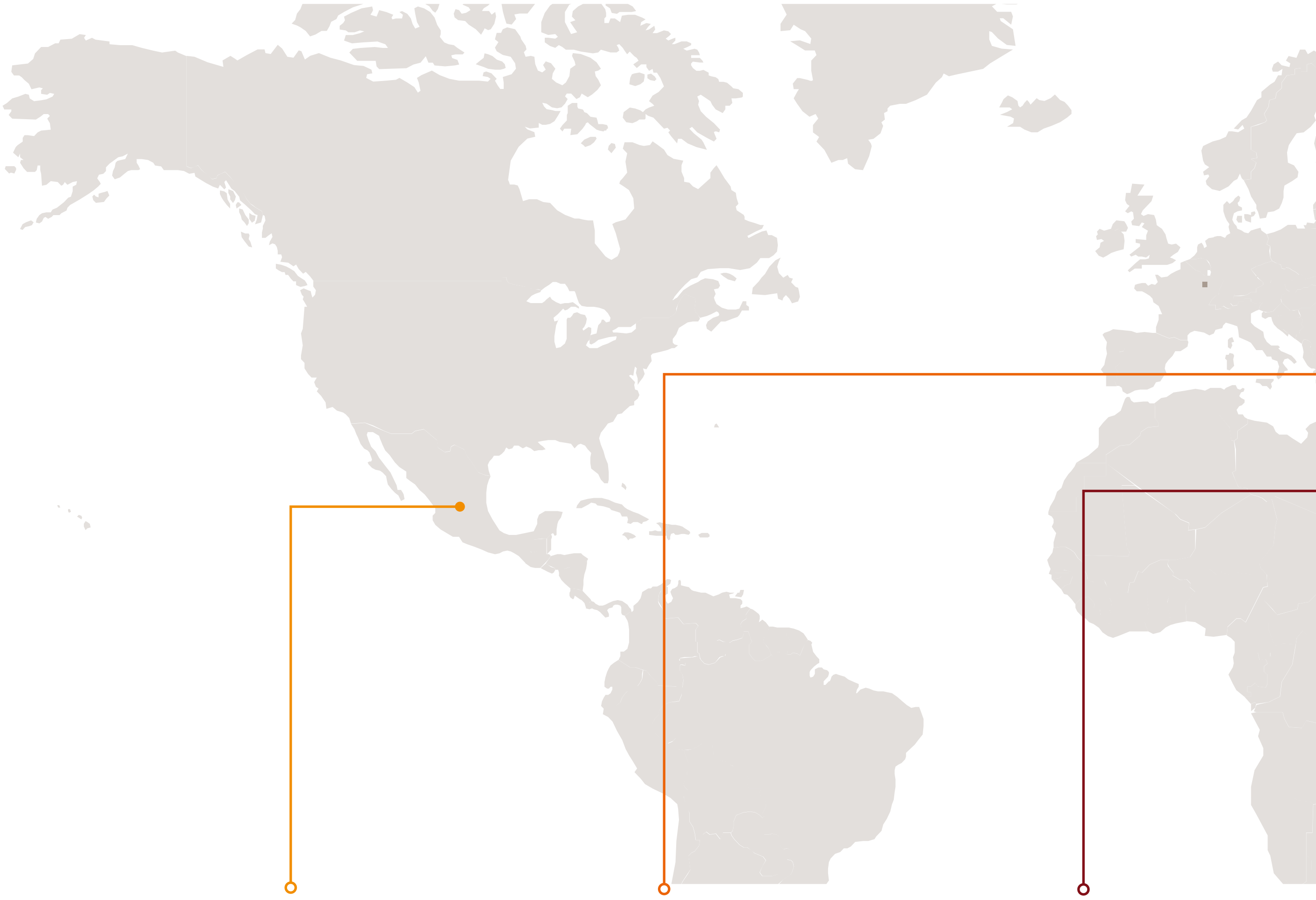
Source: Rising Middle Class - Global Outlook, PwC & Switzerland Global Enterprise, 2015

Consumer sentiment encourages near-term spend

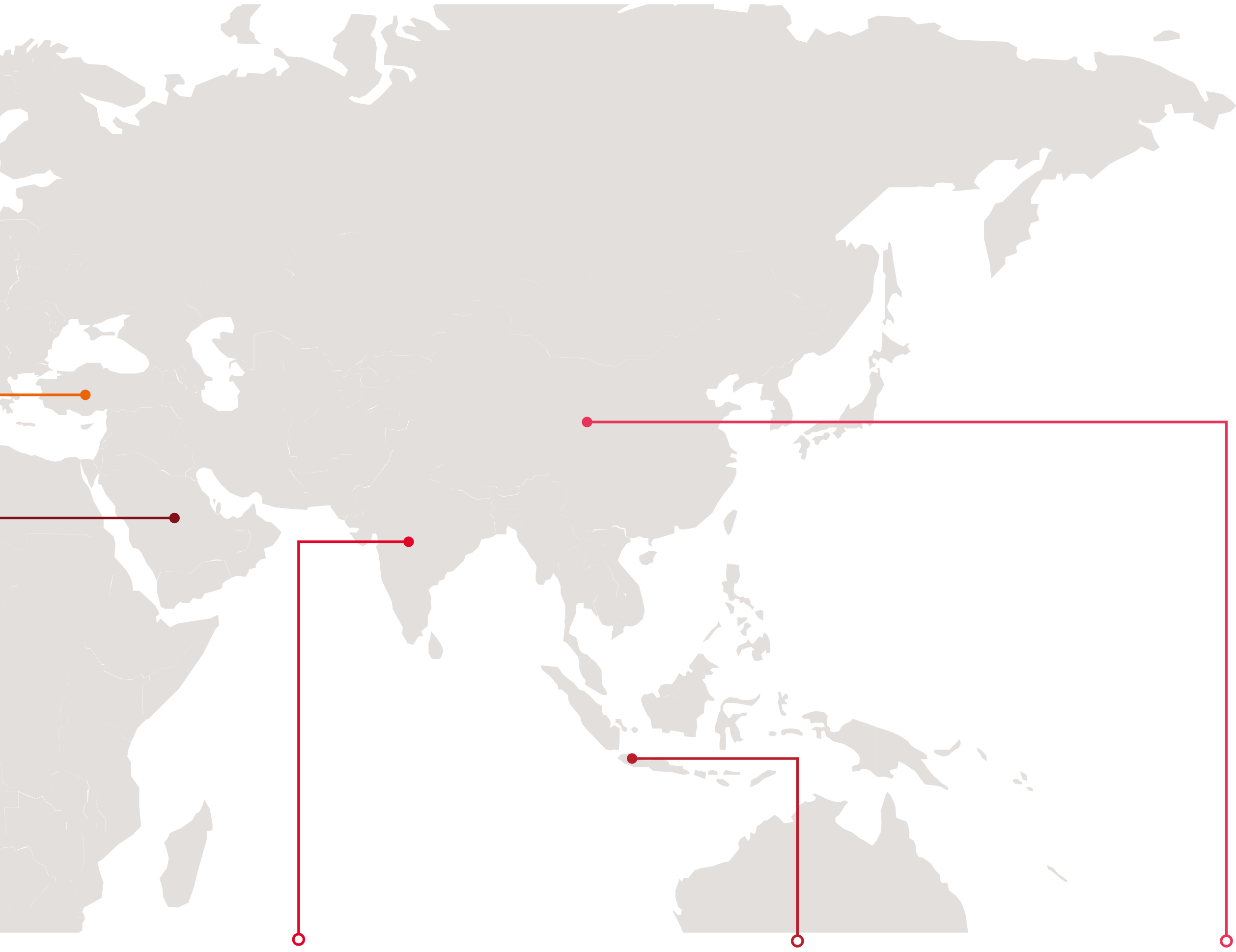
While the rise in the strength of the middle class reflects the long-term growth potential for retail within a region, consumer sentiment is a strong indicator of the near-term potential of the retail sector, as it reflects the willingness and ability of consumers to make purchases based on expectations of personal financial status and market prices. In the near term, consumer sentiment is expected to be relatively more favourable in key growth markets such as India, China, Saudi Arabia, Indonesia, Turkey and Mexico, but given the differences in economic maturity, personal wealth and consumer preferences, the opportunities across sub-sectors will vary from market to market, forcing companies to have much more regional and market-specific product portfolios and go-to-market plans.

The map on the following pages gives a good indication of the different segments which are likely to witness high growth in some of the leading growth markets by consumer sentiment.

Consumer sentiment in key markets across regions



	Mexico	Turkey	Saudi Arabia
Consumer sentiment	Improvements in wage rates and strong growth in inbound remittances (about 25% YoY) have had a positive impact on consumer sentiment.	Consumer confidence continued to climb, reaching a nine month high in August 2016, amidst low inflation concerns and steps such as a 30% hike for minimum wage earners, effective from January 2016. However, consumer sentiment has weakened in recent months following the upsurge in political uncertainty, geopolitical issues and other global developments.	Most consumers expect growth in spending despite the fall in oil prices, as market remains somewhat insulated due to substantial forex reserves, low levels of public debt and a stable currency.
Market trends	Decline in global oil prices remains a concern as 18% of government revenues are derived from oil. Concerns over currency depreciation and inflation also remain.	The political agenda continued to dominate the first half of 2016, while some measures were launched to bolster economic activity. The country's economic management intends to expedite structural reforms in the coming months.	Market reforms such as the recent easing of foreign direct investment restrictions are expected to further push retail sector growth. However, recently announced cuts in fuel subsidies and the proposed introduction of taxation could negatively impact sentiment in near term.
Key categories	Demand for discretionary categories such as clothing and health foods is expected to record strong growth. E-commerce has potential to rise considering improvements in internet and smartphone penetration.[88]	Categories such as food and beverages, personal care products and electronics appliances are expected to grow strongly.[89]	Product penetration is high in most categories, indicating opportunities mainly for product substitution for new players. Discretionary products such as cosmetics and carbonated beverages witnessed high growth.[90]



India

Much higher than average expectations of improvement in personal finances and lower inflation expectations are driving positive sentiment, especially in urban areas.

There is a growing trend towards premiumisation, with the affluent segment seeking high quality products across categories.

Fast growth is expected in categories with low penetration such as automobiles, television sets, female hygiene products and smartphones. Smartphone penetration is expected to double in the next five years.[91]

Indonesia

Commodity price falls have slightly lowered expectations on personal finances and income growth. However, lower interest rates and stabilised inflation are expected to support consumer sentiment going forward.

Economic stimulus packages announced by the government are expected to push market optimism. Consumer preference for local brands remains strong across most product categories.

Spending on food, smartphone and internet access is expected to remain robust. Low penetration of automobiles offers growth potential.[92]

China

Sentiment is declining on personal finances and income growth, but is still stronger than most other markets, especially considering low inflation pressures.

The young middle-class segment (aged 20–30 years) is driving growth, and is projected to account for a significant 35% of overall consumption by 2020.

Strong growth has been seen in cosmetics, spirits, dairy products and smartphones. Share of spending on travel, education and automotive is also above growth market average. Online sales (especially cross-border) are projected to record strong annual growth (20–25%) over the next few years.[93]

Specialised channels to lead non-grocery retail

As middle-class consumers in growth markets become more affluent, their buying habits and preferences are expected to alter. This can already be seen in the shift from more consumers shopping at specialist retailers, in turn enabling non-grocery retail to grow by more than 10% annually over 2009–2014. With improvements in per capita income and growth in middle-class numbers, a larger group of consumers in growth markets are now looking for wider product variety and a better in-store experience, as provided by specialised stores as compared to department stores or mixed retailers. Mixed retail channels have a noticeable presence only in certain pockets, such as clothing and footwear in China or electronics sales in Mexico; however, non-grocery specialists strongly dominate over mixed retailers at an overall level in almost all leading growth markets.[94]

Fig 2.26 clearly highlights this trend, showing that specialised retailers have registered a much stronger performance in growth markets over the past five years as compared to mixed retailers.

We can see that home and garden specialists represented the largest channel category in 2014, while recording the highest absolute growth of more than USD 200 billon since 2009, and this category is expected to continue its domination, remaining as the largest non-grocery retail channel in growth markets by 2019.

Furthermore, clothing and footwear specialists have also recorded the fastest growth of 13% between 2009 and 2014, while growth in other segments has ranged between 10 and 12%. It is further projected that this channel will continue growing at around 12% annually from 2014 to 2019, increasing the share of growth markets among global clothing and footwear specialists from 43% in 2014 to 52% by 2019.[95]

Also reflecting the growing affluence and aspirations of the emerging middle-class segment is the expected growth of the electronics and appliances specialists category, which is expected to grow by 10% annually, increasing the share of growth markets in the global market from 54% in 2014 to 65% by 2019.[96]

Figure 2.26: Non-grocery retail segments in growth markets

Source: Euromonitor

E-commerce to gain rapid adoption

Even though disposable income levels are increasing, there are a number of institutional voids which impede the growth of the retail sector in growth markets. Weak transport infrastructure, leading to severe traffic congestion, is one obvious challenge to increasing the footfall in retail stores, regardless of whether it is mixed retail or specialised stores. Moreover, the cost of expansion into tier-2/3 cities in growth markets could be substantial considering logistical gaps and lack of third party enablers, restricting the presence of many brands to key urban centres. These challenges and the associated desire for improved convenience are expected to push a surge in e-commerce in many growth markets.

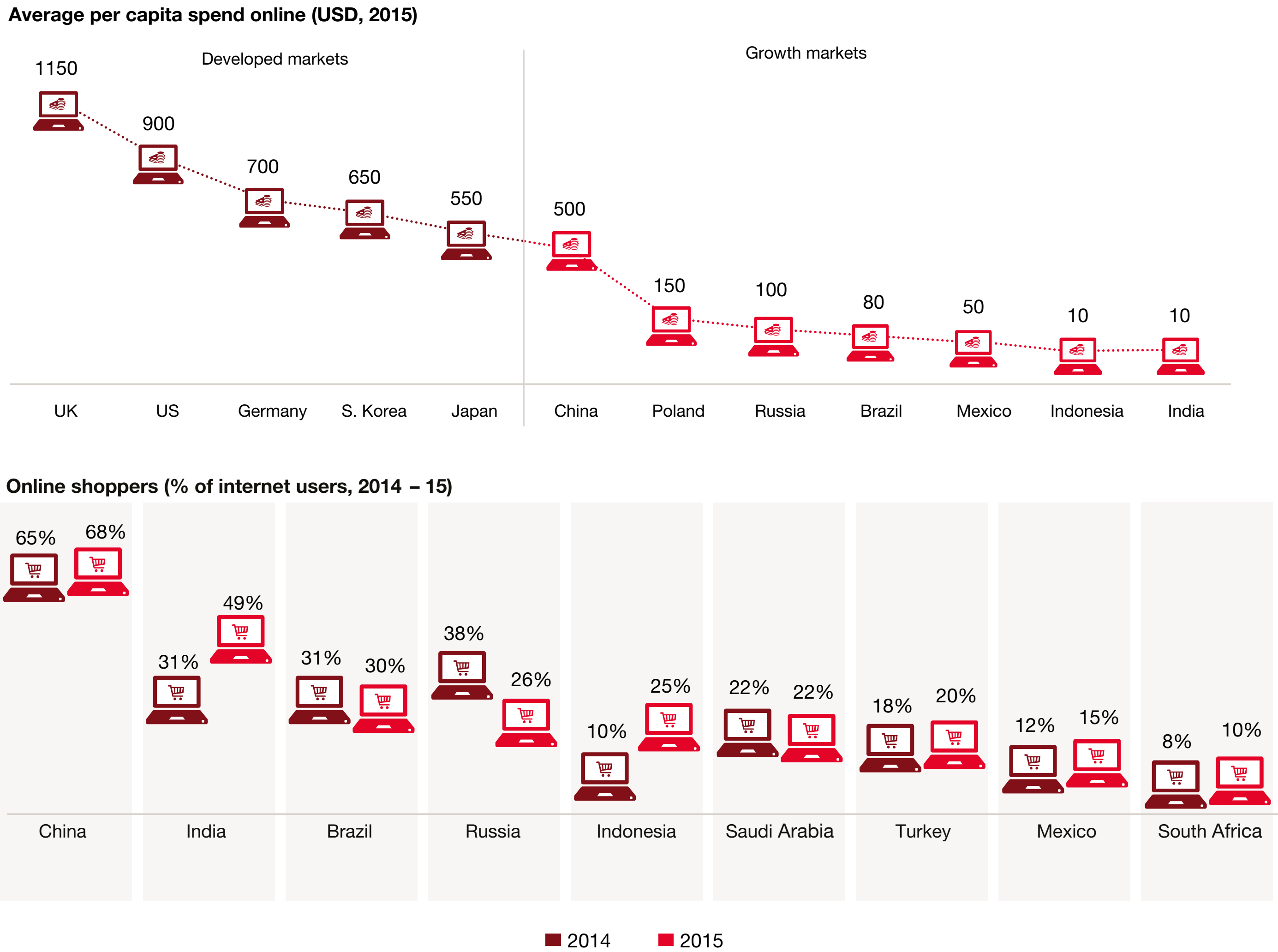
The e-commerce sector in growth markets is expected to boom in the coming years, considering large gaps in online per capita spending coupled with a growing affinity for online shopping. The gap in terms of per capita online spend between developing and developed markets remains highly significant, with most developing countries being below USD 200 in 2015 as compared to figures above USD 500 for most developed markets, see figure 2.27. Moreover, with less than 5% share of online retail in the overall sector, most growth markets besides China (16%) are still below the world average (8%). Rising affinity to online shopping also indicates growth potential. Chinese consumers were the most active online shoppers in growth markets in 2015, while India saw the highest growth in adoption behaviour since 2014.[97]

In terms of opportunity size going forward, the B2C online retail market for the six largest retail markets i.e. China, India, Indonesia, Brazil, Russia and Mexico, is predicted to touch USD 2.5 trillion by 2025, growing at an estimated 13% annually from USD 731 billion in 2015. These predictions are based on the assumption that about 25% of the retail market in these countries moves online by 2025. Rapidly growing internet access in semi-urban and rural areas, and among low income groups and traditionally less internet-savvy age groups, such as those aged above 45 years, is also a positive trend contributing to these strong growth predictions. E-commerce is expected to grow significantly as a lower cost alternative to the traditional brick and mortar approach to expanding presence in untapped segments.[98]

Rising rural penetration of online retail in China is a case in point in this regard. According to recently released figures by China's Ministry of Commerce, rural consumers spent almost USD 47 billion on online retail in the first half of 2016, recording a higher quarter-on-quarter growth rate than the urban segment in Q2 2016, for the first time in history. Key spend categories for rural consumers included clothing, footwear, home improvement and digital gadgets.[99] Consequently, leading market players such as Alibaba are increasingly focusing on expanding in the rural market, with Alibaba announcing USD 1.7 billion in investments over the next three to five years to strengthen its presence in rural China by setting up more than 100,000 rural drop-off points.[100]

> *"The acceleration of e-commerce and falling retail foot traffic requires global retailers to reimagine their appeal in emerging markets. Consumers in emerging markets have different profiles than customers in developed markets. They are younger, likely shopping on a mobile device rather than in a store or on a PC, and do not necessarily expect a traditional 'High-Street' experience."*
>
> **John Maxwell**
> Global Retail & Consumer Sector Leader, PwC US

Figure 2.27: E-commerce spending and shopping behaviour



Source: Credit Suisse Emerging Consumer Survey 2016; UNCTAD

Growth platforms: Financial services

Relevance to national growth

The financial services sector plays an important role in promoting economic growth and in reducing poverty and social inequality at the grassroots level. There is considerable empirical research to prove that countries with better-developed financial systems tend to grow at faster rates. Functioning well, a market's financial system will provide the incentives to encourage formal savings and facilitate responsible lending to enable domestic businesses of all sizes to grow. The impact of advancements in the financial services sector on national growth could be significant in many growth markets, considering their high domestic savings rate and the wide extent to which the banking sector stands underpenetrated at present. A substantial proportion of national savings in growth markets could be explored as a source of capital to push domestic growth in the coming years. This is even more important considering the fall in capital inflows in growth markets in recent years, as compared to the high figures experienced over 2010 to 2014.

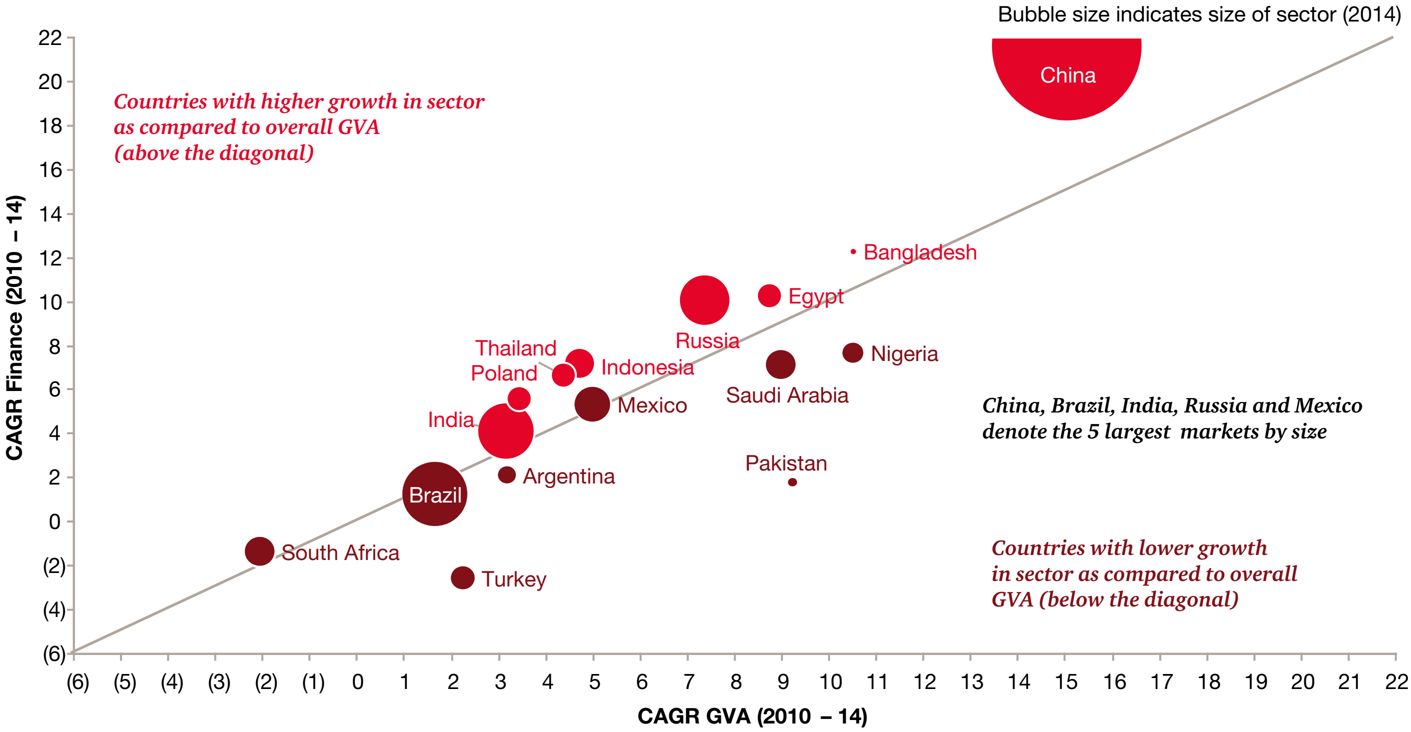
Key growth markets

Certain markets stand out when analysing historical growth trends in the financial services sector across leading growth markets worldwide. As shown in figure 2.28, the financial services sector has grown faster than the overall economy across a range of markets in Asia, Middle East and Europe with China, Bangladesh, Egypt and Russia recording double digit growth over the period from 2010 to 2014.[101]

Moreover, within the markets recording high sector growth, key Asian economies such as China, Thailand, Indonesia, India and Bangladesh are projected to maintain a high domestic savings rate of around one-third of GDP over the coming years, representing notable opportunities for both national governments and corporate players to divert these savings into the formal banking sector. See figure 2.29 below.[102]

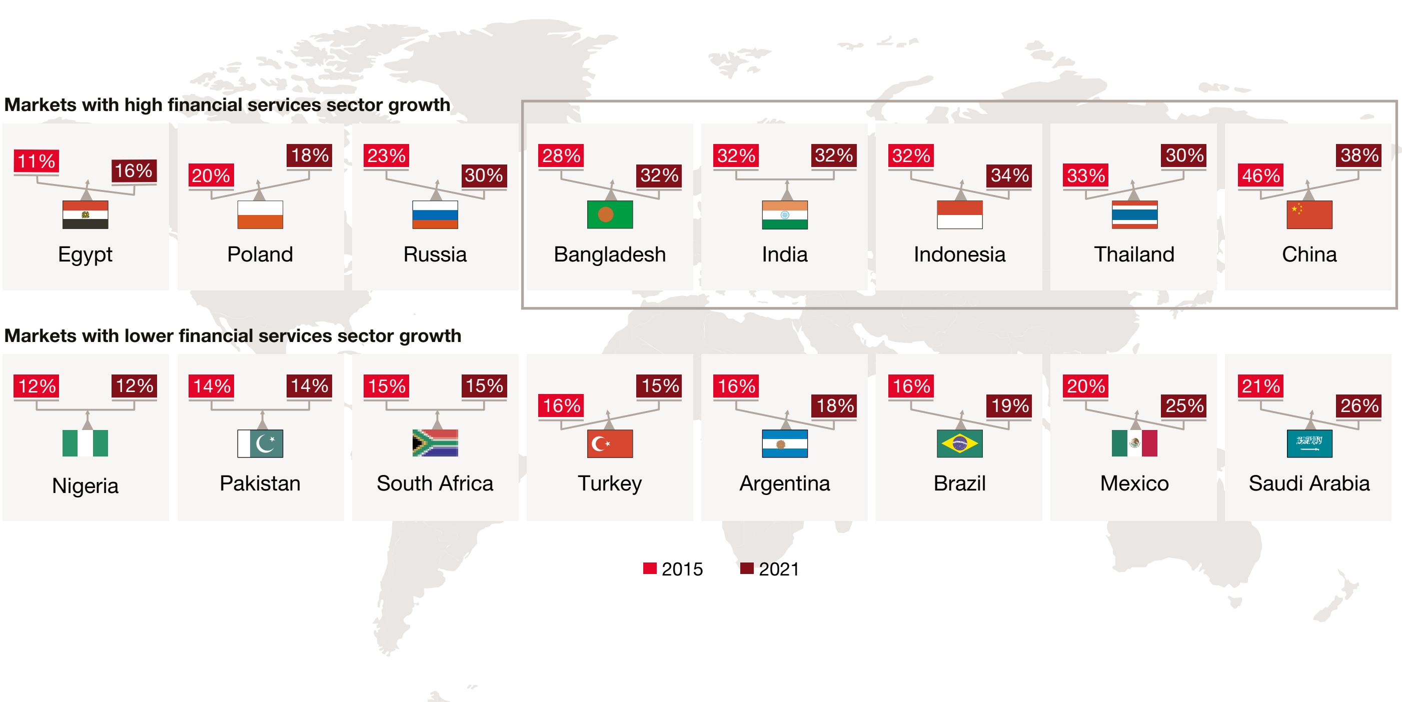
Various interventions could be made to channelise domestic savings into investments for growth, with regulatory shifts key to improving the attractiveness of financial products over physical assets such as real estate or gold. However, a more fundamental aspect also needs to be addressed through interventions led by the corporate sector, i.e. the challenge of financial exclusion. Many continue to remain excluded from the formal banking system due to the inability to provide formal documentation or due to issues around lack of awareness, access or applicability of financial products. As well as regulatory intervention, corporate entities, both banking and non-banking companies, could play a major role in expanding access to financial services, by targeting these untapped segments in growth markets.

Figure 2.28: Sector growth compared to overall GVA growth



Source: BMI Research, International Monetary Fund, 2016

Figure 2.29: Gross national savings (as a % of GDP)



Source: IMF

Growth trends and opportunities

Focus beyond ownership to push repeat usage

Expanding access to financial services amongst households will be key to improving the availability of domestic growth capital in growth markets. A significant percentage of the population continues to remain outside the formal financial system, as indicated by low account ownership numbers in key growth markets, far below the global average of 62%. This means a significant portion of the population in these countries is untouched by basic financial products such as deposits or insurance and they do not get credit from a formal financial institution – making them vulnerable to exploitation from informal channels that fall outside regulatory control.

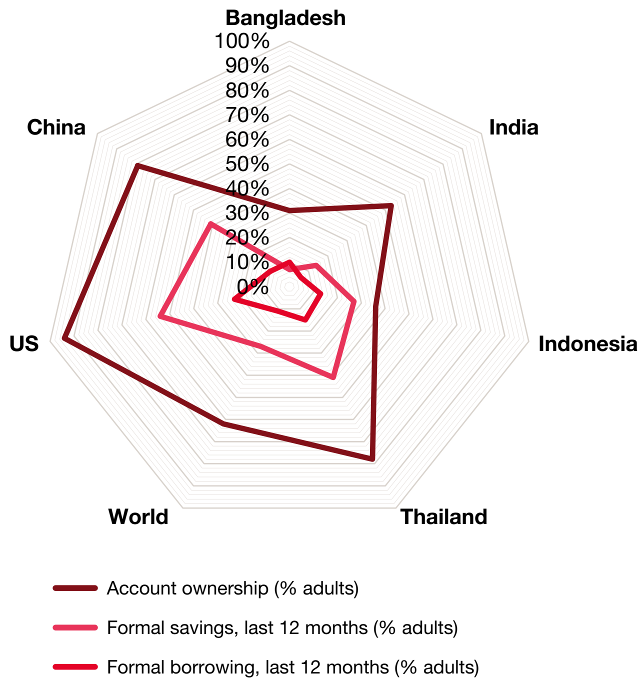
Moreover, as shown in figure 2.30, the large gap between account ownership and formal savings percentages indicates a high level of inactivity in financial accounts, which is mainly due to a mismatch between market requirements and the products being offered at present. While markets such as India have registered sharp improvements in account penetration since 2011, significant gaps remain to be covered in high saving countries such as India, Bangladesh and Indonesia as compared to developed regions – thus creating room for new solutions and service providers. However, as well as promoting account ownership, service providers would also need to focus on expanding financial literacy and creating targeted products that enable repeat usage rather than only one-time adoption.[103]

Technology investments key to improving reach

Limited infrastructure reach, mainly across rural areas, is another factor behind lower adoption of financial services in growth markets. Proximity of service points is an important aspect with cost and time implications for the untapped low-income segment, thus impacting market adoption. While most service providers have gained inroads into the urban consumer, the segment is seeing high competition and growing stagnation in terms of adoption of banking products. However, targeting the rural consumer outside high-density urban centres is the gap that remains to be bridged – and offers significant growth potential for existing and new companies.

To do this, it will be important for market players to maximise the size of the target segment to be addressed and thus maximise their reach in order to maintain profitability – considering lower transaction activity and the smaller ticket size of transactions by these untapped segments. In terms of infrastructure, the significantly higher operational costs of the brick and mortar model make it prohibitive to expand in remote areas, creating the need for technology-driven solutions such as automatic teller machines (ATMs) or

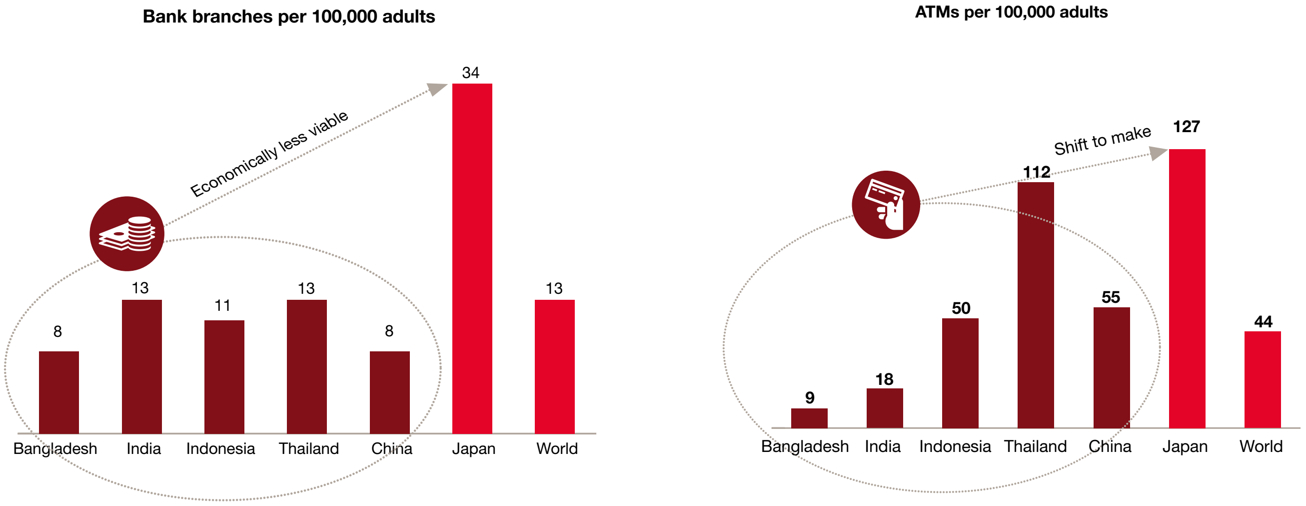
Figure 2.30: Account ownership and usage patterns (2014)



Source: Global Findex Database, World Bank

banking kiosks. For example, ATMs significantly lower capital requirements and transaction processing costs for banks, thus enabling higher profitability. While ATM penetration has grown in recent years, exceeding bank branch penetration across most growth markets, a major gap remains to be covered as compared to developed regions, indicating that the market is still far away from saturation. However, designing new resource-efficient solutions such as solar-powered ATMs or new business models such as white-label ATMs encouraging non-banking participation in India, will also be essential to bridge this infrastructure gap. Companies could also explore new partnership models to lower entry costs and risks, such as the banking correspondent model in Brazil, which focused on expanding reach through partnerships with non-banking entities such as grocery stores, drug stores and gas stations – backed by extensive use of IT systems including point-of-service (POS) machines, barcode scanners, PC-enabled systems and ATMs.[104]

Figure 2.31: Banking infrastructure gaps (2014)



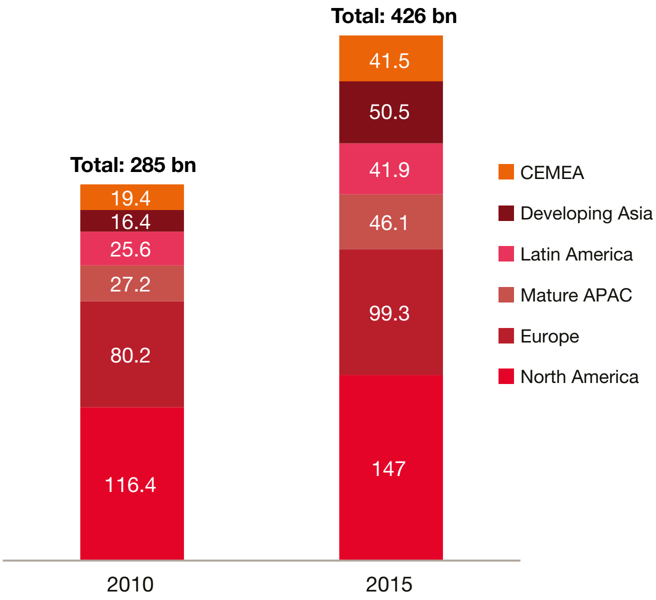
Source: Global Findex Database, World Bank

Alternative payments generate strong adoption

Payments denotes one of the most dynamic and innovative segments of the financial services sector, with multiple new solutions being developed to facilitate non-cash transactions – further pushing consumption beyond traditional spending locations and customer segments. While non-cash payments help save on processing and transparency costs for national governments, an indirect impact of enabling digital payments is also on the consumption side, in turn driving national GDP growth. For example, a 5% growth in cashless transactions is estimated to have the potential to save more than USD 70 million annually for the Indian economy.[105] Moreover, China's GDP is estimated to have grown by USD 375 billion due to additional consumption emanating from the sharp growth in payment card usage between 2008 and 2012.[106]

While developed markets such as North America and Europe continue to dominate the digital or non-cash payment space, alternative payment methods are gaining strong traction in growth markets in Asia, creating opportunities for both banking and non-banking entities in the region. Developing Asia recorded the fastest growth in the volume of non-cash transactions, of 25% annually since 2010, with overall growth markets averaging a strong 17% growth each year. While the Latin American region has been slower than Asia, the region has also recorded 10% annual growth on average, in adoption of non-cash payments. Consequently, leading markets in these regions are among the largest users of digital payment modes. Brazil was ranked in third place, followed by China in fourth position worldwide globally in terms of volumes of non-cash transactions in 2014 – 15.[107]

Figure 2.32: Volume of non-cash transactions by region



Region	CAGR (2010 – 15)
Central Europe, Middle East and Africa (CEMEA)	*16.4%*
Developing Asia	*25.2%*
Latin America	*10.4%*
Mature APAC	*11.1%*
Europe	*4.4%*
North America	*4.8%*
Overall (growth markets)	***16.9%***
Overall (developed markets)	***5.5%***
Global	***8.4%***

Source: World Payments Report, RBS, 2015; Global Payments Report, Worldpay, 2015

In terms of specific products, while alternative payment modes such as online transfers and mobile payments are projected to outpace usage of payment cards in Asian markets by 2019, the non-cash landscape in the Latin American region is predicted to be dominated by payment cards in the coming years.[108]

Non-banking entities look to challenge conventions

While financial inclusion success stories in growth markets such as the Mzansi no-frill accounts in South Africa, MPESA in Kenya or EasyPaisa in Pakistan have managed to expand account penetration or have enabled payment transactions, they have had limited success in promoting ongoing account usage and in cross-selling other products such as credit and insurance. However, new solutions based on data analytics are now emerging to challenge conventional barriers to adoption of these products. Launched by non-traditional sector participants such as e-commerce companies and mobile operators, these solutions use credit scoring models based on data collected from alternative sources such as mobile or online usage, payment behaviour and even social media behaviour to extend services to untapped customers. Such solutions based on advanced analytics could play a major role in delivering the full benefits of banking products to those without a formal banking history in growth markets, while also creating a more robust underwriting mechanism and strengthening fraud detection for those already in the system. See examples below.

Solutions extended by mobile operators are expected to play a prominent role in improving access to financial services, exploiting the high mobile penetration which already exists in many growth markets. However, while mobile money solutions led by the private sector have gained strong acceptance in markets such as Kenya, Uganda, Bangladesh and Pakistan, the challenge lies in converting largely over-the-counter transactions into stored value wallets to enable a wider spectrum of banking services, such as credit or insurance, on these mobile-linked accounts. This would require much greater focus on improving online literacy and the reach of digital infrastructure in growth markets.

Lastly, retail sector participants have also taken up direct responsibility to support financial inclusion in a few growth markets. FAMSA in Mexico is an excellent example of where a department store with national coverage has taken on the challenge of providing credit access to the informal market. See case study below.

> ***"Technology is changing the face of the financial services space within emerging markets. Notwithstanding impressive progress, we are only just seeing the start of these trends as the household penetration of mobile technology across all geographies and social groups accelerates and as the sophistication of both the traditional banking players and the new-generation start-ups grows."***

Hugh Harley
Global Emerging Markets Financial Services Leader
PwC Australia

Figure 2.33: Case studies: Financial services solutions using data analytics

Taking mobile money beyond payments

M-Shwari

- Allows M-PESA (SMS-based money transfer system) subscribers registered for at least six months to get a loan from USD 1.15 to USD 235 for a 30-day term into their e-wallet accounts, and earn interest on their deposits
- Terms of the first loan are decided by analysing customer use of M-PESA, voice and data services on mobile phones
- Has grown to nine million accounts in two years, having disbursed loans of USD 277.2 million over 2012-14, with only 2% loans being non-performing over 90 days

Extending credit benefits to the masses

Ant Financial Services

- China's credit scoring and reporting system is less developed than those in the US or Europe, making it difficult for many consumers and small enterprises to get access to credit
- Targeting such borrowers, Ant Financial launched a new credit scoring service called Sesame Credit which uses a scoring system based on online and offline data including online transaction behaviour, payment history and profile characteristics
- Sesame Credit collects data from more than 300 million registered users and 37 million small businesses who buy and sell on Alibaba Group marketplaces including Taobao and Tmall.com, and from their payment histories on Alipay platform

Source: World Bank, CGAP, Company Websites

Case study

Grupo FAMSA addresses the informal market through credit

With over 370 stores in more than 75 cities throughout Mexico, Grupo FAMSA is a large Mexican retailer of household goods, ranging from furniture, electronics and clothing to cellular phones and even motorcycles. It provides credit to the mass market, which can depend on it to buy daily necessities.

'With the right use of credit, companies can further expand their market presence. For instance, FAMSA proactively uses credit as a key lever to expand its market presence. It has developed loyalty programs, a revolving credit and normal credit to offer to different segments for different trips.'

FAMSA staff identify the target districts within a specific distance from each store. They then knock on doors and explain that they can offer store credit on favourable terms. This is followed by an assessment of the person's creditworthiness using key questions captured via a mobile device. Their answers are evaluated over 72 hours so the person quickly knows if they can acquire credit at their local FAMSA store and if so, how much. The approval is followed by a separate team which goes to the house to explain and offer the products. This approach has proved to be effective and door-to-door sales are already chalking up 10% of FAMSA sales.

"The business is well adjusted for the consumers in the large middle – low income group. With FAMSA, they do not have to deal with rules that they do not know. FAMSA is open every day to cater to the customer's needs," says Luis Gerardo Villarreal, COO, Group FAMSA.

Understanding that the majority of its customers do not have an official credit history, FAMSA also adopts techniques to manage credit risks, such as reviewing testimonials from the borrower's employer, family and friends, or requesting an initial down payment and facilitating weekly payments instead of monthly payments to instill a sense of discipline in the repayment routine. FAMSA is also working closely with the regulatory body to help better understand the credit landscape in the informal market.[109]

Growth platforms: Transport and Communication

Relevance to national growth

Connectivity is fundamental to growth in any country, but in many growth markets the scale and quality of connectivity infrastructure, across both transport (roads, rail, ports and associated sectors) and communication (telephony and internet) is below what is needed to facilitate and sustain high growth. This presents many opportunities for companies within these sectors to participate in developing infrastructure which will lay the foundation of future growth across all other sectors.

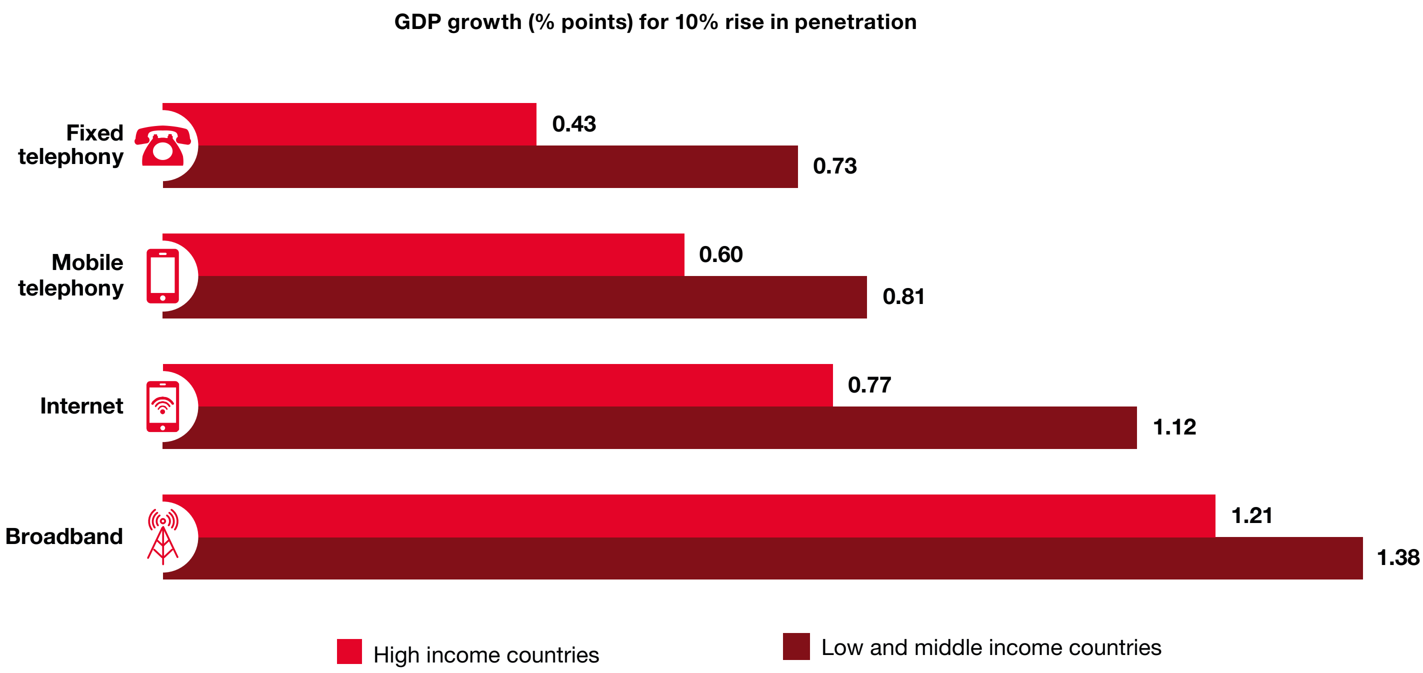
Enhancing the scale and quality of the transport network could have an immense economic impact. In fact, it is estimated that a 10% increase in road density and the span of paved roads would result in a 1% increase in trade flows and 5% improvement in economic growth respectively across Asian economies.[110] However, development of roads is inevitably followed by an increase in vehicle ownership, leading to mass congestion and elevated emission levels. Transport accounts for 60% of global oil consumption and 23% of CO2 emissions, and so mitigating the impact of rising motorisation levels requires greater focus on public transport methods, which also lowers mobility costs and provides greater accessibility to the masses. Besides the direct value-add and employment provided by the transport sector, it also plays a role in enabling access to new markets, which has an impact on overall economic output. It further supports many other associated businesses dependent on transport such as part suppliers, maintenance and repair services, insurance companies and so on, thus creating indirect value-add and employment opportunities.[111]

As well as transport, communication represents another key sector which could play a leading role in bridging some of the institutional voids in a growth market, while also contributing to its economic growth, both directly and indirectly, via dependent sectors.

As we can see in figure 2.34, both telephony and internet connectivity could improve GDP growth in low and middle income markets to a much greater extent than in high income or developed regions. Most notable is the contribution to growth that the internet, especially broadband, could make to economic growth.

This growth enhancement could be broken down into its impact on productivity, market access and social well-being. Enhanced telephony and internet connectivity can facilitate access to information and improve process efficiencies, leading to greater output across sectors. Beyond enhanced production, digital infrastructure would enable greater access to traditional products and services by lowering delivery costs, and would support the creation of new product categories for consumption. Lastly, in terms of social impact, communication technologies could play a major role in improving the reach of public welfare services and in creating additional employment along the enabling ecosystem, in areas such as infrastructure development, device manufacturing, content development and service delivery.[112]

Figure 2.34: Impact of communication sector on economic growth

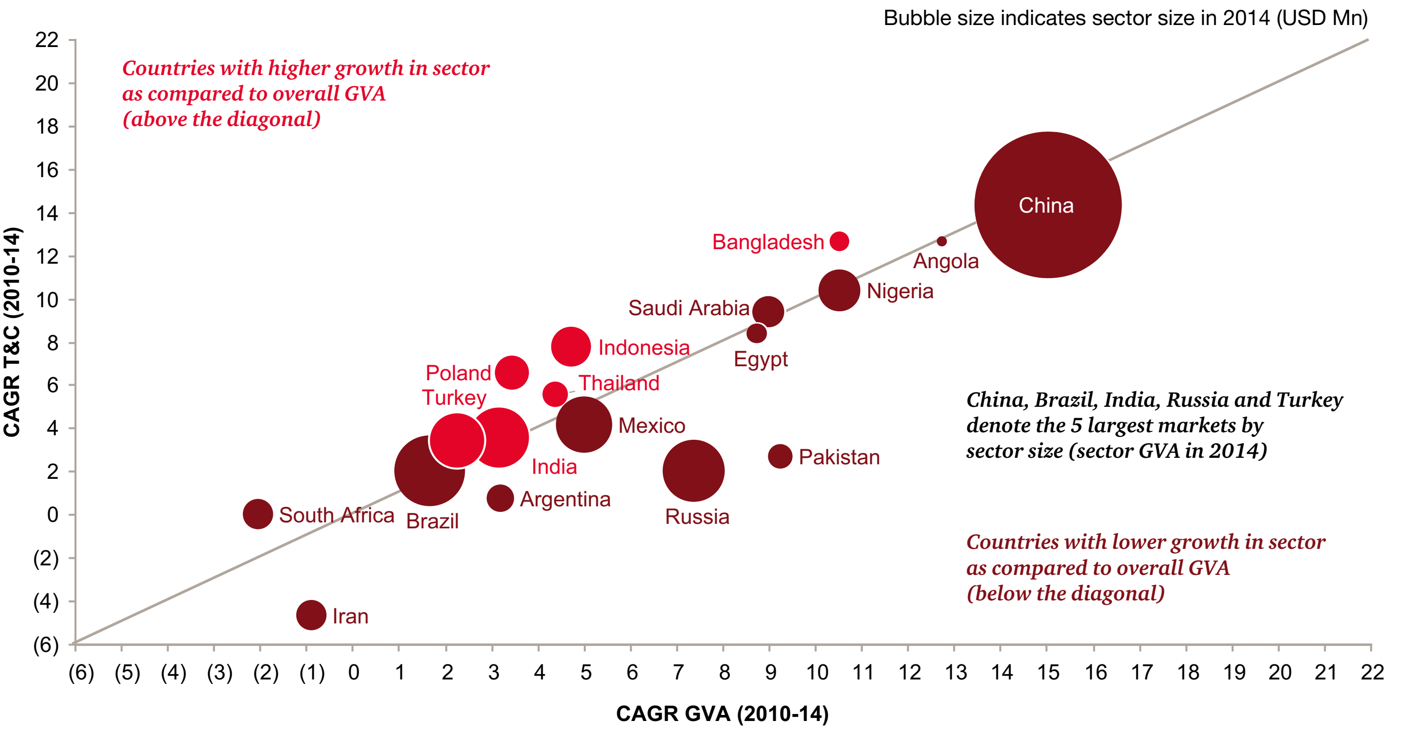


Source: World Bank; International Telecommunication Union, Asian Development Bank

Key growth markets

As we can see in figure 2.35 below, the sector has recorded strong double-digit growth since 2010 in the Asian markets of China and Bangladesh and the African markets of Nigeria and Angola, with Bangladesh standing out as having grown at a much faster rate than the overall national economy over 2010 to 2014. That being said, investors in these sectors ought not to neglect the fact that China, Brazil, India, Russia and Turkey are the five largest markets by sector size, as opportunities would lie both within the more established growth markets as well as in those which are gaining prominence now.[113]

Figure 2.35: Sector growth compared to overall GVA growth



Source: BMI Research, International Monetary Fund, 2016

Growth trends and opportunities

Investments in transport infrastructure to surge

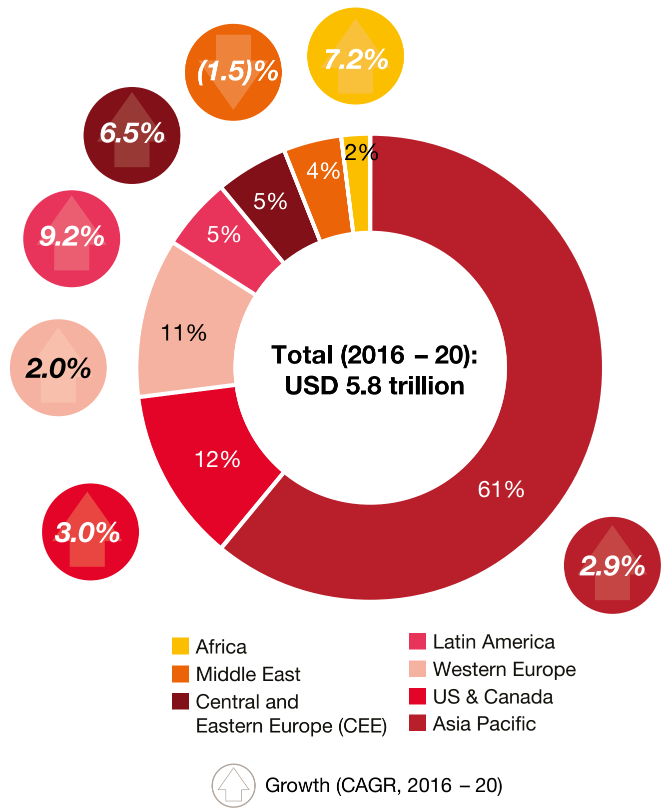
As we mentioned in part 1, the Asia-Pacific region is predicted to be a key growth region in the years to come, but improving road connectivity is a key success factor to this becoming a reality. Global infrastructure investments are therefore expected to be dominated by the Asia-Pacific region over the next five years. As we can see in figure 2.36, the Asia-Pacific region is projected to account for more than 60% of global transport infrastructure spending over 2016–20, while Latin America and Africa are projected to see the fastest growth considering a smaller existing base. This is in comparison to developed regions including the US, Canada and Western Europe, which are expected to account for only a quarter of spending on transport infrastructure over the next five years.[114]

Pushed by growing urbanisation, roads are expected to be the largest area of investment in growth markets to enhance the movement of goods and services, but also to relieve severe congestion and thereby improve productivity for business and convenience for inhabitants. Railways, on the other hand, are expected to record relatively stronger growth in advanced economies with more mature transport systems. This growth in transport infrastructure spending is also fuelled by the increasing amount of international trade that these markets are participating in, and therefore investment in sea ports is expected to grow at a fast pace, particularly across South East Asia and along China's Belt & Road (B&R) infrastructure program.[115]

The Belt and Road initiative was launched by the Chinese government in 2013 to improve China's trade linkages with 60 nations spread over Asia, Europe, the Middle East and Africa. It comprises two main elements, the Silk Road initiative focusing on land routes, and the Maritime Silk Road initiative dealing with sea links. See map below. Already, Chinese companies claim to have invested about USD 15 billion in the Silk Road project in 2015, a 20% rise over investments made in 2014.[116]

In this context, high growth opportunities exist for engineering and construction firms and infrastructure project investors across growth markets, especially in Asian markets, which have a projected cumulative five-year spend of USD 3.5 trillion over 2016–20.[117] It will not be easy, though, and as we will see in part 3, companies and investors will need to re-evaluate their investment portfolios and reposition their strategies to focus on opportunities in roads and ports across Asia Pacific and in growth leaders such as Africa and Latin Americas, while evaluating the risks of slower growth in growth markets such as the Middle East and sectors such as airports.

Figure 2.36: Cumulative five-year spend on transport infrastructure (2016–2020) – Share by region



Source: CP&I spending outlook, PwC, 2015; Assessing the global transport infrastructure market, PwC, 2015

> *"Governments in emerging markets are increasingly using public-private partnership frameworks to facilitate investment in transport infrastructure to help close the investment gaps left by under-investment over many years. This enables the strong wider economic benefits of transport investment in high growth economies to be monetised and flow through to investors. International infrastructure investors therefore need to think about how to expand into these markets given constraints on public investment in the lower-growth developed economies."*

Julian Smith
Global Transport & Logistics Sector Leader
PwC Indonesia

Demand for third-party logistics on the rise

The state of the logistics sector in growth markets lags behind developed countries due to infrastructure gaps and the presence of complex and less efficient processes.

Figure 2.38 shows that the logistics sector in most growth markets, especially in South Asia and Africa, has not been able to keep up with the surge in demand in trade, as shown by poor performance on the Logistics Performance Index (LPI) published by the World Bank – which ranks 160 countries on six dimensions of trade including customs performance, infrastructure quality and timeliness of shipments.[118]

This current imbalance has driven the demand for third-party logistics (3PL) services with companies looking at outsourcing to help manage local complexities, especially international players. Demand for 3PL has understandably grown most significantly among poor LPI performers such as the Asia-Pacific region, where it has risen by more than 10% annually over 2006 – 14.

Most users of 3PL services are outsourcing a wide range of areas such as domestic and international transportation, warehousing, freight forwarding and customs brokerage, while a few are also using outside support for supply chain consultancy, IT services, inventory management and fleet management. Growing demand for e-commerce in Asian markets is further pushing revenues for 3PL companies. Share of e-commerce in 3PL revenues in Asia is expected to grow from 10% in 2015 to 24% in 2018. Furthermore, companies looking to target the fast growing and regionally dispersed customer base in many of these developing economies are finding that 3PL services are able to provide them with an option not only to expand market reach, but also to lower logistics costs in markets where there is currently a poor state of logistics infrastructure. According to a global study conducted by the Penn State University, 3PL users reported an average reduction of 9% in overall logistics costs, 5% in inventory and 15% in fixed logistics over 2014 – 15. Although the immense need for 3PL services is clear, it is not assured that all 3PL providers will succeed. Local providers have to ensure that they can meet the standards that foreign companies looking to expand in these markets demand, and ensure that their customers' brands and purchasing commitments are well protected.[119]

Figure 2.37: Belt and Road (B&R) initiatives

Source: Xinhua

> *"The developments of One Belt One Road and ASEAN markets redefine a whole new value chain of business network and infrastructure requirements. It is interesting to see how 3PL's role evolved as a trade facilitator connecting MNC and local companies to expand and penetrate into the new markets. This becomes a critical question in the industry: how we see the future growth and where we place our investments."*
>
> **Philip Chu,**
> Global Head, Market Access, Fast Growing Enterprises
> DHL Customer Solutions & Innovation

Rural markets to foster next phase of mobile growth

It is true that we have seen a significant shift over the last 15 years with mobile adoption, with developing markets exceeding the developed world by a substantial margin in terms of number of subscriptions. However, there are still significant gaps in urban and rural penetration, especially across Asian and African markets, which account for mobile penetration figures in developing markets being lower than the world average in 2015. See Figure 2.40.

Against an average of 121 mobile subscriptions per 100 in developed markets, in 2015 figures for growth markets such as Asia stood at 91.6 and Africa at 73.4, below the global average of 97 subscriptions per 100.[120]

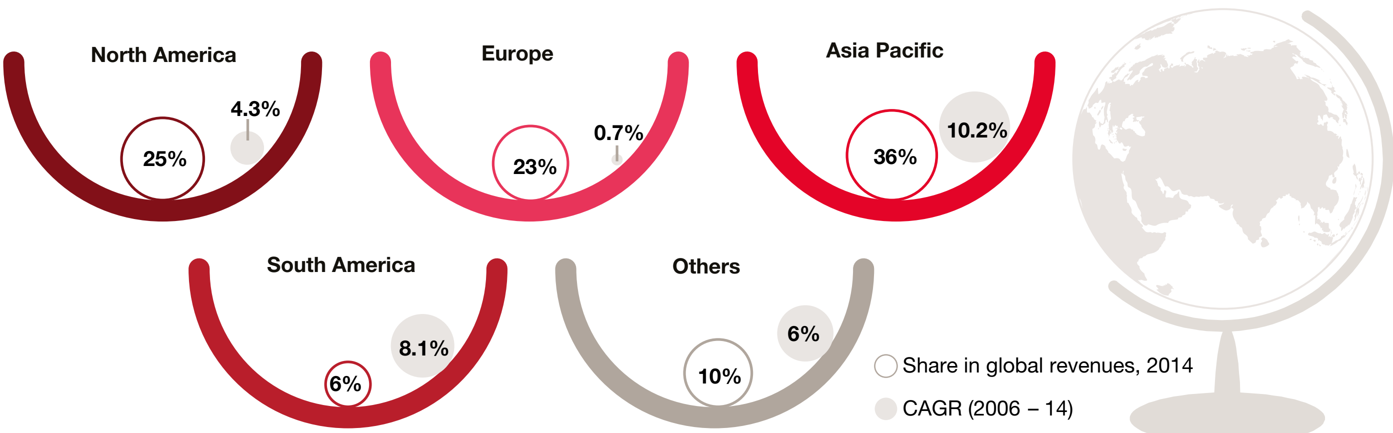
The gap between urban and rural penetration can be seen through the example of the Indian market. At only 51 subscriptions per 100 people, mobile tele-density in rural India stood at almost one-third the level in urban India (148 subscriptions per 100), as of April 2016 – which also highlights the divide between those who are currently benefiting from India's growth story and those who are not.[121]

Figure 2.38: Logistics Performance Index (LPI) scores, 2016

Scores indexed to rank 1 performer – Germany

Source: LPI, World Bank 2016

Figure 2.39: Third-party logistics revenues by region



Sources: 2016 Third-Party Logistics Study
Supply Chain Quarterly

This existing gap shows that developing markets are still far from being saturated in terms of mobile connections, and targeting rural segments in Asia and Africa will be essential to drive growth in volumes for mobile operators. Increasing competition of mobile players within urban segments further strengthens the need to branch out. However, mobile operators would need to devise new operating models to maximise earnings from the rural segment, such as targeting consumers by offering value-added services or entering into partnerships with financial services providers to cross-sell solutions. We can already see many mobile service providers partnering with other sectors to bring healthcare, education and financial services to untapped populations in Asia and Africa – such as mobile money and credit solutions extended by Safaricom in Kenya and Telenor in Pakistan – and this type of cross-sector collaboration needs to grow for these regions to progress further on the Human Development Index. Lastly, opportunities for infrastructure development firms, network component firms and providers of low-cost access devices are also expected to grow, with growth markets striving to expand reach into untapped segments.

> *"When it comes to democratising high-speed internet access and access to digital technologies, many untapped rural markets around the world will be mobile-first. The opportunities for mobile operators, infrastructure providers and players in the digital ecosystem are very significant. In these exciting times, it is the most adaptable and agile companies that will win."*

Mohammad Chowdhury
Telecom, Media and Technology Sector Leader, Australia, South East Asia and New Zealand, PwC Indonesia

Digital push to create new opportunities

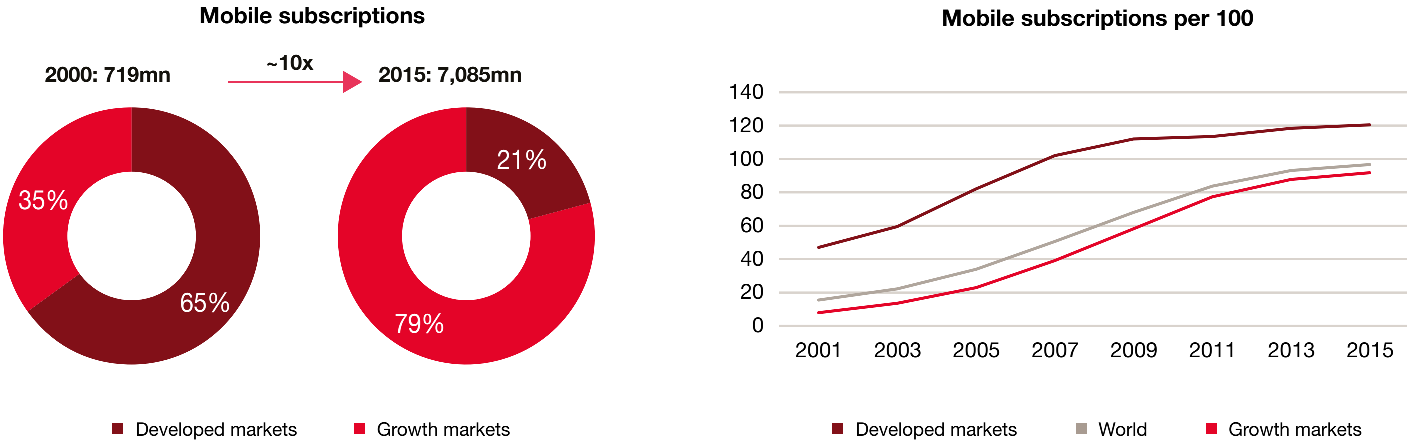
Beyond mobile telephony, significant opportunities also exist in addressing limited internet adoption and the poor state of broadband infrastructure across growth markets.

As we can see in figure 2.41, internet penetration remains low in growth markets. At 35 internet users per 100 it is significantly below the global average of 43 and less than half of that in developed markets, at 82 users per 100 in 2015. Further compounding the issue is that the majority of internet users in growth markets do not have broadband connections and connect at 2G speeds of less than 512 kbps, which is suitable only for low-end applications such as messaging or text downloads. Mobile broadband is widely considered the preferred mode to expand high-speed connectivity in the coming years – already 90% of internet users in China use smartphones to connect. However, low mobile broadband penetration remains a challenge across most growth markets in Asia Pacific, the Arab States and Africa.[122]

Opportunities for network infrastructure companies will grow considering the greater focus being placed by national governments on expanding digital connectivity. National governments would have a key role to play to help create a business case for private firms to tackle infrastructural issues in untapped regions. As discussed earlier, mobile broadband is expected to lead efforts over fixed-line connections for expansion of high-speed connectivity, creating growth opportunities for mobile operators and smartphone manufacturers. However, there will also be a strong need to grow fibre-optic infrastructure for backhaul and fixed broadband connections to support rapidly growing mobile traffic.

Beyond infrastructure, factors such as a lack of awareness in rural areas of how the internet can enhance lives and businesses, coupled with the high cost of broadband services and a lack of local language and targeted content, also significantly restrict adoption. Therefore, strong opportunities also exist for online content developers, who need to focus on creating multi-lingual content to target linguistic diversities

Figure 2.40: Mobile adoption, developed vs growth markets



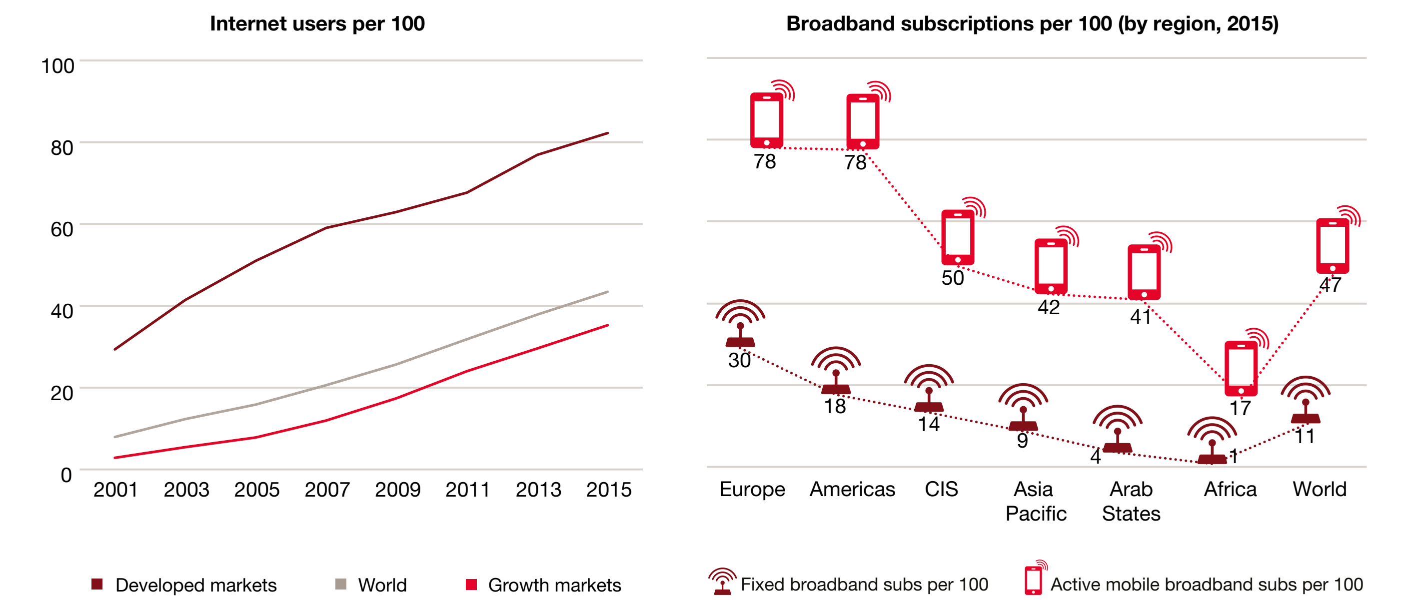
Source: ITU World Telecommunication/ICT Indicators Database; TRAI India between countries, and wide regional variations within markets such as India or Nigeria. According to estimates by the Internet and Mobile Association of India (IAMAI), enabling content in local languages could increase the current internet user base in India by a significant 39%, with 75% of growth coming from rural areas in the country. As an example of the size of opportunities that could be generated through this shift, the IAMAI estimates that shifting India's local language book publishing industry online would alone generate a USD 7 billion opportunity for content developers and technology companies.[123]

> *"The wide spread of broadband infrastructure and development of ICT technologies are facilitating the delivery of the digital society as a key driver to economy growth and industry transformation of Myanmar. It is also important to fully embrace broadband infrastructure and applications to redefine how we live, how we do business, and how we deliver services both in terms of government to government, as well as between government and citizens, transparently and with efficient governance."*
>
> **U Kyaw Myo**
> Deputy Minister for Transport and Communications, Government of the Republic of the Union of Myanmar

As we have seen, growth markets are expected to lead a series of remarkable shifts across these six key sectors within the growth categories of human development, institutional development and growth platforms. These shifts will create multiple new prospects for the private sector to explore, including opportunities for large established players looking to lead these shifts, small and medium-sized enterprises focusing on strengthening the supply chains, and next-generation entrepreneurs specialising in designing new products and operating models to facilitate change.

These opportunities will be driven by many factors that are changing the landscape in which companies operate today. For example, the need to address resources and infrastructure gaps in growth markets is creating significant scope of play for the private sector in areas such as agricultural inputs, transport and communication infrastructure and financial services across Asia and Sub-Saharan Africa. The other major driver of opportunity is the changing demographics and consumer dynamics. These result in a growing demand for health foods in Latin America and the Middle East, health insurance products in Asia, and tertiary education in Southeast Asia, Latin America and Sub-Saharan Africa – while also impacting the operational landscape through trends such as the ascendancy of specialised in-store retail and the emergence of the next frontier of manufacturing locations. Lastly, new technologies and business models are creating new opportunities by reaching out to untapped segments through new value propositions. These include areas such as Mobile Value-Add Services and Machine-to-Machine solutions for agriculture, advanced production and material technologies in manufacturing and also a rising adoption of e-commerce, digital health and e-learning solutions to bolster human development, and alternative payments and data analytics solutions in financial services.

Figure 2.41: Internet adoption, developed vs growth markets



Source: ITU World Telecommunication/ICT Indicators Database

Part 3: A winning strategy

Capturing growth in maturing markets

As we stated in part 1, the business environment in growth markets is still maturing, and therefore companies which are looking to enter and grow in these markets need to adopt more flexible business models to navigate existing institutional and infrastructure voids – including even those companies which are involved in addressing some of these voids, such as in the transport and communication sector.

Historically, companies have struggled to understand the voids that characterise growth markets, such as a less stable political environment, complex business culture, and limited financing and availability of skilled labour, among others. They have often taken mature infrastructure foundations in developed markets for granted and are therefore caught off guard when they find these lagging in developing economies. In addition, companies also fail to distinguish between the nuanced differences in institutional voids between growth markets. China, for example, is characterised by issues such as limited availability of local managerial talent and a relatively underdeveloped capital markets system, while the Brazilian landscape faces supply chain bottlenecks, the influence of trade unions, and complex bureaucratic systems. On the other hand, companies looking to operate in the Russian market need to be aware of intellectual property risks and the need to establish local subsidiaries to raise capital. Companies have also been caught off guard by the rapid pace of evolution that characterises growth markets, creating new uncertainties in business conditions. Therefore, factors such as unpredictable regulatory and legal systems, nimble and innovative local competition and evolving tastes and quality expectations of the consumer, need careful consideration from multinationals looking to expand into these regions. On the other hand, many of the players operating locally in growth markets today are also looking to become the new-age multinationals of tomorrow, by expanding to new shores. These companies would need to understand the relevance and applicability of their home advantages beyond domestic borders, while repositioning themselves to tackle challenges such as limited brand awareness or supply chain gaps in these new regions.

All these factors mentioned above drive the need for greater agility and flexibility to operate in growth markets. As highlighted by the Growth Markets Centre in its 2015 annual report, “Bridging Growth Markets Voids”, this agility in one’s operating model could be achieved through a combination of some more flexible and growth market specific capabilities. These may include developing a more efficient supply chain through technology adoption and local partnerships, or by designing innovative processes to overcome other technical voids which companies face in these markets. Flexible operating models would further need to address key organisational elements, such as retaining good talent and creating strong governance and reporting mechanisms that meet global standards while being relevant to the local environment.

We see these various capabilities required to succeed in growth markets as components of three basic foundations that need to be developed or further strengthened by multinationals targeting growth in these regions, as detailed in the section below.

Building the capability foundations

Private players looking at exploring growth opportunities in developing markets would need to develop a firm understanding of the market and operational landscape in the region. Accordingly, they may need to modify existing business models and organisation structures to gain sustainable competitive advantage over incumbents. This would in turn require a new 'coherent' system of capabilities – a system that is aligned to the company's growth ambition and the value proposition that it seeks to deliver, as well as the core strengths that define its existing DNA. These capabilities could be defined as an interconnection of people, knowledge, processes and systems that would allow companies to consistently and sustainably outmanoeuvre the competition. In our opinion, companies successful in growth markets tend to build strong capabilities across three foundations, impacting both their 'ways to play' and their 'right to win' in a particular market. These foundations include operational efficiency, product and process innovation, and go-to-market excellence, as highlighted in figure 3.1.

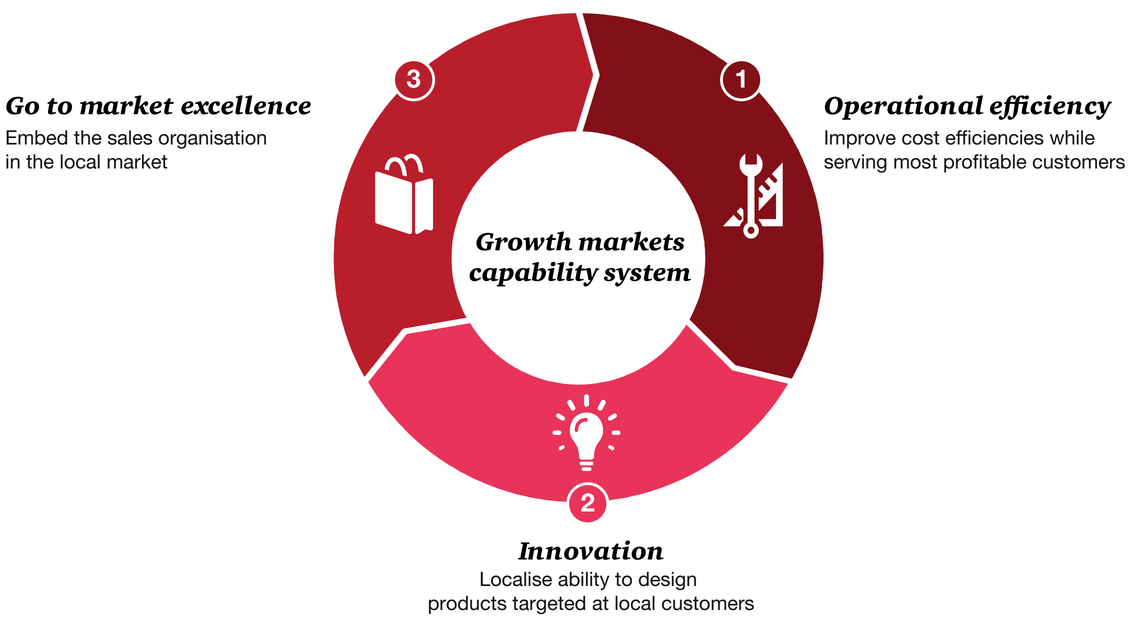
"There are several examples of highly successful companies that have grown from volatile emerging markets to become global leaders. If you look at these carefully, you will discover that over long periods of time they have been relentless at investing in foundational capabilities in three areas that are distinct from the competition, and at the same time tailored and tweaked to each market. However, the three foundations are always the same, and these leaders only get better through time, both during the upturns and arguably even more during the downturns."

Carlos A Navarro
Principal, Strategy Consulting, PwC US

Capability foundation: operational efficiency

As a first step, companies would need to look inwards and strengthen their core business capabilities by improving productivity and efficiency in their existing production and supply chains, within their growth markets' operations. Differentiating controllable internal costs such as wages, suppliers or materials from external costs such as regulatory compliance and interest rates, and benchmarking these internal costs with respect to best in class performers will be essential to understanding cost drivers and the levers of change required to enhance operational efficiency. These cost drivers and their potential levers of change could vary across the spectrum. For example, enhancing automation of manual processes could be a lever of change to manage costs driven by the need to match competitor performance. Similarly, companies could focus on achieving higher economies of scale or on improving capacity utilisation to tackle the higher cost of sales accompanying market growth, or they could improve supplier sourcing in the case of cost pressures imposed by changes in consumer needs.

Figure 3.1: Capability foundations for success in growth markets



Source: PwC's Strategy& analysis

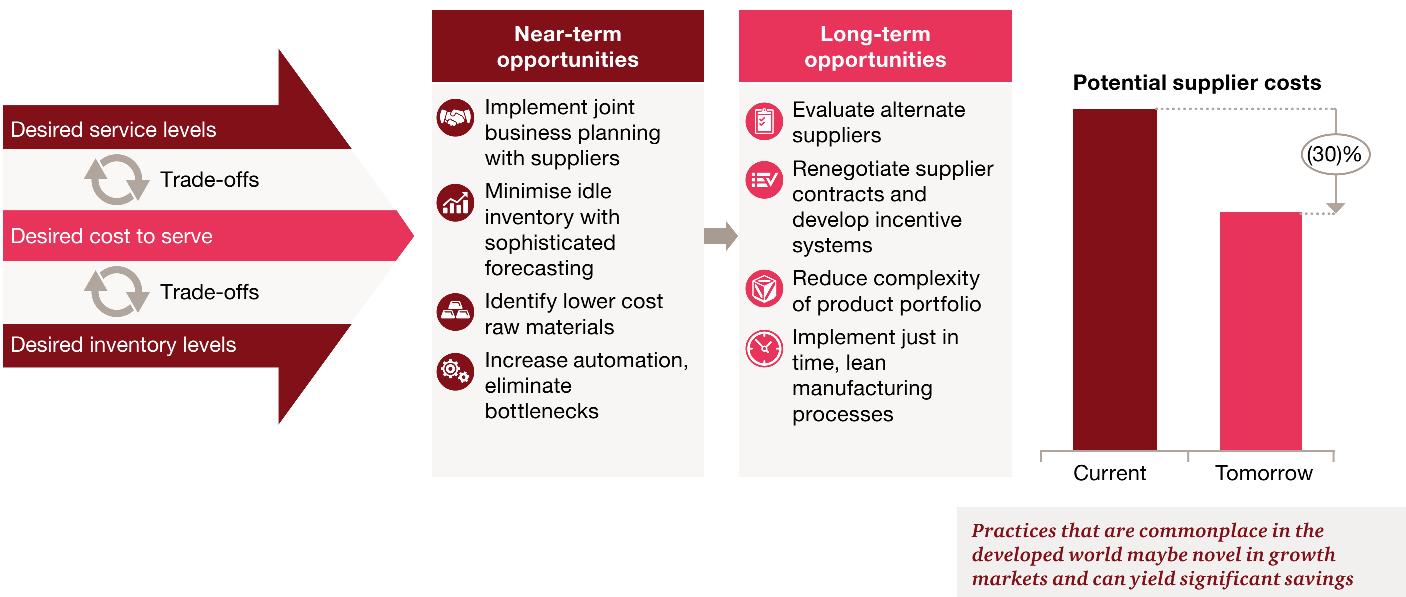
Operations in growth markets have often been fuelled by supply of low cost labour, especially for low- and medium-technology manufacturing. However, with economic growth, labour has become more skilled and more expensive. To counter these changing dynamics, companies would need to focus more on improving productivity levels than on making drastic cuts in payrolls that could negatively impact employee morale and customer service levels. Low worker productivity remains a particular challenge in many Latin American markets, all the more so amidst the weaker economic conditions experienced by the region in recent years. For example, GDP per capita in Latin America, a proxy for labour productivity, has fallen from being about a quarter of the US's in the 1960s to almost a sixth in 2015, while Asian markets have made strong advances in productivity levels during these years.[124] Though structural reforms in the economy will be essential to countering this challenge, companies targeting growth in Latin America will have to focus more on enabling process improvements through technology adoption or by creating stronger incentive structures to drive employee efficiency.

Companies could also realise improvements in operational efficiency by optimising their manufacturing footprint. As highlighted under sector trends on manufacturing in part 2, companies need to take into account changing cost dynamics impacting leading markets such as China, along with infrastructure developments and new regulatory incentives being offered by emerging manufacturing centres such as India, Thailand or Vietnam, to re-evaluate their location strategies. Moreover, as well as the nuances that impact domestic business conditions, companies also need to be aware of rapidly evolving trade linkages and market integration efforts such as the ASEAN Economic Community in Asia or the Pacific Alliance in Latin America, which will have a major influence on strategic decisions around addressable markets and operational presence in the coming years. Establishing local production presence in a majority of target markets may no longer be a pre-requisite to operational efficiency or market success, with new policy arrangements between nations opening doors to free movement of goods and services, labour and capital. On the other hand, certain products may need to move closer to the customer to gain competitive advantages by being more responsive to changing customer demands, or by enabling a shorter time to delivery.

Companies could further realise cost savings on the supply chain side, by working with their upstream suppliers to incorporate global best practices. Highlighted below in figure 3.2 is a sample supplier management framework that could be deployed to identify near-term and long-term cost-saving opportunities in this regard.

Finally, each decision to improve operational efficiency – through productivity improvement in the short term, to footprint optimisation in the medium term and supplier improvement in the longer term – would need to be calibrated against key organisational capabilities, including creating an optimal organisational structure, hiring the right people, developing new human capital skills and setting appropriate processes and tools, for the efficiency impact to be truly realised.

Figure 3.2: Sample supplier management framework



Source: PwC's Strategy& partner interviews


Comex
Comex
Comex
B-1
Comex
Vinimex
Basecoat

Case study
Productivity focus at CEMEX

Headquartered in Mexico, CEMEX has grown from being a regional cement firm in the 1990s to a leading supplier of cement, ready-mix concrete and aggregates to more than 50 nations worldwide. The company's focus on building new capabilities such as solutions-oriented innovation and operational proficiency helped it to bounce back from near bankruptcy during the 2008–09 economic crisis, to become the most profitable multinational in the cement industry today.

Operational focus at CEMEX stands out due to the company's adherence to these principles even during the time of crises – pursuing a strategy of 'ruthless operating efficiency', a popular slogan within the company.

As well as the slowdown in global demand in 2009, the company also faced challenges associated with obsolete systems and processes, and issues with integrating acquisitions made in recent years. Focusing on productivity improvement, the company hired process experts, technology consultants, software developers and change management experts to design and implement a new technology system and process model that integrated all its business functions across markets. The company's technology focus and the new integration platform spawned various improvements in terms of greater visibility and accuracy of profitability analysis, identification of transformation and cost reduction initiatives, robust demand and sales forecasting and improved sales force effectiveness amongst many others. For example, the new platform enabled sales representatives to plan and commit to delivery dates on the go, across product lines. The company now claimed to deliver cement within 20 minutes of receiving an order in many locations. It also enabled stronger post-merger integration, enabling easier transfer of best practices from the global firm and sharing of new innovative practices from newly acquired companies.

Despite the onslaught of the global financial crisis, CEMEX continued to make investments into its knowledge-sharing platform, in technology systems and employee training to support operational efficiency and innovation. It also established a trading division to reduce the volatility risks associated with commodity businesses such as cement.

"These operational capabilities have, over time, enabled CEMEX to convert risks associated with demand volatility into a source of competitive advantage.

We do not see volatility as an occasional, random element added to the cost of doing business in an interconnected global marketplace. We plan for volatility. We prepare for it. We have learned how to profit from it.[125]"

Lorenzo Zambrano
CEO, CEMEX – 1985-2014

Capability foundation: innovation

Adopting a purely one-dimensional approach that focuses only on operational efficiencies will not be enough for sustainable growth in growth markets. Innovation is also crucial, whether in the form of the development and adoption of advanced technology systems, the creation of new products that deliver stronger value propositions to new customer segments, the adoption of more cost-efficient practices or the creation of new distribution mechanisms.

Innovation has been always been a key enabler of growth across global markets. For example, South Korea has vastly improved its economic status since the 1980s by promoting inward transfer of foreign technology followed by significant investments in R&D. There is also a strong correlation between innovation and revenue growth within enterprises. Global research conducted by PwC in 2013 clearly highlights this relationship. PwC studied more than 1,700 businesses across 25 countries and 30 sectors, and segmented these companies on their 'innovation potential' based on a range of parameters, including spend on innovation, new product launches, co-development work undertaken with partners and so on. A clear distinction between the top and bottom performers is evident on analysing the financial performance of these firms, with the leading 20% of firms growing at a 16% higher rate than the least innovative ones. This was equivalent to each of the leading firms generating USD 250 million in additional revenue between 2010 and 2013, as compared to the least innovative firms.[126]

This empirical evidence, coupled with fast-changing business conditions in growth markets, further enhances the importance of innovation in targeting these regions. Innovation in many ways is inherent to the DNA of successful firms in growth markets. Given the complexity and scale of challenges in the region, market players need to develop strong quality-focused and innovation-driven mind-sets to become competitive in such a business environment. The growing spending power of the middle class in growth markets further presents an opportunity for multinationals to seize; however, they must adapt their product portfolios to specifically target this growing segment, as illustrated in figure 3.3 below.

Localisation of product development and innovation has also become essential for multinationals to achieve success in growth markets, more so due to the rise of strong local competitor firms that are able to anticipate and adapt to changing market conditions with greater agility. The Global Innovation 1000 study published by PwC's Strategy& in 2015 showcases this shift that is taking place in the global R&D marketplace. Accounting for a 35% share in the global landscape, corporate in-region R&D conducted in Asia in 2015 exceeded that in North America (33%) and Europe (28%), which denotes a major shift from 2007, when Europe led global R&D spending and Asia was ranked third. While the US still led in-country R&D spending in 2015, China moved past stalwarts such as Germany and Japan to claim the second

Figure 3.3: Changing product imperatives in growth markets

Levers of change	Focus so far	Imperatives for tomorrow
Price point	Historically focused on high income, premium price segment	Increasingly focused on value, budget-sensitive consumers
Brand awareness	High brand awareness of global companies and their differentiation	Limited brand awareness requiring targeted marketing
Brand attributes	Emphasis on non-functional attributes (emotional and brand loyalty to influence purchase)	Primary emphasis on functional and service attributes with goal towards building brand loyalty
Revenue streams	Build in value added services for recurring revenue streams from existing customers	Build new customers through network expansion activities
Post-sales features	Products may be complex to maintain and repair requiring post-sales network	Provide self repair and easy maintenance options

Source: PwC's Strategy& analysis

rank in 2015. On similar lines, R&D imports in India rose by a significant 116% in 2015 over 2007, to make it the third largest destination for imported R&D.[127] Notably the performance of companies with widely dispersed R&D footprints has also been higher than those with a focused R&D presence. According to the study conducted by Strategy&, companies that deployed 60% or more of corporate R&D spending outside domestic shores earned a premium of 30% on operating margin and return on assets, and 20% on operating income, compared with their less global counterparts in 2015.[128]

Innovation needs to be undertaken as a continuous step-wise approach towards product or process improvement, with companies acquiring new capabilities along the way, such as enhanced customer intelligence, new cross-sector and international business relationships, knowledge of more flexible and adaptive operating models or improved human capital and intellectual property. What starts on many occasions as a way to challenge competition in a particular market, could potentially become a strong differentiator in other parts of the world by building on these newly acquired capabilities over time. WeChat, the messaging app developed by Tencent Holdings in China, is an example of how new solutions coming out of growth markets are increasingly looking to challenge global players in the coming years. Unlike other text messaging apps, WeChat also provides a one-stop solution for a wide array of services including cab bookings, mobile payments, making appointments, online shopping and many others. With almost 93% of Tier 1 city dwellers in China using the app as of early 2016, it is now focusing on increasing presence in global markets to challenge established competitors such as WhatsApp and Messenger – and already its monthly usage rate in the Asia-Pacific region excluding China has almost doubled in H1 2016 since the same period last year.[129]

Innovation has typically been a challenge for large industrial houses or corporate bigwigs, who have often struggled against more nimble entrepreneurial ventures innovating for local markets. However, these large multinationals could leverage their positions of strength, such as customer intelligence or brand visibility, and their synergies across multiple business lines and geographies to target new markets and thus develop new revenue sources. Innovation today is rapidly moving towards more consumer-centric solutions, delivered through new technology-driven and asset-light business models. Thus, addressing new market opportunities would require a complete rethinking of existing business strategies by those looking to benefit from the growth story accompanying developing markets. The example of Kellogg's in India (see page 82) showcases the need for multinationals to redesign their existing offerings for the growth market consumer to achieve market leadership and long-term sustainability.

> *“Existing challenges and opportunities in growth markets can be fully addressed only through innovation, by adopting a radical approach that leapfrogs current business models and technology. The private sector will have to lead this change working together with the government and the social sector to create impact. This will be done through design of new business models and strategies leveraging new technologies.”*

Shashank Tripathi
Strategy Consulting Leader, PwC India

Case study

Kellogg's foray into India

Facing stagnation and rising competition in its core markets of the US and the UK, Kellogg's, a leading producer of cereal and convenience foods, decided to venture into new geographies in the 1990s. It entered the Indian market in 1994, by positioning its cornflakes as a healthier breakfast option by highlighting the nutritional values of the brand.

However, the company faced significant challenges in switching the breakfast habits of Indian consumers, who were more attuned to hot breakfast foods and were not attracted to a single flavoured cereal served with cold and unsweetened milk. Following some initial hype, Kellogg's was failing to generate repeat sales and recorded a 25% decline in monthly sales by April 1995, as the product went against traditional consumption habits, was priced much higher than local players and its promotional campaign was being negatively perceived by Indian housewives.

Facing such a rejection by Indian consumers, Kellogg's decided to go back to the drawing board to modify its business strategy and align it to local requirements. It started focusing on promotions that sought to induce people to try the product, reduced pricing and also launched new small-sized packs specifically for the Indian market to overcome the price sensitivity of consumers. Promotional messaging was changed to reposition cereals as a fun choice rather than a nutritious one, while focusing on localising the brand by adopting more local words such as Iron 'Shakti' and Calcium 'Shakti' in the new variants. In terms of offerings, Kellogg's decided to launch new sugar-coated products such as Frosties in 1997, which were highly successful as Indian consumers were rejecting the unsweetened cornflakes with cold milk. On the operations side, the company focused on shifting all sourcing including packaging to India to reduce costs, and on widening distribution presence to further consolidate its market position. The results of making this shift were clear – Kellogg's went on to play a major role in quadrupling the size of the breakfast cereals market in India from INR 150 million in 1995 to INR 600 million by the year 2000, taking its market share to almost two thirds. While Kellogg's has maintained its market lead since then, more recently, looking to triple the size of its business in the next few years, the company has decided to set up an R&D centre in India to further strengthen its technical capabilities to make products for the Indian market.

The example of Kellogg's shows how global companies often assume that existing products will work in new markets. However, understanding local consumption behaviour and tastes is key to building a successful brand in growth markets. Changing existing customer habits to foster the adoption of alternative solutions can be quite challenging and innovative strategies therefore need to focus on maintaining or lowering the perceived cost to the consumer while offering additional incentives to switch to these alternative options. Lastly, innovation does not need to be restricted to new product features. As well as having the right product, successfully targeting growth markets – many of which have price-sensitive consumers – also requires changes to both marketing (pricing, packaging etc.) and operational aspects (supply chain, distribution etc.) in order to achieve sustainable growth.[130]

Capability foundation: Go-to-market excellence

The third capability foundation that needs careful consideration by companies looking at growth markets is to rethink their existing go-to-market capabilities in response to emerging trends. Business conditions are in a state of flux, amidst rapidly changing consumer behaviour, the emergence of new technologies and sales channels, and growing competitive and regulatory pressures.

In terms of changing consumer needs, while the rising sophistication of middle-class consumers creates opportunities for more aspirational products, consumers in many markets also remain highly price sensitive despite strong familiarity with brands. Growing fragmentation of customer preferences across emerging socio-demographics is making it increasingly complex to manage large product portfolios serving multiple segments. Traditional department stores are giving way to specialised retail players, and the emergence of online channels and discount stores is creating new opportunities but also intensifying competitive pressures. Today's consumer has many more options to choose from than ever before, and is increasingly giving preference to brands which offer a more connected omnichannel experience across all elements, ranging from pre-sales advertising and promotions, order purchase and delivery, and the post-sales outreach pushing for repeat purchase. Alongside the changing consumer landscape, local players are fast narrowing capability gaps and stealing market share from large established companies. Multiple start-ups have sprouted to target new local niches, while global players are undergoing rapid consolidation to get access to new technologies and differentiated capabilities. To top it all, the cost of regulatory compliance is becoming higher to meet stricter environmental and safety standards in growth markets. These trends are creating new challenges for companies, impacting not only the value propositions that they seek to deliver, but also their ways of accessing and retaining customers.

To tackle these complexities, multinationals need to address on-ground dynamics in the market by building new go-to-market capabilities and entering into strategic partnerships. Ford, a leading automotive manufacturer, is a notable example of how global firms need to create new go-to-market capabilities to address specific challenges. With only a 27% penetration rate in 2015, auto financing remains a relatively nascent industry in China. However, on account of its booming middle class, the Chinese market is expected to lead growth in global auto sales in the coming years and it thus holds a significant stake for players such as Ford. To meet the existing gap in financing, Ford therefore decided to create its own automotive financing arm, Ford Credit China, targeted at making vehicles more affordable to Chinese customers. Ford Credit is also working with regulators and industry participants to further develop capital markets in China, including measuring credit risks for its customers.[131]

As highlighted in part 2, it will also be essential for new entrants to establish strategic partnerships to target the next phase of growth in developing markets. Global private sector firms could embed themselves more strongly into developing markets by engaging with new ecosystem partners, including cross-sector players, public sector entities, social sector units and even academic institutions. They could also play a leading role in enabling greater entrepreneurship in local markets by mentoring, funding and scaling new solutions which could solve many of the existing challenges in growth markets. While multiple examples of cross-sector partnerships have been discussed so far in the report, Cadbury, a chocolate company owned by Mondelez International, is another case that could be highlighted in this regard. Cadbury's sales agents had a manual order management and tracking process in South Africa, with frequent out of stocks and delivery delays leading to loss in market share. To counter this, Cadbury decided to partner with JustEnough Mobile to allow sales agents to manage their store relationships using handheld devices, a pioneering step in the South African market back then in 2008–09. In terms of impact, new segments of customers acquired since then have helped boost revenues by 5%, while the devices have also allowed Cadbury to cut travel costs and manage the sales force more efficiently.[132]

> ***"In the past, success for multinationals in China and other emerging markets was primarily a function of gaining market access, finding the right partner(s) and creating a distribution network in major cities. But that is changing quickly, as many multinational companies urgently need to develop deeper, locally embedded go-to-market capabilities to penetrate the mid-market segments that represent the greatest opportunity for growth and profits. In addition, there is the related need to streamline communications and reallocate decision rights between headquarters and the local organisation as well as developing local talent."***
>
> **John Jullens**
> Principal, Strategy Consulting, PwC US

Case study
Consumer goods companies in growth markets

As highlighted through multiple examples below, most successful companies focus on using their capability system to create their competitive positioning in the market.

Provide distinctive service

To serve socially disadvantaged customers, Danone often partners with local NGOs and social impact organisations to promote research and education about nutrition, diet and public health.

Danone

Achieve maximum go-to-market efficiency

Frito-Lay has developed a proprietary enterprises system to reduce manual handling throughout the value chain (automated packaging, case picking and forklift transportation) and maximised productivity globally.

Frito-Lay

Uniquely serving maximum segment types

Coca-Cola invests **heavily in consumer insights and understanding local customer psyches** which then inform local brand positioning, packaging, price point and even product tastes.

Coca-Cola

Achieve store dominance

P&G leverages its global sales force to ensure its category-leading brands achieve maximum distribution footprint in relation to competition.

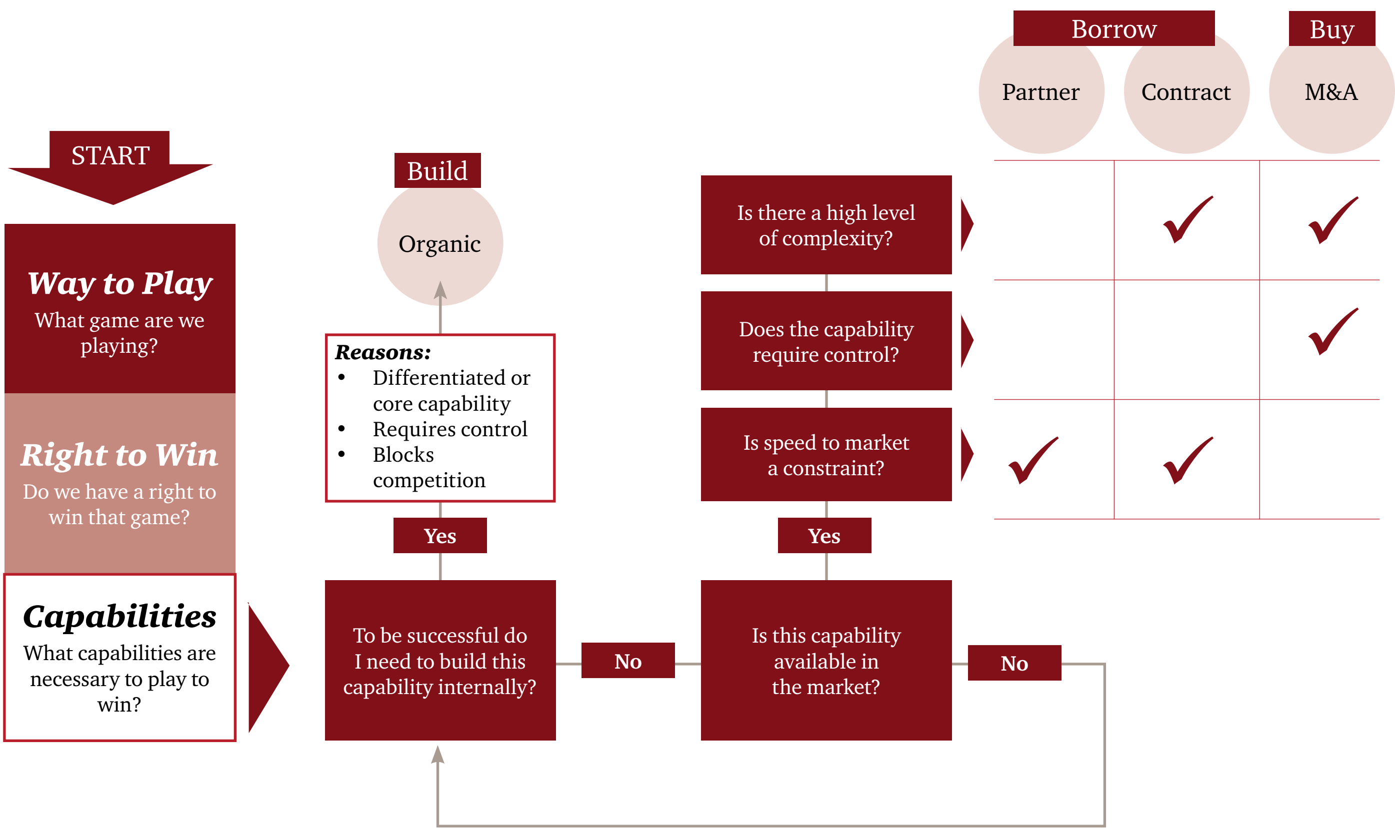
P&G

Implications going forward

Considering the burgeoning opportunity size and rapidly changing landscape in growth markets, companies must evaluate the strategic options to build, borrow or buy the capabilities required for success, according to their target sector and market. Figure 3.4 below provides a process flow for companies to understand their capability gaps and determine the best possible ways to cover these, while looking to grow presence in growth markets. For example, lean and efficient supply chain management will be a key capability area for companies looking to target price-sensitive customer segments in growth markets. Considering the need for shorter time to market and to tackle a highly complex business environment, foreign companies looking to enter a new growth market may therefore decide to contract out specific functions of the logistics operations to third-party providers to minimise initial investments and bring down hiring and administrative costs. On the other hand, a global company with the investment appetite and strong brand awareness might decide to build a direct sales model to protect its core intellectual property assets, or to minimise any legal and reputational risks associated with unethical backgrounds or lack of competence of available partners.

In addition to developing new strategic capabilities, it is also essential to design the right organisation model and build the organisational skills that will be required to convert these differentiated capabilities into shareholder value. Aligning market and operational strategy with the right organisation model requires focus along three elements: organisation structure, governance mechanisms and support functions. Creating the right organisation structure would include multiple aspects such as segregation of responsibilities between headquarters and the local organisation, creating a robust reporting structure, and defining the skills required from the leadership and operational teams for strategy execution. Decisions around selection of people in key functions and the proportion of local talent versus expats will also be important at this stage for multinationals looking to venture into growth markets. The next element related to

Figure 3.4: Roadmap to determine the ideal way to develop necessary capabilities: Build vs. Borrow vs. Buy



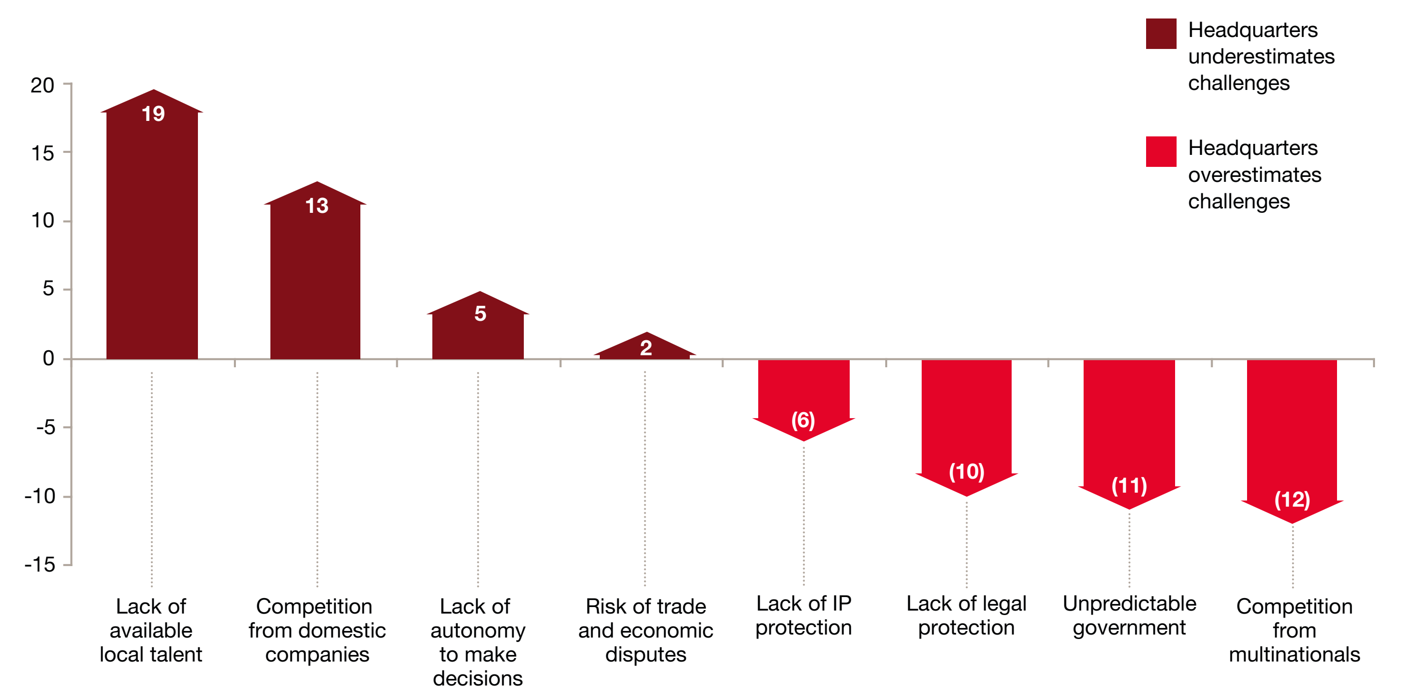
Source: PwC's Strategy& analysis

governance mechanisms would require companies to finalise decision rights between headquarters, regional and local organisations, creating strong governance practices, translating organisational goals into function-level objectives and articulating key performance metrics and their tracking mechanisms. Finally, strong support functions and mechanisms would need to be built to effectively put strategy into execution. This would include areas such as the need for shared services between headquarters and local organisations to drive efficiency, finalising the degree of sharing of responsibilities between partners and settling contractual terms with key vendors among others. Overall, multinationals would need to focus on creating an adequately equipped local and headquarter management, and would need to adopt the right mindset in order to prevent common misunderstandings around market priorities, such as those highlighted in figure 3.5 below.

All these organisational aspects would need attention, while keeping in mind that some often overlooked non-business factors and risks could also become game changers in growth markets, and thus should be carefully evaluated by companies looking to venture into these regions. For example, some growth markets may have inherent environmental risks such as limited freedom of press, or a less reliable judicial system, or relatively higher government interference in businesses than the home market. They may have regulatory limitations on foreign direct investment that limit greenfield or M&A options, or complex tax regimes that influence expatriation of revenue and financing. On the contrary, policy changes could also play a major role in creating new opportunities for the private sector to explore, or provide corporate incentives and standards for new entrepreneurial solutions to be designed.

Capabilities are at the core of bridging the strategy to execution gap in growth markets. Capability building for success in growth markets will involve developing new flexible business models that are well supported by the foundations of operational efficiency, innovation and go-to-market excellence. These foundations will help companies to build the differentiated capabilities that are required to sustain growth in the maturing business environments that characterise growth markets. Each capability decision needs to be further calibrated against key organisational capabilities that need to be added in terms of hiring the right people and building the right tools and process frameworks. It will also be imperative that companies pay attention to the state of institutions or the regulatory and business conditions in their target markets and understand the implications of investment, trade and tax policy reforms being undertaken by many growth markets, before finalising their entry and growth plans.

Figure 3.5: Percentage difference between local managers and HQs on key priorities in target market



Source: PwC's Strategy& analysis

Growth markets are here to stay

The growth markets era is not over. In fact for many markets, the real journey of maturing into stable developed economic powers is in its early stages, and therefore we need to be wary of writing off these markets when they experience periodic dips in growth. As institutions in these regions become more mature and independent, growth markets will become less susceptible to the effects of domestic issues such as inflation and policy shifts, and will also be able to better manage the impact of external factors on their economic growth.

As we enter a new year, growth markets are on the verge of a new era of leading global growth in which they are projected to enjoy 1.9 times the absolute growth in GDP as compared to developed markets by 2021, and account for 60% of global growth within the next five years. This will create significant opportunities for private sector players looking to create and deliver value to the 2.7 billion people expected to join the middle class in Asia alone by 2030.

Six key sectors will drive this economic prosperity for companies whilst also providing balanced development in a number of growth markets – these sectors being agriculture and social sectors for human development, manufacturing and the retail sector for institutional development, and financial services and connectivity sectors as growth platforms. We have seen that technology will have a strong role to play in facilitating growth across all sectors through new solutions such as mobile services and M2M applications in agriculture, digital solutions in healthcare and e-learning options bridging existing infrastructure gaps to meet the demand for tertiary education. In manufacturing, more established growth markets are moving up the value-chain and are shifting towards high-tech industries, as new production technologies are being adopted to enhance global competitiveness, while in retail the billions of new growth market consumers are eager for a more connected omni-channel experience. Even within banking, branchless and data analytics solutions will drive change and growth. This need for improved technological capability and digital connectivity is further creating opportunities for investment firms, infrastructure developers, device manufacturers and service providers.

However, in order to succeed in growth markets, companies will need to develop flexible business models which are more suitable for the local market, with new or adapted capabilities based on three foundations of operational efficiency, innovation and go-to-market excellence. Presence and profitability do not always go hand in hand, particularly in growth markets, and therefore companies need to improve their productivity by improving their systems and processes, optimising their manufacturing footprint and incorporating global supply chain best practices. Given the complexity and diversity of growth markets, not only from developed markets but also between themselves, companies cannot simply rely on improving their core capabilities which led to success in their home markets. They instead need to constantly innovate by developing new, more agile processes and asset-light business models, which enable a company to design localised products for the growth market consumer they are targeting. The impact that improved efficiency and localised innovation can bring will be limited if the company cannot bring its products and services to the market across multiple channels and price points, while establishing strong local partnerships that help navigate through a complex business environment and minimise market development and delivery costs.

Winning in maturing markets requires patience and tenacity, as the economic growth journey in these markets is much more complex to navigate as compared to developed markets. But with these virtues and an efficient, innovative and localised business model, companies will be able to participate in the success these markets will enjoy as the new leaders of global growth.

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