Pharma Futures

# Pharma's New Productivity Challenge:

## Perspectives from Emerging Markets

## What is PharmaFutures?

*PharmaFutures* was created in 2003 as a dialogue between pharmaceutical executives, institutional investors and societal stakeholders to explore long-term value drivers for the pharmaceutical industry and its evolving social contract. The dialogues are based on the premise that the industry and its investors thrive when it is seen as socially useful and that if that perception falters, so does the business model. The fifth *PharmaFutures* dialogue began in November 2011 and focuses on one of the greatest challenges facing the pharmaceutical industry today: that of persuading purchasers of pharmaceutical products that these products offer value, not just to patients, but also to cash-strapped health systems seeking productivity gains and health improvements. This is a two year global dialogue focusing on three major markets: Europe, emerging markets and the US. It will conclude with the publication of a global report on its findings in mid-2013.

*PharmaFutures* provides insights for pharmaceutical executives and investors from a wide range of stakeholders and experts whose views about the social utility of the industry help shape the industry's licence to operate. Many of these stakeholders start with a perception of the industry as the provider of a social good, first and foremost. Differences of perspective on the role of the industry continue to give rise to controversy, particularly in the developing world where debates over access to medicines continue, despite improvements over the past decade. *PharmaFutures* is based on the assumption that while pharmaceutical development lies in the hands of publicly quoted companies, it is imperative that investors, companies and global health experts better understand one another's viewpoints, the constraints each faces, and their room for manoeuvre when seeking to reconcile unmet need for medicines with the commercial imperatives of a business.

## Methodology

The *PharmaFutures* dialogues are run by not-for-profit company, Meteos Ltd. The analysis produced by *PharmaFutures* is drawn from an extensive process of research, interviews, synthesis and dialogue among participants. It relies on the willingness of a wide-ranging group of experts to share their time and insights in semi-structured interviews, and of the members of the *PharmaFutures* Working Group to engage in open and frank discussions. We would like to thank all those who contributed to this process. A list of those interviewed appears in the Appendix. This report is written by Sophia Tickell and Charis Gresser, with invaluable contributions from Becky Buell, Constance Mackworth-Young, Sumi Dhanarajan and Cassie Painter.

# Introduction

**This report is about the role of pharmaceuticals in the emerging markets. While many see these markets as offering significant potential for future growth, they also pose significant challenges.**

The juxtaposition of extreme wealth and extreme poverty in many countries highlights one of the pharmaceutical industry's greatest dilemmas: that of reconciling commercial imperatives with the provision of a social good. As healthcare climbs up the political agenda in many countries, pharma companies face the need both to consolidate their position in the marketplace, and to negotiate with governments an appropriate role for themselves in the difficult process of health reform.

This complex challenge – and the likelihood of success – is the subject of debate. Global pharma companies are taking very different approaches to these markets – ranging from enthusiastically embracing the many opportunities they offer, to warily selecting individual countries for ring-fenced deals. Societal stakeholders hold equally diverse views – with some arguing that portfolios of global firms hold high quality, innovative products that should be made widely available, while others believe generics are what developing countries need most to meet the needs of their people. Nor is there investor consensus on these markets. Some see them as the prime source of future value creation, while others remain unconvinced that the industry will succeed in tapping their full potential given intensifying competition.

*“There is violent agreement about how complicated everything is. What are some of the key themes that are active? Pricing. Reputation. Partnership.”* *

Ten years ago most pharmaceutical companies saw these markets more in terms of risk than opportunity. Since then, however, vigorous economic growth, government health reform, population growth and changing disease profiles have led to massively increased demand for healthcare and pharmaceuticals. The emerging markets account for an estimated 20% (or roughly $190bn) of global spending on medicines today, according to IMS data. Moreover, growth in emerging markets is projected to be stronger than elsewhere (12 – 15% compound annual growth rates (CAGR) between 2012-2016 compared with 1 – 4% CAGR in developed markets)[1] with spending set to nearly double by 2016. China is the largest emerging market, followed by Brazil (see Fig.1).

*“There is a lot of optimism in the ability of pharma to negotiate these markets, but they are very complex and treacherous to navigate.”*

The significance of these markets is amplified by the challenges facing the industry elsewhere. Growth in the US market is sluggish, and the future uncertain as the implications of the Affordable Care Act will take a while to become clear. The European market has been particularly challenging as governments respond to

* Direct, unattributed quotes drawn from conversations and interviews during the course of the *PharmaFutures* project.

*"There is a market there now and the market is growing fast. You might need to make adjustments (in product) but these are real markets that deserve attention."*

pressures on health budgets brought about by rising demand, the costs of technology and the constraints of deficit reduction.

This report explores the views of investors, pharmaceutical executives and societal stakeholders on whether and how the potential of emerging markets might be realised.

It concludes that three critical factors will determine the answer. First, how recent government health reforms will unfold and what health systems will want from multinational pharmaceutical companies as a result. Second, the shape the expansion of the private healthcare market will take, and how industry adapts to this. Third, the way industry responds to the growth in domestic competition from within these markets.

*"In emerging markets industry will have to move from a value proposition to a volume proposition. There are opportunities to improve not just affordability but also access to medicines in a way that is sustainable and equitable."*

# Emerging Market Fundamentals

**The "emerging markets" are not a homogenous group. They differ culturally, politically, economically, socially, geographically and even spiritually. Yet despite this they share some important attributes, which are outlined below.**

## Economic and Demographic Growth

Emerging economies are characterised by high levels of GDP growth, relative to the US and Europe. Despite recent downgrading of forecasts by the IMF, emerging markets are still forecast to grow at 5.3% and 5.6% this year and next compared with 1.3% and 1.5% for the advanced economies.[2] The pace and nature of growth is much debated, however, as is its implication for inequality within major markets, such as China. Emerging markets are also typified by strong demographic growth with 97% of predicted global demographic growth taking place in Africa, Asia and Latin America.[3]

## Urbanisation

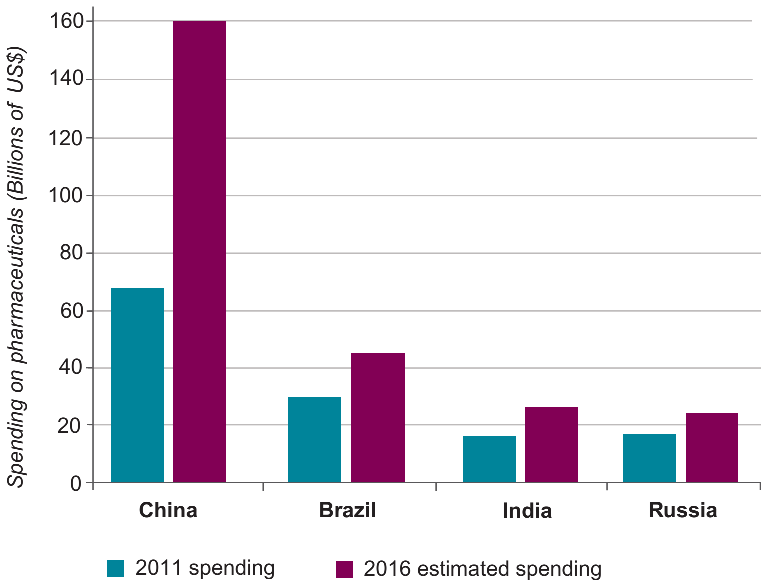
Urban growth, set to rise vertiginously in coming decades, is taking place fastest in emerging economies and is concentrated in informal slum settlements. This is highly significant for health. Cities offer chances to improve health, but also bring risks. Infectious diseases are exacerbated by poor, close-knit living conditions. Non-communicable diseases have burgeoned in cities as a result of more unhealthy lifestyles and exposure to pollution. And mental health disorders, violence and injury, including road accidents, are also much more common in cities.

## Resource Constraint and Climate Change Vulnerability

Growing affluence, demographic growth, and urbanisation are generating unprecedented demand on limited natural resources and pose huge challenges to energy, food, and water security. Rising food and energy prices have a greater impact in emerging markets because a greater percentage of household income is spent on food and transport.[4] These challenges will be exacerbated by climate change which poses an as yet un-quantified threat to economic growth.[5] Health impacts are likely to include increased risks of vector and water-borne diseases; increased mortality due to hot weather; increased morbidity from allergens and respiratory disease; and the health impacts of constraints on water, sanitation and food.[6]

Figure 1:

**Spending on pharma**



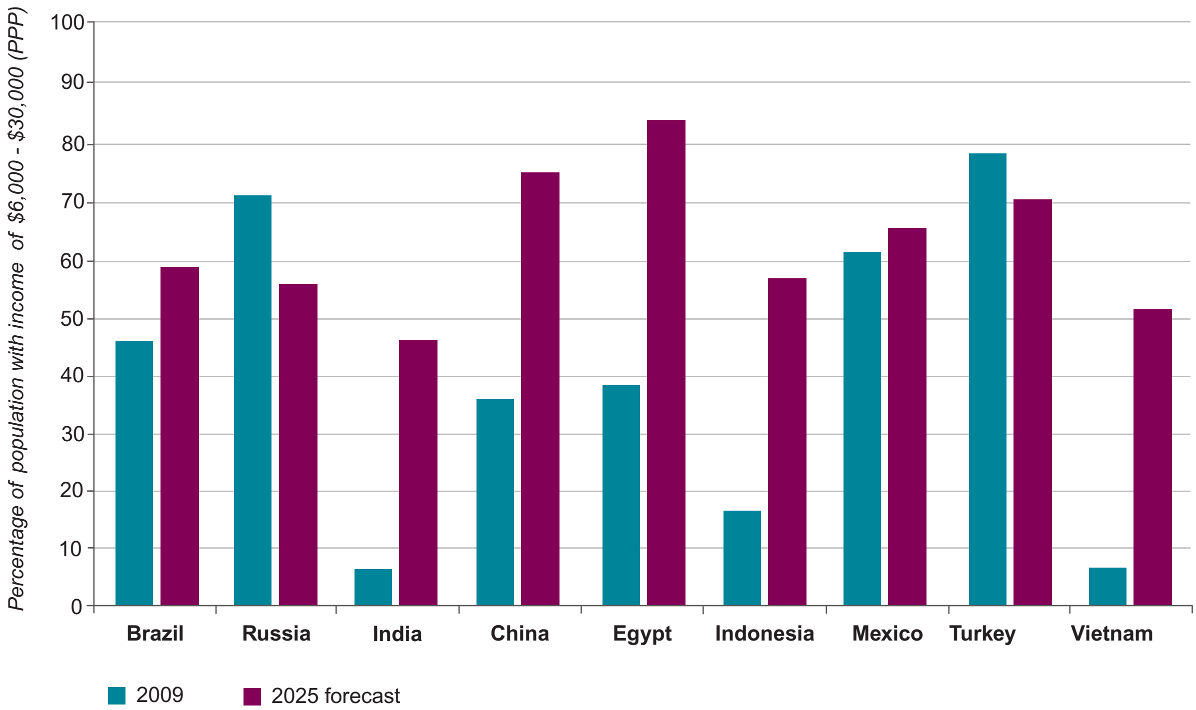

**Source:** IMS Institute for Healthcare Informatics, IMS Market Prognosis, May 2012.

## Growing Middle Class

Emerging markets have seen a huge increase in the number of people who have moved from a subsistence lifestyle to one that offers them a job, access to housing, healthcare and educational opportunities, as well as income for discretionary expenditure. The OECD calculates the number of middle class people to be 1.8bn, which could rise to 3.2bn by 2020 and 4.9bn to 2030, with virtually all that growth occurring in Asia (see Fig. 2).[7] People at the lower end of the income scale have less job security and are highly vulnerable to slipping back into poverty at times of economic downturn, or in the face of environmental or social shocks.

Figure 2:

### The expansion of the Middle Class




**Note:** In Russia and Turkey, the percentage of the population falling within these parameters is declining as more people move into higher-income groups
**Source:** Goldman Sachs, in PwC, From Vision to Decision 2020, 2012

# Healthcare Hallmarks in Emerging Markets

**In addition to sharing these fundamental attributes, the emerging markets share certain hallmarks in relation to healthcare.**

## Dual Epidemiological Burden

Emerging markets are challenged by a dual epidemiological burden: historically high rates of infectious disease co-exist with the rapidly escalating problem of non-communicable diseases. Diabetes is reaching epidemic proportions in a number of developing countries (see Fig. 3), and 70% of all cancer deaths now occur in low- and middle-income countries.[8]

## Weak Health Systems

Health systems in many emerging markets are weak, with most publicly-funded components chronically under-resourced. Overall health expenditure (public and private) also tends to be low across emerging markets (e.g. approximately 5% of GDP in China and Russia) compared to an OECD average of 9.5%.[9]

This historic under-funding has led to great inequalities in service provision. A flourishing private sector provides affluent people with highly trained professionals and access to medical innovation, medicines and facilities. People in poverty face an absence of trained personnel, and have to rely on ill-functioning markets, poorly resourced services and self-help, with very poor clinical outcomes.

The situation is changing. Recent economic growth and middle class demand for better access to healthcare have led many governments to undertake significant health reforms, designed to provide basic universal healthcare coverage. For example, Brazil launched a comprehensive – and successful – health reform two decades ago and more recently China and India are among the many countries to have made significant commitments to provide universal healthcare coverage.[10, 11, 12]

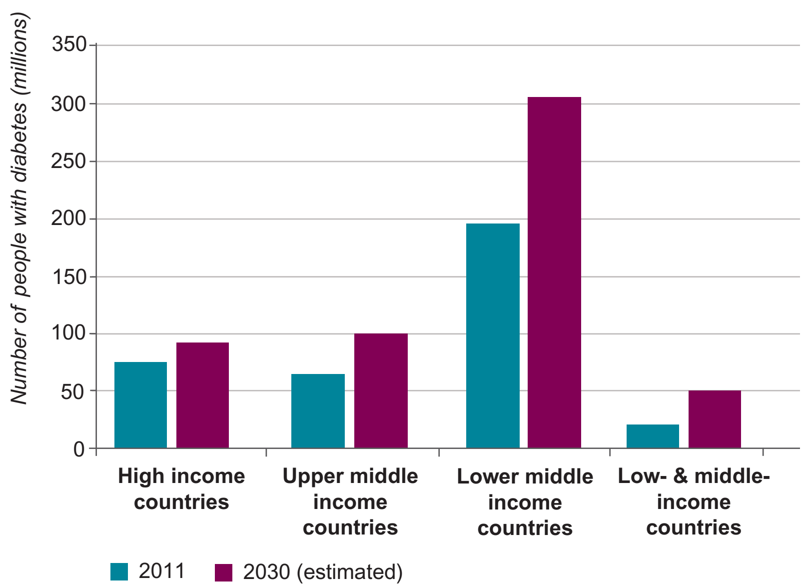
## The Centrality of Medicines

In the absence of strong health systems, medicines have assumed a central importance in healthcare, as people self-medicate as their cheapest or only treatment option. Lower and middle-income countries spend a higher proportion of overall health expenditure on medicines compared with richer countries, e.g. over 40% in China and India, and nearly 25% in Brazil and South Africa.[13] This central role of medicines makes the price, availability and quality of medicines highly significant.

Most people in developing countries have to buy their medicines out of pocket, making

Figure 3:

**Growth in population with diabetes**




Source: International Diabetes Foundation, 2011.

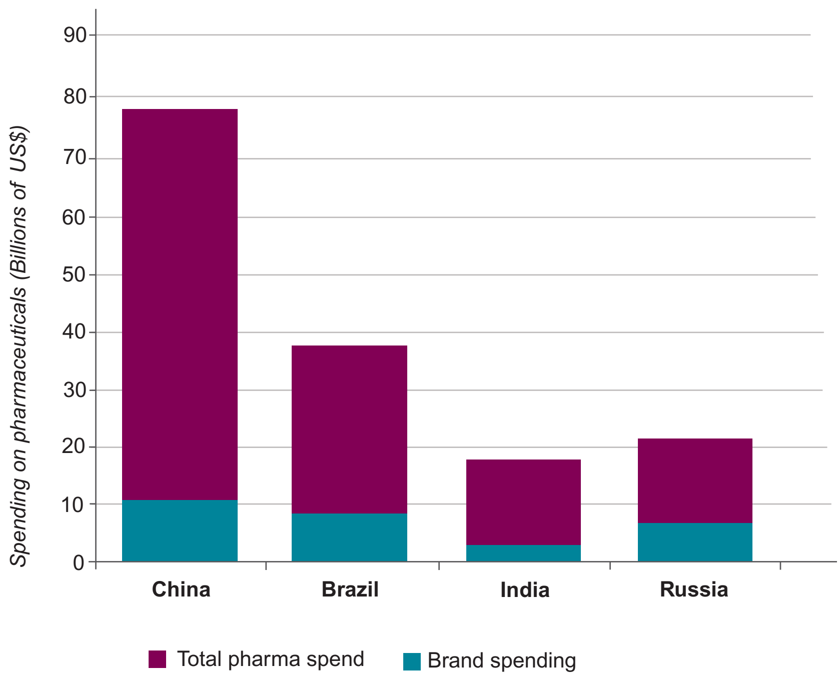
medicines one of the largest household expenditures after food.[14] A costly healthcare event increases their vulnerability to health expenditure that risks tipping them into extreme poverty. Every year, 150m people face financial catastrophe around the world because of healthcare costs.[15] Except in China, where the majority of medicines are bought in hospitals, the bulk of out of pocket spend takes place in the private sector: informal dispensaries/pharmacies and retail outlets, which also sell other therapies. There is often poor regulation of how this private market operates.

Surveys of pricing using WHO/HAI data suggest that drugs bought in the private sector are generally more expensive than those in the public sector and that even generics in many developing countries can cost patients more than the international reference price.[16] Many factors go into the retail pricing of medicines (from import tariffs, taxes, and currency exchange, as well as the mark-ups added by wholesalers and retailers). This can lead to huge cumulative mark-ups.

In a number of countries, essential medicines are free, but many pharmacies and hospitals are plagued by stock-outs and a lack of availability, particularly for chronic diseases. Another important challenge is to ensure that companies are motivated to file and register their medicines for use in developing countries.

Figure 4:

**Generic and Brand as percentage of total pharma spend**




Source: IMS Institute for Healthcare Informatics, IMS Market Prognosis, May 2012.

## Industrial Policy Supporting a Growing Appetite for Generics

The final hallmark of many emerging markets, where growth in generics is expected to drive much of the increase in pharmaceutical expenditure, is government industrial policy designed to support domestic manufacturers.

The increase in generic consumption is increasingly being supported by government policy, which seeks significant savings to health budgets by encouraging patients and doctors to use generics rather than originator brands (see Fig.4). Brazil's Generic Medicines Policy of 1999 has resulted in generics now having over 60% of market share by volume, with high acceptance even among middle class patients.[17] South Africa also has an important generics market. Some emerging markets, including China, India, Brazil, Russia, and South Africa are also keen to promote and sustain a thriving generics industry in their own countries, seeing the value of a knowledge-intensive, export-orientated industry to the wider economy. This is leading governments to favour local producers, through procurement policy and industrial policy that involves multinationals agreeing technology transfer to local producers in exchange for access to markets.

# Uncertainties

***PharmaFutures*** **explored the implications of this changing emerging markets landscape for global pharmaceutical firms and identified the following three critical uncertainties that will shape their prospects in the future: 1) How recent health reforms will affect the industry's relationship with government; 2) What shape the expansion of the private healthcare market will take, and what this means for pharma; and 3) The growth in competition from domestic manufacturers.**

## Uncertainty One: Health Reform Implications

### What Governments Will Want

Emerging market health reforms are leading to much debate about the best role for government, and what models of state coverage will prevail. The two key changes lie in who pays for and who provides healthcare. In most countries there is a move from high individual out of pocket payments to a system in which government becomes a significant payer, either by offering free medicines or by subsidising or mandating insurance. There is also a change in who provides healthcare, which has gone from limited (and in some cases extreme lack of) state involvement, to a much greater role for the state. This involvement has ranged from providing services directly or indirectly, to increasing quality control. For global pharmaceutical companies this poses two challenges: how to respond to the emergence of government-led consolidated payers, with implications for both pricing models and for the definition of value, and how to engage politically with a complex reform process.

> *"Emerging market governments are acutely aware that they don't want to repeat the sins of either the US or Europe. Both are unaffordable for different reasons."*

The depth and extent of healthcare reform differs from country to country, but a key driver in all countries is the focus on improving health outcomes. In practice, this requires complex trade-offs between priorities as well as the need to build support among patients and healthcare professionals. In terms of health services, this is leading governments to focus more on primary care, and less on hospital-based medicine (this is particularly significant in China, where hospitals are partially funded by pharmaceutical sales). It is also highly likely that the state will play a more active role in improving the regulation of medicines.

> *"We need to look at what health care reform is and why is it being reformed – to save money or to improve health outcomes? It tends to be more about the latter and this tends to be better for the industry."*

> *"Pharma needs to be assertive but provide better evidence too."*

### More Consolidated Payers: Price and HTAs

As government health budgets increase and reforms extend coverage to more of the population, interest in analysing medicine prices is increasing.

Many governments are already experimenting with a mix of approaches and strategies to this end. Direct regulation or monitoring of mark-ups along the supply chain (either wholesale or retail) appears in countries ranging from Russia, Indonesia, China, and South Africa.[18] In other places, such as Brazil and India, indirect price control is exerted through measures to stimulate competition from generics, or through the introduction of compulsory licences, such as in India and Thailand. In China, too, procurement is being overhauled to reduce costs. External reference pricing against relevant benchmarks is frequently used, as in Brazil and South Africa.[19] These options are not mutually exclusive, with some countries opting to use a combination of approaches.

The other technique being used by consolidated payers is the introduction of pharmaco-economics to define value to the health system or insurer. A number of Asian and Latin American countries, including Malaysia, Philippines, Thailand, Chile, Uruguay and Colombia, are all developing health technology assessment (HTA) capabilities, though they are at very different stages of evolution. The first HTA networks are also beginning to work together, particularly in Asia.

As emerging market payers begin to think more systematically about the value and effectiveness of medicines, they are beginning to use the same tools as have been introduced elsewhere. To the extent that these approaches reduce the likelihood of unexpected price cuts and threats to intellectual property, they could be seen as improving the predictability of operating in these countries.

*“Let’s not take our eye off the ball of the affluent population, but make sure we are putting in the right products and strategies for middle band of population too.”*

## Uncertainty Two: Expansion of the Private Healthcare Market

### How the Private Markets Will Unfold

Companies are already pursuing multiple approaches to segment these markets, in order to reflect the differentiated capacity to pay of the super-rich and the tiers of middle-class consumers on much lower incomes. In some cases, these include strategies to address the needs of large numbers of extremely poor people, unable to afford even basic medicines.

Companies face three challenges in the private markets. The first is to understand the ability and willingness to pay in each market segment; second, to understand the porous nature of the borders between the segments within and between countries; and third, to understand how changes in the public sector may spill over into the private markets.

### Segmenting the Market

The historic opportunity for global multinationals has typically focused on the narrow elite in developing countries able to afford products widely available in high-income countries. This segment is likely to account for a small proportion of total emerging market households by 2025 and the industry’s interest in it will be maintained.

It is, however, the growing segment of middle class healthcare consumers, expecting to be able to access the full range of pharmaceutical choice, which offers the greater opportunity. Understanding what these people will want, how secure they perceive their economic foothold to be, and what they expect from government will be key to future success. So too will be an understanding of how they will approach health expenditure, and whether their choices will influence affluent patients, who in turn, might settle for lower cost healthcare options.

Many believe that more people, with greater disposable income, will seek more healthcare treatment, thus expanding markets for branded generics, patented treatments and speciality medicines. The expansion of the branded generics market is seen by many as the greatest opportunity for global pharma today, given the higher quality that many patients may associate with brands, especially in Asia.[20]

*“Price is a barrier under universal coverage. As a resource constrained government, we want industry to be more responsible in pricing drugs.”*

*"These countries won't go through the same lifecycle as Western markets. People won't be willing to pay top prices for brand. The life cycle of branded generics will be much shorter than people think."*

The sustainability of the branded generics value proposition is therefore of considerable interest. Some experts believe that branded generics may have a competitive advantage over generics on both quality standards and reliability and argue that pharma could do more to publicise this, if done in a responsible manner that does not undermine other government health priorities. Others argue that the duration of branded generics is best achieved by a relatively modest approach to any price premium they may command. A third view is that the window of opportunity for branded generics is likely to be relatively short.

In addition to understanding the commercial potential of these private markets, the industry still faces expectations about its role in enhancing access to medicines for people on very low incomes. Involvement in global health initiatives has generated intangible benefits for global pharma companies by strengthening their licence to operate and gaining credit with governments. Despite these advances, many societal stakeholders still consider that pharma needs to do more on access to medicines if it wants its reputation to improve. Whether investors would give industry credit for its engagement on these issues is unclear. A company may not earn a premium in the market for a particular focus on global health and good corporate citizenship, but damage to its reputation could translate into a discount on the shares.

### Porous Borders

Even if individual market segments are well understood, segmentation within national boundaries poses challenges as the borders between different markets are highly porous. For example, if the wealthy elite successfully call for therapies that are being introduced in high-income countries, how should industry respond to the ensuing demands for affordable therapies from middle class consumers? Further across the spectrum, many of the recent middle classes are still vulnerable to falling back into poverty. More than 60m people in India were forced below the poverty line by healthcare costs in 2011.[21] This fluidity in consumers' economic and social status enhances the need for companies to think through how to differentiate their offering, both within and across borders.

*"Branded generics will be okay because wealthier segments are simply not willing to take the risk with medicines. They would rather pay for 100% confidence, than 90%."*

### The Interactions of Public and Private Markets

The final determinant of fortunes in the private sector will be the extent to which changes in the public markets spill over into private. Following Brazil's health reform two decades ago, half of the middle class market now is estimated to have a favourable view of generics.[22] This is partly due to confidence in the regulatory system and partly to government policy. In emerging markets around the world, pharma will be paying particularly close attention to any government action that affects the prospects for the branded generics market. India, for example, has recently introduced a generics only licensing policy, under which all drug makers applying for a licence to market or manufacture fixed dose combination drugs will have to submit the generic name only for licence. Similarly, improved regulatory standards and effectiveness in emerging markets could potentially reduce patients' perceived need to buy a branded medicine.

To unlock the full potential of the private markets may not require big capital investments in business plans. Their ultimate success,

*"The big question is whether governments will set a ceiling for private markets, or only for meds they purchase for the public sector."*

*“A company having a good reputation doesn’t drive success, it just correlates to success.”*

*“There are lots of things I worry about as an investor, but the number of times ethics has moved the needle is very minimal. And when it has, it does so only slightly, and only negatively.”*

however, would depend not just on pharma identifying a successful mix of product and price, but crucially on what governments in these markets choose to do to promote generics and how that affects the private markets.

## Uncertainty Three: Industrial Policy and its Impact on Pharma

Where pharmaceuticals fit in relation to emerging market industrial policy is the third area of uncertainty. Emerging market governments – like their counterparts in high income countries – view pharmaceuticals through the prism both of industrial policy and healthcare needs of the population. This has implications for intellectual property (IP) and market access.

### The Trade-Offs

The majority of emerging market governments are now signed up to global intellectual property agreements and many larger countries are now satisfied that their local industries are sufficiently developed to benefit from patent law. This is still not true of all low-income countries. Even countries that support IP, however, when confronted with a health crisis that pits patient need against IP requirements, may opt to issue compulsory licences, as has been seen recently in India, Indonesia and Thailand.

Despite these uncertainties, global pharmaceutical firms are calculating that the huge volume potential of emerging markets makes it worth acceding to governments’ demands that foreign direct investment contributes to domestic industrial growth. This brings with it certain risks.

Although pharmaceutical firms are confident they are being well-managed, investors caution that global pharma should not underestimate the competitive threat of domestic players. They cite, for example, how domestic emerging market medtech firms could capture significant market share not only in developing countries, but also in mature markets. This complex picture becomes even more difficult to navigate if domestic pharma benefits from government industrial policy that gives it preferential treatment in public procurement.

Furthermore, pharmaceutical R&D capacity in emerging markets is increasing, raising questions about the point at which emerging market firms will bring breakthrough innovation to the market. Views on this remain mixed, with some arguing it has already happened and others that such breakthroughs are a long way off.

Recent moves to bolster local industry highlight some of the difficulties for global pharma of doing business in the emerging markets. The issue of corrupt business practices is already of concern in many markets, with some companies feeling they risk losing out to competition that will meet the demands of corrupt officials. The possibility that protectionism may be on the rise is leading some companies to worry that the playing field will be tilted against them.

### Partnerships and Alliances

For global pharma, therefore, the rise of domestic competitors, supported by government industrial and procurement policy, and with growing technological, scientific and managerial capacities, poses a real challenge. At the same time, it poses big opportunities for collaboration, which could provide invaluable market understanding and market access. As with all such complexity, there will be positive and negative ways to navigate the environment. The key to success, many

*“Big Pharma’s license to operate is only until the national industry is able to compete on multiple levels. At this point, a more protectionist approach will kick in.”*

*"All emerging economies are looking to add value to local economies. Pharma is a great industry to grow your economy, as it is skills intensive, labour intensive and provides export earnings."*

believe, will be the nature of the relationship with government. A positive relationship would enable the industry to argue, credibly, that there may be better ways for government to support local industry (through tax breaks, training, investment in infrastructure) than through procurement, which may undermine export competitiveness in the long run. Likewise, if undertaken in a way that makes it clear that the industry is not attempting to undermine generics, biosimilars and local companies, it should be possible for the industry to do more to disclose and disseminate what goes into the quality and standards of its medicines, and so seek competitive advantage.

# Conclusion

**Emerging markets today represent around 20% of global pharma market sales, and they represent a significant future growth opportunity for the sector. To realise this potential companies will have to anticipate how recent government health reforms will unfold and what health systems will want from multinational pharmaceutical companies as a result. Second, they will need to understand what shape the expansion of the private healthcare market will take, and how industry adapts to this. Third, they will need to respond appropriately to the growth in domestic competition from within these markets.**

## 1. Government Health Reform and What Governments Will Want

Emerging market governments face an enormous challenge to meet their commitment to provide universal healthcare. Whether and how the industry is perceived to be supporting them in this task is likely to be a critical determinant of future success. Moves towards a consolidated payer in the public sector are leading to greater analysis of medicine prices and the introduction of measures – direct and indirect price controls, reference pricing, the introduction of pharmacoeconomics – to assess the value of different therapies. If the industry is able to make a persuasive case about the partnership role it can play in support of health system reform and improved quality of healthcare, it will be better placed to get drugs registered quickly and better positioned to bid for tenders, so enabling it to take advantage of increased healthcare consumption.

## 2. Adapting to the Expansion of the Private Markets

As the private markets expand, so too do the opportunities for innovative therapies, branded generics and a value proposition based on quality and high manufacturing standards. For this value proposition to be credible, the industry will need to make difficult choices about the products it makes available and the prices it sets for them, as well as guaranteeing the highest integrity in its promotional practices. It will also need to actively acknowledge the importance of generics to many low-income consumers.

## 3. Responding to the Domestic Competition

The strengthening of local competition poses challenges to industry but also opportunities – for acquisitions and for collaborations that enhance understanding of local health needs. The extent of technology transfer deals, how the industry responds to challenges to IP agreements, the price it pays for emerging market firms and how it responds to industrial policy that favours local companies, will all determine the success global pharma enjoys in these markets.

The *PharmaFutures* dialogue brings together industry, investors and societal stakeholders to share analysis and perspectives on the markets into which medicines will be sold.

- **Industry participants** in the dialogue expressed confidence in their ability to manage a successful business in emerging markets, while at the same time acknowledging the complexity of these markets and the uncertainties about how some of these trends will unfold.
- **Societal participants** were positive about the opportunities for pharma, but emphasised the need to address the affordability of medicines, given high out of pocket expenditure and limited incomes of the majority of patients in these markets. They also highlighted the need for diligence in promotional activities.
- **Investor participants** had mixed views about the emerging markets; some seeing them as a growth catalyst, while acknowledging that a presence in these markets does not guarantee a premium on the share price. Others argued that many of these markets are marginal, with the exception of China. Others still, were interested in the emerging markets, but did not feel confident forecasting how they will evolve. Investors did uniformly want compelling evidence that companies have the right people managing the business, the right products on offer at the right price and a strategy for negotiating with domestic companies and domestic governments.

PharmaFutures discussions concluded on a cautiously optimistic note. Acknowledging complexity in opportunity, two issues stood out as particularly worthy of note. First, that in these highly differentiated markets, industry success will partly depend on how well it responds to the changing fortunes of low- and middle-income consumers. Second, as a highly regulated industry, relationships with government are also crucial. Whether and how the industry is perceived to be supporting governments undertaking the complex challenge of health reform is likely to be another critical determinant of success.

# Appendix

## Emerging Markets Participants

**Stewart Adkins**, Director, Stewart Adkins Advisors Ltd

**Mark Becker**, Healthcare Analyst, Fidelity Worldwide International

**Dr Scott Braunstein**, MD, JPMorgan Asset Management

**Dr Kalipso Chalkidou**, Director, NICE International

**Sabine Dandiguian**, MD, Janssen Pharmaceuticals, EMEA, Johnson & Johnson

**Joel Emery**, VP, Analyst, Fred Alger Management, Inc.

**Charlotte Ersbøll**, Corporate VP, Global Stakeholder Engagement, Novo Nordisk

**Dr Jane Griffiths**, Company Group Chairman, Janssen Pharmaceuticals, EMEA, Johnson & Johnson

**Dylan Jackson**, Strategy Director for EMAP, GlaxoSmithKline

**Graham Hetherington**, Chief Financial Officer, Shire Plc

**Dr Sun Jing**, Senior Researcher, National Institute of Hospital Administration, Ministry of Health, China

**Simon Jose**, President of Stiefel, GlaxoSmithKline

**Dr Hannah Kettler**, Senior Program Officer and Economist, Global Health Policy and Finance, Bill and Melinda Gates Foundation

**Dr Richard Laing**, Medical Officer, Policy Access and Rational Use, World Health Organization

**Duncan Learmouth**, Senior VP, Developing Countries & Market Access, EMAP, GlaxoSmithKline

**Laurence McGrath**, Executive Director, US Healthcare Analyst, JP Morgan Asset Management

**Valerie Paris**, Economist, Health Division, Organisation for Economic Co-operation and Development

**Prof Sir Michael Rawlins**, Chairman, National Institute for Health and Clinical Excellence

**Dr Jack Scannell**, Industry Commentator, Previously Sanford C. Bernstein & Co., LLC

**John Schaetzl**, Industry Commentator, Independent

**Dr Ad Schuurman**, President, The Medicine Evaluation Committee (MEDEV)

**Dan Summerfield**, Co-Head Responsible Investment, USS

**Dr Giorgia Valsesia**, Healthcare Analyst, SAM Research AG

**Stijn Vanacker**, Analyst, Global Healthcare, Robeco

## Emerging Markets Interviewees

**Dr Jenny Amery**, Head of Profession for Health, UK Department for International Development

**Dr Ted Bianco**, Director, Technology Transfer, Wellcome Trust

**Dr Wen Chen**, Professor, Centre for Pharmacoeconomic Research and Evaluation, Fudan University, Shanghai, China

**Dr Fernando Cupertino**, International Director National Council of State Ministries of Health, Brazil

**Antonio Ferreira**, International VP, Janssen Latin America, Johnson & Johnson

**Prof David Heymann**, Head of the Centre on Global Health Security, Chatham House; Professor, London School of Hygiene and Tropical Medicine

**Abbas Hussein**, President, EMAP, GlaxoSmithKline

**Dr Phua Kai Hong**, Associate Professor of Health Policy & Management, Lee Kuan Yew School of Public Policy, Singapore

**Dr Felicia Knaul**, Director, Harvard Global Equity Initiative

**Chitra Krishnan**, Director of Knowledge and Learning Ashoka Changemakers

**Anthony Nash**, Head of Market Access and Pricing Strategy, EMAP, GlaxoSmithKline

**Stavros Nicolaou**, Senior Executive, Strategic Trade Development, Aspen, South Africa

**Prof Tikki Pang**, Director of Research Policy & Cooperation; Senior Policy Adviser, Innovation, Information, Evidence & Research, World Health Organization

**Snehal Patel**, Managing Director, Saena Partners, Singapore

**Prof Mala Rao**, Professor of International Health, Institute for Health and Human Development, University of East London

**Dr Tim Reed**, Director, Health Action International

**Dr Anthony So**, Director of Global Health and Technology Access, Duke Sanford College

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