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Healthcare Systems and Services Practice

Global private payors: A trillion-euro growth industry

Shubham Singhal; Patrick Finn; Tobias Schneider, MD; Florian Schaudel; Damien Bruce; and Penelope Dash, MD

Global private payors: A trillion-euro growth industry

Four fundamental forces (risk, technology, regulation, and consumerism) are disrupting the overall trillion-euros-in-revenue global private health insurance market—a market experiencing substantial growth. Private payors must act on the imperatives resulting from these forces if they are to capitalize on the opportunities and avoid obsolescence.

Shubham Singhal; Patrick Finn; Tobias Schneider, MD; Florian Schaudel; Damien Bruce; and Penelope Dash, MD

In 2016, the private health insurance industry surpassed €1.3 trillion in global revenues, a figure forecast to double by 2025 (Exhibit 1). In general, the industry enjoys a higher and more stable return on equity (ROE) than other insurance lines, given its "short tail" nature.[1]

However, it is also an industry undergoing a substantial transformation, and the business models of the future will be significantly different from those in existence today. Thus, incumbents should be revisiting their strategies and newcomers may have an entry opportunity. Understanding the forces influencing the industry—in different countries and different business segments—will be critical for crafting successful strategies.

Market growth

Growth of the private health insurance industry is being fueled by a powerful combination of secular trends that are increasing healthcare consumption and shifting more spending to intermediation by private payors. For example:

- *An aging population and income growth are increasing healthcare consumption.* The global population of people aged 65 or older is climbing by 3.1% per year and likely to almost double from 2010 to 2030.[2] The proportion of the global population with middle-class incomes (26.5% in 2009) is expected to rise to 58.8% by 2030—4.8 billion people. Projected growth of the middle class is especially strong in the Asia–Pacific region (9% per year).[3]

- *Healthcare consumption is further increasing because the global disease burden continues to rise.* As incomes increase, childhood mortality decreases and non-communicable diseases, especially chronic conditions, become more common. Around the world, the prevalence of overweight and obesity has risen dramatically (Exhibit 2).

- *Pressure on public finances is prompting many governments to impose healthcare spending cuts or seek out private payors as intermediaries to better manage spending and outcomes.* For example, several countries in the Middle East have chosen to privatize health insurance. The US Department of Health and Human Services has been encouraging the use of managed care delivered through private payors in its Medicare and Medicaid programs.

As a result, growth in gross written premiums (GWP) and ROE is now substantially higher in health insurance than in other insurance lines. North America (the United States, in particular) accounts for the majority of global private payor revenues; GWP there will likely double between 2015 and 2025. Latin America and Asia–Pacific—the regions experiencing the highest market growth—are likely to eclipse Europe in market size within the next decade (Exhibit 3).

[1] Often, health insurance claims are filed within weeks or months of when coverage is obtained. In other insurance lines, it may be years before a claim is filed.

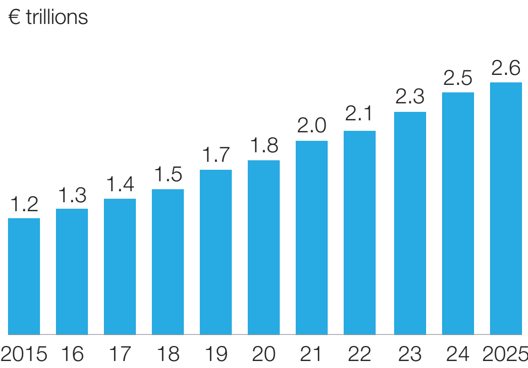
[2] United Nations Department of Social and Economic Affairs. *World Population Prospects: The 2008 Revision, Highlights*. 2009.

[3] United Nations Department of Social and Economic Affairs. *World Population Projections: The 2015 Revision*. 2016.

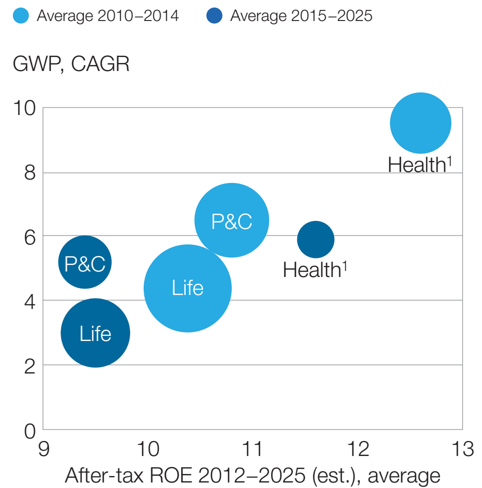
EXHIBIT 1 **Global private payor market has passed the trillion-euro mark**

Global GWP growth among private payors, 2015–2025

€ trillions



Growth and profitability of different insurance lines of business, 2015–2025



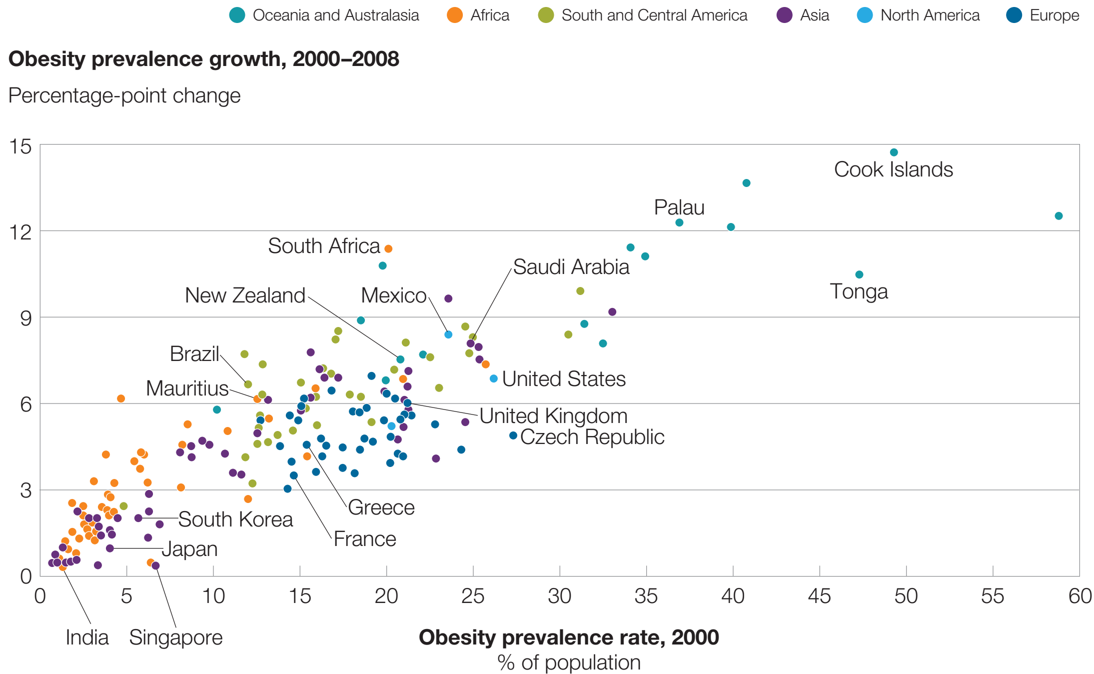
CAGR, compound annual growth rate; GWP, gross written premiums; ROE, return on equity.
[1] Excludes not-for-profit payors in the US.

Source: McKinsey Global Insurance Pool (GIP), June 2016

EXHIBIT 2 **Around the world, obesity has become much more common**

Obesity prevalence growth, 2000–2008

Percentage-point change



Source: OECD statistics; McKinsey Global Institute analysis

However, GWP and ROE growth rates vary significantly among countries, and so a granular understanding of these metrics is critical in determining where to compete (Exhibit 4). Some markets (e.g., Venezuela and China) are expanding rapidly, especially in comparison with European countries such as Germany and Switzerland. Profitability is significantly higher in Romania, the Czech Republic, Malaysia, and Argentina than in the United States or Europe.

Forces reshaping the private payor industry

An industry's structure and performance radically shift when one or more of four fundamental forces—risk, technology, regulation, and consumerism—materially change. In countries around the world, several, and sometimes all four, of these forces are disrupting health-care markets. The shifting environment is creating opportunities for new entrants and reinforcing the importance of rapid, continual business model innovation for private payors wanting to avoid obsolescence and capture the significant market growth.

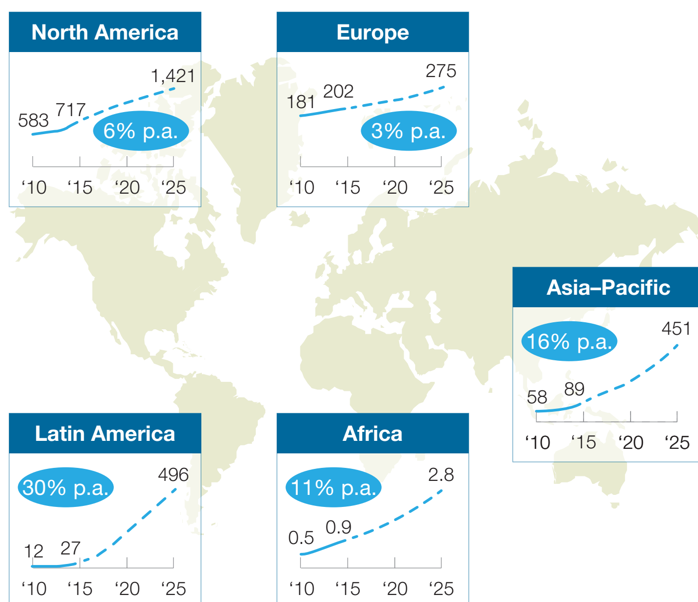
Risk

Classic insurance is designed to cover random, infrequent, unpredictable, and catastrophic expenses. Over the past several decades, health insurance has moved away from this pattern—the leading expenditures are now for chronic medical conditions, not contagious

EXHIBIT 3 **The private payor market is expected to grow in all regions**

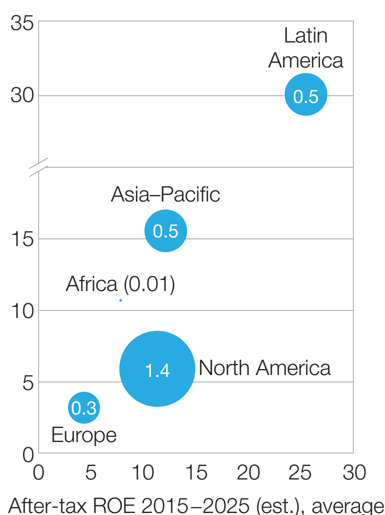
GWP growth among private payors, by region

€ billion



Growth and profitability of private payors in different regions, 2015–2025

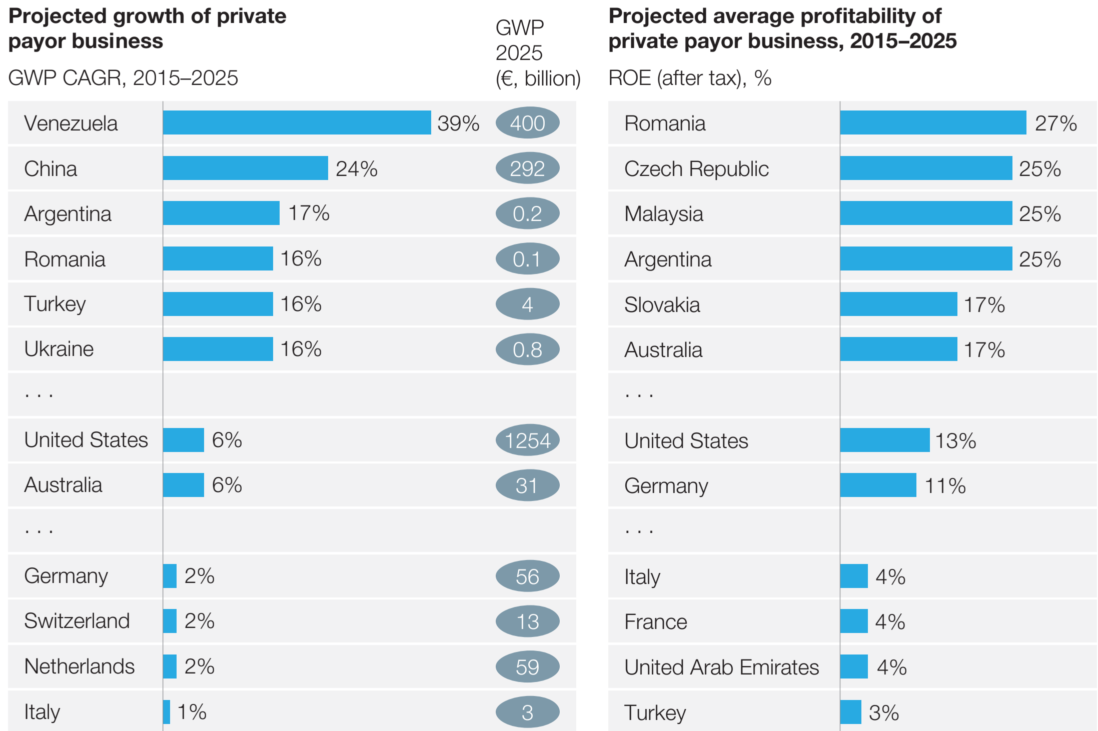
€ billion



CAGR, compound annual growth rate; GWP, gross written premiums; p.a., per annum; ROE, return on equity.

Source: McKinsey Global Insurance Pool (GIP), June 2016

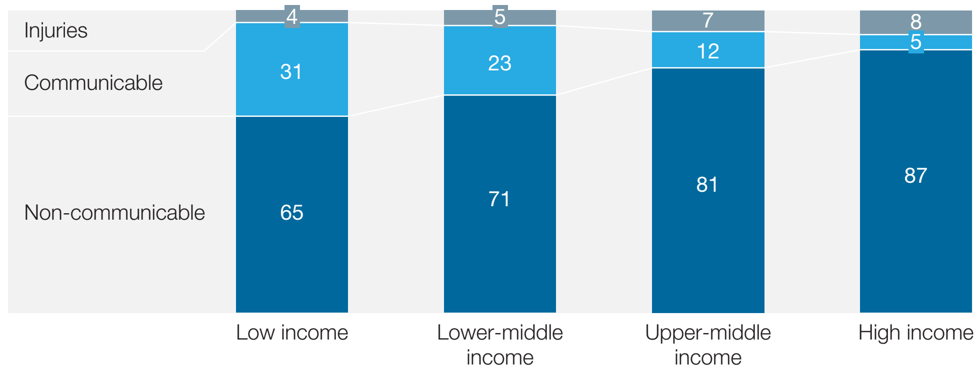
EXHIBIT 4 **Private payor growth and profitability are unevenly distributed**



CAGR, compound annual growth rate; GWP, gross written premiums; ROE, return on equity.

Source: McKinsey Global Insurance Pool (GIP), June 2016

EXHIBIT 5 **Global shifts in income are changing disease burden**

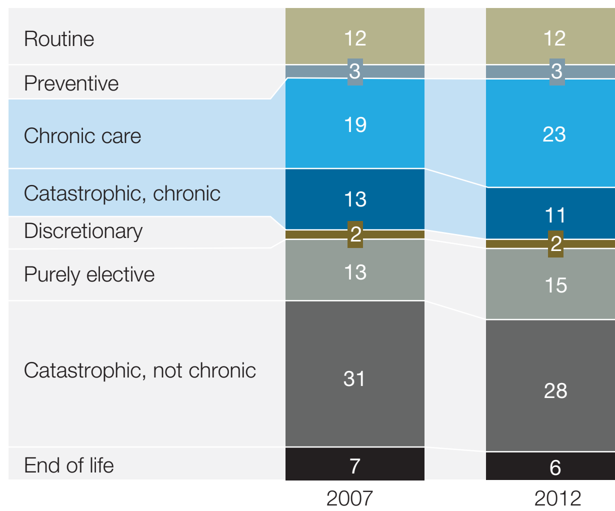


Source: World Health Organization Health Statistics and Information Systems. *Disease burden: Estimates for 2000–2012*

EXHIBIT 6 **One-third of total healthcare expenditures are related to chronic disease**

US healthcare costs, by medical risk category

%



Source: National Health Expenditure Accounts; Medical Expenditure Panel Survey; National Vital Statistics System; Healthcare Cost and Utilization Project; Dartmouth Atlas of Health Care; McKinsey analysis

diseases or workplace accidents. A range of factors has contributed to this shift, not only in the United States and other wealthy countries but also, increasingly, in developing countries as incomes rise (Exhibit 5).[4] As a result, the portion of healthcare spending devoted to "classic" insurable medical risk—that is, random, infrequent, unpredictable, and catastrophic events—is decreasing. In the United States, for example, it is now only about 28% (Exhibit 6). (More information about the methodology used to break down medical risk appears in the appendix at the end of this article.)

Currently, misalignment between the categories of medical risk and the financing and reimbursement approaches used in many countries is leading to rapid increases in premiums and unsustainable economics. These developments increase the possibility that some governments might impose regulations that eliminate core aspects of the insurance market (e.g., flexibility in underwriting and pricing, as has occurred in one part of the US health insurance market) or else replace the insurance market with public programs, leaving private payors to offer only supplemental products.

Private payors seeking to intermediate more than the roughly 30% of health expenditures that represent classic insurance risk need innovative products (and product markets) that go beyond traditional, underwritten indemnity insurance plans. Instead, they need products aligned with the contemporary risk burden. For example, chronic disease expenses could be covered through a risk-impaired annuity, while low-acuity routine expenses could be

[4] Among the most important of these factors are the rise in obesity and other "lifestyle" diseases, enhanced workplace safety, better public sanitation, and improved treatment of infectious conditions.

intermediated through banking products (e.g., savings, credit, payment cards) or prepaid contracts. A granular understanding of medical risk that considers such factors as consumers' discretion to affect those risks and their ability to absorb the expenses is a key requirement for such product innovation (Exhibit 7).

A few private payors have already begun to innovate. In Germany, for example, some have introduced lifetime coverage products, with features and actuarial concepts akin to those used in life insurance, such as similar-to-life technique (i.e., younger customers pay premiums that are higher than their risk level would normally command; the surplus accumulates and is used to reduce premiums at older ages).

However, effectively managing healthcare spending by aligning it with medical risk cannot be done by private payors alone. In some cases, regulatory changes could allow for new product introductions, and closer provider partnerships may have to be established. For example, in many of the regulatory regimes where healthcare expenses continue to be intermediated through broad-coverage insurance products, underwriting latitude has either already been or is being curtailed. In this situation, managing the economics requires a managed care model focused on population health, consumer choices, and influencing care delivery practices (either directly through incentives or indirectly through outcomes-based reimbursement to transfer risk to

EXHIBIT 7 **Medical risk categories have implications for payment and reimbursement**

● Low ● Medium ● High

Risk category	Consumer discretion	Consumer abilty to absorb risk/expense	Potential financing approach	Potential reimbursement approach
Routine	High	High	Savings, credit cards, prepaid cards	Fee-for-service
Preventive	High	High	Free	Fee-for-service
Chronic care	High	Medium	Insurance, with incentives for proper management; risk-impaired annuity	Nested episodes within population health models
Catastrophic, chronic	High	Low		
Discretionary	High	Medium	Savings, credit cards	Episodes
Purely elective	High	Medium	Savings, credit cards	Episodes
Catastrophic, not chronic	Low	Low	Insurance	Episodes
End of life	Low	Medium	Savings, viatical, reverse mortgage	Episodes

Source: McKinsey analysis

EXHIBIT 8 **Changing reimbursement can help align provider incentives with desired outcomes**

Provider type	Desired outcome
• Primary care physician (chronic and preventive)	• Support patients • Maintain or improve their health
• Procedure-based specialist (discretionary and catastrophic)	• Support patients • Maintain or improve their health
• Imaging/lab providers • Device manufacturers • Retail clinics (routine)	• Deliver a high-quality product or service • Minimize cost

Payment model for aligning incentives

Population-based payments

Episode-based payments

Fee-for-service (including pay-for-performance)

Source: Expert interviews; McKinsey analysis

providers) (Exhibit 8). As a result, the nature of the relationship between private payors and care delivery systems will need to evolve into a much closer partnership. Provider networks should be based not just on a volume-price negotiation but also on data-sharing, connectivity, and incentives (embedded in the reimbursement models) that promote true management of care and result in better care quality at lower cost.

Technology

Two concurrent technological shifts are in play today: the rapid progress in advanced analytics and digitization, and emerging advances in medical science.

Advanced analytics and digitization

Advanced analytics and digitization have markedly increased the amount of information available to private payors, enabling them to draw conclusions that can help improve patient care. The rise of electronic healthcare data (e.g., claims, medical records, and clinical data), combined with unbridled computing power and cheap data storage, makes measuring treatment outcomes and costs feasible in timely, accurate fashion. The resulting transparency into care delivery performance makes possible very different payment and risk-intermediation models. Examples include the expansion of episode-based and bundled-payment models, incentives based on population health, more complete capitated risk, and the transfer of increasing levels of financial risk to providers.

Furthermore, we are at the beginning of an onslaught of patient-generated clinical data, thanks to miniature sensors embedded in wearables and other mobile devices (Exhibit 9). Digital connectivity is making it increasingly easy for consumers to share this data with their caregivers and enabling a fundamental redesign of care pathways. The care management journey of patients with chronic conditions, for example, could leverage analysis of real-time data to risk-stratify interventions (e.g., whether the patients need to rush to an

emergency room or simply schedule their next appointment with a physician).

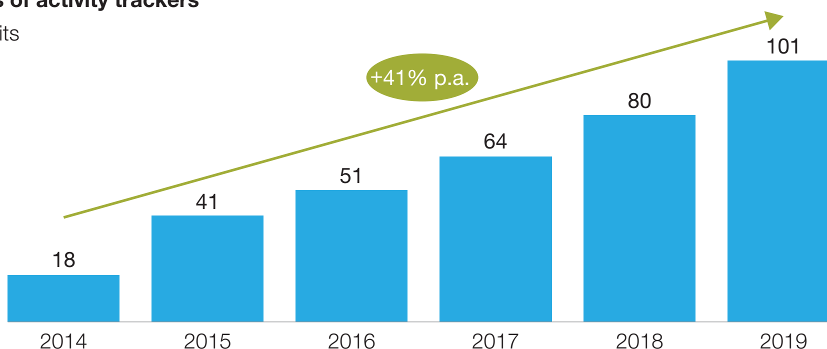
Together, these technologies are beginning to make significant changes in patient care possible. For example, they are making it possible to tailor treatment based on a range of factors, including a patient's genetic profile, socioeconomic circumstances, and health behaviors.

In addition, these technologies are setting in motion fundamental shifts in industry structure. Consider: In a world where financial risk can be transparently parsed apart and transferred to relevant providers, the value added by private payors could easily be reduced to stop-loss reinsurance, in essence disintermediating the industry. To avoid this fate, private payors will need to expand their role—rather than simply

EXHIBIT 9 **Growing use of digital technologies will increase demand for integrated solutions**

Insurees have become their own health managers

Global sales of activity trackers
millions of units



Wearable trackers quantify personal activity, generating valuable data for private payors

Data collection

- Device is constantly worn (on the wrist or elsewhere)
- Data on various measures is collected (e.g., steps, distance covered, calories)

Data analysis

- Fully automatic visualization of data; longitudinal evaluation
- Comparison with family, friends, and the online community enabled

Insurers have begun to introduce products that use fitness data for pricing purposes

Insurer	Partner	Offering
AXA	Samsung	Health insurance: discounts for healthy behavior
John Hancock	Fitbit	Life insurance: up to 15% discount for physical activity
Generali	Discovery Health	Health insurance: vouchers and gifts for activity and prevention exams

p.a., per annum.

Source: IDC; press releases

being the intermediary between consumers and providers, they should become orchestrators of the healthcare ecosystem on behalf of consumers. To do this, they must be better than others in the healthcare value chain at deriving insights through advanced analytics *and* enabling digital connectivity. Furthermore, the falling interaction costs resulting from technological advancement are likely to lead to greater specialization and scale among medical providers. Thus, private payors must be able to partner with providers that are larger and more sophisticated than the fragmented cottage industry that still exists in most countries.

Emerging advances in medical science

Innovation in the pharmaceutical and medical device industry has led to a host of novel therapies, many of which are potentially transformative—they hold promise of markedly improving the treatment of many common conditions and, in some cases, curing previously incurable conditions. This innovation comes at a price, however. Although biosimilar approvals, competition within drug classes, and the increasing use of rebates may ameliorate the financial impact of these therapies, the expense resulting from their use could still be a growing line item in the overall cost of care.

Private payors need to strengthen their ability to manage pharmaceutical spending wisely if they are to provide access to the appropriate treatments while prudently managing affordability. Alternative payment methods, such as outcome-based reimbursement, could provide win-win opportunities, given the improvement in outcomes these new therapies may delivery. However, drugs that hold the potential of reducing lifetime medical expenses but require high near-term spending will likely need further innovation in payment models (e.g., deferred payments). Finally, having an accurate understanding of the drug development pipeline is especially important when payors are negotiating about an expensive new therapy: how many similar agents are in the pipeline, and how many of those are likely to make it to market? The possibility that another drug will be available soon improves a payor's negotiating position; the absence of such a drug works in the pharmaceutical company's favor.

Regulation

Health insurance regulation sets the framework for market development and growth. Often, the regulatory climate translates directly into strategic options for private payors. Although regulations vary across countries, certain patterns exist that have significant impact on the options chosen by private payors.

Most developed countries, for example, have mature health financing systems with regulation that either favors private health insurance (e.g., Germany, Switzerland, and the United States) or limits its role (Nordic countries, the United Kingdom). Overall, regulation in these countries is relatively stable; fundamental reforms, such as the far-reaching financing reform enacted by the Netherlands in 2006 and passage of the Affordable Care Act in the United States in 2010, are rare. Therefore, private payors operating in many mature health financing systems are unlikely to face the opportunities and challenges a changing regulatory environment can create. But when reform does happen, it can radically upend the market, creating both substantial opportunities and threats for incumbents as well as attractive opportunities for entrants.

In countries with health financing systems in transition, clusters exist based on health

Spotlight: Chile's evolving market

Since the 1980s, the Chilean government has launched a set of reforms to achieve universal healthcare, a goal only now coming within reach. Today, consumers in Chile can enroll in a governmental insurance program or join a private system. Access to health services has increased healthcare expenditures rapidly, and out-of-pocket spending still remains high, at around 30%. The increases in expenditures and out-of-pocket spending offer significant opportunities for private payors.

Spotlight: China and Saudi Arabia welcome private payors

Between 2012 and 2014, China launched a set of reforms to create a commercial health insurance market by strengthening the role of private payors. Although the regulatory environment for foreign players is still difficult, China has opened its market to those players and has started to offer opportunities for domestic players as well.

In Saudi Arabia, the introduction of compulsory health insurance in 2006 led to a massive boost in the private health insurance market. Since then, every citizen has been required to buy basic health insurance, with the option of purchasing additional coverage. Both products are offered by private payors. From 2008 to 2014, GWP in the Saudi private health insurance market rose at a compound annual growth rate of 22%.

Spotlight: Extending the reach of health insurance in Nigeria

Nigeria's government has focused its efforts on expanding public health coverage and therefore regulates the private market loosely. The country's National Health Insurance Scheme became operational in 2005. Still, private expenditures remain high, opening opportunities for innovative private insurance products. One example is the mobile health insurance scheme Y'ello Health. Subscribers use their mobile phones to pay an affordable premium that covers basic outpatient care and minor surgery. The scheme is expected to significantly extend the reach of health insurance in Nigeria, particularly to rural areas and the previously under- and uninsured.

system type and current regulatory agenda. Liberalization defines one set of countries. Many countries in Latin America (including Brazil, Chile, and Colombia) and Eastern Europe (specifically, the former Soviet republics) had centralized state-run health systems that were liberalized in the 1980s or 1990s, opening the door for some sort of private health insurance. These countries often still face structural problems, which may result in large health system inequalities (e.g., high out-of-pocket spending). The private payor market is mostly nascent in these countries and typically focuses on affluent consumers or relatively simple products, such as insurance for hospitalization or catastrophic illness. As these countries' financing systems evolve over time, they are likely to develop a more sophisticated private health insurance market.

In many countries in East Asia, the Middle East, and North Africa, governmental initiatives have created, or are creating, incentives for private payors, with the goal of reducing public spending on healthcare while increasing access. Previously, these countries had a range of market structures, from social insurance (Thailand) and state care (Saudi Arabia) to no insurance (Morocco), but all have started to encourage development of private payors. Countries such as China, Indonesia, and Saudi Arabia, for example, are using private payors as a means of securing health financing. While still at an early stage of development, this approach will likely present private payors with significant opportunities in coming years.

In various African and South Asian countries, the health systems remain underdeveloped and health insurance coverage is low. At present, the primary regulatory focus in many of these countries is on developing a universal,

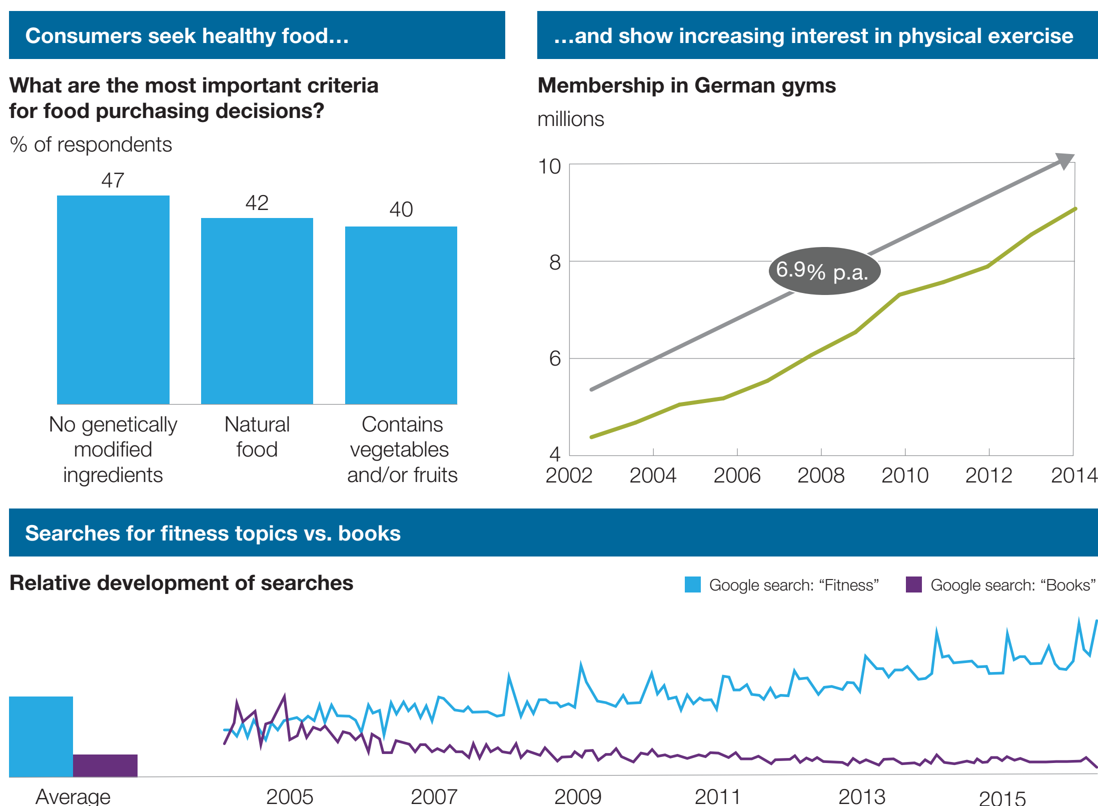
government-sponsored basic care product for the general population. Private payors face little or no regulation in these countries and almost exclusively target high-income groups. However, because out-of-pocket spending is typically high, private payors have an opportunity to reach low-income segments with innovative insurance products or micro-insurance schemes. These healthcare markets are expected to grow robustly as income levels rise with economic development.

Consumer preferences

In developed as well as developing markets, greater information transparency and the rising cost of healthcare are causing an increasing number of consumers to become material, selective purchasers of health insurance and healthcare services. Consumers are also becoming much more cognizant of how their behavior affects their health (Exhibit 10).

To respond to these trends, private payors need to reinvent their business systems so they can engage effectively with digitally enabled consumers, whose expectations are set by other consumer industries. Many attackers are trying to "own" the consumer relationship, a potentially ominous sign for private payors. In Europe, for example, the

EXHIBIT 10 **Health awareness has increased significantly in recent years**



Source: Nielsen; Statista

digital broker Knip is positioning itself as the relationship owner and trying to relegate the role of payors to mere risk carriers. If incumbents lose primary ownership of the customer relationship, they could quickly become irrelevant. Private payors should therefore assess how well their offerings address the full breadth of consumer needs, including access to care, financial protection, and advice and guidance. In addition, they should make sure they can deliver an end-to-end customer experience—not just point solutions across the eight fundamental consumer journeys (Exhibit 11).

Three critical decisions required to win

So, how should a global insurer enter or expand in this climate? The opportunities are clear, but the disruptive forces of risk, technology, regulation, and consumerism can be difficult to navigate. The private payors that will thrive will likely do so through a strategy that clearly addresses three elements:

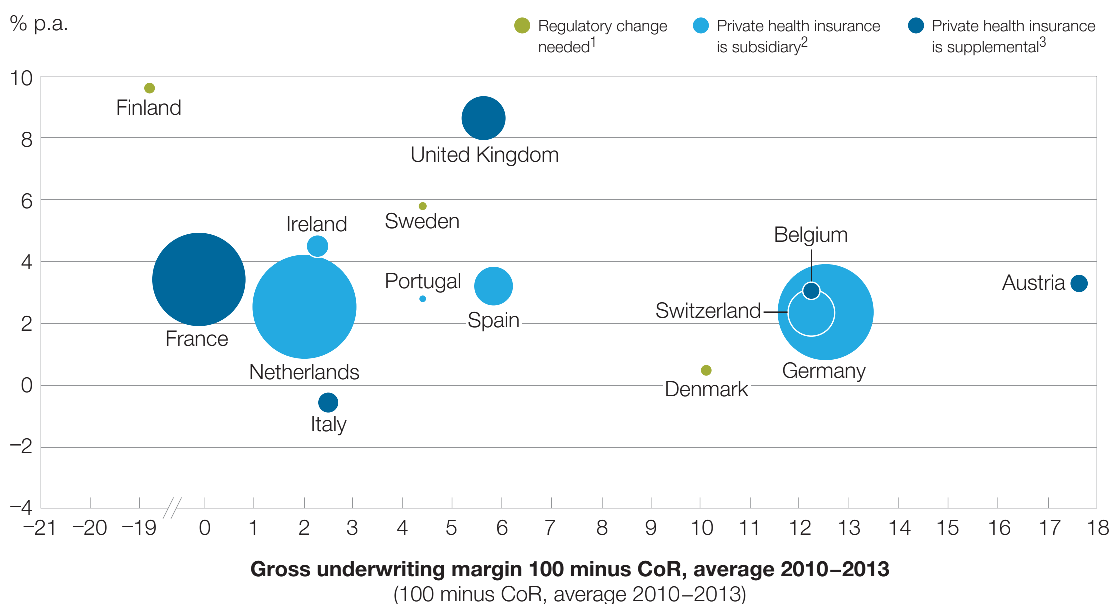
Where to play

Picking the geographic areas and business segments in which to play will be critical to

EXHIBIT 11 **Understanding consumer journeys can help private payors tailor offerings**

	Current bottlenecks	Future design
1 Search journey	• Challenging to find the right resource to do research • Not clear when information is trustworthy • Not streamlined with scheduling journey	• Patients can research options and schedule with a provider in one step
2 Scheduling journey	• Often not multichannel (web, phone, email) • Rarely able to see all appointment options available (across individual providers, location, times)	• Patients are empowered to schedule at the most ideal time and place • Multiple options for channel
3 Admission journey	• Poor coordination with pre-admission testing • Redundant paperwork and forms	• Pre-admission providers lead seamless hand-off to inpatient providers
4 Treatment journey	• Challenges coordinating with primary care physicians (PCPs) and other providers • Complicated treatments are hard to understand for patients	• Important details are explained to patients in a way that they can understand
5 Discharge journey	• New prescriptions often are not quickly filled • Patients and regular providers often do not know new plan of care	• Multidisciplinary care team uses checklist to ensure excellent discharge planning
6 Pay bill journey	• Bills often come from several different places • Bills are difficult to understand	• Only one bill is received, with easy-to-understand details and labels
7 Follow-up journey	• Patients often leave hospital with no follow-up appointment booked • No formal handoff from hospital provider to PCP	• Patients automatically have follow-up plans before leaving hospital

EXHIBIT 12 **Premiums and margins vary significantly across countries**



CAGR, compound annual growth rate; CoR, combined ratio; GWP, gross written premiums.
[1] Markets where regulatory change is required before private health insurance can prosper.
[2] Western EU markets where private health insurance is subsidiary to the statutory health insurance system.
[3] Western EU markets where private health insurance is supplemental to statutory health insurance.

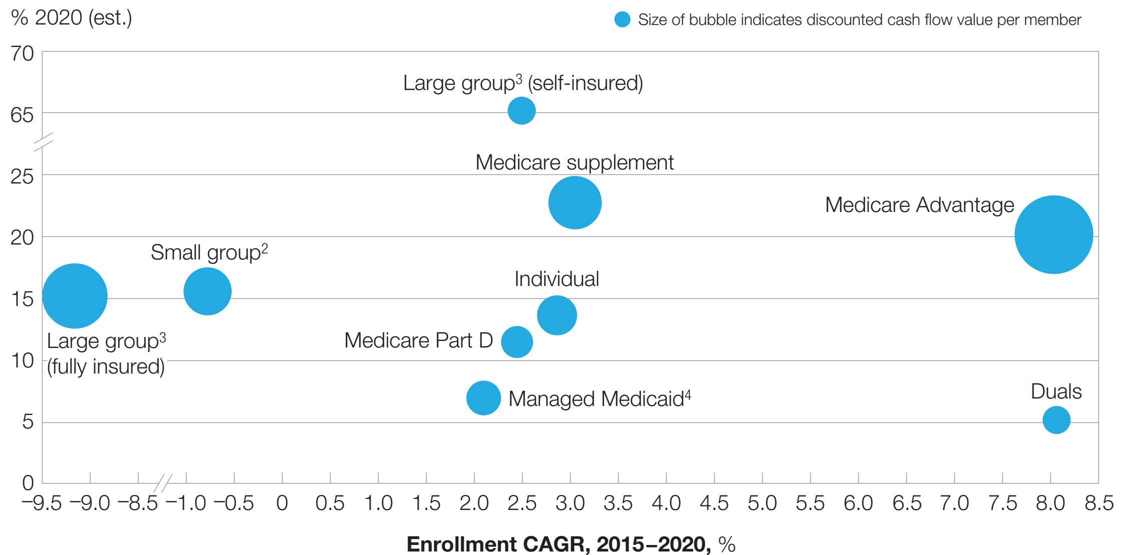
Source: McKinsey Global Insurance Pool (GIP), June 2016; IHS Global Insight; IWF; McKinsey analysis

achieving profitable growth, given that economics vary widely across countries (Exhibit 12) and within the business segments of a given country (Exhibit 13). The decision requires a deep understanding of each potential market, including its population, disease burden, provider landscape, funding mechanisms, and regulatory environment. In addition, the consumers in each market should be segmented to identify the ones that are most attractive. Rather than relying solely on income for customer segmentation, payors should determine where growth in healthcare spending is likely to be greatest and then develop products to address that growth (e.g., accident, supplemental, managed care, or full indemnity insurance).

Business model required to win

Choosing *how* to participate will be as important as choosing the markets themselves. Private payors have a range of options to consider, each of which has implications for acquisitions, partnerships, and investments needed (Exhibit 14). Broadly speaking, payors need to decide whether to pursue a classic insurance model of benefit design and underwriting or an alternative. One option, for example, might be a model in which a payor creates networks that give members preferred access to certain providers. Another option is a managed care model that actively steers patients to certain providers, delivers care management, and perhaps includes ownership of or integration with care delivery.

EXHIBIT 13 **ROE and growth vary significantly across business lines**[1]



CAGR, compound annual growth rate; ROE, return on equity.
[1] Financial calculations include medical value and stop-loss for self-insured but exclude all specialty cross-sell.
[2] Small group includes 2-ACA; upper bound of "ACA" is 50 or 100, depending on state.
[3] Large group includes ACA+.
[4] Managed Medicaid revenue growth significantly exceeds enrollment growth because additional services (e.g., behavioral health, long-term services and support, intellectual and developmental disabilities) are being moved to Managed Medicaid.
Source: McKinsey MPACT model; state filings; National Health Expenditure data

EXHIBIT 14 **Private payors can choose among different business models**

	Reimbursement	Networked	Managed care
Description	Customer has free access to every licensed health service provider; insurer has the right only to reimburse	Insurers manage health networks that give customers preferred access to some providers Insurers collaborate with third-party administrators (i.e., service providers that run health service insurance operations without owning risk)	Health insurers actively influence and steer patient through the healthcare network Mostly used in private healthcare systems
Countries	Germany Luxembourg Switzerland United Kingdom	France Italy Spain United States	Portugal

Players can complement their offering with wellbeing products/services to promote healthy lifestyle, disease prevention, and good nutrition, often through technologic tools (e.g., apps, wearables)

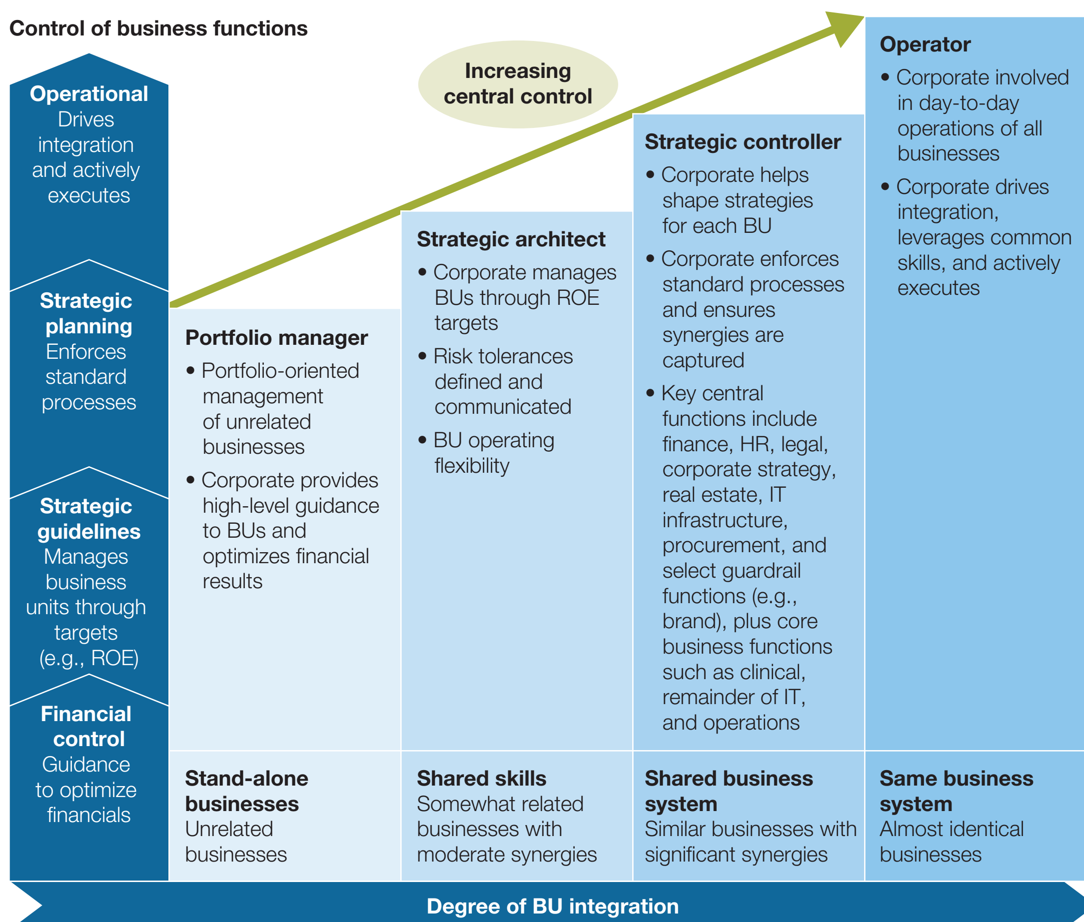
Governance for the global portfolio

The mix of markets and specific business models a private payor chooses should directly inform the governance model used to pursue growth, margins, and sustainability. Careful balance is required. Although the notion of a global operating model, in which a payor adopts a common operating platform across geographies, may seem attractive, we believe the complexity and heterogeneity of the global healthcare market requires local market dexterity. However, the payor would miss opportunities for synergy if it pursues a pure holding company model, in which each country had its own independent, local-market ROE-optimized business model.

We suggest that global private payors consider one of two models (Exhibit 15).

- A strategic architect model, in which the home office defines target markets, sets

EXHIBIT 15 **Operating model archetypes influence who has responsibility for certain functions**



BU, business unit; HR, human resources; IT, information technology; ROE, return on equity.

financial and business model risk barriers, and establishes ROE targets. Such a model would be most applicable where synergies derive from shared skills (e.g., actuarial capabilities) across the markets in the portfolio.

- A strategic controller model, in which the home office gets more deeply engaged in local business unit strategies and selects distinctive assets to share—for example, analytics, health insights, care management models, and digital distribution platforms.

Growth of the global private health insurance market, led by rapid expansion in developing countries, offers private payors tantalizing opportunities. To capture them, payors must understand how the four fundamental forces—risk, technology, regulation, and consumerism—are influencing market evolution in each country and be able to segment potential customers carefully in light of local needs.

The private payors best positioned to capture market growth will be those that can use this information to determine which markets to enter or expand in, what business model to use in each market, and what governance model will most effectively support their global portfolio.

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Appendix: About the research

The fundamental nature of medical risk has changed over the past few decades. In many countries, medical risk no longer results from random, infrequent events driven by accidents, genetic predisposition, or contagious disease but from chronic conditions related to behavioral, environmental, or other factors.

To understand the economic impact of this shift and its implications for health insurance, we analyzed total annual healthcare spending in the United States. We subtracted government administrative expenses, private insurers' profits, research expenses, the cost of equipment and software, and the cost of public health activities. Then, we examined in detail the remaining annual expenditures—about $2 trillion.

We considered four major factors to define the financial nature of medical risk:

1. **Severity:** the magnitude of the medical expense to treat a specific condition
2. **Frequency:** how often the medical condition occurs
3. **Level of consumer discretion:** the degree to which consumers can restrain costs and payments
4. **Temporal dependency:** the amount of time a patient or consumer is likely to be afflicted with the medical condition. (Once patients are diagnosed with diabetes, for example, they will probably suffer from it for the rest of their lives.)

Next, we considered a number of policy issues—for example, evidence-based guidelines and the inherent value of preventive medicine.

This analysis yielded eight categories of healthcare risk: routine low-dollar care, preventive care, chronic care, catastrophic care attributable to chronic conditions, care involving purely elective procedures, high-dollar discretionary care with no medical justification, unpredictable catastrophic care, and end-of-life care.

We then compiled a data set from the US Medical Expenditure Panel Survey Household Component (MEPS-HC) and National Health Expenditure data, dividing costs by type of service and major condition (by ICD-9 code). Each intersection of condition and type of service was mapped to the eight risk categories.

To identify the various kinds of misalignment between the delivery and financing of care, we grouped the funding sources into three major categories:

1. **Out-of-pocket expenses:** any expenses paid by consumers, excluding insurance premium payments. These expenses include copays, coinsurance, and deductibles
2. **Insurance:** employer-sponsored insurance (including the employee portion of premiums), individual insurance (such as consumer-directed health plans), and government insurance (e.g., Medicare)
3. **Subsidies:** federal and state subsidy programs (e.g., Medicaid and the State Children's Health Insurance Program), as well as charity care

More information about our analyses can be found in "Why understanding medical risk is the key to US health reform."[1]

[1] Singhal S, Pellathy T, Adigozel O. Why understanding medical risk is the key to US health reform. *McKinsey Quarterly*. June 2009.