Perspective

LAZARD

EXECUTIVE SUMMARY

Global Healthcare Leaders Study: 2017

This study has been prepared by Lazard for general informational purposes only, and is not intended to be, and should not be construed as, financial or other advice.

LAZARD

Lazard Global Healthcare Leaders Study: 2017

Executive Summary

Lazard recently conducted an in-depth study of the global healthcare industry, surveying more than 200 C-level executives and almost 100 investors across three sectors: Pharmaceuticals and Biotech; Medical Devices/Technology and Diagnostics; and Healthcare Services. The executive respondents represented many of the largest healthcare companies globally.[1] The objective of the study was to analyze industry leaders' views of strategic opportunities and challenges in healthcare, and how to solve them during a period of tremendous change.

We found surprisingly strong sentiment that the industry will be transformed over the next five to ten years by the development of new pricing models broadly known as value-based care, which will displace the traditional fee-for-service model.[2] Overall, the responses indicated that value-based care may have even more of an impact on the industry than will scientific breakthroughs.

Evolving to the value-based care model is one of many strategic challenges faced by healthcare providers, with pricing and reimbursement at the top of the list. Respondents agreed that increased innovation is critical to meet the challenges: not only through science and technology, but through new business models as well. They also agreed that the need for innovation will continue to drive healthcare companies into closer collaboration, both with each other and with non-traditional partners.

Central findings of the study:

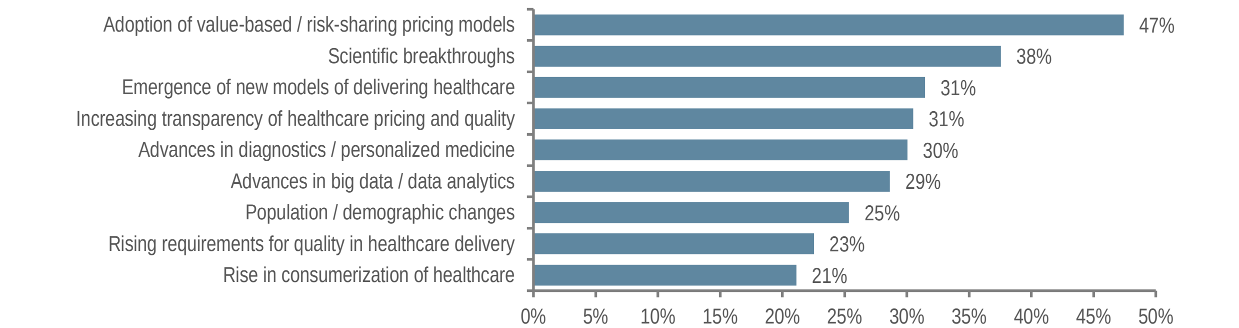
- Value-based care is expected to transform the healthcare industry over the next decade, with a tipping point in the U.S. reached within the next few years
- Pricing pressure is considered to be the top strategic challenge facing the industry, by a wide margin across sub-sectors and geographies
- Meeting strategic challenges will require rising healthcare innovation, whether it is through scientific means, technological means, or new business models
- The need for innovation will drive increased M&A activity, partnerships, and collaborative ventures, including some with non-traditional competitors

[1] The survey fieldwork was conducted between September 9 and December 20, 2016 with 213 C-level executives and 87 investors, representing the following sectors: Pharmaceuticals and Biotech (119); Medical Devices/Technology and Diagnostics (63); and Healthcare Services (82). C-level executives included CEOs, CFOs, and senior executives involved in strategic decision-making. Respondents were chosen to represent a statistically significant mix between the U.S. (203); Europe (88); and Other Regions (9), except for the Healthcare Services respondents, who were all U.S.-based. Healthcare Services in Europe and Other Regions were excluded because of the idiosyncratic nature of national healthcare systems.

[2] Value-based care is an umbrella term for a variety of pricing systems (such as bundled pricing or risk-sharing pricing) that are designed to deliver the best healthcare outcomes to the most people while controlling costs.

Value-based care is expected to transform the healthcare industry over the next decade, with a tipping point in the U.S. reached within the next few years.

View from the C-Suite: Value-Based Care to Have the Most Transformative Impact



Q: Which of the following do you believe will most transform the healthcare industry over the next 5–10 years? (Select three)
– All Executives

Value-based care may be more transformative to healthcare than will scientific breakthroughs over the next 5–10 years: almost half (47%) of healthcare C-level executives cite the adoption of value-based or risk-sharing pricing models as transformative, compared to 38% who cite scientific breakthroughs.

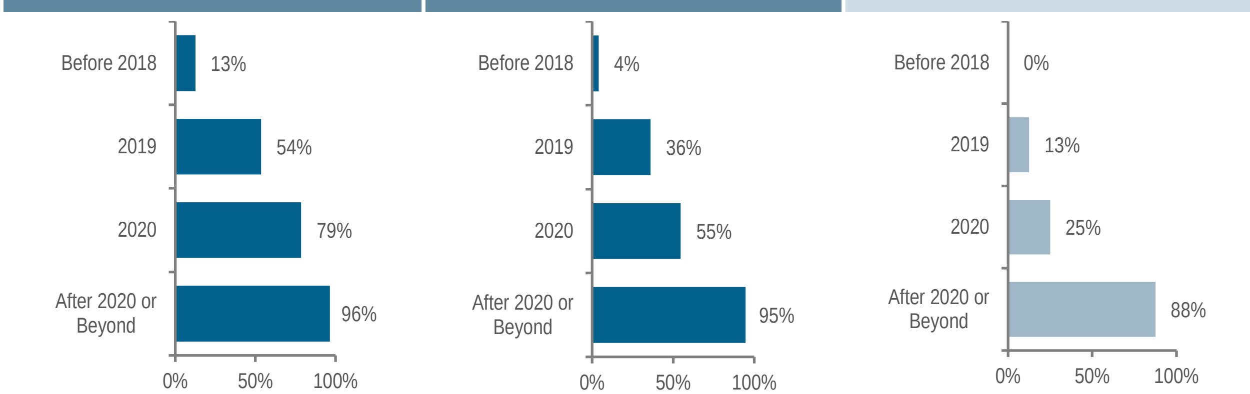
- European respondents tend to hold a somewhat stronger view that value-based models will be transformative, with 49% citing this as one of the top three transformative trends versus 41% for U.S. respondents.

There has been some question about whether the shift to value-based payment would continue in the U.S. after President Trump's election. The survey suggests strongly that it will.

- Among U.S. executives and investors surveyed after President Trump's election, almost 80% of the investors and 55% of the executives believe the majority of U.S. healthcare payments will be value-based before 2020.

Timing of Value-Based Care Tipping Point

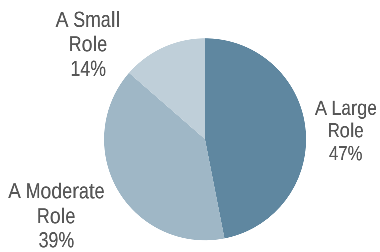
U.S. Investors' View | **U.S. Executives' View** | **U.S. Pharma Executives' View**



Q: When do you believe that 50% or more of healthcare payments in the U.S. will be value-based or risk-sharing?
– U.S. Executives and Investors, Surveyed Post-Election

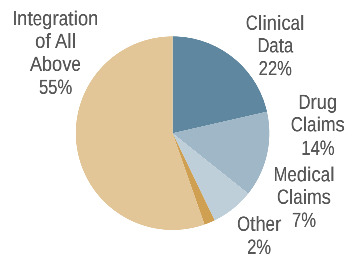
- Pharma/biotech executives in the U.S. were the most skeptical about this issue, with more than 70% surveyed believing that value-based payments would not account for the majority of U.S. payments before 2020.
- 47% of U.S. executives and investors in healthcare services believe that big data and data analytics will play a "large role" in value-based models, and 39% believe it will play a moderate role.

Role of Big Data in VBC



Q: What role, if any, will big data or data analytics play in the value-based care model?
– U.S. Healthcare Services Executives and Investors

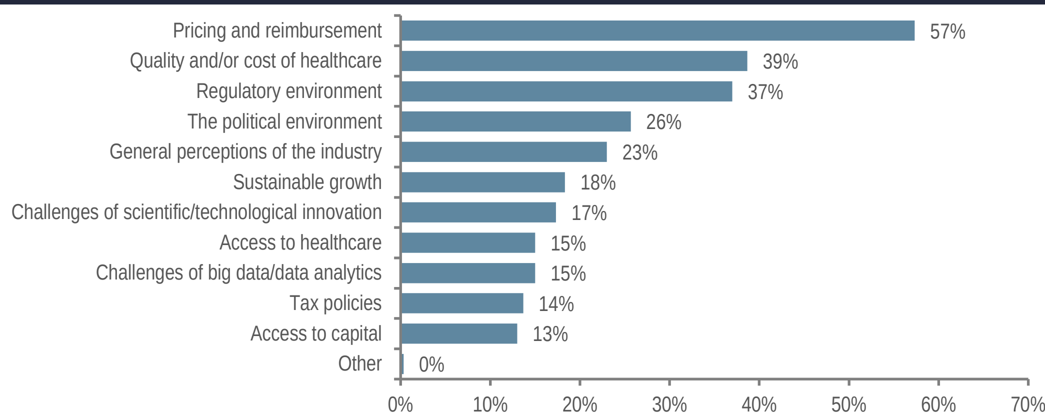
Making It Work: Most Important Information to Collect



Q: What is the most important information to collect through big data or data analytics?
– U.S. Healthcare Services Executives and Investors

Pricing pressure is considered to be the top strategic challenge facing the industry, by a wide margin across sub-sectors and geographies

Pricing Pressure Is the Top Strategic Challenge by a Wide Margin



Q: What are the greatest strategic challenges facing the healthcare industry at large? (Select three)
– All Respondents

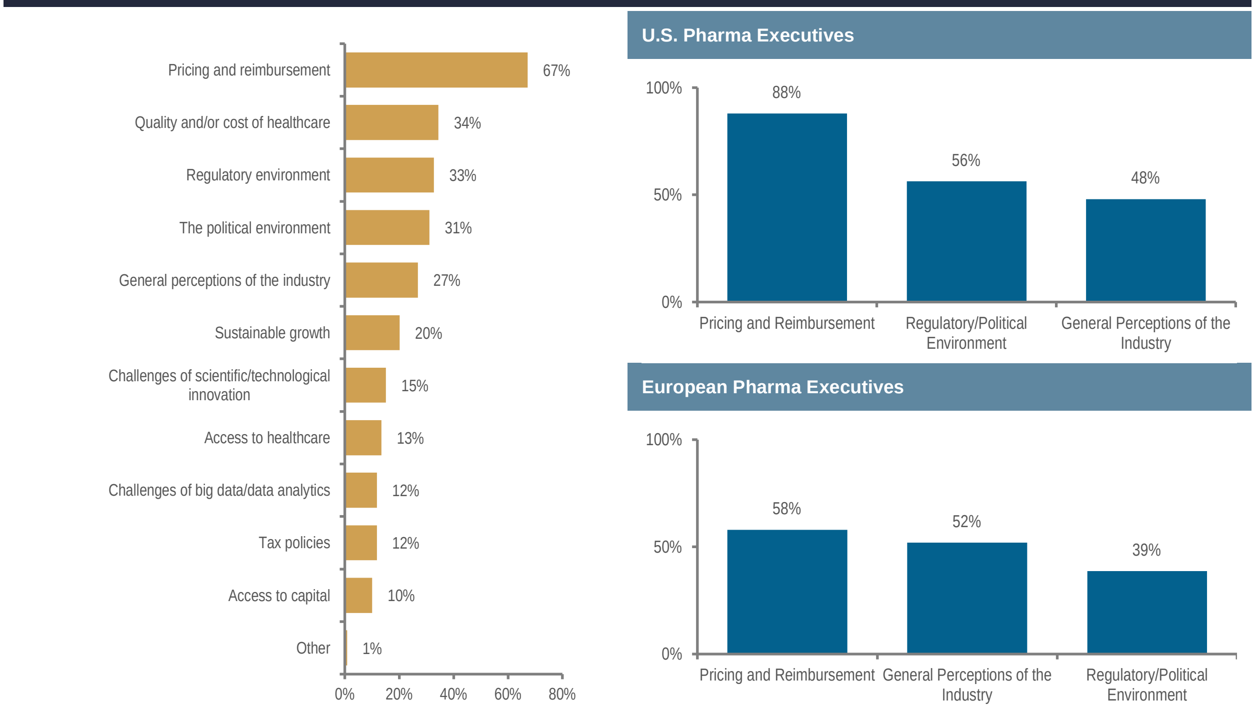
More than half the survey respondents listed "pricing and reimbursement" as one of the top three challenges facing the industry overall. This challenge was followed by "quality and/or cost of healthcare," and by the regulatory and political environments as the greatest challenges.

- Among C-level healthcare executives, pricing pressure is a top concern in both the U.S. (62%) and Europe (56%).

The pharma/biotech sector is the most worried about pricing pressure and the political environment, with more pronounced concerns in the U.S.:

- Almost 70% of pharma/biotech executives and investors globally cite pricing and reimbursement as one of the top three challenges facing the industry. In the U.S., 88% of pharma/biotech executives share these views. In Europe, by contrast, 58% of pharma/biotech executives do.

Greatest Strategic Challenges in Healthcare Industry: Pharma/Spec Pharma/Biotech Sector



Q: What are the greatest strategic challenges facing the healthcare industry at large? (Select three)
– Pharma Executives and Pharma Investors

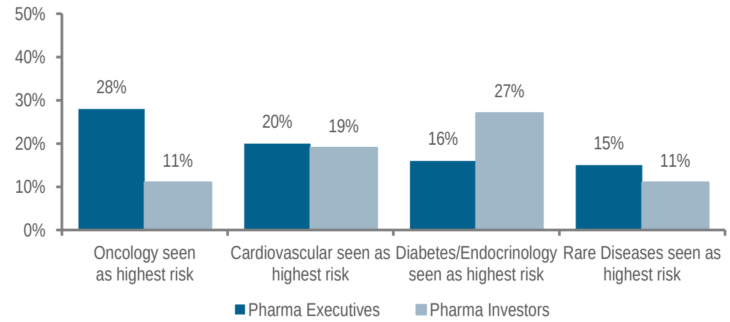
The political environment and insurers' demands for discounts are viewed among U.S. pharma/biotech executives as main sources of drug pricing pressure:

- In the U.S., 73% of pharma/biotech executives list the "political environment" as being one of the top three drivers of drug pricing pressure, whereas 42% of European pharma/biotech executives do.
- More than half of U.S. pharma/biotech executives also cite "insurers demanding discounts" as one of the top three drivers, compared to 29% of European executives.

Pricing pressure is perceived to vary by therapeutic class:

- The top four therapeutic classes perceived to be at risk of pricing pressure are oncology, cardiovascular, diabetes, and rare diseases.

Breakdown by Pharma Executives vs. Pharma Investors, across Therapeutic Areas

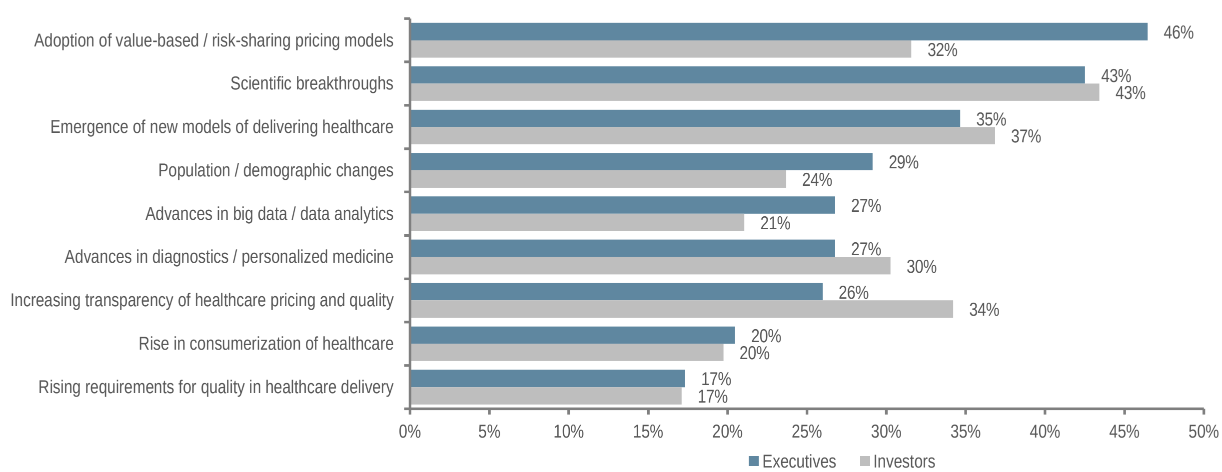


The most disagreement centers on oncology and rare diseases:

- European pharma executives and investors tend to be more concerned about the risk of pricing pressure in both oncology and rare diseases than are U.S. counterparts: 40% of the Europeans see oncology as the highest or second-highest risk, compared to 30% of the Americans; and 31% of the Europeans see rare diseases as the highest or second-highest risk, compared to 20% of the Americans.
- 21% of all pharma executives and investors see oncology as having the least risk of pricing pressure, and 29% see rare diseases as having the least risk.

Meeting strategic challenges will require rising healthcare innovation, whether it is through scientific means, technological means, or new business models

Most Transformative Factors in Healthcare Industry over the Next 5–10 Years



Q: Which of the following do you believe will most transform the healthcare industry over the next 5–10 years? (Select three) *– All Respondents*

Executives and investors broadly agree on the most important sources of innovation that will transform healthcare over the next 5–10 years. However, executives tend to emphasize value-based/risk-sharing pricing models (46%) and scientific breakthroughs (43%), while investors point to multiple kinds of innovation.

Innovation may come from new entrants: Over 80% of all respondents believed non-traditional competitors (such as Google, IBM, Apple or Fitbit) will affect the healthcare sector in the coming years.

- The views varied by sector. For example, about 30% of respondents in medical devices/tech/diagnostics and about 30% in healthcare services believe that the non-traditional competitors will have a transformative impact, but only 14% of pharma/biotech respondents agree.

Impact of Non-Traditional Competitors on the Healthcare Industry over Next 3–5 Years

Q: What type of impact do you believe non-traditional competitors (like Google, IBM, Apple or Fitbit) will have on the healthcare industry over the next 3–5 years?
– All Respondents

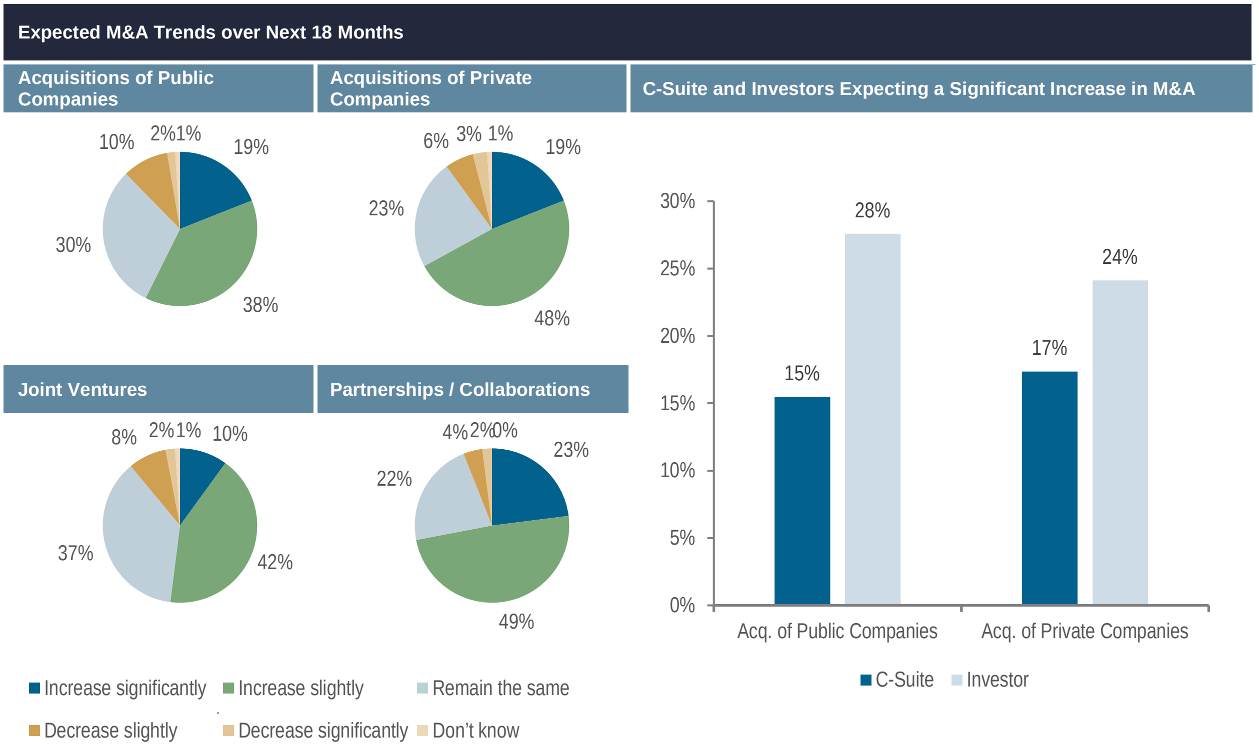
Among pharma/biotech executives, bringing in new technology and products through in-licensing and external collaborations (50%) and greater investment in scientific innovation (41%) are viewed as key approaches to remain competitive in today's environment.

Respondents viewed oncology as the therapeutic area for greatest innovation opportunity (28%), greatest unmet need (27%), and greatest opportunity for growth (32%), followed by CNS (21%, 24% and 18% respectively).

Gene editing, therapeutic vaccines and gene therapy are considered the top three disruptive technology innovations in pharma/biotech.

LAZARD

The need for innovation will drive increased M&A activity, partnerships, and collaborative ventures, including some with non-traditional competitors



Q: How do you expect M&A activity to trend over the next 18 months for each of the following types of transactions?
– All Respondents

Healthcare executives most frequently cited M&A, industry partnerships and collaborations, and partnerships with non-traditional competitors as enabling the transformation of the industry over the next 5–10 years.

More than half of respondents expected an increase in acquisitions of public companies over the next 18 months, and more than two-thirds expected an increase in private acquisitions.

More than 80% of respondents expected an increase in either partnerships or joint ventures (or both) over the next 18 months.

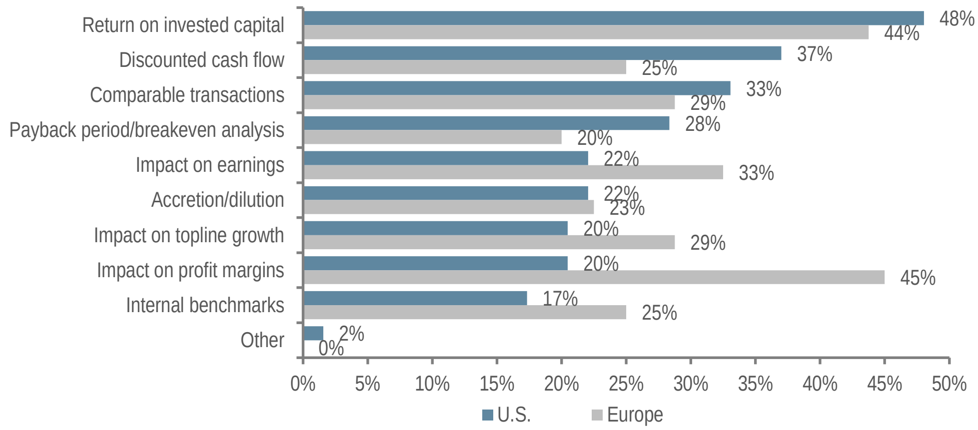
43% of executive respondents listed M&A; 42% listed industry partnerships and collaborations; and 41% listed partnerships with non-traditional competitors (like Google, IBM, Apple or Fitbit) as the top three mechanisms that will enable the transformation of the healthcare industry over the next 5 to 10 years.

Almost two-thirds of executive respondents expect/plan increases in capital/resource allocation levels to M&A activities in the next three years, compared to the allocation level of the past three years.

- In the U.S., respondents in the pharma/biotech and medical device/tech/diagnostics sectors show a stronger interest in M&A than do those in healthcare services.
- In Europe, over 80% of the respondents in the medical device/tech/diagnostics sector expect to see increased capital allocation to M&A.

In evaluating M&A activity, executives were most likely to look to return on invested capital (ROIC) and discounted cash flow (DCF) as primary valuation and financial impact methodologies when making acquisition decisions.

Primary Valuation and Financial Impact Methodologies Used when Making M&A Decisions



Q: What are the primary valuation and financial impact methodologies your organization relies on when making decisions to potential M&A activity? (Select three)
– U.S. and European Executives

The driving forces for pharma/biotech executives in considering acquisitions are filling late-stage pipelines, enhancing long-term growth and adding commercial revenues. The major challenges when considering M&A are seen as price vs. value and clinical/regulatory risks, while the most important external factor when considering M&A is market valuation.

The most important driving force that healthcare services companies consider when evaluating acquisition targets is diversification into new services. The biggest issues healthcare services executives face when considering M&A are regulatory.

The most important driving force that medical devices/tech/diagnostic companies consider when evaluating M&A targets is strengthening technology or accessing new technology.

* * * * *