EXECUTIVE SUMMARY

In the global competition for biopharmaceutical investment economies' policy environments either enable or hinder their competitiveness for investment. Today who is sprinting ahead and who is trailing? What aspects of individual economies' environments are providing momentum and what is holding them back?

These questions are explored in the 2019 Emerging Markets Biotechnology Competitiveness and Investment (BCI) Survey, a global executive opinion survey and index of economies' biomedical investment attractiveness. The 2019 Emerging Markets BCI Survey provides an in-depth, holistic and focused barometer of the biomedical environment in a number of economies. By taking a "bottom-up" approach the Survey enables a unique and highly

relevant snapshot of economies' biomedical competitiveness. Indeed, the respondents to the survey – country managers and their teams – often have a candid and accurate understanding of how different aspects of the local policy environment factor in when discussing whether to allocate further resources in the economy.

The 2019 Emerging Markets BCI Survey focuses on 17 newcomer economies.



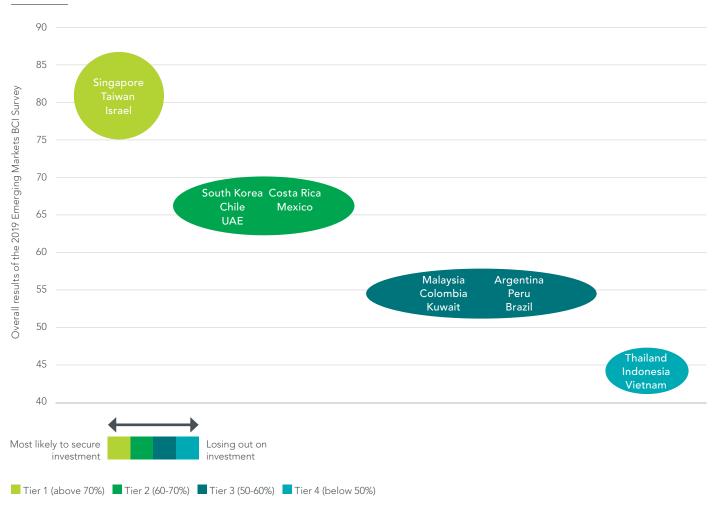
Economies covered in the 2019 Emerging Markets BCI Survey

Argentina	Mexico
Brazil	Peru
Chile	Singapore
Colombia	South Korea
Costa Rica	Taiwan
Indonesia	Thailand
Israel	UAE
Kuwait	Vietnam
Malaysia	

1. Overall results: who is winning the race for biopharmaceutical investment?

In general, Asian Tigers and Israel lead in attractiveness for biopharmaceutical investment, while Latin American and remaining Asia Pacific and Middle East and North Africa (MENA) economies lag behind. Of note is how South Korea has seen investors' and executives' confidence deteriorate. Strict cost containment policies are hollowing out confidence in what over the past fifteen years had emerged as one of the feel-good biotech and biopharmaceutical stories of the Asia Pacific region.

Overall results of the 2019 Emerging Markets BCI Survey



2. Evolution of results over time: who is advancing and who is lagging behind?

Comparing the 2019 Emerging Markets BCI Survey with previous editions of the BCI Survey, it appears that all economies but Singapore and Taiwan saw their performance decrease or stay the same since their first available score. Among the countries that are losing ground in the race for biopharmaceutical investment, Malaysia,

South Korea and Argentina – and to a lesser extent Indonesia and Brazil – stand out as having experienced the sharpest decline.

Overall, the distance between best and worst performers is deepening: policy conditions are seen as improving in economies that are ahead in the biopharmaceutical investment race, and as worsening in economies that already lag behind.

Overall results of the 2019 Emerging Markets BCI Survey and evolution since the first available BCI survey for each economy

Emerging Markets BCI Survey Evolution since first available survey (>2 percentage points)			BCI Surveys				
		available survey (>2 percentage	2018	2017	2016	2015	
Singapore	87			87	86	78	
Taiwan	80		81	77	77		
Israel	75			77	75	74	
South Korea	70	•	69	72	77		
Chile	66	•		69			
Costa Rica	64			64			
UAE	64	•		65	67		
Mexico	63	•	64	63	65	66	
Malaysia	56	•		62			
Colombia	55		54	56	54		
Kuwait	54						
Argentina	53	•	55	53	53	60	
Peru	52	•		55			
Brazil	52	•		55	54	57	
Thailand	46	•		50	49		
Indonesia	42	•		44	46		
Vietnam	42			44			

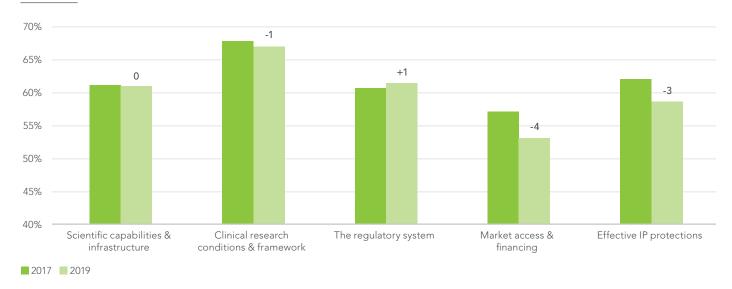
Key takeaway 1: Enabling – not protecting – local innovators

While seemingly embracing policies designed to enable their biopharmaceutical sector, many economies are still clinging to protectionist ideas that are actually contradictory and counter-productive; whether it be mandating the use of local content, manufacturing and hiring requirements or loosening standards for the protection of intellectual property. Innovation will simply go elsewhere when erecting barriers or mandatory requirements that make investment and R&D more, not less, difficult. When it comes to achieving real-world desired biopharmaceutical outputs, having a comprehensive set of policies that enable – rather than protect – local innovators is key to 21st century biopharmaceutical competitiveness.

As the below figure shows, looking at the survey's aggregated results on a category by category basis suggests that global weaknesses continue to be in the market access and IP environments.

What is more, the variation in average score reported in this figure shows that market access and IP conditions are the areas where policy developments have taken the most negative turn since 2017. Health care financing and market access represent the most significant challenges on the ground and strongly affect the overall attractiveness of a given economy.

Average scores and score variation by category, 2017 vs 2019



Key takeaway 2: Broad-gauged policy efforts

Just as companies do, economies must also take an inclusive, "big picture" view of investment conditions and understand what the bottlenecks and lynchpins are within the biopharmaceutical ecosystem. Developing a long-term biopharmaceutical innovation policy that is holistic and consistently implemented means bringing forward pro-innovation reforms in all five BCI policy categories.

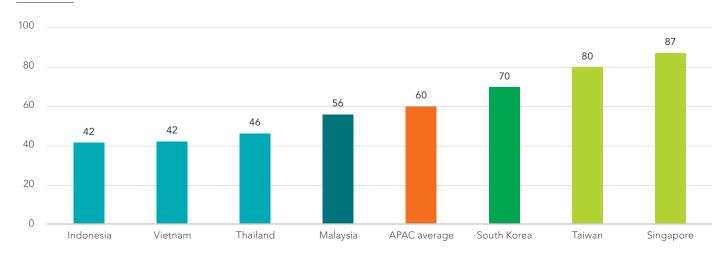
3. Regional zoom-in: Latin America, Asia-Pacific and MENA

The below figures provide an overview of the survey's results by geographical regions.

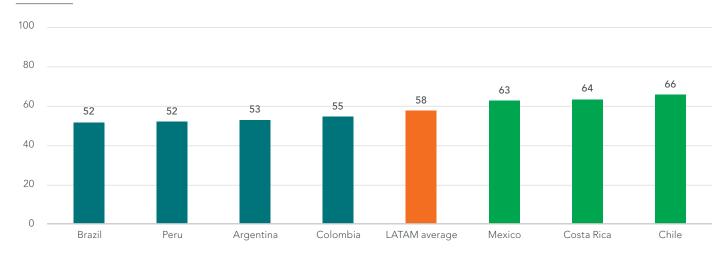
The Asia Pacific region hosts both the best and worst performing economies in the 2019 Emerging Market BCI Survey. The score of the top ranked economy, Singapore, is more than twice as high as the one of bottom-ranked economies, Indonesia and Vietnam.

While two of the biopharmaceutical emerging market leaders are in the Asia Pacific, no "pace-setter" has emerged in Latin America. To different degrees, Latin American countries are struggling to compete for foreign investment and to develop an active and thriving bioeconomy – for the most part because of a lack of a comprehensive set of enabling policies.

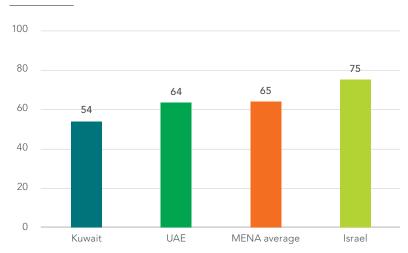
Overall results of the 2019 Emerging Markets BCI Survey, Asia Pacific countries



Overall results of the 2019 Emerging Markets BCI Survey, Latin American countries



Overall results of the 2019 Emerging Markets BCI Survey, MENA countries



Like for the Asia Pacific region, the sample of MENA countries surveyed shows a varied performance; Israel is setting the pace of biopharmaceutical innovation and Kuwait and UAE are at different stages in their efforts to match it.

As particularly evident in the Latin America and Asia Pacific regions, smaller economies are leading the race for investment while larger economies are trailing. In this respect the 2019 BCI results again show how no market size or physical resource compares with a conducive policy environment. Solid, comprehensive policies in support of innovation, not market size, are the main drivers of biopharmaceutical investment.

Key takeaway 3: Keep reforming

Investment follows supportive policy conditions. In many countries, improvements in the regulatory and IP environment were fundamental to the expansion of biopharmaceutical capabilities. In an era when competition is heating up and countries like China are making quick work of closing policy gaps, the solution is not a race to the bottom in policy conditions. Failing to nurture the innovation ecosystem can be a country's undoing – and this includes established leaders. Conversely, a conducive policy environment can make up for a small market or lack of natural assets.