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CHAPTER 2

A miracle of widespread progress: A 20-year journey of health and income

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By 2019 3.5 billion people, close to half of the world's population, lived in microregions with living standards equivalent to the top 21 percent in 2000.

While it is generally known that humanity has progressed over the past two decades, our granular data reveals the true extent of that progress and where it took place. For one thing, almost half the world's population in 2019 lived in places with living standards only attained by the top 21 percent in 2000. At the other end of the spectrum, the group of more than one billion people who lived in microregions with the lowest living standards at the beginning of the 20-year period had dwindled to a few hundred million by the end, despite increasing population. Here, we examine the trajectory of that progress across the globe.

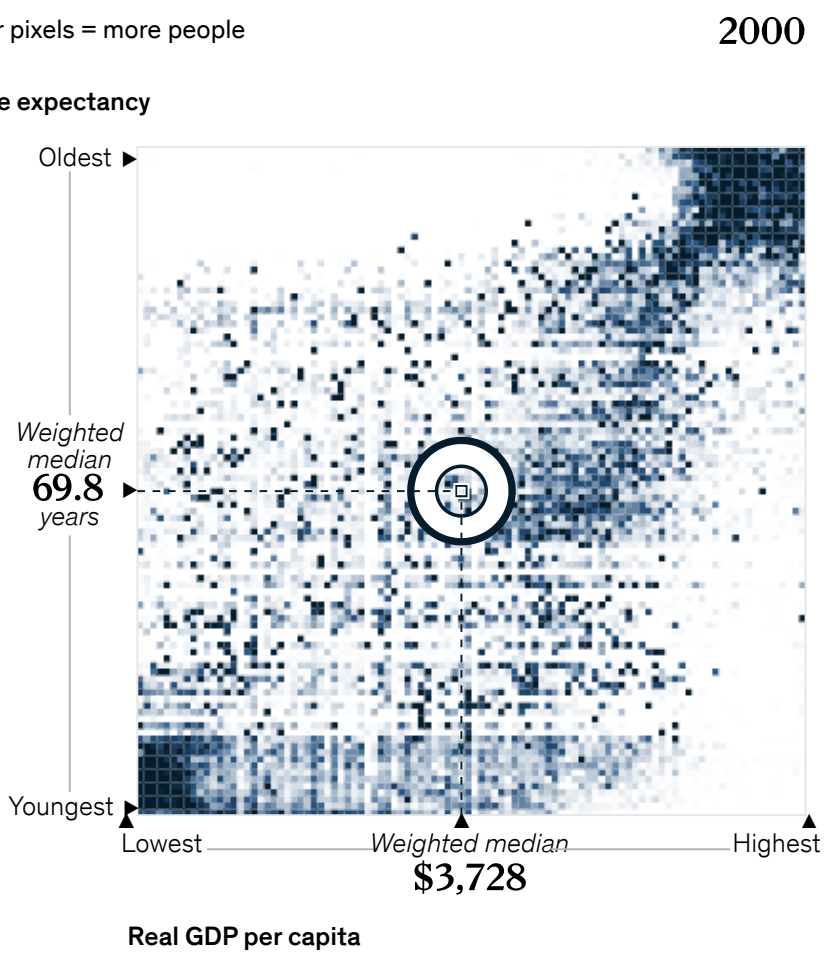
A 20-year journey of progress

This chart shows our pixels in 2000 across a grid of 10,000 squares representing the intersection of 100 percentiles of real GDP per capita and 100 percentiles of

life expectancy at birth.

The shading of each square represents the amount of population summed across its microregions—the more people living in a square, the darker its color. The black median marker is where both variables intersected at the 50th percentile in 2000, or GDP per capita of $3,728 and life expectancy of 69.8 years.

Places near the median included Parnaíba, Brazil, and Mueang Chiang Mai, the capital district of Chiang



By 2019, the median microregion jumped to 73.7 years of life expectancy and $9,511 of GDP per capita—or 4 more years of life and 2.5 times more income.

This means that, at the 2019 median, microregions had living standards that in 2000 were experienced only among the top 28 percent of microregions in GDP per capita and the top 23 percent in life expectancy. What was then top quartile since became the norm.

Replay animation

Local stories of microregional development

Progress on the previous chart is the accumulation of thousands of local stories. Here are the stories of just three microregions.

Kaysone Phomvihane, Laos

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ysone Phomvihane, Laos, has long rved as a crossroads of trade and nsportation in Southeast Asia. The ench established an administrative and mmercial center there, and during the etnam War, it was home to a US air erations center. During the 20-year riod of our research, the microregion nefited from national and ultinational programs aimed at egrating Laos into a regional nsportation and trade hub. A bridge ross the Mekong River linking

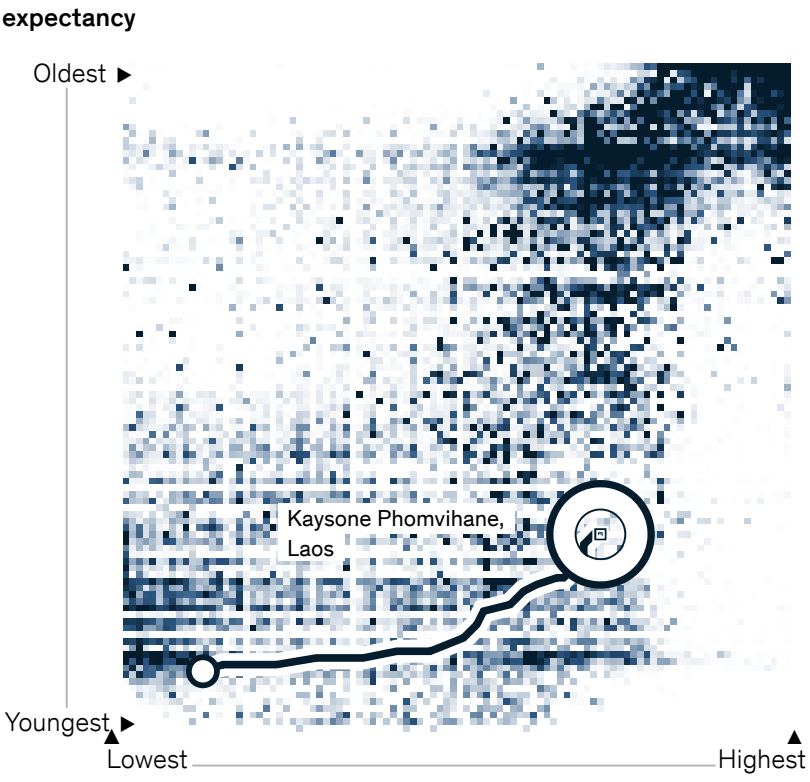
ıysone Phomvihane to Mukdahan,
ailand, was completed in December
)06, reinvigorating old trade routes.
e Asian Development Bank, together
th regional and national governments,
ve invested in infrastructure to
pport the reintegration of the region,
:luding major sanitation and flood
tigation projects.

The outcomes of such progress increased Kaysone Phomvihane's GDP per capita between 2000 and 2019 from about $1,500 to $10,000, or about 10 percent annually, while life expectancy went from 54.1 years to 65.8 years.

Global progress in life expectancy and GDP per capita, percentiles

Darker pixels = more people

2000



Dibër, Albania

For our second example, we move to a mountainous microregion in the Albanian Alps, the town of Dibër. While Dibër's economy remains dependent on agriculture and animal husbandry in particular—meat production is a mainstay of the Albanian economy—this microregion is working to build a tourism business to capitalize on its abundant natural beauty. The area, distinguished by glacial lakes and many old forests, lends itself to outdoor tourism, and international organizations have supported development of hiking trails and the hospitality and tourism industry. This includes efforts to promote the Peshkopi thermal baths,

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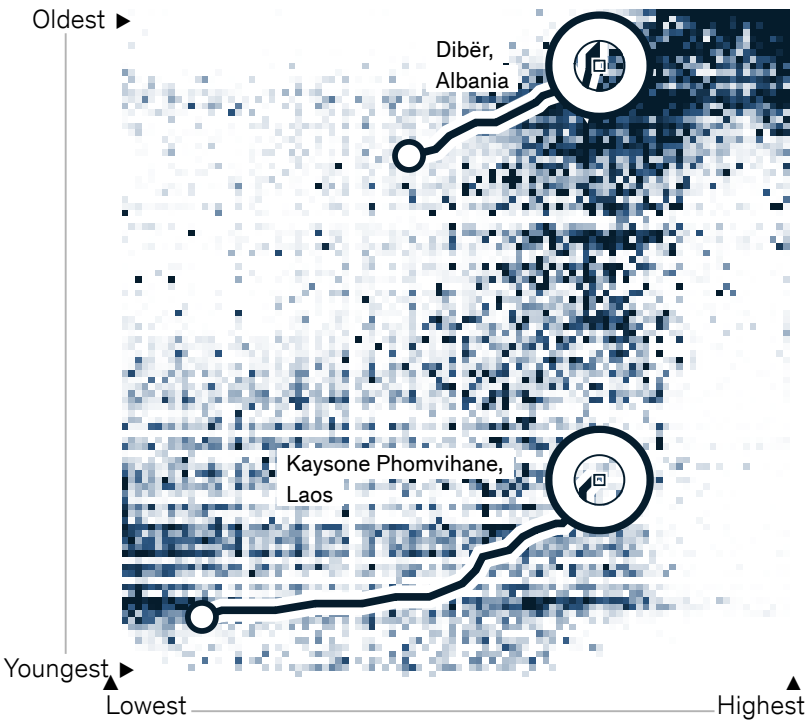
enriched by two sulfurous springs rich in gypsum and potassium, that historically drew flocks of well-heeled European health tourists.

Like Kaysone Phomvihane, Dibër made an impressive move on the health and income map, in its case from a higher base. GDP per capita increased by $6,900 to $10,200 in 2019, and life spans extended from 74.1 years to 78.3 years.

Global progress in life expectancy and GDP per capita, percentiles

Darker pixels = more people

2000



Busan, South Korea

The city of Busan, our third example, rings its port, one of the largest in the world and a big reason for the microregion's strong progress to greater prosperity. But Busan is much more than its port: its beaches attract locals and international tourists alike, and more recently, some of the world's most expensive yachts. The annual Busan International Film Festival, which started as an effort to diversify and revitalize the port area, has turned the city into a one-stop shop for film production and marketing. In 2021, UN-Habitat, a unit of the United Nations that works to enhance the sustainability and resilience

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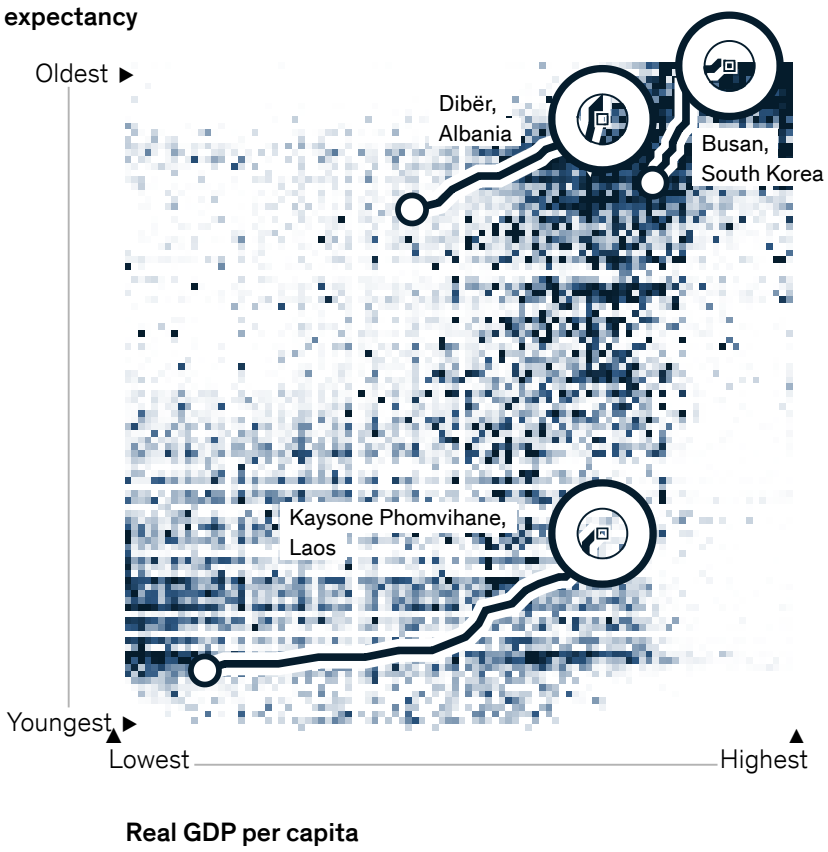
of cities, teamed up with Busan and a team of architects, designers, and engineers to build what is to be the world's first floating community, putting the city at the forefront of the global effort to address the impact of climate change on coastal locations.

From 2000 to 2019, people living there gained 7.3 years of life expectancy, and GDP per capita more than doubled from $17,800 to $37,350. Rapid pace of development was not restricted to places that started with low incomes.

Global progress in life expectancy and GDP per capita, percentiles

Darker pixels = more people

2000



Development at both ends of the spectrum

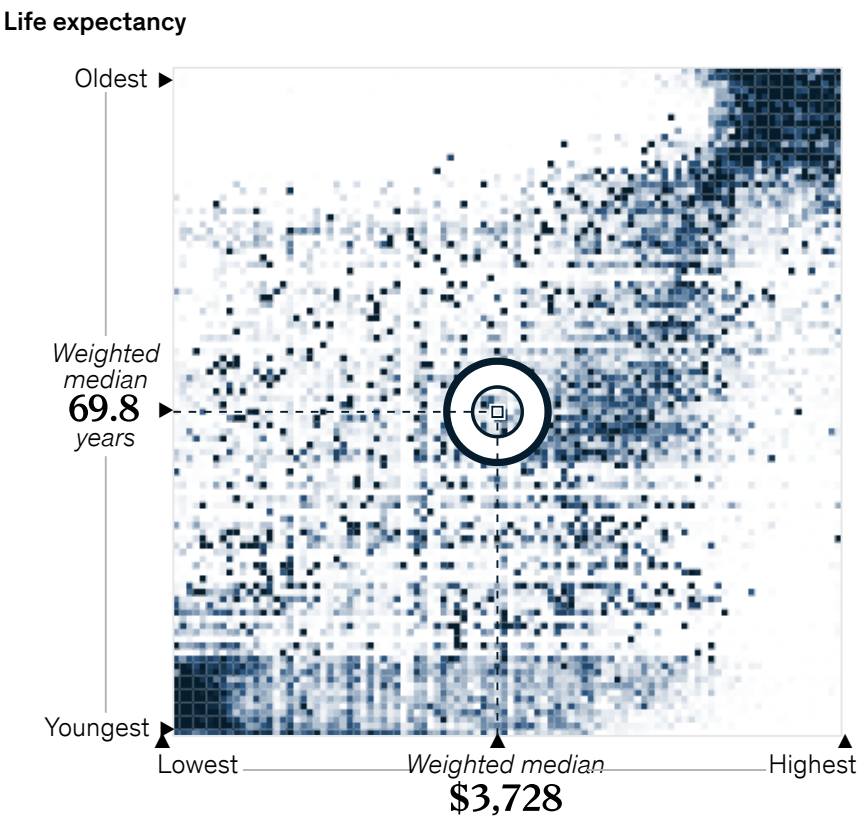
These three places represent three important journeys on the chart across thresholds of development, but they are snapshots. Let's look at the bigger picture.

Light blue microregions on our charts were those among the top 30 percent of GDP per capita and life expectancy in 2000. This translates into more than $8,300 of income, and life expectancy of longer than 72.5 years.

Global progress in life expectancy and GDP per capita, percentiles

Darker pixels = more people

2000



Within light blue, we define an even more fortunate category—dark blue. Dark blue microregions are those whose denizens lived at the pinnacle of prosperity and health, with GDP per capita above $45,000 and life spans longer than 79.5 years, or the top 5 percent across both dimensions in 2000.

At the other end of the spectrum, orange microregions were those where GDP per capita and life expectancy were among the bottom 30 percent in 2000. In those microregions, income was below $2,400, and life expectancy was less than 65.6 years.

By 2019, 3.5 billion people lived in light blue microregions, up from 1.3 billion in 2000—more than doubling the percentage of people, from 21 percent to 46 percent, with such living standards.

From 2000 to 2019, the number of people living in dark blue microregions went from 85 million to 440 million, or from 1 percent to 6 percent of the world's population.

The decline in people living in

orange microregions over the 20 years was also stunning—from 1.1 billion to 405 million people, or from 19 percent to 5 percent of the world's population.

Replay animation

Dibër is one microregion that made the journey into the light blue zone, while Kaysone Phomvihane left the orange zone. Getting into the dark blue zone isn't easy, however. While Busan more than doubled its income over the 20

years, that wasn't enough to push it over the hurdle.

Maps of progress

Where did all this progress occur? To answer this question, let's take a more traditional view of the world and explore it through maps.

In 2000, more than 1.0 billion of the 1.3 billion people living in light blue microregions were residents of OECD countries, including most of Western Europe, North America, Japan, Australia, and parts of Latin America.

But by 2019, blue microregions had popped up across the globe and were home to 3.5 billion people, a 174 percent increase. Increased life spans and greater incomes extended

east to parts of Eastern Europe and Central Asia, as well as across large parts of China and most of northern Africa.

China accounted for 1.1 billion of the 2.2 billion people whose microregions turned blue. Elsewhere, countries in North Africa such as Morocco went from having no blue microregions in 2000 to having 160 blue microregions with 15 million people by 2019.

This change in prosperity was not limited to urban areas. In Morocco, for instance, Casablanca turned blue, as did Essaouira, a popular travel destination—but so did more off-the-beaten-track places like the harbor towns of Larache and Nador.

Turning to dark blue, of the 86 million people with the highest living standards in 2000, 45 million were clustered in Alpine microregions of Western Europe and in Japan.

By 2019, microregions sprawled across many countries had crossed the dark blue threshold, including much of Germany and large parts of the United States, as well as in Qatar, Singapore, and parts of South Korea, which until 2021 was classified as a “developing country” by the United Nations.

Fewer than four million people in Germany, for example, lived in dark blue microregions in 2000. Twenty years later, 46 million, or more than half its population, lived in dark blue places. Most of the German microregions that turned dark blue were in the west of the country, but some places in the east also attained the highest levels of GDP per capita and life expectancy by 2019, such as Dresden in the state of Saxony, and Rostock in Mecklenburg-Vorpommern.

In South Korea, no citizen lived in a dark blue microregion in 2000, but by 2019, 15 million South Koreans lived in one. Nine million of them were in Seoul, but 2.0 million and 1.6 million lived in the provinces of Chungcheongnam-do and Chungcheongbuk-do, respectively.

At the other end of the scale, more than one billion people had very low living standards in 2000, in orange microregions across sub-Saharan Africa, large parts of Asia, and some places in Latin America.

By 2019, comparable living standards were limited mostly to Afghanistan, which has been rocked by conflict since the 1970s, and sub-Saharan Africa.

Even within those remaining orange microregions, remarkable progress was made. For instance, while sub-Saharan Africa's population grew from 663 million to 1.1 billion over the 20-year period, the absolute number of people living in poor conditions on the subcontinent fell from 410 million to 386 million, or from more than 60 percent to 35 percent of the overall population.

Getting on the same health and income curve

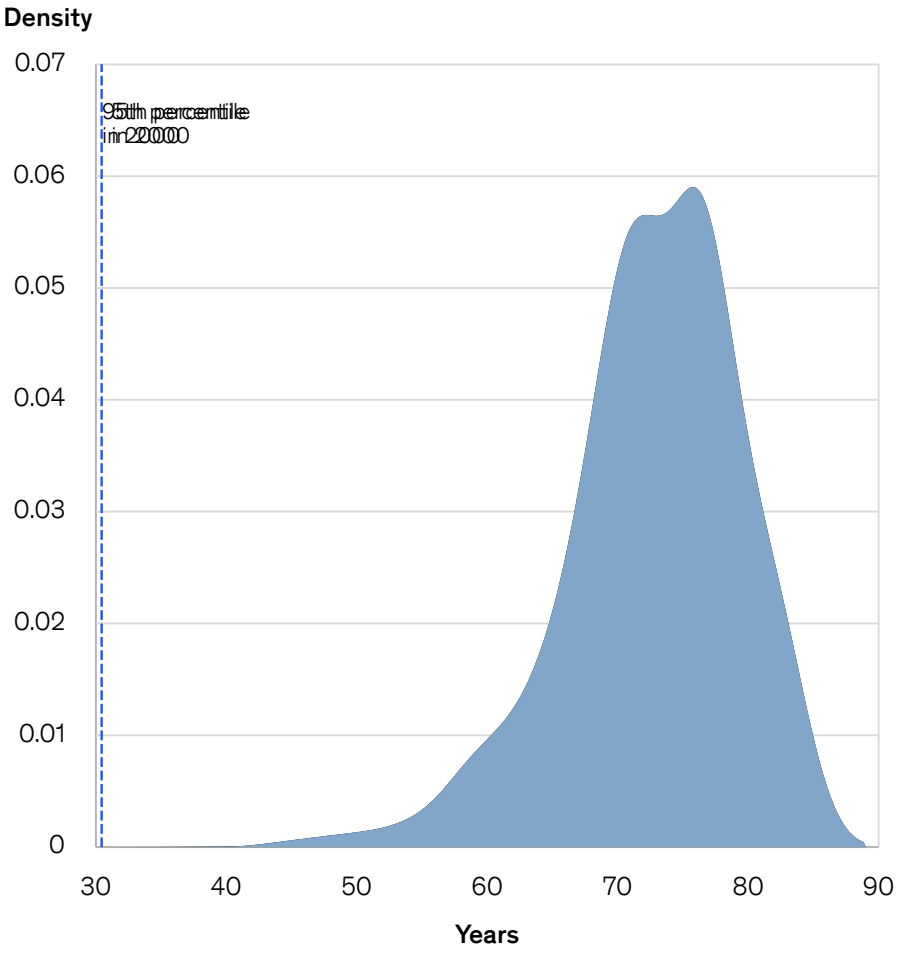
Globally, GDP per capita and life expectancy grew faster in microregions at the bottom than among those at the top. As a result, the world converged into the same health and income curve. Let's explore it visually.

Between 2000 and 2019, life expectancy increased around the world, as microregions with lower life expectancy in 2000 caught up with those at the top. The bottom 5 percent of the world's population in 2000 lived in microregions with

Distribution of global life expectancy by microregion, %

life expectancy below 49.7 years, while the top 5 percent had life spans longer than 79.5 years—a difference of 30 years. Over 20 years, this gap narrowed to 23 years.

The old “two humped” world smoothed out into one shared curve.



Replay animation

If we now divide the global curve of life expectancy into curves that represent three

groups of microregions based on their life expectancy in 2000 —less than 60 years, 60 years to 75 years, and greater than 75 years—the picture of longevity becomes more nuanced.

Three observations stand out. First, there was a strong catch-up effect: the bottom curve caught up with the middle and the top curves, and the middle curve caught up with the top one, too. Second, the bottom and the middle curves narrowed over time—

convergence also happened within the groups.

Finally, the top curve got wider on both ends, reflecting increasing disparities within this group. Microregions in places like Italy, Japan, Spain, and Switzerland were among the growing top, while the drop at the bottom was mostly driven by microregions in the United States and Mexico.

Turning our attention to incomes, microregions that were poorer in 2000 generally had higher GDP per capita growth rates than richer ones.

Among the 10 percent of the global population with the lowest

Replay animation

income, GDP per capita advanced 5.8 percent a year, compared to 0.9 percent per year among the top 10 percent. This pattern held true across income deciles, with lower deciles almost always growing faster than higher deciles.

Just as for life expectancy, what started as a world with a two-hump distribution of GDP per capita ended with everyone on one smooth curve.

Replay animation

Rare—and microregional—decline

Absolute declines in either GDP per capita or life expectancy were localized and uncommon. Only 70 million people—a scant 1 percent of the world's population in 2019—lived in microregions that experienced declining life expectancy from 2000 to 2019.

For GDP per capita, we see more variance as we zoom in. A country view would show us that only 191 million people living in 20 countries experienced negative income growth from 2000 to 2019.

Our high-resolution view reveals 6,300 microregions across 100 countries and home to 574 million people where GDP per capita fell. For 80 percent of the people, declining GDP per capita was driven by population growth that outpaced positive GDP growth rather than by overall economic decline.

The contrast between the country and the microregional lens is staggering. For example, Angola, with 31 million inhabitants in 2019, on average had positive GDP per capita growth from 2000 to 2019. And yet, 140 Angolan microregions that are home to 19 million people experienced declining income. The country's overall pattern is likely the result of a post-war boom immediately after the country ended its civil war in 2002 that petered out and has since been followed by a period of no or negative growth.

Far from Angola, in France, the country grew positively on average, yet about seven million people lived in microregions, mostly in the north, where economic prosperity declined.

Humanity has made remarkable progress over the past 20 years. By 2019, 3.5 billion people lived in microregions that had the same health and income enjoyed by only 1.3 billion in 2000, and far fewer people had very low living standards. Returning to this trajectory of success after the COVID-19 pandemic briefly put progress on pause in many parts of the world should be a priority for governments, companies, and societies.

Chapter 1
Pixels make the picture: A guided tour through the granular world

Chapter 3
A dividend paid in years: Getting more health from each dollar of income