Economics



What a Drag It Is Getting Old: Implications for Economic Growth Compendium

Summary

The world's population has grown to nearly eight billion people today from about twoand-a-half billion individuals in 1950. However, global population growth has slowed markedly over the past few decades, and the United Nations looks for further deceleration in coming years. Furthermore, the demographic outlook differs across major regions of the world. While the number of individuals in Africa will continue to grow at a strong rate over the next few decades, Europe's population is set to decline over that period. In a sixpart series, which we collect into this compendium, we analyze the economic implications of slower population growth.

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Part I: Demographics Set to Exert Headwinds on U.S. Economic Growth

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Summary

Part I: Figure 1

- The world's population has grown to nearly 8 billion today from roughly 2.5 billion in 1950. Looking forward, the rate of increase likely will trend lower.
- Populations in some countries, notably China, Germany and Japan, likely will contract in coming years.
- The growth of the working-age population in the United States will slow considerably over the next few years. Slower growth in the number of individuals available to produce goods and services generally translates into slower growth in the amount of goods and services produced, everything else equal. In other words, slower growth in the working-age population means slower economic growth.
- Acceleration in labor productivity and/or a sustained increase in labor force participation, should they transpire, could offset some of the growth-hindering effects of slower growth in the working-age population.
- If a slow growth environment does indeed materialize in coming years, then income (i.e., wages, salaries, profits, etc.) will also grow at a subdued pace. Furthermore, political choices about societal priorities may become more difficult.

Introduction: Demographic Challenges Loom in Many Countries

The world has experienced rapid population growth over the past few decades. The world's population, which stood at roughly 2.5 billion people in 1950, has subsequently grown to nearly 8 billion individuals, and the United Nations (U.N.) projects that it will approach 10 billion by 2050 (Figure 1). But growth has slowed markedly over the past few decades. Global population growth averaged almost 2% per annum in the 1960s and 1970s (Figure 2). However, it has subsequently slowed to approximately 1% per annum, and the U.N. looks for it downshift to roughly 0.5% per year by midcentury.

Deceleration in the world's population growth likely will continue.



Part I: Figure 2



Moreover, not all countries and regions are likely to experience positive population growth in coming years. Although the U.N. projects that the population of Sub-Saharan Africa will nearly double by 2050 from its current size of 1.1 billion individuals, it looks for the population of China, which is currently the world's most populous country, to fall by roughly 3% on balance by midcentury. The number of individuals in some major European countries, notably Germany and Italy, likely will decline as well over the next few decades. The population of Japan, which is aging rapidly, is expected to plummet by more than 15% over that same period.

Countries that experience

rates of economic growth,

everything else equal.

stronger rates of population

growth should enjoy stronger

Differing degrees of population growth will have profound effects on different economies. Everything else equal, countries that experience strong population growth should enjoy more robust rates of economic growth relative to countries in which the population is growing slowly or contracting. In other words, the aging of a society can exert a drag on its long-run economic growth rate. In the remainder of this report, we will focus on prospects for population growth in the United States and its long-run economic implications. We will shift our attention to other major economies in follow-up reports.

Strong Growth in Labor Force Helped to Boost U.S. Economic Growth in Prior Decades

As noted earlier, countries that experience stronger rates of population growth should enjoy stronger rates of economic growth, everything else equal. This is because there is a high correlation between overall population growth and growth in the working-age population, usually defined as individuals between 16 and 64 years of age. Individuals of working age are potentially available to produce goods and services, although not every person in that cohort will necessarily choose to work. For example, some individuals of working age accelerates, the potential of an economy to produce goods and services generally accelerates as well. Conversely, a country's potential economic growth rate generally slows as its working-age population decelerates.

The growth rate of the working-age population in the United States has ebbed and flowed over the past few decades (Figure 3). It rose considerably in the 1960s and the 1970s as the generation of Baby Boomers came of age. Growth in the working-age population then slowed in the 1980s, but it subsequently rebounded in the 1990s as immigration picked up. The trend decline in working-age population growth resumed around the turn of the century as the birthrate continued to move lower. The working-age population grew at an average rate of only 0.3% per annum between 2015 and 2020.

Part I: Figure 3



Part I: Figure 4





Source: U.S. Department of Labor, U.S. Department of Commerce and Wells Fargo Securities

The acceleration in the working-age population that occurred in the 1960s and 1970s is reflected in the growth of the American labor force during that period (<u>Figure 4</u>). Labor force growth in those decades was also boosted by a significant rise in labor force participation—individuals of 16 years of age and older who are either working or actively seeking employment—among women. As late as 1965, fewer than 40% of women participated in the labor force. But the female labor force participation rate (LFPR) steadily rose in the following decades to reach 60% in the late 1990s. Labor force growth has subsequently downshifted as growth in the working-age population has slowed and as the overall LFPR has trended lower.

As noted previously, countries with strong growth rates in their working-age populations tend to enjoy stronger rates of economic growth than their demographically challenged counterparts. In short, the amount of goods and services produced tends to rise as the number of workers available to produce

those goods and services increases. But the same number of workers can produce more goods and services if their productivity rises. Consequently, an economy's so-called rate of potential GDP growth is essentially equal to the sum of its labor force growth rate and labor productivity growth rate.

As shown in Figure 4, U.S. real GDP growth generally slowed in the 1970s and early 1980s, despite the acceleration in the labor force, due to the trend decline in labor productivity growth that occurred during that period. Conversely, real GDP growth strengthened in the late 1990s due to a marked acceleration in productivity that the internet and the networking of computers unleashed. U.S. real GDP growth has followed a downward trend during the past two decades due to the combination of the subsequent deceleration in productivity growth and slower growth in the labor force.

Growth in Working-Age Population Set to Slow Further

Because there are many factors that affect productivity growth (e.g., the growth rate of capital spending, technological change, new business processes, etc.), trying to forecast it is inherently difficult. But the trajectory of the labor force growth rate in the United States does not look conducive to a rapid rate of potential economic growth, at least not in the foreseeable future. Specifically, the U.N. projects that the growth rate of the working-age population in the United States will trend down to only 0.1% per annum by the end of this decade, rebounding marginally thereafter (Figure 3). Immigration could boost the working-age population of the country by more than the U.N. currently projects, but political realities seem to argue against a marked increase in the number of foreign-born individuals entering the United States "permanently," at least not anytime soon.

U.S. real GDP growth in the next year or two should be robust as the economy snaps back from its pandemic-induced coma. As we wrote in our most recent <u>U.S. Economic Outlook</u>, we forecast that real GDP will grow 7.0% this year and 5.6% in 2022. However, U.S. economic growth should return to a more trend-like rate thereafter. In that regard, the non-partisan Congressional Budget Office (CBO) estimates that the potential growth rate of real GDP will average only 1.8% per annum between 2024 and 2031, down from the 2.3% annual average growth rate that the U.S. economy registered between 2010 and 2019. Compounded over eight years (2024 through 2031), the level of real GDP would be about \$1 trillion lower in 2031 if the economy grows only 1.8% per year rather than 2.3%. On a per capita basis, that difference translates into roughly \$3,000 for every man, woman and child. In short, the slowdown in U.S. population growth that appears to be in train means that the U.S. economy would not be able to grow as strongly as otherwise, everything else equal. Furthermore, the future size of the U.S. economy and living standards among Americans would not be as high as otherwise.

Could Productivity and Labor Force Participation Save the Day?

But everything else does not necessarily need to be equal. As noted earlier, the rate of long-run potential economic growth is determined by productivity growth as well as labor force growth. Productivity growth tends to be choppy on a quarter-by-quarter basis, especially in recent quarters due to the pandemic-induced shock to the economy, but productivity growth was generally anemic during the past decade (Figure 5). Nonfarm productivity growth averaged only 1.2% per annum throughout the 2010-2019 expansion, a full percentage point below the average rate registered between 1992 and 2000.

As noted in the previous section, there are many factors that affect productivity growth and trying to forecast it is inherently difficult. But perhaps forces set in motion by the pandemic could lead to an acceleration in productivity in coming years. For example, capital spending has been very strong in recent quarters as businesses have upgraded their systems to allow employees to work from home. This higher level of capital spending could potentially raise the growth rate of labor productivity. Perhaps new technologies could strengthen productivity growth in coming years. If growth in labor productivity does indeed strengthen, then the growth rate of potential GDP could be boosted, despite the slowdown in the growth rate of the working-age population.

Economic growth likely will slow in coming years as the growth rate of the working-age population trends lower.

Acceleration in labor productivity, should it occur, would boost potential GDP growth.

68%

66%

64%

62%

60%

58%

20



A sustained rise in the labor force participation rate (LFPR) would be another channel through which potential GDP growth could strengthen. The overall LFPR rose sharply between the mid-1960s and the end of the 20th Century (Figure 6). But the LFPR, which started to trend lower early in the century as an increasing number of individuals reached retirement age and dropped out of the labor force, lurched lower last spring when the pandemic shut down the economy. Although the LFPR has subsequently rebounded somewhat, it remains well below its pre-pandemic level.

We expect the LFPR will trend higher in coming months as schools reopen, individuals feel safer about returning to work and enhanced unemployment benefits expire. But a more sustained rise in the LFPR likely will require more than simply a return to "normal." In that regard, the work-fromhome environment that has become commonplace for many workers could usher in a period of more flexibility surrounding work arrangements. Increased flexibility, should it transpire, could potentially induce more individuals to enter the labor force, thereby raising the growth rate of potential economic growth.

Conclusion

Current economic indicators suggest that the U.S. economy is shaking off the shock induced by the pandemic, and that real GDP growth likely will be robust in the next few guarters. But the bounce from reopening the economy will eventually fade, and U.S. economic growth will return to more trendlike rates sooner or later. In that regard, demographic trends suggest that the U.S. economy may eventually settle into growth rates that historically have been considered to be slow. Acceleration in labor productivity and/or a sustained rise in the labor force participation rate could offset the growth-retarding effects of slow labor force growth. But the imminent downshift in the growth rate of the working-age population will exert headwinds on the long-run potential growth rate of the U.S. economy, everything else equal.

If a slow growth environment does indeed materialize in coming years, then income (i.e., wages, salaries, profits, etc.) will also grow at a subdued pace. Furthermore, political choices about societal priorities may become more difficult. It is relatively easy to fund different spending categories when economic growth is robust and tax revenues are pouring into the government's coffers. However, constraints become more binding when revenue growth is slow. Should the government fund strong growth in military spending at the expense of entitlement programs for senior citizens? Should infrastructure spending be reduced so that taxes can be cut?

The United States is not the only country that faces demographic challenges in coming years. Indeed, demographic trends are even more ominous in many other major economies. As noted in the introduction, the respective populations of China, Germany and Japan likely will contract in coming years. We will address the demographic challenges faced by these countries in future reports. But first, we will discuss general demographic trends in different regions of the world in Part II of this series.

An increase in labor force participation could also lead to stronger potential GDP growth.

Part II: Which Regions Have the Strongest Demographic Outlooks?

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Summary

- Looking forward, the United Nations (U.N.) projects that the number of people on the planet will continue to increase, but at a slowing rate. Some major countries, notably China, Germany and Japan, will experience contractions in their respective populations.
- Although Asia may have the most people at present, the population of Africa is growing the fastest among the major regions of the world. No other region comes close to Africa in terms of future population growth. The U.N. projects that the world's population will grow by nearly two billion individuals by mid-century, and that more than half of that increase will occur in Africa.
- Due to these demographic projections, one could possibly infer that Africa is poised to be an economic powerhouse over the next few decades, but an economy's long-run growth rate is determined by productivity growth as well as labor force growth.
- There are many factors that determine productivity growth, but capital accumulation and technological change are some of the most important determinants. Africa may possess a strong rate of labor force growth in coming years, but the outlook for the continent's productivity growth rate is more uncertain.
- The investment-to-GDP ratio in Emerging and Developing Asia has averaged 35% over the past three decades. In contrast, the ratios for Emerging and Developing Europe, Latin America and sub-Saharan Africa have averaged only 20% or so. Capital accumulation in these regions will need to strengthen considerably over the next decade or two for these regions to enjoy Asia-like rates of economic growth.
- Of the 25 largest economies in the world today, only two (Australia and Saudi Arabia) are expected to have population growth rates over the next 30 years that exceed the global average of 0.7% per annum. Among this set of 25 large economies, the population in 10 of them is projected to contract on balance over the next 30 years.

Introduction

In Part I of this series, we noted that the world's population has grown from roughly 2.5 billion individuals in 1950 to nearly 8.0 billion today. Looking forward, the United Nations (U.N.) projects that the number of people on the planet will continue to increase, but at a slowing rate. Some major countries, notably China, Germany and Japan, will experience contractions in their respective populations. The demographic outlook is not as dire for the United States as it is for these other major economies, but the American population growth rate looks set to slow further in coming years.

Growth in the labor force is one of the primary determinants of long-run economic growth. As we discussed in the first report in this series, the looming slowdown in the growth of the American working-age population will exert headwinds in coming years on the sustainable rate of U.S. economic growth, everything else equal. In this second installment, we discuss the demographic outlook in some major regions of the world and its implications for potential economic growth. We will delve more deeply into individual countries in follow-up reports.

Asia Is the World's Most Populous Region, But Africa Is Growing the Fastest

Asia, with an estimated population of roughly 4.6 billion people in 2020, is the most populous region in the world (Figure 1). The two most populous countries in the world—China had a population of 1.44 billion in 2020 with India right behind at 1.38 billion—are included in the overall total for Asia. Africa is a distant second with 1.3 billion individuals at present, followed by Europe (0.7 billion), Latin America and the Caribbean (0.7 billion) and North America (0.4 billion).1

Part II: Figure 1



Population Growth Percent Change 2010 to 2020 35% 30% 29.0% 30% 25% 25% 20% 20% 15% 15% 10.6% 10% 10.2% 10% 7.5% 5% 5% 1 5% 0% 0% Africa Latin America Asia North America Europe

Source: United Nations and Wells Fargo Securities

Part II: Figure 2

Although Asia may have the most people at present, the population of Africa is growing the fastest among the major regions of the world. Between 2010 and 2020, the number of individuals in Africa increased by 29% (Figure 2). The respective populations of Latin America and Asia each rose by roughly 10% during the past decade, while the number of Europeans barely grew at all. Looking ahead, the U.N. projects that population growth in Africa will remain strong (Figure 3). If, as the U.N. forecasts, the population of Africa increases by about 85% between 2020 and 2050, then the number of Africans will grow at a robust rate of 2.1% per annum on average. No other region comes close to Africa in terms of future population growth. The U.N. projects that the world's population will grow by nearly two billion individuals by mid-century, and that more than half of that increase will occur in Africa.

The populations of North America and Latin America are each expected to grow by roughly 15% by 2050. The U.N. forecasts that the number of individuals in Asia will also increase by 15% or so over that period, although this overall change masks some important differences. Specifically, India, which should surpass China as the world's most populous country by the end of the current decade, is expected to realize an increase in its population of nearly 20% by mid-century. In contrast, China's population looks set to contract by 3% or so by 2050, and the U.N. projects that Japan's population will fall by more than 15% over the next 30 years. The number of individuals in Europe will also drop over the next few decades due in large part to significant population declines in many countries in Eastern Europe.

Africa has the strongest rate of population growth at present, and will continue to do so for the foreseeable future.

Part II: Figure 3



Part II: Figure 4

The growth rate of the working-age population (*i.e.*, individuals between 15 and 64 years of age) paints a picture for Africa that is even more compelling than total population growth. As shown in <u>Figure 4</u>, the U.N. expects that the working-age population in Africa will more than double by mid-century. This sharp increase in the number of working-age individuals reflects the elevated birth rate in Africa. There were about 38 births per 1000 individuals in Africa at the turn of the 21st Century (the comparable rate in the United States at that time was only 14), and the U.N. projects that the African birthrate will remain relatively high at 27 per 1000 individuals at the end of the 2030s.

Does Strong Population Growth Necessarily Imply Strong Economic Growth?

Due to these demographic projections, one could possibly infer that Africa is poised to be an economic powerhouse over the next few decades. Figure 5 shows that rates of real GDP growth tend to be correlated with population growth rates. Africa's working-age population grew at an annual average growth rate of 2.8% between 1990 and 2019, and its 3.6% per annum economic growth rate over that period was the second strongest among the five major regions of the world. On the other end of the spectrum, the working-age population in Europe was more or less flat on balance over the past three decades, and Europe's 1.6% per annum GDP growth rate was the slowest among the regions.

However, Asia boasted the strongest economic growth rate over the period despite the relatively slow growth rate in its working-age population. Clearly, long-run economic growth must be determined by more than simply population growth. As we noted in Part I, an economy's long-run potential growth rate is essentially the sum of its labor force growth rate and its rate of labor productivity growth. There are many factors that determine productivity growth, but capital accumulation and technological change are some of the most important determinants. Africa may possess a strong rate of labor force growth in coming years, but the outlook for the continent's productivity growth rate is more uncertain.

Rates of real GDP growth tend to be correlated with population growth rates. Part II: Figure 5

Population and Economic Growth Average Growth per Annum (1990-2019) 6% 6% Real GDP Growth Working-Age Population Growth 5% 5% 4% 4% 3% 3% 2% 2% 1% 1% 0% 0% Asia Africa Latin America North America Europe Source: United Nations and Wells Fargo Securities

Asia's robust rate of economic growth rate over the past few decades has been determined, at least in part, by its strong rate of capital accumulation that has led to strong productivity growth. As shown in Figure 6, the investment-to-GDP ratio in Emerging and Developing Asia has averaged 35% over the past three decades. Although the outsized rate of investment spending in China has helped boost the overall ratio for the region, many other Asian economies have also registered strong rates of capital accumulation. In contrast, the ratios for Emerging and Developing Europe, Latin America and sub-Saharan Africa have averaged only 20% or so. Looking to the immediate future, the International Monetary Fund forecasts that these ratios will remain more or less unchanged through the middle part of the current decade. Capital accumulation in these regions will need to strengthen considerably over the next decade or two for these regions to enjoy Asia-like rates of economic growth.

In that regard, the investment-to-GDP ratio in China has averaged 40% per year since 1990, which helps to explain the country's 9% per annum real GDP growth rate over that period. But unlike China, which is a sovereign nation with similar economic policies and institutions across its 31 provinces, municipalities and autonomous regions, Africa, Emerging and Developing Europe, and Latin America are collections of individual countries. According to the IMF's classification, there are 16 countries in Emerging and Developing Europe, 33 countries in Latin America and the Caribbean, and 45 countries in Sub-Saharan Africa. Each of these countries has its own set of economic policies and institutions. Just because, say, Nigeria adopts policies that deliver strong rates of economic growth in coming years does not necessarily imply that, say, Kenya will be able to do the same. Furthermore, it is not entirely clear which policies governments can implement to deliver strong rates of economic growth on a sustainable basis.

With a few notable exceptions, most of the 156 economies that the IMF classifies as "Emerging Market and Developing Economies" are small. For example, U.N. data show that Nigeria currently has a population of more than 200 million people, which makes it the seventh most populous country in the world. It is also Africa's single largest economy. However, the size of Nigeria's economy at present is less than \$500 billion, which represents only about 0.5% of global GDP. Even if the Nigerian economy were to grow at double-digit growth rates every year for the next decade or two, which clearly would be a good omen for the economic well-being of the residents of Nigeria, it would barely move the needle in terms of global GDP growth. Of the 25 largest economies in the world today, only two (Australia and Saudi Arabia) are expected to have population growth rates over the next 30 years that exceed the global average of 0.7% per annum. Among this set of 25 large economies, the population in 10 of them is projected to contract on balance over the next 30 years.

Conclusion

The world's population grew rapidly between the end of the Second World War and the beginning of the 21st Century, but growth has slowed over the past two decades. Looking forward, the U.N. projects that the number of people in the world will continue to grow through mid-century, albeit at

Part II: Figure 6



Source: International Monetary Fund and Wells Fargo Securities

Capital accumulation has been very strong in Asia.

With a few notable exceptions, most developing countries are small economies. a decreasing rate. Although Africa's population should continue to grow at a strong rate, Asia, Latin America and North America likely will experience significantly slower rates of population growth. The number on individuals in Europe is set to contract in the next few decades.

Although countries in Africa generally have the brightest outlooks in terms of population growth, they will need to raise their rates of capital accumulation, which would help boost productivity growth, if they are to experience truly spectacular rates of economic growth. But given their generally small size, strong rates of economic growth in individual African countries would not be a game changer in terms of global GDP growth, at least not in the foreseeable future. Contracting populations in some of the world's largest economies likely will exert headwinds on global GDP growth, everything else equal, in coming years. We will address the demographic outlooks in some of these large economies, and their implications for economic growth, in future reports in this series.

Endnote

¹The U.N. includes Mexico in its population total for Latin America and the Caribbean rather than for North America. (<u>Return to text</u>)

Part III: Are India and Indonesia Poised To Be Engines of Growth?

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Summary

- The working-age population in Asia should continue to grow, albeit at increasingly slow rates, through the mid-century. However, this demographic projection for the overall Asian region masks some important differences among individual countries.
- Working-age populations in Japan and South Korea likely will contract significantly by mid-century. These declines in the number of individuals, who are potentially available to produce goods and services, will exert downward pressure on potential rates of economic growth in Japan and South Korea, everything else equal. Real GDP very well could begin to contract on a sustained basis in these economies.
- In China, the migration of individuals from the low-productivity agricultural sector to the highproductivity industrial sector, in conjunction with rapid rates of capital accumulation, led to a long period of robust economic growth. But China's days of sustained double-digit GDP growth likely are a relic of the past due to the contraction in its working-age population that is already underway.
- Working-age populations in India and Indonesia should continue to grow over the next few decades. But they will need to raise their rates of national savings and investment to bring about Chinese-like rates of double-digit economic growth on a sustained basis.

Introduction

We discussed demographic trends in major regions of the world and their implications for economic growth in <u>Part II</u> of this series. In this third installment, we focus on Asia and some major economies in that region. As shown in <u>Figure 1</u>, the total number of individuals in Asia more than doubled between 1970 and 2020. The marked rise in population over that 50-year period was driven by the region's high birth rate, which led the number of people of working age (*i.e.*, individuals between 15 and 64 years of age) to grow even faster than the overall population. This strong growth rate in the number of individuals of working age, who potentially are available to produce goods and services, helps to explain the heady rates of economic growth that Asia has enjoyed. But birth rates in most Asian countries have weakened, and population growth has slowed. Looking forward, the United Nations (U.N.) projects that the working-age population in Asia will more or less top out by mid-century.

However, as we noted in Part II, this demographic projection for the overall Asian region masks some important differences among individual countries. In the remainder of this report, we focus on the demographic outlook in China, India, Indonesia, Japan and South Korea. Together, these five countries currently account for roughly 85% of the economic output that is produced in Asia and about 70% of the region's population. As shown in Figure 2, the U.N. forecasts that the working-age population in India and Indonesia will grow 20% and 15% respectively between 2020 and 2050. But the number of individuals of working age in Japan, which has been in steady decline since the mid-1990s, looks set to fall nearly 30% further over the next few decades. Working-age populations in China and South Korea have already topped out, and the U.N. forecasts that they will fall 17% and 34%, respectively, by midcentury.

Strong growth rate in Asia's working-age population helps to explain the heady rates of economic growth that the region has enjoyed over the past few decades.

Part III: Figure 1





Source: United Nations and Wells Fargo Securities

Japan and South Korea Are Aging Rapidly

Let's start our individual country analysis with Japan and South Korea, which rank among the Asian economies with the highest levels of per capita income. But unlike Singapore, which also has a very high level of per capital income, Japan and South Korea rank among the largest economies in the world at present. According to the International Monetary Fund (IMF), Japan is the world's third largest economy and South Korea is the twelfth largest (Singapore was #35).¹ Economic prospects in coming years in Japan, and to a lesser extent South Korea, will have a bearing on the overall global economy.

If the projections that are shown in Figure 2 prove to be correct, then the working-age population will decline at an average per annum rate of 1.4% in South Korea and 1.1% in Japan over the next 30 years. These negative growth rates in the number of individuals who are potentially available to produce goods and services will put further downward pressure on economic growth rates in these two countries, everything else equal. In that regard, the annual average rate of real GDP growth in Japan edged down from 1.4% during the expansion of 2002-2007 to 1.3% during the last expansion (Figure 3). The downshift in the rate of Korean economic growth was more abrupt between the two periods.

Of course, everything else may not be equal. Japan and South Korea could offset the headwinds applied to their economic growth rates from negative demographics by stronger productivity growth. Data from the Organization for Economic Cooperation and Development (OECD) show that labor productivity in Japan grew only 0.2% per annum from 2011-2019 but by a more impressive rate of 1.6% in South Korea during that period. Even if Korea maintains this strong rate of productivity growth in coming years, the country's potential economic growth rate likely will slow to a crawl due to the projected decline in its working-age population. Real GDP in Japan very well could contract on a sustained basis unless the country can bring about a marked acceleration in labor productivity. In short, these two Asian countries, which were economic powerhouses just a few decades ago, likely will be surpassed in the years ahead by faster growing economies.

The rate of potential economic growth in South Korea likely will slow to a crawl while real GDP in Japan could contract on a sustained basis.

Part III: Figure 3



Part III: Figure 4



Re-allocation of Resources Helped to Drive Chinese Economic Growth

China was an economic afterthought in 1980, but years of strong growth—real GDP grew at an annual average rate of 10.0% between 1980 and 2010—propelled it to the world's second largest economy today. Some of China's rapid GDP growth over this period is explained by the solid growth rate in its working-age population. This segment of the Chinese population grew at an average per annum rate of 1.8% during that 30-year period (Figure 2). But how did the rate of Chinese economic growth outpace the growth of its working-age population by so much?

As we noted in Part II of this series, part of the answer reflects the robust rate of capital accumulation in China that helped to lift the rate of Chinese productivity growth. Internal migration also played a role. In 1980, nearly 200 million individuals, which accounted for roughly 20% of China's population at that time, lived in the country's urban areas (Figure 4). The rest (800 million) resided in rural China and were largely engaged in the low-productivity agricultural sector. But the number of people living in China's urban areas swelled to about 670 million by 2010. While some of the increase in the urban population simply reflects natural population growth, millions of individuals migrated from rural China—the rural population fell to less than 700 million by 2010—to urban China. The country's highly productive factories are generally located in its cities. This movement of workers from the low-productivity agricultural sector helped to drive Chinese economic growth during those years.

Looking forward, the U.N. forecasts that the number of individuals residing in rural China will continue to contract while the country's urban population will grow further, albeit at rates that are significantly slower than in decades past. So Chinese economic growth in coming years could continue to be supported by continued re-allocation of resources from lower-productivity sectors to higher-productivity sectors. That said, the days of 10% real GDP growth in China on a sustained basis likely are a relic of the past. The IMF forecasts that Chinese real GDP growth will average roughly 5% per annum between 2023 and 2026, and continued deceleration thereafter seems likely due to the country's demographic challenges.

India: Higher National Savings Needed to Supercharge Economic Growth

Unlike Japan, South Korea and China, where working-age populations are set to decline in coming years, the demographic outlook in India is relatively bright. As discussed above, the number of Indians who are between the ages of 15 years and 64 years is projected to rise by 20% over the next 30 years. Everything else equal, this increase in the number of working-age Indians in coming years should help to support solid rates of economic growth in the world's fifth largest economy. Furthermore, roughly 65% of the country's population lives in rural India (Figure 4), where they are largely engaged in subsistence agriculture. Migration out of the low-productivity agricultural sector into the high-

Millions of Chinese workers migrated from the lowproductivity agricultural sector to the high-productivity manufacturing sector over the past few decades.

In order to realize even stronger rates of economic growth in coming years, India will need to lift its rates of national savings and investment. productivity manufacturing sector could help to boost the economy's long-run potential growth rate, as it did in China.

As noted previously, real GDP in China grew at an average rate of 10% per annum between 1980 and 2010. Although the working-age population grew at a faster rate in India during that 30-year period than it did in China (2.3% per annum in the former versus 1.8% in the latter), real GDP growth in India averaged only 6% between 1980 and 2010. Why did economic growth in India lag so far behind the rate that was achieved in China?

In China, the national savings rate, which measures the combined savings of the household, business and public sectors, trended up from about 35% of GDP in the mid-1980s to a peak of 50% at the beginning of the last decade (Figure 5). These savings were available to finance strong rates of investment spending in China (Figure 6), and the high-productivity factory sector expanded rapidly as capital poured into it. The industrial sector accounted for a staggering 40% or so of value added during the years of robust Chinese economic growth.

Part III: Figure 5





Part III: Figure 6

Rates of national savings and investment in India have consistently fallen short of comparable rates in China (Figures 5 & 6). India has closed the gap with China, but rates of national savings and investment in India have trended lower in recent years. The IMF forecasts that Indian GDP will grow at an average rate of 6.7% per year between 2023-2026. But for the Indian economy to grow at rates that were commonplace in China over the past few decades, it will need to lift its rates of national savings and investment. A rise in the rate of capital accumulation could fuel expansion in the high-productivity industrial sector, which accounts for only 20% of value added today. Expansion of the industrial sector, should it occur, would help to bolster productivity growth in India, thereby bringing about a stronger rate of potential economic growth.

Savings and Investment Need to Rise in Indonesia Also

In some respects, Indonesia, which is currently the 16th largest economy in the world, resembles India. Although the population in Indonesia is a fraction of India's population (about 270 million in the former versus nearly 1.4 billion in the latter), both countries have experienced strong rates of growth in their working-age populations over the past few decades, a trend which the U.N. expects will continue for the foreseeable future. But real GDP growth in Indonesia has been more uneven than in India. The Indonesian economy boomed throughout much of the 1990s, but real GDP nosedived by 13% in 1998 following the country's financial crisis. Indonesian real GDP grew roughly 5% to 6% per annum throughout most of the past decade, about a percentage point or so below rates that were registered in the Indian economy during those years.

The industrial sector in Indonesia currently accounts for roughly 30% of value added, which places it between India and China in terms of relative size. But the agricultural sector accounts for 13% of value added in the Indonesian economy, so there is scope for a re-allocation of resources out of the

Like India, Indonesia currently has low rates of national savings and investment. low-productivity agricultural sector into the high-productivity industrial sector. Like India, Indonesia currently has low rates of national savings and investment, at least relative to Chinese standards (Figures 5 & 6). The IMF forecasts that the 5% to 6% real GDP growth rates that characterized the Indonesian economy in the past decade will continue for the foreseeable future. If so, then real income per capita in Indonesia will continue to rise. But for the country to achieve Chinese-like double-digit growth rates on a sustained basis, it will need to raise its rates of national savings and investment in coming years.

Conclusion

The baton of economic growth has been passed around Asian economies over the past few decades. The Japanese and Korean economies expanded rapidly in the 1970s and 1980s, but rates of economic growth in both countries have downshifted more recently due, at least in part, to their aging populations. Real GDP likely will decelerate further, if not start to contract on a sustained basis, due to the marked decline in the number of individuals of working age in both economies in coming years. China experienced an extraordinary run of economic growth, but its days of sustained double-digit GDP growth likely are a relic of the past due to the contraction in its working-age population that is already underway.

Will India and Indonesia take up the baton of drivers of economic growth in the region? Both India and Indonesia rank among the world's most populous countries in the world, and their working-age populations should continue to grow over the next few decades. But they will both need to raise their rates of national savings and investment considerably to experience the super-charged rates of economic growth that Japan, South Korea and China all enjoyed at one point or the other over the past few decades. If, as the IMF forecasts, these rates remain flat over the next few years, then neither economy is likely to realize double-digit economic growth rates on a sustained basis anytime soon.

Endnote

¹Throughout this report, we rank countries based on the U.S. dollar values of their GDP in 2019. (<u>Return to Section</u>)

Part IV: Europe Faces Significant Demographic Challenges

Published on July 8, 2021

Summary

- In the fourth report in our series, we discuss the demographic outlook in Europe. We divide
 "Europe" into "Advanced Europe," which includes most of the countries in Western and Central
 Europe, and "Developing Europe," which includes most of the countries in Eastern Europe as well as
 Russia and Ukraine.
- The working-age population in Advanced Europe topped out about 10 years ago, and the United Nations projects that it will contract about 13% by mid-century. Taking a more granular view, working-age populations are projected to decline over the next 30 years in 19 of the 26 individual economies in Advanced Europe.
- The four most populous countries in Advanced Europe (i.e., Germany, France, Italy and Spain) likely will experience declines in their working-age populations by mid-century.
- The demographic outlook is even bleaker in Developing Europe, where the number of individuals of working age looks set to fall by more than 20% by 2050. All 14 countries of Developing Europe likely will see their working-age populations contract over that period.
- Contractions in the number of people who are potentially available to produce goods and services implies that potential rates of economic growth in both Advanced Europe and Developing Europe could slow further in coming years.
- Acceleration in productivity, more immigration and/or an increase in the retirement age could offset the downward pressure that unfavorable demographics exerts on potential economic growth rates. That said, there are few indications that any of these variables are about to change meaningfully, at least not in the foreseeable future.
- Central banks in Europe may need to maintain accommodative stances for quite some time if potential rates of economic growth downshift due to unfavorable demographic trends.

Introduction

We have discussed the long-run economic implications of population growth in a series of reports over the past few weeks. In <u>Part I</u>, we focused on demographic projections in the United States and their implications for the U.S. economy in coming years. In <u>Part II</u>, we looked at broad regions of the global economy and noted that strong growth in the number of working-age individuals in Africa over the next few decades does not necessarily guarantee that the continent will become the next economic powerhouse. We discussed the long-run economic outlooks of five populous Asian countries in <u>Part III</u>, and we now turn our attention to Europe in this fourth installment in the series.

The definition of "Europe" can differ depending on who is doing the defining. Geographers generally define Europe as the landmass that is bordered by the Arctic Ocean on the north, the Atlantic Ocean on the west, the Mediterranean, Black and Caspian Seas on the south, and the Ural Mountains on the east. However, we follow the classification for Europe that the International Monetary Fund (IMF) uses in its World Economic Outlook database. The IMF further sub-divides European economies into those that are included among the advanced economies of the world and those that are included in "Emerging and Developing Europe." In what follows, we will refer to "Advanced Europe" and "Developing Europe."

Europe Will Experience a Sharp Drop in the Working-Age Population in Coming Years

Let's start with the broad aggregates before we drill down into individual economies. The total number of people in Advanced Europe rose by 75 million, a 20% increase, between 1970 and 2020. This increase in the total population over that 50-year period was driven by an even sharper rise in the working-age population (<u>Figure 1</u>). However, the number of individuals between the ages of 15 and 64 (i.e., the working-age population) peaked about 10 years ago, and it has subsequently trended a bit lower. This demographic downshift is reflected in the pace of economic growth. Real GDP growth in Advanced Europe averaged 2.4% per annum from 1980 to 2007, a period during which the workingage population was growing. However, real GDP in these countries grew at an annual average rate of

Advanced Europe likely will struggle to reach a sustainable economic growth rate of only 1.4% per annum in coming years. only 1.4% between 2010 and 2019, which coincides with the modest contraction that has occurred in the number of individuals of working age.

Looking forward, the United Nations (U.N.) projects that the working-age population will decline by another 13% or so by mid-century which, if realized, means that there will be roughly as many individuals of working age in Advanced Europe in 2050 as there were in 1980. This marked decline in the working-age population, which equates to an annual average rate of contraction of nearly 0.5%, will exert headwinds on the rate of economic growth in Advanced Europe, everything else equal. In short, Advanced Europe will struggle to reach a sustainable economic growth rate of only 1.4% per annum unless productivity accelerates markedly, the countries open their borders to more immigrants of working age or aging residents continue to work well into traditional retirement years.

Part IV: Figure 1

Part IV: Figure 2



Source: United Nations and Wells Fargo Securities

The working-age population in Developing Europe rose 15% between 1970 and the turn of the 21st century before flat-lining over the next ten years (Figure 2). But it has already dropped 8% since 2010, and the U.N. looks for it to fall by more than 20% over the next 30 years. As in Advanced Europe, this decline in the number of potential workers will have adverse economic consequences, everything else equal.

All the nations that are included in our Developing Europe aggregate were once "behind the Berlin Wall." As the communist regimes in those countries fell and their economic systems were replaced by some form of free-market enterprise, economic output nose-dived. For example, real GDP in Russia cratered by 40% between 1990 and 1996. However, each economy eventually stabilized, and a period of solid economic growth then set in. Real GDP in the subset of economies for which we have data going back to at least 1995 grew by more than 70% between 1995 and 2008, which equates to an average growth rate of 4.3% per annum over that period.²

However, the rate of economic growth in these countries has downshifted in recent years. Real GDP growth averaged only 2.2% per annum between 2010 and 2019, roughly one-half the rate that was registered in the period between the fall of communism and the global financial crisis. If the U.N.'s projection that the number of working-age individuals in Developing Europe will fall by more than 20% over the next thirty years proves accurate, then Developing Europe will find it challenging to even reach this reduced rate of economic growth in coming years, everything else equal.

Largest Economies in Advanced Europe Will Experience Population Decline

The aggregates shown in Figures 1 and 2 mask some marked differences among individual countries. Specifically, the U.N. projects that the working-age population will grow in seven of the 26 countries that comprise Advanced Europe (i.e., Norway, Luxembourg, Sweden, Iceland, Ireland, Denmark and the United Kingdom (Figure 3)). But at the other end of the spectrum, there are nine nations in which the number of working-age individuals is projected to decline by 20% or more (i.e., Estonia, Slovenia, Slovakia, Italy, Portugal, Spain, Latvia, Greece and Lithuania). The demographic challenges that these

The demographic outlook in Developing Europe is even more dire than it is in Advanced Europe.

There are nine countries in Advanced Europe in which the workina-aae population is projected to fall by 20% or more by mid-century.

economies face will exert a significant drag on their respective rates of potential economic growth in coming years. In that regard, the Greek economy, which was hammered by the European sovereign debt crisis of 2010-2013, remains 30% smaller today than it was at its mid-2007 peak. Given the outlook for its working-age population, it may take decades for the level of real GDP in Greece to return to it 2007 peak.

The 19 individual economies that comprise the Eurozone are a subset of the larger Advanced Europe aggregate. In only two of these 19 individual economies is the working-age population forecasted to grow over the next 30 years. And these two economies, Luxembourg and Ireland, are rather small. In contrast, the U.N. projects that the working-age population will decline in the four largest individual economies in the Eurozone: Germany (-16%), France (-5%), Italy (-26%) and Spain (-28%). Collectively, these four countries currently account for 75% of the total population and 75% of real GDP in the 19-member Eurozone. The upshot is the 17% decline in the Eurozone's working-age population by 2050 will make it difficult for the euro area to achieve the 1.4% average annual GDP growth rate that the region managed to eke out over the 2010-2019 period.

Part IV: Figure 3





Part IV: Figure 4



Source: United Nations and Wells Fargo Securities

As discussed above, the demographic outlook, and hence the outlook for economic growth, is rather bleak for Developing Europe in coming years. As shown in Figure 4, the U.N. forecasts that the working-age population will contract by 2050 in each of the 14 economies that are included in the Developing Europe aggregate. The declines range from 13% in Montenegro to 30% in Bulgaria. Russia is the largest economy in Developing Europe, both in terms of population and level of GDP. The number of Russians of working age has already declined by 7% since its peak about 10 years ago. The U.N. looks for it to fall by another 15% by mid-century. The rate of decline in the working-age population in Ukraine, the region's second most populous country, is nearly twice as high as in Russia.

As noted previously, real GDP in Russia nosedived in the years immediately following the fall of the communist regime. But, the Russian economy grew strongly between its own financial crisis in 1998 and the global financial crisis in 2008, averaging 7% per annum real GDP growth between 1999 and 2007. Real GDP grew only 2.1% per year between 2009 and 2019 though, and the demographic headwinds that the U.N. forecasts for Russia in coming years means that real GDP growth likely will downshift further. Indeed, the IMF forecasts that Russian real GDP growth will slip below 2% per annum starting in 2024.

The working-age population in Russia is set to contract by 15% by mid-century. The decline in Ukraine likely will be larger.

Part IV: Figure 5



Conclusion

Many economies in Advanced Europe enjoyed solid rates of economic growth in the last few decades of the 20th century that were driven, at least in part, by the increase in their working-age populations. But the pace of economic growth has slowed in recent years as working-age populations peaked and started to contract. Looking forward, the U.N. projects that the number of individuals of working age in Advanced Europe will decline 13% further by mid-century. The demographic outlook in Developing Europe is even bleaker, where the working-age population is set to contract by more than 20% over the next 30 years.

Everything else equal, the decline in the number of individuals of working age will exert headwinds on potential economic growth rates in Advanced Europe and Developing Europe. Of course, acceleration in productivity, more immigration and/or an increase in the retirement age could offset the downward pressure that unfavorable demographics exerts on potential economic growth rates. That said, there are few indications that any of these variables are about to change meaningfully, at least not in the foreseeable future.

Additionally, better labor market outcomes could help to boost real GDP. As shown in Figure 5, the unemployment rate in the Eurozone has consistently exceeded the comparable rate in the United States. If more idle workers could be employed, then output could be higher. That said, a reduction in the ranks of the unemployed would have only a temporary effect on economic growth. As those individuals were absorbed into the workforce, economic growth would strengthen. But once those unemployed individuals were fully absorbed into the workforce, potential economic growth would slow to the rate that is determined by the underlying growth rates of the labor force and productivity.

A slower rate of potential economic growth has a number of implications for Europe. A country's ability to project military power is determined, at least in part, by the size of its economy. If faster growing countries overtake Europe in economic size, then Europe's geopolitical influence may weaken. Additionally, slow economic growth implies low interest rates, everything else equal. As we discussed in <u>Part III</u>, the contraction in the working-age population in Japan that has been underway since the mid-1990s has contributed to the anemic pace of Japanese real GDP growth over that period. Consequently, the Japanese central bank has needed to maintain an accommodative policy stance, and interest rates have been extraordinarily low—short-term rates have been in negative territory—for

years. Central banks in Europe may also need to keep rates extraordinarily low for an extended period of time if the projected declines in working-age populations lead to slow rates of potential economic growth in the region.

Endnotes

¹Advanced Europe includes Austria (AT), Belgium (BE), Cyprus (CY), Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (GE), Greece (GR), Iceland (IS), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Norway (NO), Portugal (PT), Slovakia (SK), Slovenia (SI), Spain (ES), Sweden (SE), Switzerland (CH) and the United Kingdom (GB). Developing Europe includes Albania (AL), Belarus (BY), Bosnia and Herzegovina (BA), Bulgaria (BG), Croatia (HR), Hungary (HU), Moldova (MD), Montenegro (ME), North Macedonia (MK), Poland (PL), Romania (RO), Russian Federation (RU), Serbia (RS) and Ukraine (UA). (<u>Return</u>)

²Developing Europe with data from at least 1995 includes Albania (AL), Belarus (BY), Bulgaria (BG), Croatia (HR), Hungary (HU), Moldova (MD), North Macedonia (MK), Poland (PL), Romania (RO), Russia (RU) and Ukraine (UA). (<u>Return</u>)

Part V: Favorable Demographics But Weak Investment in Latin America

Published on August 3, 2021

Summary

- The working-age population in Latin America grew markedly in the last decades of the 20th century and the first decade of the current century. However, the demographic growth rate has downshifted in recent years, and the IMF looks for further slowing in coming years.
- Real GDP growth in Latin America can be volatile due, at least in part, to the region's relative reliance on commodity production. Looking through the noise, the trend rate of economic growth in the region appears to have slowed in recent years.
- Not every country in the region will experience significant deceleration in the number of individuals of working age. However, the countries with the strongest demographic outlooks tend to be among the region's poorest. Even if these nations enjoy robust rates of economic growth in coming decades, their small economic size will limit their effect on regional output.
- The largest economies in the region will collectively experience much slower rates of demographic growth, which will exert headwinds on Latin America's rate of economic growth in coming years.
- Because strong rates of investment spending tend to support productivity growth, the region could offset the demographic headwinds on economic growth via acceleration in capital accumulation. But, there is little reason to expect that savings and investment in the region will strengthen considerably, at least not in the foreseeable future.
- Latin America likely will continue to register lackluster rates of economic growth in coming years. With a projected increase in the region's working-age population through the mid-2030s, the demographic outlook in Latin America is not as dire as it is in Europe or China. But, the region likely will not experience robust rates of economic growth in coming decades if its national saving and investment rates remain depressed.

Working-Age Population in Latin America Should Continue to Grow

In the fifth report in our series on the demographic outlook in different regions of world and the associated implications for economic growth, we turn our attention to Latin America. For ease of analysis, we follow the nomenclature of the International Monetary Fund (IMF) and aggregate 33 countries into "Latin America and the Caribbean." Not only does this aggregation include all nations in South America, Central America and the Caribbean, but it also includes Mexico. Hereafter, we will simply refer to this region as "Latin America." Among the major regions of the world we have analyzed thus far in this series, Latin America is the smallest in terms of economic size. The region accounts for less than 10% of global GDP.

The overall population in Latin America has more than doubled since 1970, and the United Nations (U.N.) projects that on balance it will grow 17% more by 2050 (Figure 1). Although Latin America will not experience as much population growth as Africa, where the population is expected to nearly double by mid-century (see <u>Part II</u>), the region does not resemble China (<u>Part III</u>) or Europe (<u>Part IV</u>) either. The U.N. looks for population declines in both China and Europe by 2050. The marked rise in the overall population in Latin America over the past 50 years was driven by the region's high birthrate that led to a trebling of the working-age population (i.e., individuals between the ages of 15 and 64) over that period.

The U.N. forecasts that the working-age population in Latin America will grow 12% on balance by mid-century.

Part V: Figure 1



Part V: Figure 2



Source: United Nations and Wells Fargo Securities

But the demographics in Latin America have changed. As shown in Figure 2, the region's workingage population grew at a robust annual average growth rate of 2.8% during the 1970s. That rate downshifted to 1.3% per annum during the past decade, and the U.N. looks for it to slow even further in the years ahead. This deceleration in the number of individuals, who are potentially available to produce goods and services, will exert some drag on the potential rate of economic growth in Latin America, everything else equal.

Indeed, the trend rate of economic growth in the region has slowed in recent years. As Figure 3 makes clear, real GDP growth in Latin America can be erratic. The region is dependent on commodity production, at least relative to some other major regions, and the boom-bust nature of commodity production imparts some volatility into Latin America's GDP growth rate. But the underlying trend in the rate of economic growth, which we represent by the five-year moving-average rate of real GDP growth, has receded in recent years. If the U.N.'s demographic projections for Latin America prove to be accurate, then the region likely will face some headwinds on its long-run rate of economic growth in coming years, everything else equal. In that regard, the IMF forecasts that real GDP in Latin America will grow only 2.4% per annum between 2023 and 2026, which marks the end of the IMF's forecast horizon.

The trend rate of real GDP growth in Latin America has slowed in recent years.

Part V: Figure 3



Part V: Figure 4



The demographic outlook in the Latin American region differs by country. Figure 4 shows the U.N.'s projections of changes in the working-age population through 2050 in 11 countries in Latin America. Collectively, these 11 nations account for 90% of the region's population at present. Guatemala (GT), Bolivia (BO), Haiti (HT), Venezuela (VZ) and Ecuador (EC) are all expected to experience growth in their respective working-age populations that are all above the region's average. But each of these economies are rather small, and they collectively account for less than 10% of the region's economic output. Although relatively strong rates of real GDP growth certainly would be welcome in those countries, they would not do much in terms of strengthening the economic growth rate in the region, let alone the world.

Argentina (AR), Mexico (MX) and Peru (PE) are larger economies that are projected to realize slightly higher than average growth rates in their working-age populations. But the U.N. forecasts that the number of individuals of working age in Colombia, the region's fourth largest economy, will barely grow over the next 30 years, while working-age populations in Brazil (#1) and Chile (#5) likely will contract by mid-century. We will focus on the region's three largest economies (*i.e.*, Brazil, Mexico and Argentina) in the remainder of this report.

Argentina: Favorable Demographics But Weak Investment

Among these three economies, Argentina has the most favorable demographic outlook with a projected 20% rise in its working-age population over the next 30 years. Everything else equal, this increase in the number of individuals who are potentially available to produce goods and services should support solid rates of economic growth. But everything else is not necessarily equal in Argentina. The working-age population in the country grew by roughly 70% between 1980 and 2020, a solid growth rate of 1.3% per annum, yet real GDP grew at an average rate of only 1.8% over that period.¹ Argentina has seen its rank slip from the world's 9th largest economy in 1980 to #29 in 2019.

Argentina experienced a period of hyperinflation in the 1980s. It also has suffered a number of deep recessions that generally have followed the five government debt defaults that have occurred since 1989 (Figure 5). In short, the macroeconomic policy environment has not been very stable in recent decades, and this instability has not been conducive for saving and investment. As shown in Figure 6, the investment-to-GDP ratio in Argentina has generally been below 20% over the past four decades. Weak investment spending tends to weigh on productivity growth, which is an important driver of long-run economic growth, and there are few indications that a marked acceleration in Argentine investment spending is imminent. Economic growth in Argentina likely will remain lackluster until the policy environment in the country become more stable. In that regard, the IMF forecasts that real GDP growth in Argentina will average only 1.6% per year in 2024-2026.

The unstable policy environment in Argentina has not been conducive for strong investment spending.

Economics







Part V: Figure 6

Mexico: Stronger Than Argentina But Hardly Asia-Like

Like Argentina, the U.N. forecasts that the working-age population in Mexico will grow faster than the region-wide average over the next 30 years. But unlike Argentina, the policy environment in Mexico has generally been more stable, especially since Mexico entered into a free-trade agreement with its North American neighbors beginning in 1994. Following the country's financial crisis in 1995, real GDP in Mexico grew 2.6% per annum on average between 1996 and 2019, which is stronger than the rate registered by Argentina, but hardly robust.

As noted above, the weak environment for savings and investment in Argentina has contributed to the country's anemic economic growth rate over the past few decades. Mexico's investment-to-GDP ratio has generally been between 20% and 25% since the mid-1980s (Figure 7). This rate of investment spending is stronger than the rates that have been registered in Argentina, but it is well short of the 30% to 40% ratios that many high-flying Asian economies have been able to achieve.

Growth in the working-age population in Mexico has slowed over the past few decades, and further deceleration seems likely in coming years. That said, the U.N. projects that the 15-64 year old cohort will grow at an annual average rate of roughly 1% through 2030 and about 0.6% through mid-century. Everything else equal, this solid rate of demographic growth should help to support economic growth in Mexico over the next few decades. In addition, the country's proximity to the U.S. economy and its generally stable policy environment, at least relative to some of its Latin counterparts, should also support economic growth in Mexico.

But the Mexican economy will fail to grow at a robust pace on a sustained basis *á la* many Asian economies unless it raises its low rates of savings and investment. In that regard, chronic public sector budget deficits have weighed on the country's overall national saving rate, and the household saving rate, which averaged 14% of disposable income over the past decade, is low, at least by Asian standards. An end to budget deficits and/or a significant rise in the household savings rate will not likely occur anytime soon.² In short, an Asian-like economic growth spurt in Mexico does not seem to be in the cards, at least not in the foreseeable future.

Mexico will need to lift its national savings and investment rates if it wants to achieve Asian-like rates of economic growth.

Source: International Monetary Fund and Wells Fargo Securities

Part V: Figure 7





Source: International Monetary Funds and Wells Fargo Securities

Part V: Figure 8

Brazil Is Also Plagued by Weak Rates of Savings and Investment

Although the U.N. forecasts that the working-age population in Brazil will grind slowly higher over the next 15 years or so, the projected rate of increase will average only 0.2% per year over that period. (The U.N. forecasts that the size of the 15-64 year old cohort will start to shrink in the mid-2030s.) So the tailwind that the economy enjoyed over the past few decades from the increase in its working-age population—it grew in excess of 1% per annum through the mid-2010s—will turn into a mild headwind (Figure 4). The country could overcome this headwind if it could significantly raise its productivity growth rate. However, there is little reason to suspect that a marked acceleration in Brazilian productivity is imminent.

Productivity growth depends on many factors, but strong rates of investment spending generally help. The investment-to-GDP ratio in Brazil trended higher in the years immediately preceding the global financial crisis, which coincided with a period of strong Brazilian GDP growth (Figure 8). However, the country's ratios of savings and investment have subsequently receded to 15% or less in recent years. Like its counterpart in Mexico, the public sector in Brazil has incurred red ink for years—the general government budget deficit averaged nearly 5% of GDP per annum between 2000 and 2019—and these chronic budget deficits have weighed on the overall national savings rate. We estimate that the household saving rate averaged only 11% of disposable income over the past decade. So unless the country significantly lifts its rates of national savings and investment, which does not seem likely anytime soon, its potential rate of economic growth probably will remain lackluster. In that regard, the Brazilian economy eked out an anemic 1.5% annual average growth between 2010 and 2019, and the IMF forecasts that real GDP in Brazil will grow only 2% on average between 2023 and 2026.

Conclusion

The working-age population in Latin America grew strongly in the last few decades of the 20th century and in the early years of the 21st century. Although the structure of the economy—the region is generally more dependent on the production of commodities than most other major regions—made it prone to boom and bust cycles, strong demographics provided a tailwind to economic growth in Latin America. But the region's economic growth rate has downshifted as growth in the working-age population has slowed. Looking forward, growth in the 15-64 year old cohort likely will slow further, which will weigh on the region's potential economic growth rate, everything else equal.

Not every country in Latin America will experience significant deceleration in the number of workingage individuals. For example, Guatemala, Bolivia and Haiti likely will experience increases in their working-age populations of 40% or more by mid-century. However, these countries are among the poorest in the region. Even if these nations enjoy robust rates of economic growth in coming decades, their small economic size will limit their effect on regional output. The largest economies in the region

The IMF forecasts that real GDP in Brazil will grow only 2% on average between 2023 and 2026.

(*i.e.*, Brazil, Mexico, Argentina, Colombia and Chile) will collectively experience much slower rates of demographic growth.

Of course, acceleration in labor productivity could offset the slowing effect that demographics will exert on Latin America's potential rate of economic growth. Robust rates of capital accumulation are generally conducive for strong economic growth, but growth in the region's capital stock historically has been weak due to the low rate of saving. A rise in household saving rates and elimination of government budget deficits would help to lift national savings and investment spending in Latin America, although there is little reason to expect that those developments are imminent.

Consequently, Latin America likely will continue to register lackluster rates of economic growth in coming years. (The IMF forecasts that economic output in the region will grow only 2.4% on an annual average basis between 2023 and 2026). With a projected increase in the region's working-age population through the mid-2030s, the demographic outlook in Latin America is not as dire as it is in Europe or China. But Latin America likely will not experience robust rates of economic growth in coming decades if its rates of national savings and investment remain depressed.

Endnotes

¹We exclude the pandemic year of 2020 from our calculations. (Return)

²A country's national saving rate reflects the combined savings of the household, business and public sectors. (<u>Return</u>)

Part VI: Conclusion

Published on August 5, 2021

Summary

- The world's working-age population (i.e., the number of individuals between the ages of 15 and 64) should grow over the next three decades, albeit at a slowing rate.
- The United Nations projects that the 15-64 year old cohort in the Americas and Asia will decelerate through mid-century while Europe will experience an outright contraction in its working-age population. The number of working-age individuals in Africa should more than double by 2050.
- China and Europe, where working-age populations are projected to decline by mid-century, together account for more than 40% of global GDP. The 54 countries of Africa collectively represent only 3% of the global economy. Even if economic output in Africa grew at a double-digit rate on a sustained basis, it would not move the needle in terms of global economic growth for a number of years.
- Moreover, "Africa" is not one monolithic bloc. Each nation has its own government, economic
 policies and institutions, and African economies do not necessarily grow in lockstep. "Africa" will
 not necessarily become the next China in terms of economic heft just because the working-age
 population of the continent will continue to grow at a strong pace.
- Incipient demographic downturns in China and Europe will exert significant headwinds on global GDP growth in coming years that are not likely to be fully offset by the marked increase in Africa's working-age population. In other words, the underlying rate of global GDP growth likely will downshift in coming years, everything else equal.
- Productivity acceleration could help boost the rate of global economic growth in coming years. Rates of saving and investment would need to rise in many economies or there would need to be a technological revolution to bring about stronger productivity growth. These developments clearly could occur in the future, but there are no compelling reasons to suspect that they are imminent.

The World's Population Should Grow Further, Albeit at a Slowing Rate

In a series of five reports over the past few weeks, we have discussed the economic implications of demographic changes in major regions of world. <u>Part I</u> introduced the series and focused on the demographic outlook in the United States. <u>Part II</u> analyzed demographic outlooks in major regions of the world, including Africa, and <u>Part III</u> focused on Asia. Europe was the topic of <u>Part IV</u>, and we addressed Latin America in <u>Part V</u>. We offer some conclusions in this our sixth and final report of the series.

The good news is that the world's population will continue to grow through 2050 (Figure 1). Although populations in most nations will grow older as life expectancy rises further, the United Nations (U.N.) projects that the world's working-age population (i.e., individuals between the ages of 15 and 64) will continue to grow through mid-century. Because individuals of working age are potentially available to produce goods and services, global economic growth should remain positive in coming decades. The bad news, however, is that the growth rate of the world's working-age population, which has been slowing since the 1970s, likely will downshift further in coming years. This deceleration will exert some headwinds on the rate of global economic growth in coming years, everything else equal.

The growth rate of the world's working-age population likely will downshift further in coming years. Part VI: Figure 1

Global Population Growth Average Growth per Annum 2.5% 2.5% UN Projection: 2050 @ 0.5% Average Population Growth: 2020 @ 1.1% 2.0% 2.0% 1.5% 1.5% 1.0% 1.0% 0.5% 0.5% 0.0% 1955 1965 1975 1985 1995 2005 2015 2025 2035 2045 Source: United Nations and Wells Fargo Securities

Part VI: Figure 2



Furthermore, the demographic outlook differs markedly among the major regions of the world. The U.N. projects that the working-age population in Africa will more than double by mid-century (Figure 2). The number of individuals in the 15-64 year old cohort should grow modestly in Latin America, North America and Asia, although the U.N. forecasts that the working-age population in Europe will contract by roughly 20% over the next thirty years. Moreover, the demographic outlooks among individual countries in the same region can differ significantly. For example, working-age populations in India and Indonesia, populous countries in Asia, are expected to grow 15% to 20% by 2050. In contrast, the U.N. forecasts that the 15-64 year old cohort in China will decline by roughly 20% over the next thirty years.

Can "Africa" Make Up for China and Europe?

There are a number of implications from these shifting demographic trends for the global economy. China, which has grown from an economic backwater forty years ago to the world's second largest economy today, likely will provide less power to the global economy in coming years as its workingage population shrinks. A similar demographic dynamic likely will depress the potential rate of real GDP growth in the Eurozone further. Conversely, India and Indonesia should rise in relative economic importance over the next few decades as their working-age populations continue to grow. Africa stands to grow the most in relative economic importance due to its strong demographic outlook.

However, India's GDP represents only 3% or so of the global economy, and Indonesia's share is only 1%. The entire continent of Africa accounts for only 3% of global GDP (Figure 3). Even if economic output in Africa grew at a double-digit rate, it would not move the needle in terms of global economic growth for a number of years. Moreover, as we noted in Part II of this series, "Africa" is not one monolithic bloc. There are 54 sovereign nations in Africa, each of which has its own government, economic policies and institutions, and African economies do not necessarily grow in lockstep. For example, economic growth in Botswana averaged a respectable 4.2% per year between 2000 and 2019, while the level of real GDP in neighboring Zimbabwe was flat on balance over that period. "Africa" will not necessarily become the next China in terms of economic heft just because the working-age population of the continent will continue to grow at a strong pace. The economies of India and Indonesia very well may grow robustly in coming years, but it will be decades before they will have the same economic heft as China does today.

The upshot is that the incipient demographic downturns in China and Europe will exert significant headwinds on global GDP growth in coming years, everything else equal. China and Europe at present collectively account for 28% of the world's population and 41% of global GDP. On average, global GDP grew 3.5% per annum between 1980 and 2019. It could struggle to reach that rate in coming years due to demographic changes.

Africa likely will become relatively more important in the global economy over the next few decades, while Asia and the Eurozone should shrink in importance.

40%

35%

30%

25%

20%

15%

10%

5%

0%

20



Source: International Monetary Fund and Wells Fargo Securities

Saving, Investment and Productivity Growth

As we have noted in previous installments in this series, an economy's rate of potential growth is essentially the sum of its underlying growth rates of labor supply and productivity. Just because its labor supply may be decelerating does not necessarily doom the economy to slower growth. Stronger productivity growth could offset the economic headwinds from slower growth in its working-age population. Throughout this series we have often pointed to a country's low rates of national saving and investment as factors that could be holding back its productivity growth rate and, hence, its rate of potential economic growth. If a country could raise its rates of national saving and investment, then it could potentially enjoy stronger economic growth on a sustained basis.

Governments that incur chronic budget deficits could help to raise the country's saving rate via belt tightening. However, it is not entirely clear what policies need to be enacted to induce the household and business sectors to save more. Furthermore, an increase in national savings does not necessarily guarantee that a country's investment rate will strengthen. For example, national savings in Taiwan rose from roughly 30% of GDP at the turn of the century to about 35% in 2019 (Figure 4). Yet Taiwan's investment rate trended slowly lower over those two decades. The increase in Taiwanese national savings flowed out of the economy to other countries. Taiwan's current account surplus, which is more or less equivalent to its net capital outflows, rose to more than 10% in 2019 from less than 3% of GDP in 2000.

In short, an increase in a country's saving rate is a necessary condition for stronger investment, but it is not sufficient. The country also needs to have policies in place that are supportive of stronger investment. Ramping up public sector investment spending (e.g., more spending on infrastructure) is relatively straightforward. But as in the case of private sector savings, it is not entirely clear what policies will induce the private sector to invest more (or less). For example, the macroeconomic policy environment in Taiwan has been generally stable over the past two decades, yet its rate of investment has trended lower. In theory, a rise in rates of national saving and investment should help to strengthen a country's rate of potential economic growth, but bringing about those increases in practice may be complicated.

The Role of Technological Change

Technological change can also lead to stronger productivity growth. The rate of productivity growth in the United States rose considerably during the 1990s (Figure 5). This productivity acceleration occurred during a period of strong growth in U.S. investment spending (Figure 6). It also coincided with mass adoption of the internet and the networking of computers in the business sector. Technology is constantly changing, but it is not readily apparent which new technologies will lead to stronger productivity growth and which ones will have little effect on productivity. For example, the new

An increase in national savings does not necessarily guarantee that a country's investment rate will strengthen.

14

16

18

Technological change can also lead to stronger productivity growth.

technology of social media was widely adopted during the last decade, but productivity growth generally remained anemic during those years.

Part VI: Figure 5



Part VI: Figure 6



Many observers believe that artificial intelligence (AI) could lead to significantly stronger productivity growth. If so, then countries that will experience declines in their working-age populations in coming years could offset the demographic headwinds on their rates of economic growth via widespread adoption of AI. But advanced economies typically adopt expensive new technologies more quickly than developing economies. Therefore, AI may potentially represent more of a tonic for economic growth in countries such as Japan, South Korea and most economies in Europe than it does for less advanced economies such as China and Brazil.

In sum, Asia and the Americas will experience slower growth in their working-age populations over the next few decades, while Europe will register an outright contraction in its 15-64 year old cohort. These demographic headwinds will exert a slowing effect on global economic growth that is not likely to be entirely offset by the marked increase in Africa's working-age population. In other words, the underlying rate of global GDP growth likely will downshift in coming years, everything else equal.

That said, stronger productivity growth could provide an offset to the demographic outlook that the global economy faces. But productivity acceleration does not just happen in a vacuum. Rates of savings and investment would need to rise in many economies or there would need to be a technological revolution to bring about stronger productivity growth. These developments clearly could occur in the future, but there are no compelling reasons to suspect that they are imminent.

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