Global Demographics

How soon will the world's population be shrinking?

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- The UN has released its updated demographic forecasts...
- …and they highlight the weaker demographic backdrop…
- …with the world's population now assumed to start shrinking later this century

The world's population outlook is a key driver of future economic growth and business outcomes as we explained in *Global Demographics*, 19 February 2021. A sharp rise in the number of workers can change labour market dynamics, an increase in the number of pensioners can affect fiscal balances and more consumers and workers can increase demand and growth potential.

The UN's demographic forecasts provide the basis for much global demographic analysis, and the latest set of projections, from the World Population Prospects 2022 report, as usual, show how the world's demographics are expected to evolve over the rest of this century but also provide the first glimpse of what has changed since the onset of the pandemic as the last release was in 2019.

The most notable shift in the UN's base case is to now expect the world's population to peak in the 2080s – whereas three years ago there was no peak within this century. Our own modelling suggests an outcome closer to the UN's low fertility assumption may be more likely than the central case, with the world's population peaking in the 2050s.

But beyond that, there are many other interesting takeaways – some economies have seen their future population expectations revised down heavily in the near term, partly due to the pandemic or more recent census data. Others have seen birth rates plummet in recent years, leading to a rethink of where trend fertility is more likely to be and others have seen changing assumptions regarding migration flows. In Korea, the population may drop by 60% over a generation if this level of births is maintained.

In these new projections, India looks set to overtake mainland China as the most populous nation in 2023, as the latter's population starts to decline in the same year. Africa's population is set to nearly double between 2022 and 2050, which comes with its own challenges. Ageing remains the biggest societal transformation of the 21st century: Japan is on track to have over 31% of its population aged over 65 years old in 2030.

Demographic data remain as important as ever. Even amid extraordinary uncertainty regarding the near-term outlook and the various gyrations in the economic data, the underlying movements in the world's population still matter enormously to the global economic outlook.

This is our latest report on the Demographics theme. If you want to subscribe to any of our nine big themes, *click here*.

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New demographic projections

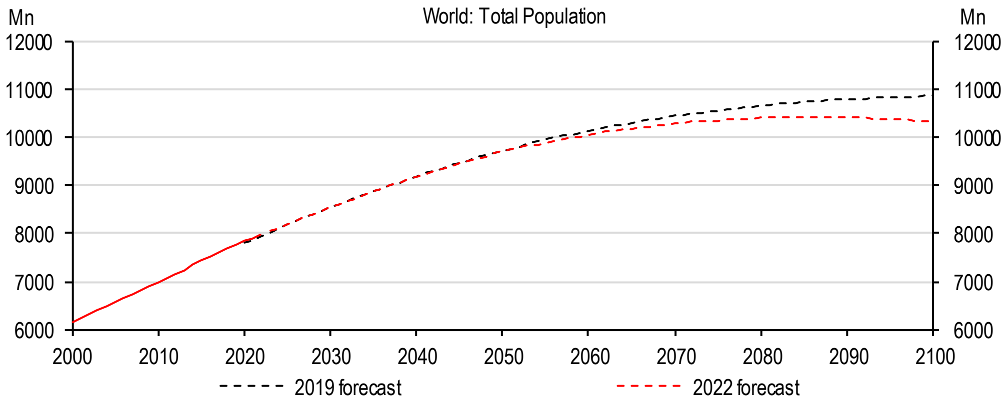
- The UN's new demographic forecasts suggest a slower pace of global population growth…
- …and the number of people on earth set to peak in the 2080s…
- …but it could easily be sooner, with lower fertility scenarios suggesting the peak may come 30 years earlier

New numbers

The UN's population forecasts are held up as the gold standard for international demographic projections – providing a wide range of forecasts across all demographic inputs and outputs out to 2100. The updated projections are the first release since the pandemic (with the previous edition being released in 2019) and show a number of updated forecasts for the world's population that are worth noting.

The world's total population is expected to peak at 10.43bn in 2086, the prior forecast had the world's population not peaking before 2100, at 10.87bn then. The downgrade to the longer-term forecast for the world's population is evident in chart 1, but for the next 30 years the population projections are little-changed.

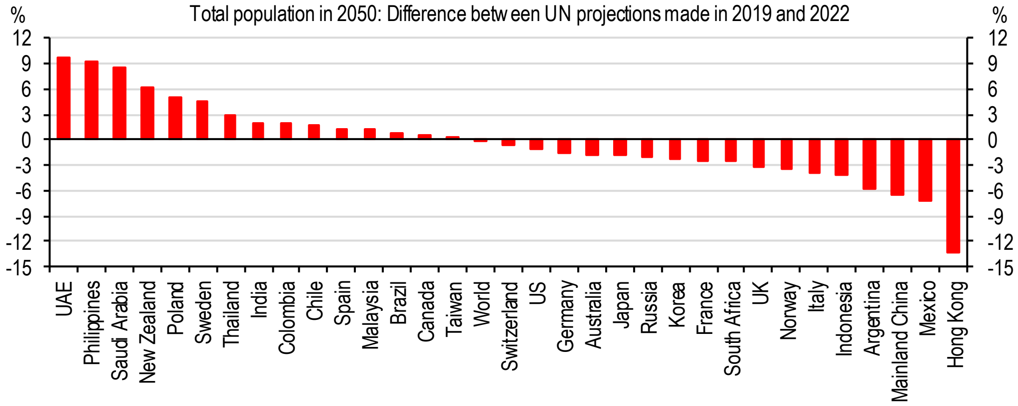
1. The world's population is expected to start shrinking in the 2080s, according to the UN



Source: UN Population Division

This masks a wide divergence across the world, firstly between the near-term outlook and the longer-term outlook. By 2050, where the global projection is relatively unchanged, the outlook for individual economies is quite different. Chart 1 shows the changes made between the 2019 release and this one for the population in key economies in 2050. The difference is largely as a result of near-term changes based on updated census' meaning a different starting point, greater migration flows (be it more or less immigration or emigration, including the impact of the war in Ukraine, which the UN acknowledged in its forecasts) and some small impacts from changes in fertility rate assumptions. The global impact may be small, but there have been some substantial revisions to the projected population size by the time we get to 2050.

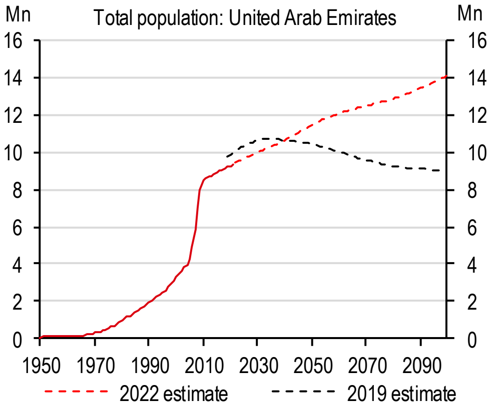
2. There's a wide range of amendments to 2050 forecasts



Source: UN Population Division

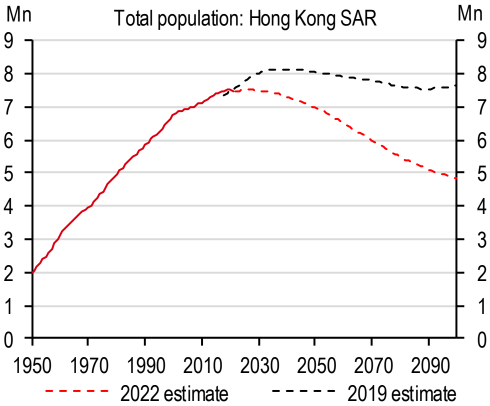
By the time we get to 2100, the updates to forecasts are much more focused on changes to assumptions surrounding birth rates and death rates – and as a result the world's population estimates have been mostly lowered – with a few exceptions. In the case of the UAE, this is due to higher assumed migration flows, but elsewhere the assumptions are pulled substantially lower – notably in Hong Kong SAR where very low fertility rates look set to pull the population lower through this century without enough migration expected to offset it – the total fertility rate is estimated to be just 0.75 in 2022, nearly half of the previous expectation. Although the UN expects this to move back above 1.0 in the coming years, this very low fertility rate looks set to drive a sharp fall in the population.

3. Some economies have seen population estimates revised up…



Source: UN Population Division

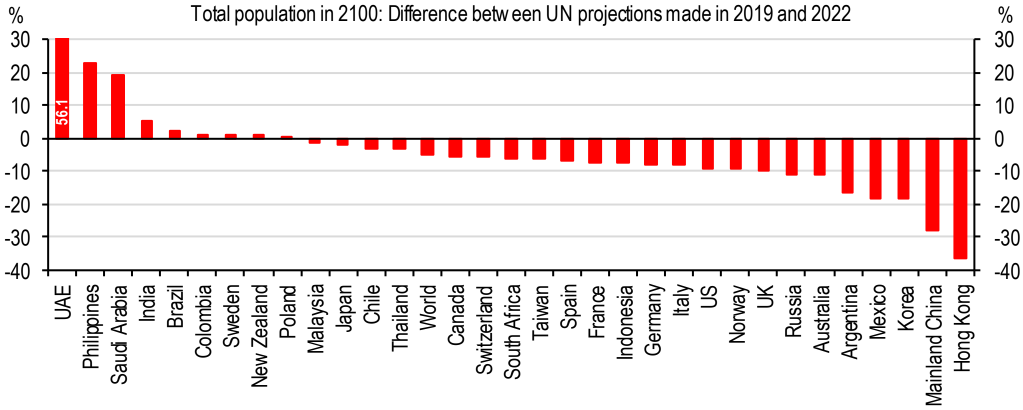
4. …while others have seen them fall sharply



Source: UN Population Division

Across the world, these lower fertility rates can clearly be seen in revisions to forecasts for 2100, in chart 5.

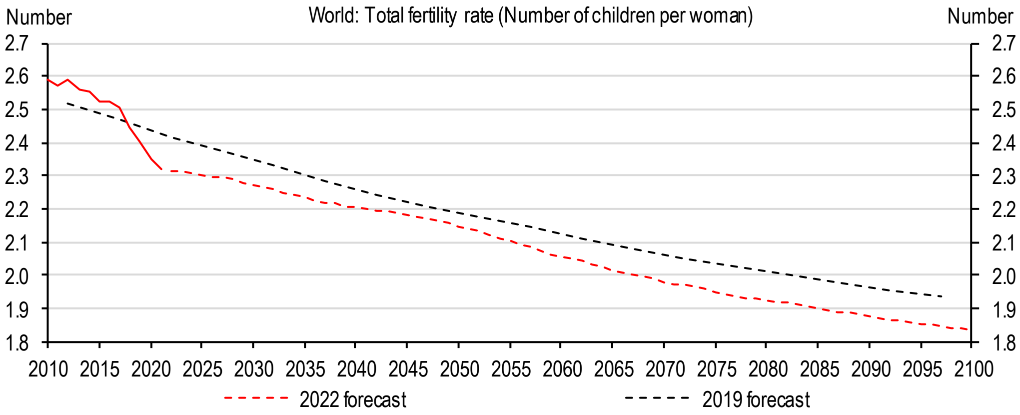
5. By 2100, most economies will see smaller populations than previously estimated



Source: UN Population Division

This is mostly because of updates to the UN's fertility rate assumptions. The UN has responded to the continued undershoot of global birth rates since 2019 by adjusting its own fertility rate assumptions lower – as can be seen in chart 6.

6. Birth rate assumptions have been revised lower

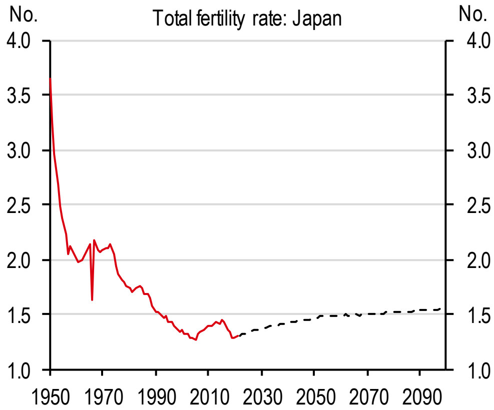


Source: UN Population Division. Note: 2019 forecasts were for a 5-year period, so midpoint taken for the chart. 2022 forecasts are for each year.

We've argued for some time that these forecasts had been a little optimistic in terms of the direction of travel for birth rates – and that fertility rates would move lower at a faster pace than the UN had previously suggested. Despite lower assumptions than previously, the UN's forecasts still assume that in many developed economies – such as the UK and Japan – birth rates pick back up steadily in the coming years, reversing a multi-decade trend of lower birth rates. As we argued in *Population and the pandemic: The demographic impact of COVID-19*, 6 January 2021, these assumptions on fertility rates can dramatically alter longer-term demographic forecasts and the pandemic has likely made many of the reasons for lower birth rates become more entrenched, such as social changes in attitudes towards raising large families and the costs associated with doing so.

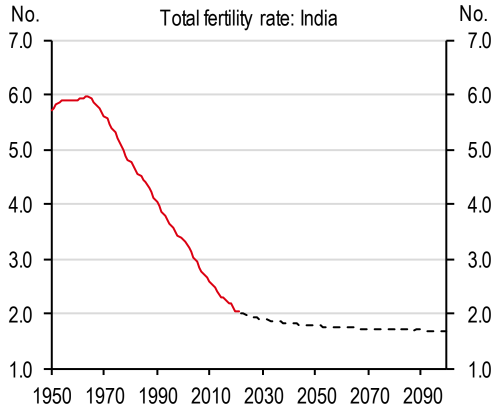
In the emerging world, the model assumes that the trajectory in terms of lower fertility rates flattens out greatly in the years to come. We are cautious of this view because of the path followed by Korea, which had a fertility rate above 6.0 back in the 1970s, only for the rapid fall in the birth rate to take this figure well below 2.0 a few decades later. In 2022, Korea's fertility rate is expected to be 0.87, implying that the Korean population would drop by 60% over a generation if that was maintained without any immigration. With continued improvements in income levels and access to healthcare, we believe that such a scenario is more likely in most other emerging markets in the coming years than the current base case UN forecasts assume.

7. The UN's model still assumes a grind higher in some fertility rates…



Source: UN Population Division. Note: Total fertility rate defined as children per woman. Dotted line shows projections

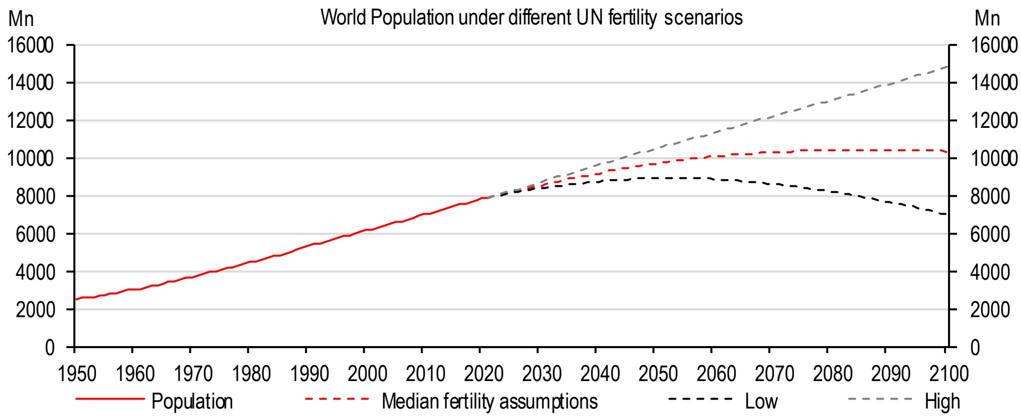
8. …and a slowing of the trend in others



Source: UN Population Division. Note: Total fertility rate defined as children per woman. Dotted line shows projections

And so we need to pay attention to wild differences between the scenarios for the world's population over the rest of this century – with the base case being for the world's population to peak in 2086 at 10.43bn, whilst under a low fertility model, the world's population would peak at just 8.94bn, just 13% higher than today, in 2053. Our own bias is towards this latter projection, with fertility rates likely to remain low in the coming years. The UN reported that "*in high-income countries, successive waves of the pandemic have generated short-term fluctuations in numbers of pregnancies and births*", making near-term data on fertility rates very hard to estimate. In the emerging world, birth rates appear to have seen little impact from the pandemic, but migration rates have been more affected due to border closures.

9. Fertility rate assumptions are key to the overall demographic picture



Source: UN Population Division.

The full note contains a further look at the individual country and economy data, looking at the different projections across the world, including why the difference in forecasts depending on which fertility estimates are used, as well as our key observations of the UN data.

Summary

Large parts of the world are going through substantial demographic changes. The world's total population is expected to peak at 10.43bn in 2086 (the prior forecast had the world's population not peaking before 2100, at 10.87bn).

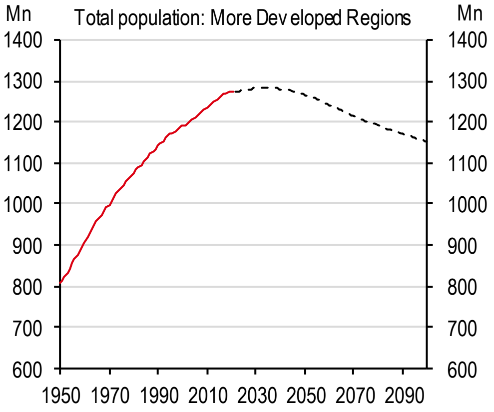
We've argued for some time that these forecasts had been a little optimistic in terms of the direction of travel for birth rates – and that fertility rates would move lower at a faster pace than the UN had previously suggested. If this continues, this peak in population might even come sooner than 2086.

The epicentre of population growth should shift to Africa in the next decades. Indeed, Africa's population is expected to nearly double between 2022 and 2050. In Asia, in 2023, India will overtake China as the most populous nation. Europe's population has already started to decline.

This stark divide between those economies with shrinking populations in Europe (notably Italy and Germany) and Asia (Korea and Thailand) and their neighbours will go a long way to explaining expected differences in potential economic growth.

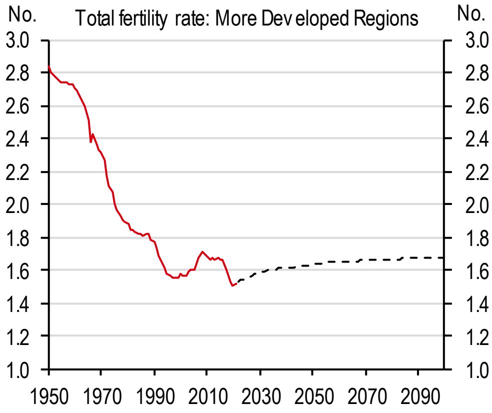
Meanwhile, ageing is the other big social transformation of the 21st century. By 2050 – for the first time in history – there will be more people over the age of 65 than under the age of 15.

10. The developed world is already seeing its population shrink…



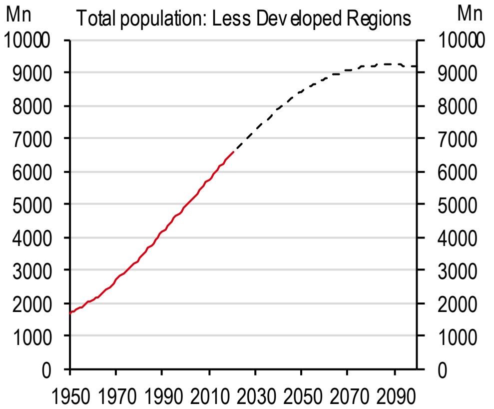
Source: UN Population Division. Dotted line shows projections under UN median fertility assumptions

11. …and the trajectory may be too optimistic, with fertility rates very low already



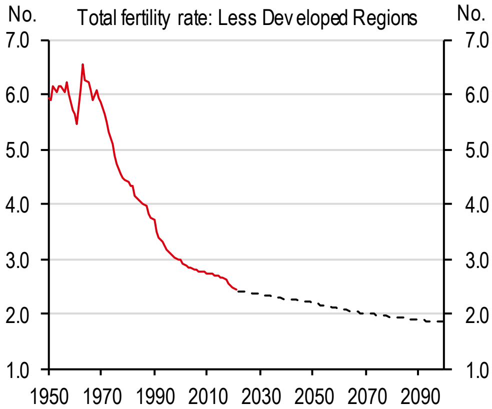
Source: UN Population Division. Note: Total fertility rate defined as children per woman. Dotted line shows projections under UN median fertility assumptions

12. EM populations keep rising…



Source: UN Population Division. Dotted line shows projections under UN median fertility assumptions

13. …but at a slower pace, due to fewer births



Source: UN Population Division. Note: Total fertility rate defined as children per woman. Dotted line shows projections under UN median fertility assumptions

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