DEMOGRAPHIC CHANGE AND ECONOMIC GROWTH
WITH FOCUS ON THE BRICS

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Historical data: a positive association between demographic change and per capita GDP growth

Note: A rising working-age population share is positively correlated with GDP per capita growth. An increase of 1 percentage point in the working-age population share is estimated to boost GDP per capita by 1.5 percentage points, on average.
Simulations into 2030: a differentiated impact according to demographic type

A. Average change in the share of working age population, 2015-30 (percentage points)

B. Average GDP per capita (annualized) growth, 2015–30 (percentage points)

Aggregate GDP growth: non-trivial effects

Average aggregate GDP (annualized) growth, 2015–30 (percentage points)

Emerging markets have shown a persistent growth differential during the 2000s, but this has started to fade in strength.


Note: Difference between weighted average EM growth and weighted average AE growth.
The BRICS have accounted for a significant share of EM performance

A. Share of world output

B. Contribution to world growth

Source: World Bank, IMF World Economic Outlook, World Development Indicators.
Note: A. Each column shows the period weighted average of the share of global output contributed by each group denoted. 1990s average starts in 1992. Data for 2015 are forecasts. B. The columns denote the percent contribution of each group to global growth over the periods denoted. Data for 2015 are forecasts. GDP is measured by constant 2010 US dollars.
The recent performance of the BRICS has been marked by cyclical weakness compounded by a structural slowdown.

Note: Unweighted averages.
Looking ahead, BRICS potential growth is expected to be dampened further by decelerating population growth....

A. BRICS (total) population

Billions of people

B. BRICS population growth

Annual population growth rate, percent

… a declining working age population share and rapid aging

C. Share of working age population in BRICS

Share of population, aged 15–64, percent

D. Share of elderly and children population in BRICS

Share of population, percent

The BRICS share in the global working age population is falling and the their share in the global elderly population is rising rapidly

E. BRICS share of global working age population

Share in global population, aged 15–64, percent

F. BRICS share of global elderly and children population

Share in global population, percent

Examining the heterogeneity across BRICS, significant demographic differences are notable.

Average change in the share of working age population (percentage points)

Thus, the impact of demographic change will be felt differently.

Average per capita GDP (annualized) growth, 2015–30 (percentage points)

- Brazil: 1.0 (0.2) Other sources of growth, 1.6 (-0.5) Impact of Demographic Change
- Russia: 5.3 (0.3) Other sources of growth, 6.2 (-0.8) Impact of Demographic Change
- India: 1.9 (0.7) Other sources of growth, 0.7 (-0.5) Impact of Demographic Change
- China: 6.6 (0.3) Other sources of growth, 5.6 (-0.8) Impact of Demographic Change

Some concluding observations

- Demographics has played a key role in driving convergence between advanced and emerging economies.
- And as demographic trends in many EM evolve, growth prospects slow, including in many BRICS.
- Though BRICS growth may be slowing, demographics is neither a blessing nor curse: policies matter.
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Additional slides
The slowdown in BRICS growth has been driven by external and domestic factors

External and domestic drives of real GDP growth in BRICS (percentage points), Q1 2010 - Q1 2015

Note: Based on a Bayesian vector autoregression estimation using data for 1998:1 to 2015:2. Each bar shows the percentage point deviation of growth from the sample mean. In estimates for China, its growth is not separately included as an external factor. Unweighted average contribution to BRICS growth, including China.
Since the global financial crisis, the sources of the BRICS slow down has been broad-based.

**Contributions to real GDP growth in the BRICS, 2011-14 (%)**

Where are the next “BRICS”? 

Change in the share of global population (percentage points) 

Change in the share of global GDP (international 2011 PPP) (percentage points)
Demographic factors made a substantial contribution to potential growth in advanced and emerging market economies during 2000-07, though this has fallen since the 2008 global crisis

Contribution of demographics on potential growth

A. Advanced economies

B. Emerging market economies

Source: World Economic Outlook April 2015
Note: Growth is calculated using purchasing power parity weights.
Demographic change may contribute to a larger share of India and South Africa on global GDP.
The pace of urbanization is also slowing as some countries.

Urbanization in BRICS economies in 1990, 2000, and 2014

Urban population as share of total (percent)

Source: World Development Indicators