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Global Economic Expansion, Inflation and Productivity Dynamics and Shifting Monetary Policy

February 16, 2018

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for

Conference on Monetary Policy and Asset Management: A New Normal?
National Bank of the Republic of Macedonia and RBWC



Recovery strengthens, supported by investment

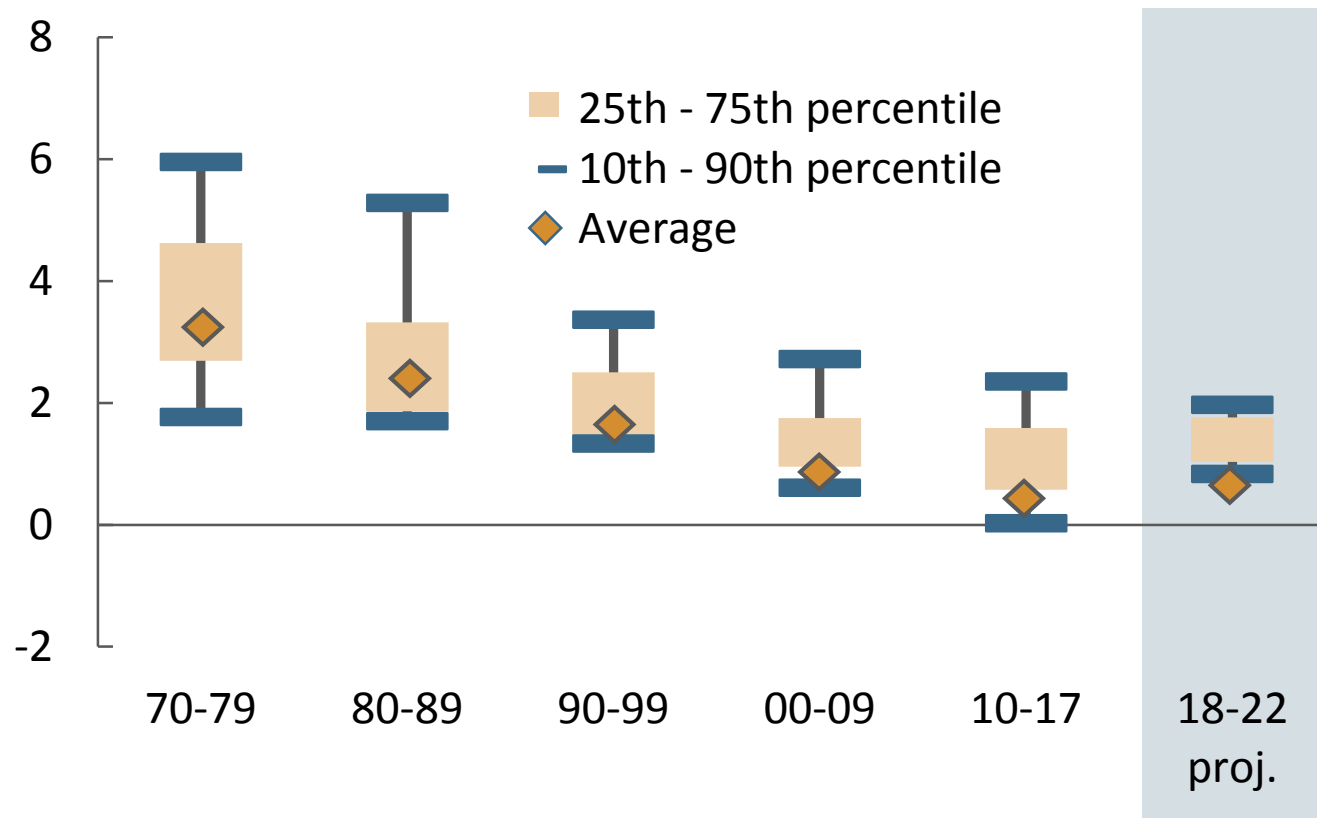
Real GDP Growth Projections (Year-on-year percent change)



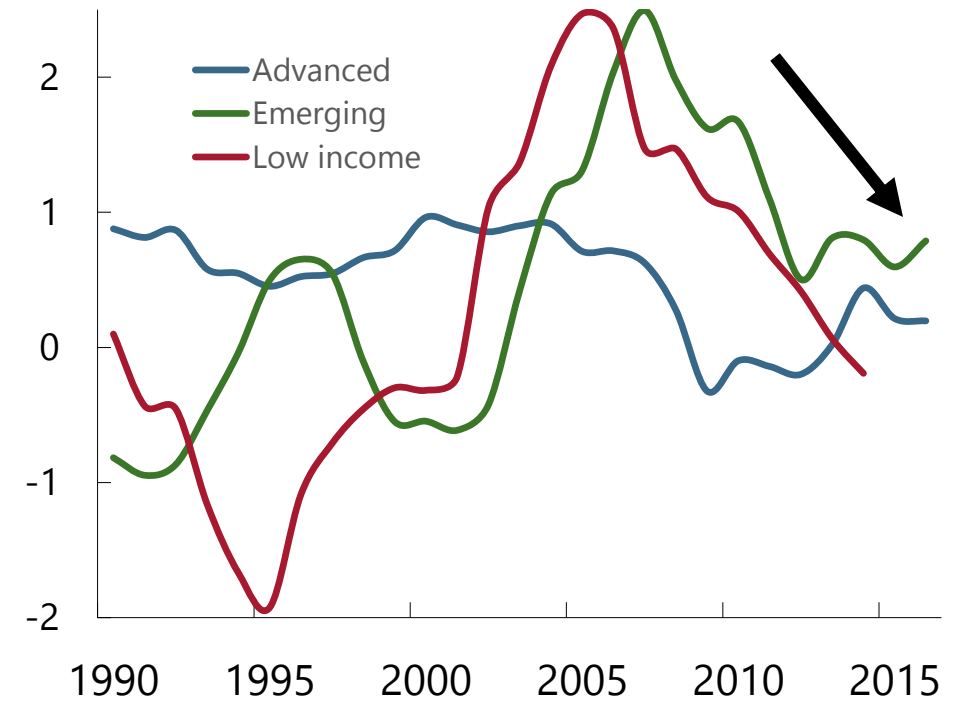
	World	Advanced economies	Emerging economies	United States	Euro Area	China	Russia
2017	3.7	2.3	4.7	2.3	2.4	6.8	1.8
2018	3.9	2.3	4.9	2.7	2.2	6.6	1.7
Revision from October 2017	0.2	0.3	0.1	0.4	0.2	0.1	0.1
2019	3.9	2.2	5.0	2.5	1.9	6.4	1.5
Revision from October 2017	0.2	0.4	0.1	0.6	0.3	0.1	0.0

Longer-term growth prospects weak due to productivity slowdown...

Advanced Economies: Real GDP per Capita Growth
(Year-on-year percent change)



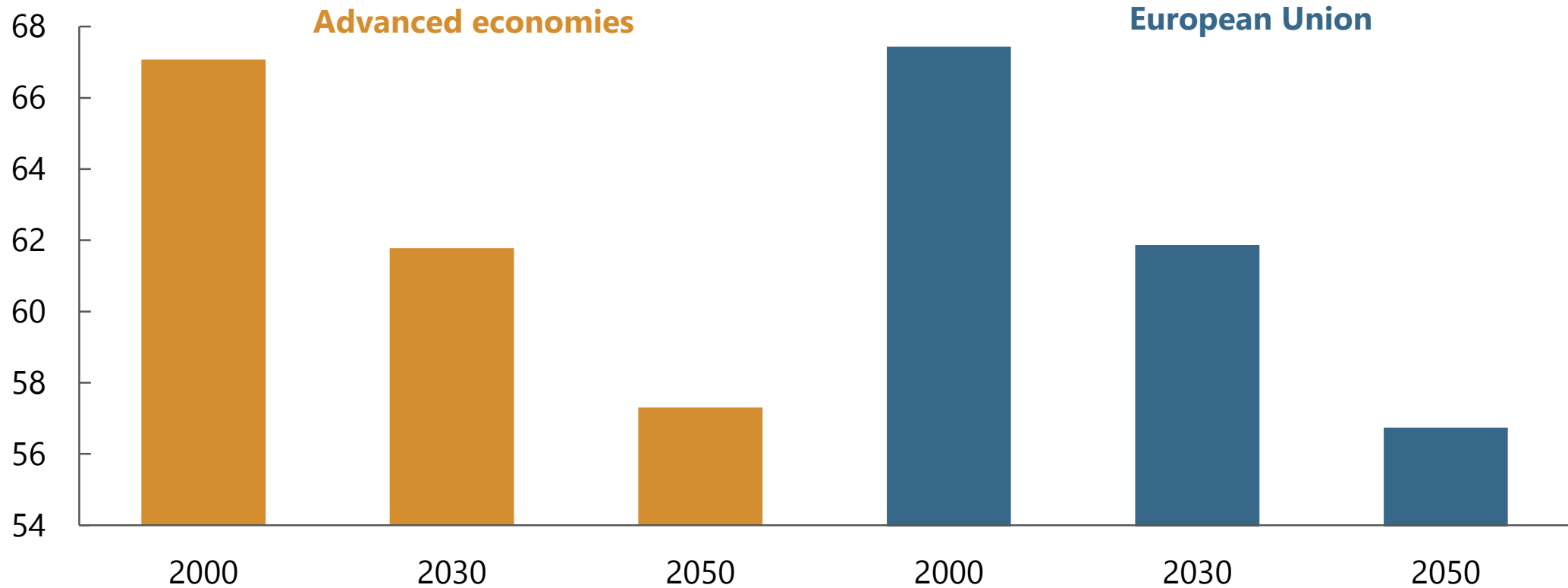
Total Factor Productivity Growth
By Income Group, 1990-2016



Sources: IMF *World Economic Outlook*; and IMF staff calculations.
Note: Advanced economies group consists of 25 countries.

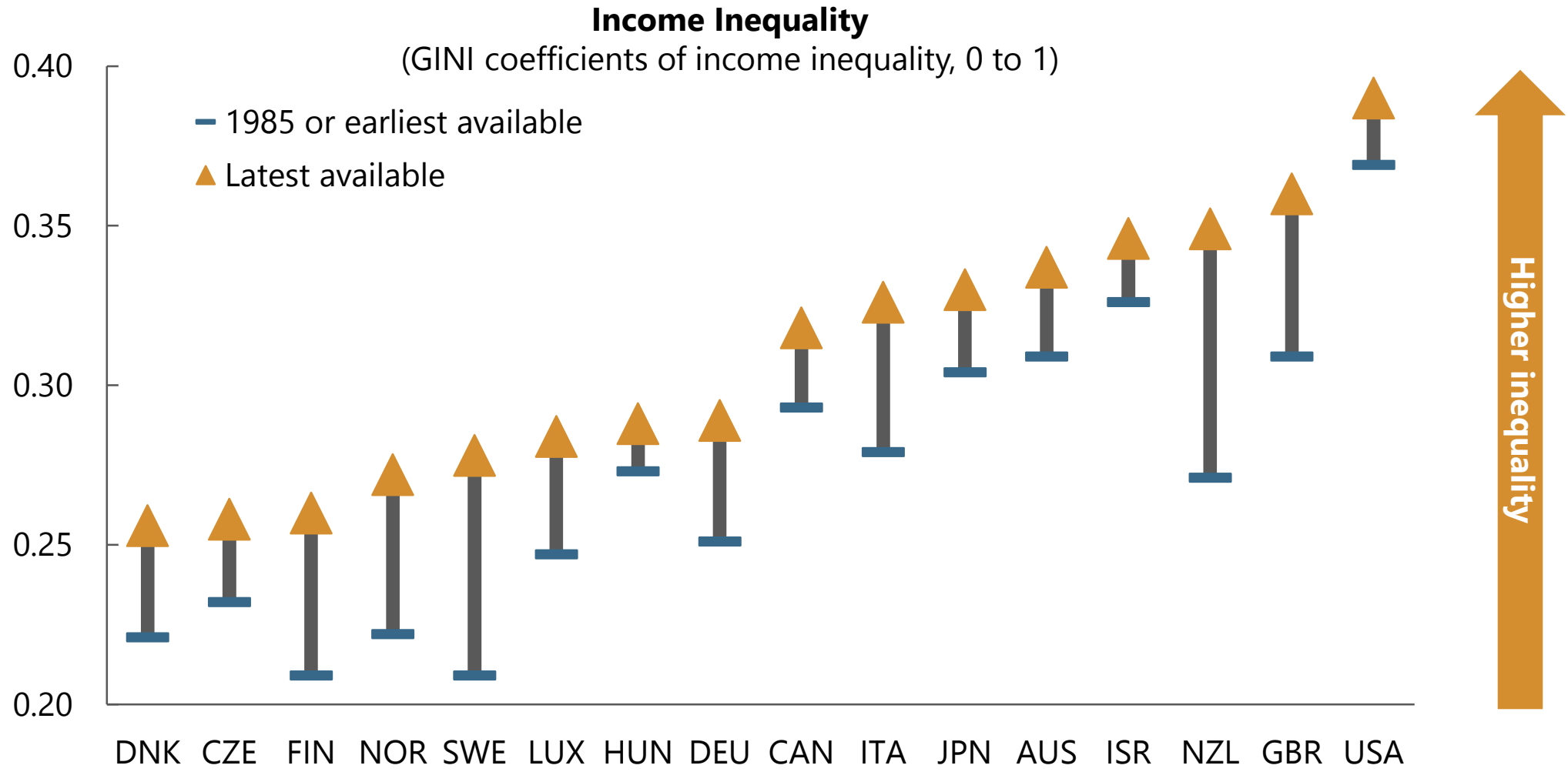
...population ageing in advanced economies...

Working Age Population
(Ratio of the population aged 15-64 to total population)



Sources: UN *World Population Prospects: The 2017 Revision*; and IMF staff calculations.
Note: Country group aggregates are simple averages.

...and rising income inequality...

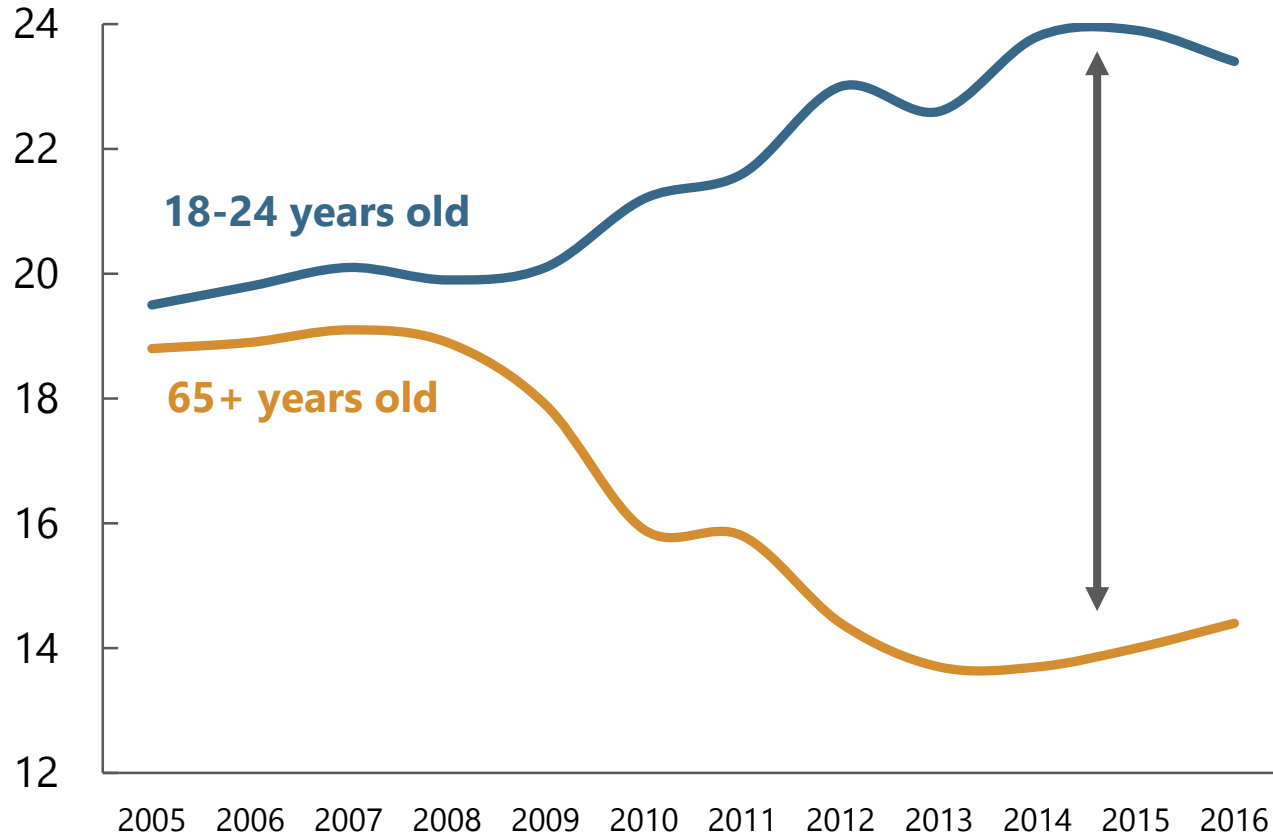


Source: OECD.

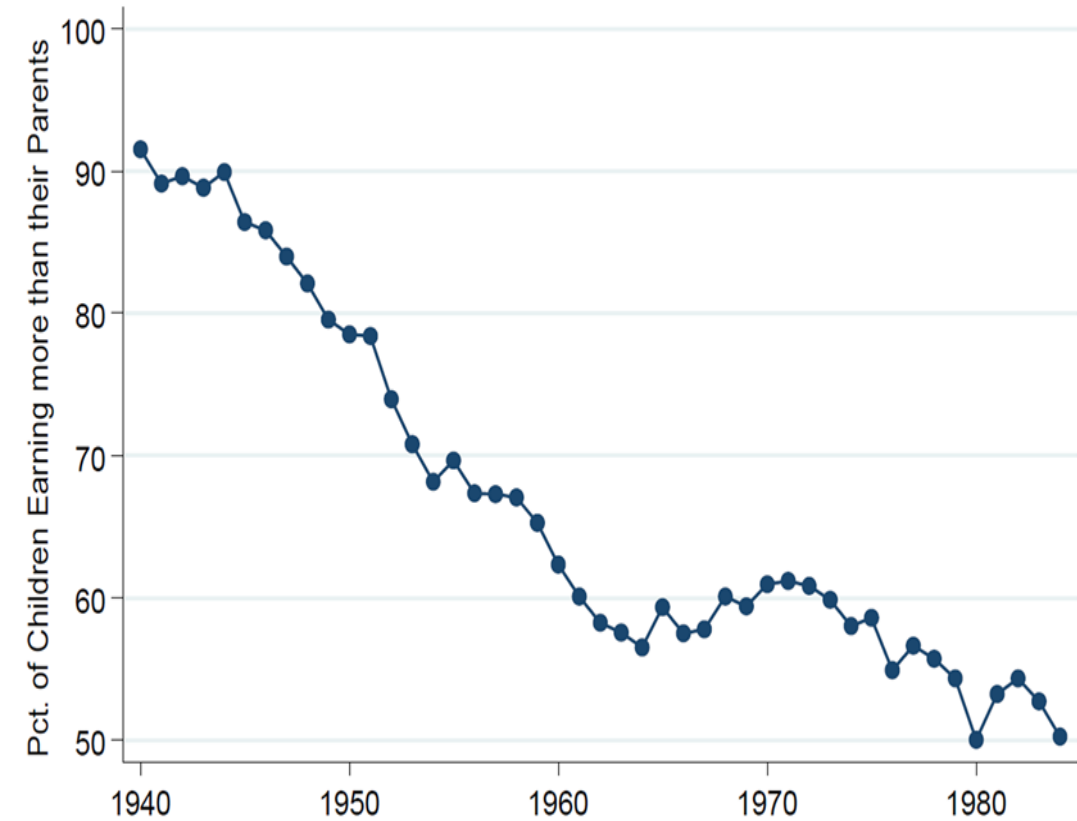
Note: The initial data points are: 1985 for DNK, DEU, NZL, CAN, JPN, GBR and ISR; 1986 for NOR, FIN, LUX; 1991 for ITA, SWE, HUN; 1992 for CZE; and 1993 for the USA. The latest data points are: 2012 for JPN; 2014 for DNK, LUX, HUN, DEU, ITA, AUS, NZL; 2015 for CZE, FIN, NOR, SWE, CAN, GBR, USA, and 2016 for ISR.

...including inter-generational inequality

European Union: At-risk-of-poverty Rates
(Percent)



US, Percent of Children Earning More than their Parents, by year of birth



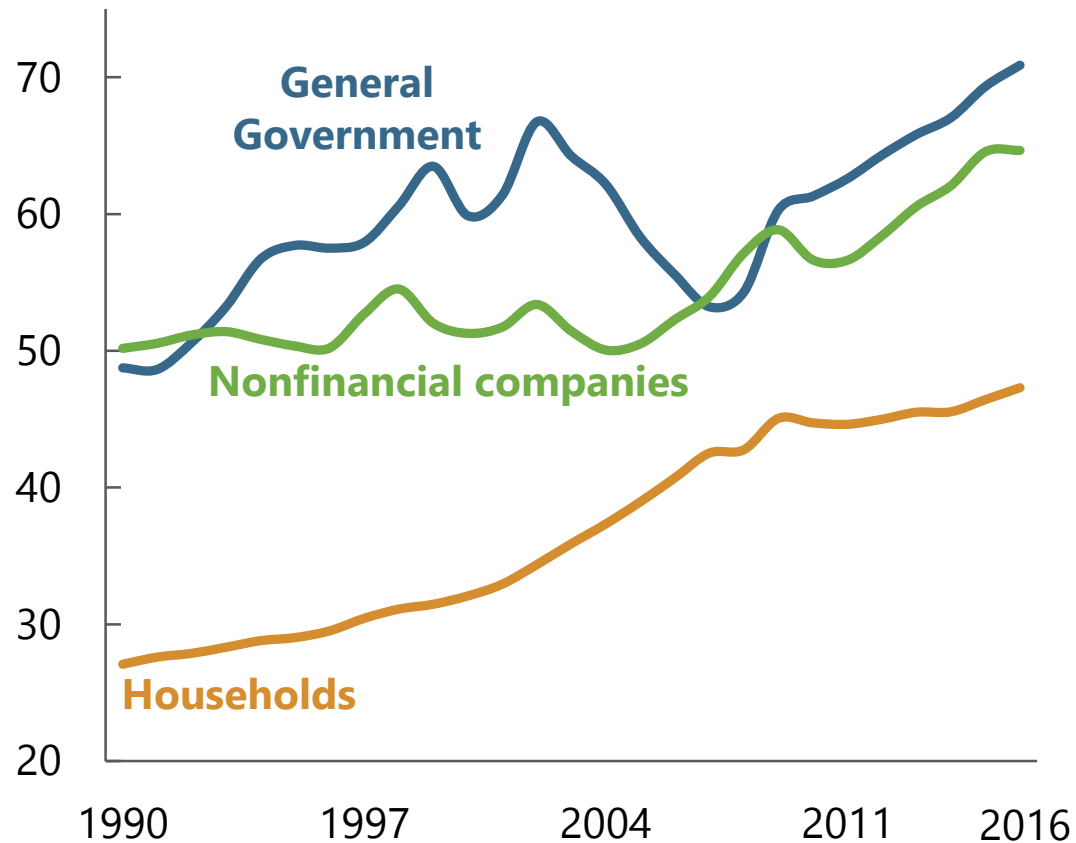
Source: IMF Staff Discussion Note, SDN/18/01 "Inequality and Poverty across Generations in the European Union." Note: The at-risk-of-poverty rate is the share of people with an equivalized disposable income after social transfers below the at-risk-of-poverty threshold which is set at 60% of the national median equivalized disposable income after social transfers.

Source: The Fading American Dream: Trends in Absolute Mobility by Raj Chetty, et.al. Feb 2017. Note: Mean rates of absolute mobility by birth cohort.

Medium-term financial risks are building up

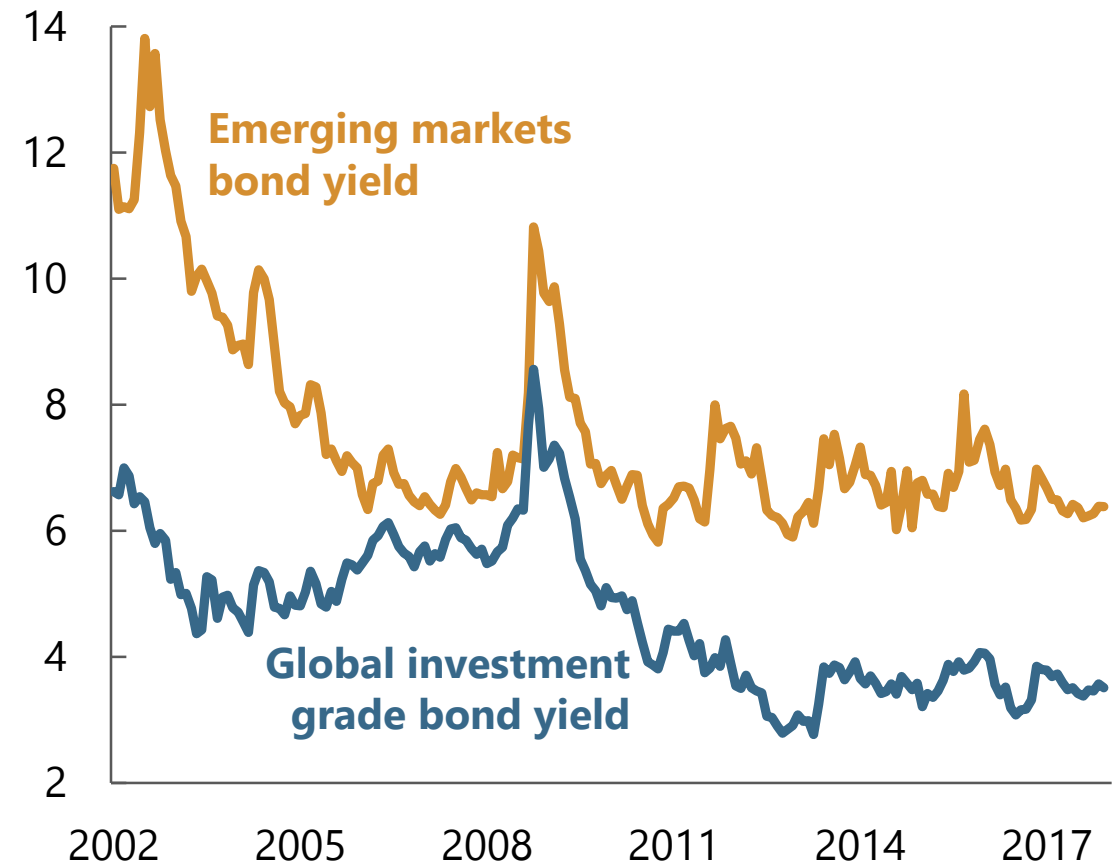
Debt-to-GDP Ratios

(Average debt-to-GDP ratios for G-20 economies in percent)



US Dollar Bond Yields

(January 2002 - December 2017; Percent)



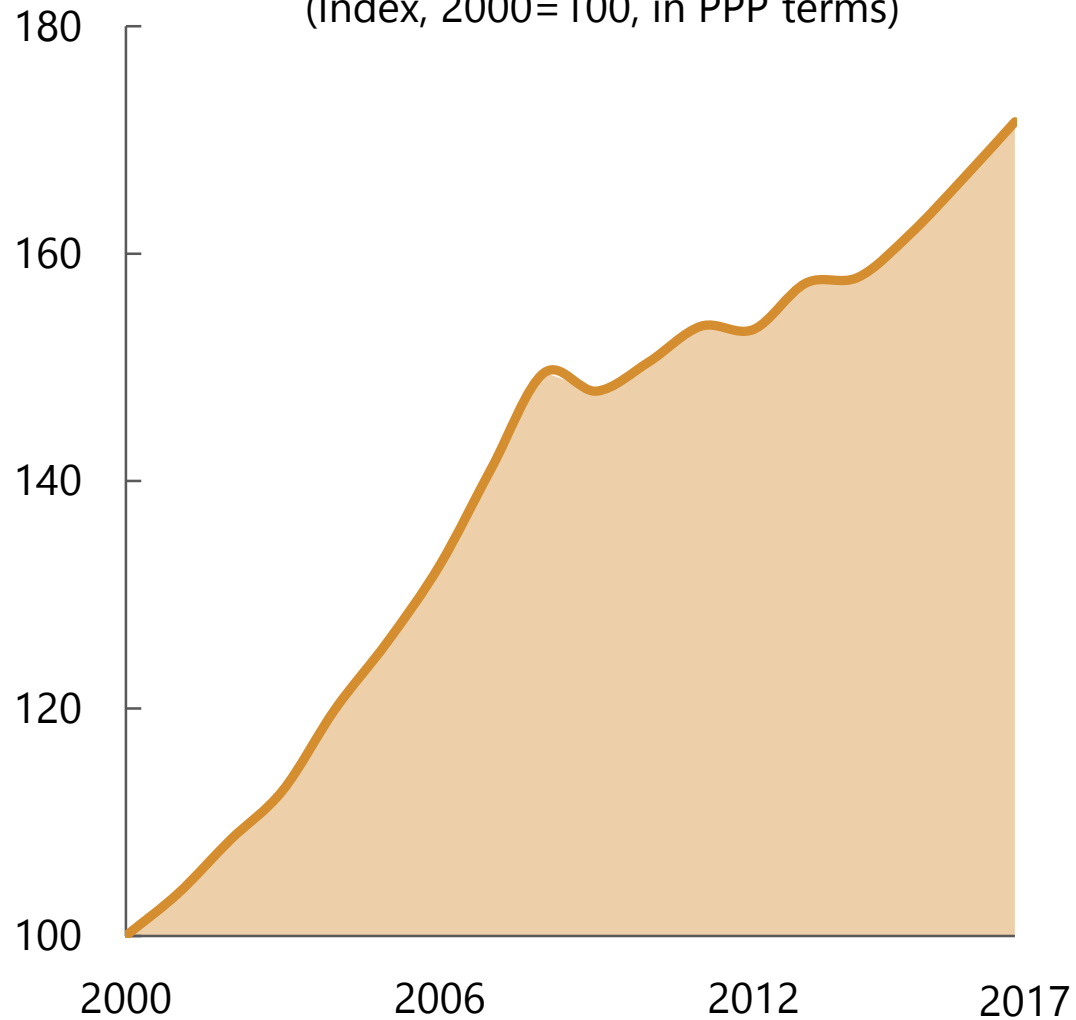
Sources: Bank of America Merrill Lynch; Bloomberg; JPMorgan; and IMF staff calculations.

Note: High-yield data are derived from the JPMorgan Developed Market High Yield index. Emerging market data are derived from the JPMorgan EMBI Global index, and include both investment-grade and high-yield bonds.

Income convergence in Western Balkans is lagging

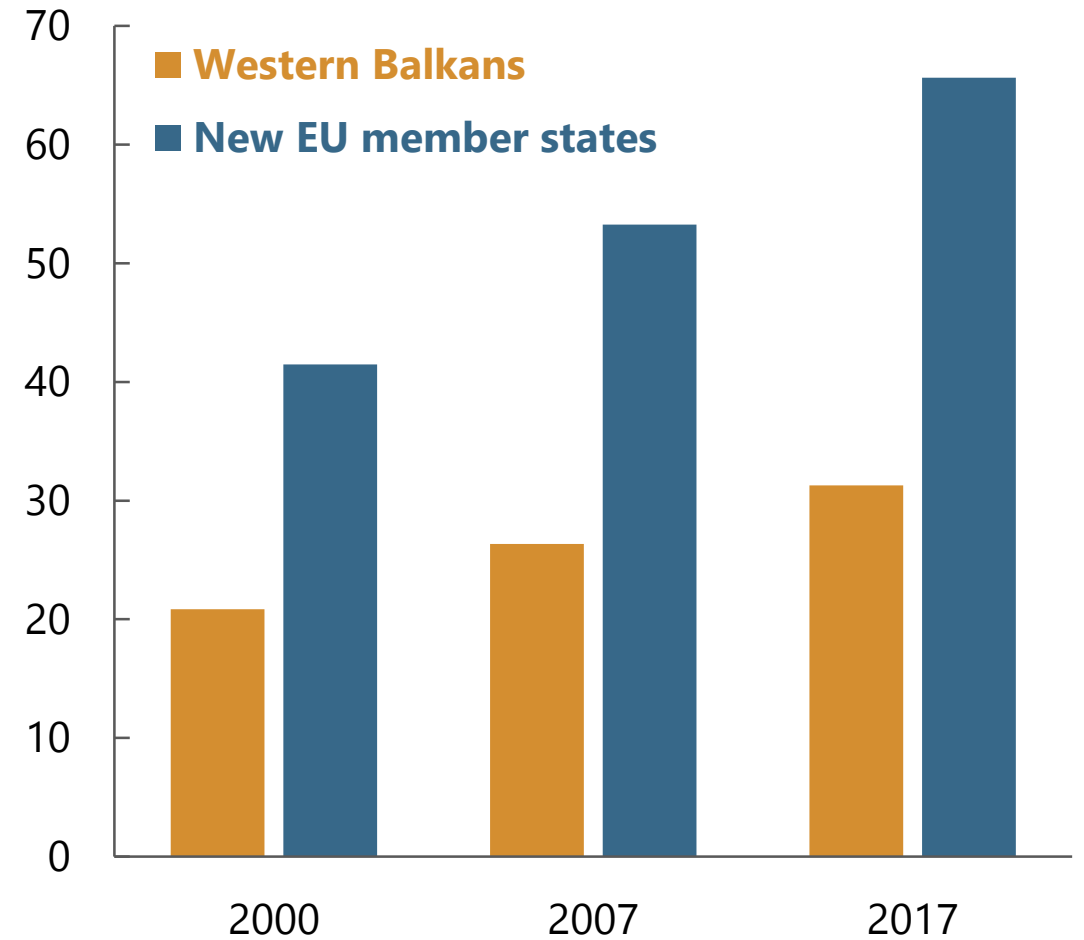
Western Balkans: Real Income Growth

(Index, 2000=100, in PPP terms)



Real Income Convergence

(Percent of Euro Area's per capita GDP in PPP terms)

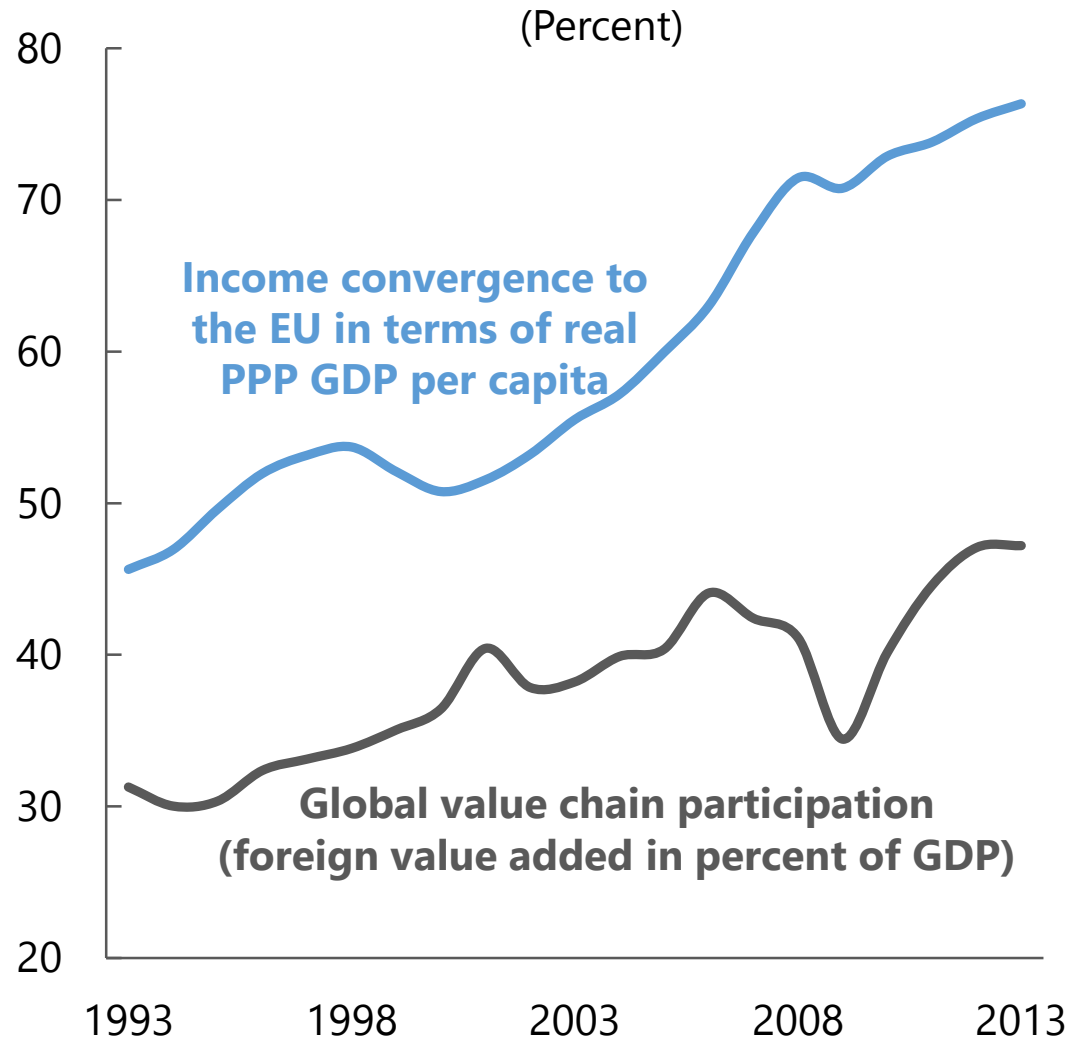


Sources: World Bank *Development Indicators*; and IMF staff calculations.

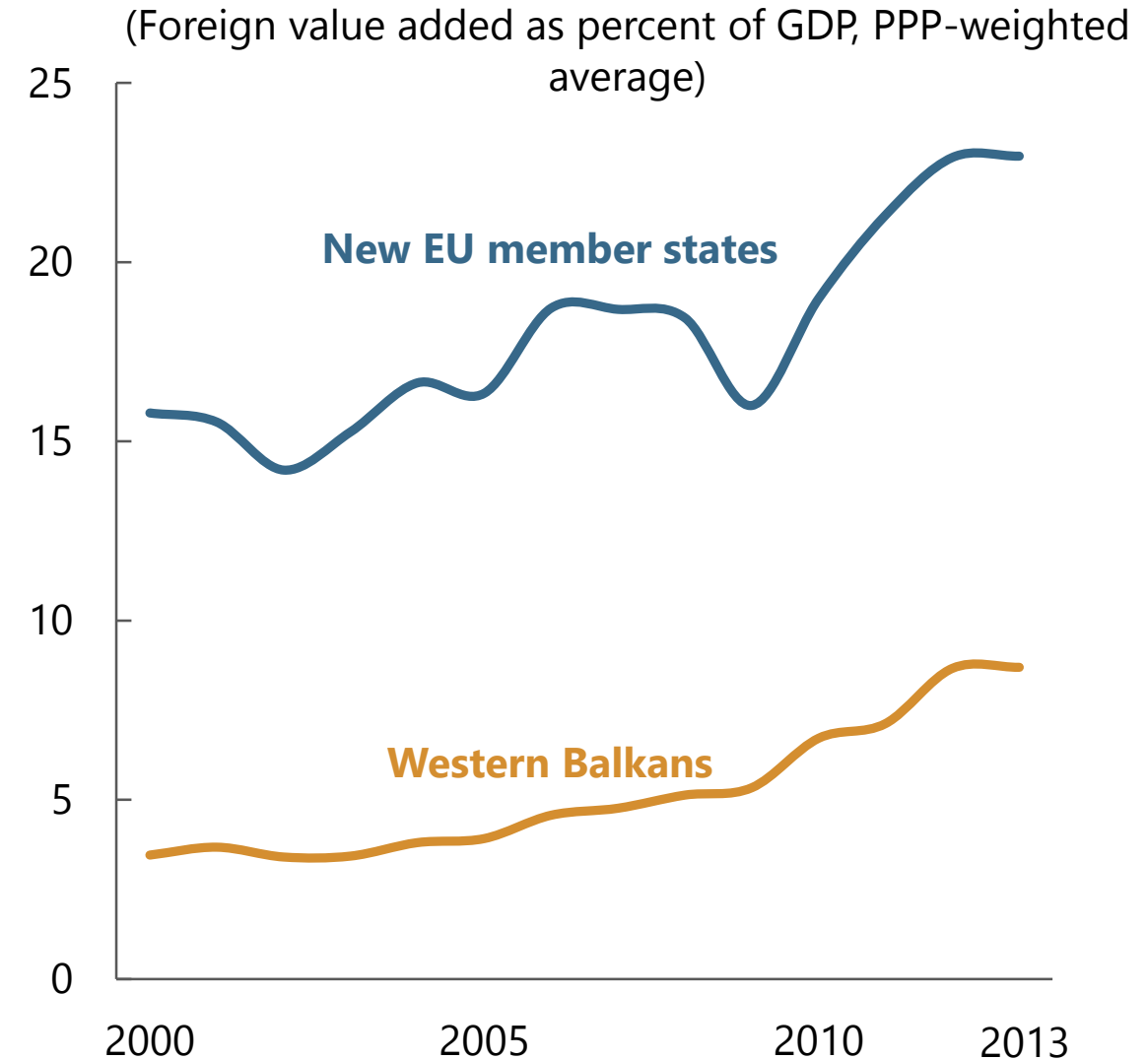
Note: New EU member states include: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia. Western Balkans include: Albania, Bosnia and Herzegovina, Kosovo, FYR Macedonia, Montenegro, and Serbia.

Integration with global value chains is key to higher growth

Slovakia: Global Value Chain Participation & Convergence



Global Value Chain Participation

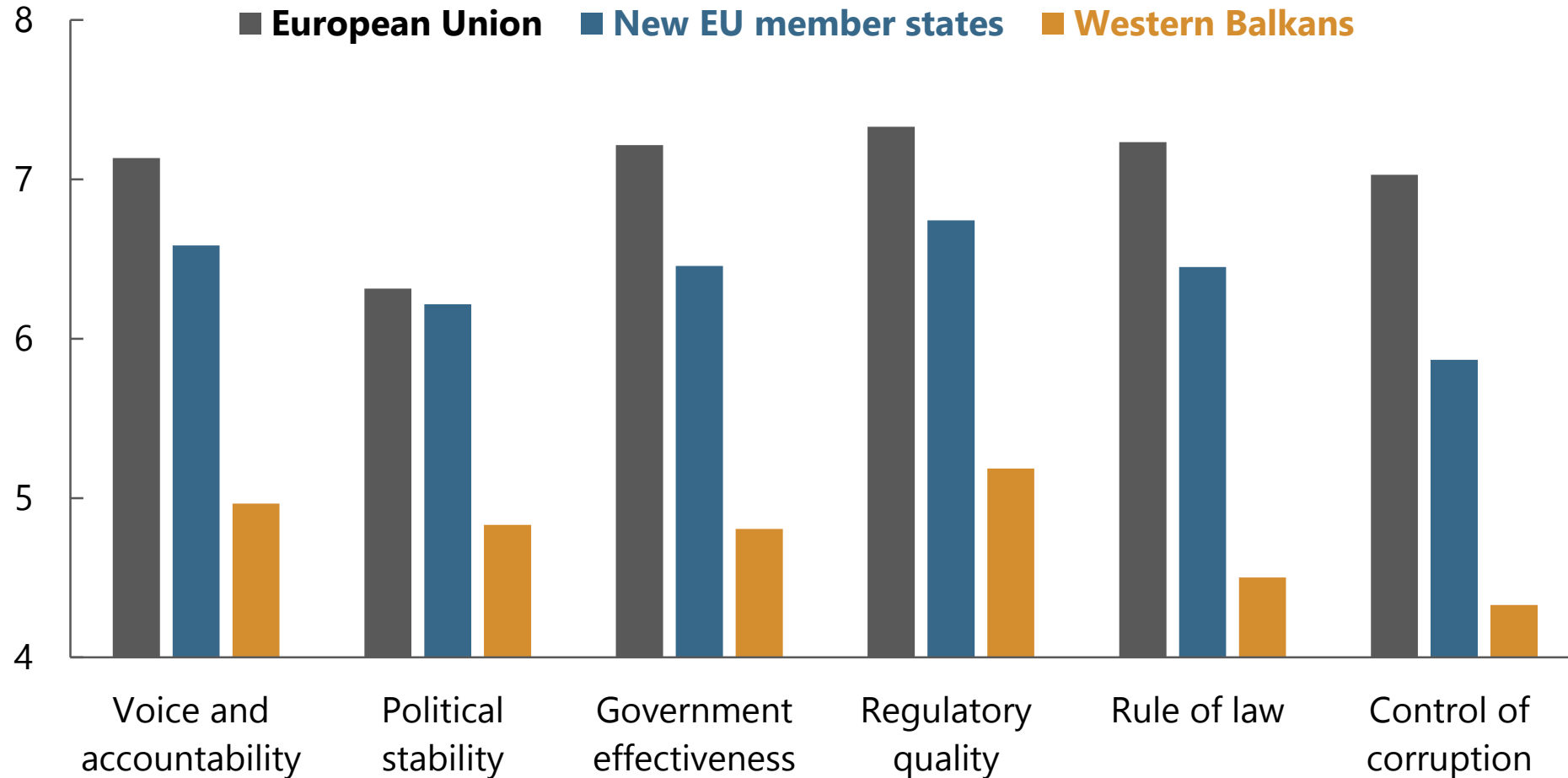


Sources: EORA database; IMF *World Economic Outlook*; and IMF staff calculations.

Integration requires better institutions to attract investment...

World Bank's Worldwide Governance Indicators, 2016

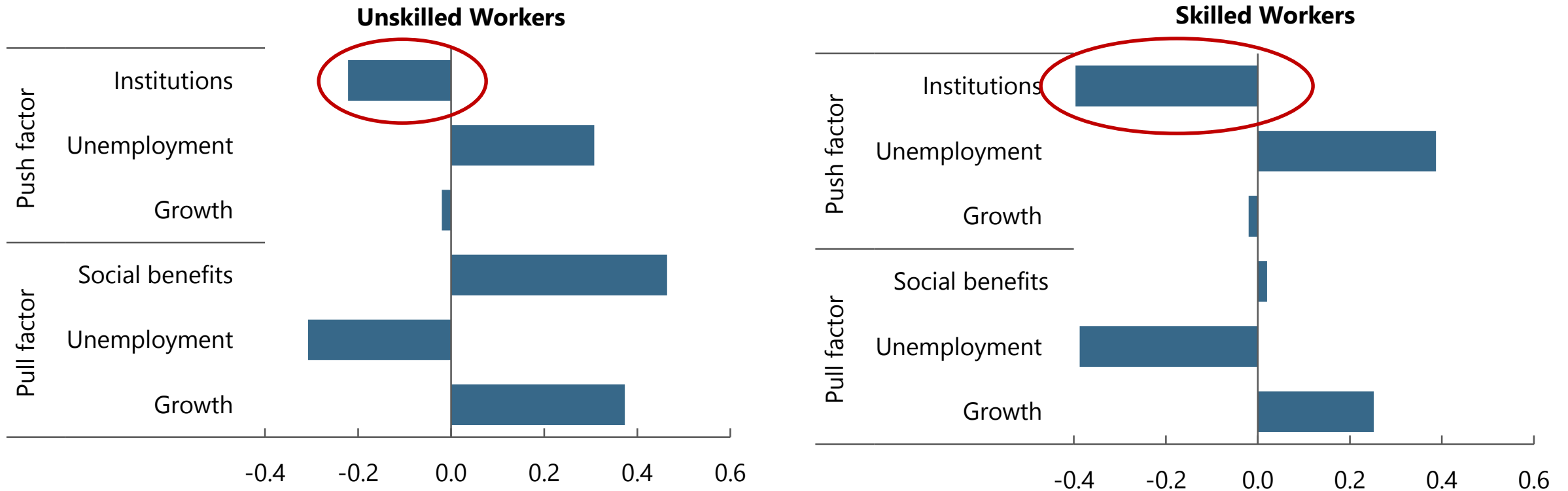
(Index, from 0 (weak) to 10 (strong))



...and retain skilled labor

Determinants of Bilateral Emigration

(Sending countries: Central, Eastern and Southeastern Europe; Receiving countries: OECD; Standardized coefficients)

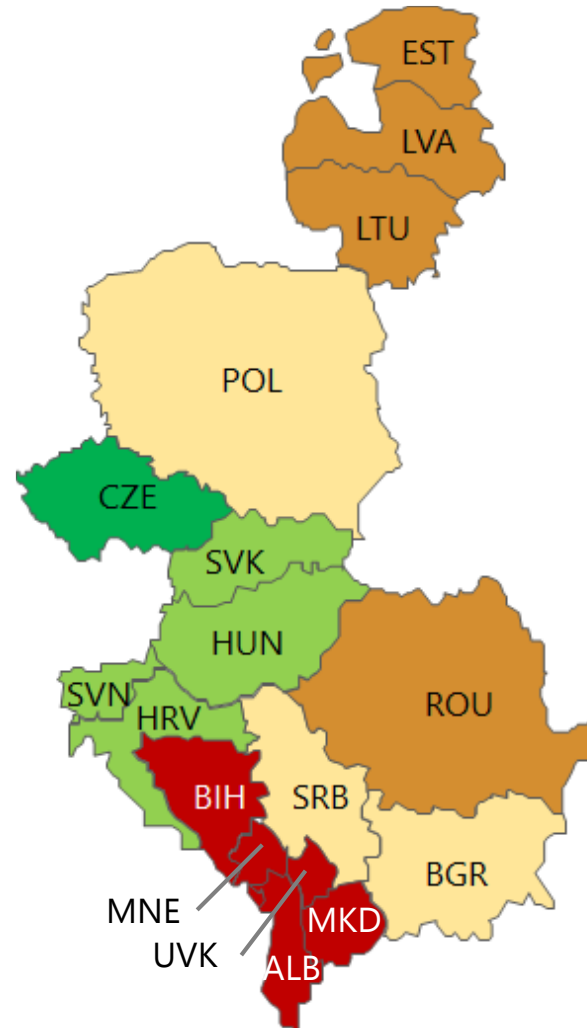


Source: IMF Staff Discussion Note, SDN/16/07 "Emigration and Economic Impact on Eastern Europe."

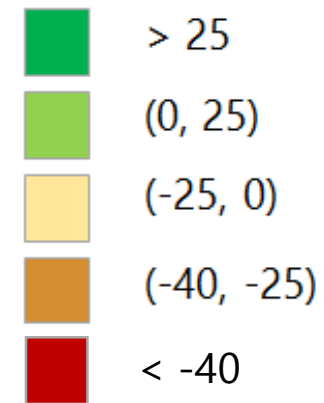
Note: The standardized coefficients are interpreted as follows: a 1 standard deviation change in factor X results in a # standard deviation increase in migration flows. Estimates are based on panel data gravity models of low and high cumulative outward emigration growth over non-overlapping subperiods of 5 years from 1990 to 2010. Additional control variables for sending and receiving countries are: real GDP per capita, population, countries, and year fixed effects.

Integration also requires better infrastructure

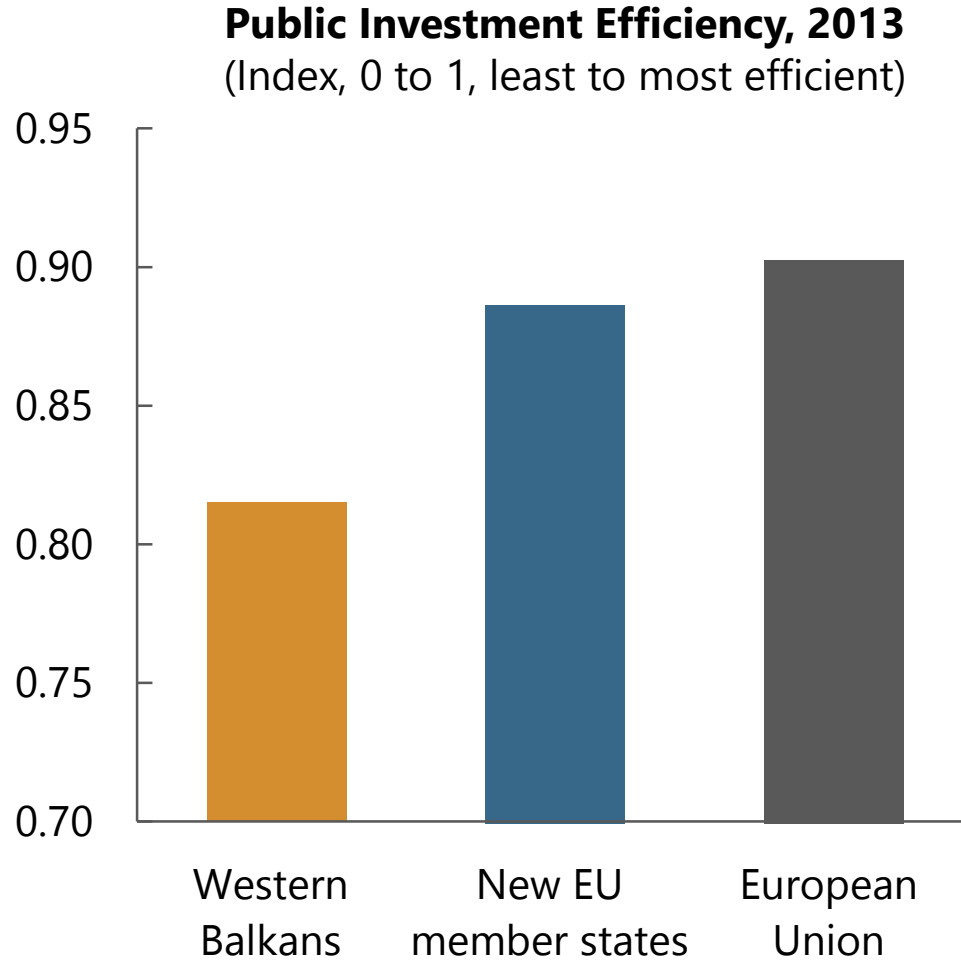
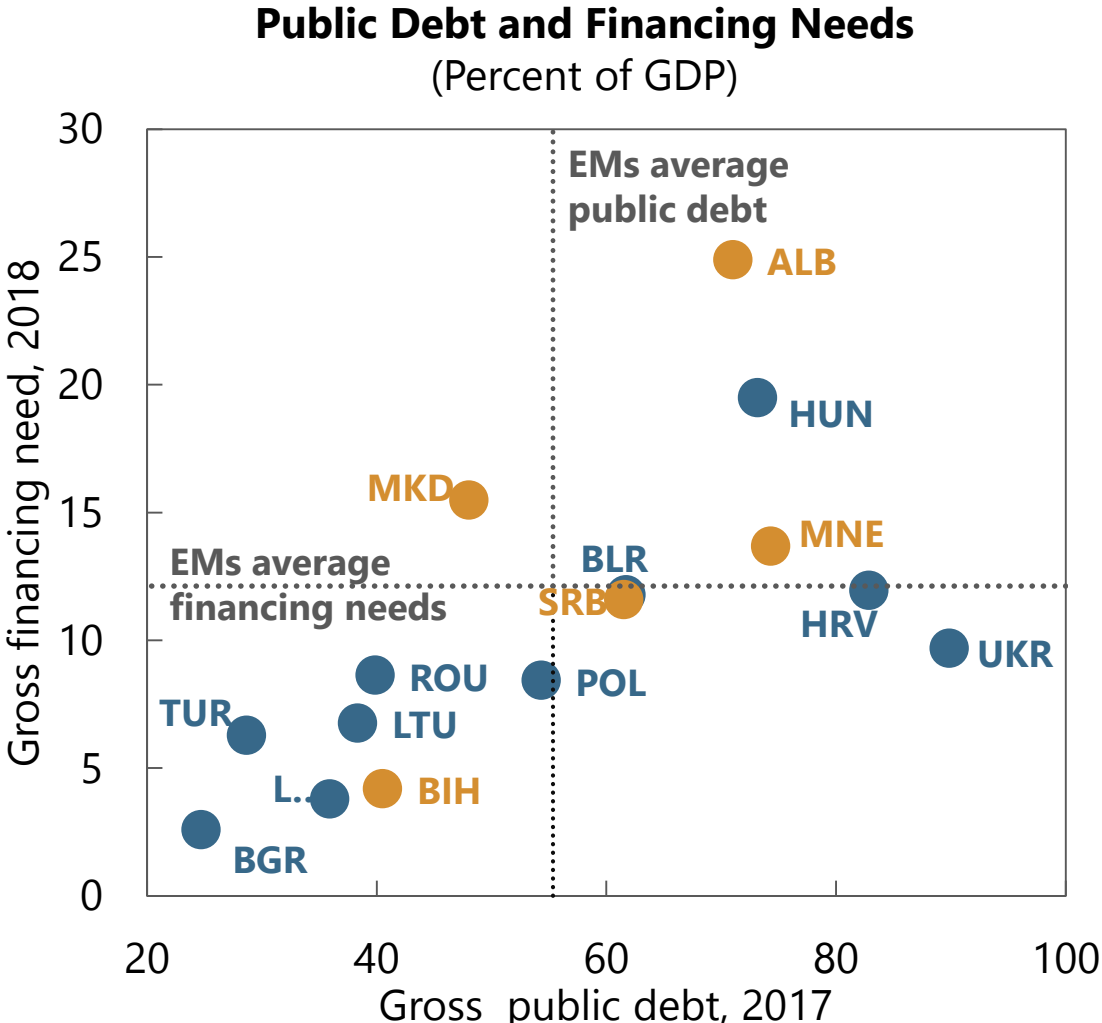
Infrastructure Gap Index



Note: Infrastructure gap index calculates the gap between a country's infrastructure and that of an average EU member. The index includes: area's railway density, motorway density, installed capacity for power generation, phone lines and cellular subscriptions, and air transport passengers. The index value ranges between 50 to -65 with a value of zero reflecting EU-28 average.



To finance, create fiscal space by lowering debt and improving efficiency



Sources: IMF *World Economic Outlook*; and IMF staff calculations.
 Note: The aggregate public investment efficiency index is based on simple averages.

Key messages

- Global economic activity continues to strengthen but there are significant risks and challenges in the medium term.
- If left unaddressed, they may derail or weaken growth.
- Countries in the Western Balkan region have seen considerable increases in living standards but income convergence with advanced Europe remains limited.
- Stronger growth will need much higher investment and integration in global value chains. Better institutions and infrastructure are two key ingredients for that.

Thank you