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

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Tao Zhang
Deputy Managing Director
International Monetary Fund

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)

<table>
<thead>
<tr>
<th>Year</th>
<th>World</th>
<th>Advanced economies</th>
<th>Emerging economies</th>
<th>United States</th>
<th>Euro Area</th>
<th>China</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>3.7</td>
<td>2.3</td>
<td>4.7</td>
<td>2.3</td>
<td>2.4</td>
<td>6.8</td>
<td>1.8</td>
</tr>
<tr>
<td>2018</td>
<td>3.9</td>
<td>2.3</td>
<td>4.9</td>
<td>2.7</td>
<td>2.2</td>
<td>6.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Revision from October 2017</td>
<td>0.2</td>
<td>0.3</td>
<td>0.1</td>
<td>0.4</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>2019</td>
<td>3.9</td>
<td>2.2</td>
<td>5.0</td>
<td>2.5</td>
<td>1.9</td>
<td>6.4</td>
<td>1.5</td>
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<td>0.1</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: IMF *World Economic Outlook.*
Longer-term growth prospects weak due to productivity slowdown...

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

- 25th - 75th percentile
- 10th - 90th percentile
- Average

**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...

Income Inequality
(GINI coefficients of income inequality, 0 to 1)

- 1985 or earliest available
- Latest available

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, 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**

<table>
<thead>
<tr>
<th>Year</th>
<th>18-24 years old</th>
<th>65+ years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
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<td>2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
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</tbody>
</table>

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.

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 (Percent)

Income convergence to the EU in terms of real PPP GDP per capita

Global value chain participation (foreign value added in percent of GDP)

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))

- **European Union**
- **New EU member states**
- **Western Balkans**

Sources: World Bank Worldwide Governance Indicators; and IMF staff calculations.
…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

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.

Source: IMF European Department “Public Infrastructure in the Western Balkans: Opportunities and Challenges,” forthcoming.
To finance, create fiscal space by lowering debt and improving efficiency

Public Debt and Financing Needs
(Percent of GDP)

Public Investment Efficiency, 2013
(Index, 0 to 1, least to most efficient)

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