



DOES ARMENIA FOLLOW THE PRODUCTIVITY CONVERGENCE TREND?

The concept of convergence is very popular in studies on economic growth and competitiveness, particularly within neoclassical growth theories. Poor countries grow faster than rich ones, and there are at least three basic assumptions for this phenomenon.

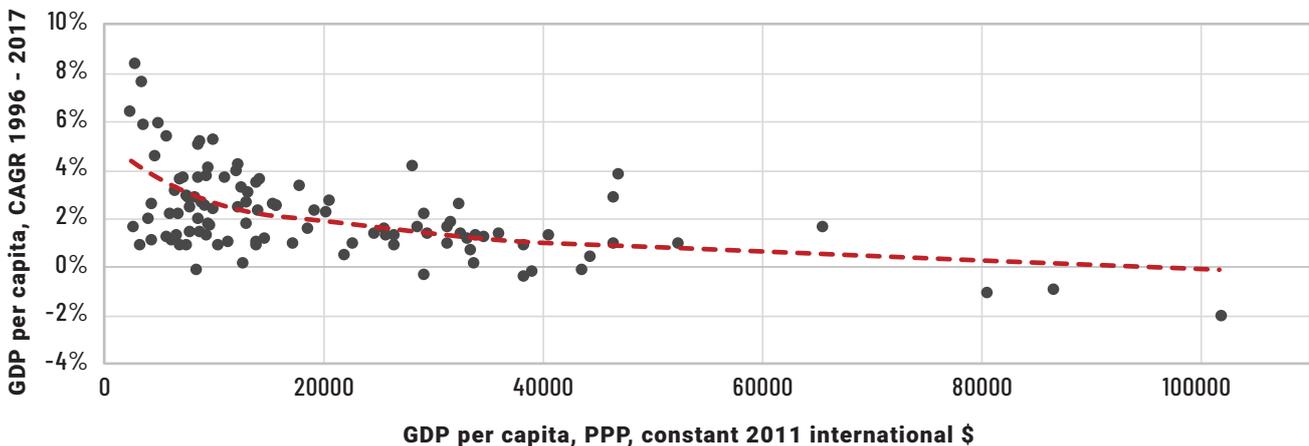
First of all, the Solow growth model shows that countries tend to converge to their steady state levels in the long run. Consequently, as poor countries are relatively far from their steady state levels, they are expected to grow faster to catch up with rich ones.

Additionally, return on capital is lower in rich countries, and there are incentives for capital flows from rich to poor countries, supporting their convergence and gap reduction with rich ones.

The third reason supporting convergence theory is connected to the lags in the diffusion of knowledge and technologies, as countries do not always employ the best available technologies. Competition, learning experience, and knowledge sharing, particularly in tradable industries, enable poor countries to grow faster and strive to reach their potential.

The graph below indicates that poor countries with lower GDPs per capita in the base year have higher GDP per capita growth rates compared with advanced and developed economies confirming the presence of convergence over time.

Graph 1: GDP per Capita PPP (Constant 2011, International Dollar) and CAGR, 1996-2017 by Country

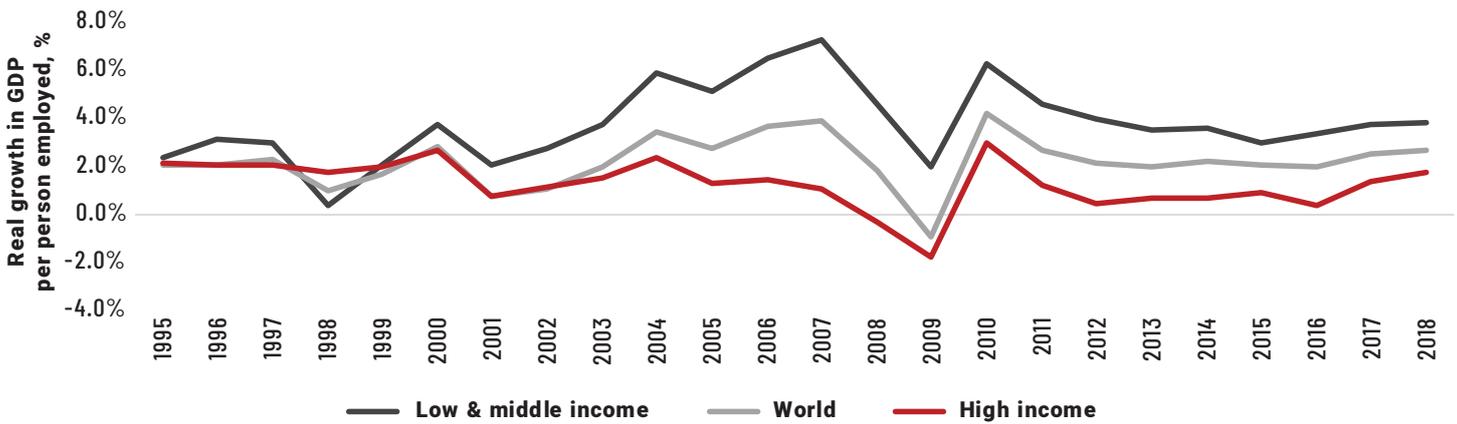


Source: WDI

Labor productivity convergence assumes reduction of disparities or catch-up with rich countries in productivity. Historically low and middle-income economies outperform with their pace of growth of labor productivity compared with productivity growth rates of the world average and higher income economies.

The concept of productivity convergence is widely discussed by researchers recently. International organizations such as OECD, IMF are developing macroeconomic models based on the convergence theory of economies. The graph below indicates that the trend of productivity convergence still continues till 2018 and low & middle income economies are having higher productivity growth rates than the world and high-income

Graph 2: Growth in GDP per Person Employed (constant 2011 PPP \$)

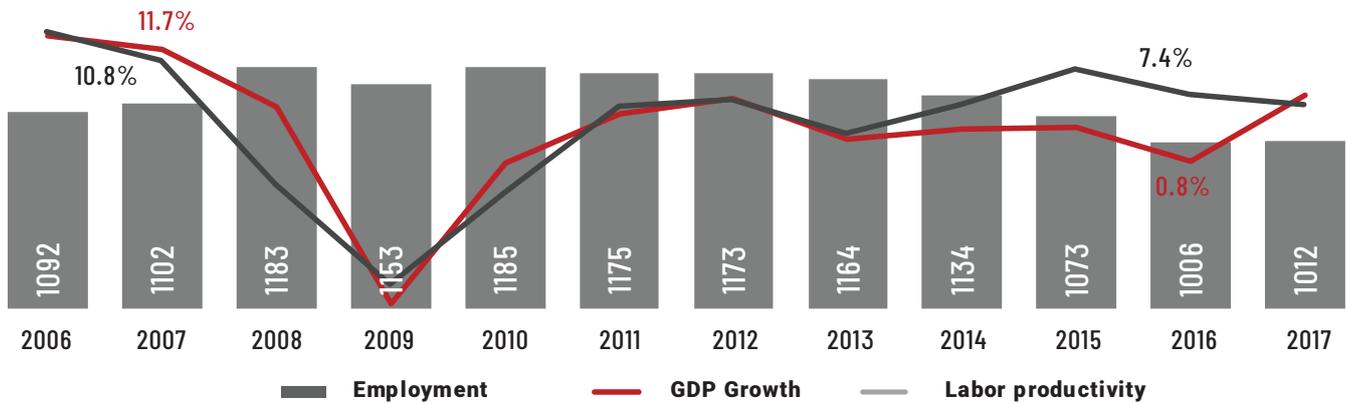


Source: WDI

Since 2018, The World Bank has classified Armenia as an upper-middle income economy. Being among low & middle income economies Armenia on average has higher GDP per person employed growth rate compared to world and high income economies. The financial crisis of 2008 hit Armenian economy drastically resulting in GDP per person employed rate to plummet to -12.5%. During the recovery period, Armenian economy showed mixed performance having an average GDP per person employed growth rate of 4.1% for 2011 – 2018 period measured with constant 2011 PPP \$ which is higher than the global average and high income economies. This confirms that Armenia follows the productivity convergence trend existing globally.

Labor productivity convergence also creates challenges for economies. High growth rates of labor productivity requires even higher economic growth of the country to address the issues of unemployment, job creation, increasing polarization and poverty.

Graph 3: Labor Productivity, Employment, and GDP Historical Relationship (constant 2017 USD)



Source: Statistical Committee of the Republic of Armenia, EV Consulting analysis

The historic pace of economic growth in Armenia has not been enough to maintain job creation rate necessary for reduction of unemployment considering the high labor productivity growth rate. From 2011 to 2017, the compound annual growth rate (CAGR) of GDP (constant 2017 USD) was 4.1% in Armenia while the CAGR of labor productivity (GVA per person employed, constant 2017 USD) for the same period was 6.8%. Consequently, the employment number in the country decreased from 1.17 million to 1.01 million since 2011, resulting in a reduction of 163,000 jobs in Armenia.

Sustainable and inclusive economic growth will result in lower unemployment and poverty rates, reduced level of economic and job market polarization as well as lower level of income inequality in the country. The increasing labor productivity alone is not enough to catch up to advanced economies and improve the economic situation of Armenia. In some cases, it might cause even more economic issues such as unemployment rate growth and job reduction. Higher rate of GDP growth and job creation should be targeted to address the aforementioned challenges and support the catch-up trend of Armenia's labor productivity and economic fundamentals with advanced ones.

*Labor productivity is calculated as Gross Value Added per employee.



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