

Accelerating EU Convergence in the Western Balkans: Long-Term Growth Scenarios and Policy Pathways

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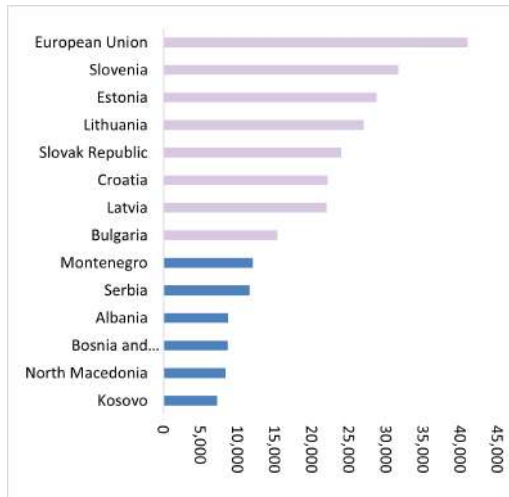
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Motivation: Why Convergence with EU Incomes Matters

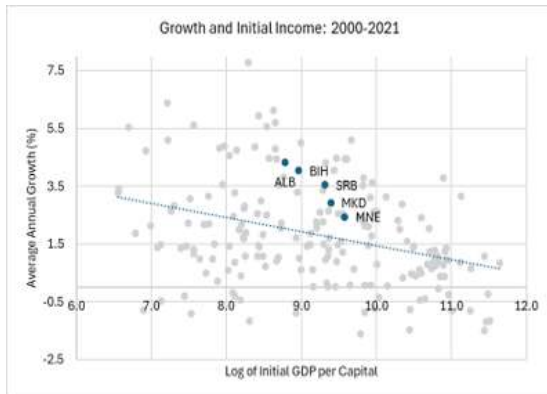
- WB6 economies aim for EU accession and this has served as a policy anchor
- Convergence is crucial because it is a strong predictor of successful and less disruptive accession including managing potential rapid migration post-accession
- But the income gap remains large, with average per capita GNI at a quarter of the EU



GNI Per Capita 2024

To close this gap, there needs to be rapid convergence, hence higher growth

- WB6 economies have had stable economic growth, doubling their output between 2000 and 2022.
- Real GDP growth has averaged around 3–4 percent annually, driven by consumption, investment, and remittances.
- Accelerating growth is essential to close the convergence gap



Growth and Initial Income: 2000-2021

Methodology at a glance (LTGM-PC)

$$Y_t = A_t K_{p,t}^{1-\beta-\phi} (\theta_t K_{G,t})^\phi (h_t L_t)^\beta$$

- Private/public capital split; effective public capital scaled by efficiency θ_t .
- A_t = TFP as given
- Efficiency of new public investment θ_t^I feeds into average θ_t and raises $K_{G,t}^e$: electricity and water losses, paved roads share.
- $K_{p,t}$ = private capital stock,
- ϕ the elasticity of output to efficient public capital, β = labor income shares
- h_t from HCI (learning-adjusted years of schooling, adult survival, not stunted).
- Labor L_t number of workers, evolves with demographics and participation dynamics.

Business -as-usual (**BAU**): continuation of 2010–2023 structural trends.

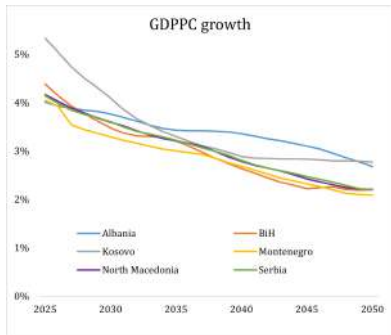
Reform: higher A_t , \uparrow IEI, \uparrow private investment share, \uparrow LFP, \uparrow human capital.

Poverty module maps growth to headcount under distributional assumptions.

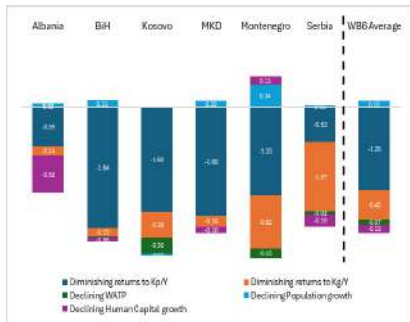
Conditional projections, not forecasts; factor shares fixed; exogenous shocks not modeled.

Results: falling growth in the BAU

- Average annual GDP pc growth: $\sim 3.1\%$, falls by 1.8ppts between 2026-2050, higher than GDP growth (2.4%) due to slower population growth.
- Growth is falling due to headwinds of current growth model: **mainly diminishing return to capital, especially private except Kosovo**, followed by declining human capital growth and falling WATP



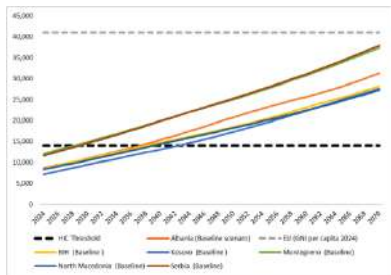
Growth declines in the long run



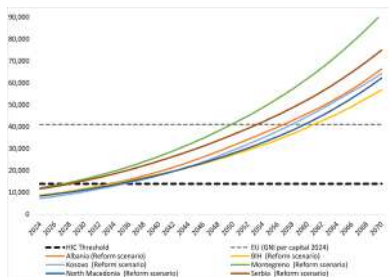
Explaining the Fall in per capita growth

Results: Convergence to EU income slow, but reforms significantly accelerate

- HIC by 2040; convergence to *current* EU income levels: **Delayed** not before **2074**, only half way there by 2050
- **Reform Growth**: ~ **4.2%** average annual GDP PC growth (+1.8 pp. from BAU); High Income Status: Achieved by the **mid-2030s**.
- **EU Convergence**: Accelerated by ~ **25-30 years** (around **80%** in 2050); **Poverty headcount** virtually **eliminated** by 2050.



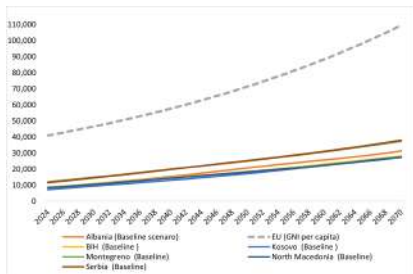
Baseline GNI per capita



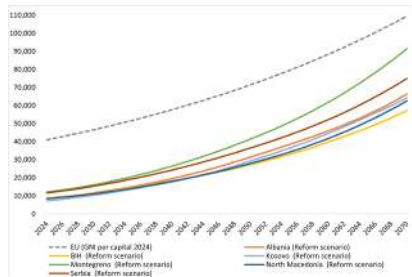
Reform GNI levels

Results: Further behind if EU is growing

- Most CEE members were 20-25% of the income level of the EU average and reached HIC within a few years but Romania and Bulgaria had much slower convergence
- WB6 likely to be at just 29% in BAU vs 46% in reform scenario, if the EU in 2050 (if EU PC growth is growing)

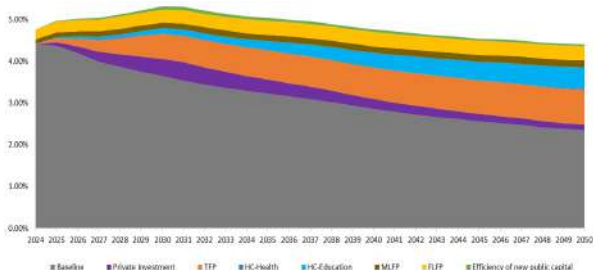


Baseline Convergence assuming EU PC growing



Reform Convergence assuming EU PC growing

Decomposing the per capita Growth Boost

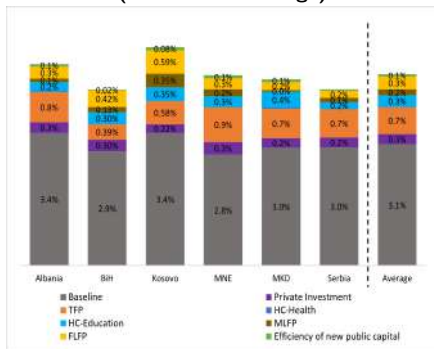


Average contribution of each Reform to incremental WB6 GDP PC growth

- **TFP:** ~ **0.7 pp.** Largest driver, accounting for over half of the incremental growth.
- **HC:** ~ **0.3 pp.**, reforms in mainly education and health
- **Public Investment Efficiency:** ~ **0.1 pp.**: ensure public spending translates into productive capital, **Complementary:** Inefficiency is a drag on **TFP** and K_p returns
- **LFP:** ~ **0.4 pp.** Second largest driver; immediate gains.
- **Private investment:** ~ **0.3 pp.**: higher TFP raises the return on private capital, gradually tapers.

Not Uniform: Country-Specific Boost to Growth

Contribution of Reforms to GDP PC Growth (2026–2050 Average)



The impact of reforms is conditional on initial institutional capacity.

- **TFP (Avg: 38%):** Serbia (49%) – highest in region; BiH (25%) & Kosovo (27%) – Lagging
- **FLFP (Avg: 18%):** BiH (28%) & Kosovo (27%) – Large gender gaps, MKD & Serbia (12%) – higher baseline
- **MLFP (Avg: 8%):** Kosovo (16%) – low starting point, high catch-up effect; MKD (2%) – Limited scope for additional gains
- **HC-Education (Avg: 16%):** MKD (23%) – critical to offset demographic headwinds; Serbia (12%) – Lower marginal returns
- **Private investment (Avg: 15%):** BiH (19%) – Higher reliance; Kosovo (10%)
- **Efficiency of new public capital (Avg: 3%)**

Recap and Takeaways

- Recent fast growth in many countries has been driven by high rates of investment, and without complementary productivity growth, the growth dividend from that investment will fall.
- The difference between BAU and reform is a ~ 1.8 pp. increase in annual per capita growth, faster convergence
- Most important is TFP growth, but second is labor supply (which works will capital) and is particularly important given the declining labor force in most countries.
- Human capital is also important, especially for the future to raise the productivity of the workforce given the declining working age population.
- Several enabling institutions play a critical role in translating reform ambition into outcomes: Central banks help anchor macroeconomic stability, support financial sector development.
- Reforms are most effective when implemented in a complementary fashion—improvements in one area, such as public investment efficiency, amplify the returns to reforms in others, such as human capital or TFP.

Thank you, questions?

Annex: Calibration of Baseline and Reform

Indicator	Albania		BIH		Kosovo		Montenegro		North Macedonia		Serbia	
	Base	Reform	Base	Reform	Base	Reform	Base	Reform	Base	Reform	Base	Reform
TFP initial	0.006	0.006	0.009	0.009	0.008	0.008	0.005	0.005	0.006	0.006	0.009	0.009
TFP 2050	0.006	0.012	0.009	0.012	0.008	0.012	0.005	0.012	0.006	0.012	0.009	0.015
Inv/Y Initial	0.261	0.261	0.262	0.262	0.348	0.348	0.249	0.249	0.300	0.300	0.239	0.239
Inv/Y 2030	0.261	0.292	0.262	0.293	0.348	0.375	0.249	0.277	0.300	0.330	0.239	0.269
Public Inv/Y	0.062	0.062	0.043	0.043	0.075	0.075	0.077	0.077	0.050	0.050	0.065	0.065
Private Inv/Y Initial	0.199	0.199	0.220	0.220	0.273	0.273	0.171	0.171	0.250	0.250	0.174	0.174
Private Inv/Y 2030	0.199	0.230	0.220	0.250	0.273	0.300	0.171	0.200	0.250	0.280	0.174	0.204
Demographics	UN Medium Variant											
Efficiency of New Public K/Y	0.641	0.740	0.864	0.900	0.673	0.860	0.724	0.860	0.731	0.860	0.788	0.860
K/Y calibration	2.800	2.800	2.163	2.163	2.806	2.806	2.214	2.214	2.806	2.806	2.191	2.191
Depreciation Rate	0.028	0.028	0.058	0.058	0.044	0.044	0.042	0.042	0.041	0.041	0.044	0.044
Labor Share	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.570	0.570
HC growth 2024-50 avg	0.008	0.011	0.002	0.006	0.005	0.010	0.004	0.008	0.004	0.010	0.004	0.006
LFP Male	0.797	0.850	0.735	0.800	0.591	0.700	0.664	0.750	0.778	0.800	0.791	0.850
LFP Female	0.646	0.787	0.523	0.729	0.210	0.400	0.534	0.664	0.543	0.650	0.661	0.750

Average contribution of each Reform to incremental WB6 GDP PC growth