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December 27, 2019

Approved By
Bergljot Barkbu

Prepared By Jean Guillaume Poulain

CONTENTS

NORTH MACEDONIA—INCOME CONVERGENCE AND EU INTEGRATION

Although growth has been solid in the past two decades, it has not been enough to substantially narrow North Macedonia's income gap with the European Union (EU). Based on the experience of other countries, joining the EU, which North Macedonia is aspiring to, has the potential to strengthen growth prospects. Currently, North Macedonia's macroeconomic indicators and regulatory quality are comparable to that of Central Eastern and Southeastern Europe (CESEE) countries at the time they started their EU accession negotiations. However, like other countries in the Western Balkans, North Macedonia's position appears less favorable regarding the control of corruption and rule of law. An empirical analysis shows that EU accession negotiations, and the associated improvements in the quality of institutions, rule of law and control of corruption, can significantly boost income convergence.

A. Introduction

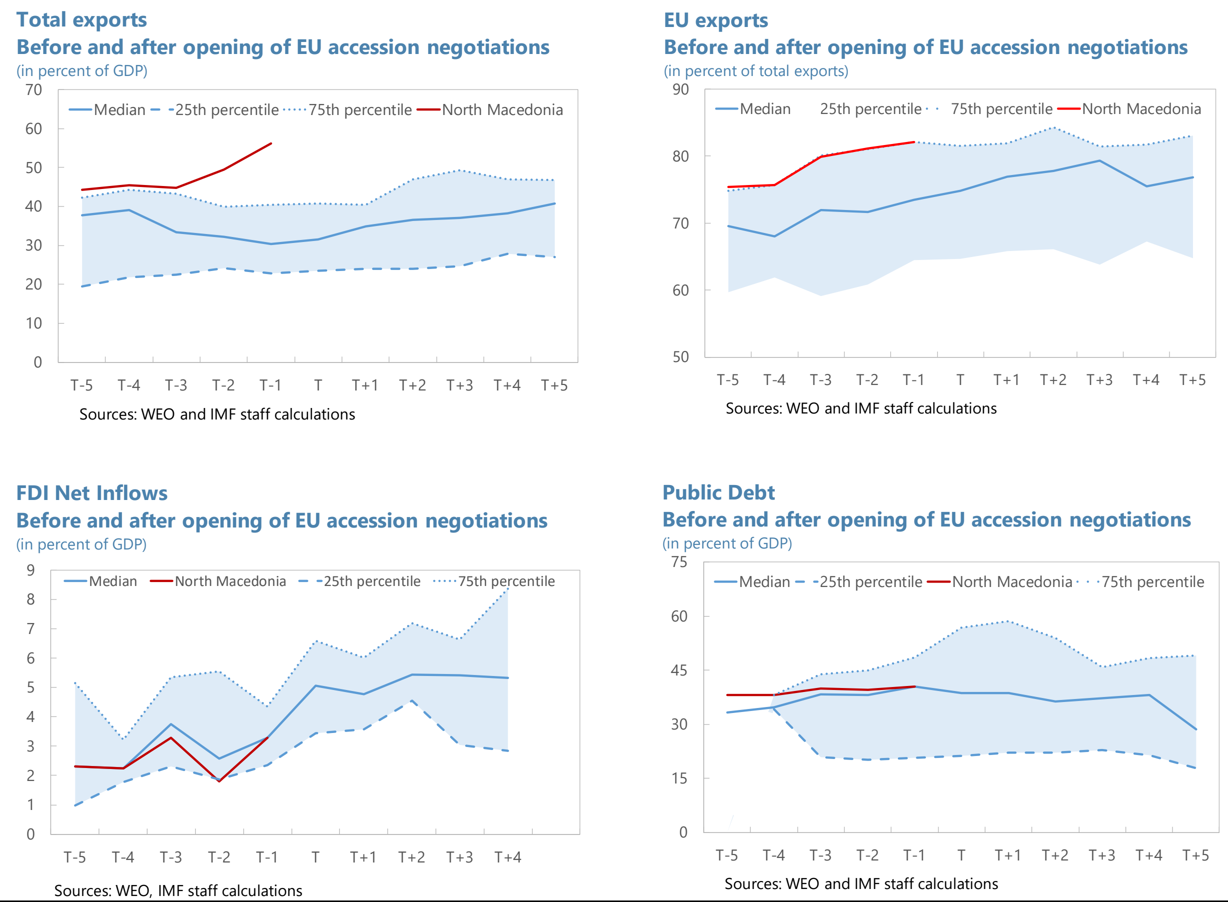
1. **Income per capita in North Macedonia remains well below the EU average.** Since 2000, North Macedonia's real GDP per capita has grown from 20 to just below 30 percent of the EU-15 average. Over the same period, new EU member states closed the gap with the EU-15 by more than 20 percentage points.

2. **North Macedonia is a candidate for EU accession, but the timing for opening accession negotiations remains uncertain.** The resolution of the decades-long name dispute with Greece in early 2019 reignited prospects for opening EU accession negotiations. Coupled with strong progress on reform priorities over the past years, it prepared North Macedonia for EU accession. In its 2019 annual report, the European Commission gave a positive and unconditional recommendation for opening of accession negotiations. However, the European Council postponed its decision on a date to formally open negotiations reflecting some countries' concerns about the EU enlargement process more broadly. The European Council will revert to the issue of enlargement before the EU-Western Balkans summit in Zagreb in May 2020.

3. **The economic benefits of EU accession depend on the ability to successfully implement institutional and structural reforms.** Closer integration with the EU can boost growth and improve living standards through new export and investment opportunities. Also, EU funding can help improve the quality of infrastructure. Importantly, EU membership means higher standards for regulatory framework and institutions. North Macedonia's economic performance and business environment is currently hampered by an underutilized labor force, a large shadow economy, and systemic weaknesses in governance, the judiciary and public administration. Pushing ahead with an ambitious reform agenda is important for a successful EU accession bid but is also crucial in itself to increase the growth potential and speed up income convergence.

B. Macroeconomic and Institutional Indicators

Figure 1. North Macedonia: Macroeconomic Indicators

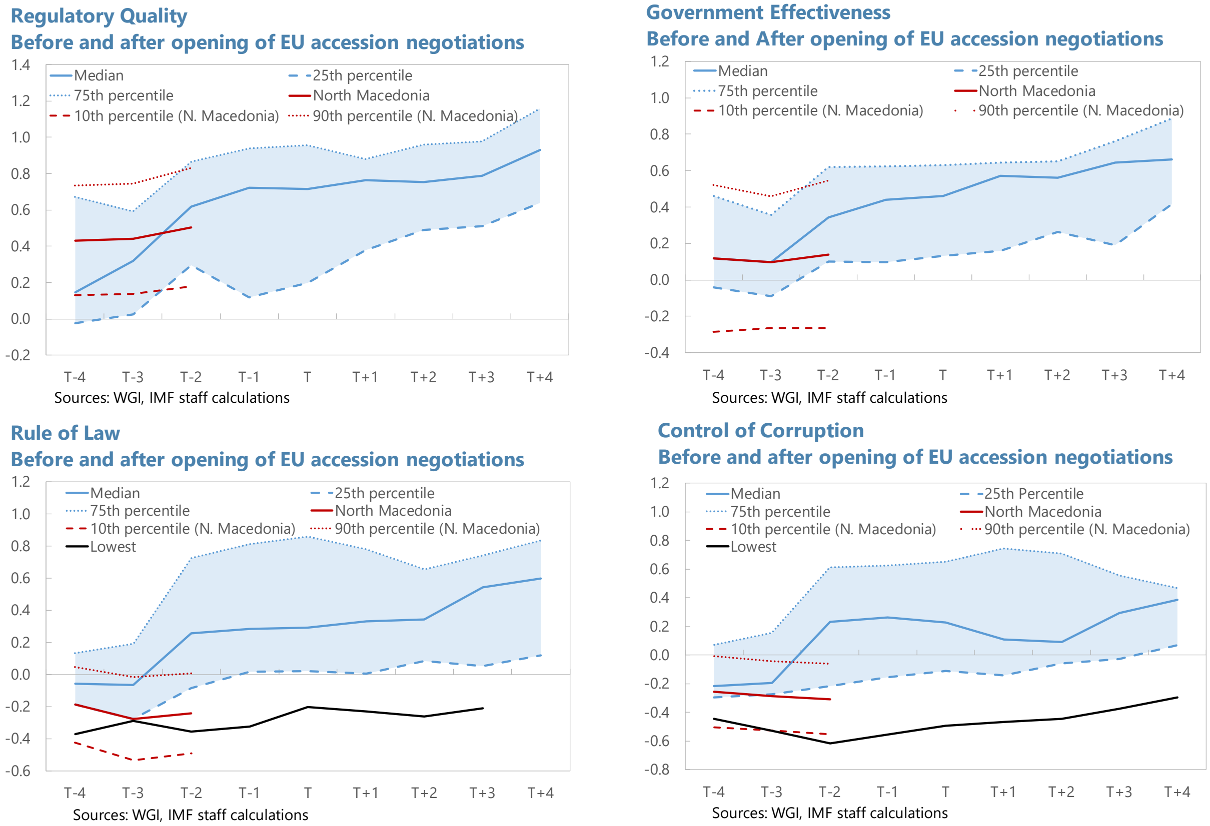


4. **The macroeconomic indicators appear aligned with other countries at the time they started EU accession negotiations.**[1] North Macedonia is already highly integrated with EU markets as indicated by the share of exports directed to the EU (Figure 1, top charts). The export-to-GDP ratio is also relatively high compared to peers. Nevertheless, there is scope to boost net exports (which have contributed negatively to GDP growth) by attracting more FDI, whose net inflows are in line with the median. The fiscal position is close to the median country, as illustrated by Figure 1 (bottom right chart). Overall, in its latest report, the European Commission considers that North Macedonia has made some progress and is at a good level of preparation in developing a functioning market economy.[2]

[1] In this section, the group of comparator countries includes 13 countries that opened EU accession negotiations since 1998 (date in parenthesis): Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Slovenia (1998); Bulgaria, Romania, Slovakia (2000); Croatia (2005); Montenegro (2012); and Serbia (2014).

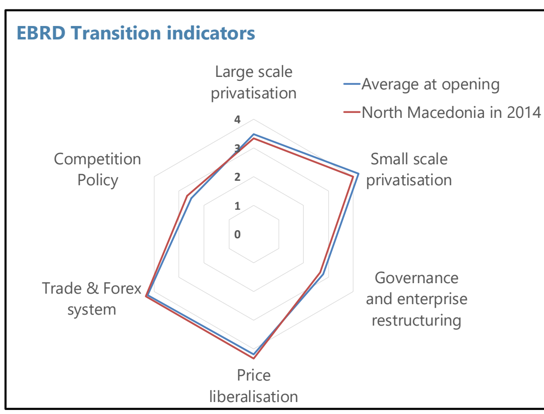
[2] See European Commission (2019).

Figure 2. North Macedonia: Institutional and Structural Indicators



Note: The indicators in Figure 2 are from the Worldwide Governance Indicators, by Daniel Kaufmann (Natural Resource Governance Institute and Brookings Institution) and Aart Kraay (World Bank). They measure perceptions, as they summarize views of enterprises, citizens and expert survey respondents on the quality of governance in a country.

5. **The picture is more mixed regarding structural and institutional indicators.** According to the transition indicators of the European Bank for Reconstruction and Development (EBRD), North Macedonia is on par with the median level of countries at the time of opening of negotiations.[3] This could reflect the strong push made at the beginning of the transition process in the 1990s on price liberalization, privatization, trade and foreign exchange systems. Furthermore, North Macedonia fares well in the World Bank Doing Business indicators and in the World



[3] The transition indicator scores reflect the views of EBRD country economists and the judgment of the EBRD's Office of the Chief Economist about country-specific progress in transition, and the accuracy of the indicators could be biased. They are used to measure progress against the standards of industrialized market economies in 36 countries, while recognizing that there is neither a pure market economy nor a unique end-point for transition. The latest available data point is 2014.

Governance Indicator (WGI) for regulatory quality (Figure 2, top left chart). However, North Macedonia is below the 25th percentile of countries at the time of negotiations for WGI indicators of control of corruption and rule of law. Its situation is similar to other countries in the Western Balkans, where institutional quality remains low due to, inter alia, higher corruption, weaker rule of law, political instability and a large informal sector.

6. **Furthermore, income convergence has been relatively slow.** Real GDP per capita in PPP terms is currently below 30 percent of the EU-15 average–which is about 6 percentage points lower than the median of the comparator group at the time of opening of EU negotiations. The slow speed of income convergence is shown by two complementary measures:[4]

- A first measure of convergence, ***β-convergence***, refers to the negative correlation between initial levels of real GDP per capita and its average yearly growth rate. The top right chart in Figure 3 shows a scatter plot of GDP per capita growth versus its initial income level and shows visual evidence of *β-convergence* in the EU, a result confirmed by regression results presented in section IV. For North Macedonia, the growth of real GDP per capita since 2000 appears to have been lower than suggested by its initial income level.

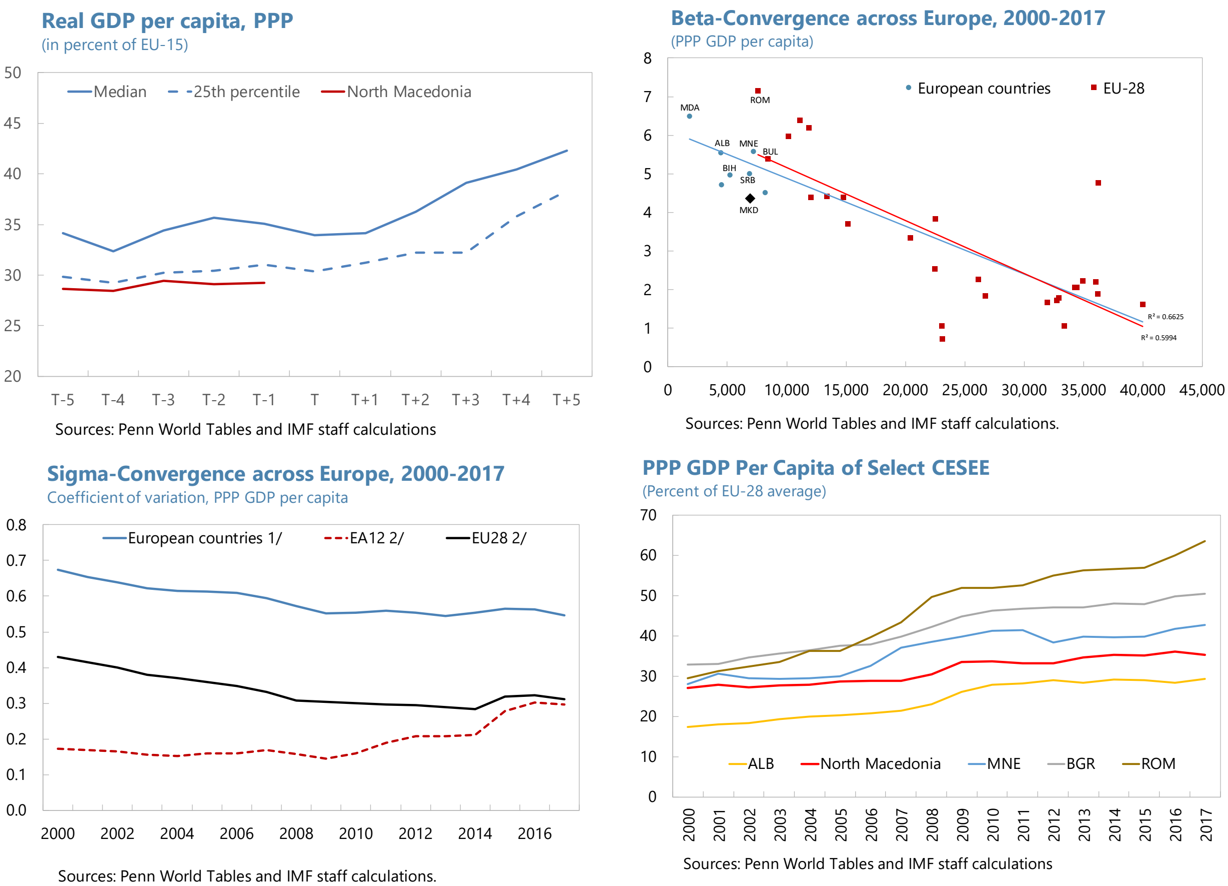
- Because *β-convergence* is not a sufficient condition to ensure a decline in the dispersion of income levels across countries, Sala-i-Martin (1996) further introduced the concept of ***σ-convergence***, which considers whether the dispersion of countries' GDP per capita decreases over time. The bottom right chart in Figure 3 highlights that even if North Macedonia has experienced some degree of *σ-convergence* since 2000, it has stalled since 2014 and the coefficient of variation of growth versus EU-28 remains one of the highest in the region.

C. Literature Review on Convergence and Benefits of EU Accession

7. **Past studies show that growth typically accelerates following large-scale reforms** (see for instance IMF, 2016 and ECB, 2018). Specifically, characteristics of successful episodes of fast convergence include strong improvement in institutional quality, human capital, favorable demographic developments, high labor participation, high investment ratios, and stronger external competitiveness amidst increasing trade openness and FDI inflows. Compared to these cases, CESEE economies had less favorable demographics and slower capital accumulation, which were offset by stronger total factor productivity (TFP) growth. The global financial crisis derailed them from their convergence track, with the main driver being a drop in TFP growth.

[4] It may also partly reflect that the actual GDP per capita level is underestimated. The last census was undertaken in 2002 and the current population estimate of 2.08 million is likely an overestimate given the net emigration that occurred in the last 20 years. While the numbers are subject to high uncertainty, it is estimated that up to 200,000 Macedonians may have emigrated in the last 20 years (Source: OECD International Migration Database). A new census is planned for 2021.

Figure 3. North Macedonia: Convergence Indicators



8. **From a quantitative standpoint, three approaches can be identified in the literature on estimating benefits from the EU integration.** Campos et al. (2014) underscore the difficulties in assessing such benefits because of endogeneity, omitted variables, measurement errors and difficulty to construct "historical counterfactuals".

- *Counterfactual analysis.* Using a synthetic counterfactual model and looking at countries that joined the EU from the 1970s and onward, Campos et al. (2014) find large positive effects of EU membership that varies across countries and time. They conclude that without EU integration, the countries' incomes would be on average 12 percent lower. Martinovic (2015) assess more specifically the benefits of EU accession on Latvia. The paper suggests that Latvia benefited significantly from joining the EU, but that this benefit may not come as much from EU membership as from EU integration: results are significant and positive if the chosen treatment year is 1999, i.e. the opening of accession negotiations, when Latvia initiated reforms of its laws and policies according to align them with EU standards. Similarly, Bower and Turrini (2009) consider that much of the accession-related growth effects took place already before the official accession dates, in light of the economic and institutional restructuring associated with the adoption of the "acquis communautaire" and investment in anticipation of EU accession (See also IMF, 2006).

- *Panel data analysis*. Crespo-Cuaresma et al. (2006) use panel data to study the effect of EU membership on both growth and convergence. They estimate that poorer countries will grow faster than incumbent countries by entering the EU. Bower and Turrini (2009) similarly find that countries with lower initial income levels and weaker institutional quality benefit more from the EU accession in terms of economic growth.

- *Computable General Equilibrium (CGE) model.* Breuss (2009) offers a quantitative evaluation of the Fifth Enlargement with special focus on Bulgaria and Romania. Using a CGE model, he estimated a positive impact from EU accession for both countries on real GDP, investment, employment, and labor productivity. However, the significant shock to the level of GDP is expected to be temporary, therefore not leading to a permanent steady-state increase of growth.

D. Assessing Potential Benefits of EU Integration for North Macedonia

9. This section investigates empirically the determinants of convergence and growth in CESEE countries in the run-up to EU accession. We use a panel dataset covering all EU-28 countries and Western Balkan (WB) countries over 1990–2017 using five-year periods.[5] The outcome variable is the average annual growth of GDP per capita in purchasing power parity (PPP) for each period.[6] Using PPP eliminates the effect of price level differences between countries and thus allows a more accurate measurement of welfare which is comparable across countries.

10. First, we want to confirm evidence of simple β-*convergence* without conditioning on other growth determinants. This is achieved when β in equation (a) below is negative and significant, where d_t are time dummies modelling time fixed effects, and $\varepsilon_{i,t}$ the error term. A Hausman test favors a fixed-effects specification in this case. Results summarized in Table 1 show evidence of unconditional β-*convergence* in the EU as well as in a smaller sample of New EU Member States (NMS) and WB countries.

Table 1. North Macedonia: Simple β-convergence

$$Growth_{i,t} = \beta_0 + \beta.\log(GDP\ per\ capita) + \delta.d_t + \varepsilon_{i,t} \quad \text{(a),}$$

Sample	EU	NMS and WB
β	-9.033 ***	-12.797 ***
R2	0.154	0.412

Note: Country and time fixed-effects are included.
*** p<0.01. Robust standard errors.

[5] The last period covers the three years from 2015 to 2017.

[6] To increase cross-country comparability over longer timeframes, we use PPP data from Penn World Tables.

11. Second, we want to test for β-*convergence* after controlling for growth determinants. To gain further insights into the growth determinants, equation (a) is augmented by a set of explanatory variables $X_{i,t}$ based on the existing literature: investment rate, inflation, openness, and indicators of institutional quality. To measure the latter, we use an aggregate Worldwide Governance Indicators (WGI) calculated as the average of four perception indicators: control of corruption; rule of law; regulation quality; and government effectiveness. We also test for the significance of dummies identifying opening of EU accession negotiations.

$$Growth_{i,t} = \beta_0 + \beta.\log(GDP\ per\ capita) + \gamma.X_{i,t} + \delta.d_t + \varepsilon_{i,t} \text{ (b),}$$

12. The empirical results show evidence of β-*convergence*. The initial level of GDP per capita remains strongly significant after controlling for economic and institutional factors (Table 2). As expected, countries with higher investment ratios tend to growth faster.

Table 2. North Macedonia: Regression Results—European Union

	(1) Coeff	(2) Coeff	(3) Coeff	(4) Coeff
Initial GDP per capita (log)	-3.698 ***	-3.692 ***	-3.556 ***	-4.771 ***
Investment ratio (percent of GDP)	0.135 *	0.138 *	0.136 *	0.282 ***
Inflation	-0.033 ***	-0.034 ***	-0.033 ***	-0.009 ***
Openess	0.027 ***	0.028 ***	0.027 ***	0.031 *
Institutional Quality Index (WGI)	0.966 *			
Control of corruption (WGI)		0.740 **		
Rule of Law (WGI)			0.809	
Dummy EU negotiations				2.876 **
R2	0.470	0.472	0.466	0.324

Notes: All regressions include time fixed-effects and a constant; coefficients are not reported. *** p<0.01; ** p<0.05; * p<0.1. Robust standard errors.

Table 3. North Macedonia: Regression Results—NMS and WB

	(1) Coeff	(2) Coeff	(3) Coeff
Initial GDP per capita (log)	-19.558 ***	-19.328 ***	-19.242 ***
Investment ratio (percent of GDP)	0.140 *	0.104	0.156 **
Inflation	-0.001	-0.005	-0.003
Openess	-0.034	-0.023	-0.050
Dummy EU negotiations	3.612 **	3.484 **	3.124 **
Institutional Quality Index (WGI)	5.077 **		
Control of corruption (WGI)		5.237 ***	
Rule of Law (WGI)			4.765 *
R2	0.472	0.497	0.478

Notes: All regressions include time and country fixed-effects and a constant; coefficients are not reported. *** p<0.01; ** p<0.05; * p<0.1. Robust standard errors.

13. Finally, we focus more specifically on growth determinants in new EU member states and Western Balkan countries (Table 3). Empirical results highlight that institutional quality is positively associated with higher GDP per capita growth. The results are robust across different measures of institutional quality and subcomponents such as rule of law and control of corruption. To avoid potential correlations among these measures, they are introduced as explanatory variables one at a time. Furthermore, regressions suggest that the opening of EU accession negotiations is associated with a statistically significant and positive impact, suggesting that the former is a major catalyst of growth-enhancing structural reforms, in line with finding from Martinovic (2015) and Bower and Turrini (2009).

E. Policy Considerations and Conclusion

14. The EU accession process constitutes a fundamental anchor for institutional reform momentum. Significant efforts to improve institutional quality in new member states took place in the years prior to EU accession to comply with Copenhagen criteria on stability of institutions, guaranteeing democracy and the rule of law, the existence of a functioning market economy, and the capacity to cope with competitive pressure and market forces within the EU. The analysis presented in this paper shows further evidence of how opening of EU accession negotiations and of better quality of institutions, rule of law, and control of corruption can improve growth prospects. Accordingly, the authorities are focusing their efforts on these areas and when EU negotiations start, it is planned that chapters 23 (judiciary and fundamental rights) and 24 (justice, freedom, and security) will be opened first, followed by chapter 32 (financial control).

15. But an ambitious reform agenda is also crucial to ensure faster and sustainable income convergence, independent of the accession process.

- North Macedonia needs to boost the contribution of labor to growth. This could be achieved by increasing participation rates and human capital, reducing structural unemployment, and reducing skill mismatches through implementing more active labor market policies; increasing completion rates and quality of secondary education; and upgrading and modernizing the vocational educational system. Furthermore, given that differences in income levels per capita, employment prospects, and the quality of governance, control of corruption, voice and accountability, rule of law, and government effectiveness indicators are among the key determinants of emigration, improving institutions and governance could also be instrumental in reversing net migration flows.[7]

- The investment rate in North Macedonia is broadly in line with historical benchmarks and the "golden rule" range (see IMF 2016) but investment should be better oriented towards infrastructure given the country's sizable infrastructure gap. Better infrastructure and trade logistics would also boost TFP growth (which is estimated to have turned negative in the

[7] See IMF Staff Discussion Note SDN/16/07 (2016), "Emigration and its economic impact on Eastern Europe"

(continued)

aftermath of the global financial crisis) and attract more FDI inflows, with positive growth spillovers.[8] More broadly, Jirasavetakul and Rahman (2018) estimate that cumulative gains in FDI inflows for North Macedonia could reach up to 4 percentage points of GDP in the medium term if the country improves education and governance strength towards the best performer among new EU member states.

[8] See IMF Country Report No. 16/356

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