



Prepared by Chelsea Group 9

Assessing Progress Towards UN Sustainable Development Goal 8: Decent Work and Economic Growth

Aimee, Ashlyn, Eesa, Harry, Sophie



Question 1

Assess how 6 continents in the world (all continents except Antarctica) are faring with respect to the following specific targets set out by the UN:

Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries.

1. Moderate growth, far below 7% on average

- Most continents fluctuate between about -2% and 5% growth.
- Only a few years in Africa and South America briefly reach around 6–7%.

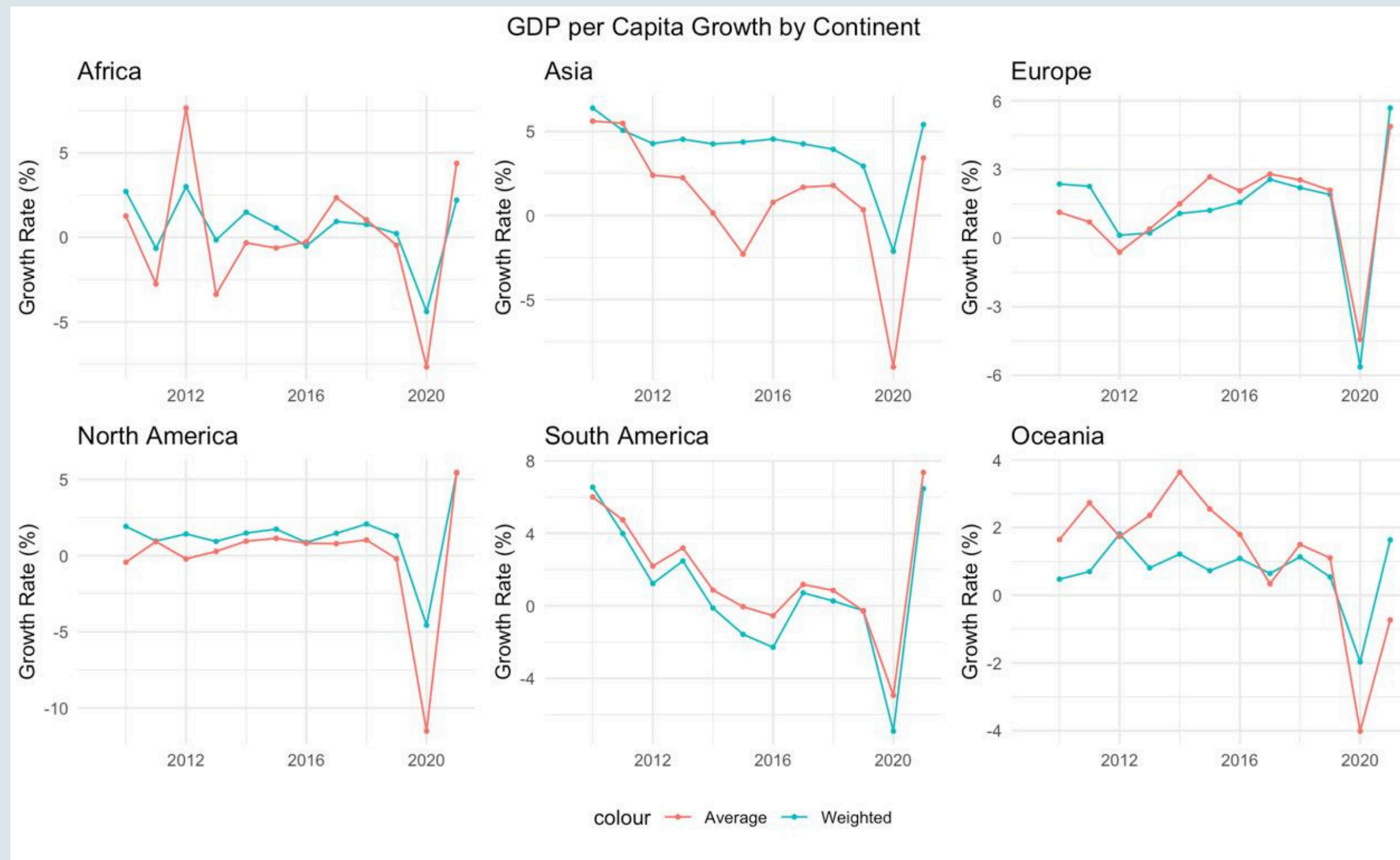
2. Asia is the strongest performer among all countries

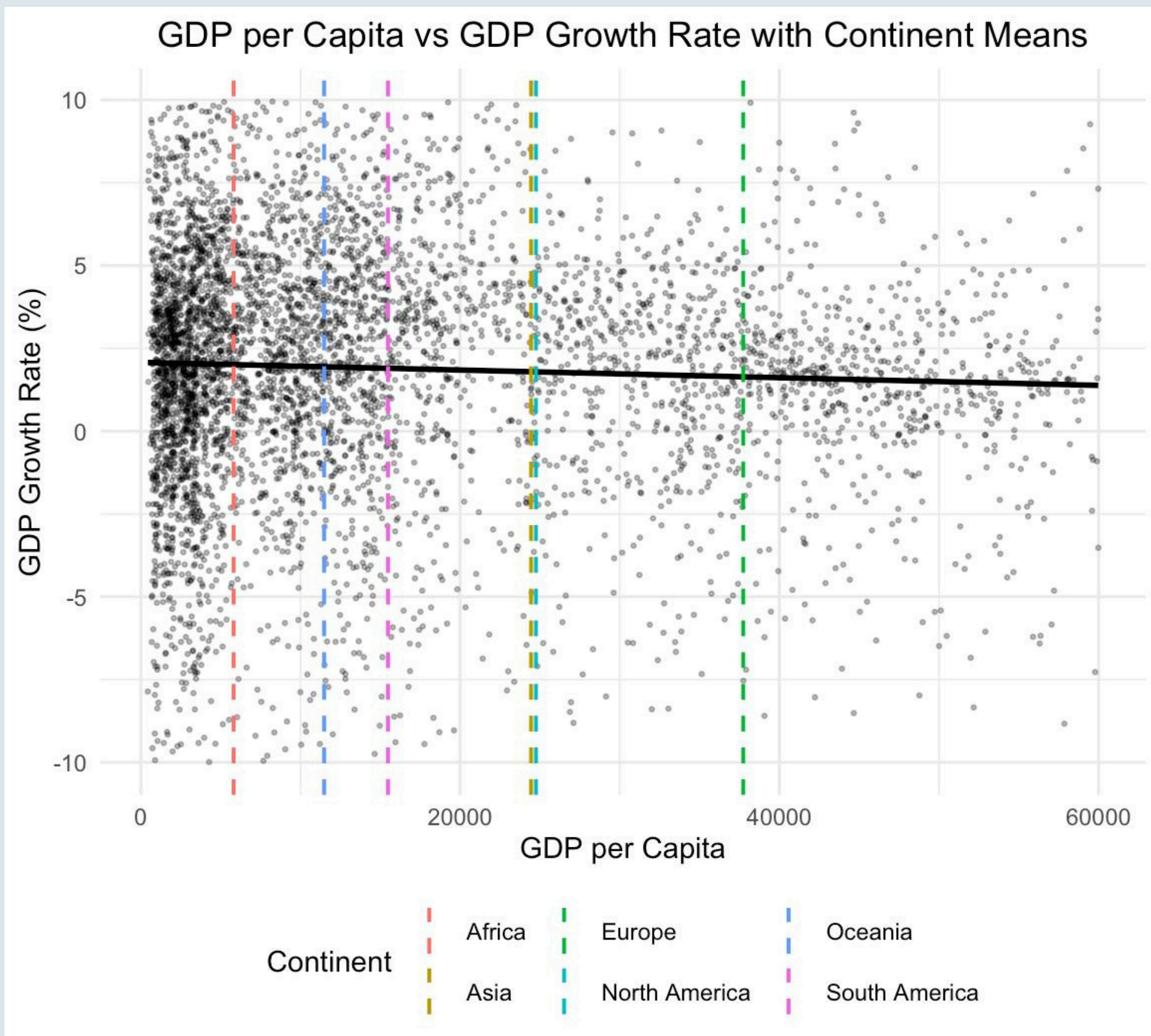
- Asia shows the highest and most stable growth (around 4–6%) until 2019.
- It still does not sustain $\geq 7\%$ at the continent level.

3. Global shock in 2020

- All continents show a sharp collapse in 2020 (especially North America and South America), followed by a rebound in 2021.
- This reflects the COVID-19 pandemic, indicating that external shocks can easily push growth far below UN targets.

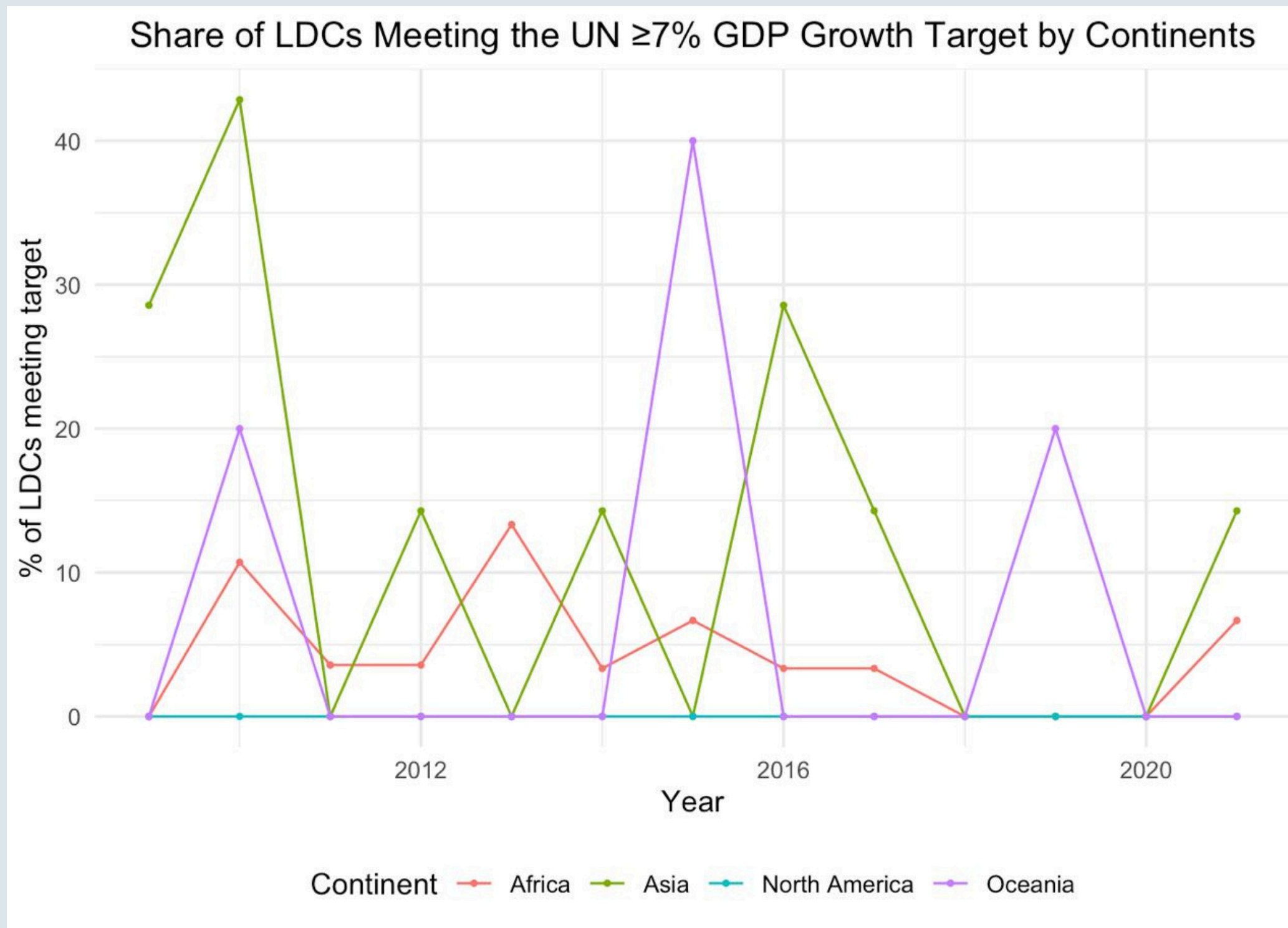
4. For north America, Asia and Africa, weighted gdp growth leads to a higher growth rate than average growth due to its large population.





We employed a linear regression model that uses GDP per capita to estimate a country's expected growth for a given year. We constrained the data range to $-10 < \text{growth rate} < 10$, and $0 < \text{GDP per capita} < 60000$, to avoid anomalies.

Our analysis indicates that countries with higher GDP per capita typically exhibit slower GDP growth rates.



1. The target is rarely met





- In most years and continents, 0–10% of LDCs reach the $\geq 7\%$ threshold.
- Asia has a few standout years (e.g., early in the decade and around mid-2010s) where more than 30–40% of its LDCs meet the target.
- Oceania occasionally has spikes (up to about 20–40%), but these are isolated years.
- Africa's LDCs reach about 10–15% in the best years; often the share is close to zero.

2. Downward tendency over time

- After mid-2010s, the share of LDCs hitting $\geq 7\%$ generally declines across continents, even before the pandemic.

3. 2020–2021 collapse

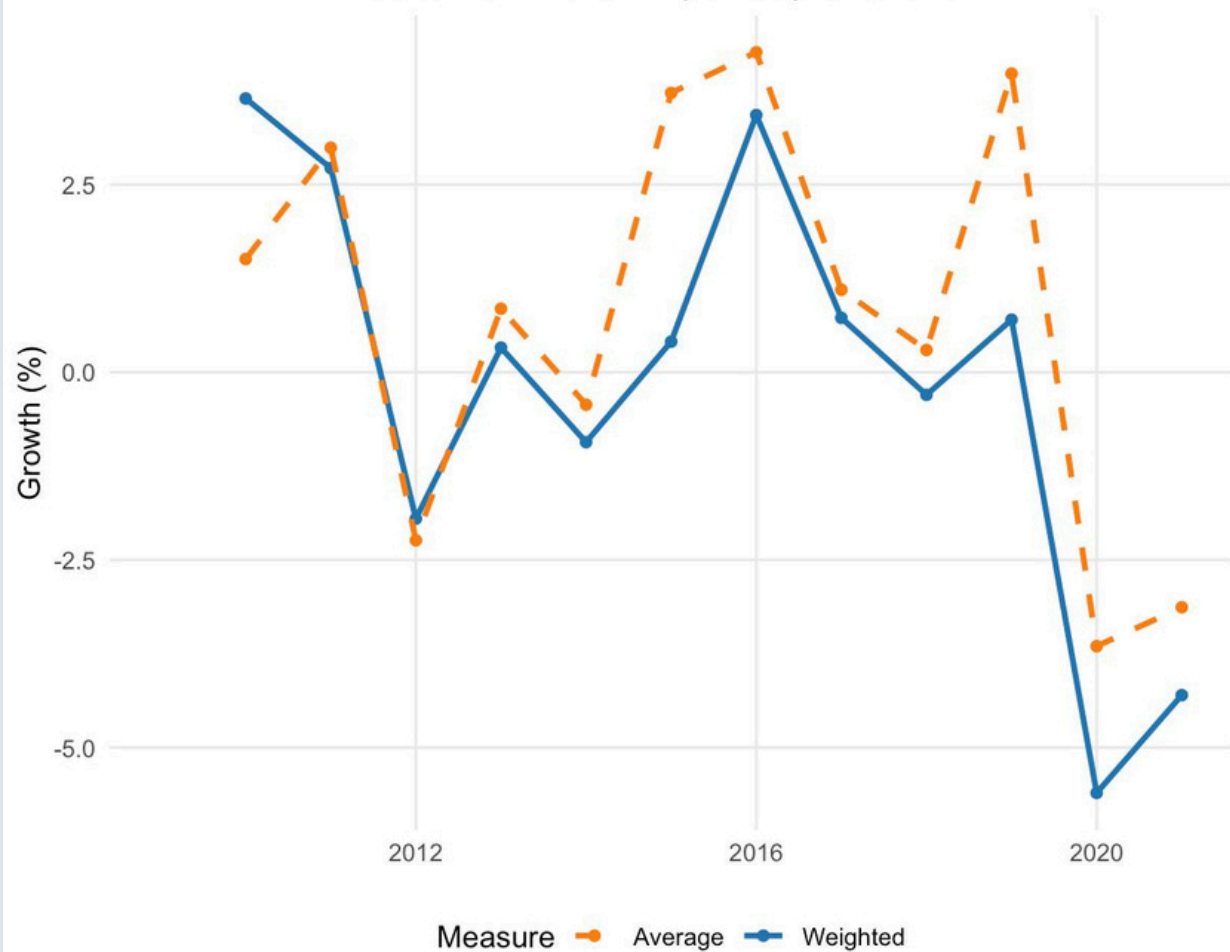
- In 2020, virtually no LDCs on any continent meet the target, again reflecting COVID-19.

	Continent 	mean_gdp_pc 	predicted_growth_at_mean 
1	Europe	37736.86	1.639
2	Asia	24446.81	1.793
3	Africa	5812.06	2.009
4	North America	24754.48	1.790
5	South America	15483.99	1.897
6	Oceania	11482.53	1.943

As GDP per capita rises, predicted growth falls a bit, consistent with mild convergence.
Large gaps in GDP per capita coexist with only small systematic gaps in predicted growth rates.

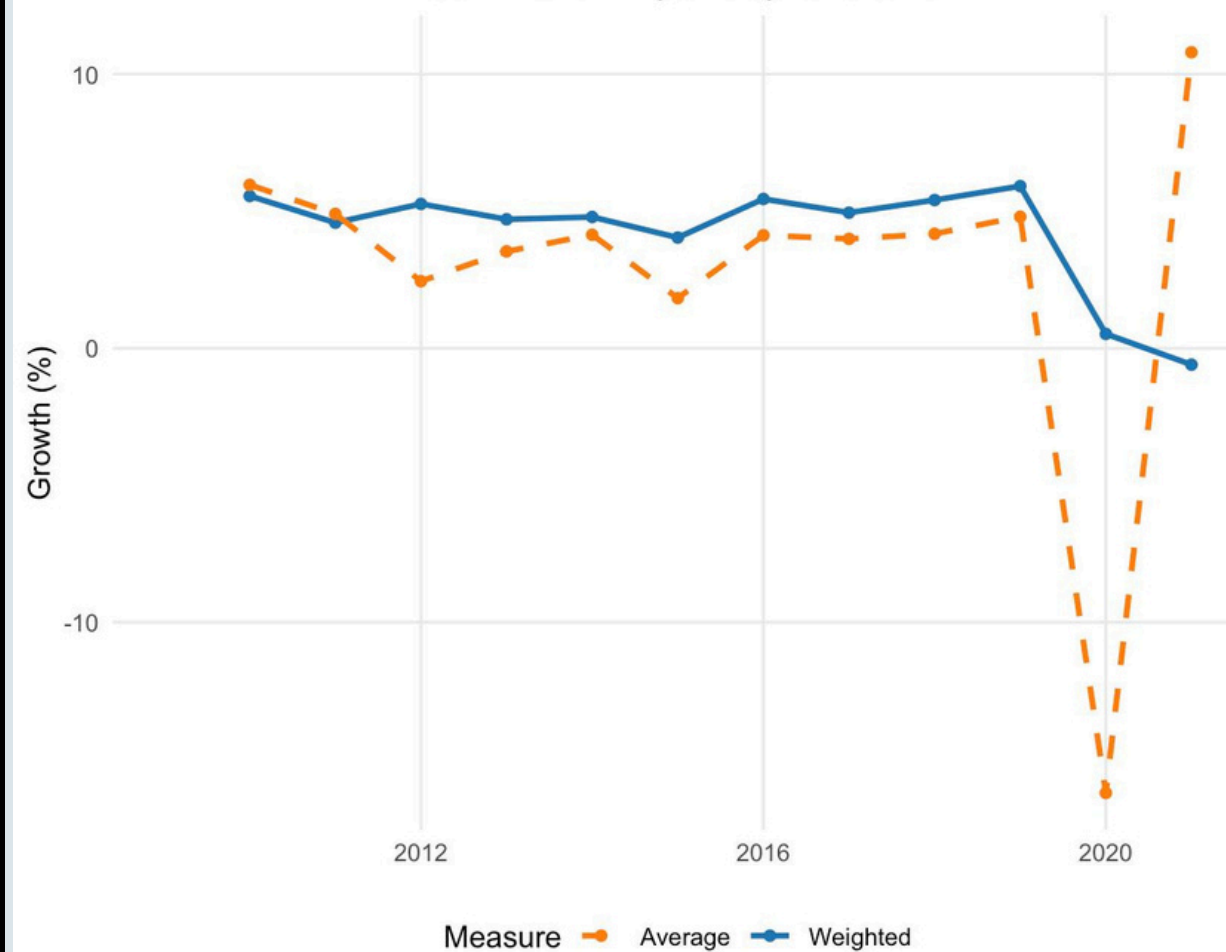
LDC GDP per capita growth

Oceania LDC GDP per Capita Growth



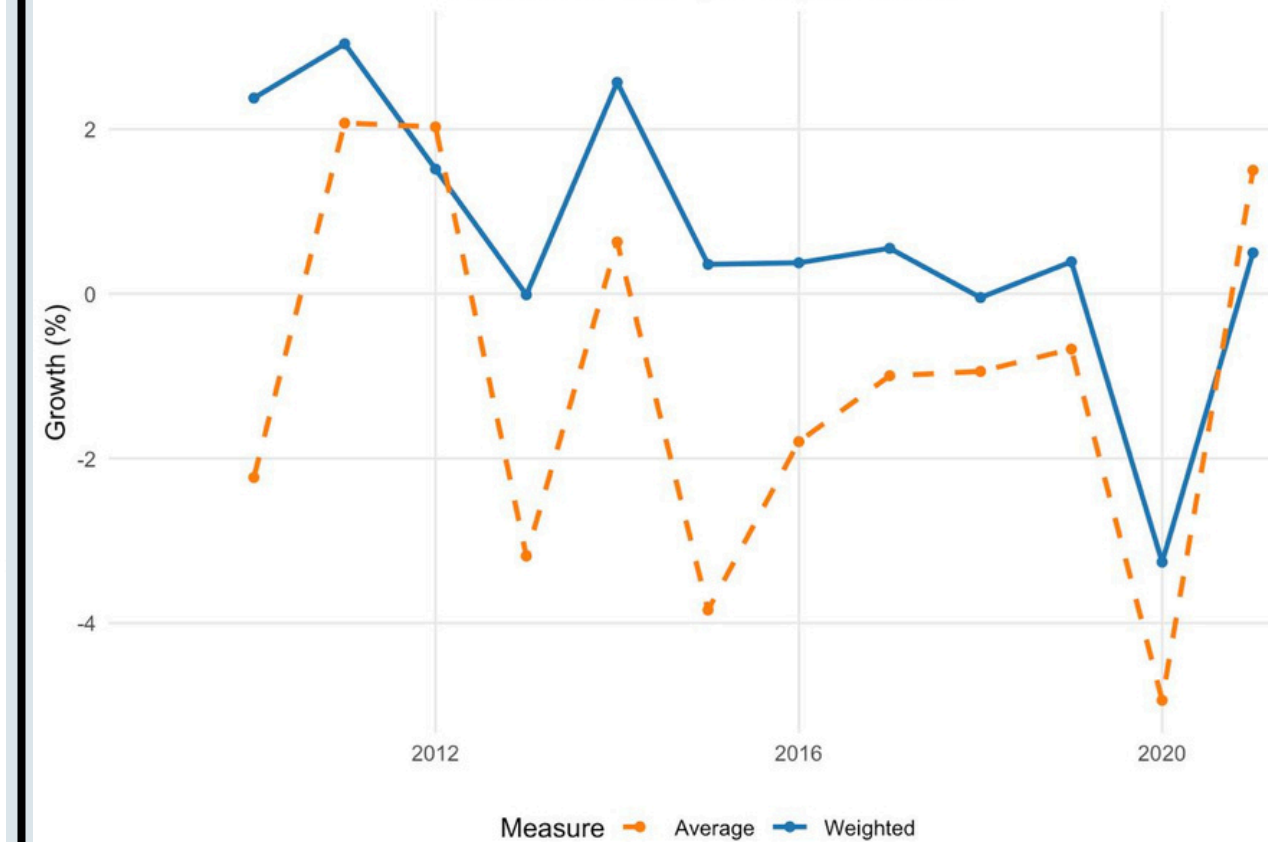
Oceania

Asia LDC GDP per Capita Growth



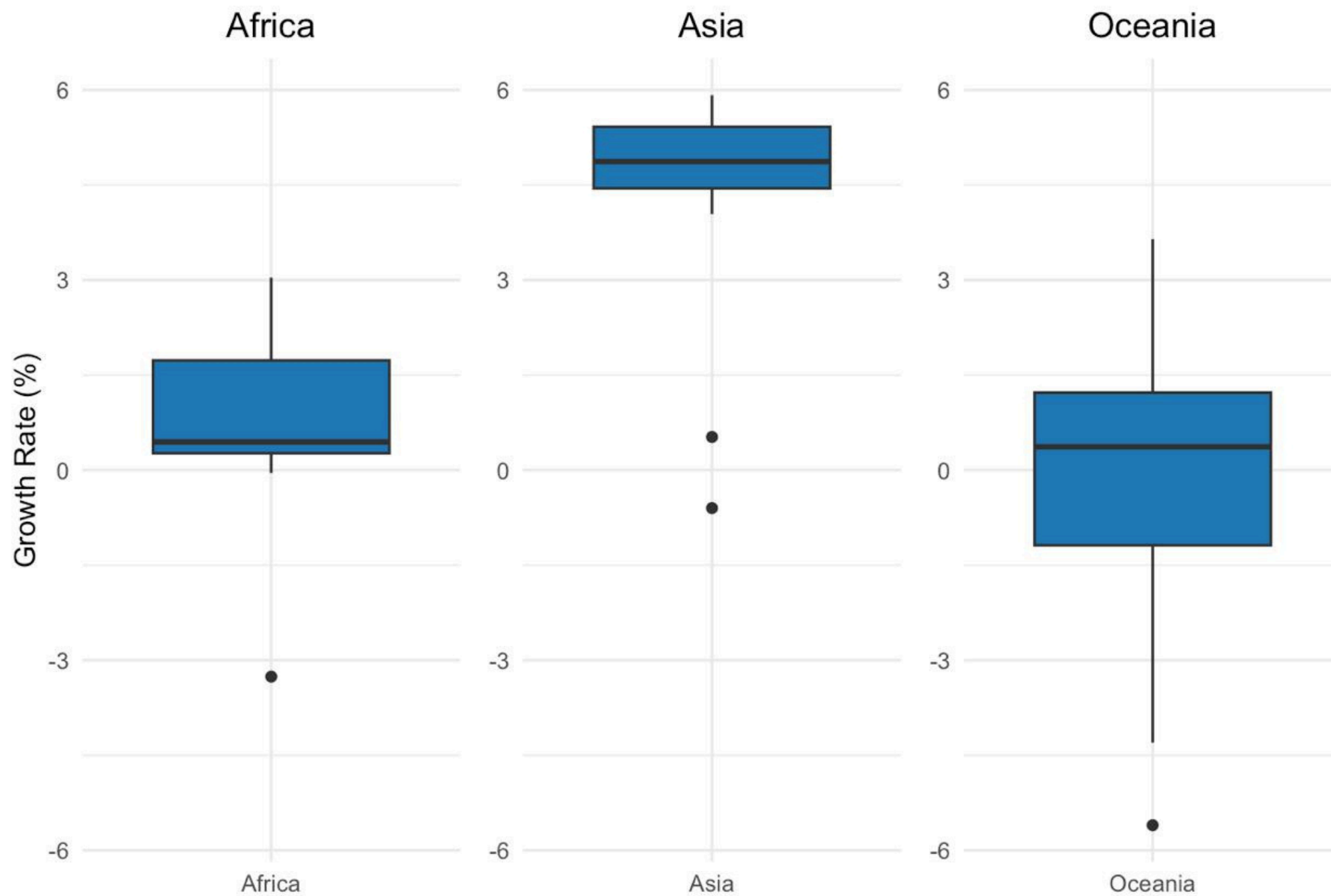
Asia

Africa LDC GDP per Capita Growth



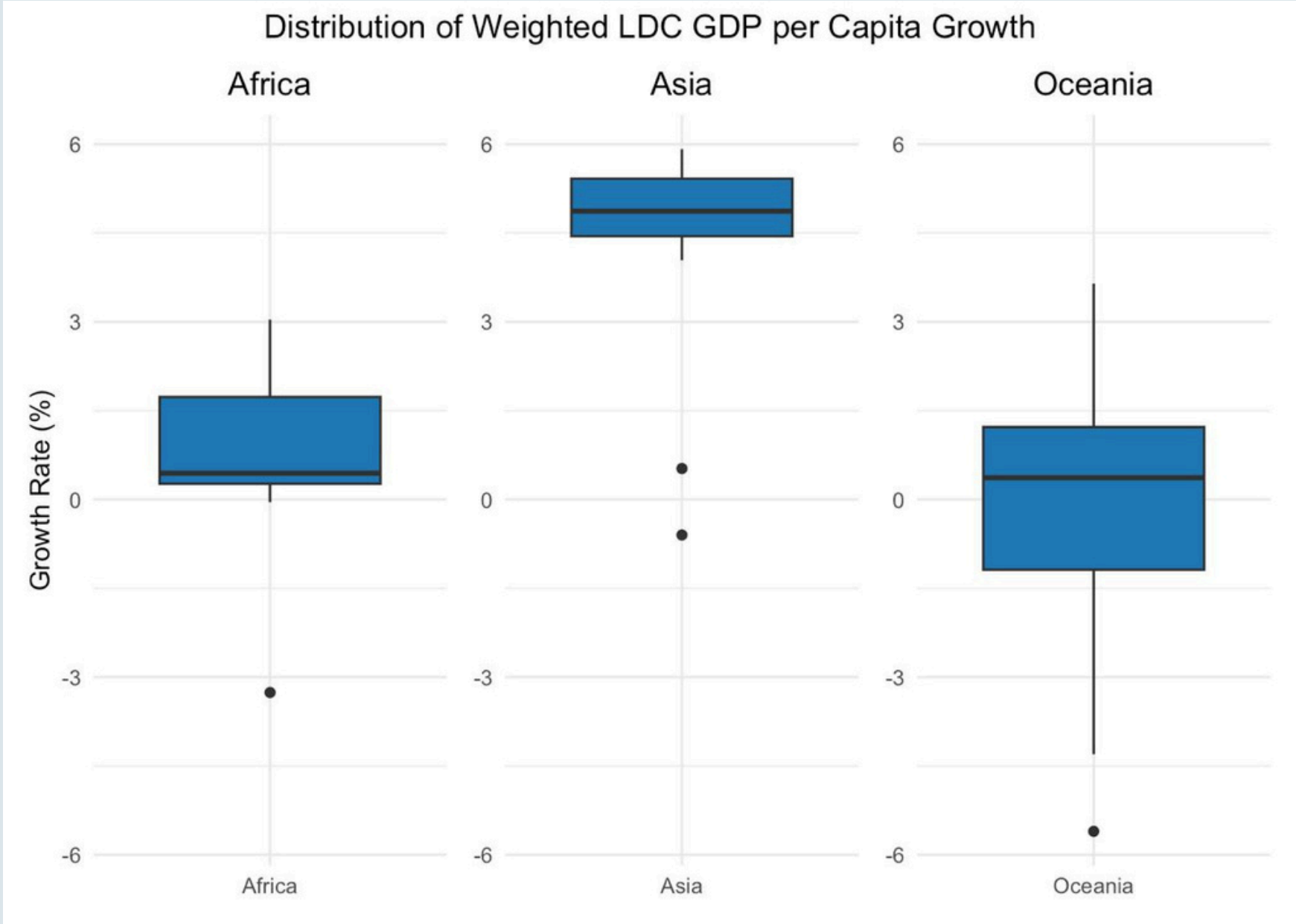
Africa

Distribution of Weighted LDC GDP per Capita Growth

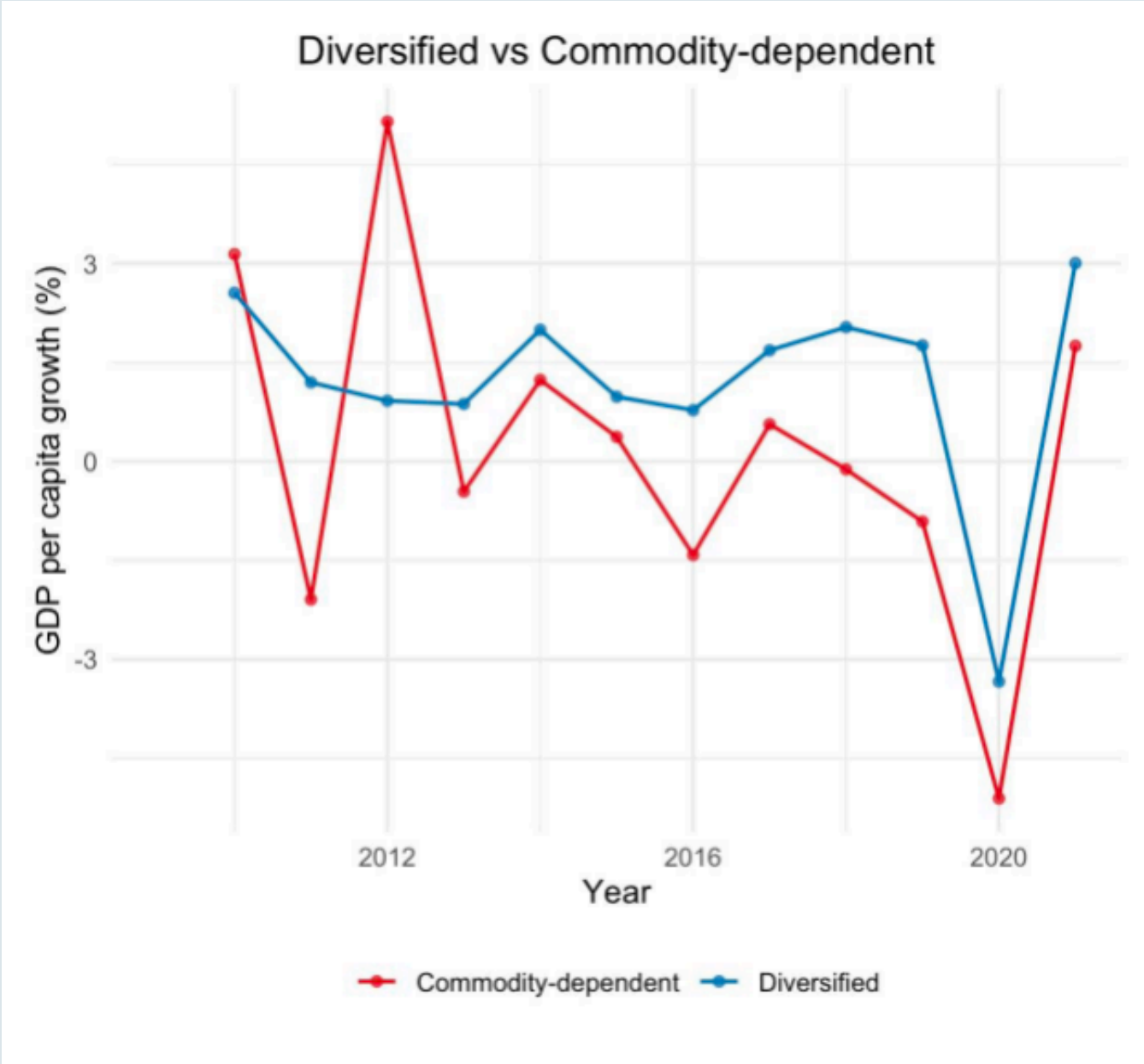


- I. *Asia's LDCs perform best among LDC groups*
2. *Africa's LDCs grow positively but modestly*
3. *Oceania's LDCs are highly volatile*

Deeper Continental Insights (Asia & Africa)

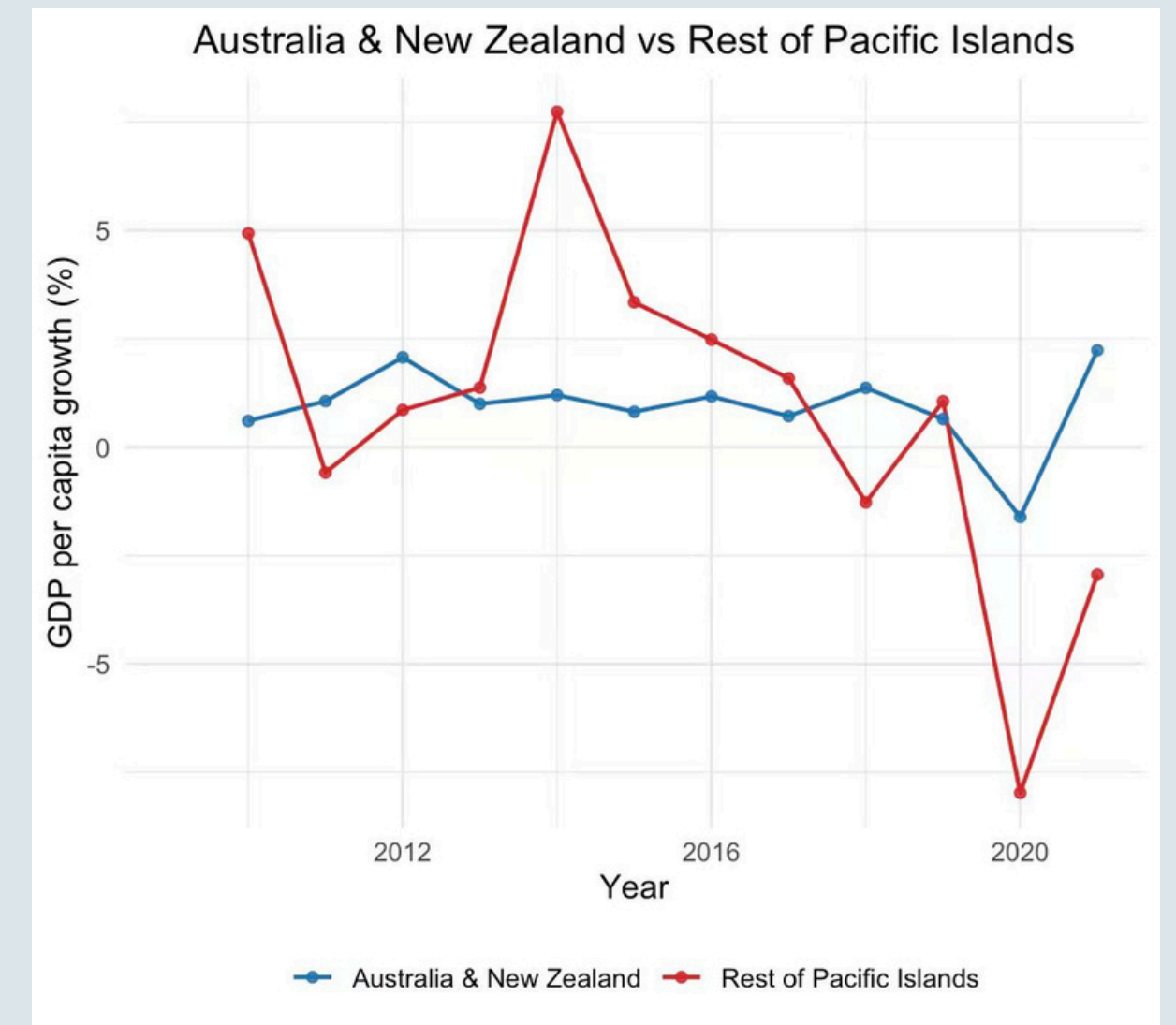
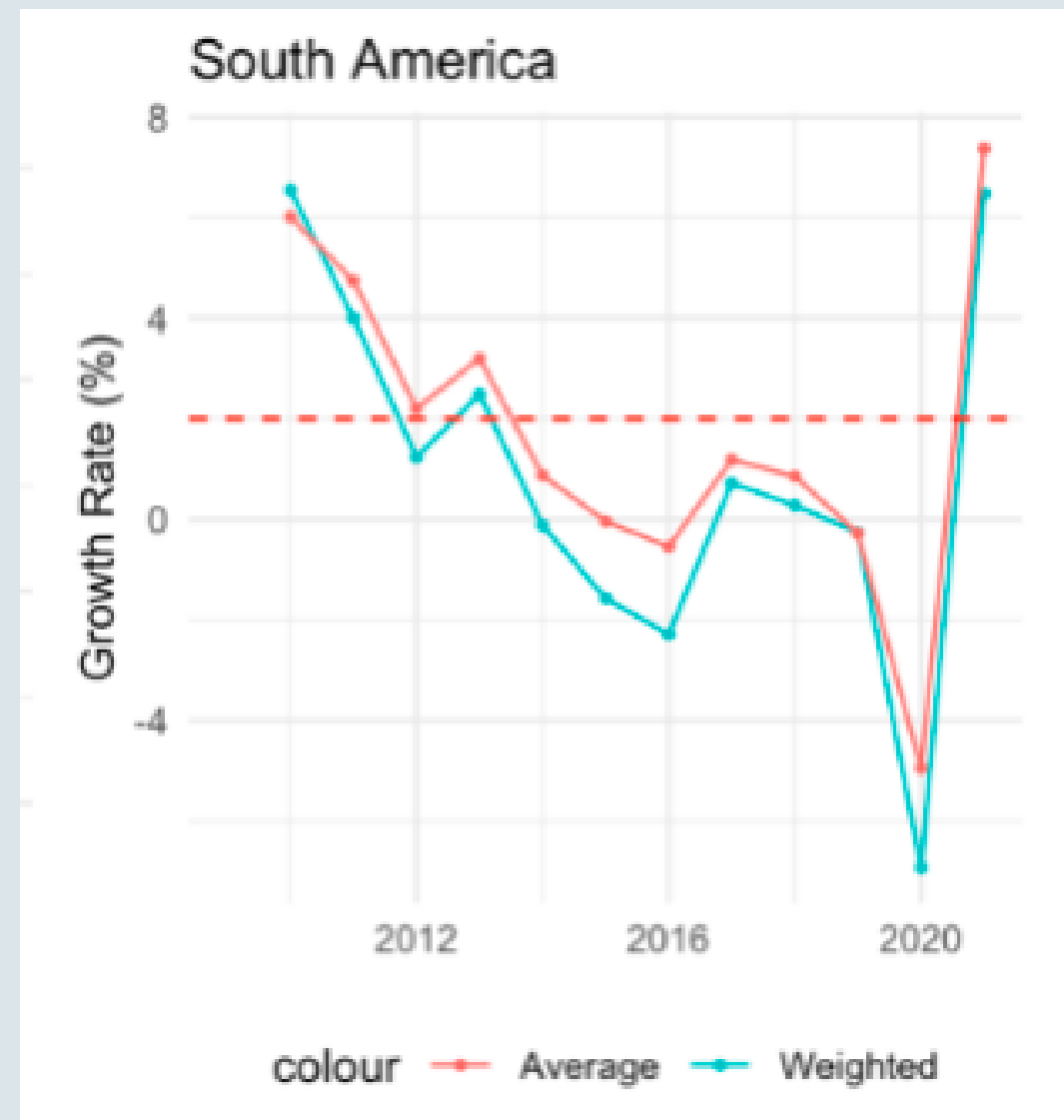
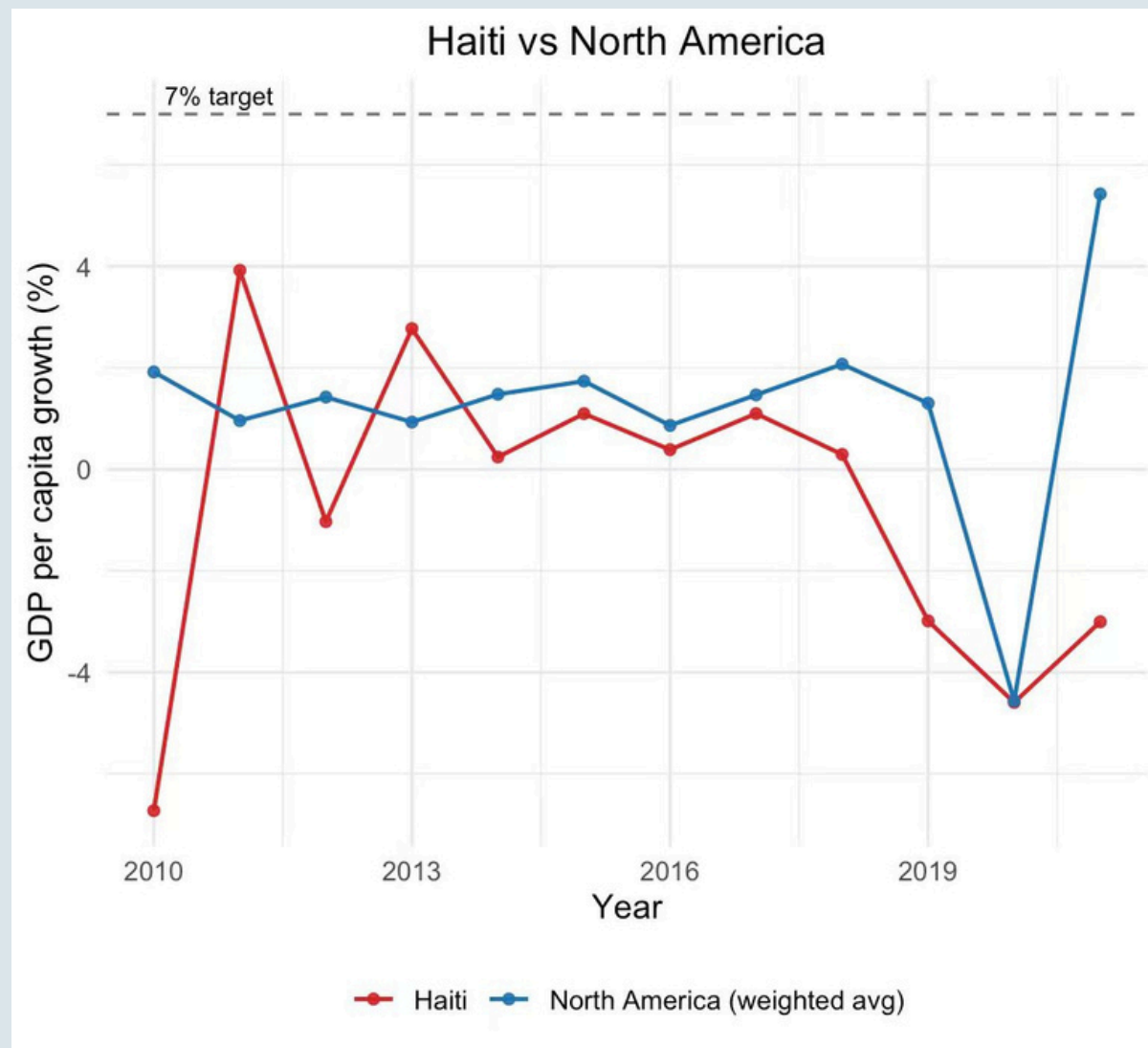


Asia



Africa

Deeper Continental Insights (Europe, North America, South America, Oceania)



Conclusion

- 1. Across the globe, typical GDP per-capita growth ranges from about 1–4%, and our regression suggests that, at current income levels, ‘normal’ expected growth is only around 2%.*
- 2. For LDCs, the UN’s 7% target is very ambitious.*
- 3. Structural factors: such as commodity dependence, narrow production bases, political instability, and exposure to external shocks*

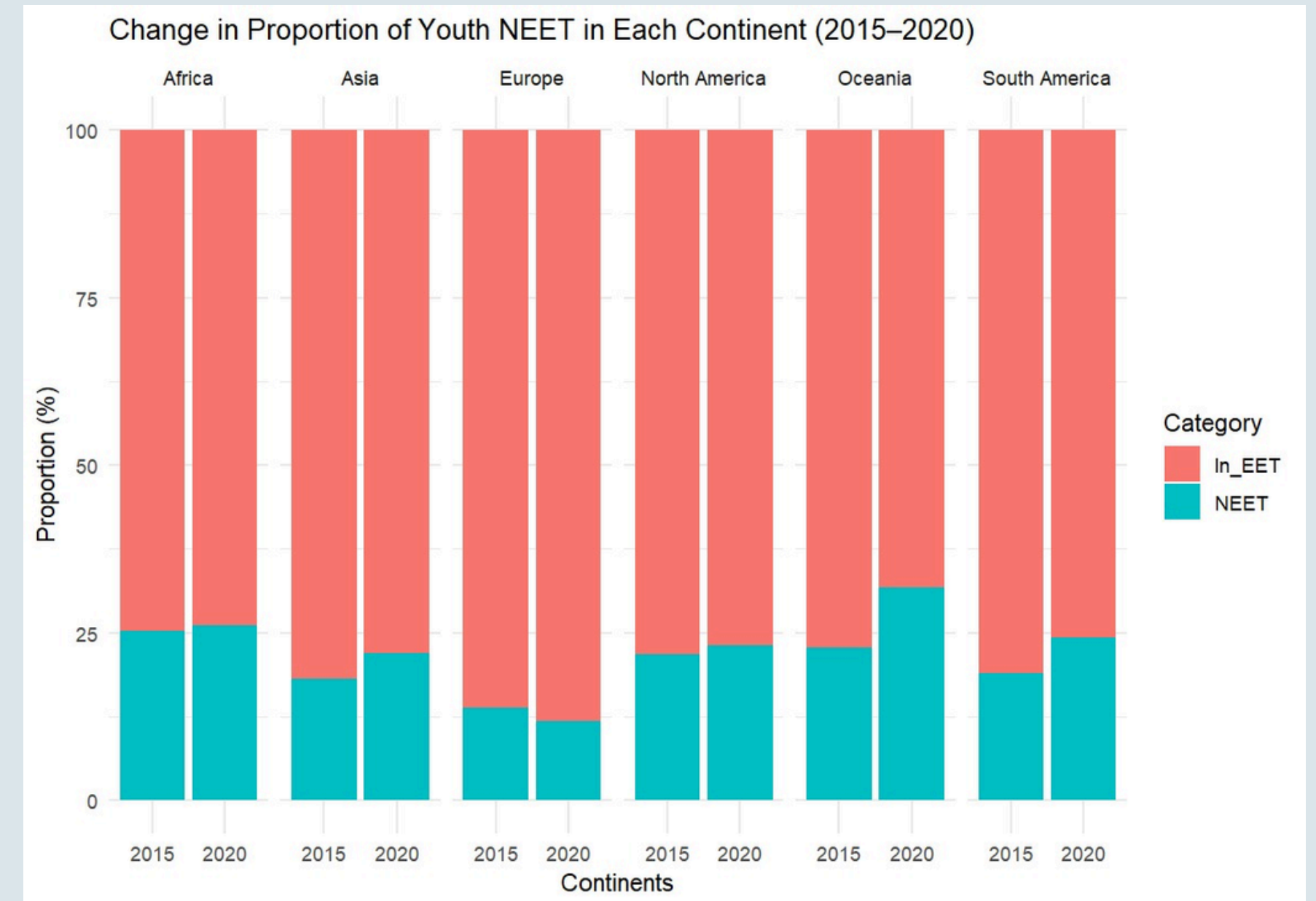
Question 2

Assess how 6 continents in the world (all continents except Antarctica) are faring with respect to the following specific targets set out by the UN:

By 2020, substantially reduce the proportion of youth not in employment, education or training.

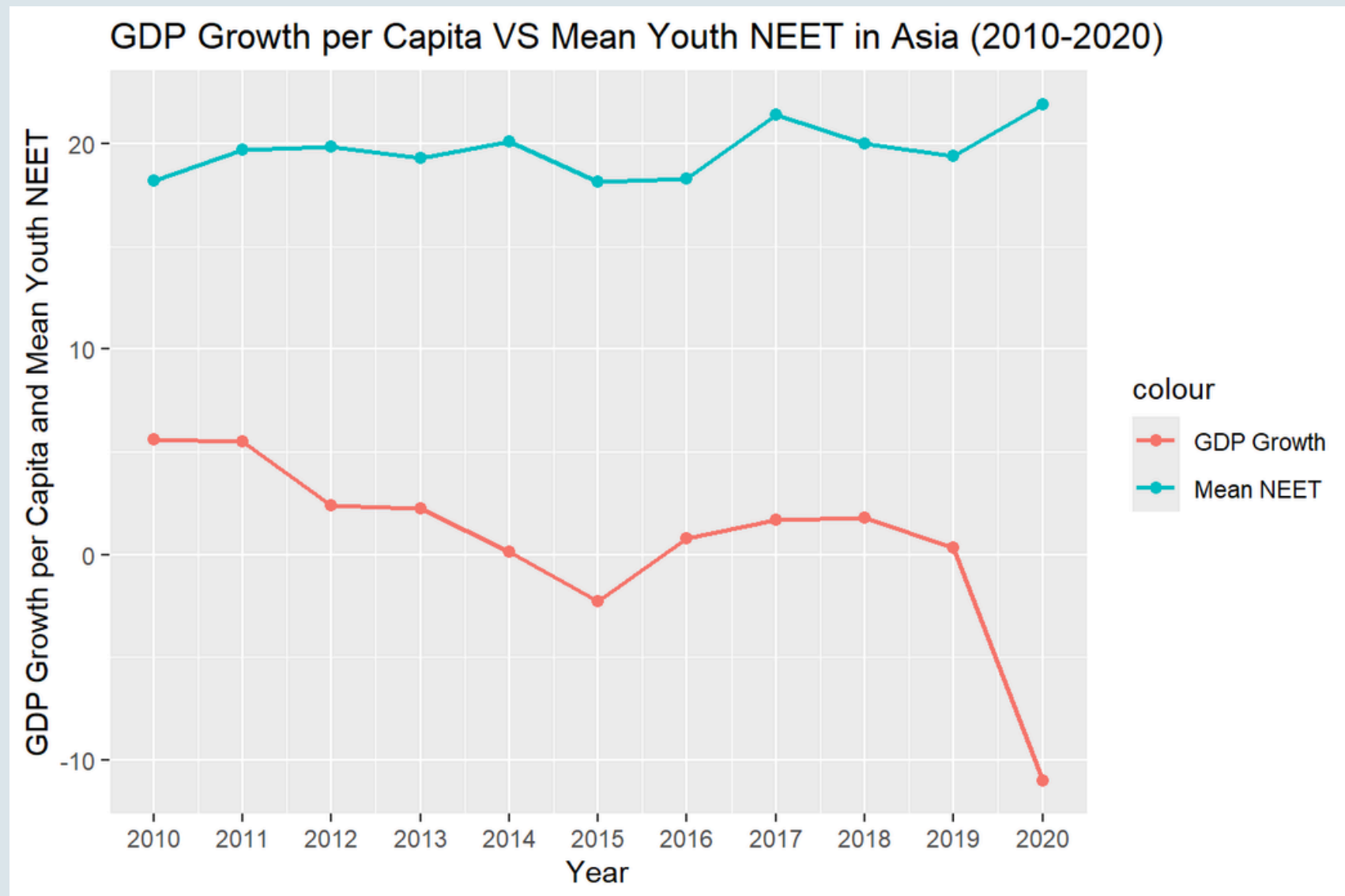
Change in Proportion of Youth NEET For All 6 Continents

- We used this to give equal representation to all countries, regardless of the size of their population. A population weighted measure would reflect the larger economies more which would mask certain patterns in smaller countries. Since the SDG target concerns the proportion of youth NEET, not the absolute number, using mean NEET allows continent trends to show broader progress instead of demographic scale.
- This comparison indicates that the general trend for most continents was an increase in mean youth NEET percentages by 2020.
- Europe was the only successful continent reducing NEET, which they did by about 2%.
- Oceania had the most largest increase from 2015 to 2020 of about 9%.



Comparison Between GDP Growth Rate VS Mean Youth NEET

Asia

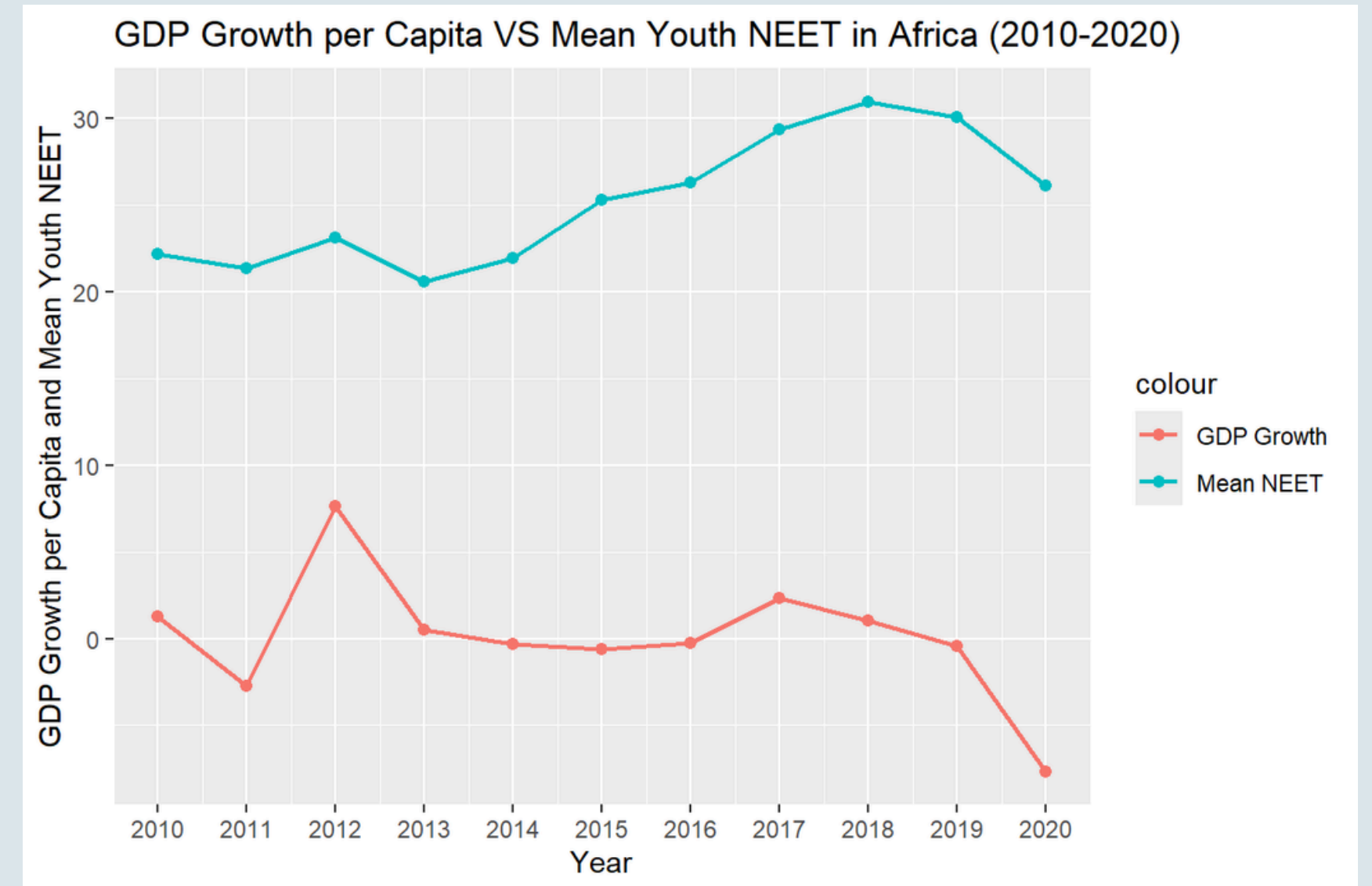


- *Asia's NEET rate stayed stable around 19% early in the decade, rising to ~22% by 2020.*
- *No sustained reduction in NEET was observed, meaning Asia did not move toward the SDG target.*
- *GDP growth remained positive and relatively steady before Covid-19 but did not lead to lower NEET levels.*
- *Economic expansion did not translate into improved youth inclusion, indicating structural barriers beyond growth alone.*

Comparison Between GDP Growth Rate VS Mean Youth NEET

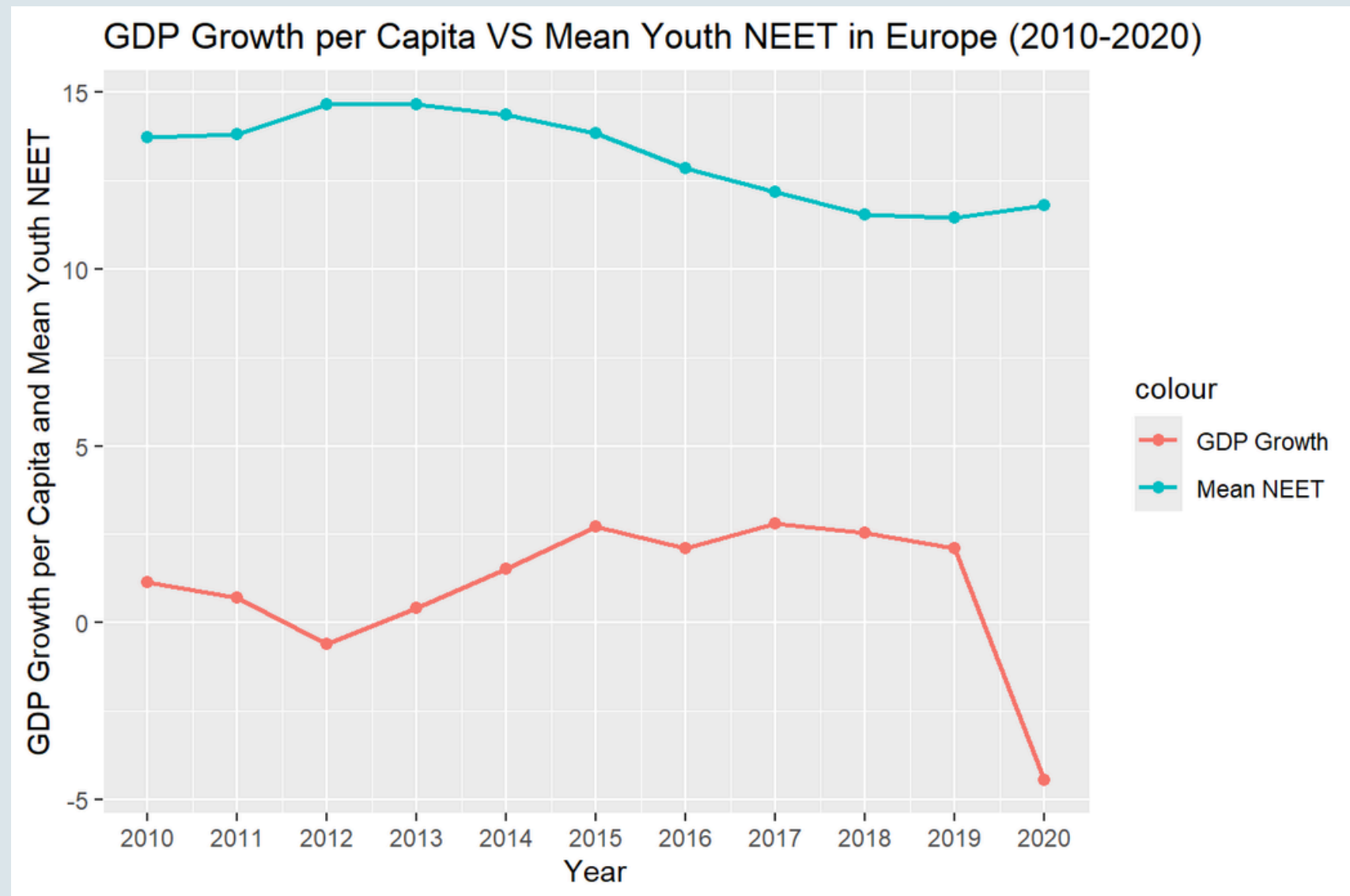
Africa

- *Africa shows a clear upward trend in NEET rates, rising from ~22% (2010) to ~31% (2018), with only a slight fall to 26% by 2020.*
- *This pattern reflects movement away from the SDG target, with consistently high NEET levels across the decade.*
- *Modest GDP growth did not lead to reductions in youth disengagement.*
- *Rising NEET despite economic expansion suggests structural barriers such as limited job creation, rapid population growth, and large informal labour markets.*



Comparison Between GDP Growth Rate VS Mean Youth NEET

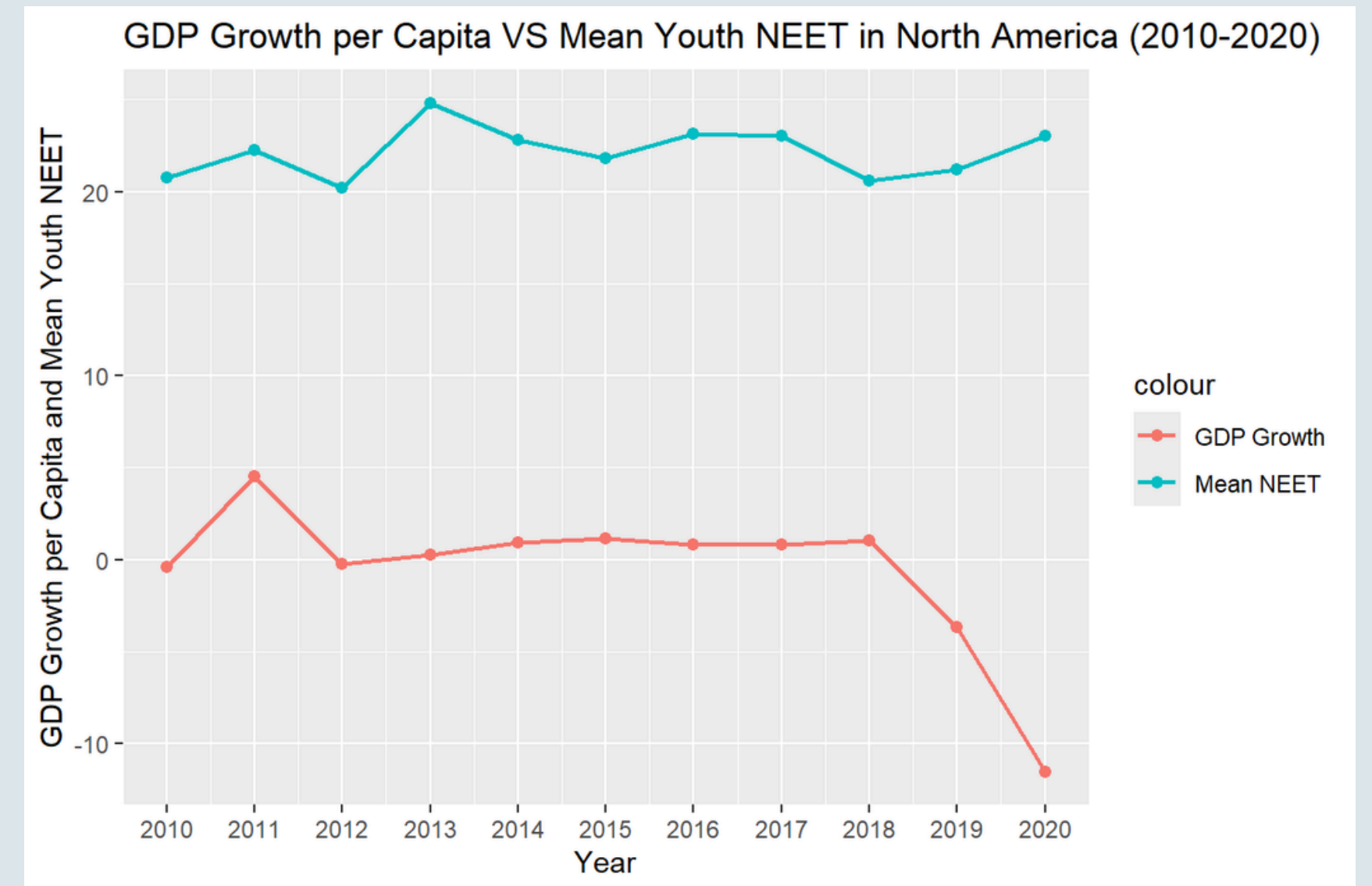
Europe



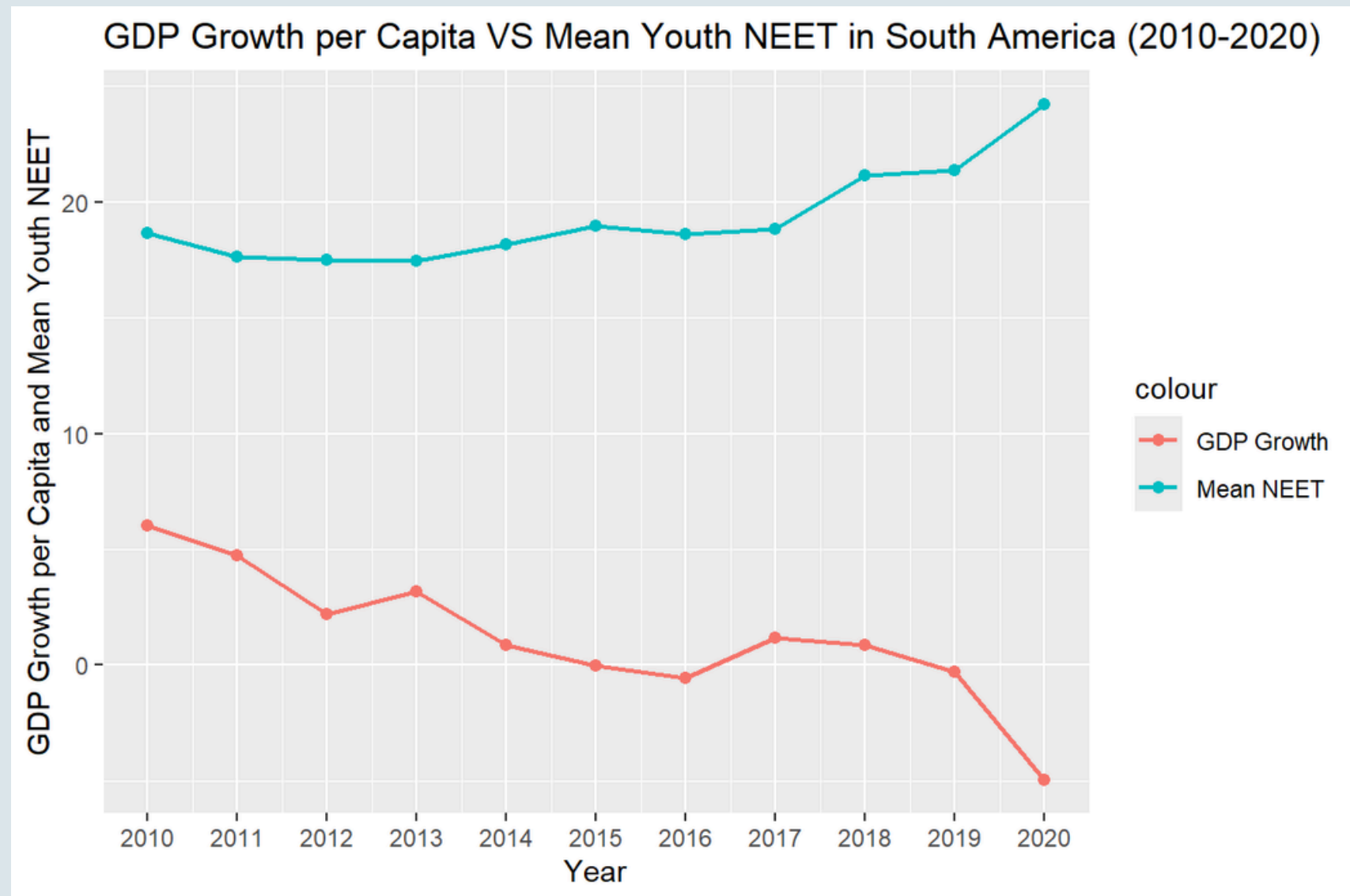
- *Europe has the lowest NEET levels globally and is the only continent with a consistent decline from 2010–2020.*
- *NEET rates fell from ~14% in 2010 to ~11.8% in 2020.*
- *NEET improvement aligned with stable GDP growth, indicating effective translation of economic expansion into youth opportunities.*
- *Due to the introduction of major youth labour policies such as the Youth Guarantee initiative in 2013.*
- *Widely available education opportunities with many countries such as Scotland, Norway and Germany having free university.*

North America

- *North America maintains moderate NEET levels, fluctuating between 21–23% over the decade.*
- *NEET and GDP comparison shows a weak relationship: steady GDP growth did not translate into lower NEET rates.*
- *Suggests that economic gains were not evenly distributed, leaving youth disengagement largely unchanged.*
- *There is no sustained reduction in NEET by 2020, indicating limited progress toward the SDG target.*



South America

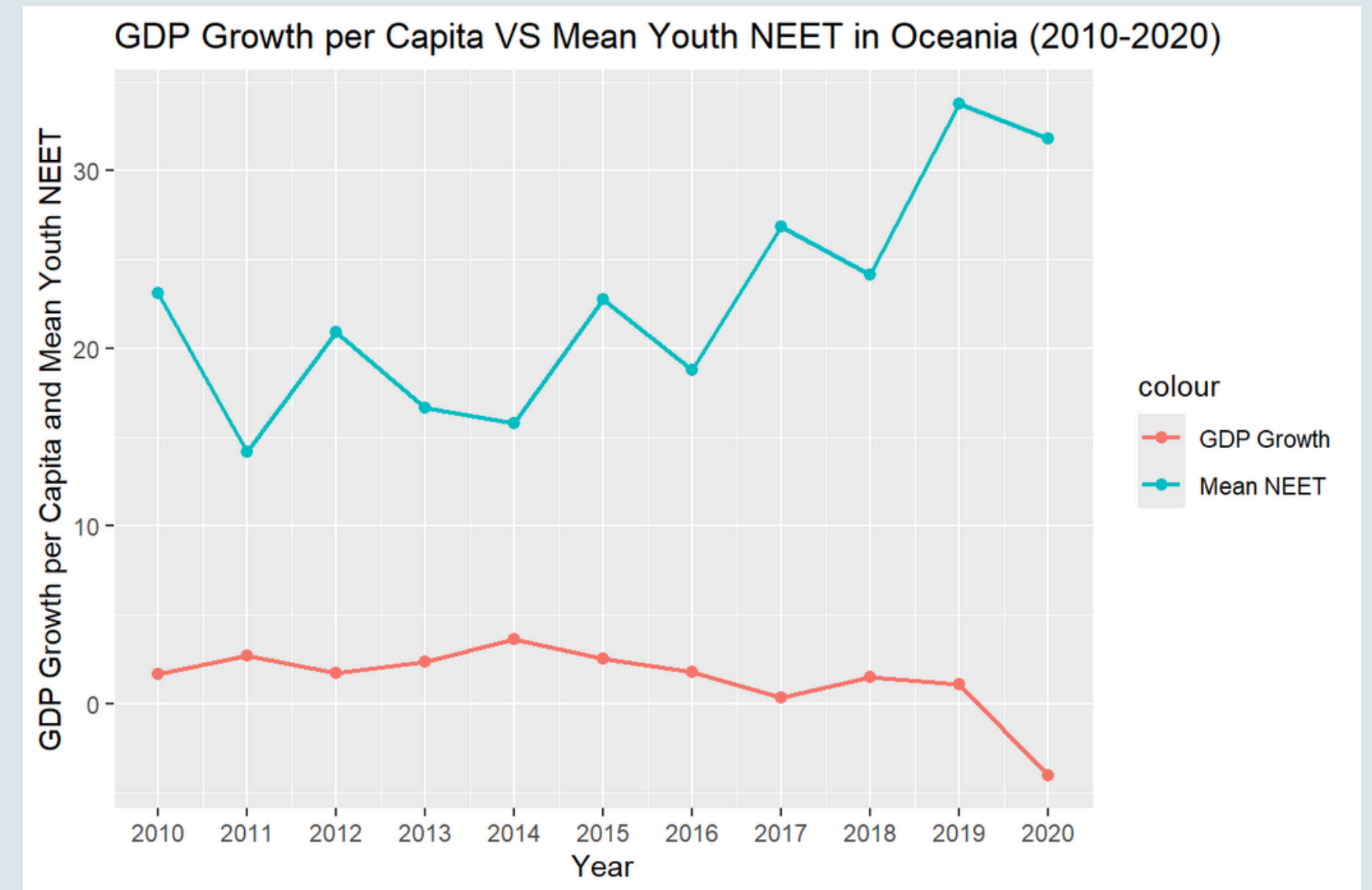


- *South America shows persistent and rising NEET levels, increasing from ~18% in 2010 to over 24% by 2020.*
- *NEET spikes align with economic downturns, reflecting the region's macroeconomic instability.*
- *The NEET and GDP comparison shows a partial relationship: NEET rises when GDP weakens, especially in recession-hit countries like Brazil and Argentina.*
- *Even during economic recovery, NEET levels did not significantly decline.*

Comparison Between GDP Growth Rate VS Mean Youth NEET

Oceania

- *Oceania shows high volatility in NEET rates, fluctuating between 14% and 33% from 2010–2020.*
- *Variation is driven by the contrast between large developed economies (Australia, New Zealand) and less developed, smaller Pacific Island nations.*
- *NEET peaks near the end of the decade, indicating movement away from the SDG target.*
- *Comparing NEET with GDP growth shows that strong economic performance in developed countries did not translate into regional youth improvements.*
- *Countries in Oceania (Fiji, Samoa) largely rely on tourism as a source of income. COVID-19 caused shutdown global travel, thus many youths were unable to join the workforce.*



Limitations

Lack of data

Firstly, we must address the lack of data, specifically for NEET rate. Some countries displayed a small range of data, for example the Congo only included data for 2005 and 2009, thus any extrapolation to estimate longer trends is unlikely to be meaningful.

Unrepresented informal labour data

*Unrepresented informal labour data:
Unemployment data may undercount informal labour, which is most prevalent in developing nations. As a result, official figures could limit the accuracy of analysis.*

Time frame

2010 – 2020 can be considered too short of a time period to measure patterns. Observing from 1990, and then evaluating SDG 8 may have proved more material in terms of gaining insight into the developments of each continent, however this was not the specified timeframe of the assignment.

Conclusion

- *Overall, the 2020 NEET reduction target was largely unmet across continents.*
- *Europe was the only continent to show a clear, consistent decline in NEET, supported by stable economic conditions and strong education systems.*
- *Asia and North America showed no meaningful reduction in NEET over the decade.*
- *Africa and South America saw significant increases in NEET, highlighting structural labour-market challenges and limited job creation.*
- *Oceania showed the greatest volatility, driven by contrasts between developed economies and small island states, and made no progress toward the target.*

Thank You For Listening!