



THEME 5

ECONOMIC GROWTH

AND CYCLICAL

GROWTH

OVERVIEW THEME 5

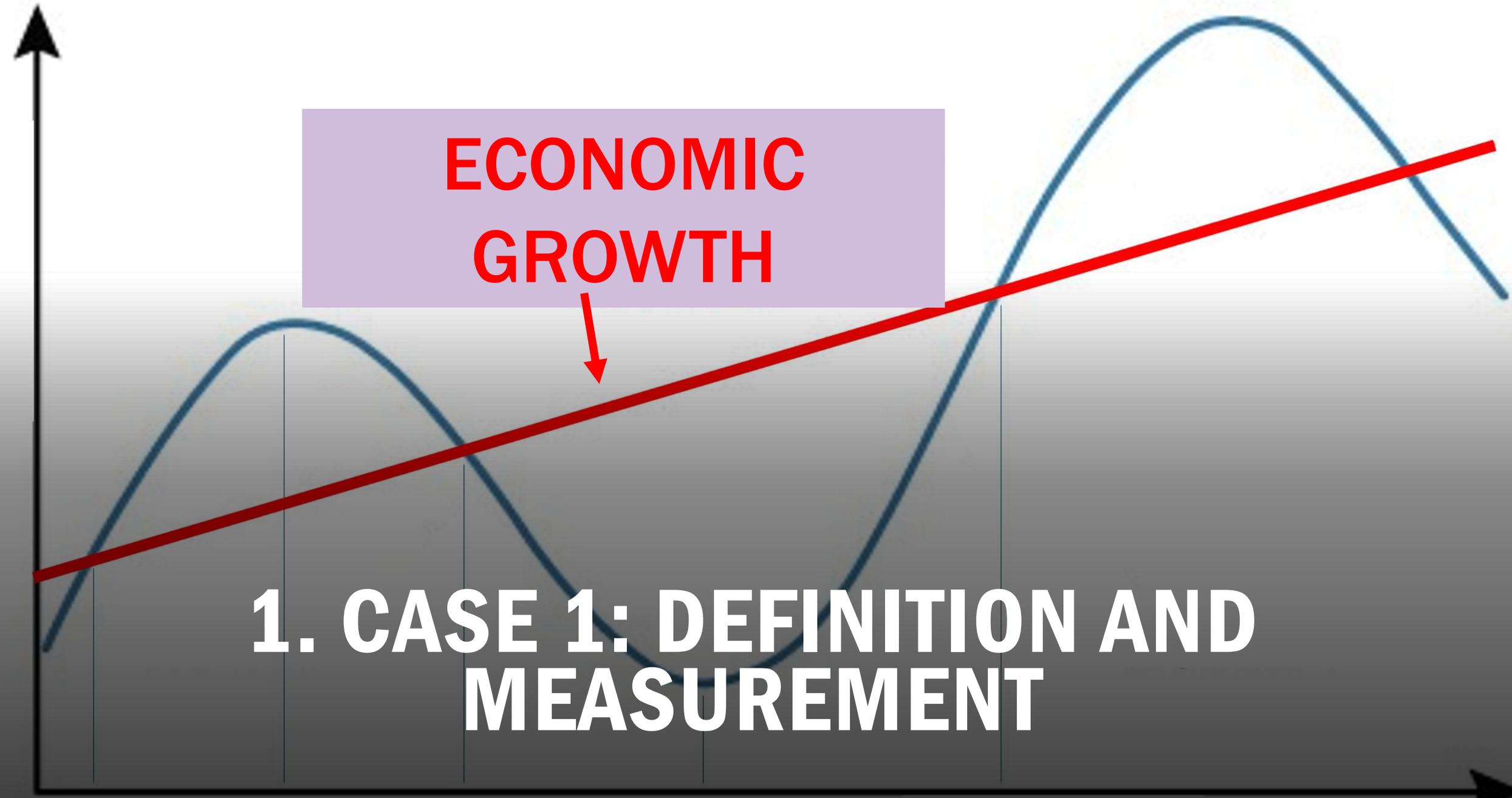
ECONOMIC GROWTH AND CYCLICAL GROWTH

- MONEY AND CAPITAL MARKETS
- CAUSES AND CONSEQUENCES OF INFLATION
- LABOUR MARKET POLICY
- ECONOMIC GROWTH (LONG TERM)
- CYCLICAL GROWTH (SHORT TERM)
- FISCAL POLICY AND MONETARY POLICY
- ECONOMIC MODELS

BASES ON CASES

CHAPTER 4 (LPD 14): ECONOMIC GROWTH

- 1. CASE 1: DEFINITION AND MEASUREMENT**
- 2. CASE 2: GROWTH DETERMINANTS**
- 3. CASE 3: INNOVATION**
- 4. CASE 4: ALTERNATIVE GROWTH MEASURES**



China is once again committed to economic growth of 5 percent this decade

Spanish economy has grown three times as fast as the European average in the last 5 years

Rwanda's GDP has exploded in recent decades, with GDP per capita increasing more than tenfold since the end of the genocide in the mid-1990s

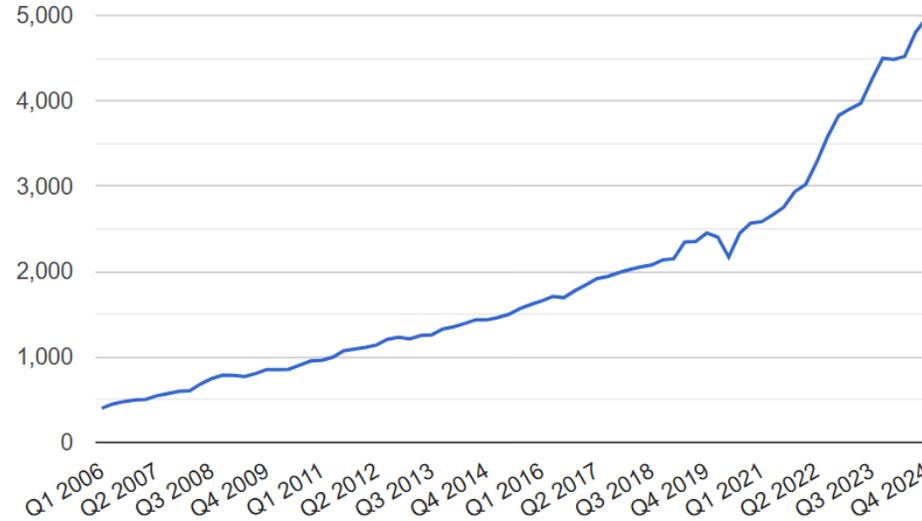
ECONOMIC GROWTH OF A COUNTRY (OR GROUP OF COUNTRIES), WHAT DO WE MEAN BY THAT?

HOW IS ECONOMIC GROWTH **MEASURED**?

Economic growth is the relative evolution of an economy's GDP over the long term.

GDP: Gross Domestic Product

RWANDA: GDP 2006 - 2024



From a wealth growth point of view: economic growth is the relative evolution of GDP per capita in the long term.

GDP per capita

wealth growth from +/- \$200 to +/- \$1,000 in 60 years

!is crucial in international comparisons!

RWANDA: GDP per capita 1960 - 2024



WE BUILD ON THE RWANDA CASE



Presidential Republic

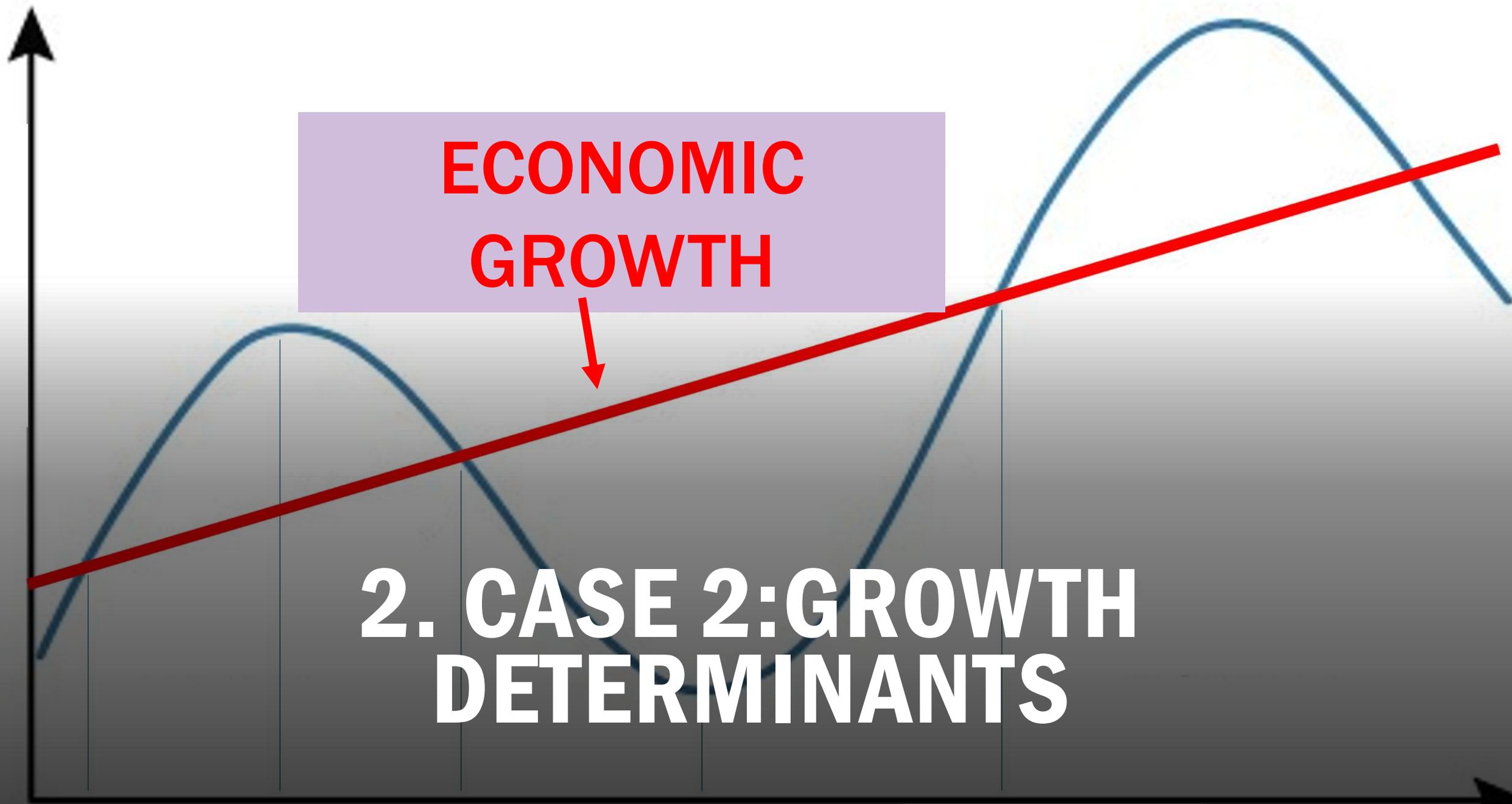
Capital: Kigali

Surface: approx. 4/5 Belgium

Population: approx. 5/4 Belgium

Languages: Kinyarwanda, French, English, Swahili

<https://www.youtube.com/watch?v=ekGmQ6gHWhM>



**ECONOMIC
GROWTH**

2. CASE 2: GROWTH DETERMINANTS

**Rwanda is committed to modernising
the agricultural sector**

**Chinese investment in road
infrastructure booms in Rwanda**

**EDUCATION IN RWANDA
EMBRACES THE AI
REVOLUTION**

WHAT DRIVES A COUNTRY'S ECONOMIC GROWTH?

GROWTH DETERMINANTS OF RWANDA

CAPITAL	LABOUR	TECHNOLOGY	GOVERNMENT
<p>FDI: Foreign Direct Investments (e.g. Chinese investments)</p> <p>Improving infrastructure (traffic, energy, tourism)</p> <p>Creating an attractive business environment (tax benefits, credit)</p>	<p>Better access to education (e.g. free primary education)</p> <p>Stronger role of women</p>	<p>Modernization of agriculture (introduction of technology)</p> <p>Modernization of healthcare</p> <p>“Digisprong” in education</p> <p>Investments in the internet and digital economy</p>	<p><u>ECONOMIC AND SOCIAL REFORMS</u></p> <p>PPP Public-Private Partnership</p> <p>Regional integration and trade agreements</p> <p>Fight against corruption</p> <p>More transparent government</p> <p>Strong government institutions</p>
<p>Capital:</p> <ul style="list-style-type: none"> - Financial capital - Physical capital 		<p>IMPORTANCE OF INNOVATION</p>	

VISION 2050
Long-term investments: education, infrastructure, healthcare, environment, etc.
Evolution into middle-income country and high-income country

GROWTH DETERMINANTS IN GENERAL

DETERMINANT	IMPACT ON ECONOMIC GROWTH
CAPITAL	<p>Presence of domestic financial resources (money and capital market) and foreign financial resources (FDI) facilitates investment</p> <p>Extensive and high-quality infrastructure and attractive business environment attract investment</p> <p>Investment increases the supply of goods and services and creates jobs that in turn generate consumption, government revenue and additional investment</p>
LABOUR	<p>A sufficiently large labour market and a well-trained labour market matches the demand for labour from employers</p>
TECHNOLOGY	<p>Modernization and introduction of new technology increase productivity and competitiveness</p>
GOVERNMENT	<p>The government is a catalyst for all other determinants by pursuing policies that support economic growth, both nationally and internationally (through cooperation with other countries)</p> <p>A reliable and well-run government is also a stimulus for economic progress (investment, population confidence, stable political climate)</p>



Rwanda is the African forerunner in creating "smart cities"

Rwanda is one of the first countries in Africa to launch a national drone delivery system

The government of Rwanda has introduced AI-powered chatbots to the healthcare industry to make it easier for Rwandans to access consultations with doctors or nurses.

**INNOVATION IS A DRIVER OF ECONOMIC GROWTH
BUT ALSO OF DISRUPTION!**

INNOVATION IS A DRIVER OF ECONOMIC GROWTH

Innovation increases productivity and competitiveness: example 1

A smart city is an urban development concept that integrates information and communication technology to improve public services and the quality of life of citizens.



Examples:

Innovations used in Kagali in the field of mobility include flexible street lighting, which allows the brightness of street lighting to be adjusted (crime prevention!).

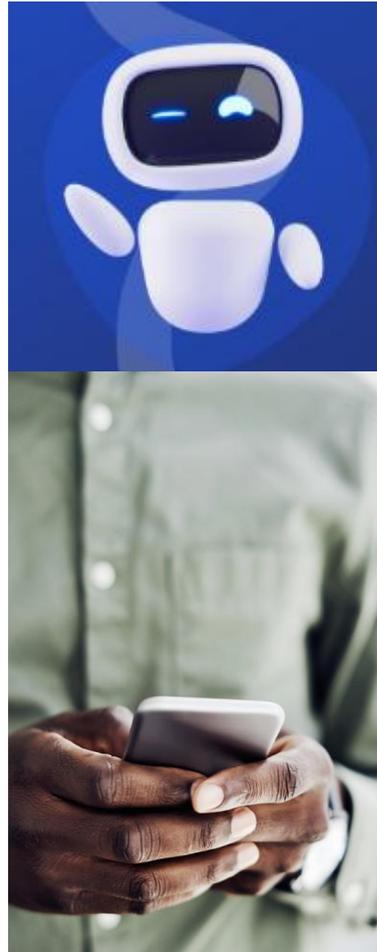
Another example: smart traffic management, where traffic is monitored in real-time throughout the city and information about the current travel time on certain roads is broadcast to enable drivers to determine the best routes.

In terms of sustainability, there are innovations in the field of climate-neutral buildings, green energy, sensors to monitor local air pollution and noise pollution, which offers free WiFi when citizens improve the air quality and noise pollution in their street.

INNOVATION IS A DRIVER OF ECONOMIC GROWTH

Innovation increases productivity and competitiveness: example 2

An AI chatbot is a piece of software that communicates with people through of written language, supported by AI. It is often embedded in web pages or other digital applications to customer inquiries Reply without that there is an employee is needed.



Examples:

The Rwandan AI chatbot provides continuous access to AI-assisted medical consultations through digital avatars, allowing patients to interact via text, voice, or video conferencing. The tool also offers simplified medical checkups, communication of lab results, and also medication reminders.

Rwanda is even investing in the development of a virtual hospital.

INNOVATION IS A DRIVER OF ECONOMIC GROWTH

Innovation increases productivity and competitiveness: example 3

Drones can deliver small packages, food, and even medical supplies. The drone flies to the designated delivery location, checks for obstacles and objects, descends to the delivery point, and releases the package.



Example:

Rwanda has managed to reduce service delays and costs by using drones instead of conventional delivery methods for the delivery of medical supplies.

To improve blood deliveries, autonomous drones were developed in Rwanda. These can take blood from a distribution center to a hospital.

INNOVATION LEADS TO DISRUPTION

Disruption means that an existing way of living and working is completely turned upside down.

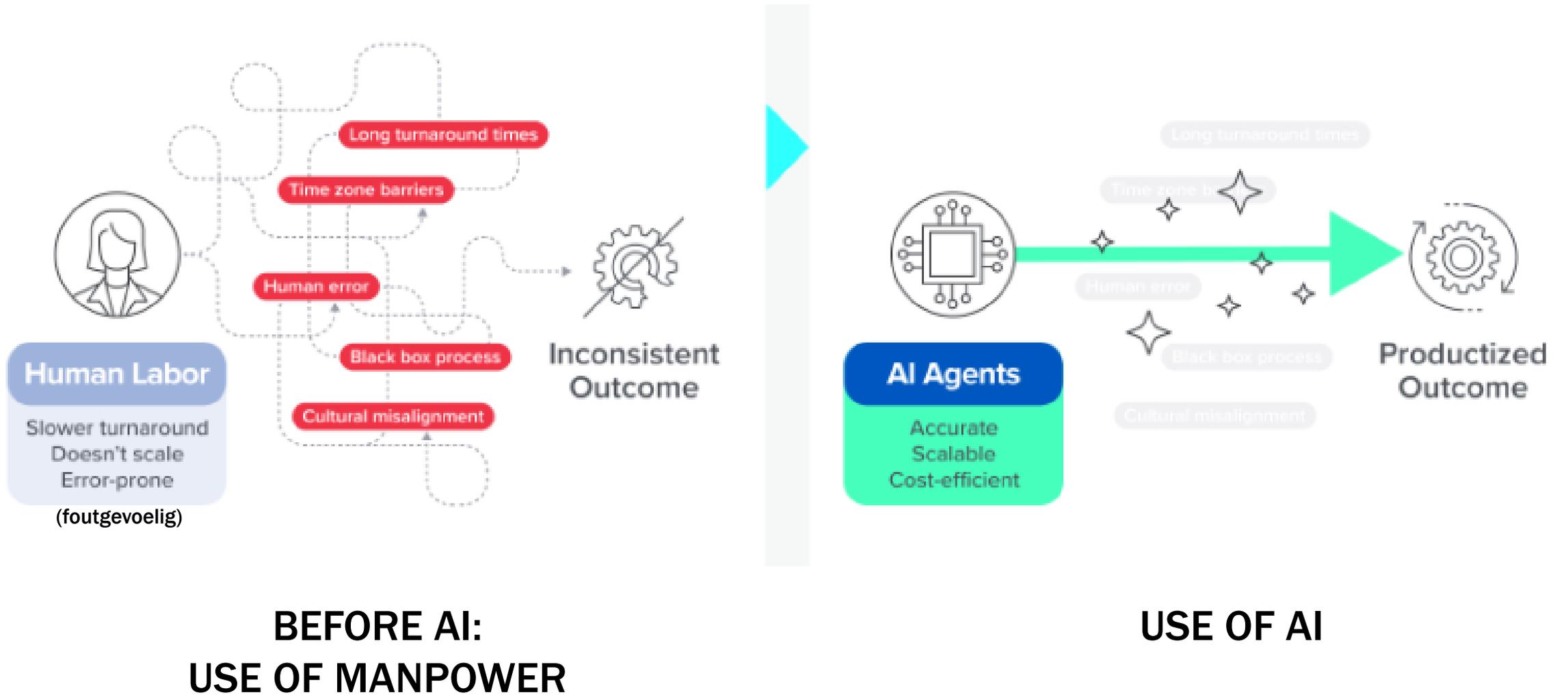
EXAMPLES OF INNOVATION	EXAMPLES OF DISRUPTION
SMART CITY	Residents of a city and their data and activities are continuously "connected" with systems and platforms, smart cameras, sensors, etc.
AI CHATBOTS	Patients have 24/7 access to fully digitized primary medical services
DELIVERY DRONES	The supply chain of products is done in a fully automated manner

For example, these innovations are disruptive in terms of ...

POSITIVE: boosting productivity, safety, sustainability, competitiveness, creation of new types of jobs,... thanks to digitization and automation

NEGATIVE: threat to privacy, loss of certain types of jobs, ...

EXTRA: THE DISRUPTIVE EFFECT OF AI



EXTRA: THE DISRUPTIVE EFFECT OF AI



(publisher of handbooks)

Editing (editing) of author's texts is no longer carried out by editors, but by AI

Presentations that support textbooks are generated by AI



KATE is the customer's digital assistant for more and more banking services

KATE replaces the office worker

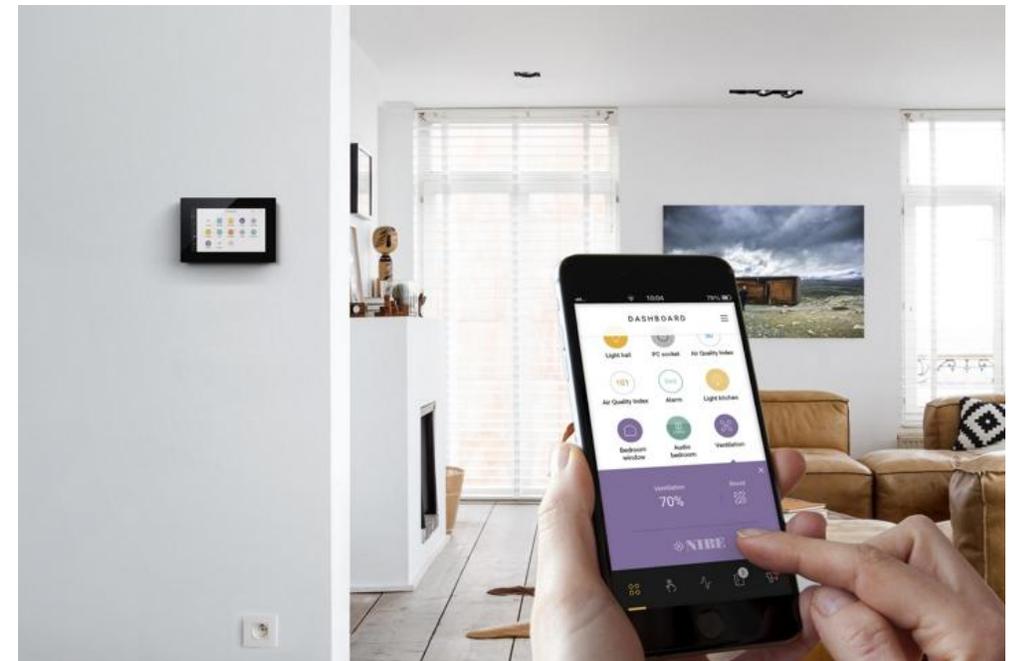
EXTRA: THE DISRUPTIVE EFFECT OF AI

The logo for the company 'niko' is displayed in a bold, lowercase, italicized sans-serif font. The letters are black and set against a white background, which is enclosed in a thin blue rectangular border.

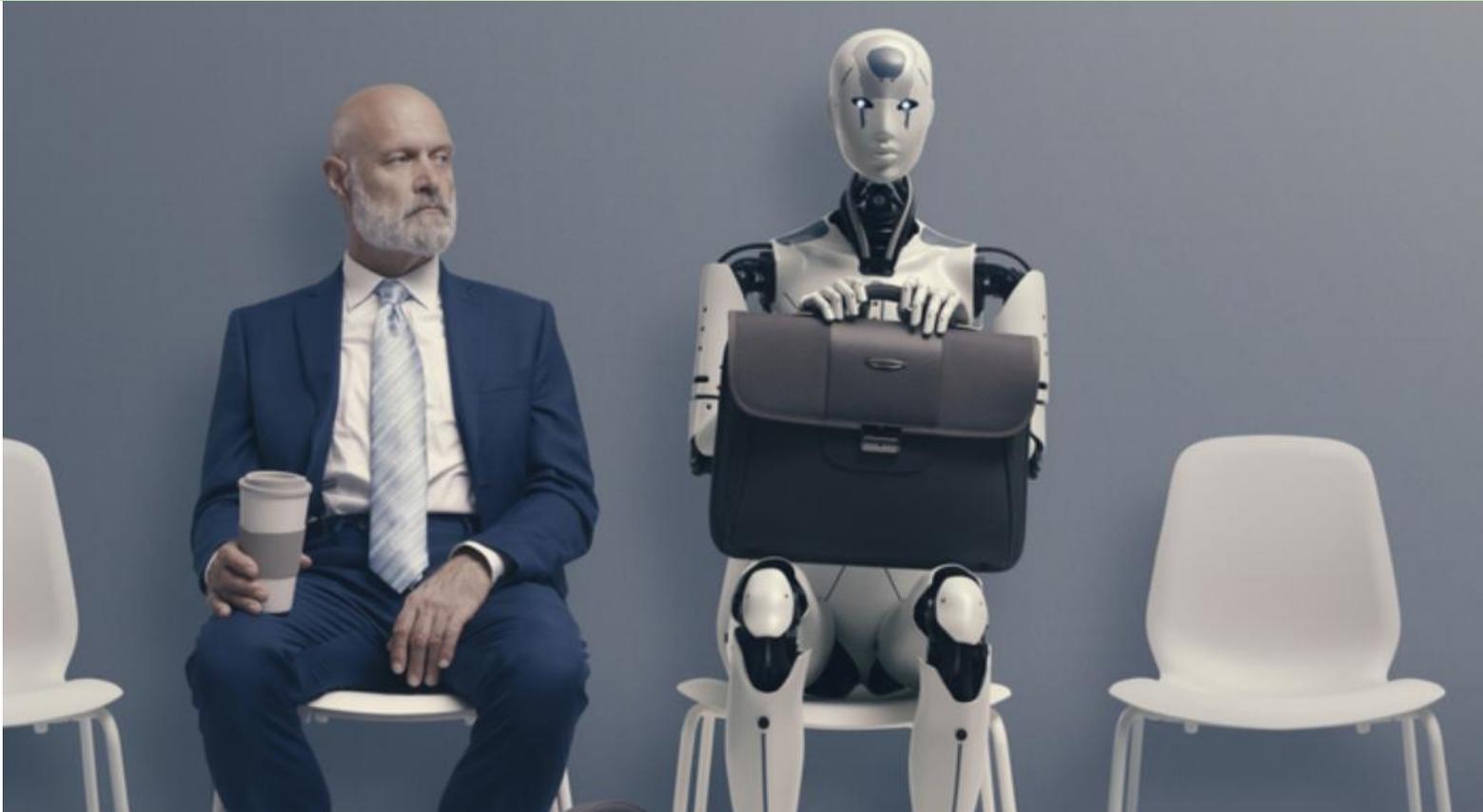
Grown up in sockets and switches

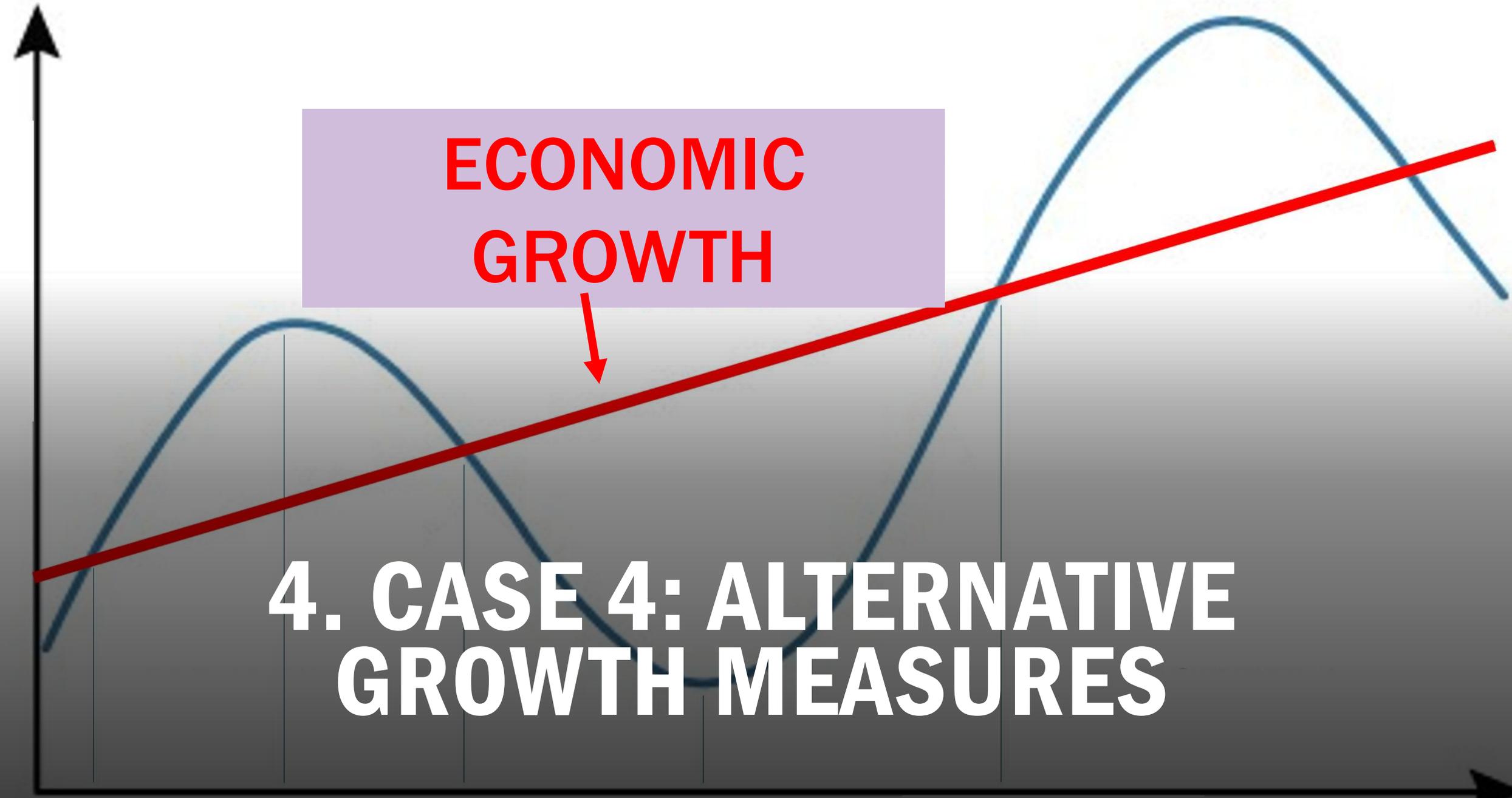


And now a successful market player in home control



DEBATE: Is AI a threat to employment?





Redefining wealth: from GDP to quality of life

The shift from wealth to well-being requires a new measuring instrument

Which country is the happiest?

GDP IS AND WILL REMAIN THE DOMINANT MEASURE AND REFERENCE FOR MEASURING ECONOMIC GROWTH. BUT THERE ARE QUESTION MARKS.

IS THERE AN ALTERNATIVE?

GDP IMPERFECTIONS AS AN INDICATOR OF WEALTH

1. GDP does not take into account non-market-related activities

For example, the extensive unpaid work performed within households or voluntary work is not included in the calculations of GDP, despite its significant economic value. Studies have shown that including this type of activity could significantly increase GDP figures; in 2010, for example, GDP measurement in the U.S. increased by 26%.

2. GDP does not take into account income distribution

Although GDP indicates total economic output, it does not reflect how income is distributed among the population. Rising GDP can coincide with rising income inequality, with the benefits of economic growth mainly benefiting the wealthy while large parts of the population experience stagnant or declining living standards.

GDP IMPERFECTIONS AS AN INDICATOR OF WEALTH

3. GDP ignores environmental degradation

GDP counts all economic activities as positive, even those that harm the environment. Activities that lead to pollution, deforestation, and resource depletion can increase GDP figures thanks to the associated economic transactions. However, **GDP does not subtract environmental costs and does not take into account the depletion of natural resources**, which can undermine both long-term sustainability and quality of life.

4. GDP does not take into account quality of life and well-being

GDP does not take into account factors that contribute to quality of life, such as leisure time, life expectancy, quality of education, and overall happiness. Countries with similar GDP may have vastly different living standards and social outcomes, indicating that GDP alone does not provide a complete picture of social well-being.

GDP IMPERFECTIONS AS AN INDICATOR OF WEALTH

5. GDP does not reflect the informal and black economy

In many countries, important economic activities take place outside formal markets, such as informal labor and black market transactions. Because GDP is based on official data, these unrecorded economic contributions are not taken into account, leading to an incomplete assessment of a country's economic activity.

GDP has long been the standard method for assessing a country's economic performance.

However, the design and scope of GDP have several limitations that can lead to misconceptions about a country's actual economic health and social well-being.

ALTERNATIVE GROWTH MEASURES

1. MEASURE OF ECONOMIC WELFARE

The Measure of Economic Welfare (MEW) is an alternative measure of economic growth.

Whereas GDP only looks at the monetary value of all goods and services produced in a country, the **MEW tries to provide a broader picture of the real wealth and quality of life of people.**

ALTERNATIVE GROWTH MEASURES

Wat wordt in de MEW meegenomen?

MEW = GDP + positive non-market contributions – negative externalities

✓ Added elements (positive for well-being):

- The value of leisure time (leisure time increases well-being but is not measured in GDP)
- Household production (such as cooking, cleaning — things that don't cost money but contribute to life)
- Public services such as education and health care (insofar as they increase well-being)

✗ Subtracted elements (negative for well-being):

- Environmental pollution and degradation (such as air pollution, loss of nature).
- Depletion of natural resources
- Negative externalities of economic growth
- Costs of traffic accidents or health problems arising from economic activity

ALTERNATIVE GROWTH MEASURES

2. HUMAN DEVELOPMENT INDEX

The Human Development Index (HDI) is a composite measure used to measure the development of countries — not only on the basis of economic growth, but also on quality of life and well-being.

It is calculated annually by the United Nations (UNDP) in the Human Development Report.

ALTERNATIVE GROWTH MEASURES

What is included in the HDI?

HDI = Health + Education + Standard of Living

The HDI combines three main dimensions of human development:

Health

measured via: **life expectancy at birth** (indicates how long people live on average (as an indicator of general health and care))

Education

measured via: **average school years** (for adults) / **expected number of school years** (for children) (measures education level and access to education)

Standard of living (= wealth)

measured via: **GDP per capita**

ALTERNATIVE GROWTH MEASURES

3. BETTER LIFE INDEX

The Better Life Index is an alternative to Gross Domestic Product (GDP) as a measure of social progress.

It was developed by the OECD (Organisation for Economic Co-operation and Development) and focuses on well-being and quality of life rather than just economic performance.

ALTERNATIVE GROWTH MEASURES

What is included in the BLI?

The index looks at 11 dimensions of well-being, which the OECD says are essential for a good life:

Housing (housing quality, affordability)

Income (disposable income and employment)

Employment (job security, work-life balance)

Sense of community (social relationships and support networks)

Education (access, level and quality)

Environment (air quality, access to nature)

Citizen participation (voting rights, trust in government)

Health (life expectancy, self-reported health)

Life satisfaction (subjective well-being)

Safety (sense of security, low crime rates)

Work-life balance (free time, working time)

ALTERNATIVE GROWTH MEASURES

4. GROSS NATIONAL HAPPINESS

Gross National Happiness (GNH) is an alternative way of measuring a country's prosperity and progress, it was created by the **Kingdom of Bhutan**, where it is the guideline for government policy.

GNH is based on the idea that real development of a society is only possible if it is sustainable and balanced in all areas: material, social, cultural, spiritual and ecological.

ALTERNATIVE GROWTH MEASURES

What is included in the GNH?

GNH = a holistic view of well-being, based on happiness, balance and sustainability

The 4 pillars of GNH:

- **Sustainable and equitable socio-economic development** = growth with a focus on justice and poverty reduction
- **Preservation and promotion of cultural values** = respect and strengthening of one's own language, traditions and heritage
- **Good governance** = transparency, participation, human rights and a fair rule of law
- **Preserving the environment** = nature protection and sustainability are at the heart of policy and behaviour

ALTERNATIVE GROWTH MEASURES

DEBATE: What makes a country ideal to live in?

