Economic growth, pt. 2

EC 103–003

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Motivation

Housekeeping

Required readings:

- `OpenStax, ch. 7`

Required listening:

- `FRED's Economic Lowdown podcast series: Economic growth`
- `Planet Money podcast: Productivity & Getting Lit`

A long-run perspective

Business cycles reflect the *short-run* behavior of economic growth.

When turning our attention to *long-run* periods, we approach growth as a **secular** (and usually *upward*) trend.

Over time, economies tend to produce **more** goods and services from their *existing* production processes and resources.

`World Real GDP over time`

A long-run perspective

A useful concept when studying growth is **potential** output (i.e., potential GDP).

> An economy's **potential output** is the *highest* amount of output it can produce from its existing productive and natural capacities.

Potential output is, then, a **barrier** beyond which an economy cannot expand without either *increasing available factors of production* or *increasing productivity*.

`Data on US potential GDP`

How growth happens

How growth happens

Recalling:

- A nation's potential output **cannot** increase without it either using more *factors of production* and/or *increasing its productivity*.

What are **factors of production**?

- *Land*;
- *Labor*;
- *Capital* (human and physical);
- *Energy*.

How growth happens

One major **issue** with an economy (indefinitely) utilizing more factors of production is there is a **limit** to their use.

Given that, existing factors need to be made **more productive**.

In other words, an economy needs to generate **more** output with either the *same* or *less* input use.

How growth happens

Economic growth is more sustainable when there are conditions for **labor productivity** to increase.

`Adam Smith` (1723—1790) recognized early on that an economy organized through **markets** could allow for:

1. Workers' **specialization** (with individuals dedicated to certain aspects/stages of production);
2. **Division of labor** (splitting the production processes into smaller tasks).

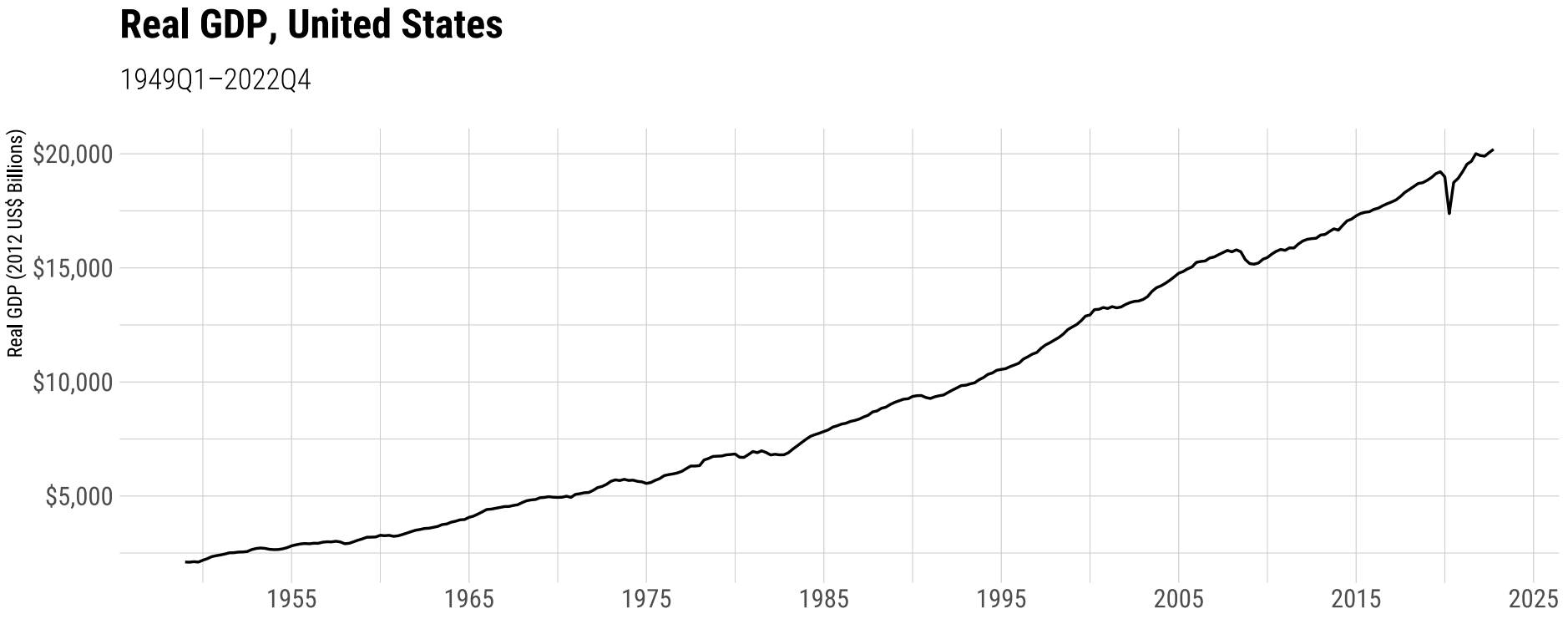
In a *market economy*, the several different markets are interdependent, which allows individuals to take advantage of the aspects above and trade for all their needs.

As a consequence, the economy's **productivity** and **standards of living** tend to increase.

Growth in numbers

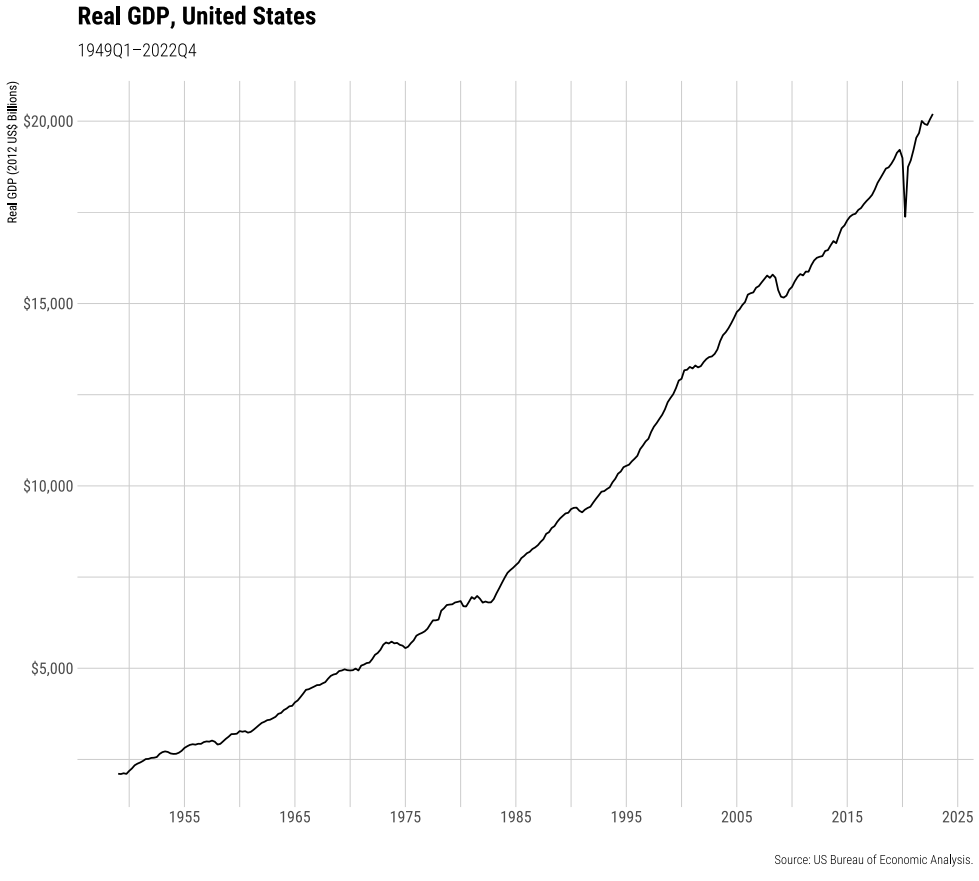
Growth in numbers

Starting from:



Source: US Bureau of Economic Analysis.

Growth in numbers



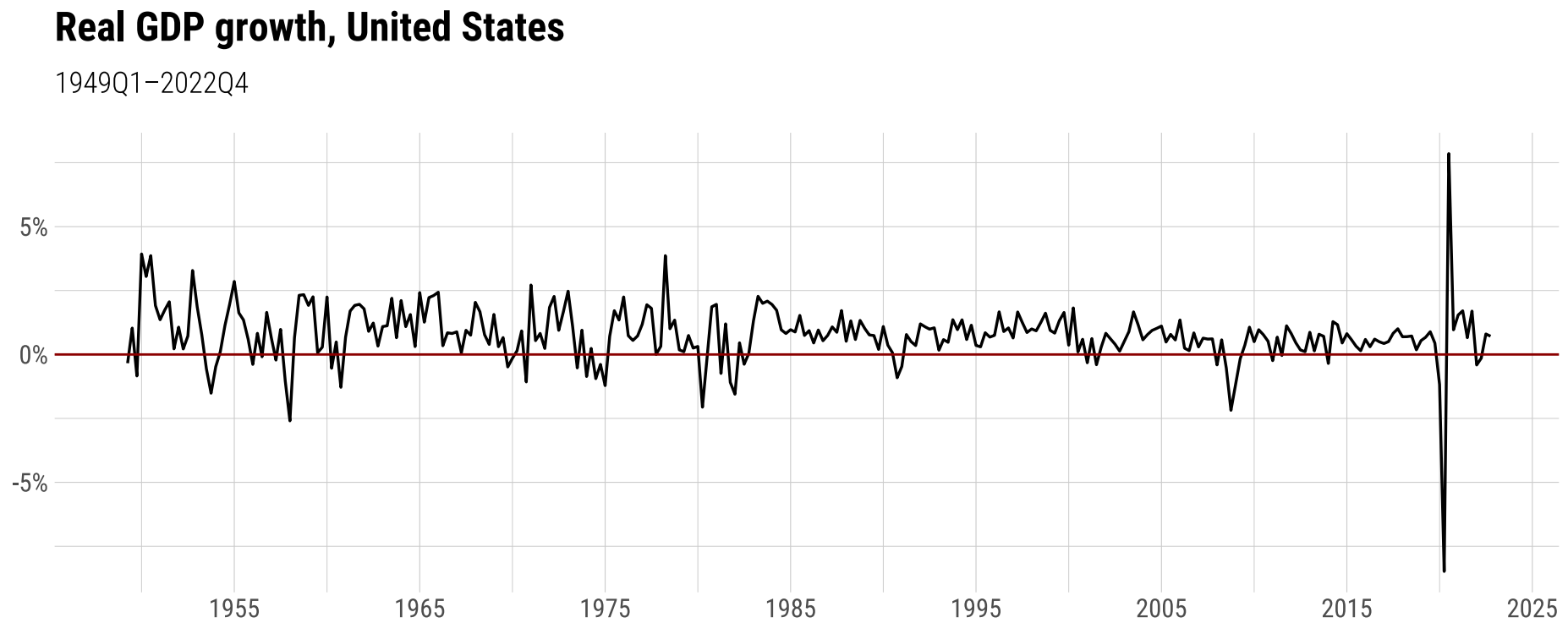
Looking at this measure in **levels** shows the overall long-run process of economic growth.

But if we would like to know what was the **growth rate** over time, we need to compute these rates from the data in levels.

$$\text{Growth rate } (\%) = \frac{\text{Final Period - Initial Period}}{\text{Initial Period}} \times 100$$

Growth in numbers

Then, from the first chart, we can calculate the **quarter-to-quarter growth rate** in GDP per capita:



Source: US Bureau of Economic Analysis.

Growth in numbers

Let us **practice** this procedure using some real GDP annual data.

Is growth good?

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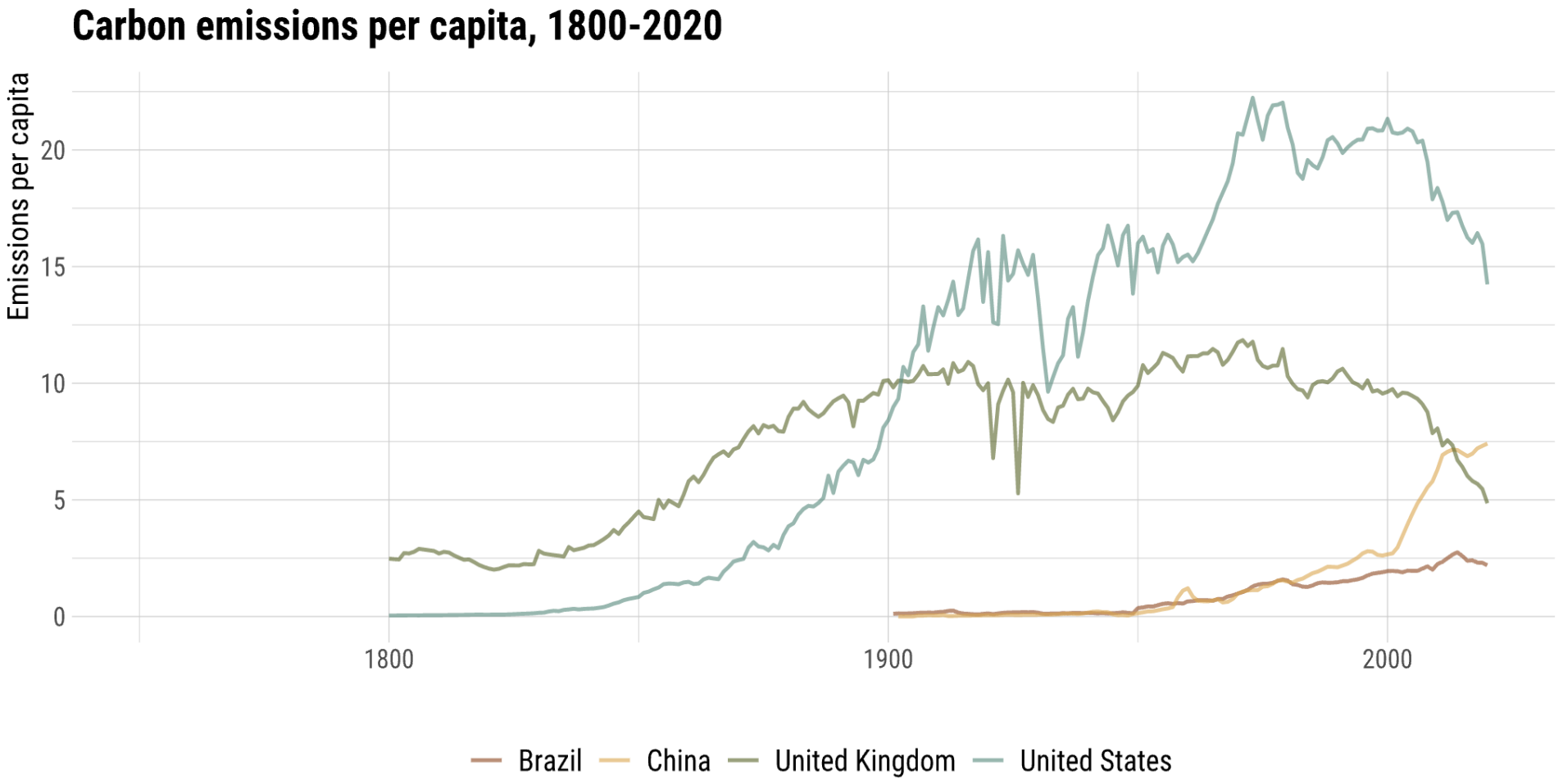
The general view among economists is that growth **increases** our incomes, and thus **improves** our standards of living.

This statement is different from the idea of supporting **unlimited growth**.

Applying **economic reasoning** to this issue, there are several **costs** associated with economic growth regimes.

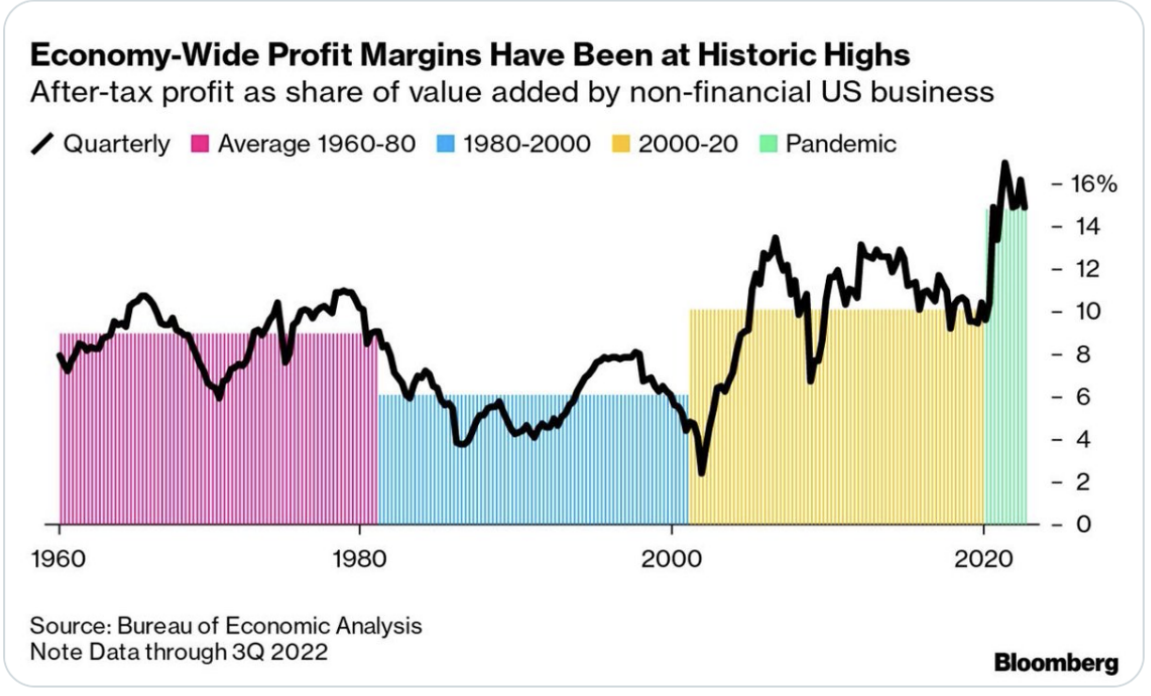
Is growth good?



Is growth good?

Isabella M. Weber
@IsabellaMWeber

Best of times, worst of times: Pandemic profit margins in historical context.



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Next time: Unemployment