Flash Economics

N° 98
August 11, 2025

What happens if returns to scale are increasing?

Many of the results of economic analysis are based on the assumption that returns to scale are decreasing (if the size of production is large, the efficiency of firms and the overall productivity of factors is reduced).

But, in reality, it is likely that returns to scale are increasing, due to the presence of fixed costs and learning effects.

If returns to scale are increasing, we can understand :

- That the United States has higher productivity gains than Europe ;
- That capital is moving from poor to rich countries;
- That protectionism is necessary to ensure that 'infant' industries develop in countries that are lagging behind (this applies in particular today to the new technology industry);
- That restrictive competition rules lead to weak growth.

Patrick Artus
Senior Economic Advisor
patrick.artus-ext@ossiam.com
@PatrickArtus
Patrick Artus

Marketing communication: this document is a marketing presentation. It has not been prepared in accordance with legal requirements designed to promote the independence of investment research; and it is not subject to any prohibition on dealing ahead of the dissemination of investment research.

In reality, returns to scale are very likely to be increasing.

Many results in economic analysis are based on the assumption that returns to scale are decreasing. This means that when the scale of production (of a firm, an industry, or an economy) is large, the additional output obtained from an increase in the use of production factors (capital, labour) is smaller than when the scale of production is small.

However, in reality, it is highly probable that returns to scale are increasing. Increasing returns to scale (where output grows by more than the combined increase in production factors, and total factor productivity rises with the scale of production) may result from the presence of fixed costs (costs that do not depend on the level of production, such as the purchase of patents or head office expenses) or from learning effects (the higher the output, the greater the efficiency of the production process).

If returns to scale are increasing, several important economic mechanisms can be understood.

1 - The United States enjoys higher productivity gains than those observed in Europe

On the one hand, **the domestic market in the United States is unified**, whereas the European domestic market is fragmented (due to differing regulations from one European country to another, and a preference for domestically produced goods). On the other hand, the size of American firms is larger than that of European firms (**Table 1**).

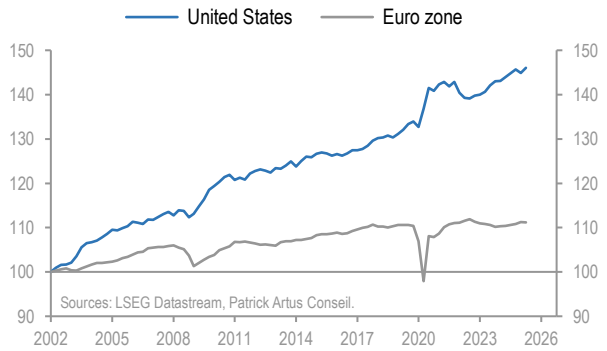
Tableau 1 Chiffre d'affaires des plus grandes entreprises (2024)

Country	Name	Revenue (in billions of US dollars)
United States	Walmart	681
	Amazon.com	638
	Berkshire Hathaway	371
	Apple	391
	UnitedHealth Group	400
	CVS Health	373
Euro zone	Volkswagen	325
	TotalEnergies	181
	Stellantis	157
	BMW	142
	Mercedes-Benz Group	146

Sources : LSEG Datastream

This difference in the size of domestic markets and firms **naturally leads to faster productivity gains in the United States if returns to scale are increasing** (**Chart 1**).

Chart 1
Productivity per head (2002.Q1 = 100)



2 - Capital flows from poor countries to rich countries

If returns to scale are increasing, the return on capital **is higher in countries where the level of production is greater**, that is, in countries with a high GDP per capita, than in countries with a low GDP per capita.

This helps explain, in particular, **why the United States attracts global capital** (and therefore runs a current account deficit), whereas many emerging economies export their capital (and thus run a current account surplus); this is the case, for example, for Vietnam, Thailand, and Malaysia. Indonesia and India do not have a current account deficit (**Charts 2A/B/C**).

Chart 2A
Current account balance (as % of nominal GDP)

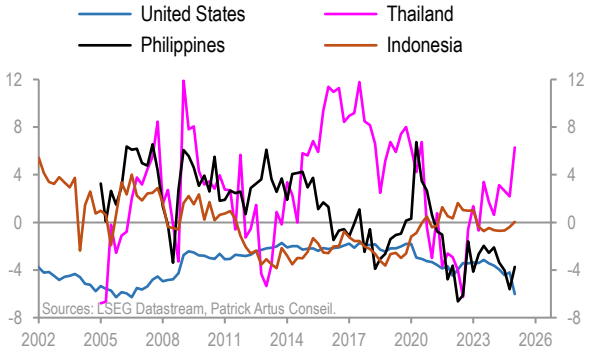


Chart 2B
Current account balance (as % of nominal GDP)

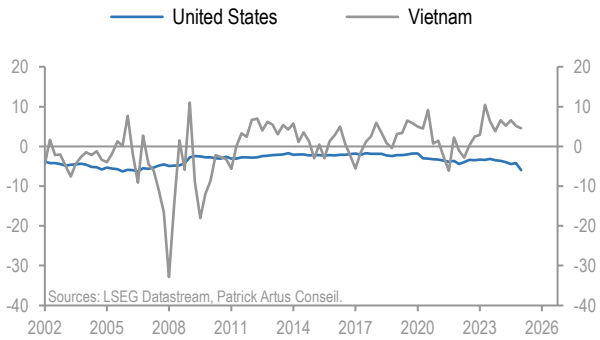
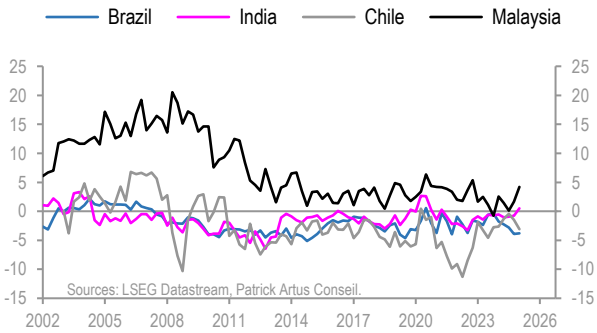


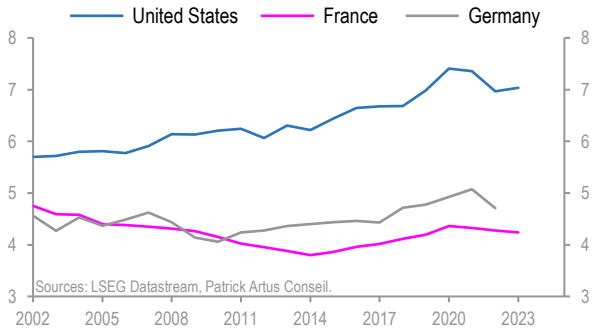
Chart 2C
Current account balance (as % of nominal GDP



3 - Protectionism is necessary for "infant" industries to develop

If an **industry is strategic but unfortunately initially small in scale** (as is the case for the new technology sector in Europe, **Chart 3**), **then, if returns to scale are increasing, this industry will never develop** because its unit production costs will remain higher than in countries where the industry is more advanced.

Chart 3
Gross value added of the ICT sector
(as % of nominal GDP)



A certain degree of protectionism is therefore necessary to safeguard such an industry and enable it to reach a critical size; indeed, this was the policy pursued by European states to support the development of Airbus.

4 - A restrictive application of competition rules leads to weak growth

If competition rules are restrictive and prevent the creation of large firms, then, if returns to scale are increasing, economic growth will remain weak because firms will remain too small in scale.

Summary: Increasing returns to scale are likely, and they have many implications

If returns to scale are increasing:

- It is to be expected that productivity gains will be higher in the United States than in Europe;
- Capital flows will move from poor countries to rich countries;
- Protectionism is necessary for strategically important industries that are initially small in scale to develop;
- A restrictive application of competition rules is an obstacle to growth.

Europe, with its segmented goods and services market, its commitment to free trade, and its strict approach to competition rules, is therefore heavily disadvantaged in a context of increasing returns to scale.

Disclaimer

Ossiam, a subsidiary of Natixis Investment Managers, is a French asset manager authorized by the Autorité des Marchés Financiers (Agreement No. GP-10000016). Although information contained herein is from sources believed to be reliable, Ossiam makes no representation or warranty regarding the accuracy of any information of which it is not the source. The information presented in this document is based on market data at a given moment and may change from time to time. This material has been prepared solely for informational purposes only and it is not intended to be and should not be considered as an offer, or a solicitation of an offer, or an invitation or a personal recommendation to buy or sell participating shares in any Ossiam Fund, or any security or financial instrument, or to participate in any investment strategy, directly or indirectly. It is intended for use only by those recipients to whom it is made directly available by Ossiam. Ossiam will not treat recipients of this material as its clients by virtue of their receiving this material. All performance information set forth herein is based on historical data and, in some cases, hypothetical data, and may reflect certain assumptions with respect to fees, expenses, taxes, capital charges, allocations and other factors that affect the computation of the returns. Past performance does not predict future returns. Any opinions expressed herein are statements of our judgment on this date and are subject to change without notice. Ossiam assume no fiduciary responsibility or liability for any consequences, financial or otherwise, arising from, an investment in any security or financial instrument described herein or in any other security, or from the implementation of any investment strategy. This information contained herein is not intended for distribution to, or use by, any person or entity in any country or jurisdiction where to do so would be contrary to law or regulation or which would subject Ossiam to any registration requirements in these jurisdictions. This material may not be distributed, published, or reproduced, in whole or in part.