Flash Economics

N° 96
August 5, 2025

Why the slowdown in growth?

Since the subprime crisis (2008–2009), there has been a slowdown in productivity gains and economic growth, in the United States and even more so in the euro zone and China. How can this slowdown be explained?

Several explanations can be put forward:

- the slowdown in technological progress, which had been the main driver of growth since the 1960s, and which is chiefly due to the increase in research and development expenditure required to achieve breakthrough innovations;
- in the United States and Europe, the deterioration of skills in the working population;
- the end of the positive effects of globalisation, such as the opening up of trade between developed and emerging countries.

The only hope for a return to stronger global growth lies in:

- the development of trade in services, as the trade in goods is no longer driving growth;
- the still uncertain impact of the development of artificial intelligence on productivity gains.

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.

Slower productivity gains and growth in the United States, the euro zone, and China

Since the subprime crisis (2008–2009), **a slowdown in productivity gains** – and therefore in GDP growth – has been observed in the United States, the euro zone, and China (**Charts 1 and 2**).

Chart 1
Productivity per head (Y/Y as %)

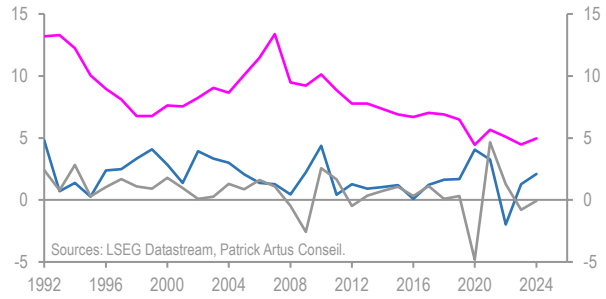
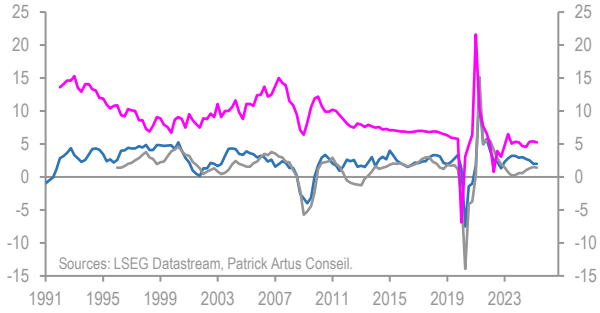


Chart 2
Real GDP (Y/Y as %)



The trend in productivity gains before 2007 was of a 2.4% annual increase in the United States, 1.2% in the euro zone, and 9.7% in China. From 2010 onwards, this trend declined to 1.3% per year in the United States, 0.4% in the euro zone, and 6.4% in China, with these numbers weakening further from 2017 onwards – except in the United States (**Table 1**).

Table1: Average annual growth rate of productivity per capita (in %)

Period	Euro zone	United States	China
1991 - 2007	1.18	2.41	9.69
2010 - 2024	0.37	1.29	6.45
2017 - 2024	0.06	1.70	5.42

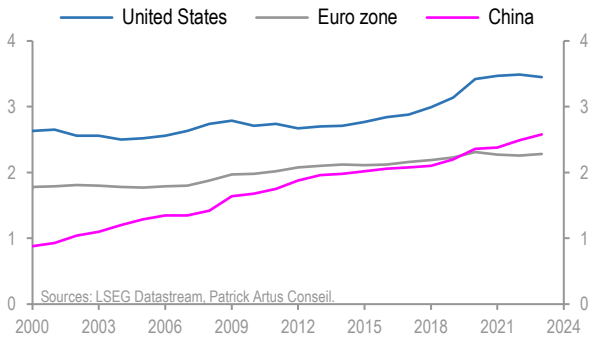
Source : LSEG Datastream, authors' calculation

We are pondering the possible causes of this slowdown in productivity gains.

Three main causes of the slowdown in productivity

1. The slowdown in productivity may seem surprising **since research and development expenditure has been increasing steadily (Chart 3).**

Chart 3
Total R&D spending (as % of nominal GDP)



Yet **productivity has slowed**. Two explanations for this paradox have been put forward:

- Very large firms dominate the economy, crowding out smaller and more innovative companies. These very large firms tend to engage in defensive R&D spending, aimed at preserving their market share (see for example Akcigit, U. (2024). *The Innovation Paradox*, Finance & Development, International Monetary Fund).
- The efficiency of research (in terms of patents, discoveries, etc.) is declining; increasingly more researchers and R&D spending are needed, for example, to discover and obtain approval for a new drug (see for example Schuhmacher, A.,

Wilisch, L., Kuss, M., Kandelbauer, A., Hinder, M., & Gassmann, O. (2021). *R&D efficiency of leading pharmaceutical companies – A 20-year analysis*. *Drug Discovery Today*, 26(8), 1784–1789).

2. **The deterioration of workforce skills in the United States and the euro zone**. **Table 2** shows the results of the PIAAC survey, which measured population skills in 2016 and 2023.

Table 2: Results of the OECD PIAAC survey (by decreasing score from the 2023 survey, overall score*)

Country	2016	2023
Finland	285	289
Japan	292	285
Sweden	279	281
Netherlands	282	276
Canada	269	267
Germany	271	267
England (UK)	267	266
France	258	253
United States	261	251
Korea	268	246
Spain	249	246
Italy	249	240

*In 2016, average score in numeracy and literacy
Source: OECD

A deterioration in workforce skills can be observed in the United States and in the largest European countries. In China, the working population stands at 750 million, with 200 million skilled workers. The proportion of individuals holding a higher education degree remains very low, although it is increasing (**Table3**).

Table 3: Adults' educational attainment distribution (Percentage of population in the same age)

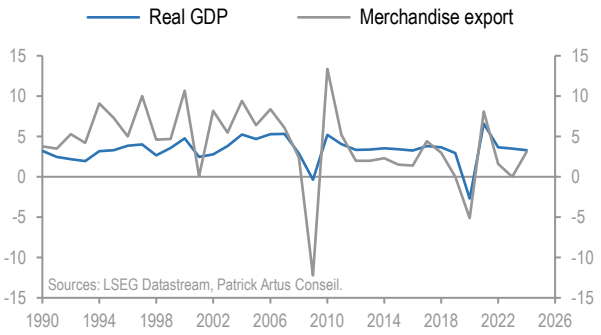
Country	United States		European Union (25 countries)		China	
Educational attainment	Bachelor's or equivalent level	Master's or equivalent level	Bachelor's or equivalent level	Master's or equivalent level	Bachelor's or equivalent level	Master's or equivalent level
2010	20.90	9.45	12.45**	13.10**	3.48	0.43
2020	24.97	12.10	15.16	16.34	7.79	1.08
2023	25.31	12.85	15.23	17.62	na	na

Source : OECD
* Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden
** in 2014

3. The end of the positive effects of globalisation and the opening up of trade in goods between developed and emerging countries

Chart 4 compares the volume growth rate of global GDP with the volume growth rate of global trade.

Chart 4
World: Real GDP and merchandise export in volume terms (Y/Y as %)



Charts 5A/B show the share of imports in GDP for the United States and the euro zone, while Charts 6a/b show the share of exports in China's GDP.

Chart 5A
Imports of goods and services (as % of nominal GDP)

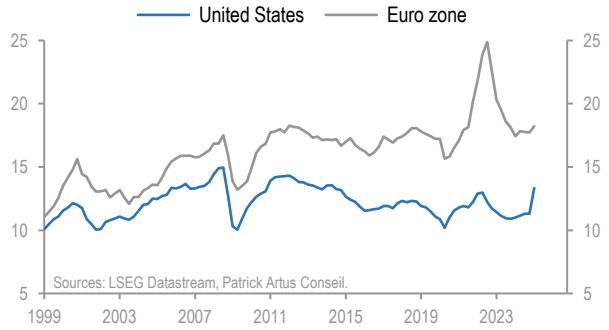


Chart 5B
Imports of goods and services (as % of real GDP)

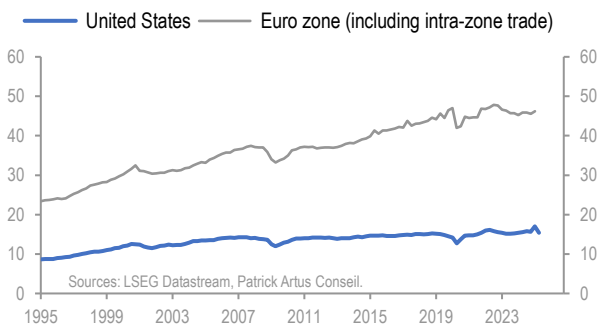
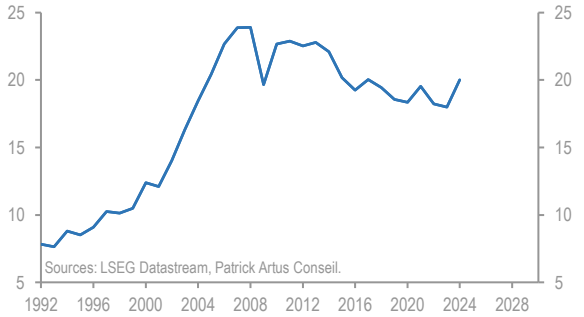


Chart 6A
China: Exports of goods (in value terms, as % of nominal GDP)



Chart 6B
China: Exports of goods and services (in volume terms, as % of real GDP)



It can be observed that:

- Since 2012, global trade in goods has grown more slowly than global GDP in volume terms;
- Since 2019, the volume share of imports in the GDP of the United States and of the euro zone has stagnated;
- Since 2008, the volume share of exports in China's GDP has declined.

Summary: What mechanisms could help trigger a return to stronger global growth?

Growth in the United States, the euro zone, and China has clearly slowed since 2008. This slowdown can be attributed to:

- The growing inefficiency of research and development spending;
- In the United States and Europe, the deterioration in the skill level of the working population;
- The end of the positive effects of trade liberalisation between developed and emerging countries.

We see two avenues for a reacceleration of global growth:

- **The expansion of services trade** (**Charts 7 A/B**), replacing goods trade;

Chart 7A
World: Exports of goods (in volume terms, Y/Y as %)

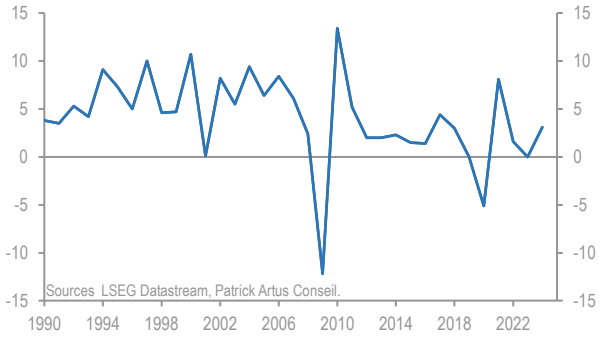
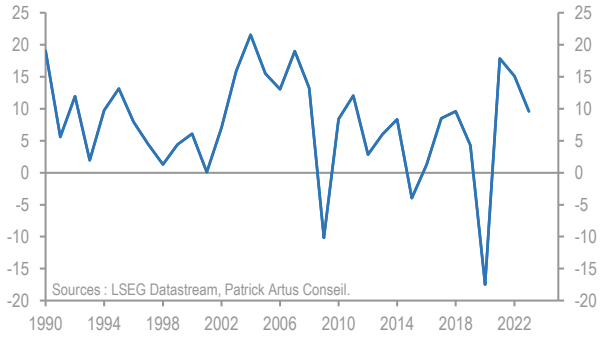


Chart 7B
World: Exports of services (in value terms, Y/Y as %)



- A highly positive, though debated, effect of artificial intelligence on productivity gains.

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.