INTERNATIONAL ECONOMIC PROGRESS REPORT *(EPR)*

APRIL 2023 HIGHLIGHTS

Last month I mentioned that there may be additional resources in these reports like articles or TV clips with live links that I provide below in case you want a little more information on a specific topic I am discussing. I also mentioned that data releases for each country or region are not always in line with each other and we state relevant dates either within tables or in footnotes. All sources are listed at the bottom of graphs/tables.

Inflation

One of the main themes that has jumped out at me over the past month is resilience. And this is true both for the U.S. and the Eurozone. When you stop and think about it, there are a plethora of headwinds right now. **Inflation {Page 3}** is taking its sweet time coming down, essentially forcing central banks to continue with rate hikes. Aging demographics are keeping labor supply low with upward pressure on wages, which is the primary reason for the persistent inflation. Supply chains are loosening but are not yet normalized. The Ukrainian crisis persists with an apparent stalemate in the Donbas region. And mismanagement at certain banks has resulted in some instability in the financial sector. The thorn of inflation is the one headwind that governments/central banks feel they can directly impact. Yet, despite the fast and furious interest rate hikes, inflation persists. Something that isn't talked about enough is that it historically takes about six to nine months for interest rate hikes to work their way through the system and have material impacts on the economy at large. Rate hikes started a year ago in the U.S. and in July in the Euro Area and yet core inflation (which strips out the more volatile food and energy components and which central banks pay closer attention to) persists. This tells me that at a minimum, rates will have to stay high for a longer period (unless there is an unforeseen economic shock). So, the question becomes how much longer the developed economies will stay resilient and avert recession.

Interest Rates

Since the last report, the U.S. raised **Interest Rates {Page 3}** by 0.25% in March and most experts are saying there will be one more 0.25% hike in May. After that, the Federal Reserve is likely to pause. I think it's too difficult to call when the Fed might reduce rates due to the aforementioned headwinds alongside the persistent inflation. One such example of the unknown is the recent announcement by OPEC that they will cut supply by 1.2 million barrels per day, which is projected to increase the price per barrel by roughly $10. Cuts begin in May and last throughout 2023 anchoring some degree of inflation for the foreseeable future.

The European Central Bank (ECB) also raised interest rates in March from 3.0% to 3.5% (the "main refinancing operations") – a historically aggressive move. At this point, the ECB is stating that they will be "data dependent" closely tracking inflation before they further hike rates. However, it seems likely that there may be two more 0.25% hikes in May and June because of the Eurozone's all-time high core inflation of 5.6%. The U.K. raised rates 0.25% to 4.25%. Previously, the likely path for the U.K. was to pause at 4.25%, but they have had a particularly difficult time bringing down inflation so it is now possible that more hikes will ensue.

GDP & Employment

Thus far, the 4th quarter data for **GDP {Page 3}** shows that the economies we track have indeed averted a recession. GDP fell for all tracked regions from Q3 to Q4, but none slipped into recession. I think this is mostly due to the resilience of the labor market. Even with inflation, when people have jobs, they are active consumers in society because they feel relatively confident. And with **Unfilled Job Vacancies {Page 4}** at still elevated levels for all tracked regions, workers even feel confident about finding another job if they are laid off or quit. Both the "harmonized" and "not harmonized" **Unemployment Rates {Page 4}** show rates that are virtually unchanged at

Data-Driven Economic Strategies
https://www.ddestrategies.org/

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Data updated on 04/07/2023.

their very low levels. The U.K. and U.S., in particular, have rates that are well below "normal" or frictional rates which are typically considered in the 4.0% to 4.5% range.

Demographics

These demographic forces, which I talked about last month, are both a blessing and a curse. For the average worker with any kind of high-demand skill (which in Colorado ski communities includes waiting tables or making a good cocktail), the labor shortage has increased wages and buoyed consumption. But this too has played into the persistent inflation that most experts now say will last at least another 12 months. The longer-term downside to these demographic forces is the main reason many global economic experts are stating that after 2023, the subsequent five years will have subpar growth. Stagnant or declining populations in developed economies will stall productivity. Over the past several decades, developed economies (like those we track in these reports) fueled global growth and that is *less* likely to happen moving forward.

It sounds dire, but there are (investment) opportunities. Developed economies have the bulk of (global) wealth and one such opportunity will revolve around innovation that can compensate for diminishing labor forces. I know in the U.S. there is an acceleration towards more robotics and artificial intelligence. As one example, big data is projected to transform medical diagnoses and treatments. Conversely, the opportunities in emerging economies will continue to center around the build out of necessary infrastructure from highways to broadband. I also believe middle-developed economies like Mexico will further integrate more knowledge-based sectors (e.g., IT) seen in more advanced economies, *but with a broader base of working age people.* That's a huge *comparative advantage.*

Confidence & Manufacturing

Both **Business and Consumer Confidence {Page 3}** are holding steady when comparing February to March data. This supports the general notion that for now, our tracked economies are "holding up." It's interesting to me that for the latter half of 2022 and even early this year, it was presumed that Europe would fall into (a possibly rough) recession and that the U.S. may not. The opposite now appears to be true. In the U.S., manufacturing, residential and commercial construction, and job openings have all shown declines. Meanwhile, various indices such as manufacturing have improved across the Atlantic. Note that the **Purchasing Manager's Indices {Page 3}** are the "composite scores" which combine both goods and services manufacturing. I like this metric because it is weighted by the proportion each subsector of manufacturing has on GDP. Manufacturing is a leading indicator, meaning it can tell us where the economy is heading. It is reassuring that all tracked regions are still in positive territory (above 50). The goods (only) manufacturing index for the U.S. did show a decline in March and is now in contraction territory. This is one of the reasons economists are forecasting a shallow recession for the U.S. starting in Q2 of this year (now!). The Conference Board believes a U.S. recession will last three quarters. Part of the reason a U.S. economic downturn is expected to be "shallow" is precisely because of the strength of the labor market. I recently did a piece on this that you can see here. The forecasts by the Conference Board for GDP for all of 2023 can be seen on page 3.

Bank Failures

The last headwind I want to mention is the banking crisis that happened in March. I did an interview with NPR when SVB first failed where I break it down. It was striking to me how quickly the U.S. government stepped in to contain the panic that can ensue when the public gets nervous about their money held in banks. There were many backstops put in place to provide financial stability to banks including the Bank Term Funding Program where the Fed withdrew $145 billion to provide loans to U.S. banks to bolster liquidity. In Europe, the demise of Credit Suisse prompted the Swiss National Bank to provide $100 billion of liquidity to UBS to facilitate the purchase of Credit Suisse. What I find fascinating is that the Fed and five other central banks (Bank of Canada, Bank of England, Bank of Japan, ECB, and the Swiss National Bank) orchestrated a U.S. dollar liquidity swap line program to provide U.S. dollar funding to banks should they need it. Basically, these country's central banks can easily borrow money from each other should a financial panic occur. It shows the interdependence of these economies, and it also demonstrates an important alliance with commitment to a stable global economy. And I'll end on that happy note.

Tatiana Bailey, Ph.D. & Rebecca Wilder, MBA

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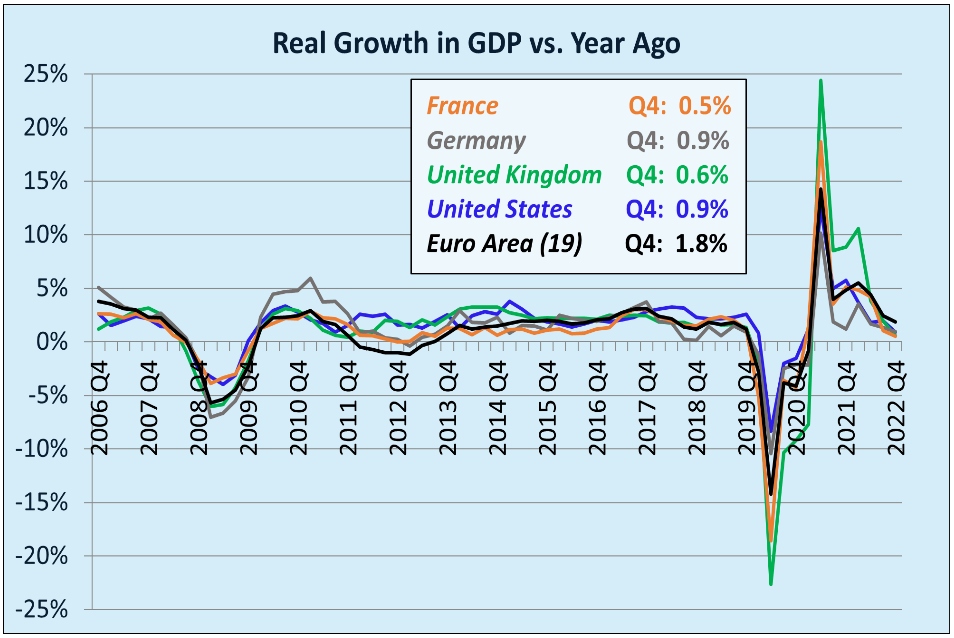
MACROECONOMIC "BIG PICTURE" (PAGE 3)



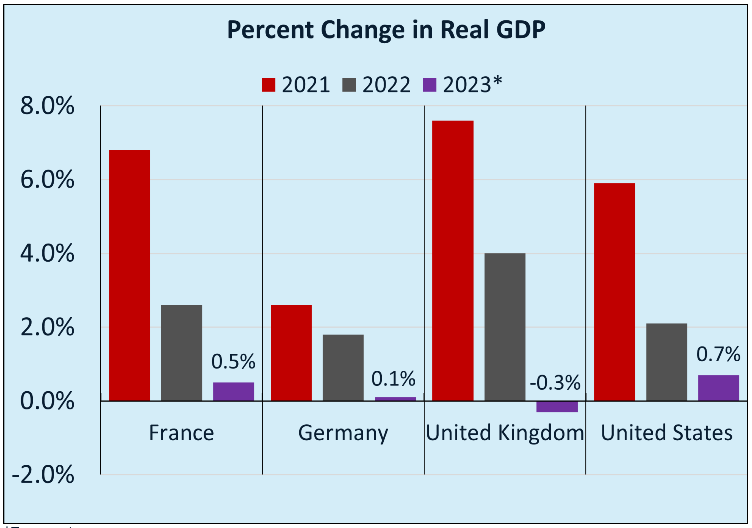
Real data is inflation adjusted. Graph is estimate of real GDP percent change from same quarter a year ago, SA. Graph and text box both show the latest data available from sources. Euro Area includes 19 out of the 20 countries that use the euro as their currency.
Sources: Eurostat; U.K. Office for National Statistics; U.S. Bureau of Economic Analysis.

Business Confidence Index March 2023	
France	100.7
Germany	100.9
United Kingdom	100.1
United States	98.9

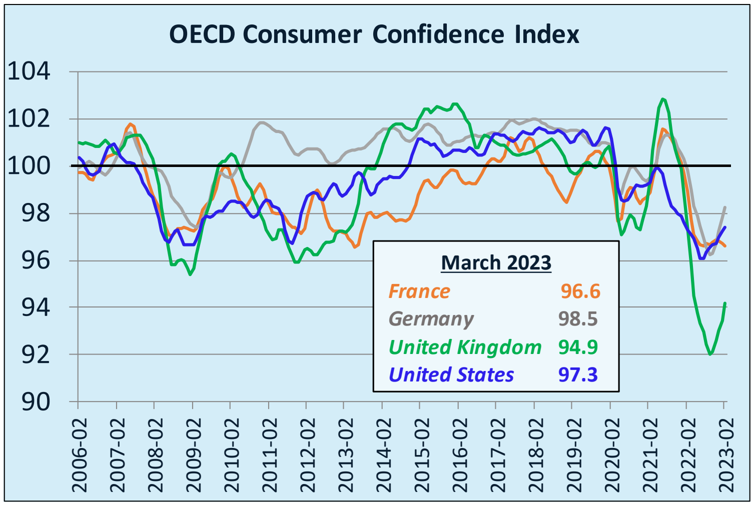
The Business Confidence Survey inquires about production levels, orders and stocks of finished goods. It serves as an overall measure of output growth. **Numbers above 100 suggest increased confidence in near future business performance, below 100 indicate pessimism.**
Source: Organization for Economic Co-operation & Development (OECD).

Consumer Price Indices March 2023, NSA Year-over-Year	
France	5.6%
Germany	7.4%
United Kingdom*	10.4%
United States*	6.0%

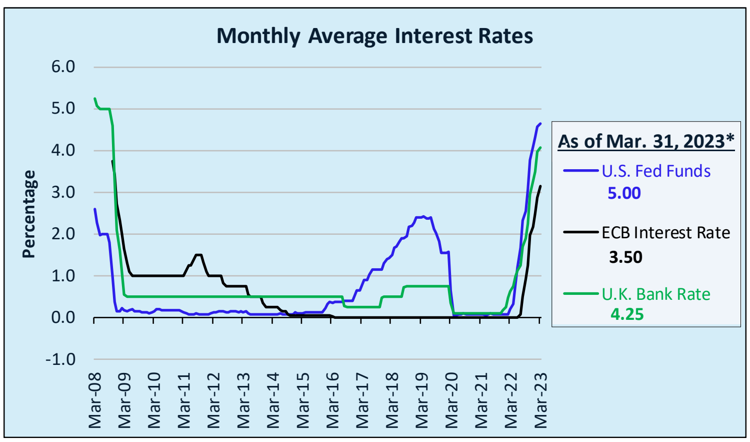
*U.K. and U.S. data lags and is still February 2023.
Sources: French National Institute of Statistics & Economic Studies; Federal Statistical Office of Germany; U.K. Office of National Statistics; U.S. Bureau of Labor Statistics.



*Forecasts
Source: The Conference Board, Global Economic Outlook, March 2023.



An indicator above 100 signals a boost in consumers' confidence. This index measures sentiment about the general economic situation, unemployment, and capability of savings.
Source: Organization for Economic Co-operation & Development (OECD).



*The textbox reflects the latest interest rate hikes.
Sources: Bank of England; U.S. Board of Governors of the Federal Reserve System; European Central Bank.

Producer Price Indices, NSA		
	Dec. '22 to Jan. '23	Jan. '22 to Jan. '23
Euro Area (20)	-1.7%	12.5%
United States	0.8%	5.5%

PPI for the Euro Area includes domestic and non-domestic markets for the 20 countries that use the euro as their currency.
Sources: Eurostat; U.S. Bureau of Labor Statistics.

Purchasing-Managers Indices March 2023	
	Composite PMI™
France	52.7
Germany	52.6
United Kingdom	52.2
United States	52.3

Above 50 is expanding and below 50 is contracting. The Composite PMI™ is a combination of the Manufacturing Index and the Services Index.
Source: S&P Global Market Intelligence.

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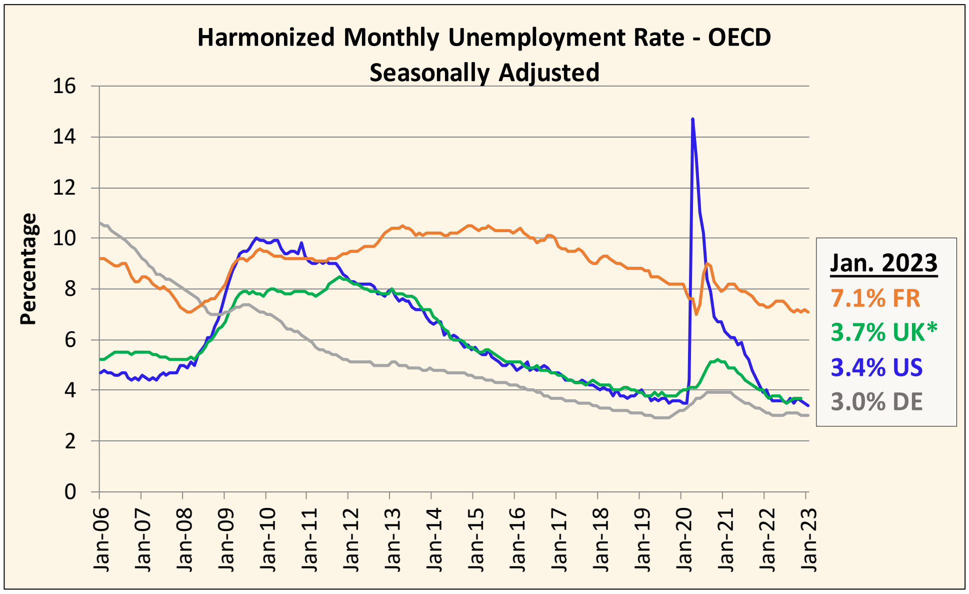
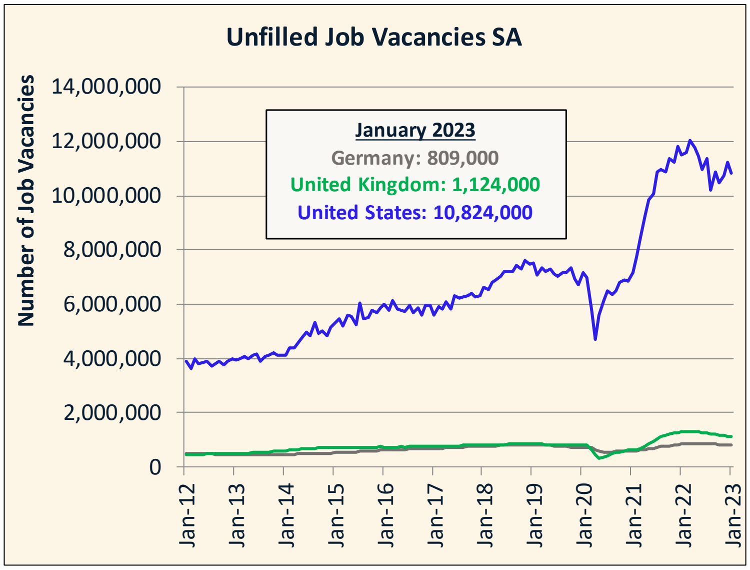
LABOR MARKET (PAGE 4)



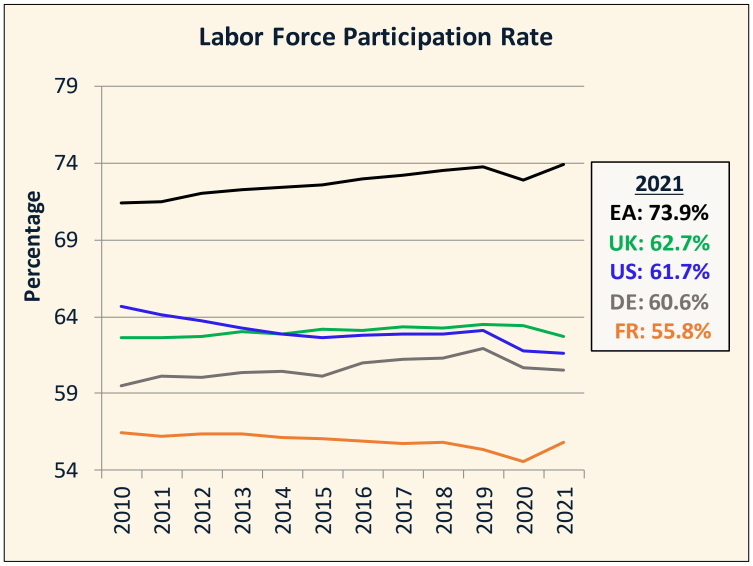
Data is "harmonized" by the OECD so that all countries are following the same methodology. This enables data to be comparable between countries.
*Latest harmonized U.K. unemployment rate available is for November 2022.
DE is the abbreviation for Germany (Deutschland).
Source: Organization for Economic Co-operation and Development (OECD).

Most Recent Available Unemployment Rates Not Harmonized		
	Most Recent Month Available	Unemployment Rate
France*	December 2022	7.2%
Germany	March 2023	5.6%
United Kingdom	January 2023	3.7%
United States	March 2023	3.5%

*Official French unemployment rate is released on a quarterly basis.
Sources: French National Institute of Statistics & Economic Studies; Federal Statistical Office of Germany; U.K. Office of National Statistics; U.S. Bureau of Labor Statistics.



Note: Data for France is not available.
Source: OECD.Stat.



Euro Area (EA) data in this graph is for 19 out of the 20 countries that use the euro as their currency.
Source: OECD.Stat.

Prime Working Age (Ages 25 - 64) in 2021		
	# of People	% Change in Last Decade
France	31,970,710	-2.7%
Germany	44,903,090	0.6%
United Kingdom	34,888,823	4.4%
United States	175,246,604	5.5%

Source: United Nations, Department of Economic & Social Affairs, Population Division (2022).

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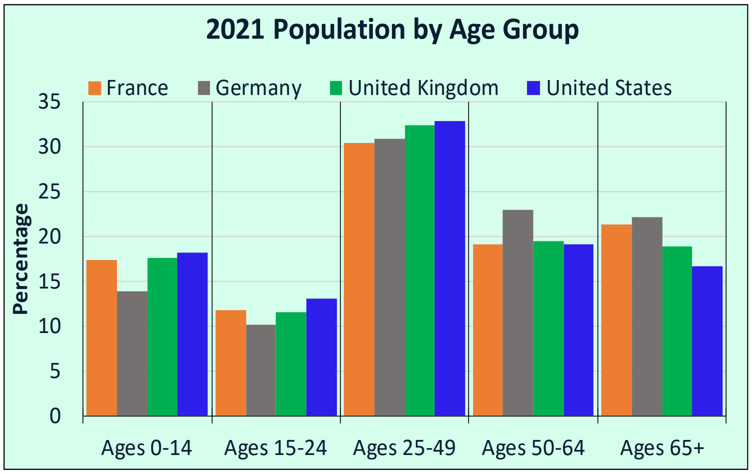
DEMOGRAPHICS (PAGE 5)

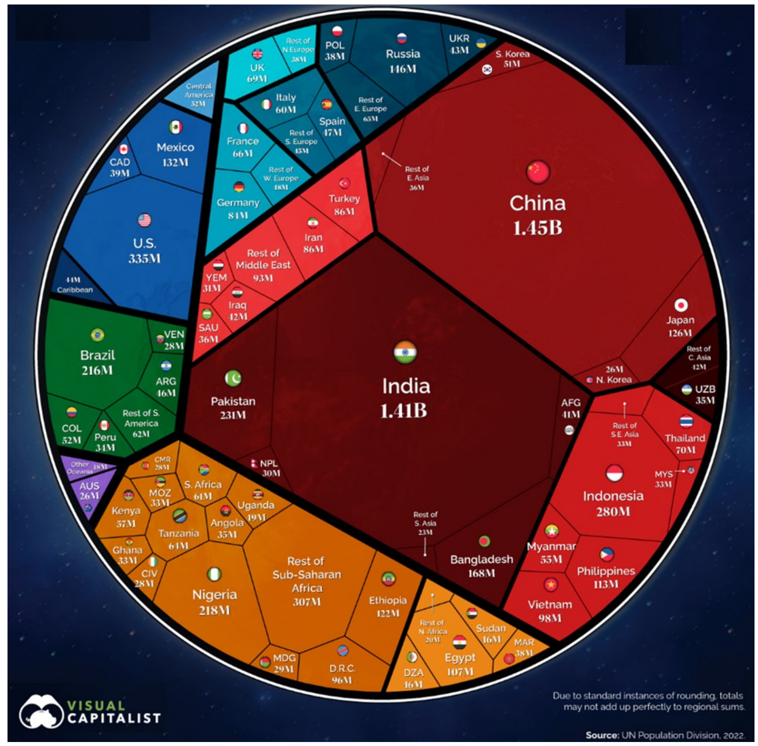


Source: United Nations, Department of Economic and Social Affairs, Population Division (2022).

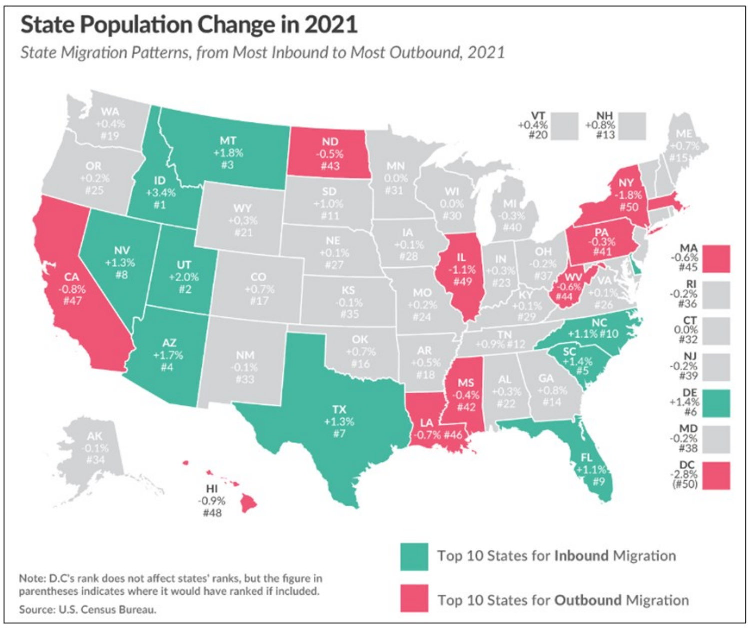
Population Estimates			
	2021	2031	% Change
France	64,531,444	65,638,631	1.7%
Germany	83,408,555	82,643,647	-0.9%
United Kingdom	67,281,040	69,351,743	3.1%
United States	336,997,624	353,802,974	5.0%

Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition.

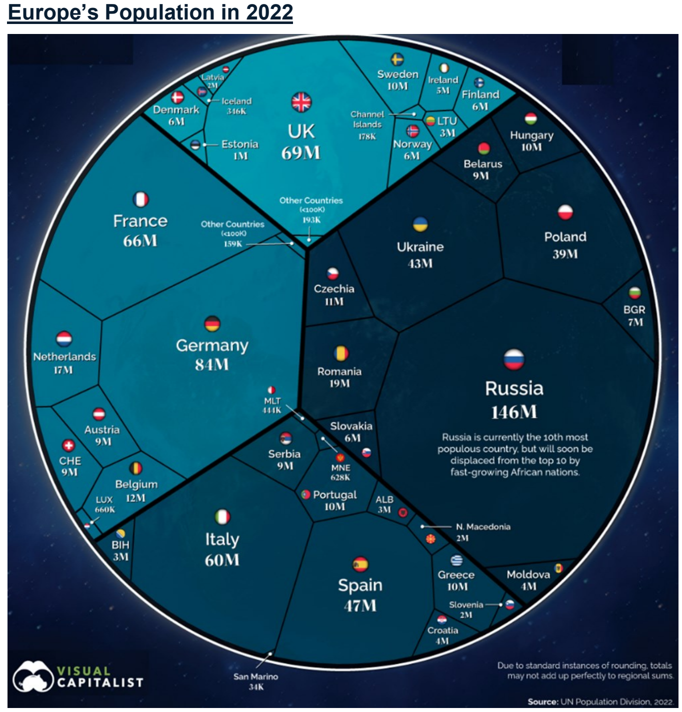
World Population in 2022



Around November 2022, the world population reached 8 billion people.

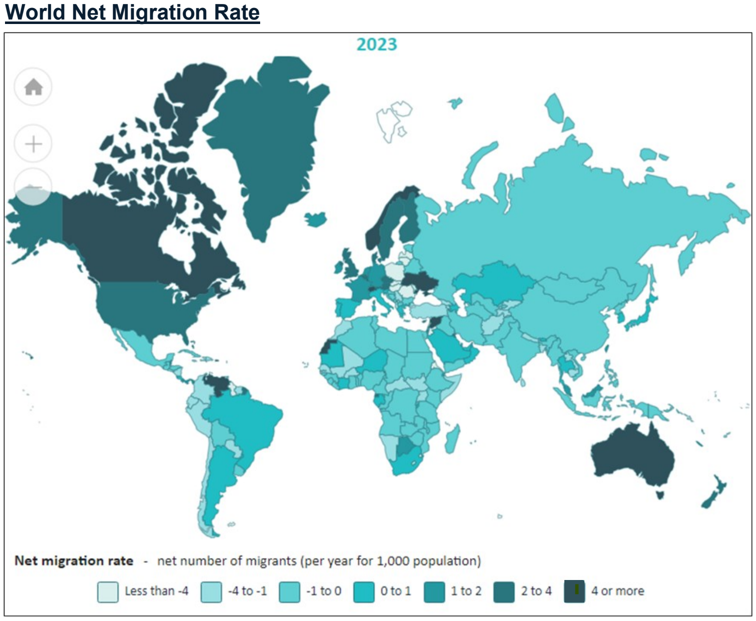


Europe's Population in 2022



Around November 2022, Europe's population reached 750 million people.
Source: Visual Capitalist.
Link: https://www.visualcapitalist.com/visualized-the-worlds-population-at-8-billion/

World Net Migration Rate



Design: Gilles Pison, Hélène Mathian, Christine Plumejeaud, Jérôme Gensel, the INED web team; Production: Opixido; Source: UN Population Division, 2022.
Link: https://www.ined.fr/en/everything_about_population/graphs-maps/world-maps-interactiv/

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