

Don't trust the numbers



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Mathematics never lies, but our ability to interpret mathematical concepts accurately and honestly is at times limited. Blame our faulty, imperfect, imprecise, biased human brains! Numbers can say a lot and nothing, or sometimes can be well-trained puppets that speak just like the ventriloquist. Numbers should never be trusted blindly: challenge them, poke them with a stick and make sure you fully understand them before drawing any conclusion.

There are many examples of people not using numbers as they should.

Firstly, often people confuse "random" with "chaotic". "Random" is something that is impossible to predict with absolute certainty, because it follows probabilistic laws, whilst "chaotic" is something that is so complex it appears random whilst being actually described by fully deterministic laws. A coin toss is random, because

even in an ideal setting and no external interaction, you can't know for sure whether it will be heads or tails, but you know that there is 50% probability of one and 50% of the other. However, a person tossing a coin in the real world is a chaotic, yet fully deterministic process, where in fact you can predict with 100% accuracy whether it will be heads or tails based on the force applied by the thumb to the coin, the friction with the air, the weather conditions etc... but since we can't measure with enough accuracy all these starting conditions, we can't forecast with enough accuracy the result, thus ending up treating a real-life coin toss as a random event. This inability to distinguish between random and chaotic, damages our forecasting capabilities.

And even when faced with actual randomness, people sometimes distort probabilities with perceptions. For instance, if I asked a room full of people what the chance is of extracting the number 6 at the national lottery (assume 1 to 90), after having extracted 1, 2, 3, 4 and 5, I'm sure most would tell me "It's impossible, 1-2-3-4-5-6 is too unusual a combination", or some might think "It's rigged". Well, actually, the probability is $1/(90-5)$, and the probability of the numbers extracted being 1-2-3-4-5-6 is exactly the same as six more "apparently random" like 3-14-31-60-67-84, which by the way is $(6*5*4*3*2*1)/(90*89*88*87*86*85) = 0.00000016\%$.

Another (and unfortunately not the last) commonly observed mathematical "lie" is also known as data mining, the beautiful art of cherry-picking data until it says exactly what you want it to say. An application of confirmation bias (i.e. attributing more weight to data, confirming our theory rather than disproving it), data mining attracts practitioners with its low p-values and high expected returns, then kills them with its unimplementability. Have you ever read a research paper bragging about a great investment strategy that goes something like "If you had bought stocks when their 23-days moving average was 1.5x higher than the 45.7-days trimmed mean, then you would have returned +100000% over the last 10 years"? Well guess what, run the same strategy using the 22.9-days moving average and suddenly it's only noise.

The investment world is full of these mathematical "lies" and it takes a lot of experience and focus to avoid the traps these present. Luckily, at Momentum Global Investment Management we have a team of skilled, well-rounded investors that know what to look for, that constantly challenge each other's and third parties' views and never (ever) put blind faith in anyone. We take numbers for what they are: a quantified view, a metric that was structured and described by a (sometimes random, but more often chaotic) human mind.

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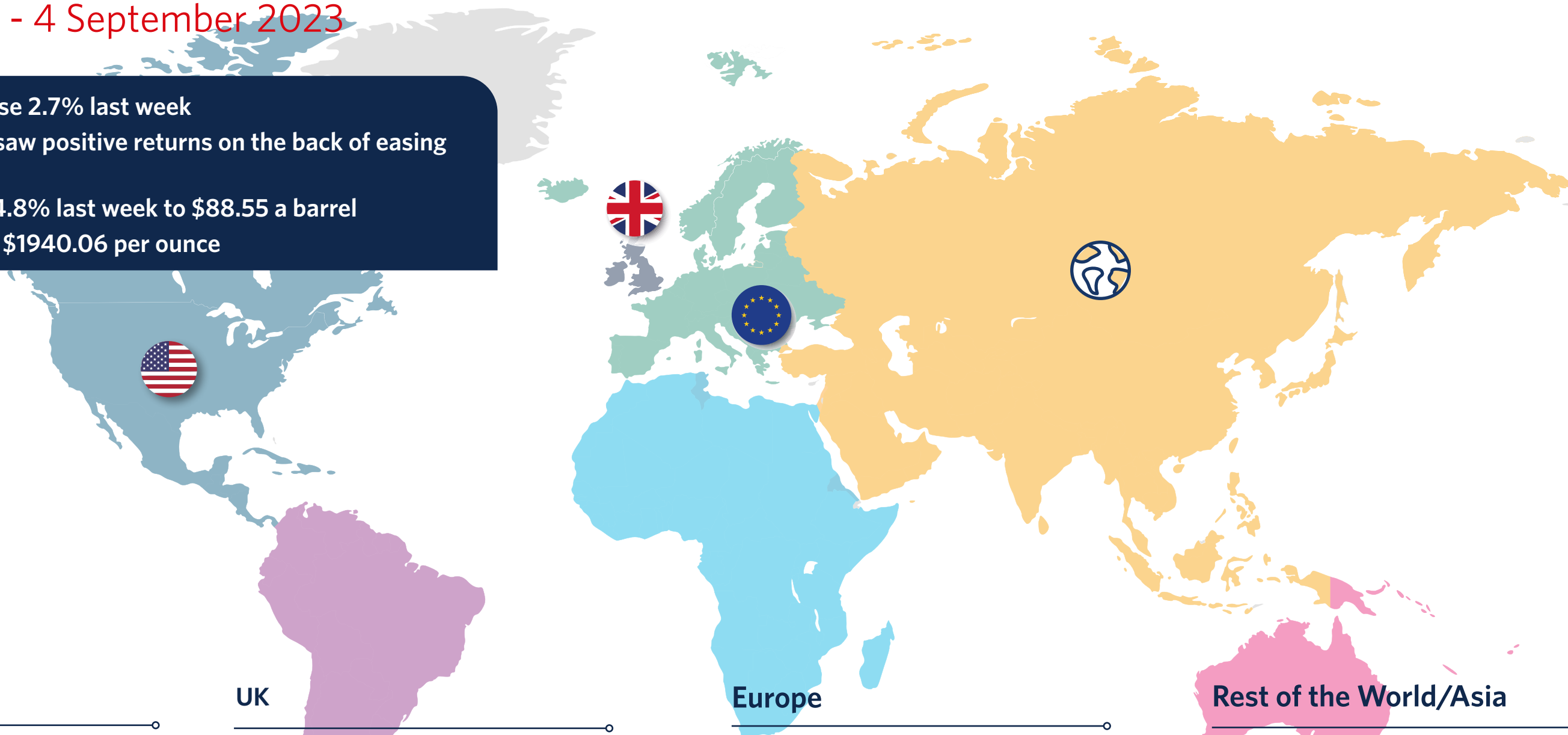


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Market Focus - 4 September 2023

- » Global equities rose 2.7% last week
- » All major indices saw positive returns on the back of easing inflation fears
- » Brent crude rose 4.8% last week to \$88.55 a barrel
- » Gold rose 1.3% to \$1940.06 per ounce



US

- » US equities rose 2.5% last week
- » The nonfarm payrolls report appeared to confirm loosening labour market conditions with 187,000 jobs posted in August, above consensus expectations
- » Atlanta Federal Reserve Bank President Raphael Bostic appeared to give sentiment a boost on Thursday, telling a conference in South Africa that he believed the current level of interest rates was “appropriately restrictive” and on track to bring down the inflation rate to the Fed’s target of around 2.0%

UK

- » UK equities rose 1.8% last week
- » Chancellor Jeremy Hunt says the UK government is still on track to achieve its pledge to halve record inflation this year and will “spend what it takes” to fix the nation’s crumbling schools
- » The UK and Tata Steel are coming closer to agreeing an aid package that would see the government provide approximately £500 million of public funding to the Indian company’s British business

Europe

- » European equities rose 1.3% last week on hopes that interest rates would soon peak and that a recession, while possible, would likely prove to be shallow and short-lived
- » European government bond yields edged lower as core inflation data and comments from policymakers suggested that the European Central Bank (ECB) could be nearing the end of its monetary policy tightening cycle
- » The annual inflation rate in the eurozone was steady at 5.3% in August

Rest of the World/Asia

- » Global emerging market equities rose 1.5% last week
- » Japanese equities rose 3.7% last week
- » Chinese equities rose 3.0% last week
- » China rolled out further property support measures, the latest in an intensifying campaign to rescue the beleaguered sector that has been dragging down the economy
- » Asian stocks rose, led by mainland China, where a gauge of property shares jumped on optimism about stimulus measures

Market Summary - 4 September 2023

Cumulative returns					
Asset Class / Region	Currency	Week ending 1 September	Month to date	YTD 2023	12 months
Developed Markets Equities					
United States	USD	2.5%	0.2%	18.5%	15.2%
United Kingdom	GBP	1.8%	0.4%	2.6%	7.7%
Continental Europe	EUR	1.3%	-0.1%	11.9%	17.7%
Japan	JPY	3.7%	0.8%	26.0%	24.7%
Asia Pacific (ex Japan)	USD	2.4%	0.3%	2.6%	2.6%
Australia	AUD	2.7%	-0.3%	6.4%	10.7%
Global	USD	2.7%	0.1%	16.3%	16.5%
Emerging Markets Equities					
Emerging Europe	USD	1.5%	0.3%	22.3%	62.4%
Emerging Asia	USD	1.9%	0.6%	4.2%	2.3%
Emerging Latin America	USD	0.0%	1.0%	16.7%	19.4%
BRICs	USD	2.2%	0.7%	0.7%	-1.3%
China	USD	3.0%	0.4%	-4.3%	-5.7%
MENA countries	USD	0.1%	0.0%	3.1%	-8.4%
South Africa	USD	-0.4%	0.7%	-6.0%	4.1%
India	USD	0.8%	1.0%	8.3%	7.9%
Global emerging markets	USD	1.5%	0.5%	5.1%	3.7%
Bonds					
US Treasuries	USD	0.4%	-0.4%	0.5%	-1.7%
US Treasuries (inflation protected)	USD	0.0%	-0.5%	0.6%	-3.4%
US Corporate (investment grade)	USD	0.5%	-0.5%	2.4%	1.5%
US High Yield	USD	1.0%	0.0%	7.2%	7.7%
UK Gilts	GBP	0.3%	-0.6%	-3.8%	-9.1%
UK Corporate (investment grade)	GBP	0.5%	-0.2%	1.0%	-0.9%
Euro Government Bonds	EUR	0.3%	-0.5%	2.3%	-3.4%
Euro Corporate (investment grade)	EUR	0.3%	-0.2%	3.0%	1.0%
Euro High Yield	EUR	0.3%	0.0%	5.8%	7.1%
Japanese Government	JPY	0.3%	0.2%	0.5%	-2.4%
Australian Government	AUD	0.9%	0.1%	2.5%	1.7%
Global Government Bonds	USD	0.5%	-0.5%	-0.8%	-1.1%
Global Bonds	USD	0.6%	-0.5%	1.0%	0.7%
Global Convertible Bonds	USD	1.2%	0.0%	4.7%	4.5%
Emerging Market Bonds	USD	0.8%	-0.3%	3.4%	5.8%

Cumulative returns					
Asset Class / Region	Currency	Week ending 1 September	Month to date	YTD 2023	12 months
Property					
US Property Securities	USD	1.8%	0.0%	4.4%	-4.0%
Australian Property Securities	AUD	1.8%	-0.9%	6.3%	2.9%
Asia Property Securities	USD	2.7%	0.4%	-7.5%	-6.6%
Global Property Securities	USD	2.0%	-0.1%	1.8%	-3.4%
Currencies					
Euro	USD	-0.1%	-0.5%	0.7%	8.5%
UK Pound Sterling	USD	0.1%	-0.6%	4.1%	9.1%
Japanese Yen	USD	0.1%	-0.5%	-10.4%	-4.2%
Australian Dollar	USD	0.7%	-0.3%	-5.4%	-4.8%
South African Rand	USD	-1.1%	0.4%	-9.5%	-8.0%
Swiss Franc	USD	0.0%	-0.3%	4.1%	11.0%
Chinese Yuan	USD	0.3%	-0.1%	-5.1%	-5.0%
Commodities & Alternatives					
Commodities	USD	2.3%	0.9%	1.4%	1.9%
Agricultural Commodities	USD	0.0%	0.4%	4.2%	5.6%
Oil	USD	4.8%	1.9%	3.1%	-4.1%
Gold	USD	1.3%	-0.1%	6.4%	14.5%

Source: Bloomberg Finance L.P. Past performance is not indicative of future returns.

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