The Ghost In The Machine

Q2 EDITION 2026

ADM

ADM Investor Services International Limited

EDITOR'S NOTE

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Central Banks, Inflation, Growth, Shipping, Safety, Security, Disruption, Liquidity, Grains, Fertilizers, NatGas, Baltic, Foreign Exchange, AI, Digital Transformation, Sugar, El Niño, Biofuels, Mandates

Welcome to the Q2 2026 edition of the Ghost In The Machine, as uncertainty about the long-term consequences of the conflicts in the Middle East contends with optimism about an AI-related investment boom.

The closure of the Strait of Hormuz has resulted in many seafarers being stuck on board ships in the Persian Gulf for many months, once again raising concerns about safety. We take an in-depth look at the history of safety improvements and the now emergent risks related to geopolitical instability and the adoption of alternative fuels in the context of the energy transition.

The vulnerability of fertilizer feedstocks to disruptions to gas output and vital by-products such as ammonia, nitrogen and sulphur has again been exposed, as it was after Russia's invasion of Ukraine, serving as a timely reminder about interconnectivity in the resources sector.

Those disruptions to energy supplies and accompanying price pressures are also going to be a test for central bank credibility, particularly in judging the extent of second round price effects and the need to tighten policy.

Sugar prices have traded in a relatively narrow range, but the outlook is subject to a complex mix of weather effects in India and elsewhere, the outlook for ethanol demand for both sugar and corn, above all in EM countries which are heavily dependent on energy imports.

There is also a look at the impact of the gyrations of EUR/USD on Baltic grain farmers, even if they are only exporting to the Eurozone, given competition from Black Sea farmers pricing in USD.

Investment in AI and Digital technology is rapidly transforming commodity and energy trading, but despite heavy investment, there are a number of pitfalls that need to be considered.

Finally, we consider financial market liquidity in the context of the pros and cons of innovations over the past few decades.

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THE GHOST IN THE MACHINE

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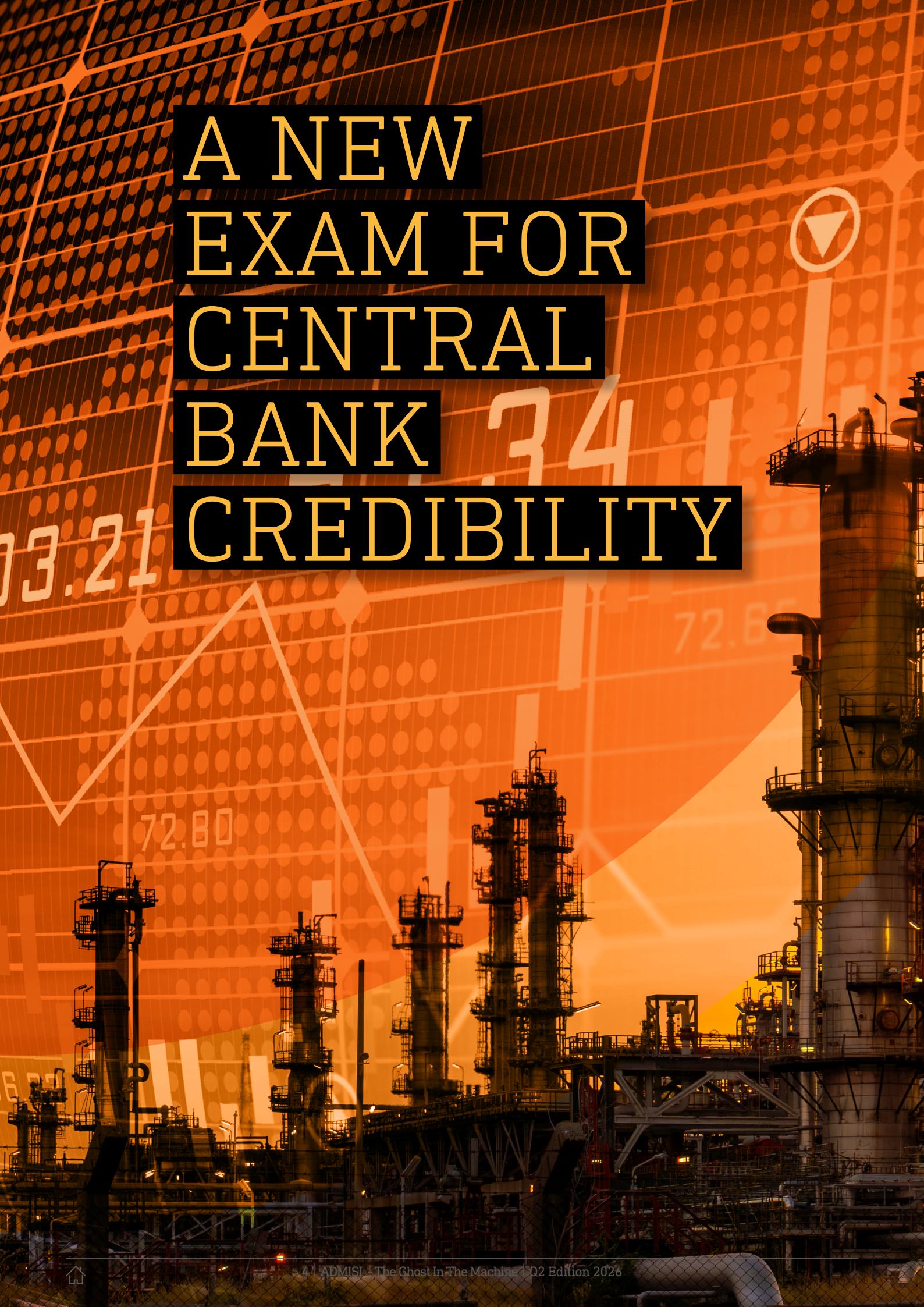
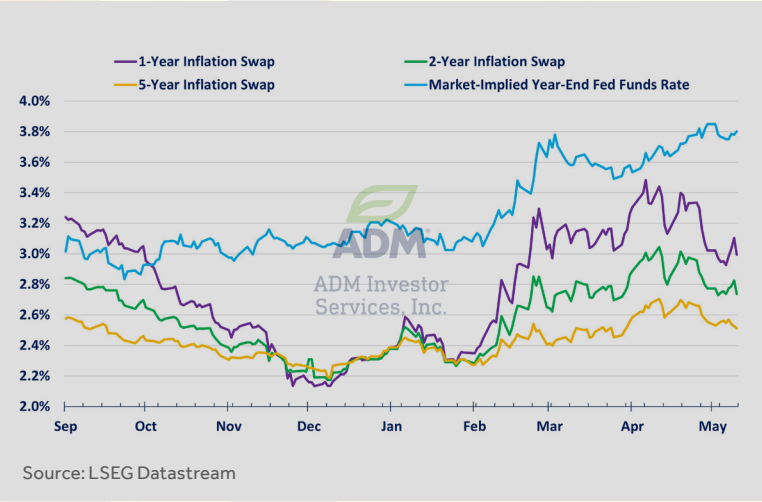
A NEW EXAM FOR CENTRAL BANK CREDIBILITY



Roughly five years ago, inflation around the globe began surging as a result of the pandemic, and policymakers at the Federal Reserve wrongly believed that it would prove transitory.

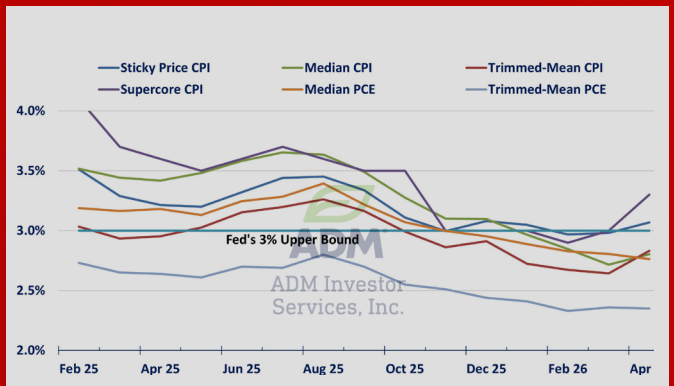
Now, with the closure of the Strait of Hormuz and the ensuing surge in energy prices, policymakers at central banks across the globe face a new challenge: how to avoid repeating the same mistake. The 2026 Iran war has created "the largest geopolitical oil supply disruption in history," according to research from the Federal Reserve Bank of Dallas, between two and three times larger than the 1973 Arab-Israeli War or the 1990 Gulf War. Hundreds of oil tankers are effectively stranded in the Persian Gulf. Countries like Iraq, Kuwait and Saudi Arabia have been forced to curtail production because oil cannot be stored or exported. The baseline disruption removes close to 20% of global oil supplies from the market, driving WTI crude from around $60 pre-war to roughly $90 in March and peaking near $110. Elevated fuel and transportation costs raise production expenses across a wide range of sectors. While firms may absorb temporary cost shocks, persistent increases are more likely to change pricing behavior, with companies eventually passing costs through to consumers.[1]



Source: LSEG Datastream

That dynamic exposes central banks to a new credibility test just as memories of their last error are still fresh. If they downplay this energy shock as another temporary blip and inflation proves more persistent, they risk further eroding public confidence in their ability to deliver price stability. Yet reacting too aggressively by raising rates sharply into an energy-driven cost shock, risks compounding the pain for households and firms already squeezed by higher gasoline, heating and other commodity prices. In other words, the war forces central banks to balance the need to keep inflation expectations anchored against the danger of inflicting unnecessary damage on growth and employment.

> *...PERSISTENT INCREASES ARE MORE LIKELY TO CHANGE PRICING BEHAVIOR, WITH COMPANIES EVENTUALLY PASSING COSTS THROUGH TO CONSUMERS.*



Source: Federal Reserve Banks of Atlanta, Dallas and Cleveland, U.S. Bureau of Labor Statistics

> *WHILE THIS EPISODE IS NOT THE SAME AS THE OIL SHOCK OF THE 1970S, CENTRAL BANKS FACE A SIMILAR CHALLENGE.*

Dallas Fed's base case assumes oil near $100 a barrel for the rest of the year, which would result in a 0.5% reduction to U.S. gross domestic product

The Dallas Fed's baseline forecast illustrates the scale of that trade-off but also its limits. With the current observed shortfall in global oil supplies, they projected that WTI will average about $94 in April–May and stay above $80 throughout 2026. Under this scenario, U.S. headline PCE inflation in 2026 rises about 0.6% on a fourth-quarter-over-fourth-quarter basis, while core PCE increases by roughly 0.2%.[2] Given oil's central role in modern economies, the shock is increasingly being viewed as an energy-wide disturbance rather than a simple oil story. Bank of America describes the "war dividend" as mild stagflation and highlights that the world is now more sensitive to natural gas and fertilizer prices, particularly in Europe and emerging markets. Their base case assumes oil near $100 a barrel for the rest of the year, which would result in a 0.5% reduction to U.S. gross domestic product, to 2.3% while pushing U.S. headline inflation from 2.8% to 3.6%. Globally, they expect GDP growth to slow to around 3.1% and inflation to edge up toward 3.3%.[3]

Scenarios, expectations, and credibility

The Dallas Fed's baseline scenario assumes that the current, observed shortfall in oil supply persists but does not get any worse. Put simply, the first-round inflation effects are noticeable but not catastrophic, and core inflation remains relatively stable and only modestly above target. Extend the closure to three quarters, the peak WTI price approaches the mid-$160s and the inflation surge roughly doubles, with headline rising by about 1.5% and core by nearly half a percent. A longer disruption does not just add inflation, it materially changes the nature of the shock.

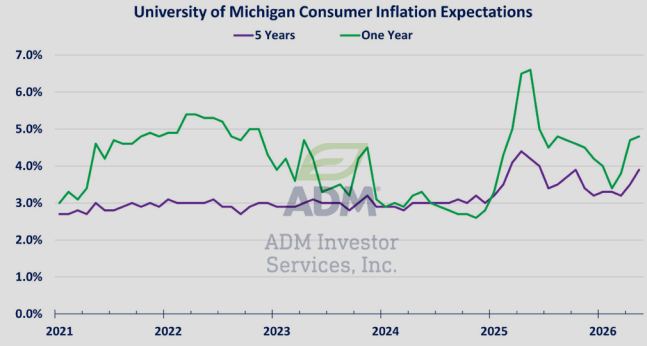
In the Dallas Fed's baseline work, one-year inflation expectations move only modestly and long-run expectations barely budge, implying that the shock remains painful but broadly manageable so long as credibility holds. But recent survey evidence is less reassuring. The University of Michigan's latest consumer survey shows one-year inflation expectations rising to 4.8% in May from 3.4% in February, while longer-run expectations rose to 3.9% from 3.5% in April, while consumer sentiment fell sharply.[4] Similar modelling from Scotiabank reaches the same conclusion: with expectations anchored, a $100/bbl oil shock can largely be looked through, but once credibility starts to slip, the same energy profile produces a much more persistent inflation and requires materially tighter policy to restore the target.[5] The latter is therefore not just about how long the war lasts, but about whether central banks can keep the inflation process anchored while it plays out.

Credibility Lessons from History

History suggests that the key issue in episodes like this are not simply the size of the shock, but whether the public sees the central bank's response as a policy mistake. A long-run study of central bank credibility across advanced economies from the National Bureau of Economic Research finds that credibility shifts can be large, but they are not necessarily tied to the magnitude of shocks. Instead, credibility tends to be damaged when shocks are perceived as policy errors.[6] Since oil is an

input into almost every aspect of the economy, oil price shocks prove to be particularly dangerous in this respect.

The 1970s provide one of the clearest examples. In many countries, central banks put too much weight on realizing economic goals and let inflation run higher in the name of growth and employment, effectively accommodating oil shocks. Unsurprisingly, credibility eroded as the public stopped believing that price stability was a priority for central banks. By contrast, the Bundesbank and the Swiss National Bank acted swiftly on inflation and kept core inflation well below what the U.S. and U.K. were experiencing. As a byproduct of their actions, they built reputations that allowed them more flexibility in later crises. Paul Volcker's disinflation in the early 1980s, often described as "shock therapy," underlined the costs of letting credibility slip too far: once credibility is badly eroded, restoring it may require economic pain.



Source: University of Michigan

Policy implications

While this episode is not the same as the oil shock of the 1970s, central banks face a similar challenge. If they lean too heavily on the idea that this is just another temporary supply shock, they risk repeating the transitory mistake and allowing inflation expectations to drift higher. But if they tighten too aggressively into an energy-driven shock, they risk deepening the hit to real incomes, investment, and employment when growth is already weakening.

Passing the test will require a more careful balance. That means being explicit that higher energy prices will not be allowed to feed into long-run inflation, while focusing decisions on measures of underlying inflation and expectations rather than chasing every move in oil. That may be why Kevin Warsh wants the Fed to pay greater attention to measures such as trimmed-mean inflation, arguing that policymakers should focus on the underlying trend rather than one-time changes driven by geopolitics. But that strategy will only work if the public believes it reflects discipline rather than another excuse to delay action. In that sense, the Iran war is not just an energy shock. It is a live test of whether central banks can rebuild trust while managing the trade-off between inflation and growth.

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FOR FERTILISERS THIS YEAR... THE KEY WORD IS GAS!

I suspect this may well be an understatement

This all started, with the Strait of Hormuz...but that is going too far back. This all really started for me at the end of May, when attending & taking part in Commodity Trading Week Europe ('CTW') in London. It grew further more recently, when talking & taking part in a panel session at the International Grains Forum ('IGF') in Novi Sad in Serbia. At CTW, a key theme for the event is established early on when Ben Hilary, the MD of the host – Commodities People, asked the audience to just type & send one word to show what commodities meant to each of us. For the last few years, definitely for 2025, it had been...Oil! However, this year, a new word emerged...Gas...and I think it is a real and very strong concern, especially after the end of May.

> *...IT MAY NOT NECESSARILY BE THE 'SPOT' PRICE THAT IS THE KEY FOR ALL PURCHASES...BUT THE PURCHASING WINDOW.*

A CHOKEPOINT WITH GLOBAL CONSEQUENCES

You see, it is estimated approximately 800,000 MT of fertilisers & precursors are removed from the market each month the Strait of Hormuz are closed [1]. To give you an idea of the impact, News Nation's Brooke Shafer of the U.S. summed it up well when he said *'...it's not just 20% of the world's oil that travels through the Strait of Hormuz – it's fertilizer, too. About one-third of the world's fertilizer travels through the Strait, according to the United Nations. That includes nitrogen fertilizers, which require liquified gas, and phosphate fertilizers, made from urea, ammonia and sulphur. Fertilizers are paramount to producing wheat, fruit, corn, rice and more'* [2]. Added to this, Bloomberg's Julian Luk & James Attwood reported that '*China has indicated it will halt exports of sulphuric acid from May, hitting metals and fertilizer industries already strained by raw material bottlenecks resulting from the Iran war.'* [2]. Luk further added that *'The region produces one third of the world's sulphur, a raw material used to make sulphuric acid that's essential for some copper extraction and phosphate fertilizers'* [2]. An example of the impact this has had on fertilizer prices and on the willingness of buyers to pay up was the tender India made via Indian Potash Ltd. in late April of a record 2,500,000 MT of urea in a single tender at nearly double the price (1.5mm MT at USD

> *NATURAL GAS IS THE KEY!*

935 & 1.0mm MT at USD 959 per MT) than what they paid only 2 months prior (USD 508 & USD 512 per MT). Some offers in the tender were even in the USD 1,000 area with some as high as USD 1,136 per MT [3]. This is the background to the situation...but there are other things to consider.

COMPARISON MADE

In a comparison made by the Agricultural Risk Policy Center of the North Dakota State University in late March [3] on the effects of both the start and early peak of the Russo-Ukrainian when compared to the pre-closure to post-closure of the Strait, they found the following details.

Back in 2022, Wheat (HRW) rose 73.8%, Corn 34.4%, Soybeans 26.5% & Soybean Oil 49.8%. In mid-March this year, the same rose 5.9%, 3.6%, -0.1% & 7.5% respectively. Fertiliser prices in 2022 rose for Urea 40.8%, DAP 39.5%, MAP 33.7% & Potash 19.4% whilst in mid-March this year they rose 28.2%, 2.6%, 1.5% & 0.8%. From this we can see agricultural prices have increased...but not as fast as some fertiliser prices, especially the rise in Urea, though some other fertilisers, especially Potash, have been somewhat shielded from this.

This is not a uniform example, as it just deals with U.S.A. destinations... but it does give an idea of some of the issues. Now, for most of the Northern Hemisphere, this will now be a 'wait-and-see' situation as the use of fertilisers is now effectively over and most will now be watching for the 2027 season. However, Brazil is now entering their winter season and will soon be looking at fertiliser prices with some, possibly great, concern. The immediate decision window for Brazil is finishing for Soybeans and will soon be starting for corn...between July – November 2026 [5]. Additionally, Brazil imports between 90 – 99% of its fertilisers, mainly from Russia & China [5]. Thus, it may not necessarily be the 'spot' price that is the key for all purchases...but the purchasing window.

SIGNIFICANT POINT

This leads to another point...and a significant one! The damage done to LPG facilities and also to fertiliser plants in the whole Gulf during the Iran War. It is somewhat unclear how bad the damage during the conflict (until now) has been & the nations have been reticent in fully disclosing details. I suspect the damage may be a lot more than some optimistic reports & the turnaround to full production may take a lot longer than many envisage. I could be wrong...but I just think this is how these sort of situations play out, so please be prepared.

At the same time, new operations outside the Gulf utilising other feedstocks and energy sources are sprouting up, whether it be a farmer using spark technology, powered by solar panels on his farm to produce nitrogen from the air or as in the case of New Zealand, where a USD 1.77 billion project will be set up to produce urea from brown coal (lignite), enough to provide all the urea New Zealand needs locally [6].

POSSIBILITY OF PRICES CHASING POTENTIALLY LIMITED SUPPLIES OF FERTILISER

This brings me back to my original concerns prompted by CTW & IGF. Natural Gas is the key! The availability of this...or lack of suitable availability, has an immediate & lasting effect on fertiliser prices right at the Southern Hemisphere growing season. There will likely be knock on effects in possibly lower yields & potentially still higher prices. However, many in the Northern Hemisphere, as I said earlier, will likely wait it out to see if prices can return to lower levels within their 'window', maybe as late as the turn of 2026 into 2027. This is a risky strategy, with the possibility of prices chasing potentially limited supplies of fertiliser, all at the same time...but then...what choice do many of the users have. As Rabobank's semi-annual fertiliser outlook stated ***'Overall, the fertilizer market faces a prolonged period of tight supply, weak affordability, and heightened price risk. Even if geopolitical tensions ease, normalization will be slow. The outlook for 2026 points to continued pressure on farm economics and increased downside risks for global crop production and food price stability'*** [7]. I suspect this may well be an understatement.

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"...APPROXIMATELY 800,000 MT OF FERTILISERS & PRECURSORS ARE REMOVED FROM THE MARKET EACH MONTH, THE STRAIT OF HORMUZ IS CLOSED."

DRY BULK SAFETY:

Decades of progress — and new risks on the horizon

INTRODUCTION

The dry bulk industry has experienced a clear and remarkable reduction in fatal accidents over the past four decades. Between 1980 and 1999, 107 fatal accidents resulted in 1,128 fatalities. Since 2000, that figure has fallen to 76 fatal accidents and 455 fatalities.

This improvement reflects sustained efforts across the industry. Stronger regulations and firmer enforcement, advances in crew training, improved ship design, and ever-more robust classification rules have all played a decisive role. More recently, rapid developments in digitalization, onboard monitoring, and communication systems will all help further enhance safety at sea as well as ship and fleet performance.

However, new risks are emerging. Increasing geopolitical instability has exposed seafarers to heightened war-related threats. At the same time, the rapid uptake of alternative fuels, combined with limited operational experience and evolving training frameworks, introduces fresh technical and human challenges. These developments form new clouds on the safety horizon.

MEASURING FATALITIES

The decline in fatal incidents must be assessed against the backdrop of substantial fleet growth and increased transport volumes. Within the fleet segment considered in this analysis — bulk carriers of 20,000 dwt and above — shipyears increased markedly over the period under review. In 2000, there were just over 4,600 bulk carriers of 20,000 DWT or more in operation. By the end of 2024, the fleet exceeded 12,000 vessels. Meanwhile, the volumes transported by these vessels have also grown significantly over the same period.

The industry has also operated through prolonged periods of depressed earnings, particularly during the 2010s. Financial stress can test operational resilience and, in some cases, lead to cost-cutting that affects safety margins.

For these reasons, Bureau Veritas considers fatalities per shipyear to be a more representative indicator of safety performance.

When assessed using this metric, the reduction in fatal accident recurrence is even more evident.

The Yasa Begonia
Image courtesy of Yasa Denizcilik and Bureau Veritas

SHIPYEARS

Shipyears are calculated by assessing the number of ships active in a given year. This approach normalizes fatality data against fleet size, allowing for a more meaningful evaluation of long-term trends.

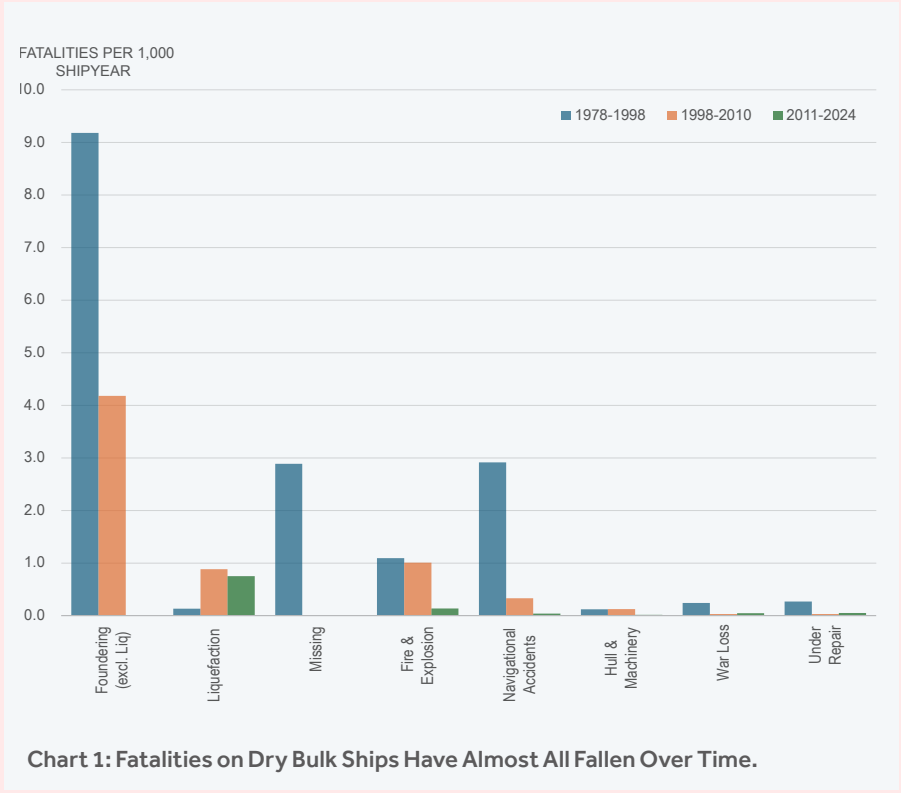

Chart 1: Fatalities on Dry Bulk Ships Have Almost All Fallen Over Time.

Source: Bureau Veritas

> *"THE DRY BULK INDUSTRY HAS EXPERIENCED A CLEAR AND REMARKABLE REDUCTION IN FATAL ACCIDENTS OVER THE PAST FOUR DECADES."*

SAFER SEAFARERS

Historically, the primary sources of fatalities in the dry bulk sector have been vessel foundering, fires & explosions and navigational accidents. Over time, these categories have declined markedly as a result of regulatory, structural, and operational improvements.

A first wave of reforms in the late 1990s addressed loading and unloading practices, structural safety requirements, and hatch cover integrity. The adoption of the Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code) in 1997, followed by SOLAS Chapter XII, introduced enhanced standards that directly reduced the risk of structural failure and water ingress.

In the mid-2000s, the implementation of the Common Structural Rules (CSR) by the International Association of Classification Societies (IACS) helped further strengthen vessel structural safety. These harmonized rules established a consistent baseline for structural strength, fatigue assessment over a typical 25-year design life, corrosion protection, and standardized cargo loading and ballasting conditions.

Image courtesy of Bureau Veritas

CASUALTY CATEGORIES	
Foundering	Vessel sinks due to flooding or loss of stability.
Liquefaction	Moisture-sensitive cargo behaves like a liquid, causing sudden stability failure and potential sinking.
Fire / Explosion	Fatalities resulting from onboard fire or explosion.
Navigational Accident	Collision, contact, or grounding incidents.
Hull / Machinery	Structural or machinery failure leading to fatal consequences.
Missing	Whole vessel missing or unaccounted for, with the ship and crew presumed lost.
War Loss	Fatality caused by armed conflict or weapon impact.
Under Repair	Fatal accident occurring while the vessel is in shipyard or repair.

While not exclusive to the dry bulk sector, these reforms had a transformative impact on bulk carrier safety. Fatalities linked to structural failures and operational shortcomings declined significantly.

The 2010s proved financially challenging for shipping, with sustained pressure on earnings across most sectors. Such conditions can strain safety culture. Nevertheless, the decade also saw important technological advances that further secured seafarers.

The widespread adoption of electronic chart display systems, satellite-based AIS positioning, integrated bridge systems, enhanced weather routing tools, and improved maritime distress and safety communications contributed to a reduction in groundings and collisions, while improving emergency response capabilities.

By the second half of the 2010s, major commercial vessel categories were registering fewer than five fatalities per 1,000 shipyears — a historic low.

The Hawk S
Image courtesy of Armador Gemi Isletmeciligi and Bureau Veritas

LIQUID ANOMALY

Despite this overall improvement, a notable statistical anomaly emerged during the 2010–2019 period. Cargo liquefaction accounted for nearly 90% of dry bulk-related fatalities during that decade, compared with approximately 1% in the preceding thirty years.

Liquefaction is a phenomenon in which certain dry bulk cargoes suddenly behave like a liquid when their moisture content exceeds safe limits and vessel motion reduces their shear strength. This can lead to rapid cargo shift, severe stability loss, and ultimately foundering.

Nickel ore cargoes, particularly from Indonesia, appear to have been central to this surge. Nickel ore is inherently prone to liquefaction when not properly tested, handled, or protected from excess moisture.

Two factors seem to have driven the trend: a surge in global demand for nickel ore and the availability of large Indonesian deposits. While stainless steel production remains the primary source of demand, battery manufacturing — especially for electric vehicles — significantly increased imports to China from the late 2000s onward.

Indonesia, home to some of the world's largest nickel reserves and located in close proximity to China, became a major supplier. The correlation between increased Indonesian shipments and liquefaction-related fatalities is striking. High humidity levels and, in some cases, suboptimal storage and loading conditions may have increased moisture risks.

In 2014, Indonesia introduced a ban on nickel ore exports to encourage domestic processing and higher value-added production. The ban was temporarily lifted between 2017 and 2019 before being reinstated. The timeline of exports closely mirrors the surge and subsequent decline in liquefaction-related fatalities.

Nevertheless, the risk has not disappeared. Nickel ore from any origin can present liquefaction hazards if moisture content and cargo handling procedures are not rigorously controlled. As recently as January this year, a Supramax vessel foundered in the South China Sea, likely taking six crew members with her, in an incident suspected to involve liquefaction of nickel ore from the Philippines.

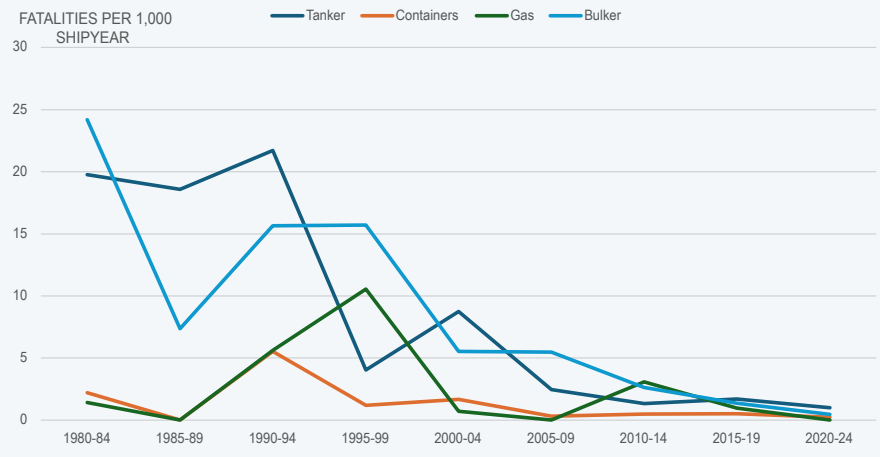

Chart 2: Fatalities per ship year.

Source: Bureau Veritas

WHERE DO WE STAND?

Overall, notwithstanding the liquefaction episode and temporary surges linked to specific trades, the dry bulk sector operates today in a significantly safer environment than in previous decades. Regulatory reform, structural standardization, improved operational procedures and digital technologies have materially reduced fatal accident recurrence.

Yet two emerging risk factors warrant close attention.

The first relates to the rapid development and deployment of alternative fuels such as ammonia, methanol, hydrogen, biofuels, and potentially nuclear propulsion. While likely to be essential to meet decarbonization objectives, these fuels introduce new technical hazards and operational complexities. Training standards, emergency procedures, and onboard experience are still developing. In safety management, accumulated operational knowledge is critical — and for many of these fuels, that experience remains limited. A good start has been the development of new class rules for new fuels but we also need to help ensure the broader operational and commercial context of decarbonized shipping is supporting safety.

The second concerns geopolitical instability. In certain regions, commercial vessels and their crews are increasingly exposed to armed conflict, missile strikes, and other security incidents. War-related losses, once marginal in safety statistics, are again becoming a material risk category.

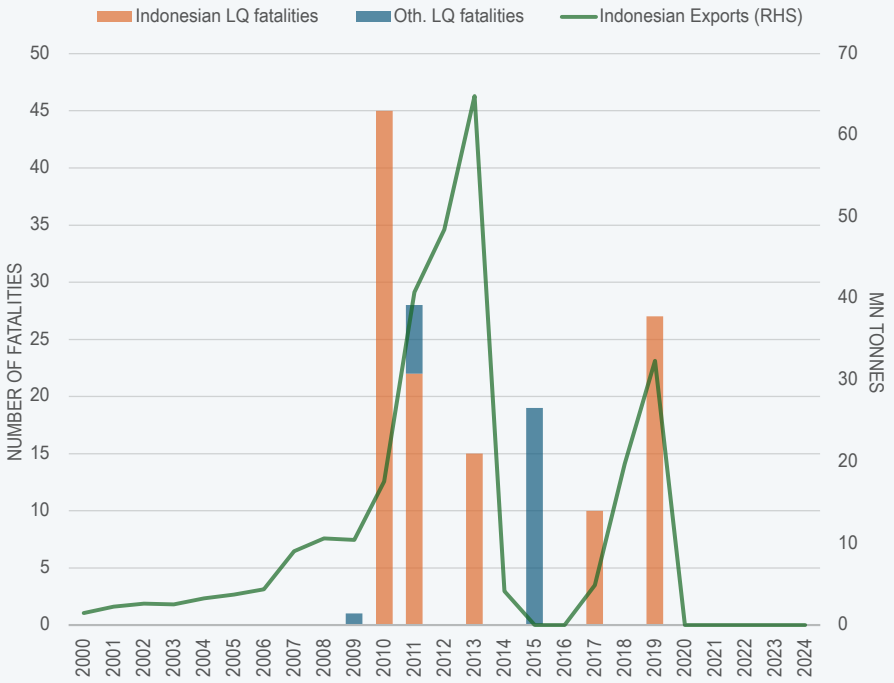

Chart 3: Dry Bulk fatalities from liquefaction.

Source: Bureau Veritas

The long-term safety trajectory of the dry bulk industry remains positive and demonstrable. However, sustaining this progress will require continued regulatory vigilance, technological robustness, and sustained investment in crew competence and training, particularly as the industry navigates decarbonization and geopolitical uncertainty.

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Image courtesy of Bureau Veritas

> *"REGULATORY REFORM, STRUCTURAL STANDARDIZATION, IMPROVED OPERATIONAL PROCEDURES AND DIGITAL TECHNOLOGIES HAVE MATERIALLY REDUCED FATAL ACCIDENT RECURRENCE."*

A STRONG EURO, A WEAK BARGAINING HAND

How EUR/USD quietly shapes the price received by Baltic grain farmers

The Baltic farmer sells wheat in euros. He pays wages in euros, rents land in euros, and talks to the local buyer in euros per tonne. On the surface, the transaction looks local. But one of the most important numbers behind that bid is not quoted in euros at all.

IT IS EUR/USD.

The world grain market still speaks dollars. Russian wheat is quoted in dollars per tonne. Chicago wheat is quoted in USD cents per bushel. Major importers compare offers across origins in dollar terms. Even European wheat, traded on MATIF in euros, must ultimately compete in a global market where many buyers think in dollars. For a farmer in Lithuania, Latvia, or Estonia, EUR/USD is not a distant financial-market abstraction. It is one of the hidden hands inside the farm-gate price.

The mechanism is simple. When the euro strengthens against the dollar, each euro of European wheat becomes more expensive for a dollar-based buyer. An exporter trying to sell Baltic or other EU wheat into the world market then faces a choice: accept lower margins, lose business to cheaper origins, or reduce the euro price offered upstream. Eventually, that pressure reaches the farmer.

The Lithuanian data put numbers behind the mechanism. Across weekly observations from 2018 to week 20 of 2026, Lithuanian procurement prices show a 0.94 correlation with MATIF wheat. That is no surprise: MATIF is the European anchor. But the dollar layer is almost as clear. Russian FOB wheat, once converted into euros, shows a 0.93 correlation with Lithuanian procurement prices. Chicago wheat converted into euros shows a 0.91 correlation. In other words, the local euro bid is European on the surface, but global underneath.

The cleanest recent example is 2025. Week 3 marked the weakest average EUR/USD level of the year in the dataset. Week 38 marked the strongest.

The result is striking. Russian FOB wheat fell by less than 4% in dollars between those two weeks. But translated into euros, it fell by about 16%. Chicago wheat tells the same story: down about 3% in dollar terms, but more than 15% in euros. Lithuanian procurement prices fell by almost 16%, and MATIF by about 16.5%.

This does not mean EUR/USD was the only cause. Week 3 to week 38 also captures new-crop pressure, seasonality, weather expectations, freight, Russian export competition, and the broader softening in wheat prices. But the exchange rate amplified the move. The world price did not need to collapse in dollars for the euro-denominated Baltic price to come under pressure.

This matters because the Baltic region is not an island market. Lithuania, Latvia, and Estonia are small, open, export-oriented grain economies. Their farmers compete not only with the neighbour across the road, but with Russian, Ukrainian, Romanian, French, German, and American wheat. Ports such as Klaipeda and Riga connect Baltic fields to global buyers, making local procurement prices sensitive to export parity: port value after freight, handling, quality adjustments, trader margins, and currency conversion.

Table 1. Correlation with Lithuanian procurement prices, 2018-W1 to 2026-W20

Benchmark	Form used in comparison	Correlation	Observations
MATIF wheat	EUR/t	0.94	435
Russian FOB 12.5% wheat	Converted to EUR/t	0.93	416
Chicago wheat	Converted to EUR/t	0.91	435
Russian FOB 12.5% wheat	USD/t	0.88	416
Chicago wheat	USD cents/bushel	0.86	435
EUR/USD	Exchange rate	-0.61	436

Source: CM Navigator

IN THIS SYSTEM, A STRONG EURO CAN BECOME A WEAK BARGAINING HAND.

For consumers, a stronger currency often sounds positive. It can make imports cheaper. For farmers, the picture is more complicated. Some inputs may benefit: machinery parts, crop protection products, fuel components, and fertilizers can be influenced by global pricing and imported supply chains.

But grain revenue feels the other side. If the farmer's crop must compete with dollar-priced Black Sea wheat, then a stronger euro makes European wheat look more expensive to the buyer. The farmer may be told that the market is soft, the port is full, Russian offers are cheaper, or export demand is slow. All may be true. Yet beneath those explanations is often the same quiet arithmetic: dollars converted into euros.

> *"EVEN EUROPEAN WHEAT, TRADED ON MATIF IN EUROS, MUST ULTIMATELY COMPETE IN A GLOBAL MARKET WHERE MANY BUYERS THINK IN DOLLARS."*

This is why EUR/USD belongs in the grain balance sheet. It is not just a line on a trader's screen. A move from 1.03 to 1.18 in EUR/USD changes the euro value of a $230/t wheat offer from around EUR 223/t to around EUR 195/t without any meaningful change in the dollar price. For a farmer selling 1,000 tonnes of wheat, that exchange-rate arithmetic translates into roughly €28,000 less in euro terms.

The Baltic farmer may never trade currencies. He may never quote Chicago wheat or Russian FOB offers. But the buyer across the table does not price in isolation. He prices against the port, the exporter, the global buyer, and the competing origin. Somewhere in that chain, dollars become euros.

And when the euro is strong, the farmer's euro price can become weaker.

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Data note

Weekly observations cover 2018 through week 20 of 2026. Chicago wheat was converted from cents per bushel to USD/t, then divided by EUR/USD. Russian FOB wheat was converted from USD/t to EUR/t by dividing by EUR/USD. Correlations are calculated against Lithuanian average procurement prices in EUR/t.

Table 2. 2025 FX stress test: weakest vs strongest EUR/USD week

Indicator	2025 W3	2025 W38	Change
EUR/USD	1.02818	1.17936	+14.7%
LT procurement price	EUR 223.01/t	EUR 187.53/t	-15.9%
MATIF wheat	EUR 229.25/t	EUR 191.50/t	-16.5%
Russian FOB wheat	USD 236.20/t	USD 227.60/t	-3.6%
Russian FOB wheat, in EUR	EUR 229.73/t	EUR 192.99/t	-16.0%
Chicago wheat, in USD/t	USD 199.48/t	USD 193.57/t	-3.0%
Chicago wheat, in EUR/t	EUR 194.01/t	EUR 164.13/t	-15.4%

Source: CM Navigator

TRANSFORM!

THE 14 BEHAVIOURS DRIVING SUCCESSFUL DIGITAL TRANSFORMATION

> *SUCCESSFUL TEAMS IDENTIFY AND ADDRESS THE MOST DIFFICULT DEPENDENCIES AND ARCHITECTURAL CHALLENGES EARLY, REDUCING RISK THROUGHOUT THE PROGRAMME LIFECYCLE.*

The Energy and Commodities Trading sector is investing heavily in technology. AI, cloud-native architectures, advanced analytics, market data platforms and trading optimisation tools have become strategic priorities as organisations seek to improve decision-making, increase operational efficiency and respond more rapidly to changing market conditions.

Yet despite record levels of technology investment, successful transformation remains the exception rather than the rule.

According to Gartner, global IT spending exceeded $5.5 trillion in 2025, with more than $1.7 trillion spent on technology services alone. Even using conservative assumptions, industry research suggests that between 50% and 80% of technology-led transformation expenditure fails to generate the intended value. At the lower end of those estimates, more than $226 billion is wasted every year on transformation initiatives that fail to deliver their objectives. When the wider organisational costs of change are included, including the people, operational and management effort that often accounts for as much as 70% of overall transformation expenditure, the total annual cost of unsuccessful transformation rises to more than $900 billion globally. At the upper end of the estimates, the figure exceeds $2.4 trillion annually.

For technology leaders, these statistics are more than an academic concern. Whether modernising an ETRM platform, building a cloud-based market data architecture, implementing AI-enabled software delivery or replacing decades of accumulated technical debt, the consequences of failure are significant. Delays impact trading operations, increase operational risk and erode confidence among business stakeholders.

Over decades of delivering complex technology and data programmes, a consistent pattern has emerged. Successful transformation initiatives are characterised by the consistent application of 14 core behaviours.

When these behaviours are missing, even technically sound initiatives can struggle to create value.

THE 14 BEHAVIOURS DRIVING SUCCESSFUL TRANSFORMATION

1. Frame the Right Problem, in the Right Way

Technology teams are often asked to deliver solutions before the organisation has clearly defined the problem. In trading environments, this frequently manifests as a desire to implement AI, migrate to the cloud or replace an existing platform without fully understanding the business challenge that needs solving.

The most successful programmes begin by establishing a clear understanding of the underlying problem. Is the objective to improve trader productivity, reduce operational risk, increase speed to market, improve data quality or create greater flexibility for future change? Clarity at this stage influences every decision that follows.

2. Match the Team Make-up to the Nature of the Problem

Commodity trading systems sit at the intersection of technology, markets and operations. Success requires more than strong engineering capability.

The most effective teams combine deep domain expertise, technical excellence and strong delivery disciplines. Engineers who understand trading workflows, risk management processes and market data challenges make better decisions and create solutions that are more closely aligned to business needs.

3. Inspect and Adapt

Markets change constantly. Requirements evolve. New information emerges.

Successful teams recognise that transformation is a learning process rather than a linear delivery exercise. Regular review cycles allow programmes to adjust course, improve delivery practices and respond to changing priorities before problems become embedded.

4. Confront Complexity Early

Trading organisations operate within some of the most complex technology ecosystems in any industry. Legacy applications, third-party market data feeds, ETRM platforms, cloud services and regulatory reporting systems create an intricate web of dependencies.

Ignoring complexity does not reduce it. Successful teams identify and address the most difficult dependencies and architectural challenges early, reducing risk throughout the programme lifecycle.

5. Do the Hard Stuff First

Programmes often focus on highly visible, low-risk activities to demonstrate progress.

The challenge is that transformation programmes rarely fail because the easy work was difficult. They fail because critical architectural, integration or organisational issues were left unresolved until late in delivery.

The most successful teams tackle the hardest problems first.

6. Surface Value to Stakeholders Early and Continuously

One of the biggest sources of tension between technology teams and trading businesses is a lack of visibility.

Traders, risk managers and operations teams need to see progress, provide feedback and influence priorities throughout delivery. Working software creates far more valuable conversations than project plans or PowerPoint presentations.

7. Road Test End-to-End Pathways to a Full "Done"

Technology leaders often underestimate the complexity of the complete trading lifecycle.

A successful outcome is not simply a functioning application. It is a fully operational process that supports front office, risk, operations, finance and compliance requirements under real-world conditions.

Testing must therefore extend beyond individual components to cover the complete end-to-end business journey.

8. Develop a Fault-Tolerant Organisational Culture

Innovation requires experimentation.

Whether implementing AI-enabled software engineering, modernising data platforms or introducing new trading capabilities, some initiatives will not work as expected. Organisations that treat every setback as failure discourage learning and slow progress.

The strongest organisations create environments where teams can learn from incremental failures while maintaining focus on long-term success.

> *"TECHNOLOGY DOESN'T DETERMINE SUCCESS. BEHAVIOUR DOES."*

9. Create Psychological Safety

Psychological safety remains one of the most overlooked drivers of successful transformation.

When engineers, architects, analysts and business users feel able to challenge assumptions, raise concerns and discuss mistakes openly, programmes move faster and make better decisions.

This becomes particularly important when introducing new technologies such as AI, where uncertainty and experimentation are inevitable.

10. Openly and Frequently Celebrate Joint, Incremental Successes

Large-scale transformation programmes can take years to complete.

Recognising progress along the way reinforces positive behaviours, builds momentum and strengthens collaboration between technology and business teams. Small wins compound into larger successes.

11. Control Time

Successful trading organisations understand the value of disciplined execution.

Fixed delivery cycles create focus, encourage prioritisation and improve transparency. By controlling time, teams gain greater control over scope, quality and outcomes.

12. Define What Quality Means for You, Then Measure It

Quality cannot be assumed.

For some trading platforms, quality may mean latency measured in microseconds. For others it may mean resilience, scalability, usability or data accuracy. Successful teams establish clear quality measures and continually validate progress against them.

13. Optimise for One Parameter per Iteration

Every programme is constrained by time, cost, quality and scope.

Attempting to optimise all four simultaneously creates confusion and conflicting priorities. High-performing teams establish a clear objective for each delivery cycle and align their decisions accordingly.

14. Mitigate Risks Wherever You Can

Technology transformation is fundamentally an exercise in managing change.

Risk awareness must be embedded throughout delivery, from architectural decisions and third-party dependencies to operational readiness and user adoption. Successful programmes treat risk management as a daily discipline rather than a periodic governance activity.

Technology Doesn't Determine Success. Behaviour Does.

As Trading organisations accelerate investment in AI, cloud platforms and modern trading architectures, the ability to execute transformation successfully will become a significant competitive differentiator.

The evidence suggests that technology alone is not the deciding factor. The organisations that consistently outperform their peers are those that create environments where the right problems are solved, complexity is confronted early, teams learn continuously and value is delivered incrementally.

The 14 behaviours provide a practical framework for achieving exactly that. They are not theoretical concepts. They are observable characteristics of successful transformation programmes and, increasingly, essential capabilities for technology leaders navigating the next generation of change.

Ian Murrin is Founder and CEO of Digiterre and, is co-author of '**Transform! - the 14 behaviours driving successful transformation in the age of AI**' by Ian Murrin, Rajesh Jethwa, and Mike Wright.

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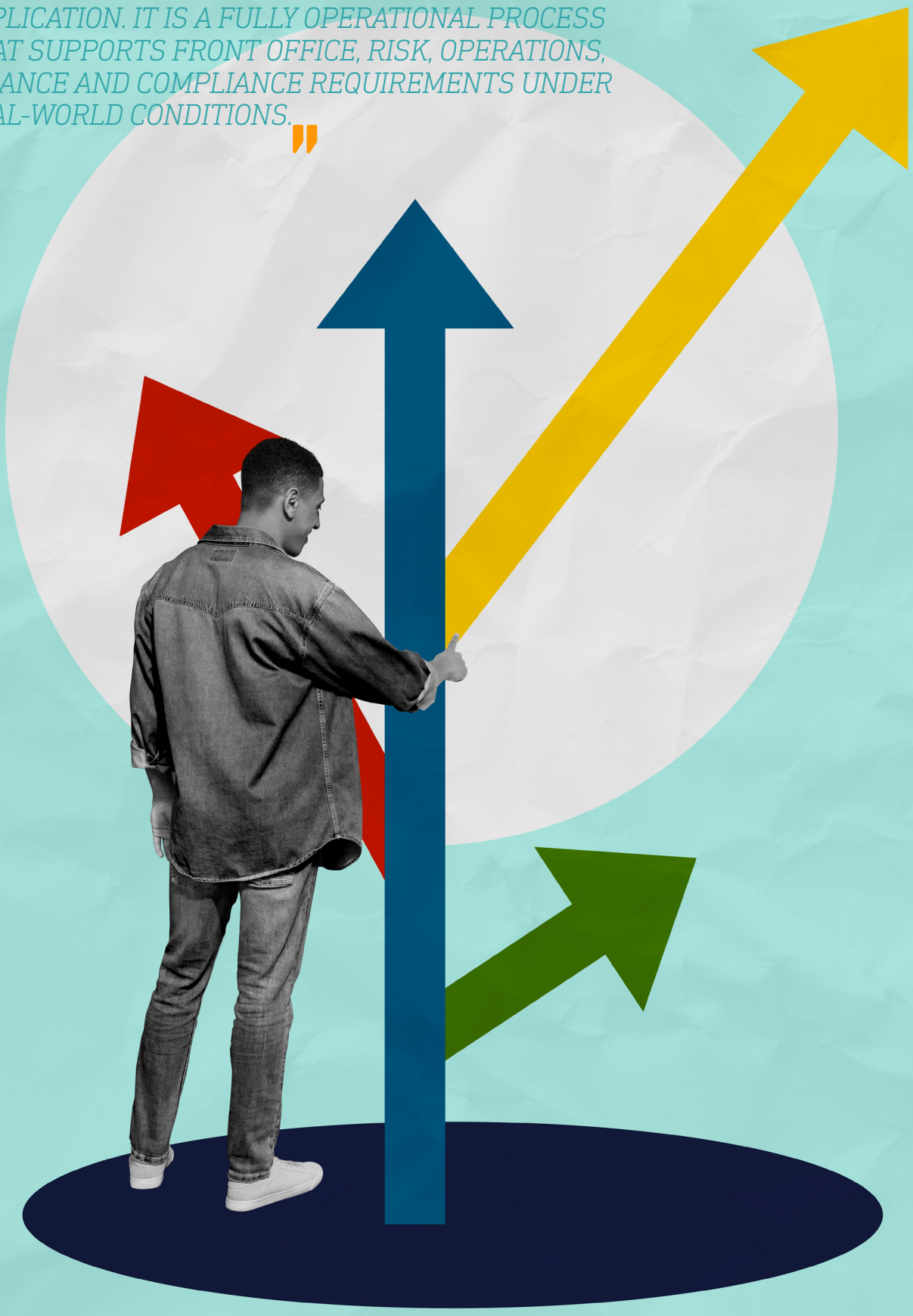
A SUCCESSFUL OUTCOME IS NOT SIMPLY A FUNCTIONING APPLICATION. IT IS A FULLY OPERATIONAL PROCESS THAT SUPPORTS FRONT OFFICE, RISK, OPERATIONS, FINANCE AND COMPLIANCE REQUIREMENTS UNDER REAL-WORLD CONDITIONS.



THE SUGAR WEATHER IS NOT TO BE TAKEN FOR GRANTED

The sugar market is currently trading within a narrower-than-usual range, given the mix of short- and long-term signals.

We ended the 2025/26 (April/March) sugar year with a small surplus of around 2 million tonnes and could be heading for another small surplus in 2026/27, if all goes well. Will it?

In the short term, there is little to worry about. But in the long term, much remains uncertain when it comes to weather and, therefore, production. For sugar prices to break out of the current trend, we may need a strong event — most likely weather-related, such as a strong El Niño.

The current Middle East situation, which pushed crude prices higher, has affected sugar to a lesser degree, but it has had some impact. Countries have also woken up to the need to address their energy imbalance. Raw materials such as cane, beet, corn and vegetable oils can all play a part in the solution — some in the short term, others in the medium term.

KEY FORCE SHAPING THE GLOBAL SUGAR AND ETHANOL BALANCE

Brazil remains the key force shaping the global sugar and ethanol balance in 2026. However, developments across Mexico, India, China, Pakistan and the United States are creating a much more complex market than many expected at the start of the year.

The Brazilian sugar and ethanol sector continues to attract close attention from traders and investors, as oil prices, currency movements, domestic fuel consumption and crop conditions all influence production decisions. While crude oil prices have weakened and the Brazilian real has softened against the US dollar, domestic fuel pricing policies have limited the impact on local markets. With national elections approaching, the government has shown little appetite for measures that could increase inflation through higher fuel prices.

Brazil's Centre-South sugarcane harvest is progressing well. Higher sugar content in the cane has helped compensate for a lower sugar mix, allowing mills to maintain solid production levels. At the same time, ethanol remains central to the country's energy strategy. The government increased the mandatory anhydrous ethanol blend in gasoline from 27% to 30% in August 2025, supporting domestic ethanol demand. Further increases to 32% or even 35% remain under discussion.

Fuel consumption trends reveal an interesting picture. Through April 2026, diesel sales fell 2.9%, hydrous ethanol sales declined 3.8%, and gasoline sales were down 0.8%. However, demand for anhydrous ethanol rose by 7.6% due to the higher blending mandate. Overall ethanol demand was 3.6% higher in the first four months of the year compared with the same period in 2025.

Brazil is expected to produce between 3.3 billion and 4.7 billion litres more sugarcane ethanol during the 2026/27 season, while corn ethanol production could increase by another 1.1 billion litres. The country's rapidly expanding corn ethanol sector remains one of the most important structural developments in global biofuels. Corn ethanol production reached approximately 9.2 billion litres in 2025/26 and is expected to exceed 11.3 billion litres next season.

FORTUNATELY, CORN SUPPLY DOES NOT APPEAR TO BE A CONSTRAINT

Brazil's corn crop is projected at around 139–140 million tonnes, with the crucial second crop accounting for roughly 108 million tonnes. Domestic demand, excluding ethanol production, is estimated at 69 million tonnes, leaving substantial exportable supplies even after accounting for ethanol use. Carryover stocks of around 12 million tonnes provide an additional cushion against potential weather-related losses.

Yet demand remains the critical issue. Brazil needs stronger domestic ethanol consumption and improved export performance to absorb rising production. Current projections suggest ethanol inventories could rise significantly by the end of the season, although stocks began the current crop year at unusually low levels.

Mexico presents a very different challenge. The country produces roughly 500,000 to 900,000 tonnes more sugar than it consumes annually, creating a surplus that traditionally found a home in the United States. However, access to that market has become increasingly restricted.

Mexican sugar exports to the United States have fallen sharply, from approximately 1 million tonnes annually to around 180,000 tonnes this year. The reduction stems from quota limitations and minimum price requirements introduced following dumping disputes more than a decade ago. As a result, Mexican producers have been forced to sell larger volumes into alternative export markets, where prices are generally less attractive than those available in the United States.

Energy consumption mix (Brazil, Jan-Apr 2026)

Source: AP Commodities

Key Drivers

Policy Blend mandates

Agriculture Cane and corn

Demand Vehicle fleet

Market Sugar – ethanol

Brazil Fuel Matrix

Source: AP Commodities

FRUSTRATION WITHIN MEXICO'S SUGAR INDUSTRY IS GROWING

Producers are urging Washington to remove restrictions and are threatening to pursue an anti-dumping case against US high-fructose corn syrup (HFCS) if negotiations fail. The dispute is likely to become a significant issue during the upcoming review of the USMCA trade agreement.

Ironically, the United States does not currently require large additional sugar imports from Mexico. Domestic sugar production has been relatively stable, and import requirements under existing tariff-rate quotas have largely been sufficient. Consequently, the volume left for Mexican exports remains limited despite Mexico's surplus production.

In Asia, China continues to exert a major influence on global sugar trade flows. Sugar imports during the first four months of 2026 increased by approximately 366,000 tonnes compared with the previous year, driven primarily by higher raw sugar purchases. Imports of liquid sweeteners and syrups also rose significantly.

HFCS CONTINUE TO EXPAND

However, another trend is attracting growing attention. Chinese exports of liquid sugars, particularly HFCS, continue to expand. While growth has slowed compared with the exceptional increases recorded over the past two years, shipments are still rising and increasingly targeting markets such as Indonesia, the Philippines, Vietnam, South Korea, Malaysia, Taiwan and even Thailand.

This development matters because liquid sweeteners compete directly with traditional sugar consumption. As more imported HFCS enters these markets, local refiners may sell less sugar domestically, reducing demand for imported raw sugar and potentially reshaping regional trade patterns.

China's own sugar production is also improving. As a result, raw sugar imports are expected to decline from approximately 4.9 million tonnes in 2025 to around 4.3–4.4 million tonnes in 2026. While China will remain a major importer, the trend points towards slightly lower import dependence.

BRAZIL (Supply-led)	
Production	+3.3 → 4.7bn L ethanol
Corn ethanol	9.2 → 11.3bn L
Demand	+3.6% YoY
Blend rate	27% → 30%
Mexico (Trade-pressure)	
Surplus	+0.5 → 0.9m tonnes
US exports (drop)	1m → 180k tonnes
Policy constraint	US quotas / pricing rules
Market impact	Forced into lower-value markets
CHINA (Demand Shift)	
Imports (2026)	4.3–4.4m tonnes (↓ from 4.9m)
HFCS exports	Rising across Asia
Trend:	Substitution effect on sugar demand
INDIA (Balance-led)	
Production miss:	-2 → -4m tonnes
Demand	~29m tonnes (↑ vs estimates)
Stocks	~1.9m tonnes carryover
PAKISTAN (Policy-led)	
Stocks	<4 months by Oct (risk)
Policy	export vs price control tension
UNITED STATES (Stable)	
Ethanol output	Slightly above YoY
Corn use	In line with forecasts
Demand	Stable

Source: AP Commodities

India remains one of the most closely watched markets. The arrival of the monsoon is critical, as sugarcane yields in key producing regions depend heavily on rainfall. Although planted area is expected to remain largely unchanged, sugar production during the 2025/26 season was estimated to be 2–4 million tonnes below earlier expectations due to weaker agricultural yields.

At the same time, domestic consumption appears stronger than official estimates suggest. While demand has been placed near 28 million tonnes, actual market deliveries indicate consumption could be closer to 29 million tonnes. Sugar exports exceeded 700,000 tonnes before government restrictions halted further shipments, but this remained well below the original quota allocation.

THE RESULT IS A TIGHT SUPPLY SITUATION

Industry estimates suggest India could finish October with carryover stocks near 1.9 million tonnes — a relatively low level for a country of its size. Such conditions leave little room for production disappointments and may force policymakers to reduce sugar-based ethanol production if supplies tighten further.

Pakistan faces a similar balancing act. Sugar mills would like to export sugar to improve cash flow ahead of the next harvest, but the government remains concerned about domestic prices. Following a major import programme in 2025, policymakers are reluctant to risk another period of tight supply. Current stock levels appear adequate, but inventories could fall below four months of domestic consumption by October, limiting export opportunities.

Meanwhile, the United States ethanol sector remains stable. Production has been running slightly above year-ago levels, supported by steady corn consumption. Current trends suggest corn use for ethanol will remain close to official forecasts, giving little reason for major revisions in grain demand expectations.

Taken together, these developments suggest that in the short term, global sugar markets remain finely balanced. Brazil's expanding ethanol sector, India's tight stocks, China's changing import requirements, and Mexico's struggle to regain access to its largest export market all point to a year in which trade flows may shift significantly.

While no immediate supply crisis is visible, the margin for error appears narrow — and could change significantly depending on the weather.

Attention is required.

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INDIA REMAINS ONE OF THE MOST CLOSELY WATCHED MARKETS. THE ARRIVAL OF THE MONSOON IS CRITICAL, AS SUGARCANE YIELDS IN KEY PRODUCING REGIONS DEPEND HEAVILY ON RAINFALL.


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REALITY CHECK ON FINANCIAL MARKET LIQUIDITY

The widely accepted definition of financial market liquidity is the ability of market participants to undertake securities and derivatives transactions quickly without triggering large changes in their prices, and in line with their intrinsic value.

It is characterized by tight bid/offer spreads, high transaction volumes, and the resilience of markets to recover swiftly from shocks. It is not to be confused with 'monetary liquidity', which as per the ECB is the 'quantity of liquid assets in the economy, which is in turn related to the level of interest rates', as well as central bank provided liquidity also known as quantitative easing (QE).

The gyrations of asset, energy and commodity prices in reaction to the recent news flow from the conflict between USA and Israel and Iran has been an extreme, but nevertheless perfect demonstration of what happens when market liquidity suddenly and totally disappears: price action is highly volatile, bid-offers spread widen sharply, and market depth (being the volume of bids and offers below the best prices) is severely impaired. This is what happens in a crisis situation, but there are a broad array of other factors which have and will continue to shape and develop market liquidity in evolutionary terms.

THE 2008 GLOBAL FINANCIAL CRISIS (GFC)

The 2008 Global Financial Crisis (GFC) prompted a very sharp shift in bank regulations, so as to avoid a recurrence of that sort of event, primarily by raising bank capital requirements, and by largely banning banks from proprietary trading (or outright speculation), even if the poorly worded legislation also impaired banks' ability to 'make markets', i.e. facilitate trading by non-banks. That said, over the past decade, banks provision of credit facilities to investment, private credit and hedge funds still leaves them heavily exposed to credit cycles and market crises, just less directly than at the time of the GFC, and at least optically makes their balance sheet exposures look less risky, and in compliance with the array of KYC ('know your client') regulations. The demise of Credit Suisse thanks to the Greensill scandal, the deposit run on Silicon Valley Bank, the collapse of MFS and the 'gating' of withdrawals from various Private Credit funds (e.g. Blue Owl or at Blackrock) all serve as a reminder that many risks remain in the financial sector, which should not be dismissed as being largely due to 'bad actors'.

> *"THE 2008 GLOBAL FINANCIAL CRISIS (GFC) PROMPTED A VERY SHARP SHIFT IN BANK REGULATIONS..."*

But as then Bank of England Director of Financial Stability, Andrew Haldane, wrote in his very prescient 'Half Way Up the Stairs' paper in Central Banking Journal in August 2014: "With more activity outside the banking system, and with the banking system itself better protected, the financial system and economy may become less prone to the low-frequency, high-cost banking crises seen in the past. But that is not the end of the story. Risk, like energy, tends to be conserved not dissipated, to change its composition but not its quantum. So it is possible the financial system may exhibit a new strain of systemic risk – a greater number of higher-frequency, higher-amplitude cyclical fluctuations in asset prices and financial activity, now originating on the balance sheets of mutual funds, insurance companies and pension funds.

"These cyclical fluctuations could in turn be transmitted to, and mirrored, in greater cyclical instabilities in the wider economy. In this world, it would be very difficult for monetary, regulatory and operational policy to beat an orderly retreat. It is likely that regulatory policy would need to be in a constant state of alert for risks emerging in the financial shadows, which could trip up regulators and the financial system. In other words, regulatory fine-tuning could become the rule, not the exception.

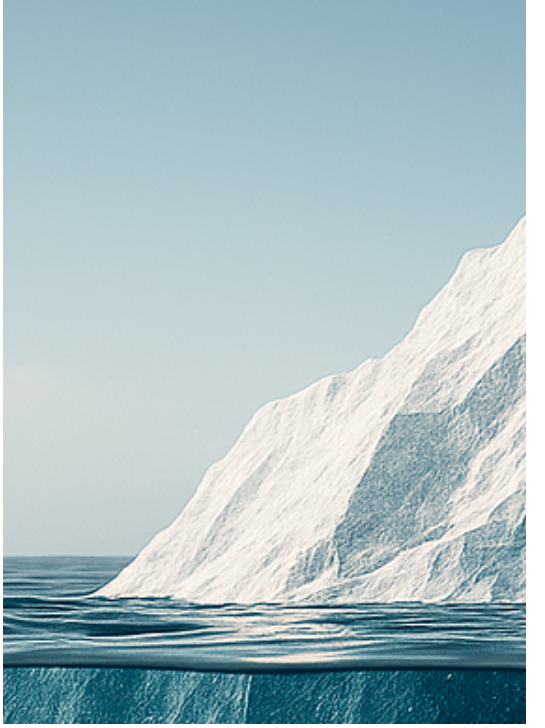
"In this world, macro-prudential policy to lean against the financial cycle could become more, not less, important over time. With more risk residing on non-bank balance sheets that are marked-to-market, it is possible that cycles in financial assets would be amplified, not dampened, relative to the old world. Their transmission to the wider economy may also be more potent and frequent. The demands on macro-prudential policy, to stabilise these financial fluctuations and hence the macro-economy, could thereby grow.

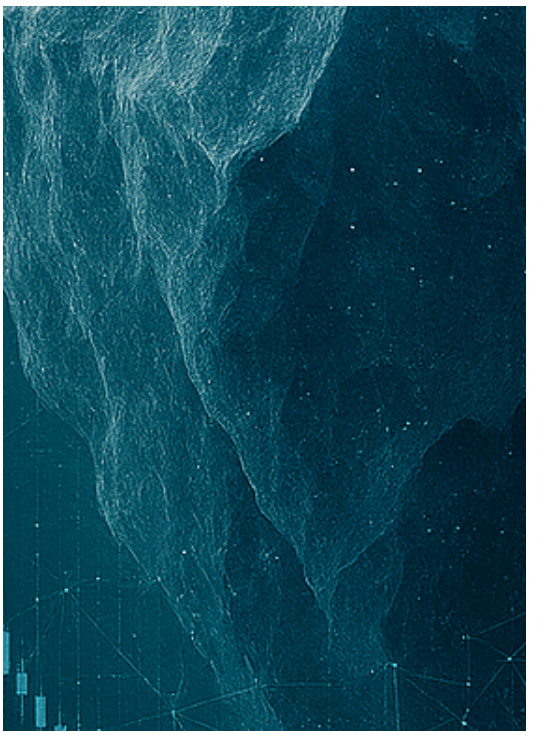
"In this world, central banks' operational policies would be likely to remain expansive. Non-bank counterparties would grow in importance, not shrink. So too, potentially, would more exotic forms of collateral taken in central banks' operations. Market-making, in a wider class of financial instruments, could become a more standard part of the central bank toolkit, to mitigate the effects of temporary market illiquidity droughts in the non-bank sector. In this world, central banks' words and actions would be unlikely to diminish in importance. Their role in shaping the fortunes of financial markets and financial firms more likely would rise. Central banks' every word would remain forensically scrutinised. And there would be an accompanying demand for ever-greater amounts of central bank transparency. Central banks would rarely be far from the front pages."

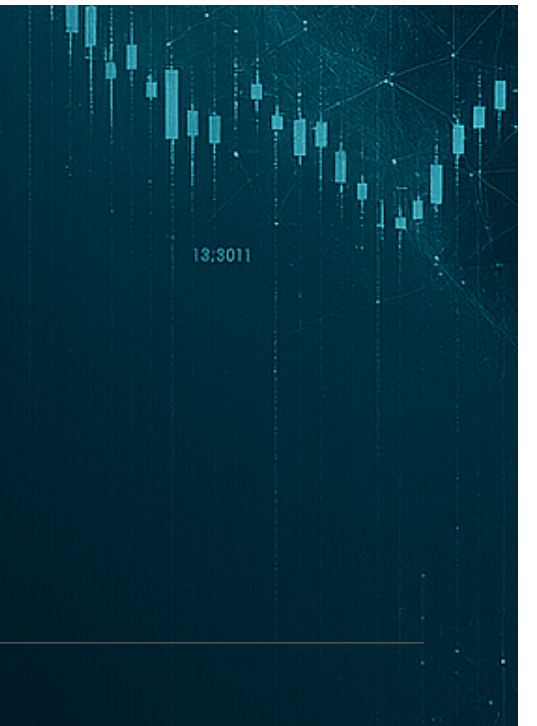
BUT THIS IS ANYTHING BUT THE WHOLE STORY

Haldane's paper may be more than a decade old, but it describes in broad terms much of what has happened in the meantime, and identifies some of the key shifts in balance sheet risks. But this is anything but the whole story, and certainly not one which can be comprehensively covered in a short article. Some of the other factors to consider are 'Monetary Liquidity', above all that provided via the mechanism of Quantitative Easing (QE) has much to answer for, even if the topic of asset price inflation, particularly since the GFC and latterly the pandemic, still appears to be largely a taboo area for discussion, despite it playing a key role in increasing social inequality, above all in crushing individual aspirations for owning a home for example. The fact is that rather than oiling the wheels of credit availability for non-financial corporations, as was the original stated though very much theoretical intention, the primary impact was to increase credit availability for, and flows into trading of financial assets.

The more insidious developments of the past two decades plus relate to electronic trading, the seismic shift from active to passive fund management,







as best represented by the fact that there are now more ETFs (Exchange Trade Funds) than there are exchanged listed companies, accompanied by ever larger trading volumes in derivatives (both exchange traded and OTC (Over The Counter) – per se representative of a headlong rush to 'commoditize' and 'financialize' everything. Notably, as was the case with Investment Trusts in the 1920s ahead of the great crash, noble arguments such as a new instrument or fund promoting the democratisation and/or liberalisation of finance, improving financial inclusion, widening access to financial instruments that had been previously the exclusive preserve of the wealthy are frequently cited in promotional materials. While such claims are not in principle false, they rarely offer detailed insights into liquidity in times of stress, as even if comprehensive 'back testing' has been conducted, these will generally rely on modelling of tail risks in prior crises, but each crisis always has individual features, and complex systemic and temporal interconnectivities, which can potentially metamorphosize into cascading risk events, not infrequently due to being in the wrong place at the wrong time, rather than either due to incompetence or malfeasance.

ELECTRONIC TRADING

Electronic trading has many positive aspects, from improving transparency in asset price formation, transaction speeds, automation, enabling more complex trading strategies, be that arbitrage or hedging related, lowering transaction costs and human input errors, as well as removing trading hours constraints. But equally there are inherent vulnerabilities, most obviously technical or power failures, as well as heightening volatility often due to faster transaction speeds and higher trading volumes that result in adverse price movements, potential manipulation due to misinformation (be that intended or poorly sourced), scams and other fraudulent activity. Automated and algorithmic trading can also be too reliant on historical trends that all too often fail to account for the reality of live market trading, and result in poor performance. One might add that there are also quantitative trading models that primarily rely on price momentum, which also exacerbates exaggerated price movements, and in many cases has little or no interest in examining the underlying fundamentals of a given asset. Such trading activity can be argued to add liquidity, but it is by nature fickle, opportunistic and its intermittency may ultimately undermine perceived liquidity, and in the case of real world assets such as commodity, energy and shipping prove to be economically and commercially harmful.

The proliferation of electronic trading platforms and ETFs may enhance access, but the growing numbers also serve to fragment and even undermine liquidity, above all at crisis moments. Ultimately, it is important to understand that each innovation that may ostensibly improve efficiency, transparency, regulatory oversight or market liquidity will also carry some disadvantages. Haldane's observation that 'risk, like energy, tends to be conserved not dissipated, to change its composition but not its quantum' should always be a cornerstone of any analysis of liquidity.

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> *THE PROLIFERATION OF ELECTRONIC TRADING PLATFORMS AND ETFS MAY ENHANCE ACCESS, BUT THE GROWING NUMBERS ALSO SERVE TO FRAGMENT AND EVEN UNDERMINE LIQUIDITY.*

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https://www.fastmarkets.com/events/fastmarkets-international-aluminium/

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https://europe.energytradingweek.com/

ENERGY MARKETS FORUM
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https://www.thegulfintelligence.com/

EDDIE TOFPIK
Head of Technical Analysis
& Senior Markets Analyst

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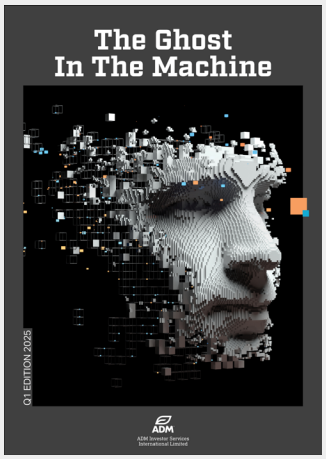

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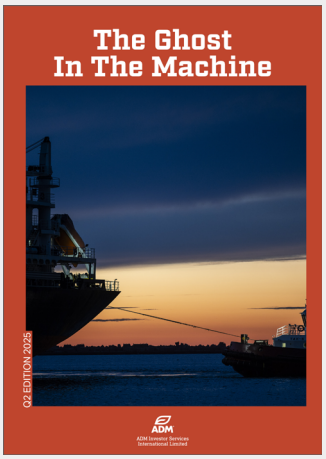

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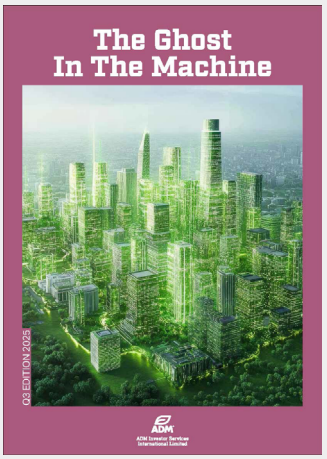

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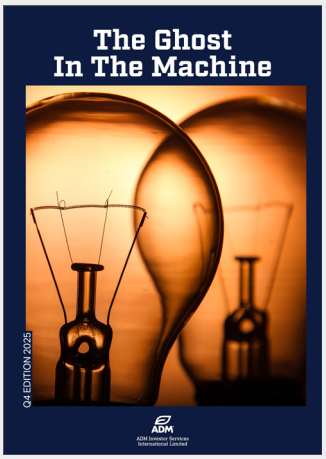

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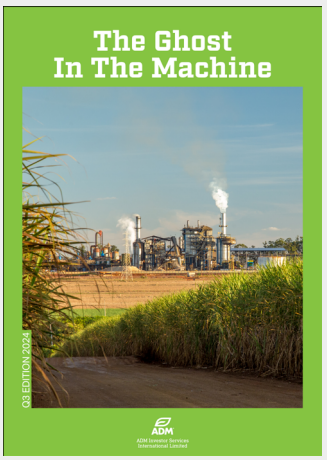
2024

Q1

Q2



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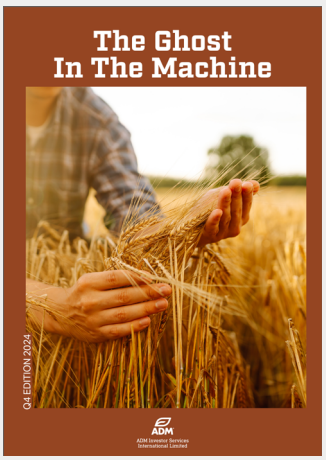

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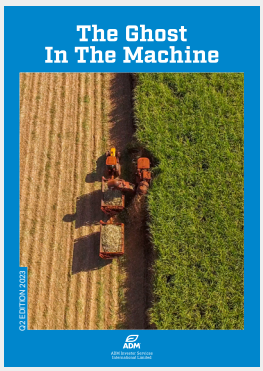
2023

Q1



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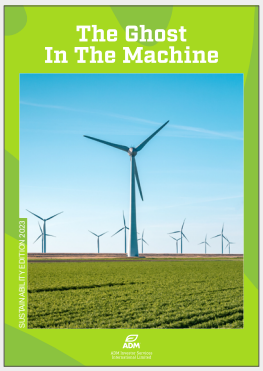

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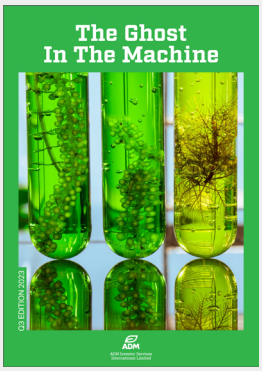

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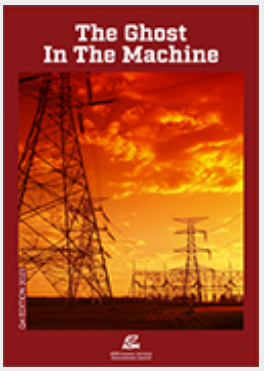

Q4

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