

## **Annual Outlook 2023:** Warmer Climes Ahead

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## Introduction

he central theme of our outlook for 2023 is 'warmer climes ahead'. Although the acceleration of global warming has precipitated a deluge of doomsday scenarios across the globe, the onset of climate change has actually also underpinned a number of bright spots in the present macroeconomic environment, geopolitical landscape, and the outlook for long-term investing.

First, in the macro outlook, unseasonably warm weather (together with hefty fiscal support) has presently taken the sting out of Europe's energy crisis, prompting a somewhat less dire forecast for the eurozone economy in 2023, and, in turn, a less etiolated external environment for Europe's major trading partners, including the US. We also cover the outlook for inflation, global commodity markets, and the monetary policy response, as well as global housing markets, and potential risks to financial stability.



Second, in the geopolitical landscape, as countries navigate the largest global energy shock in 40 years—and what some have referred to as the 'revenge' of the old economy—concerns around energy and national security have seeped into discussions of the energy transition. Indeed, while some policymakers conduct 'beggar thy neighbour' policies in the quest for energy security in the form of fossil fuels, and increasingly in pursuit of 'mineral sovereignty' to support new energy, such resource protectionism might actually spur opportunities for long-term, patient capital—the provision of which, ironically, might emanate across borders.

Third, a mounting climate consciousness of consumers and businesses—set against the backdrop of resilient demand for domestic and international travel—spurs a natural opportunity for investing in sustainable travel. Whether in the airline industries themselves, venture capital, infrastructure investing, and hospitality, the prospects for sustainable travel present investors and executives with a clear way to invest in the intersection of the energy transition and the future of the consumer—which also provides policymakers with clear signposts of how to sustainably grow tourism within their economies, in keeping with the natural trajectory of services-oriented growth over the long run.



# The Macroeconomic Environment

#### The outlook for growth and activity

"The worst is yet to come"; 2023 will be the 'darkest hour'2 for the global economy; a winter of 'sacrifices' in Europe. The mood surrounding the biannual gathering of finance ministers, central bankers, and executives during the fall meetings of the IMF was positively bleak and tinged with the language of Edgar Allan Poe. Fast forward a few months later, and unusually warm weather has taken the sting out of what might have otherwise been a painful recession in Europe. In addition to warmer climes, fiscal policy has also been crucial in shielding European households and companies from energy price shocks, but at a hefty price tag. Estimates are that, toward the end of 2022, European fiscal support for energy stood at ₹700 billion (US\$756 billion), with Germany's share standing at ₹264 billion (US\$285 billion).3

Forecasts for 2023 have been revised upward major Eurozone countries, including Germany. When we look back on the data from Q4 2022 into Q1 2023, we are likely to have entered a technical recession in Europe, and likely a mild technical recession in the US in the first half of 2023, followed by a lacklustre recovery and a longer-term reversion to the mean of 'muddling through' in services-oriented advanced economies. The outlook for China in the near term also remains sombre for its own country-specific factors, given the repercussions of its zero-COVID policies on manufacturing and consumption activity, as well as the sustained downturn in activity in its real estate market.



Looking across to bright spots, emerging Asia ex-China continues to offer a relatively rosier outlook. Vietnam grew by 8.02 percent in 2022, far surpassing government estimates of 6 percent to 6.5 percent. As the country continues to move up the tech manufacturing supply chain,4 magnetising activity away from China, its indirect exports continue to rapidly expand posting growth of 2500 percent from 2009 to 2019.5 Domestic retail sales have also steadily expanded through 2022.6 As we have highlighted in a corollary publication,7 India also holds pole position as likely one of the fastest-growing economies in 2023. India, too, is capturing the 'windfall' of the manufacturing diaspora away from mainland China, with the potential to move up the technology manufacturing value chain, coupled with strong consumer growth. Indeed, India has just surpassed Japan as the world's third-largest auto market,8 indicating the potential to cater to the country's growing middle class for investors and executives from across the globe.

### Inflation, global commodity markets, and monetary policy

A relatively more benign outlook for the European economy—and indeed for the global economy—rests upon the assumption of a milder forecast for inflation for 2023 and beyond—and a restoration of price stability—in major economies, including the US, the European Union, and Japan. Amidst all the hand-wringing—and attending market volatility—surrounding this present bout of inflation, it is important to take a step back and explore a simple definition, as well as a classification.

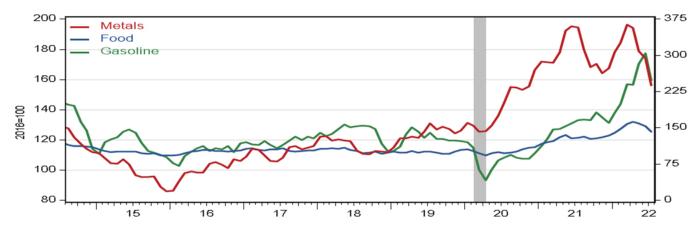
Inflation is defined as an imbalance between aggregate demand and negative supply. As this author has maintained, the magnitude of the supply-side shocks we have witnessed during the COVID-19 pandemic (when the production of oil fell by the single greatest amount in postwar history), and the rewriting of the global energy map in the wake of Russia's invasion of Ukraine, coupled with sector-specific shocks in demand (related to pandemic consumer behaviour and asynchronous reopenings of the economy) have spurred an increase in inflation.



Having emerged from a state of disinflation in many advanced economies, this elevated price environment is predominantly related to supply-side shocks, and associated shocks in categories of demand specifically related to the pandemic consumption behaviours (such as automobiles and airline fares) rather than a sustained increase in *aggregate* demand.<sup>a,9</sup>

Again, amidst a lot of investor confusion, it is also important to distinguish between headline inflation (which includes volatile food and energy prices), core inflation, producer price inflation, wage inflation, and asset price inflation.<sup>b,10</sup> Regarding headline inflation, we identify a noticeable co-movement in liquid fuels (including oil and natural gas) with foods and metals in the commodity price basket since 2014 (see Figure 1).

#### Figure 1: Commodity prices (2016 = 100)



Source: International Monetary Fund / Haver Analytics

Joseph Stiglitz makes the case that microeconomic factors were at play in our recent bout of inflation; hence the traditional macroeconomic measures for examining inflation were inadequate for assessing the origins – and solutions – to this elevated price environment.

b The extent to which a positive immigration policy can naturally abate labor shortages currently faced in many markets is beyond the scope of this report.



Thus, stubbornly high oil prices have also seeped into the consumer food basket-again, exacerbated by the Russia-Ukraine conflict. Such an elevated commodity price environment seeped into core inflation, especially into categories such as transportation. It has also translated into multidecade high producer price inflation in key exporting economies, including Japan and Germany,11 eating into margins for producers, and elevated costs that have often been passed on to consumers.<sup>12</sup> Amidst such uncertainty in global markets, traders have crowded into the US dollar as a safe haven asset, which, together with tightening by the US Federal Reserve (Fed), has led to a stronger dollar, and imported inflation for economies such as Japan.

As oil has retrenched from hitting an eight-year high, commodity prices, including key foods, have also sharply contracted,<sup>13</sup> with the latter helped by the Black Sea grain deal. Core inflation has also moderated in the US: as investors digest this data, the US dollar has softened, which in turn has moderated imported inflation for some economies outside of the US. In addition, the supply chain bottlenecks, which have been so part and parcel (pun intended) of the pandemic-economy years, have also lessened. One promising development here is the extent to which collect investments in logistics and supply chain efficiencies have led to a softening of prices,

indicating that crises can indeed spur positive investment, leading to innovation in sectors of future demand and growth.<sup>14</sup>

#### The monetary policy response

Central banks in advanced economies have come under fire for their perceived failure at maintaining price stability. Proclamations of 'stagflation' were bandied around boardrooms and newsrooms, and financial market volatility was further underscored by a swelling volume of market participants who had never before experienced inflation. And yet, given the magnitude of the supply-side shocks we have witnessed—and the overwhelmingly supply-side sources of this elevated price environment—there is very little that central bankers can do to address supply issues. As Nobel laureate Joseph Stiglitz aptly opines: Will raising interest rates increase the supply of food or oil?<sup>15</sup>

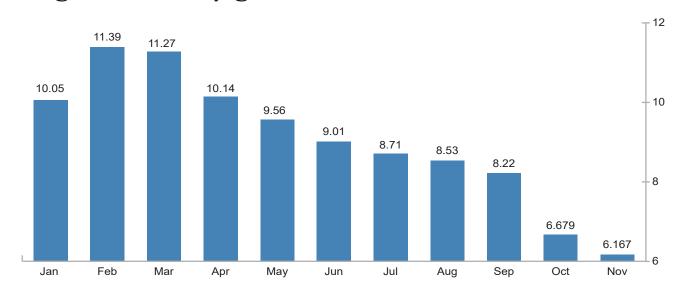


At the start of 2023, there are signs that inflation might have peaked in the US and the eurozone. <sup>16</sup> Shipping freight costs have also fallen, with the rates of shipping goods from Asia to the West Coast of the US down 87 percent through to the year-end of 2022, just 7 percent above 2019 levels. <sup>17</sup> Inflation expectations over the longer term remain well-anchored, indicating that market participants believe in central bankers' resolve to contain inflation. Additionally, we see no evidence

of the much-feared 'wage-price spiral'; as we can see in Figure 2, wages have fallen significantly in the US.<sup>18</sup>

Looking out over the longer run, the Fed's most recent 'dot plot' indicates a consensus that the Federal Funds rate will stabilise out to 2025 and over the longer run, in a range of 2.25 percent to 3.25 percent.<sup>20</sup>

Figure 2: Wage and salary growth in the US in 2022



Source: U.S. Bureau of Economic Analysis / Trading Economics<sup>19</sup>



#### The housing market

Directly connected to monetary policy is the direction of activity and asset prices in housing markets across the globe. In the years between the 2008 global financial crisis and the pandemic, monetary policy actually contributed to an elevated cost of housing in many advanced economies. With rock bottom (or negative) interest rates, institutional pools of capital rotated out of fixed income assets, and into real estate, including commercial and residential (or 'resi'), in key cities, as such assets promised a higher yield.<sup>21</sup> Prior to the pandemic, some central bankers actually pointed to a bubble risk of overvaluation in property markets in key European cities.

Asset prices in resi markets grew even higher during the pandemic economy, driven by a number of factors. Firstly, the 'sanity play': for workers fortunate enough to work from home, many families changed residences in order to garner more space. Secondly, even lower rates created a 'buyer's market' for first-time buyers, as well as second (or third) home purchases. Thirdly—and this is the case across global markets, including Singapore and Vietnam—restrictions on mobility meant that many household investors poured capital that might

have been invested elsewhere into their own domestic real estate markets.<sup>22</sup> Retail investors also propped up residential prices in key markets, such as Atlanta (US).<sup>23</sup> Additionally, on the supply side, the US has actually suffered from an acute shortage of affordable housing, which has been a contributing factor to wealth and consumption inequality in the country.

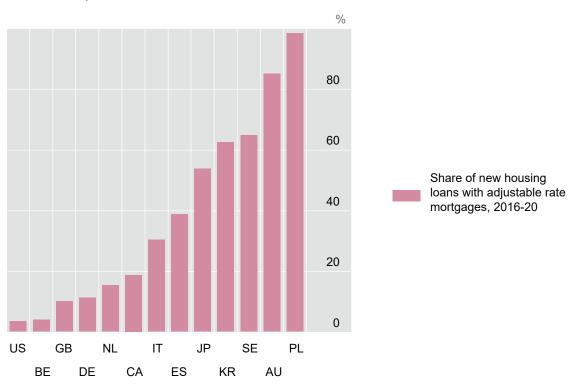
At the start of 2023, falling land values are actually a concern for many real estate executives. Higher interest rates have stymied would-be purchasers, and dented supply, as developers have hit pause on bringing new supply to the market. Falling house prices in markets such as Sweden have raised alarm bells, where prices have plunged by 15 percent since March 2022 and may even have further to fall.<sup>24</sup> Will markets go into a freefall, resulting in a property crash? At the time of writing, there remains a lot of room in price discovery between buyers and sellers, with transaction volumes down in key property markets across Europe and the US, indicating that major write-downs may elude traditional valuation methodologies.<sup>25</sup>



Moreover, for clarity's sake, we can consider several aspects of the housing market as relates to the economy: firstly, the relationship between residential markets and economic activity; secondly, the interplay between housing costs and household consumption; and thirdly, the relationship between housing markets and financial stability. Real estate markets can play an outsized role in overall economic activity, especially in increasingly services-oriented economies; one study attributes one-third of Chinese GDP to the property market.<sup>26</sup> Thus, a sustained downturn in real estate can contribute to slower growth, even potentially a recession.

Secondly, in a rate-rise environment, higher debt service costs can erode real incomes for households. As we can see in Figure 3, in Australia, Poland, Sweden, and South Korea, over 60 percent of new mortgages between 2016 and 2020 were variable rate mortgages, indicating a potential for curtailed incomes and, hence, consumption expenditure in a rate-rise environment.

Figure 3: Floating rate housing loans as a percentage of total (2016-2020)



Source: BIS Annual Economic Report 2022<sup>27</sup>



Finally, in considering the relationship between the resi market and financial stability, the good news is that despite the housing market 'hangover', we are unlikely to enter into a reprise of the global financial crisis, as financial regulation has led to healthier capitalisation of globally systemic important banks, and curbed the subprime lending phenomenon that contributed to the recession.<sup>28</sup> Although we identify potential pockets of overvaluation in certain cities across the globe,<sup>29</sup> we are unlikely to experience a systemic downturn in housing precipitating the next financial crisis.

#### Risks to financial stability: Hidden dollar debt and the US\$65 trillion question

Although real estate may not be at the epicentre of the next financial crisis, we should also explore what risks lurk beneath the surface. Pockets of financial instability have the potential to deepen or prolong any economic downturn. And given the acute and hyperfinancialisation of our economies—as well as macrofinancial linkages across the globe—financial instability erupting in certain markets can also swiftly have a contagion effect, and ripple across borders.

As this author has highlighted previously,<sup>30</sup> certain risks might emanate from non-bank financial institutions (NBFIs), entities into which regulators and central bankers have very little transparency, especially regarding the potential for liquidity mismatches. In an event in which

market participants lose confidence—as the European Central Bank (ECB) highlights, such as the volatility in the UK gilt market in 2022—NBFIs might suffer from massive redemptions. Specifically, money market funds carry risks with the potential for liquidity mismatches, a vulnerability highlighted by both the Fed and the ECB in their recent financial stability reports.<sup>31</sup>

Related to the potential risks emanating from non-banks—and their cross-linkages with some banks-is the issue of 'hidden dollar debt'. Claudio Borio from the Bank for the International Settlements highlights that by the end of June 2022, non-banks sitting outside of the US have US\$26bn of 'off-balance sheet obligations' from FX swaps and forwards (almost double that accounted for on balance sheets. Banks headquartered outside of the US have about US\$39bn (more than double the obligations sitting on balance sheets). Crucially, these entities may not have access to swap lines from the Fed, which played a crucial role in addressing dollar liquidity during the initial market volatility of 2020.32 Given the off-balance sheet status of these obligations, regulators may not have insight into-as Borio highlights-the "scale and geography of dollar rollover needs."33 The policy implications are that heightened regulation may be needed in order to gain greater transparency into the risks such debt might pose in the event of a dollar liquidity crisis.



## Global Energy Markets, the Energy Transition, and Industrial Policy

#### The 'revenge of the old economy'

Geopolitics continues to upend financial markets, as market participants measure the potential impact on the global economy from the return of interstate war in Europe and the implications of the ongoing technological trade tensions and geostrategic rivalry between the US and China. While recognising that Russia's invasion of Ukraine has led to an acute geopolitical rupture—and a new paradigm of fragmentation on the global stage—as far as Europe's energy crisis is concerned, we can actually trace its origins back to September 2021 (or perhaps even a decade earlier, in the aftermath of the Arab Spring).

As this author has highlighted previously, when wind power abruptly halted off the shores of the UK in September 2021—and as natural gas prices hit US\$200 per barrel oil equivalent<sup>34</sup>— Europe's (and Britain's) overreliance on the role of non-hydro renewables in the energy mix was laid bare. As winter approached in 2021, demand for natural gas continued to surprise to the upside, and storage capacity across Europe was woefully inadequate for most countries, taken within the context of annual gas consumption (for example, the UK's gas storage makes up just 1 percent of its annual consumption). 35,36,a Amidst sky-high prices for natural gas, countries engaged in gas-to-oil switching for power generation (a structural trend that can keep the price of oil elevated through the next decade).

Even in the US, while elevated energy prices continued to erode real incomes for consumers, political debates about the country's Strategic Petroleum Reserve (SPR) rarely take into account the stark reality that the SPR contains a maximum capacity of 4.4mn bpd, roughly one-fifth of US daily oil demand, with a total reserve capacity of roughly one-tenth of annual oil demand in the US.



Enter Russia's invasion of Ukraine, and Europe's reliance upon Russian resources was, of course, laid painfully bare: prior to the conflict, Russia met 40 percecnt of Europe's natural gas consumption, and to date, remains the single largest supplier of diesel fuel for Europe.<sup>37</sup> Although the conflict in Ukraine spurred greater cohesion across the Atlantic-in tandem with a rapid increase in US LNG exports to Europe—it also catalysed European leaders to cement 30-year contracts in natural gas and oil with the Gulf Cooperation Council (GCC) exporting countries. Notably, in the decade since the Arab Spring—the last great geopolitical shock to upend global energy markets—GCC exports of natural gas to Europe had largely declined and been replaced by a growing import share from Russia. In a dramatic rejigging of geopolitical ties, underpinned by geological realities, European countries are now tethered to Middle Eastern fossil fuels by multidecade contracts.

#### Seeing green: Future proofing in the GCC

With an eye on the future, such resource ties are not limited to hydrocarbons. Although the GCC exporters are home to some of the lowestcost production of oil and gas on the planet, countries including Oman, the UAE, Qatar, and Saudi Arabia are also naturally abundant in solar and wind energy, and have decades of skills and expertise of producing, storing, and exporting energy across the globe. And, just as some of the world's major energy companies are recycling the windfall from high oil prices into capital expenditure on newer forms of energy, so some of these Middle Eastern countries are using budget surpluses to redeploy capital in efforts to 'futureproof' their economies by investing in techniques for greater energy efficiency and innovation in producing the 'clean energies of tomorrow'.38 In addition to wind and solar, geothermal energy and green hydrogen are also areas of focus.39,40



Moreover, given the GCC's geostrategic position on the horn of emerging Africa—and situated in between Europe and Asia—the region can also serve as a lynchpin to the global minerals trade. Indeed, Saudi Arabia has launched the Future Minerals Forum, 41 hosting industry, finance, and government leaders to work together in solving issues regarding the decarbonisation of supply chains, resolving supply bottlenecks, 42 and creating centres of excellence and a workforce for the future.

#### The energy transition and industrial policy: Whither protectionism

Such an effort to provide cohesion on minerals is indeed rare in today's raucous global energy landscape. As we look out over 2023, we are likely to see some of the world's largest economiesincluding the US, France,43 and India44—continue to enact policies in their pursuit of 'mineral sovereignty'45 and new energy independence. As leaders continue to conflate the terms 'energy security', 'national security', and 'economic security', the attendant scramble for resources reflects concerns of the present energy crisis and the looming climate emergency. Added to that, as we emerge from the sudden economic stops from the pandemic—and severe bottlenecks to supply of raw materials, inputs, and finished productsthe quest for resilience in supply chains is also spurring decrees of 'friendshoring', onshoring, and decrees of new forms of alliance politics.<sup>46</sup>

The irony is, of course, that the production, export, and storage of energy (both old and new)-and the provision of critical inputs, including technology, research and development, and human capital-is not limited to one 'alliance', trading bloc, or country. To paraphrase John Donne, no economy is an island in today's decarbonising world. Take solar power in the US as an example, where new solar installations fell by an estimated 23 percent in 2022, as export curbs on lower-cost materials from China curtailed production.47 Even policy efforts to support domestic (or regional) production of electric vehicles (EV)-embedded in what can be considered to be the misleadingly named 'Inflation Reduction Act'-perhaps fail to reflect the cross-border realities of America's EV market, where consumers opt for models from Korean and German automakers, some of which may not qualify for such tax credits.48



Such protectionist or 'friendshoring' efforts create a confusing landscape for global companies sourcing parts from around the world to cater to consumers in multiple jurisdictions. Again, looking out over the year 2023 and beyond, such regulations are likely to increase, emanating as they are from concerns of the energy and cost of living crises, job growth, and climate change. Accordingly, global executives will likely do well to identify

markets where foreign expertise and know-how are prized and valued, which is something we have seen, for example, with different countries courting investment in the semiconductor landscape. It is also important to note that various countries and companies' decisions to diversify their supply chains away from China— within sectors such as technology and rare earths<sup>49</sup>—does not necessarily mean deglobalisation.

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# Flying Green: Investing in Sustainable Travel

ne bright spot for investing in 2023 and beyond lies in the nexus between the energy transition and the future of the consumer: sustainable travel. A common theme emerging from the pandemic economy years is the extent to which demand continues to surprise to the upside. And despite concerns of global warming, demand for travel remains strikingly robust.<sup>50</sup> Amidst curbs to mobility and restrictions on travel in 2020 and parts of 2021 (and indeed, through some of 2022 for some countries), the theme of domestic travel has been resonant in the hospitality and airline industry, with perhaps halcyon whispers of how domestic travel might result in less of a carbon footprint for would-be globetrotters.<sup>51</sup>

Nevertheless, as governments removed restrictions, demand for international travel—especially for leisure and shorter trips—has recovered since the troughs of 2020.<sup>52</sup> Even despite a darkening economic outlook, and a cost of living crisis in Europe, demand for travel remains robust, indicating that demand for transport (rail, air, taxi) and leisure and hospitality is not a flash of 'revenge spending' emerging from the pandemic, but rather, a reversion back to the pre-COVID norm of the expanding role of hospitality in our employment base, economies, and direction for consumer spending.



With ESG reporting in mind—with scope 3 emissions potentially including employee travel—many companies have taken advantage of the virtual meeting options to curtail business travel, and thus (ostensibly) reducing their carbon footprints. But it seems that even carbon-conscious consumers continue to propel themselves into leisure travel, indicating that the demand is present,<sup>53</sup> but that the market for sustainable aspects remains somewhat nascent.

There are several ways to capture this investing theme. In the airlines, industry executives continue to focus on innovation in sustainable aviation fuels (SAFs), a development with growing traction in Asian markets.<sup>54</sup> Some forward-thinking consumers have also utilised SAFs as a way of offsetting their own travel.<sup>55</sup> Venture capital is also finding its way to support growth and investment in electric planes, as well as unmanned urban air taxis<sup>56</sup>—indicating that infrastructure investors, too, can play a role in exploring ways to deploy capital to urban infrastructure in key travel destinations.<sup>57</sup>

In the hospitality landscape, it is evident that some consumers are willing to pay 'green for eco-tourism and exploring premiums' biodiversity,58 as well as opting for more sustainable options in traditional destinations. In considering the real estate investing theme of PropTech, and the increasing application of technology to the built environment, a UN-backed tech platform for hotels presents tech companies, venture capitalists, and hospitality investors with a way of monitoring the carbon footprints of specific properties.<sup>59</sup> Even specific countries have explored options of carbon-negative tourism, indicating that policymakers can also play a role with private sector capital to capture the future of the consumer.60



## **Conclusion**

n sum, despite the many challenges in our current macroeconomic environment and fragmented geopolitical landscape, investors and executives with an eye on the long term continue to enjoy opportunities for deploying patient capital. One silver lining of the climate emergency has been that warmer weather has lessened the gravity of Europe's energy crisis in the traditional 'nat gas' season of winter. Positive data coming out of the US also indicates that we might have hit 'peak inflation', and financial markets have responded positively to recent and sustained declines in wage growth and consumer price index in the US. Looking beyond advanced economies, some emerging Asian economies ex-China—including India and Vietnam—continue to offer promising opportunities for long-term growth.

Although we identify pockets of instability in select housing markets across the globe, the risk of a systemic financial crisis emanating from real estate markets is unlikely at this point. Nevertheless, as the late Hyman Minksy cautioned, strong medicine has strong side effects; the strong medicine many economies have experienced in the form of a decade-plus of low to negative interest rates has created record-high volumes of debt. One particularly worrisome development the mounting of US dollar-denominated obligations sitting 'off balance sheet' of non-bank institutions and banks outside of the US, standing at some US\$65 trillion.61 Should a dollar liquidity crisis ensue, such entities may be beyond the immediate reach of provision mechanisms—such as swap lines—put into place by the Fed. The UK gilt crisis is one example of how market fragility can have a systemic effect and spur damage to a country's economic vitality.62



Turning to the geopolitical landscape, the most severe energy crisis in 40 years has laid bare the elusive concept of energy as a 'common good'.<sup>63</sup> As countries navigate alliances and price caps, and scramble for fossil fuels and resources to support newer forms of energy, we do well to remember that emerging forms of energy protectionism also have the potential to spur long-term investing opportunities, particularly in the regions of the lowest-cost production of energy, including the GCC countries.

Finally, in exploring sector-specific themes for investing, the outlook for sustainable travel remains bright. With an eye on the continuingly robust demand for leisure travel-with an emerging climate consciousness—sustainable travel offers executives and portfolio managers a way of investing in the intersection of the future of the consumer with the energy transition. Beyond the corporate landscape, opportunities abound for stewards of capital in venture capital and private equity, and real estate and hospitality, as well as for policymakers seeking to sustainably grow their economies in tandem with long-term patterns of demand. ORF



### **Endnotes**

- Hannah Ward-Glenton, "IMF cuts global growth forecast for next year, warns 'the worst is yet to come'," *CNBC*, October 11, 2022, https://www.cnbc.com/2022/10/11/imf-cuts-global-growth-forecast-for-2023-warns-worst-is-yet-to-come.html
- 2 Chris Giles and Colby Smith, "IMF forecasts 'very painful' outlook for global economy," *Financial Times*, October 11, 2022, https://www.ft.com/content/30369662-554b-44b7-9f25-b87d5e13548d
- 3 Giovanni Sgaravatti, Simone Tagliapietra, and Georg Zachmann, "National fiscal policy responses to the energy crisis," Bruegel, November 29, 2022, https://www.bruegel.org/dataset/national-policies-shield-consumers-rising-energy-prices
- 4 Cheng Ting-Fang, "Apple to start making MacBooks in Vietnam by mid-2023," *Nikkei Asia*, December 20, 2022, https://asia.nikkei.com/Spotlight/Supply-Chain/Apple-to-start-making-MacBooks-in-Vietnam-by-mid-2023
- Asian Development Bank, Research Institute for Global Value Chains at the University of International Business and Economics, World Trade Organization, the Institute of Developing Economies Japan External Trade Organization, and the China Development Research Foundation, "Global Value Chain Development Report 2021: Beyond Production," November 2021, https://www.wto.org/english/res\_e/booksp\_e/00\_gvc\_dev\_report\_2021\_e.pdf
- 6 "Vietnam Trading Sales YoY," Trading Economics, https://tradingeconomics.com/vietnam/retail-sales-yoy
- Alexis Crow, "Is India the Next 'Bright Spot' for Global Investors?," ORF Special Report No. 204, January 2023, Observer Research Foundation, https://www.orfonline.org/research/is-india-the-next-bright-spot-for-global-investors/
- 8 Ryotaro Yamada and Ryosuke Hanada, "India tops Japan to become world's No. 3 auto market," *Nikkei Asia*, January 6, 2023, Https://Asia.Nikkei.Com/Business/Automobiles/India-Tops-Japan-To-Become-World-S-No.-3-Auto-Market
- Joseph E. Stiglitz and Ira Regmi, "The Causes of and Responses to Today's Inflation," Roosevelt Institute, December 2022, https://rooseveltinstitute.org/wp-content/uploads/2022/12/RI\_CausesofandResponsestoTodaysInflation\_Report\_202212.pdf
- 10 Randy Thanthong-Knight, "Canada Sets Immigration Record as Trudeau Seeks More Workers," *Bloomberg*, January 3, 2023, https://www.bloomberg.com/news/articles/2023-01-03/immigration-to-canada-hits-record-as-trudeau-seeks-more-workers?srnd=premium-europe
- 11 "Tokyo inflation hits 40-year high in October on energy and feeble yen," *Japan Times*, October 28, 2022, https://www.japantimes.co.jp/news/2022/10/28/business/tokyo-inflation-40-year-high/



- 12 Stiglitz and Regmi, "The Causes of and Responses to Today's Inflation"
- 13 "Crude Oil Price Today," *Markets Insider*, https://markets.businessinsider.com/commodities/oil-price?type=wt; "World Food Price Index," *Trading Economics*, https://tradingeconomics.com/world/food-price-index
- 14 Catena-X, https://catena-x.net/en/; Akito Tanaka, "SAP seeks Asian participation in German-led industrial platform," Nikkei Asia, October 20, 2022, https://asia.nikkei.com/Spotlight/Supply-Chain/SAP-seeks-Asian-participation-in-German-led-industrial-platform
- 15 Stiglitz and Regmi, "The Causes of and Responses to Today's Inflation"
- 16 "Euro Area Inflation Rate," *Trading Economics*, https://tradingeconomics.com/euro-area/inflation-cpi; "United States Core Inflation Rate," *Trading Economics*, https://tradingeconomics.com/united-states/core-inflation-rate
- 17 Greg Miller, "Container shipping's 'big unwind': Spot rates near pre-COVID levels," *FreightWaves, December 27, 2022*, https://www.freightwaves.com/news/container-shippings-big-unwind-spot-rates-near-pre-covid-levels
- 18 "United States Wages and Salaries Growth," Trading Economics, https://tradingeconomics.com/united-states/wage-growth
- 19 "United States Wages and Salaries Growth"
- 20 Board of Governors of the Federal Reserve System, Government of the United States of America, https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20221214.pdf
- 21 Alexis Crow, "Build This House: Real Estate Opportunities in the U.S. Under Biden," *Real Estate Issues*, April 23, 2021, https://cre.org/wp-content/uploads/2021/04/Real-Estate-Issues-Build-This-House-2.pdf
- 22 Crow, "Build This House: Real Estate Opportunities in the U.S. Under Biden"
- 23 Michael E. Kanell, "Home prices up 23.5% from a year ago, with investors fueling the surge," The Atlanta Journal-Constitution, February 18, 2022, https://www.ajc.com/news/atlanta-news/home-prices-up-235-from-a-year-ago-with-investors-fueling-the-surge/SEWIVTK54ZBL3FT242HFVTFXG4/
- 24 Niclas Rolander, "What's Causing the Swedish Housing Market Plunge," *Bloomberg*, June 5, 2023, https://www.bloomberg.com/news/articles/2023-01-05/what-s-causing-the-swedish-housing-market-plunge
- 25 "European commercial real estate investment falls 37% in Q3," CRE Herald, October 27, 2022, https://www.creherald.com/european-commercial-real-estate-investment-falls-37-in-q3/; "Real estate: US Deals 2023 outlook," PWC, https://www.pwc.com/us/en/industries/financial-services/library/asset-wealth-management-real-estate-deals-outlook.html
- Kenneth S. Rogoff and Yuanchen Yang, "Peak China Housing," National Bureau of Economic Research, Working Paper 27697, August 2020, https://www.nber.org/papers/w27697
- 27 "Annual Economic Report," Bank for International Settlements, June 2022, https://www.bis.org/publ/arpdf/ar2022e.pdf



- 28 Ronda Kaysen, "A Housing Market Hangover," *New York Times*, December 30, 2022, https://www.nytimes.com/2022/12/30/realestate/housing-market-prices-interest-rates.html
- 29 The AFIRE Podcast, podcast show, https://podcasts.apple.com/us/podcast/real-estate-stewardship-part-1-ep-2022-01/id1512450712?i=1000547791248; https://soundcloud.com/afireglobal/stewardshipcast02
- 30 Alexis Crow, "Annual Outlook 2022: Decoding the Macroeconomic, Geopolitical, and LongTerm Investing Landscape," ORF Special Report No. 180, February 2022, Observer Research Foundation., https://www.orfonline.org/research/annual-outlook-2022-decoding-the-macroeconomic/
- Board of Governors of the Federal Reserve System, Government of the United States of America, "Financial Stability Report," November 2022, https://www.federalreserve.gov/publications/files/financial-stability-report-20221104.pdf; Christine Lagarde, "Macroprudential policy in Europe: building resilience in a challenging environment" (speech, Frankfurt, December 8, 2022), European Central Bank, https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp221208~f83c604a23.en.html
- 32 "BIS Quarterly Review," Bank for International Settlements, December 2022, pages 67-71, https://www.bis.org/publ/qtrpdf/r\_qt2212.pdf
- 33 "BIS Quarterly Review"
- 34 Alexis Crow and Samir Saran, "The Geopolitics of Energy Transition: A Guide for Policymakers, Executives, and Investors," *ORF Special Report No. 174*, December 2021, Observer Research Foundation, https://www.orfonline.org/research/the-geopolitics-of-energy-transition/
- 35 Govind Bhutada, "Europe's Gas Storage Compared to Historical Consumption," *Elements*, December 8, 2022, https://elements.visualcapitalist.com/europes-gas-storage-compared-to-historical-consumption/
- 36 Office of Cybersecurity, Energy Security, and Emergency Response, Department of Energy, Government of the United States of America, "SPR Quick Facts," https://www.energy.gov/ceser/spr-quick-facts; Energy Information Administration, Government of the United States of America, "Frequently Asked Questions: How much oil is consumed in the United States?," https://www.eia.gov/tools/faqs/faq.php?id=33&t=6
- 37 Jack Wittels, "Russian Diesel Halt Is Still Looking Like Europe's Big Problem," *Bloomberg*, November 29, 2022, https://www.bloomberg.com/news/articles/2022-11-29/europe-still-leans-hard-on-russia-for-diesel-but-the-trade-stops-in-2-1-2-months; Jack Wittels, "Europe Imports Huge Amounts of Diesel With Russia Sanctions Near," *Bloomberg*, December 14, 2022, https://www.bloomberg.com/news/articles/2022-12-14/europe-imports-huge-amounts-of-diesel-with-russia-sanctions-near
- 38 Jamie Ingram, "Adnoc Steps Up Investment As 5mn b/d Plan Brought Forward To 2027," MEES, December 2, 2022, https://www.mees.com/2022/12/2/oil-gas/adnoc-steps-up-investment-as-5mn-bd-plan-brought-forward-to-2027/7f743e80-7245-11ed-8ee8-9772f633f197
- 39 Megan Byrne, "Oman Eyes Geothermal Energy," MEES, November 18, 2022, https://www.mees.com/2022/11/18/news-in-brief/oman-eyes-geothermal-energy/b12ef140-673e-11ed-a928-65e00b36f6a9



- 40 Megan Byrne, "Oman Explores Industrial Uses Of Green Hydrogen With 'Green Steel' Plant," MEES, December 9, 2022, https://www.mees.com/2022/12/9/power-water/oman-explores-industrial-uses-of-green-hydrogen-with-green-steel-plant/f1a37510-77be-11ed-8a4f-459972f4e4d4
- 41 Future Minerals Forum, https://www.futuremineralsforum.com/
- 42 "Saudi Arabia's Future Minerals Forum partners with global think tanks ahead of January conference," *Arab News*, December 5, 2022, https://www.arabnews.com/node/2211196/business-economy
- 43 Jean-Michel Bezat, "Comment la France tente d'assurer sa souveraineté minière," *Le Monde*, October 24, 2022, https://www.lemonde.fr/economie/article/2022/10/24/la-france-a-la-recherche-de-sa-souverainete-miniere-entre-diplomatie-economique-et-production-locale\_6147082\_3234.html; Sophie Fay, "Automobile: le plan d'Emmanuel Macron pour l'électrique," *Le Monde*, October 17, 2022, https://www.lemonde.fr/economie/article/2022/10/17/automobile-le-plan-d-emmanuel-macron-pour-l-electrique 6146127\_3234.html
- 44 Abishur Prakash, "Sustainability has brought a new dimension to Asia's geopolitics," *Nikkei Asia*, November 25, 2022, https://asia.nikkei.com/Opinion/Sustainability-has-brought-a-new-dimension-to-Asia-s-geopolitics
- 45 Arnaud Leparmentier, "Dans le désert Mojave, en Californie, la renaissance de la seule mine de terres rares américaine," *Le Monde*, January 2, 2023, https://www.lemonde.fr/economie/article/2023/01/02/dans-le-desert-mojave-en-californie-la-renaissance-de-la-seule-mine-de-terres-rares-americaine 6156277 3234.html
- 46 Janet Yellen, "Les risques liés aux chaînes d'approvisionnement ont mis à mal la croissance économique," Le Monde, December 30, 2022, https://www.lemonde.fr/idees/article/2022/12/30/janet-yellen-les-risques-lies-aux-chaines-d-approvisionnementont-mis-a-mal-la-croissance-economique\_6156087\_3232.html
- 47 Ryosuke Hanafusa, "U.S. solar installations fall 23% in 2022 on China trade curbs," *Nikkei Asia*, December 31, 2022, https://asia.nikkei.com/Business/Energy/U.S.-solar-installations-fall-23-in-2022-on-China-trade-curbs
- 48 Peter Johnson, "Here's how US electric vehicle sales by maker and EV model through Q3 2022 compare," *Electrek*, October 18, 2022, https://electrek.co/2022/10/18/us-electric-vehicle-sales-by-maker-and-ev-model-through-q3-2022/; Jack Ewing, "Tax Credits for Electric Vehicles Are About to Get Confusing," *New York Times*, December 29, 2022, https://www.nytimes.com/2022/12/29/business/electric-vehicles-tax-credit.html?searchResultPosition=2; "Which Electric Vehicles Qualify for Federal Tax Credits?," *New York Times*, December 29, 2022, https://www.nytimes.com/2022/12/29/business/economy/electric-vehiclesfederal-tax-credits.html?searchResultPosition=1
- 49 "Japan to begin extracting rare earth metals from seabed in 2024," *Nikkei Asia*, December 24, 2022, https://asia.nikkei.com/Business/Markets/Commodities/Japan-to-begin-extracting-rare-earth-metals-from-seabed-in-2024; Shoya Okinaga, "Hitachi Metals developing EV motors with less China rare earths," *Nikkei Asia*, December 8, 2022, https://asia.nikkei.com/Business/Materials/Hitachi-Metals-developing-EV-motors-with-less-China-rare-earths
- 50 IATA, "Annual Review 2022," https://www.iata.org/contentassets/c81222d96c9a4e0bb4ff6ced0126f0bb/annual-review-2022.pdf



- 51 Clément Guillou, "Pour sa relance, Paris rêve d'un tourisme local et durable," *Le Monde*, June 18, 2021, https://www.lemonde.fr/economie/article/2021/06/18/pour-sa-relance-paris-reve-d-un-tourisme-local-et-durable 6084611 3234.html
- 52 IATA, "Annual Review 2022"
- 53 Kosuke Inoue and Tomoko Wakasugi, "Hotels, theme parks rush to open in ASEAN as tourism rebounds, *Nikkei Asia*, December 31, 2022, https://asia.nikkei.com/Business/Travel-Leisure/Hotels-theme-parks-rush-to-open-in-ASEAN-astourism-rebounds
- 54 Subhas Menon, "Asian airlines have carbon zero in sight as the industry rebounds," *Nikkei Asia*, September 13, 2022, https://asia.nikkei.com/Opinion/Asian-airlines-have-carbon-zero-in-sight-as-the-industry-rebounds; Hajime Matsumoto, "JAL and ANA offer greener flight options," *Nikkei Asia*, January 2, 2023, https://asia.nikkei.com/Spotlight/Environment/Climate-Change/JAL-and-ANA-offer-greener-flight-options
- 55 Bill Gates, "My Green Manifesto," Financial Times, February 19, 2021, https://www.ft.com/content/c11bb885-1274-4677-ba05-fcbac67dc808
- James Fontanella-Khan, "Moelis-backed Spac to merge with electric aircraft maker Archer," *Financial Times*, February 10, 2021, https://www.ft.com/content/b2e63918-fca1-4ca6-b5bf-5e72a67133a6
- 57 Richard F. Chandler, "Electric planes can carry aviation toward carbon zero," *Nikkei Asia*, October 27, 2022, https://asia.nikkei.com/Opinion/Electric-planes-can-carry-aviation-toward-carbon-zero
- Lebawit Lily Girma, "Majority of Wealthy Consumers Plan to Spend More on Travel in 2023," Bloomberg, December 7, 2022, https://www.bloomberg.com/news/articles/2022-12-07/most-wealthy-consumers-will-spend-more-on-travel-ecotourism-in-2023
- 59 World Tourism Organization, "Hotel Energy Solutions (HES)," UNWTO, https://www.unwto.org/hotel-energy-solution
- Moyuru Baba, "Carbon-negative Bhutan offers lessons on fighting climate change," *Nikkei Asia*, October 2, 2022, https://asia.nikkei.com/Spotlight/Environment/Climate-Change/Carbon-negative-Bhutan-offers-lessons-on-fighting-climate-change
- 61 "BIS Quarterly Review"
- 62 Fabio Cortes, Glenn Gottselig, Shoko Ikarashi, and Aki Yokoyama, "Market Liquidity Strains Signal Heightened Global Financial Stability Risk," *IMF Blog*, October 27, 2022, https://www.imf.org/en/Blogs/Articles/2022/10/26/market-liquidity-strains-signal-heightened-global-financial-stability-risk
- 63 "L'énergie est un bien commun et doit le rester," *Le Monde*, January 2, 2023, https://www.lemonde.fr/idees/article/2023/01/02/l-energie-est-un-bien-commun-et-doit-le-rester 6156327 3232.html

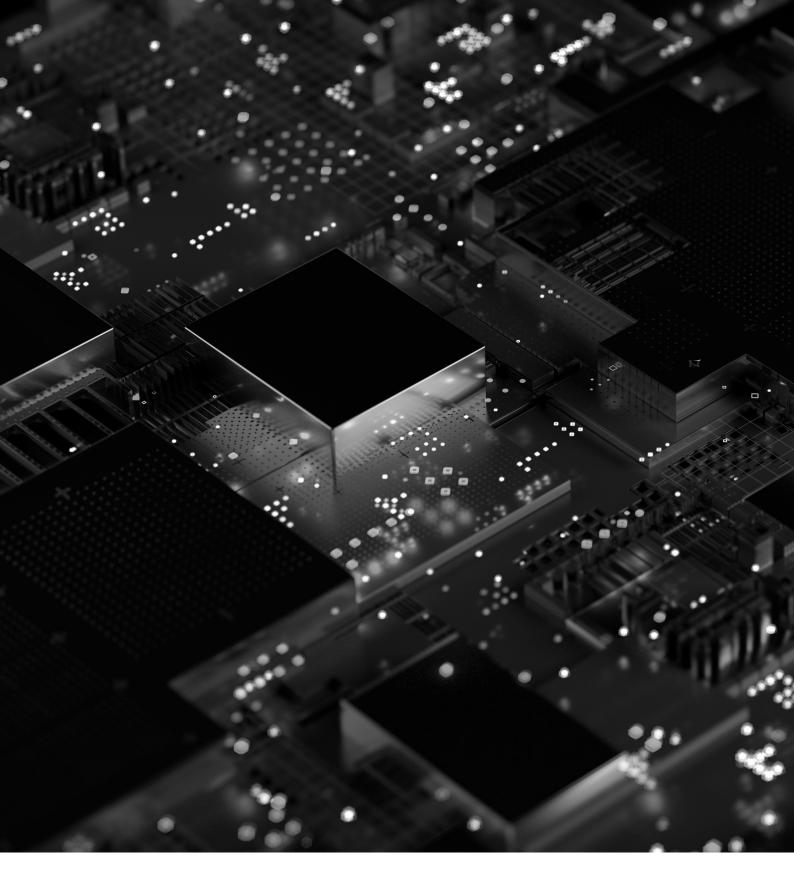


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