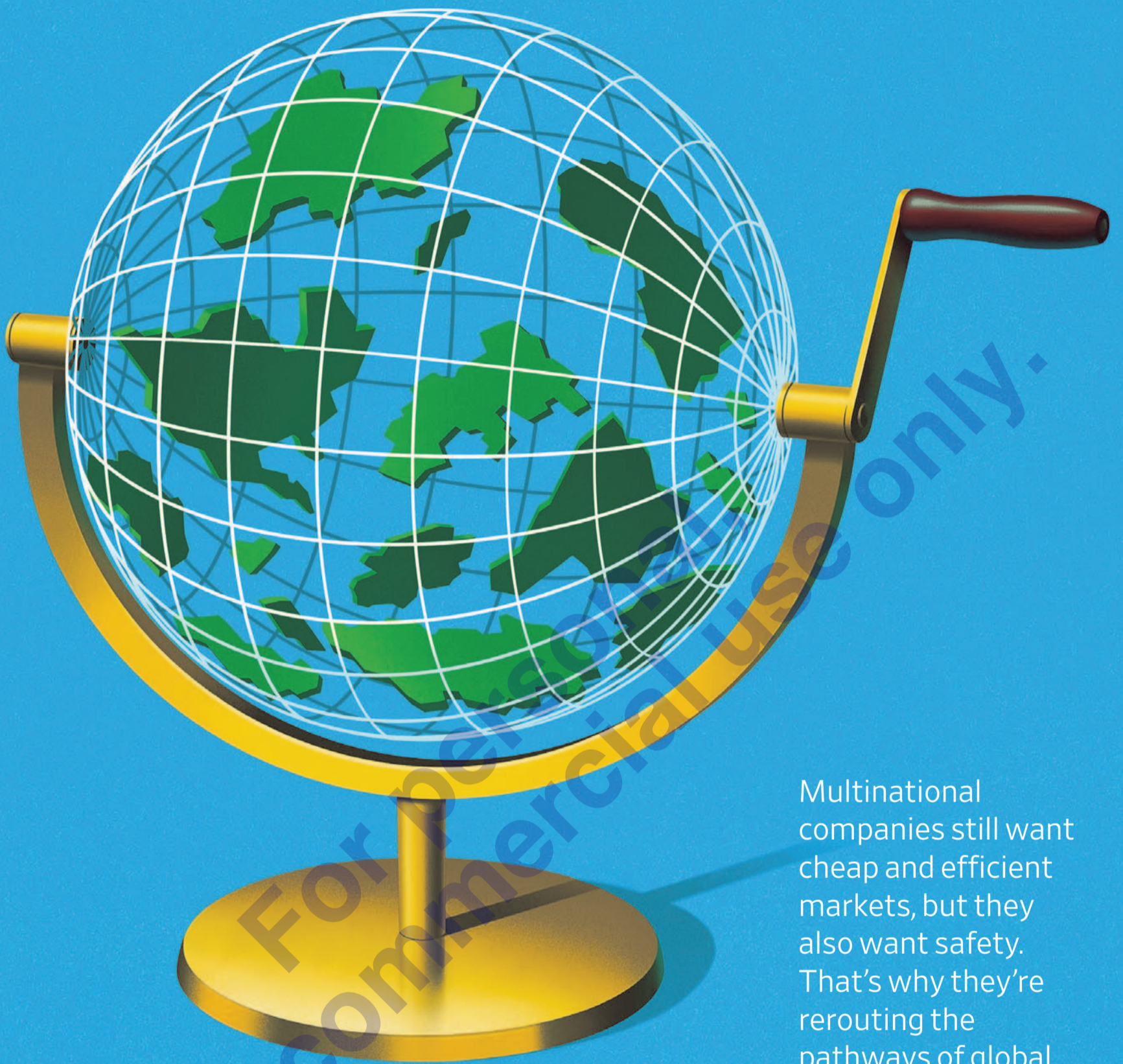


# OUTLOOK 2023

## Globalization Isn't Dead. But a Shake-Up Is Building.



Multinational companies still want cheap and efficient markets, but they also want safety. That's why they're rerouting the pathways of global trade and finance.

**T**HE future looked bright to all parties when **Alphabet Inc.**'s Google joined with **Facebook Inc.** and a Hong Kong partner in 2016 to build an 8,000-mile-long undersea fiber-optic-cable line connecting Los Angeles to Hong Kong on an information highway between superpowers. But the project didn't go as planned. The Trump administration nixed the application for U.S. approval, citing security concerns. Then the tech giants went their own

BY JON HILSEN RATH AND ANTHONY DEBARROS

way, routing their pieces of the cable line to the Philippines and Taiwan without the Hong Kong connection.

The shifting path of the Pacific Light Cable Network is a metaphor for the current state of globalization. For decades, multinational companies sought out cheap, efficient supply chains to produce goods for global export, in addition to access

to growing young populations in developing countries to spur sales. They operated on the assumption that security and political tensions between countries wouldn't obstruct their operations. That led many of them to China.

These companies are still looking for cheap, efficient and young markets. But now they also want safety, which for many has meant diversification away from direct tension between the world's great economic powers.

In other words, global economic ties haven't ended; they are being rerouted, with widespread *Please turn to page R7*

### How U.S. Policies Will Shape Trade

A lot depends on how the U.S. implements last year's measures

BY YUKA HAYASHI

**I**n just over a year, the U.S. has passed three huge budget measures aimed at transforming its domestic economy—by rebuilding infrastructure, accelerating a clean-energy transition, and boosting manufacturing in semiconductors and the automotive industry.

Each of these initiatives is focused on strengthening the U.S. economy and on boosting U.S. competitiveness in the world. But there is another crucial consideration as well: How these three policies are implemented in the months ahead could reshape global trade relations for years to come.

If U.S. policy makers use this opportunity to promote domestic industries at the expense of foreign competitors, other governments are likely to respond with their own protectionist policies, leading

to a costly breakup of global trade, government officials and trade specialists say.

But, these same experts say, if instead the U.S. is more welcoming to products from friendly nations, and works with them to achieve what some call "friend shoring"—shifting production of critical materials to friendly nations, away from adversaries including China and Russia—the countries could continue to enjoy the benefits of trade while strengthening their supply chains, these people say. *Please turn to page R6*

### Inside

#### PRICE CHECK

Why inflation may be a more lasting problem than many investors are now assuming. **R2**



Scan this code to hear how last year's confounding economic indicators will affect what's ahead in 2023.

#### Long Fight

The West hasn't come to terms with what's needed to sustain Ukraine in a war that could drag on for several years. **R4**

#### NEW TRADE ORDER

As the WTO's influence fades and countries go their own way, who will police the world's trading system? **R6**



# JOURNAL REPORT | OUTLOOK 2023

STREETWISE | JAMES MACKINTOSH

## Four Reasons Why Inflation May Be a Long-Term Problem

Investors don't appear to be worried about rising prices. Perhaps they should be.



**I**N 1974, historian and sometime presidential speechwriter Arthur M. Schlesinger Jr. summed up the problem with contemporary forecasters in a single, very long sentence in *The Wall Street Journal*: "To this moment most economists, businessmen and government officials obstinately regard inflation not as the structural vulnerability of contemporary capitalism but rather as the accidental result of unlucky coincidences requiring only patience, time (and unemployment) for its alleviation."

Were Prof. Schlesinger alive today he could not have put it better. The basic assumption of mainstream financial thinking is that inflation is temporary and will be cured by a swift course of higher rates prescribed by the Federal Reserve. Yet, there are plenty of grounds for thinking that, just as in 1974, the professor is right, and the inflationary pressures will last.

This is not to say that there are no unlucky coincidences. In 1974, inflation was boosted by rates that were too low for years and soaring energy prices due to the Arab oil embargo. Over the past couple of years, inflation was boosted by rates that were too low, a postpandemic supply-chain crunch and soaring energy prices due to Russia's invasion of Ukraine. As in 1974, these temporary factors will pass, and the latest drop in inflation suggests many of them already have. But as in the years after 1974, deep-rooted structural vulnerabilities may mean that inflation remains a problem for years to come.

There are four big risks: geopolitics, domestic politics, demographics and the Fed. The first three help determine where rates need to be to combat inflationary pressures, while the Fed's willingness to raise rates helps determine whether inflation rises or falls.

### The great divide

The new geopolitics is splitting the world into two blocs, partially reversing the globalization of the past three decades. That means more investment is needed to re-create production lines and supply chains that bypass China, while efficiency is likely to fall, as security issues rather than cost dictate location. Subsidies for



chip factories in the U.S. and Europe are the obvious expense to society, but barring some new detente, similar subsidies are likely to spread to other high-tech sectors. Doubling up production and supply chains directly reduces productivity, meaning more inflation for the same amount of economic growth.

Geopolitics is also likely to bring more spending on weapons. War on the borders of Europe has led to bigger military budgets in the region, even with-

out the cost of weapons being sent to Ukraine. Since the military doesn't boost productivity, increased spending adds to upward pressure on inflation.

On the domestic front, efforts to reduce global warming will continue to increase spending in the push to reduce fossil fuels. Some of that may help efficiency, if energy production costs fall far enough below current levels, but much of it won't. Added security again will come at the cost of efficiency.

Tanks in Poland, a wind farm in the U.S. Higher spending on weapons and energy alternatives will add to pressure on inflation.

Domestic politics in the U.S. and Europe appear to have switched from free-market capitalism to more government intervention and industrial policy. In the past that has often led governments to misdirect finance toward supporters or to trendy projects. Governments find it embarrassing to back away from failures. Badly directed investment reduces productivity, increasing inflation pressure.

### Demographic shift

Finally, demographics is working to push up inflation. After decades of adding tens of millions of well-educated, low-cost workers to the global economy every year, China has seen its working-age population begin to shrink. The additional global production that China delivered as it opened up helped control inflation during the years of "great moderation," but won't be repeated. Along with renewed interest in trade unions, it could lead to a shift of bargaining power back to workers, again pressuring inflation.

None of this matters if the Fed is willing to do what it takes to control inflation, points out Oliv-

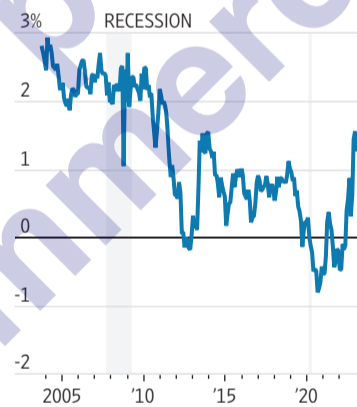
### Inflation Magic

Bond markets expect long-run inflation to be lower than before the 2008-09 financial crisis, with interest rates lower, too

Five-year inflation breakeven starting in five years



Five-year real yield starting in five years



Note: Monthly data derived from Treasury inflation-protected securities  
Sources: Federal Reserve Bank of St. Louis (inflation); Refinitiv (real yield)

## A Q&A With Klaus Schwab

He founded the World Economic Forum in 1971. Here's how he sees the state of the world now.

**T**HE past year brought war in Europe, surging inflation and an energy crisis, all while the world is still fighting the Covid-19 pandemic and related disruptions. Company executives are evaluating global supply chains and considering what they could make closer to home.

The *Wall Street Journal's* editor in chief, Matt Murray, and *Journal* reporter Thomas Gryta sat down with World Economic Forum founder Klaus Schwab in November as he prepared for his 53rd annual confab in Davos, Switzerland this month. Mr. Schwab, age 84, launched the WEF as a young academic in 1971, but it is now an independent international organization under the Swiss government, similar to the Red Cross. Edited excerpts of the conversation follow.

**• WSJ: When you think about the state of the world and the themes of this year, what stands out to you?**

**• MR. SCHWAB:** When we look at the crisis we are in, I see it less as a crisis in the usual sense. I see it as a whole transformation of our global system.

If we take the economic side, I would say we will go through a very difficult three-, four-, five-year transformation period. And the forces behind this? Of course, the war in Ukraine. And even if we solve the war, it will be reconstruction. You have the energy transformation or transition. You have the reshaping of the global supply chains. You have the post-Covid effects, which some people say are lower productivity and of course the need to invest more into resilience.

If you take all those economic forces, they bite into the purchasing power of people because, at the moment, there are costs.

If you are a company, you write it off in your balance sheet, and the shareholders are those who suffer.

We have to address this transformation, not with a crisis mentality, to have simple solutions for very complex problems, but we have to look long term.

**• WSJ: Do you see the world becoming more about more regionalized blocs that cooperate in**



A period of transformation is ahead, Mr. Schwab says.

**some areas and compete in other areas?**

**• MR. SCHWAB:** Yeah, if I would look at the political dimension of this transformation, I would argue we are going into a multipower world.

Of course, you have two superpowers, but then you have the emerging superpower like India. You have the blocs like Europe, which, in my opinion, has become stronger despite Brexit in the last three years. We should not underestimate other Asian countries. Then you have the rogue states like North Korea and Iran. Then you

have what I would call the fast fish, small countries moving fast and being some kind of role models for other countries, like Singapore, and to a certain extent, Israel.

Then you have the corporate powers, which play a substantial role, and I would even add the social communities. It will be a very complex, messy world.

**• WSJ: Do you think, when you talk about models beyond country models, is it time for new multinational institutions and new models?**

**• MR. SCHWAB:** Our existing institutions do not suffice in the world of today. One missing element is, for example, to integrate the other

ier Blanchard, a former chief economist of the International Monetary Fund now at the Peterson Institute for International Economics. "Central banks are totally committed to getting inflation under control," he says. "The issue is whether they go back to 2% or do they aim for something slightly higher."

I'm less convinced that central banks will be willing to lift interest rates enough to get inflation back to superlow levels if the trends outlined above continue. Mr. Blanchard says a rough guideline is to assume that every additional 1% of GDP that goes into investment means the real, after-inflation interest rate needs to be 1 percentage point higher. Treat military spending as akin to investment—albeit with no return—and it could easily add 1% of GDP on its own, or more than double that to return to 1980s Cold War levels. A serious effort to stick to the Paris goals on climate change could add another 1% to 2% of GDP, and that's before spending to remove China from supply chains.

Investors don't think any of this will be a problem. Bond markets are priced on the premise that inflation will rapidly fall back to the Fed's 2% target and stay there, without the Fed needing to do anything really dramatic.

Sure, real Treasury yields are much higher than their pandemic lows, when investors were willing to lock in a return below inflation for 10 years using Treasury inflation-protected securities, or TIPS. But the 10-year TIPS yield at 1.3% or so remains well below the 2.1% it averaged from 2004 to 2007, a time when China trade was helping cut inflation and German military spending reached a postwar low.

Not everything that was holding down inflation is now pushing it up. Technology helped keep a lid on inflation by making comparison-shopping easier and revolutionizing supply-chain management. Tech such as artificial intelligence, gene therapy and low-cost rocketry might help ease inflationary pressures, too.

But many of the factors that once helped central banks have gone into reverse, and investors are ignoring them. Markets are not prepared for the higher rates required if inflationary pressures prove persistent, as I expect. Worse, central bankers might not be prepared to take flak from a society that has become reliant on easy money, and may quietly accept price rises higher than their targets. If either happens, bond yields will be higher and, most likely, stocks lower than they would be otherwise.

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important stakeholders like business, media and so on into the discussions. In Davos, you will see a presentation of what we call the global collaboration village. We have created a supporting community of over 70 companies and international organizations like the International Monetary Fund or World Trade Organization to create a kind of Davos in the metaverse, in the virtual world, to have a possibility to continue the dialogue but to widen the dialogue to integrate more stakeholders.

I think what is needed is a trusted informal platform where you can speak much more in open ways and really address the issues, not in a political way, but with a will to find a solution.

**• WSJ: You said you were not surprised that there's been a backlash on some of the globalization trends. But do you think that we're in a period where we're fundamentally resetting some of the precepts? Or do you think it's a passing reaction?**

**• MR. SCHWAB:** I call it reglobalization. The world is becoming more interdependent, but on the other hand, we will have relations much more on the basis of trust, because we are not able to create the necessary norms, as the necessary rules, which we can share. The future of the world could be a kind of patchwork of coalitions which are trust-based.

FROM TOP: MATEUSZ SLODKOWSKI/AFP/GETTY IMAGES; M. SCOTT BRAUER/BLOOMBERG NEWS

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**SATISFY SHAREHOLDERS  
OR SATISFY CUSTOMERS?**

**ELEVATE EXPERIENCES  
OR LOWER EXPENSES?**

**WORK WITH LESS  
OR DO MORE?**

**YES.**

# JOURNAL REPORT | OUTLOOK 2023

## Is the West Ready for a Long War?

Time could be on Russia's side in Ukraine if the U.S. and its allies don't adjust to a prolonged conflict

BY YAROSLAV TROFIMOV

**T**HE war in Ukraine, it's clear by now, won't end soon. The bet in Moscow—and the fear in Kyiv—is that the West will lose stamina before Russia suffers a decisive defeat.

So far, Russia's expectations of discord among Ukraine's backers haven't materialized. Europe has severed its dependence on Russian energy with limited pain. As all major Western economies grew in 2022 despite the disruptions, the consensus behind supplying weapons to Kyiv has only solidified.

Yet, with Russia announcing a mobilization of hundreds of thousands of soldiers in September and switching its economy to a war footing, time could be on Moscow's side. So far, neither the U.S. nor Europe has made the adjustments, especially in military production, that are necessary for sustaining Ukraine in a war that could potentially drag on for several years. Neither are they immune to pain from further energy shocks.

"The idea that a major classic conventional war in Europe could last as long as one of the two world wars is not something we are yet ready for," says Bruno Tertrais, deputy director of the Foundation for Strategic Research, a Paris think tank. "Even though the resilience of European societies has been remarkable, it cannot be taken for granted."

### A new Congress

The same goes for the U.S. While the lame-duck Congress in December authorized \$44.9 billion in funding to support the war in Ukraine, probably enough for the next nine months, new Republican control of the House means that further military and civilian aid packages for Kyiv may be more complicated to fund.

If time works to Moscow's advantage, it's in the West's interest to dramatically increase support for Ukraine in coming months, abandoning the excessive caution that characterized weapons deliveries until now, says retired Air Marshal Edward Stringer, former head of operations at the British Defense Staff.

"By continuing to drip-feed just enough for Ukraine not to

unlike Russia's—is largely continuing to follow peacetime procedures and schedules.

"The West, in general, naturally overshadows Russia in economic potential and defense-industrial capacity, and that should make you believe that, in a protracted war, Ukraine with Western support stands a much better chance of winning the conflict," says Michael Kofman, director of Russia studies at the Center for Naval Analyses, a think tank that advises the U.S. military. "But that is not a predetermined outcome. Potential is

munition and materiel.

Long term, the arithmetic of manpower works to Moscow's advantage as Russia has 3.5 times Ukraine's population. Even if Russia loses two soldiers for every one Ukrainian service member killed, it still improves its relative strength. So far, Western officials say, Russia's battlefield fatalities—numbering in several tens of thousands—are comparable to Ukraine's.

The calculus on ammunition and weaponry is more complicated. Ukraine uses up Western-supplied 155 mm artillery shells

new ammunition production lines, but these are unlikely to make a major difference until next year, creating a potentially dangerous gap between Ukraine's and Russia's firepower in the second half of 2023.

### An existential fight

Russia's mobilization has already allowed Mr. Putin to stabilize the front line, and to launch a counteroffensive around the city of Bakhmut in the eastern Donetsk region. Possibilities of a negotiated settlement are remote in the foreseeable future.

"Any notion of the peace process is out because Putin is doing everything to make clear that this is existential for him," says Ivo Daalder, a former U.S. ambassador to NATO who heads the Chicago Council on Global Affairs. With no end to the conflict in sight, he says, the U.S. and allies should start preparing to integrate the government-controlled majority of Ukraine into Western institutions, without waiting for the war's conclusion.

Ukraine says its war aim is to oust Russia from all territories conquered in the past year and from the areas it lost to Russia in 2014, including Crimea.

Ukraine regaining even part of these areas would endanger Mr. Putin's hold on power at home.

Russia seeks, at a minimum, to conquer the Ukrainian-held parts of Ukraine's Donetsk, Luhansk, Kherson and Zaporizhzhia regions that Mr. Putin declared to be part of Russia in October. Almost the entire front line now runs across what Russia considers to be its own sovereign soil.

Ukrainian officials warn that Moscow's initial war goal, the occupation of Kyiv and the entirety of the country, hasn't changed—and that any pause in the conflict would be used by Mr. Putin to regroup and strike again.

"They are preparing for new battles, for new offensive operations, not for talks. Nothing speaks in favor of Russia being ready to talk," says Ukraine Foreign Minister Dmytro Kuleba. "I know Russia, I see what is happening in Russia. And I think it's either them or us. There is nothing in between now anymore."

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Ukrainian soldiers near Bakhmut, site of a Russian counteroffensive.

lose, what the West is doing is just prolonging the war," Air Marshal Stringer says.

Ukraine's own once-significant defense industry has been decimated by Russian airstrikes, and the country now is almost wholly reliant on Western-provided weapons and ammunition to survive. While Russia's economy, roughly the size of Spain's, is a minnow compared with the combined might of the U.S. and its NATO allies, Western defense procurement and manufacturing—

just that. It takes a great deal of will, and wars are fundamentally a contest of wills."

### Manpower math

Before last fall's mobilization, Russia suffered from manpower shortages in Ukraine while relying on an overwhelming advantage in artillery firepower. Now that Russia has mobilized 300,000 reservists, it has solved its manpower problem just as it's starting to run low on am-

at roughly twice the rate that they are being manufactured by the U.S. and allies, military analysts say. At this rate of fire, Kyiv could draw down U.S. and European reserves to critical levels at some point this summer or fall.

By then, Russia may be able to expand its own ammunition production to keep pace with the tempo of the fighting. The U.S. and allies are also investing in



Travelers in Hong Kong as the border with mainland China reopened.

## China Faces a Rocky Emergence From the Zero-Covid Era

Xi Jinping confronts instability at home and abroad

BY CHUN HAN WONG

**C**HINESE leader Xi Jinping went from cementing his supremacy last fall to battling a public-health and economic crisis into the new year—fallout from an abrupt pivot from "zero Covid" that could cast a shadow over China for months.

Mr. Xi secured a norm-breaking third term as Communist Party chief in October, and stacked the leadership with allies who sang their leader's praises and trumpeted his vision of a thriving China. That rosinness dissolved

amid intensifying economic pain and a wave of public protests against Mr. Xi's zero-tolerance Covid strategy of lockdowns and border controls, followed by a haphazard dismantling of pandemic protocols that threatens to further batter the world's second-largest economy.

Some analysts describe China's tumultuous exit from zero-Covid policies as largely self-inflicted pain, exacerbated by Mr. Xi's domineering style. The repercussions could be profound for Mr. Xi, who had touted his pandemic strategy as an example of the Communist Party's superior governance.

"This is likely to be a year of

turbulence for Xi Jinping," says Alfred Wu, an associate professor at the Lee Kuan Yew School of Public Policy in Singapore.

The party's energies are set to be consumed managing the economic and social impact from the end of zero Covid, as well as restoring public trust, Mr. Wu says, adding, "Xi claims all the credit but deserves all the blame, too."

### Seeking 'reasonable' growth

Chinese leaders promised to deliver "reasonable" economic growth in 2023, calling on officials to stimulate domestic demand while signaling plans to further ease regulations that have triggered a downward spiral in the property market and hampered private business investments.

Mr. Xi also brooked no criticism of his top-down methods. At a Politburo meeting in December, Mr. Xi insisted on "absolute loyalty" to his leadership "under any circumstance," while appearing to blame local officials for faulty implementation of his policies.

Many economists expect a fraught year ahead for China, citing the risk of surging Covid-19 infections disrupting supply chains and overwhelming the healthcare system. Though some analysts forecast a rebound in commerce and consumption after fresh outbreaks subside, possibly in the spring, it remains to be seen how firm this recovery will be.

### Tentative consumers

Chinese consumers appeared tentative as 2022 drew to a close. Domestic trips edged up 0.4% over the New Year holiday weekend compared with a year earlier, while tourist spending ticked up 4%. Movie box-office receipts fell more than 45% year-over-year.

Beijing also faces an uphill bat-

tle in rebuilding confidence among businesses, which increasingly regard Mr. Xi's government as capricious in setting policy, says Jörg Wuttke, president of the European Union Chamber of Commerce in China.

In a 2022 survey of its members, the EU Chamber said 60% of respondents reported increased difficulties in doing business in China, compared with 47% in the previous year, in part due to the opaque regulatory environment and the increased politicization of business. "We associate China with a very well-planned, well-organized government, and all of a sudden we see it capitulate in the face of Omicron," Mr. Wuttke says. "That takes away a lot of trust in the government's abilities."

The onus therefore falls upon the Xi administration to restore public confidence, economists and business groups say. "Chinese citi-

zens know who is in charge," says Andrew Collier, managing director of Orient Capital Research in Hong Kong. "The huge death toll, coupled with the collapsing property market, are going to test the people's trust in Beijing in 2023."

### International tensions

On the diplomatic front, Beijing's transition to a postpandemic future has raised hopes that a revival of cross-border interactions could help mitigate geopolitical tensions with the West.

China's ties with Western governments remain fraught over Beijing's support for Moscow throughout the Russian invasion of Ukraine. Tensions with the U.S. still simmer even as Mr. Xi and President Biden, who met in November, pledged to restore dialogue and a measure of stability in a fractious relationship.

Beijing, which claims Taiwan as its territory, continues to regard with deep suspicion U.S. efforts to strengthen cooperation with the island. Since then-House Speaker Nancy Pelosi's August visit to Taipei, which China condemned, the People's Liberation Army has conducted an array of combat drills that showcased capabilities to cut off Taiwan. Nonetheless, the Biden administration has pledged to continue providing arms and training to help Taipei defend itself.

Notwithstanding recent setbacks, Mr. Xi seems set to double down on his priorities, says Mr. Wu, the Singapore-based academic. "In difficult times like these, he often emphasizes the need for greater 'fighting spirit,' and insists that they must overcome any challenges."

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60%

of European companies in China reported increased difficulties doing business there in 2022, up from 47% the prior year

Nearly 250 million

people in China were infected with the coronavirus between Dec. 1 and Dec. 20, according to notes of a National Health Commission meeting seen by The Wall Street Journal

45%

Decline in movie box-office receipts in China over the New Year's holiday weekend from a year earlier

Sources: European Union Chamber of Commerce in China (60%); WSJ; Lighthouse (45%)



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# Oil Prices Are Seen Staying Steady This Year—With a Couple of Big Ifs

The big unknowns: How much oil will China consume, and how cautious will U.S. frackers be?

BY COLLIN EATON AND BENOÎT MORENNE

**OIL PRICES** generally aren't expected to change dramatically this year, but two big questions loom over that

outlook: Will China have the workers needed to rev up its economy as the country loosens its Covid restrictions? And will American energy companies focused on fracking stick to their recent reluctance to bankroll another expensive oil boom?

Brent, the international oil standard, peaked above \$127 a barrel last year but has since tumbled, trading around \$84 a barrel Thursday. Around two-thirds of energy executives surveyed by the Federal Reserve Bank of Dallas late last year expected West Texas Intermediate oil prices—which tend to fluctuate a few dollars a barrel below Brent—to end 2023 between \$70 and \$90 per barrel. The forecast is based largely on the fact that analysts expect global oil supply to outpace demand this year as economic growth slows.

The biggest wild card for oil

prices is China. Analysts at Bank of America Corp. expect China's economy, emerging from Covid-19 restrictions, will add 700,000 barrels a day to global growth in oil demand this year. But uncertainty surrounding the trajectory of Covid cases in China could affect the country's economic rebound, they say.

Robert Yawger, executive director for energy futures at Mizuho Securities, says a surge of Covid-19 cases in China would curb demand for crude there, because without enough workers, "you can't start industry up."

That could push oil prices down below consensus expectations. But uncertainty about China cuts both ways. Several analysts have said oil prices could shoot higher than generally expected, perhaps well above \$100 a barrel, if the reopening of China's economy produces unexpectedly strong growth.

### U.S. output

Then there's the question of the American shale industry's plans.

U.S. energy companies that rely primarily on fracking—which account for nearly two-thirds of U.S.

oil output—are maintaining a cautious approach to start 2023, pledging not to overspend in an effort to ramp up production and focus instead on maximizing profits. It's a strategy they began following in response to shareholders exploring the companies to cut back spending in pursuit of growth.

The changed approach has helped restrain the country's oil production. Many analysts initially projected growth of a million barrels a day or more in 2022 for U.S. oil output. But last year's output is now expected to have increased by less than 600,000 barrels a day, according to James West, a senior managing director at investment-banking firm Evercore ISI.

This year, output is again expected to increase much less than in the past decade's boom years. American oil production is expected to increase about 680,000 barrels a day this year, according to the Energy Information Administration's latest outlook—less than the increase of about 1.1 million barrels a day the EIA forecast for 2023 early last year. In its latest forecast the EIA revised its estimate of output for December 2022 down significantly because of the impact of unusually severe weather that month.

If the U.S. shale industry continues to restrain spending on production growth, that would put upward pressure on prices, or at least fail to counter any price in-

creases that could arise from other factors such as a surge in demand from China.

### Industry commitment

Some investors question whether the industry will stay committed to budgetary discipline in the wake of sustained high oil prices. But there are several reasons a turnaround is unlikely. For one, the resistance to production increases is now ingrained in executive-compensation plans that give priority to shareholder returns over increased drilling.

### Energy Rally

The S&P Energy index has jumped about 60% since the start of 2022



Source: S&P Dow Jones Indices

Production is also being limited by elevated costs of labor, manufactured equipment and raw material such as steel. In addition, some oil executives have warned that companies are running through their top-quality well locations quickly, another reason not to increase output. "Companies realize inventories are finite," says Steven Pruett, chief executive of Elevation Resources LLC, a producer operating in the Permian basin of West Texas and New Mexico.

Spending by oil companies in the U.S. is expected to rise about 20% this year. But that increase is largely due to cost inflation, not greater investment in production, says David Deckelbaum, an analyst at Cowen & Co.

U.S. oil producers have profited from their focus on cost-cutting rather than production increases. The top 10 independent U.S. oil producers collected a combined \$19 billion in free cash flow in the third quarter of 2022, according to FactSet, up from about \$12 billion for the same period in 2021. Several U.S. oil producers saw record quarterly cash generation last year.

Despite that profitability, many investors are still wary of plowing money into shale companies, says Matt Stephani, president of investment adviser Cavanal Hill Investment Management. After years of losses during the industry's earlier pursuit of rapid growth, investors are still feeling out whether the industry is a safe bet, Mr. Stephani says. "There's still some skepticism."

Mr. Eaton and Mr. Morenne are Wall Street Journal reporters in Houston. They can be reached at collin.eaton@wsj.com and benoit.morenne@wsj.com.

**\$19 billion**

The amount of cash, after capital expenditures, generated by the top 10 independent U.S. oil producers in the third quarter of 2022

**3.1%**

The projected increase in daily U.S. oil production from year-end 2022 to year-end 2023, according to the Energy Information Administration

**\$80-\$90**

The per-barrel oil price that nearly 45% of U.S. oil executives expect by the end of 2023, according to a recent survey by the Dallas Fed

**10%**

Exxon Mobil's expected growth in oil production this year and beyond in the Permian Basin, the top U.S. oil field, down from about 20% in 2022 and 25% in 2021



A pump jack in Odessa, Texas, pulls oil from the Permian basin. U.S. producers are expected to raise output moderately this year.

ON THE CLOCK | CALLUM BORCHERS



## Workers, Get Ready for a Return to Normal. Call It the Great Rebalancing.

This may be the year when employer-employee power dynamics gets back to more familiar terrain

**A**MERICAN workers' wild ride is coming to an end.

After three whip-lash-inducing years of, first, professional vulnerability and, then, perceived invincibility, many people are returning to more typical levels of career security and leverage.

Call it the Great Rebalancing of the employer-employee relationship.

"We're clearly headed there," says Heidi Shierholz, president of the Economic Policy Institute.

Not long ago, at the pandemic's onset, things were so bad that people lost jobs in record numbers as the U.S. unemployment rate reached 14.7%.

Then things got so good that workers resigned in record numbers. There was a catchy name for this trend, I believe.

Adding to the volatility, savings swelled and shriveled with the stock market, causing some people to lurch between hope for an early retirement and fear of working forever. Raises that made some feel flush were offset by inflation, in many cases.

The "quiet quitters" who reduced their on-the-job efforts while feeling untouchable last year may now be angling to fill key roles when their companies freeze or cut head counts.

Ms. Shierholz says that workers are still in good shape, overall, but certain key metrics are trending down toward normal ranges. December's hourly earnings increase of 4.6% from a year earlier was the smallest rise since mid-2021, and the 223,000 additional jobs were the fewest per month in two years.

To complain about such de-

creases would be akin to griping if Yankees slugger Aaron Judge were to hit only 50 home runs this year, after smacking an American League-record 62 last season. It's unrealistic to expect new peaks all the time, and it's worth remembering what 2020 was like. (Mr. Judge, beset by injuries, hit 9 homers that year, by the way.)

Francesco Carucci, a California software developer, says he knew that his pay package was "wildly inflated" when he joined Meta Platforms Inc. last January. He says Facebook's parent company tripled the total compensation that he earned at his previous employer, amid a hiring spree in a historically tight labor market.

Then Meta laid off Mr. Carucci late last year in a round of 11,000 job cuts. Being aware of his bloated comp didn't dull the sting of losing it, he says, and he got an

additional reality check this month when he accepted an offer that is worth half of the one he received a year ago.

Still, he says his new pay is reasonable—more than what he made a few years ago—and the interview and negotiation process was more in line with what he has usually experienced over a 25-year career. He adds that he's trying not to take the layoff personally. He views it instead as part of a natural and inevitable correction to the job market.

Others would do well to practice the same attitude. Andy Challenger, senior vice president of Challenger, Gray & Christmas, which helps companies manage layoffs and provides career coaching to the dismissed, tells me that business is picking back up after two of the slowest years in the firm's history.

He offers a blunt translation of what that means: "We know that there are a lot more layoffs coming."

Ominous as that sounds, Mr. Challenger says the prospects of finding new work are generally good. Job openings, while shrinking, still outnumber the unemployed by several million, according to federal data. He expects that gap to narrow as the year goes on and advises job seekers to redouble their urgency.

"It's not a time to lay back and feel too comfortable about the tight labor market," he says. "Even if you're getting lots of messages from recruiters today, that can dry up pretty quickly as things turn."

Mr. Borchers writes the weekly On the Clock column in The Wall Street Journal. He can be reached at callum.borchers@wsj.com.

# JOURNAL REPORT | OUTLOOK 2023

**G**OVERNMENTS are stepping into the energy markets in a way the world hasn't seen in decades, propelled by a tug of war over oil and natural gas and a heightened sense of urgency on energy security.

Russia's war on Ukraine and the resulting turmoil in fossil-fuel markets has been a major factor in the interventionism, prompting countries to shore up supplies, tackle soaring prices and rethink where they get their energy.

In Europe, where fuel shortages and price shocks have been particularly acute, Germany and France have moved to nationalize big energy companies that were facing huge losses, while the European Union is rolling out a cap on the price of natural gas.

The U.S. has released millions of barrels of oil from its strategic reserves in an attempt to reduce gasoline prices, used emergency powers to bolster the import of solar panels and unleashed a torrent of measures to help create domestic supply chains for clean energy.

Last month, the EU and the Group of Seven advanced democracies said they would try to prevent Russian crude oil from selling at a price higher than \$60 a barrel. Russia has retaliated by refusing to sell its oil and petroleum products to those countries.

Such steps have already exacerbated uncertainty in markets and roiled relations between countries. The trend is likely to intensify in 2023 and beyond, energy experts say.

"Government is back in the energy business in a big way," says Daniel Yergin, vice chairman of S&P Global and a long-time chronicler of energy trends.

## A guiding hand

Government intervention in energy markets isn't new. In the West, the pendulum tends to swing between less meddling when fuel supplies are stable and more during times of stress. The latest period of heavy intrusion was during the 1970s, when disruptions to the supply of oil from the Middle East sent prices soaring and left drivers in the U.S. and other countries in long lines for gasoline, energy analysts say.

The current surge in activism was also spurred by fuel shortages and skyrocketing prices, af-



A floating terminal for natural-gas tankers in Wilhelmshaven, Germany, is part of efforts to replace Russian supplies.

# Governments Push Deeper Into Energy Markets

Energy security became paramount following Russia's invasion of Ukraine, prompting governments to take aggressive steps to shore up supplies and tamp down prices

BY PHRED DVORAK

ter the fallout from Russia's invasion of Ukraine further squeezed supplies that were already strained by years of underinvestment, the analysts say.

This time, the shocks to the global energy system are even greater than they were in the 1970s, since they are affecting not just oil markets but other energy sources such as natural gas, coal and uranium, says Mr. Yergin.

Before the invasion, Europe imported around 40% of its gas and 30% of its oil and refined products such as diesel from Russia. Between European sanctions and Russian moves to reduce exports, those percentages will likely dwindle to the single digits this year.

The stress of supply crunches is being compounded by geopolitics, as the U.S., Europe and their allies pull away from Russia and its fuel exports, while China, India and others lean in. Heightened energy-security con-

cerns and the attraction of new, lucrative markets are prompting governments to play a bigger role in industries such as solar or wind too.

"The whole map of global trade and energy is being redrawn for traditional oil and gas," says Jason Bordoff, founding director of the Center on Global Energy Policy at Columbia University. At the same time, "new clean-energy sources are coming into the global market and...countries are trying to intervene in markets to affect where those get developed," he says.

## Cost and supply

Much of what governments are doing is aimed at curbing high fuel prices and fending off shortages, moves that in some cases have helped countries secure badly needed supplies and head off economic damage.

German officials say the government's takeover of utility Uniper SE, which was struggling with massive losses from pur-

chases of natural gas at soaring prices, has helped keep the country's energy system stable. In the U.S., solar-industry executives credit moves by the Biden administration with easing some of the squeeze on panel supplies.

But some analysts warn that intervening in the markets could have the opposite effect.

"Government intervention in these kinds of markets is a two-way sword," says Joseph Majkut, director of the energy-security and climate-change program at the Center for Strategic and International Studies. "Things can happen that are unintended."

'The whole map of global trade and energy is being redrawn for traditional oil and gas.'

—Jason Bordoff, Center on Global Energy Policy

Take Europe's gas-price cap, the goal of which is to prevent a disastrous increase like last summer's, when supply disruptions at a major gas pipeline from Russia helped push prices to a new high, pummeling businesses and the economy. The cap could result in supply heading to places like Asia instead of Europe, potentially worsening

shortages on the continent, said an October report from the U.K.-based Oxford Institute for Energy Studies.

"Political intervention remains one of the biggest risks faced by the energy industry and has the long-term effect of reducing confidence," the European Federation of Energy Traders said in a response to the EU's decision to implement the cap at the end of December.

Some natural-gas traders have already trimmed positions in Europe out of fear that the markets will get less liquid and more volatile, says Yan Qin, a lead analyst at data provider Refinitiv.

## How much power?

Some energy analysts say that there are limits to governments' ability to sway global markets, and that concerns over intervention may be overblown. The U.S.,

for instance, is urging its oil-and-gas companies to produce more, but it doesn't control what they ultimately do, says Dan Klein, S&P Global Commodity Insights' head of energy pathways. The data provider is predicting that prices in most energy markets will likely be lower this year than in 2022, he says.

Warm weather recently in the U.S. and Europe has pushed natural-gas prices down to levels last seen before the war in Ukraine, while much Russian oil has been trading below the G-7's \$60 price cap, largely on sales to countries such as China and India that aren't implementing the cap.

Still, many energy experts say the effects of more-muscular government energy policies are rippling through the industry in other ways, changing money flows and stressing relations between countries.

Investors are pouring money into clean-energy projects in the U.S.—sometimes pivoting from projects in other countries—attracted by generous tax incentives and other subsidies Congress rolled out last year. That has raised hackles in Europe and Asia, particularly among car makers upset at rules that could give beefier tax credits for electric vehicles whose components were made in the U.S.

Last month, the U.S. delayed releasing the details of those rules following strong protests from some of its allies.

"Alliances that we have today are under more strain" in today's energy landscape, says Kevin Book, managing director of Washington, D.C.-based research firm ClearView Energy Partners LLC.

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# JOURNAL REPORT | OUTLOOK 2023

# The Anxious Global Consumer: By the Numbers

BY RACHEL WOLFE

Shrinking real wages, a slowing job market and pressure on retirement savings have many people feeling gloomy. Slowing inflation may brighten the outlook.

**M**ANY consumers around the world see an economic downturn coming in the year ahead. U.S. consumer sentiment reached an all-time low in June 2022 and remains 15% below where it was a year ago, according to the University of Michigan. Expectations also took historic dips over the past year and remain depressed in Europe and China, according to

TradingEconomics data from the European Commission and National Bureau of Statistics of China.

People feel uncertain about their own and their country's financial futures due to such factors as stubbornly high energy and food prices, the war in Ukraine and lingering Covid-19 disruptions, says Joanne Hsu, director of the Surveys of Consumers at the University of Michigan.

The relatively strong global labor market over the past few years has allowed people to keep spending, economists say, though many predict employment will contract in the coming

months. One bright spot: Inflation appears to be easing in some of the world's largest economies.

There is no widely referenced universal survey of consumer sentiment around the world, but the following data on monthly wage growth, unemployment, wealth and retirement, and inflation help paint a picture of an anxious global public.

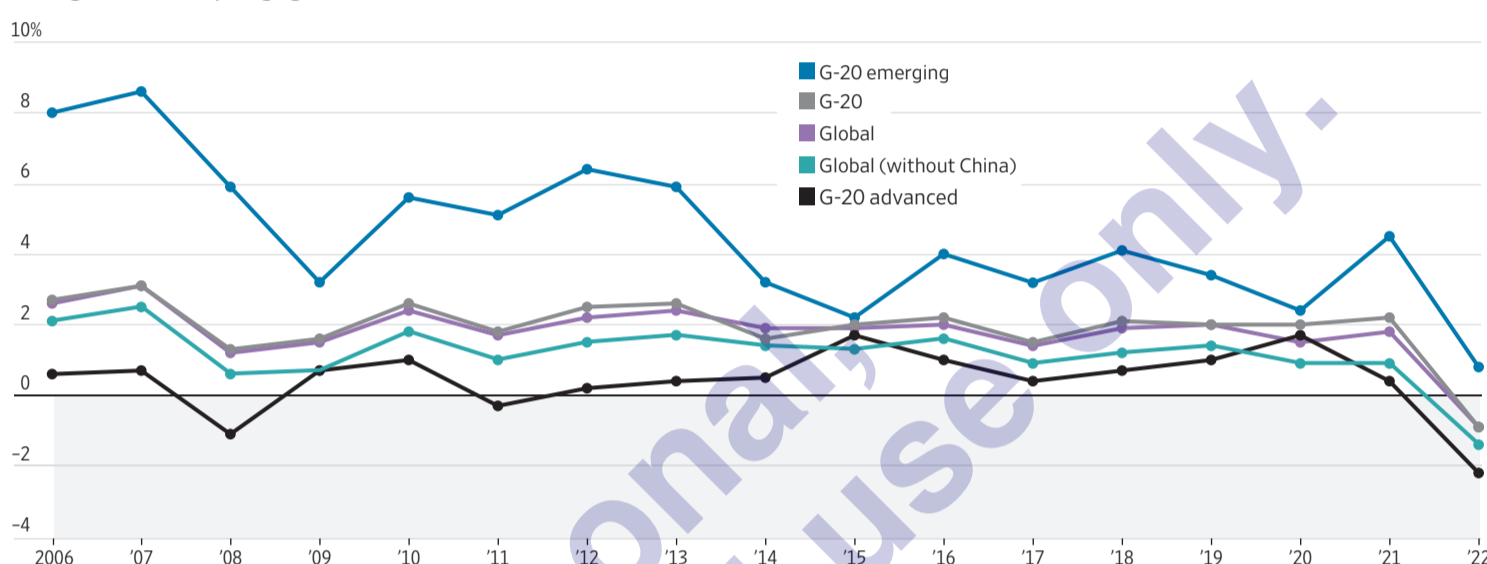
*Ms. Wolfe is a Wall Street Journal reporter in New York. Email [rachel.wolfe@wsj.com](mailto:rachel.wolfe@wsj.com).*

## Real wage growth dropped

Inflation has caused consumer purchasing power to plummet, according to a November 2022 report from the International Labour Organization. Although nominal wages increased in many countries, they did not keep up with inflation.

Real global monthly wages, including China, fell 0.9% in the first half of 2022, the ILO says. That was the first time this century that real (inflation-adjusted) global wages have fallen. Without China, global monthly wages were down 1.4%. Among advanced G-20 countries, including the U.S. and U.K., real wages declined an estimated 2.2%, while real wages in emerging G-20 countries grew by 0.8%, 2.6 percentage points less than in 2019. Rising inflation has had the biggest cost-of-living impact on lower-income earners, ILO research officer Rosalia Vazquez-Alvarez says.

Average real monthly wage growth\*



## The job market is slowing

We're at the start of a downturn in the labor market, a new report from Oxford Economics suggests. The study—which tracked whether the word “job” and other labor-market terms were referred to positively or negatively across 400,000 sources in 123 languages—finds that sentiment is coming

down quickly in countries around the world, especially in Europe. “Most of the lines here are pointing downwards now,” says Innes McFee, the report's co-author and chief global economist at Oxford. Mr. McFee says the labor market might be starting to feel the impact of the central banks raising rates.

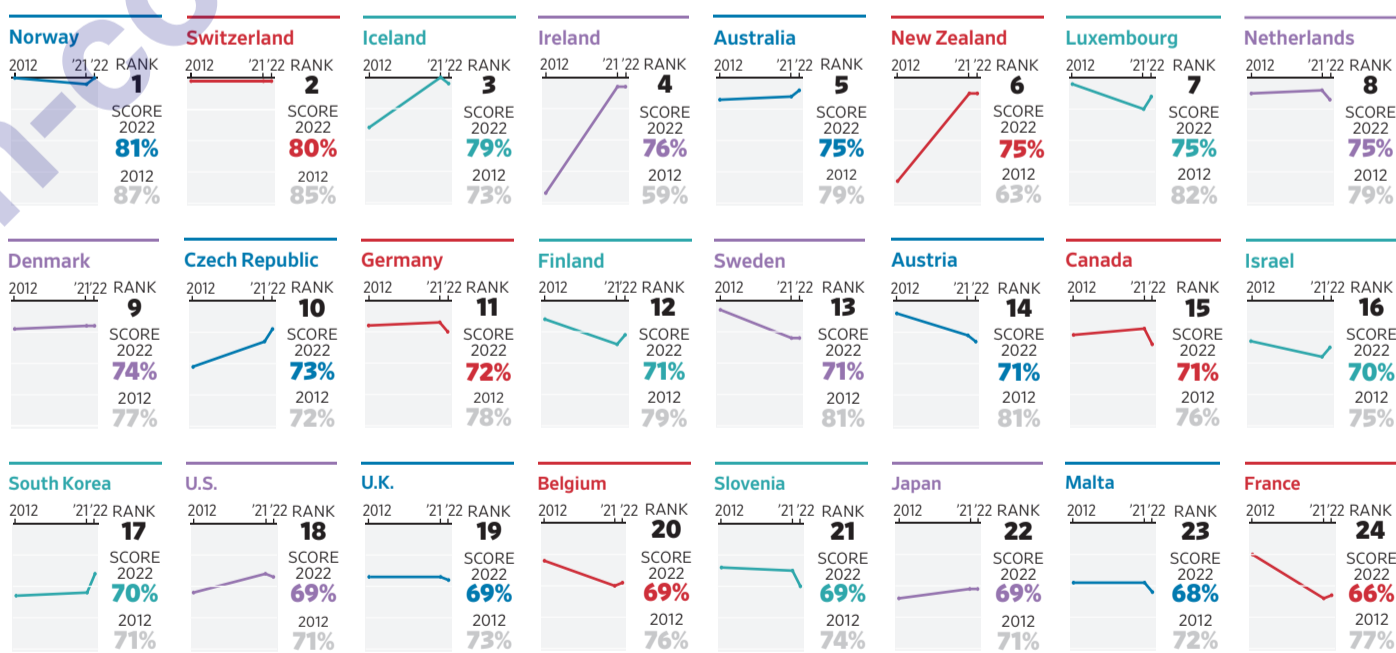
Employment growth



## Retiring is becoming more difficult

Last year marked one of the worst to retire in recent memory, according to the Natisis Center for Investor Insight's annual Global Retirement Index. Almost every developed country is finding the challenge of ensuring a secure retirement for their citizens greater than a year ago, executive director Dave Goodsell says. Global Retirement Index scores, shown here, are relative to how well a country performs compared to others in the index. Each country's score is based on how well retirees can answer four questions: “Can I afford to live in retirement? Will I have access to the quality healthcare I need? Will the economy be supportive of my retirement? Will I live in a healthy environment?” Many country's scores have declined, which Mr. Goodsell attributes to inflation forcing people to spend down their savings more quickly, and the rapidly aging population in the developed world.

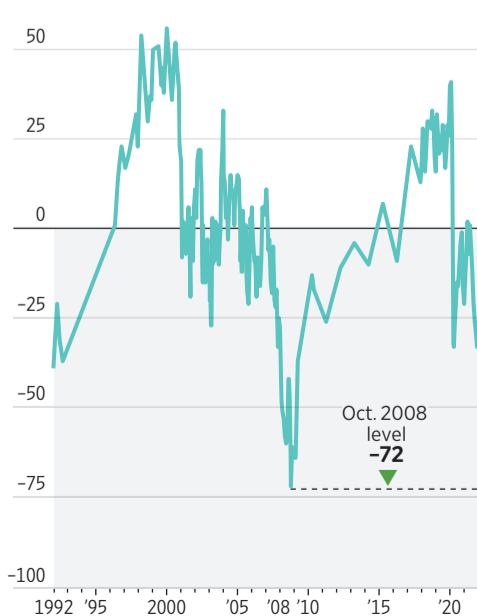
Wealth and retirement



## American economic confidence remains low

Gallup has been measuring the American public's faith in the economy since 1992. Average confidence over the past 20 years has been close to zero, reflecting roughly equal periods of positive and negative scores over the three decades of measurement. As of November, confidence was at minus 39. “That is what I would call in profoundly negative territory,” says Lydia Saad, Gallup's director of U.S. social research. That number is in the bottom 10% of the firm's monthly readings since 2001 and reflects the 55% of Americans who said they had experienced financial hardship because of rising prices as of December, Ms. Saad says. The index had been as low as minus 58 in June and Americans continue to be less confident about the economy now than they were in 2021 and early 2022.

U.S. Economic Confidence Index



## Inflation is beginning to slow

Despite all this, inflation appears to be slowing. If that continues in 2023, some of the economic pressure might dissipate and real wages could rise. In December, the U.S. consumer-price index was up 6.4% from a year earlier, compared with a 9% increase in June. Gasoline prices in the U.S. have fallen in recent months, though groceries remain stubbornly expensive and energy bills are still a concern, especially in Europe as a result of the war in Ukraine.

Inflation rate

World Economic Outlook 2022, April and October editions



\*Wage growth for 2022 was estimated by comparing the first two quarters of 2022 with the corresponding period in 2021. The G-20 comprises Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the U.K., the U.S. and the EU. Sources: International Labour Organization estimates based on official national sources (wages); Oxford Economics/Penta (unemployment); Natisis Investment Managers and CoreData research (retirement); Gallup (confidence); International Monetary Fund (inflation)

## JOURNAL REPORT | OUTLOOK 2023



KEYWORDS | CHRISTOPHER MIMS



# Central-Bank Digital Currencies Are Coming —Whether Countries Are Ready or Not

The development could have a profound impact on the banking system. But few people understand it.

“CENTRAL-BANK digital currency” doesn’t exactly roll off the tongue. But you might want to get used to saying it. These so-called CBDCs, or digital versions of dollars, yuan, euros, yen or any other currency, are coming, say those who study them. And depending on how they are designed and rolled out, their impact on the banking system could be profound.

One hundred and fourteen countries are exploring digital currencies, and their collective economies represent more than 95% of the world’s GDP, according to the Atlantic Council’s Central Bank Digital Currency tracker. Some countries, including China, India, Nigeria and the Baha-

mas, have already rolled out digital currencies. Others, like Sweden and Japan, are preparing for possible rollouts. The U.S. is studying the issue and has run trials of various technologies to enable a digital currency, although Fed chair Jerome Powell has indicated the U.S. central bank has no plans to create one, and won’t do so without direction from Congress.

Debates about the necessity, utility and potential pros and cons of digital currencies are often confusing, and confused, in part because every country rolling out a digital currency is doing it in its own way.

Generally, however, CBDCs can be roughly divided into two types: those designed for use by financial institutions and those designed for use by the general public.

### Old vs. new

The first type is just a new way for central banks to transfer money to commercial banks.

More specifically, some central banks are testing whether money transfers between financial institutions—which in some cases can take days to settle—might be made safer and more efficient under a system in which central-bank money is represented by digital tokens and transactions are settled on a shared distributed ledger, concepts borrowed from cryptocurrency and blockchains. One such system is being tested by the New York Fed and a range of big U.S. banks and financial institutions.

The second type of CBDC is a digital version of fiat money made available to the general public through accounts held by a central bank or a commercial bank. From the perspective of a

regular person or business, this kind of CBDC isn’t any different from the electronic money in their bank accounts today—it’s just a digital dollar. What makes these kinds of CBDCs special is that they are created, and held, in accounts that a central bank has direct access to. If another pandemic happened, for example, the Fed could just deposit stimulus “checks” into every U.S. citizen’s digital-currency account.

This type of CBDC represents a departure from the way money is created and distributed today, in that everyday people would now have accounts, or “wallets” that contain money created by their country’s central bank itself, instead of by their commercial bank. It represents a profound shift for central banks, from their traditional role as providers of money to a country’s banking and financial system, to connecting directly with everyday people.

China’s digital yuan is one such currency, and it can be used by everyday Chinese people through existing, and very popular, digital payment services like Alipay and WeChat Pay. India’s digital rupee is an equally bold experiment in allowing the country’s citizens to transact with a digital version of their currency in a way that could bypass traditional banks.

### Question of control

At this point, the average person is probably wondering why, in a world in which billions of people have become accustomed to paying for things with electronic payment systems already, anyone needs a digital version of their currency.

The answer to that question

depends on the motivations of the central banker, analyst or academic you ask. Many who study digital currencies argue that at the most basic level, a digital currency is all about control. The rise of cryptocurrencies—which are another form of digital money, but one that isn’t controlled by a government or other central authority—and the potential of one nation’s digital currency to eat away at the dominance of others’ has driven interest in official digital currencies.

“There’s a worry that if we don’t launch a digital currency in the U.S. or Europe, China will set all the standards for them, and then we’ll be at a disadvantage,” says Megan Greene, global chief economist at the risk and financial advisory firm Kroll. “Also, digital currencies like crypto really scared the bejeezus out of central bankers.”

What central bankers and

114

countries are exploring digital currencies

>95%

The share of global GDP that those 114 countries represent

Source: Atlantic Council Central Bank Digital Currency tracker

other interested parties—like the Biden White House, which in a September report outlined the possibilities of a digital U.S. dollar—fear is the potential of cryptocurrencies to wrest control of the creation and transfer of money from central banks, leaving them without the tools they currently have for preventing their respective economies from running too hot or too cold.

All of these threats remain entirely hypothetical for now, says Eswar Prasad, an economist at Cornell University. In his book “The Future of Money,” he out-

lines the other reasons that policy makers give for wanting to create digital currencies.

Perhaps the most noble of those reasons is financial inclusion. In the U.S., only about 5% of people don’t have a bank account. But in other countries, such as the Bahamas, which was the first country in the world to implement a digital currency, the figure is much higher—around 18%, according to the country’s central bank. If everyone had access to an account with their country’s central bank, and could use it to transact instantaneously with others using a digital currency, for a minimal or no fee, the idea is that it would bring many more people into the regional and even global financial system, with all the benefits that attend.

### Less privacy

On the other hand, the potential downsides of a digital currency, even one initially intended for only the most benign purposes, could be profound, says Dr. Prasad.

First, there is the obvious issue of privacy. A digital currency could allow governments to track every transaction a person makes, no matter how minute. This level of transparency would be a powerful disincentive to using these currencies for crime or fraud, but it could also open the door to new kinds of social control, especially in countries with already-scant human-rights protections.

For example, says Dr. Prasad, a government could make it impossible to spend the digital currency on things the ruling party deems problematic, like alcohol or pornography. The government also could make transacting with certain people difficult or impossible—China already has a social credit system that ranks citizens algorithmically, and punishes them in various ways.

“Throughout history, I think you see many examples where you see tech that seems very benign get perverted into much more malign uses,” says Dr. Prasad.

Even less-malign applications of digital currencies could lead to all sorts of unintended consequences. One, which the crypto

industry has run afoul of many times in the recent past, is that the more complex and capable designers of a digital currency make their system, the greater the possibility that it could be manipulated in ways its designers didn’t anticipate.

Set aside FTX, which appears to be a straightforward case of the misuse of depositors’ funds. Set aside also the many hacks and thefts of cryptocurrency that have taken place of late. Plenty of crypto projects have failed or lost huge amounts of money even when they were functioning exactly as designed. The crypto exchange Mango Markets saw \$114 million in funds siphoned out by a trader who didn’t break any of the rules of the exchange, and simply exploited a feature of the behavior of the exchange that its designers didn’t anticipate.

Then there are the failures of various “algorithmic stablecoins”—that is, cryptocurrencies that are supposed to be pegged to the U.S. dollar—which collapsed as soon as the overall value of cryptocurrencies was no longer rising.

Ironically, one of the biggest dangers of central-bank digital currencies could be that they succeed. Buried in the code and systems that dictate how they function could be a liability that a country doesn’t discover until it’s too late.

It’s impossible to know what that liability might be, but the example of the many and varied experiments in new kinds of financial structures and products from the crypto industry should inspire designers of more-complicated digital currencies to tread carefully.

“I think it is inevitable there will be unintended consequences as a result of CBDCs,” says Ms. Greene. “The Fed and the Bank of England are moving pretty slowly on digital currencies, which has made them the subject of criticism—but I actually think it is smart they’re being methodical, because there are so many different decisions they have to make.”

Mr. Mims is a technology columnist for The Wall Street Journal. He can be reached at christopher.mims@wsj.com.

JOURNAL REPORT | OUTLOOK 2023

# The Big Technology Companies Prepare for a Difficult Year

They may have to deal with competitors, regulators and an economic slowdown

BY SAM SCHECHNER

**A** NEWLY humbled cadre of globe-spanning tech giants are about to see their resilience tested.

For years, the biggest tech companies have been lauded by investors—and at times assailed by smaller rivals and investigated by regulators—for how they appeared to be unstoppable juggernauts. Competitors, big fines and even a global recession brought on by the Covid-19 pandemic didn't stop revenue and profit from going up.

Now the tide has turned. Another recession is looming. Europe is starting to put teeth behind its efforts to be tech's global regulator. And new competitors and technologies are threatening some big companies' holds on their markets. On top of that, big tech companies were seduced during the pandemic into heavy investments in personnel and new products predicated on the idea that the shift to virtual life would be enduring—something that hasn't panned out.

In response, big tech companies are retrenching, cutting expenses faster than they have in decades in an effort to navigate what tech executives and even bullish investors say is likely to be a tough 2023.

On Jan. 5, **Amazon.com** Inc. said its layoffs would affect some 18,000 employees. **Meta Platforms** Inc. said it would cut 13% of its workforce, or around 11,000 people. Google parent **Alphabet** Inc. on Jan 11 announced staff reductions of 15% at its healthcare unit Verily. Collectively, employers in the tech sector cut more than 170,000 jobs in the past year, based on estimates from Layoffs.fyi, which tracks media reports and company announcements.

"They've proven they can thrive in the go-go times, but the free-money era is gone," says Dan Ives, an analyst for Wedbush Securities, adding that he thinks big

tech companies will ultimately navigate their troubles—which he calls a Category 5 storm—and stage a rebound. "Tech companies have spent like 1980s rock stars. Now they're starting to spend like senior citizens on a fixed budget."

### No easy road

The economic factors behind the pivot to austerity are several, analysts say. Quickening inflation has led to higher interest rates. Russia's invasion of Ukraine has put new focus on supply-chain bottle-

last year fall below 50% for the first time since 2014 because they are growing more slowly than the rest of the market, according to research firm Insider Intelligence Inc. That is, in part, because Amazon and upstarts like **ByteDance** Ltd.'s TikTok have seen their share of digital ads grow. But video-streaming services are also taking a growing share—a trend that should accelerate the launch of ad-supported versions of **Netflix** Inc. and **Walt Disney** Co.'s Disney+.

Advances in artificial intelligence could also reorganize the digital playing field. The ChatGPT chatbot released last year, which can produce plausible-sounding answers to an array of questions,

fer completed in 2021, the Journal reported earlier this month.

These challenges are coming to a head at the same time that tech regulation, long an amorphous and looming threat largely ignored by investors, has started to take a significant bite, too. European Union regulators earlier this month struck down Meta's legal justification for its highly targeted ads. That is leaving the company scrambling for a way to keep showing ads targeted based on its Facebook and Instagram users' online activity in the bloc.

The EU is also starting to implement two other new laws it passed last year—over objections from big tech companies—aimed at ensuring they give more of an

stance, is now preparing to let applications be downloaded onto iPhones and iPads outside its App Store, something the company had long said would compromise security, to comply with the law.

Amazon recently promised to give better treatment and prominence to third-party sellers in ways a company executive said were meant to comply with the new law, as part of its settlement of an antitrust lawsuit in Europe.

Other provisions of the law include a ban on a company with a search function giving priority in its results for its own products and tools over those from other companies—a provision that could require changes to how Google operates in the bloc—and a mandate that messaging apps from digital giants must allow smaller rivals to interoperate with them. That could cut into Apple's walled-garden approach to its Messages app on iPhones.

### A change of tone

Big tech companies have been moderating their tone on regulation, saying they plan to comply with the new laws. "We're now hard at work exploring new processes and product changes to comply fully," a spokesman at Google says. "For us, it's key to keep a constructive, hands-on regulatory dialogue with the European Commission for many months to come."

Apple and Amazon declined to comment. A Meta spokesperson pointed to a statement from Mark Zuckerberg on a recent earnings call: "I believe the tougher prioritization, discipline and efficiency that we're driving across the organization will help us navigate the current environment and emerge an even stronger company."

What happens in the EU in the coming year could end up being a template for other parts of the world now considering legislation with some similar provisions, including the U.K. and India.

"The looming [Digital Markets Act] is already having an impact," says Anne Witt, a law professor at the



necks. And a recession would further damp demand—hitting advertising revenue that sustains some big tech companies, as well as consumer spending on electronics that feeds others.

The new attitude comes as competition for big tech companies is becoming tougher—at least in some segments.

Google and Meta saw their share of U.S. digital-ad spending

has been lauded by some industry observers as an eventual alternative to current search engines like Google, even though the program can sometimes make factual errors.

OpenAI, which makes the chatbot, among other tools, is currently in talks to sell existing shares in an offer that would value the company at around \$29 billion, roughly double a prior of-

opening to smaller competitors, and forcing them to more heavily police content on their platforms.

Even though companies subject to the Digital Markets Act—the law focused on tech competition—won't be officially named until later this year, and its provisions won't be enforced until 2024, the law is already pushing companies to change their business practices. **Apple** Inc., for in-

EDHEC Business School's Augmented Law Institute, in Lille, France. "If the pressure piles up internationally, sooner or later it may make sense for these companies to align their behavior globally."

*Mr. Schechner is a reporter for The Wall Street Journal in Paris. He can be reached at sam.schechner@wsj.com.*

# A New U.S. Law Aims to Reduce Drug Prices. But First, It Might Raise Them.

Pharmaceutical companies could try to blunt the limits on future price increases

BY JARED S. HOPKINS

**P**HARMACEUTICAL companies are grappling with the arrival of sweeping new U.S. legislation meant to blunt drug prices.

The impact in 2023 may actually be higher drug prices.

President Biden last year signed into law the bill dubbed the Inflation Reduction Act, empowering Medicare, the country's biggest buyer of prescription drugs, to negotiate how much it pays for certain high-price therapies. Another provision set a cap on price increases that requires drugmakers to pay Medicare rebates on treatments whose prices rise by more than the rate of inflation. Jefferies Financial Group Inc. analysts estimate the legislation could reduce pharmaceutical-company revenue by about \$40 billion through 2032.

Many details of the law are still being finalized, and negotiated prices on an initial 10 drugs won't take effect until 2026. But in the near term, the legislation is likely to spur a couple of key pricing strategies, analysts say.

To blunt the impact of limits on future price increases, companies are likely to launch new drugs this year at higher prices than they would have before the law passed, analysts say. They're also likely to raise prices on existing drugs more than usual while high inflation gives them cover.

The Inflation Reduction Act's requirement for companies to pay rebates to the government when prices of their drugs in Medicare

programs increase by more than the rate of inflation starts this year. From July 2019 to July 2020, prices for about half of the medicines covered by Medicare increased by more than the rate of inflation, according to the Kaiser Family Foundation. But that was before inflation surged.

"The industry clearly has to be sensitive to and thoughtful about increasing prices in light of inflation caps, but currently [inflation]



Launch prices of new drugs rose an average of 20% annually in 2008-21.

is running at an abnormally high rate," says David Risinger, an analyst at SVB Securities LLC.

In addition, several other factors may help drive bigger price increases this year. They include the rising cost of business related to inflation, supply-chain issues, and research and development, as well as rebates that are paid to middlemen, Mr. Risinger says.

Some analysts say you can already see the impact of the new legislation. **Bristol-Myers Squibb** Co. launched a new autoimmune drug called Sotyktu in September, after the law passed, at an annual

**\$40 billion**

Projected reduction in drug-company revenue over the next decade from the Inflation Reduction Act

Source: Jefferies Financial Group

cost of about \$75,000—much higher than some existing rival drugs in the market, Mr. Risinger notes. (Most patients don't pay manufacturers' list prices, which don't reflect rebates, discounts and insurance payments.)

A Bristol-Myers Squibb spokeswoman said the company's approach "has always been to price our medicines based on the value they deliver" and takes into account "healthcare systems' capacity to provide appropriate, rapid

and sustainable access to patients," among other factors.

Higher launch prices are more likely for treatments of cancers and rare diseases where the law may restrict future price increases than in more-competitive areas like diabetes or immunology, according to consulting firm ZS Associates.

One of the most watched drugs may be the Alzheimer's treatment lecanemab, from **Eisai** Co. and **Biogen** Inc., which the FDA approved this month. Eisai said it would sell the drug at a price of \$26,500 a year for the average patient. The Institute for Clinical and Economic Review, a nonprofit monitor of drug prices, had found a fair price would be in the range of \$8,500 to \$20,600 a year. Esai says it priced the drug below the company's estimate of the treatment's value to U.S. society of \$37,600, "to promote broader patient access, reduce overall financial burden, and support health-system sustainability."

Launch prices already have been climbing sharply for years. From 2008 to 2021, launch prices for new drugs increased an average of 20% annually, according to a study by Harvard researchers funded by Arnold Ventures LLC and published last year in the Journal of the American Medical Association. In 2020-21, roughly half of new drugs carried list prices higher than \$150,000 annually, the researchers found.

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