

S&P 500 5,882 \* Dow Jones Industrials 42,544 \* 30 year U.S. Treasury Bond 4.79%

# **A FLAMBOYANCE OF INNOVATION**



There's an explosion of scientific and technological advances underway. Artificial Intelligence is no longer just a story about shoveling hundreds of billions of dollars into the fiery FOMO furnace; companies like Oracle (ORCL - \$167) are raking in actual profits by selling AI to their customers. Genetic engineering is curing rare diseases and bringing new tools to manufacturing. R2-D2 and C-3PO are 48 years old; their robotic peers have become ubiquitous in manufacturing, the military, spacecraft, warehouses, and surgery. 3D printing of jet engine parts is old hat, and 3D-printed human body parts are coming fast. One woman got a new ear, and another got a trachea!

The working-smarter trends spawned by the pandemic are still unfolding, as are the electrification revolution, quantum computing, and the possibility of increased productivity in the Federal Government (and the tens of thousands of businesses it regulates).

It's a Plethora! And we're not even finished; *there are other exciting things*, such as the GLP-1 drugs—Ozempic, Wegovy, and Zepbound—that might unleash an army of newly-energized workers.

The Economist enthuses:

"Curbing obesity would be consequential. Yet GLP-1 drugs promise to do much more.

Continued on page 2

#### HINDSIGHT

On the first page of our last issue we said that we'd purchased Arcadium Lithium, and suggested that it would probably be acquired by an oil company. Well, *that didn't happen*, but the company has agreed to be acquired by mining giant Rio Tinto. The shares have jumped from \$2.68 to **\$5.13**.

The first page of our Spring issue

offered a slew of companies that should benefit from the datacenter-construction and AI frenzies. Alphabet (Google) is up just a bit, from \$177 to \$190, but Oracle has jumped from \$123 to **\$167**. Bloom Energy has jumped from \$15.4 to **\$22**. Cisco was at \$46, and now it's at **\$59**; Ciena was \$49, and now it stands at **\$85**. The Franklin-Templeton Korea Fund *dropped* from \$22 to **\$17**, and three others netted out to an unmentionable gain.

Those newsletter issues are on our website, along with all the issues for the last 23 years. If you want to look at some old ones, check out Autumn 2007, just *before* the mortgage-andreal-estate collapse, and the Spring issue of 2020.

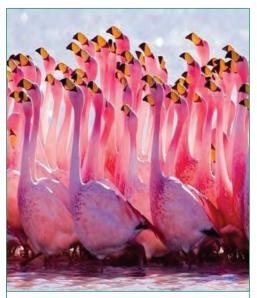
#### A FLAMBOYANCE OF INNOVATION continued from Page 1

Overweight patients on semaglutide have been found to suffer fewer heart attacks and strokes; the benefits, astonishingly, seem to be largely independent of how much weight is lost. Tirzepatide improves sleep apnoea. Trials show that GLP-1 agonists reduce chronic kidney disease in diabetics; and there are signs they may lessen brain shrinkage and cognitive decline in Alzheimer's. Studies of health records suggest that they may help with addictions, too; people already on GLP-1 drugs in America were less likely to overdose on opioids or abuse cannabis or alcohol"

"... [In 2023] more than 100,000 Americans were killed by opioid overdoses and 180,000 died from drink."

"It is early days yet, but GLP-1 receptor agonists have all the makings of one of the most successful classes of drugs in history. As they become cheaper and easier to use, they promise to dramatically improve the lives of more than a billion people—with profound consequences for industry, the economy and society."

The drugs will soon be a LOT cheaper. Pharma investors will be displeased to learn that there are 124 weight-loss drugs in development—and that in 2026 the patents on Wegovy and Ozempic will expire in Brazil, India, and China. Lives will be saved, and millions of highly productive workers will rejoin the work force.



A FLAMBOYANCE OF FLAMINGOES

#### WORLD PEACE

The beauty pageant contestants who called for World Peace are winning! Peace might break out in significant swathes of the world in 2025, because a billion people are weary of death, destruction, horror, and fear. Ukrainians, Russians, Israelis, Palestinians, Syrians, Iraqis, Lebanese, Jordanians...we're not sure about the Houthis, but even the Iranians might be ready to take a break. The result should be reconstruction, new business formation, jobs, and GDP growth.



#### **GROWTH**

"On a per-person basis, American economic output is now about 40% higher than in western Europe and Canada, and 60% higher than in Japan—roughly twice as large as the gaps between them in 1990. Average wages in America's poorest state, Mississippi, are higher than the averages in Britain, Canada, and Germany."

[Wages in Mississippi are higher than wages in Germany??!!]

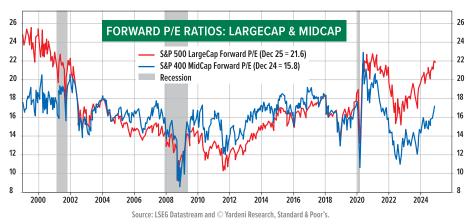
<u>The Economist</u> goes on "When assessed on a per-hour basis ... 73% productivity growth for American workers since 1990 versus 39% in the euro area, 55% in Britain and 55% in Japan."

This is the price that Europe has paid for over-generous, cradleto-grave welfare states. *Sluggish* growth causes low wages. Low wages require even higher taxes, and these taxes suck up funds that might otherwise be spent on innovation, investment, and new corporations. New *employers*, that is, *who would hire workers at higher wages*.

Slower GDP growth means that Everyone is poorer now. Everyone will be poorer in the future.



## A HAPPY MEDIUM



Huge technology companies have been dominating the S&P 500, and caused the entire index to become very expensive. In the chart above the price-to-earnings ratio for the S&P 500 (red line) has increased sharply compared to that of the mid-sized ("mid-cap") companies represented by the S&P 400 and the blue line.

Mid-sized companies, like those in the SPDR Mid-Cap ETF (SPMD -\$54.69), have a long track record of *faster* earnings growth, but recently they've been trounced by the S&P 500. As a result, mid-cap stocks now trade at a 36% discount!

The last time a valuation gap this big appeared was in the late 1990s. AND THEN, from January 1999 through the end of December 2014, mid-cap stocks went on to outperform the S&P 500 dramatically.

Over that **15 year** stretch, mid-cap stocks nearly quadrupled as they embraced the Internet and benefited from a more connected economy. Meanwhile the S&P 500, which had been pushed to nosebleed valuations, did not even double. Mark Twain said that "history doesn't repeat itself, but it often rhymes." There's often a reason for the rhyme.



"Argentina's economy exited recession. GDP increased by a faster-than-expected 3.9% between July and September ... The figures will be a boost for Javier Milei, the libertarian president, who since taking office a year ago has unleashed a blast of reforms."

— *The Economist*, which initially gave a cool reception to the bold and colorful Milei.

"Monthly inflation was 2.4% in November, compared with nearly 26% during Milei's first month in office ... He fired 33,000 public employees ... Argentina has posted a rare fiscal surplus during the first 11 months of this year after decades of overspending."

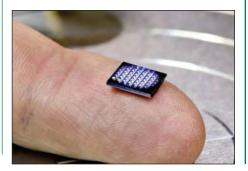
— The Wall Street Journal



Jay Conway, CFA

The great John Templeton told us to "buy at the point of maximum pessimism". Well, the *Franklin*-**Templeton** South Korea fund (FLKR - \$17) declined in December because the president of South Korea became frustrated with his political opponents, *tried to declare martial law*, and then resigned! And was impeached. A few days later the acting president, appointed to smooth the troubled waters, was also impeached!

That sounds bad, but the people spoke; and they were heard. **Democracy!** South Korea is a First-World country, and FLKR is a fund of highly-sophisticated companies (Samsung makes 2-nanometer computer chips!) that sell at crazy prices. Down 49% since 2021!





FIRST SOLAR

There's a good chance that a lot of corporate welfare and tax-credit handouts for corporations and individuals will end this year. We're nevertheless continuing to hold our shares of First Solar (FSLR - \$176), because the company is an American manufacturing powerhouse with a huge backlog of orders—and falling costs. Its unique thin-film solar panels don't degrade as fast as silicon panels; they have a muchsmaller environmental footprint; and they better tolerate the high heat and partial shading of installations in the dusty southwest. They don't use silicon from forced-labor camps in China. The oversized, inexpensive panels are typically sold to electric utilities and other commercial customers rather than to homeowners. 

"China's grid is two-thirds coalfired... 90% of the world's silicon cells are produced in China. Those are produced on the coal-intensive part of their grid because coal electricity is cheap. Making silicon is triple the energy intensity of making steel. Essentially, solar cells are refined Chinese coal."

- Mark Mills, Executive Director, National Center for Energy Analytics

# **SHOVEL READY!**

*"Lyndeborough, NH*: Because time is running out for encumbering American Rescue Plan Act funds, all the remaining money will be used to purchase gravel and ... replace a large culvert on Herrick Road."

> — The Milford Cabinet Dec. 19, 2024

The American Rescue Plan Act, a **\$1.9 trillion** "economic stimulus" bill, was signed into law on March 11, 2021, *eleven months after the end of a two-month recession*. More than 3½ years later they're still spending this "shovel-ready project" money to rescue the economy from a recession that doesn't exist.

"A paltry 6% of the federal workforce "report in-person on a full-time basis" while almost onethird of federal workers are remote on a full-time basis, in a sharp turnaround from the pre-pandemic era in which only 3% teleworked daily, a report from Sen. Joni Ernst's office found."

- The New York Post

# **CAREER ADVICE**

Want to make a good living, and choose your hours and work days? Want to do something that's seriously good for the environment? It's *really* hard to get a job measuring the shrinkage of glaciers. Instead, go into HVAC, Heating Ventilating and Air Conditioning, and become an expert in high-tech heat pumps and mini-splits. The newest generation can pull an amazing amount of heat from very cold air, or cool the blazing heat generated by the data centers that house AI. And the EIA says that buildings of all kinds consume 36.9% of total U.S. energy consumption.

"A bill that would weaken federal environmental reviews for certain semiconductor manufacturing projects that receive subsidies through the 2022 CHIPS and Science Act."

— The New York Times

It passed! Why do semiconductor "factories" get to escape regulation? Perhaps these regulations are unnecessary burdens?

Shipments of Mardi Gras beads, Barbie dolls, plastic explosives, and listening devices over New Jersey



#### SYRIA

"In strategic terms, this is a catastrophe for Iran. It is hard to exaggerate what a bad year it has had. Israeli missiles have humbled Hamas and Hizbullah, two of Iran's main partners, and smashed Iran's air-defence network and missile factories. Because Hizbullah was helping to prop up the Assad regime, these actions have also contributed to the changes in Syria, which was Iran's only formal ally. This could easily destabilize the Islamic republic. It is also a bad week for Russia, which stepped in to save Mr Assad's regime in 2015. Now it faces the prospect of losing its naval base at Tartus, which it has held for more than 50 years, and without which it ceases to be a major naval power in the Mediterranean."

> — Shashank Joshi, The Economist

# **DRONING INTO** THE FUTURE

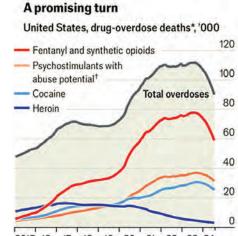
During the Johnson Administration the B-52 bomber was known as a gigantic beast that dropped big, dumb bombs. Now the septuagenarian fleet is getting new engines and a lot of upgrades, including long-range smart missiles and smart systems; but it's still going to be the least stealthy thing in the skies. Like a battleship, it will be protected by escort fighter jets, which in turn will be escorted by drones known as Uncrewed Combat Air Vehicles (UCAVs).



Drew D. Kellner, CFA



**Thanatos** conceptual supplied by Kratos Defense



2015 16 17 18 19 20 21 22 23 24 \*Involving multiple drugs included in each category <sup>†</sup>Mostly methamphetamine Source: Centres for Disease Control and Prevention

Chart: The Economist

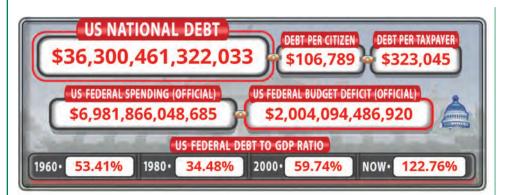
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Drones, of course, are the Next Big Thing, and we're going to need a lot of them at low cost.

Kratos Defense and Security Solutions (KTOS- \$26) started as a provider of network gear and services to the Pentagon, and now also sells turbojet missile engines, and drones that are used in training by the Air Force and Navy. Kratos also works as a subcontractor to Northrop ("missile transporters" for ICBMs- NOC \$469), and recently partnered with GE to build affordable jet engines that can power UCAVs. They just got a DARPA contract to test the latest hypersonic missile warheads, launching them on low-cost Kratos rockets.

They're trusted insiders, but they're also the kind of fierce and scrappy competitor the Pentagon wants and needs. The Navy and Marines have each purchased two 30-foot-long truck-launched Valkyrie UCAVs for testing; Kratos says that if they get an order for 100 the projected price will be just \$2 million each. Little has been revealed about their larger Thanatos UCAV, but it's stealthy, AI-enhanced, and almost certainly supersonic.

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The figures above were brought to you by the National Debt Clock, "<u>usdebtclock.org</u>". The White House Budget Office tells us that in 2024:

National Defense spending was 13.1% of the federal budget.

**68% of the budget was spent on "Human Resources"**. About \$2 trillion of that was spent on health care for 187 million Americans receiving Medicare, Medicaid, ACA, Veterans, Federal Employees, Children's Health Insurance, or Indian Health Service. This year interest on the debt will cost more than Defense.

In 2024 we spent **\$6.94 trillion**. Tax revenue was "just" **\$5.08 trillion**, twice as much as we collected in 2012.

**54% of John F. Kennedy's 1962 budget** was devoted to Defense. Just 24.3% of his budget was spent on Human Resources.

There was not a whisper of discussion about our \$36 trillion federal debt in the presidential campaign of 2024. ■

*The Kiplinger Letter* predicts that inflation-adjusted wages will hit a new high in 2025!





## **SUMMARY**

The stock market is very high and the federal debt is terrifying, but the economy is robust and there's a lot of innovation underway.

If you like, you can rearrange those words to say: "The economy is robust and there's a lot of innovation underway, but the stock market is very high and the federal debt is terrifying." That's not the way we wrote it, but we imply; you infer. This is a free speech, free interpretation, free association newsletter.

#### — John Lumbard, CFA



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