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As Covid-19 rages across the globe, people are dying and economies are grinding to a halt. Washington must act in unity and take Covid-19 as seriously as an attack on the nation itself. Huge resources must be directed to the health-care system so that it is not overwhelmed. Empty buildings must be converted into hospitals, and idle factories need to ramp up production of ventilators and other crucial medical equipment. The global financial system must be shored up or risk collapse. Governments must ensure that businesses large and small can survive a shutdown until the battle is won. Our lives depend on it. Investors are watching closely, but ultimately history will judge our actions.



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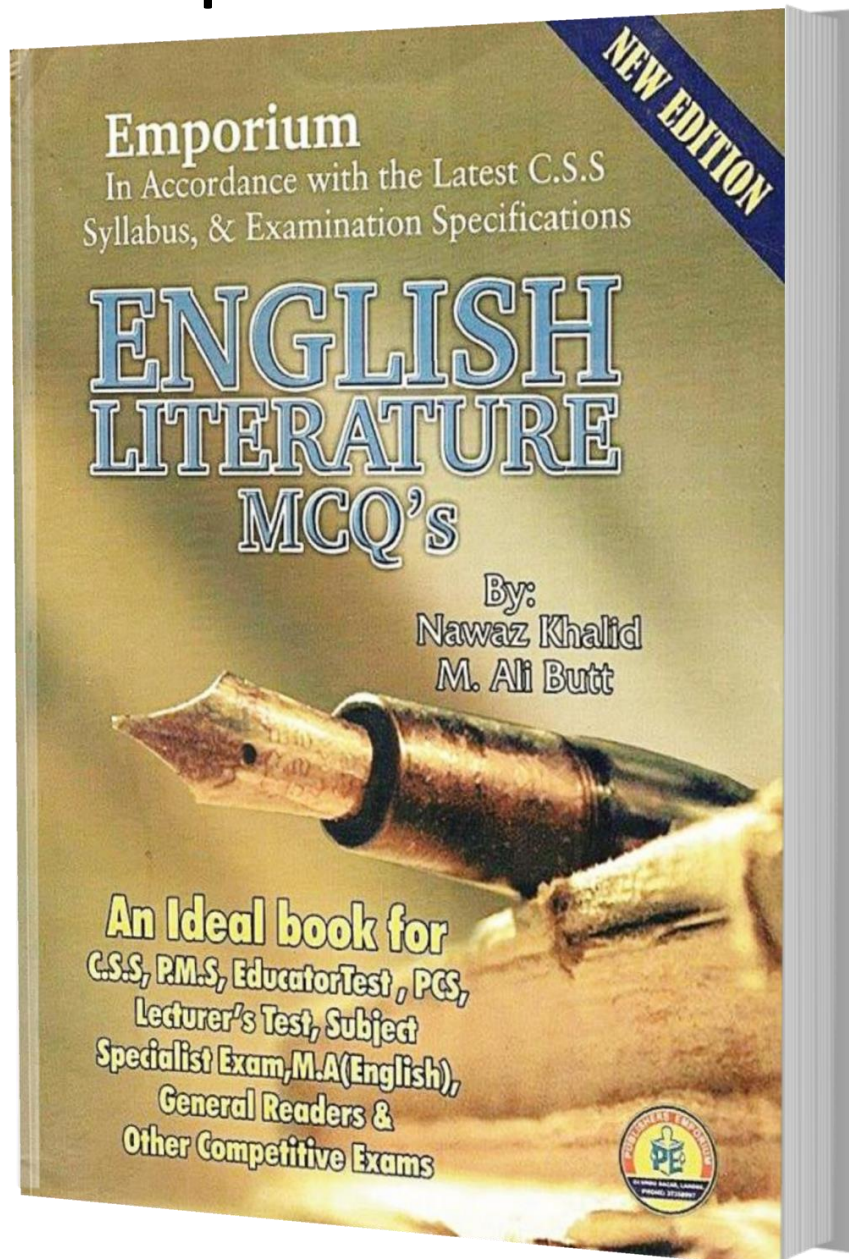
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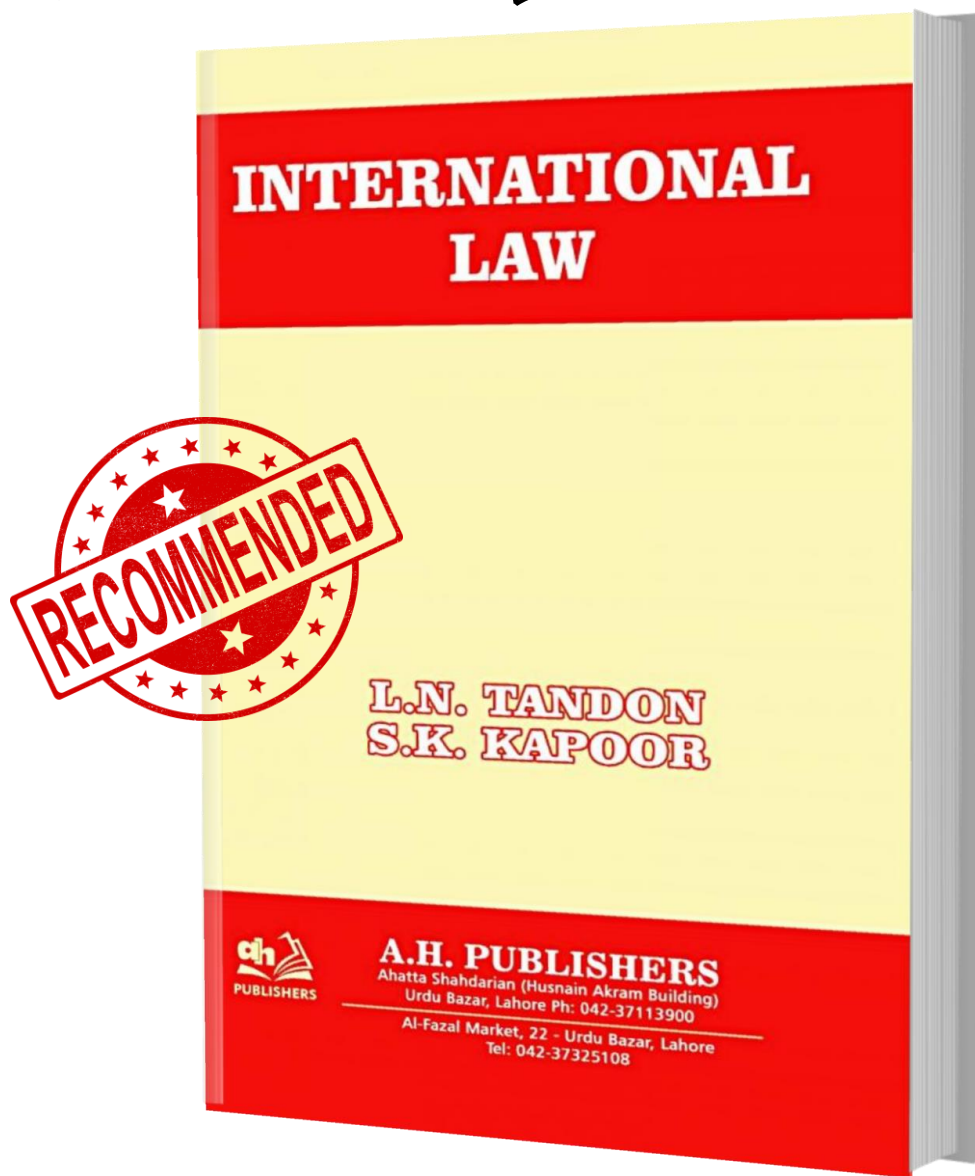


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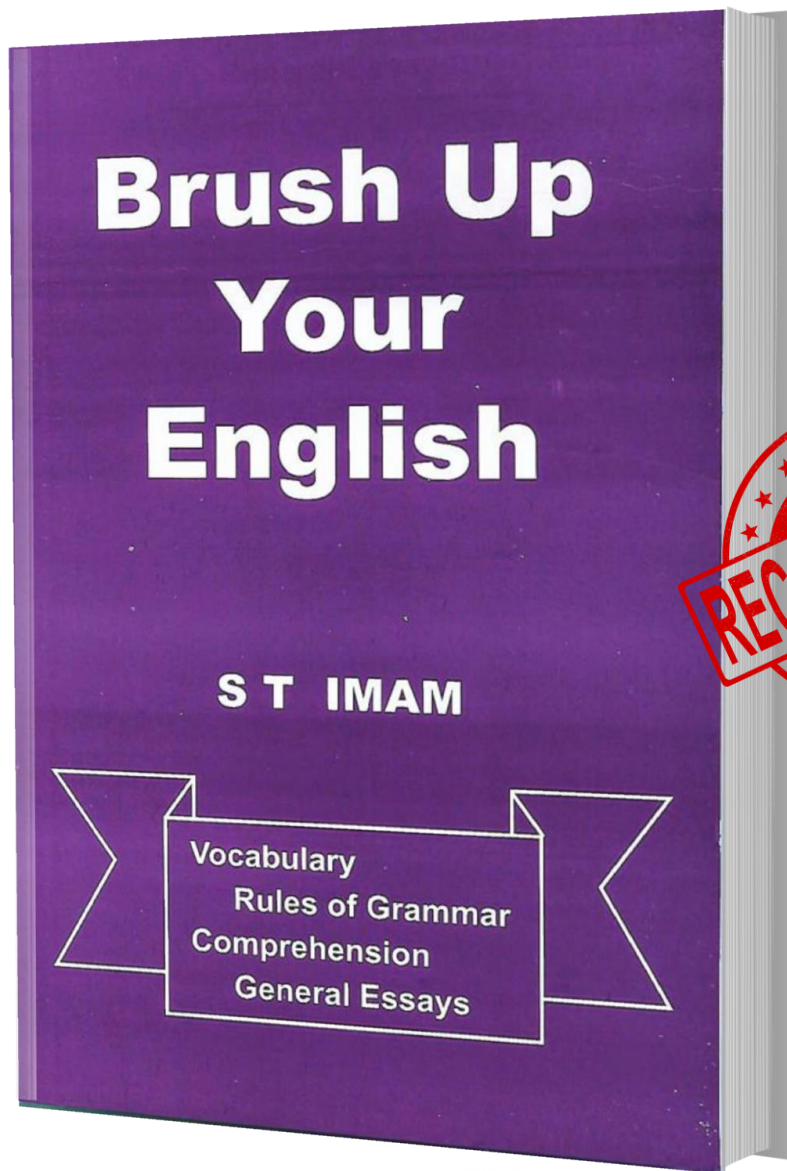


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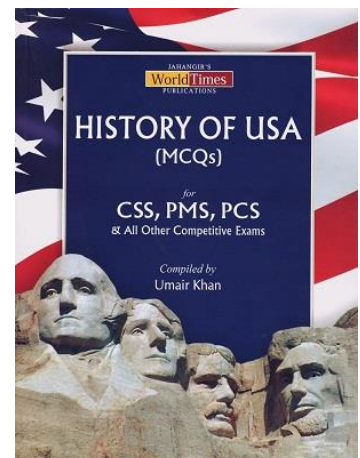
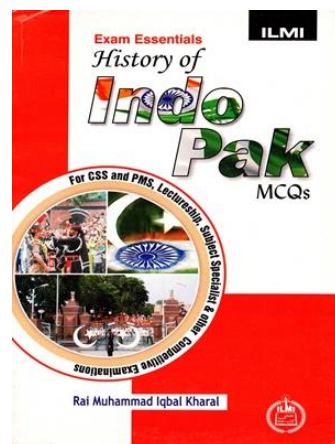
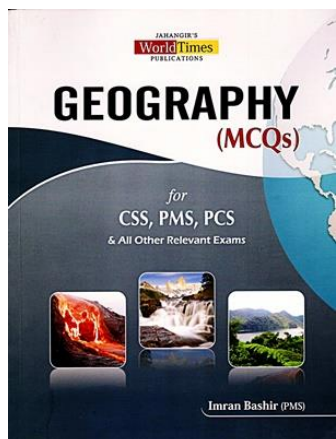
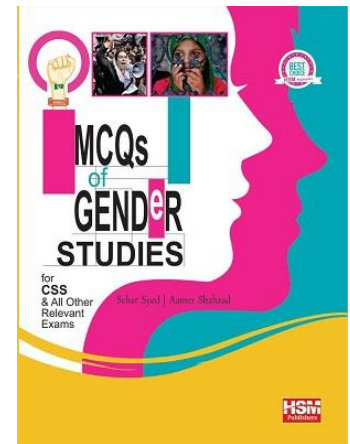
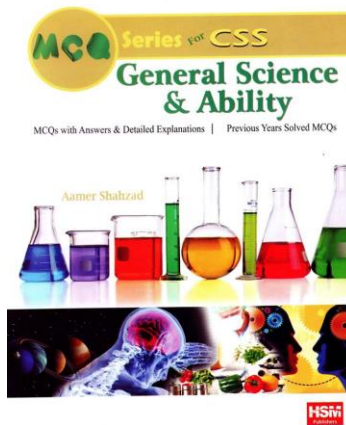
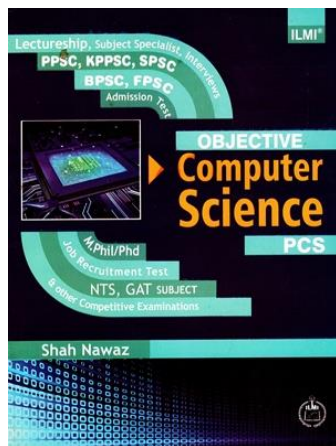
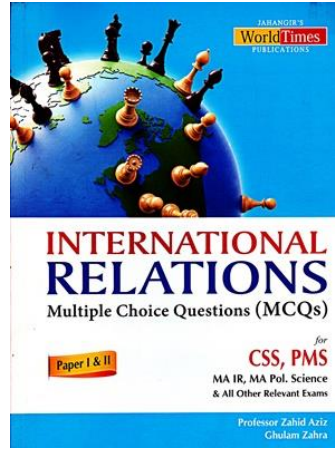
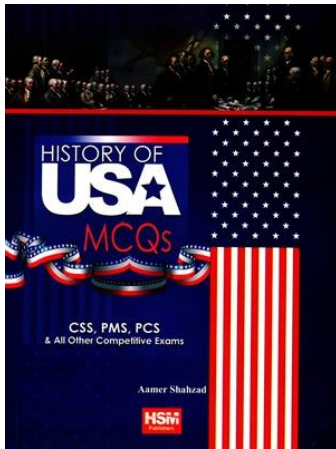
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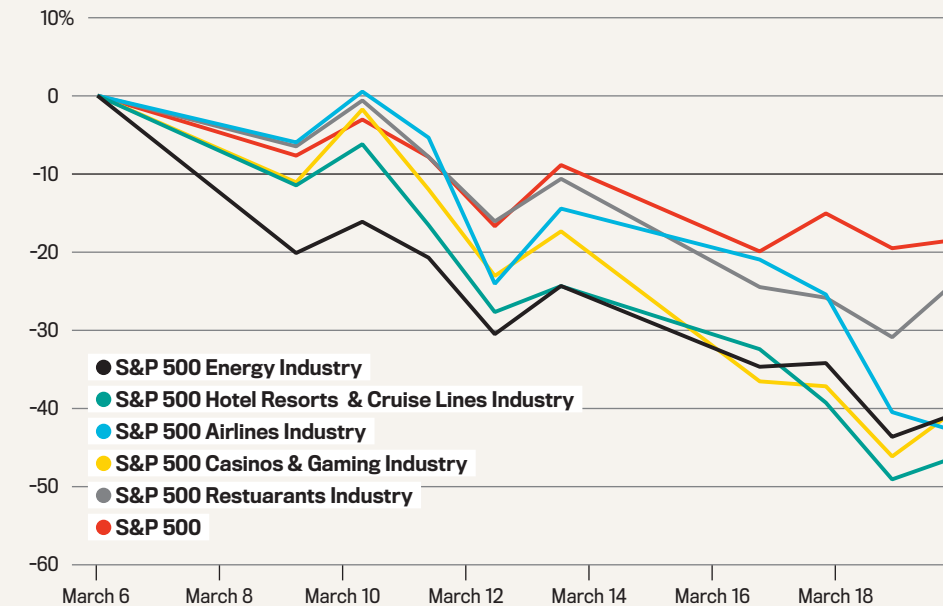
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UP & DOWN WALL STREET



The market's unsettling paroxysms reflect a massive economic contraction that is just beginning.

Buckle Up Your Money Belts, Investors

After a week of an unprecedented public-health crisis that has all but brought business, travel, entertainment, and education to a halt as virtually all Americans were told to remain at home, how wonderful would it have been to have been forewarned of the cataclysm to come?

In addition to being able to stockpile hand sanitizer and toilet paper before they were stripped from store shelves, you might have been able to avoid at least part of the \$12 trillion vaporization of stock-market wealth that occurred in just the past month, by **Wilshire Associates'** calculation. That included \$4.3 trillion in the latest week—the worst hit since October 2008, at the height of the financial crisis.

A science-fiction fantasy of time travel? Not if you're among the privileged U.S. senators who presciently sold shares just before the market's vicious plunge. In particular, Sen. Richard Burr, Republican of North Carolina, who sold holdings on Feb. 13 worth some \$628,000 to \$1.7 million, **ProPublica** and the Center for Responsive Politics reported Thursday.

Burr, who sits on two committees that received detailed briefings about the coronavirus threat weeks before it battered stocks, sold hotel company shares that subsequently slid by 50% to 74%, according to *The Wall Street Journal*. Republican Sens. Kelly Loeffler and David Perdue of Georgia and James Inhofe of Oklahoma, along with the husband of Sen. Dianne Feinstein, Democrat of California, also were actively trading ahead of the market's swoon, the *Journal* added.

Burr said his sales followed what he gleaned from CNBC's health and science reports from Asia at the time.



By Randall W. Forsyth

The other senators said their investments were handled by advisors and not themselves. Would that we all had such prescient investment counselors.

Even with hindsight, however, their advice likely would have been to move from the risky equity market to the safer credit markets. That has proven almost as harmful to wealth, in many cases, as sticking to common stocks—despite the Fed's unprecedented efforts to prop up some bond-market sectors, including those beyond its usual U.S. Treasury and agency mortgage-backed securities purview.

After Jerome Powell & Co. stunned world markets late Sunday by slashing the key federal-funds target rate a full percentage point, all the way to its previous crisis low of 0%-0.25%, the Fed revived a number of crisis-era facilities, notably to support the market for commercial paper (short-term corporate IOUs). The Fed's total of direct purchases of securities and repurchase agreements mounted by the hour, and it also induced banks to borrow over \$28 billion from its discount window as of Wednesday, a facility that had become stigmatized because depository institutions fear that using it could be seen as a sign of financial weakness.

Despite these exertions, the corporate, mortgage, and municipal markets were roiled by investors seeking or

needing to sell securities, to raise cash to meet margin calls or simply to seek shelter from all the markets.

"I have never seen such volatility over a single week in corporate debt markets," says Cliff Noreen, head of global investment strategy at MassMutual, the big insurer, where he's been an investment pro for 35 years.

Among big-name U.S. companies, Noreen cites **General Electric's** (ticker: GE) \$11.4 billion 4.418% bonds due November 2035, which Friday traded at a price of 84.07 (or \$840.70 per \$1,000 face amount), for a yield of 6%, or 500 basis points (five percentage points) over comparable Treasury securities. GE's bonds—rated Baa1 by Moody's Investors Service and BBB+ by Standard & Poor's, three notches above speculative-grade junk—had fetched a premium price of 110 two weeks ago, Noreen notes.

In the high-yield sector, **Tesla's** (TSLA) 5.30% notes due 2025 traded Friday at 81.50, a huge spread of 900 basis points. They had traded above 100 not long ago, he notes, as the electric auto maker cut its credit risk by wisely issuing \$2.3 billion in equity in February, when its stock was near its 52-week high of \$968.99, more than double Friday's close of \$427.53.

The mortgage securities market also is in "upheaval," says Walter Schmidt, senior vice president for mortgage strategies at FHN Financial, because "leveraged players" have been forced to unwind positions. The Fed's stepped-up purchases Friday helped to settle the market, however.

While Schmidt didn't name names, the stocks of mortgage real estate investment trusts—both common and preferred—were under extreme pressure during the week, as they have

been for a month. The iShares Mortgage Real Estate Capped exchange-traded fund (REM) is down 58.6% from its recent peak.

The muni-bond market also saw massive selling from redemptions by longer-term mutual and tax-exempt funds. Again, the Fed came to the rescue, offering support to short-term munis, analogous to what it provided for commercial paper. Still, the iShares National Municipal Bond ETF (MUB) ended Friday more than 13% below where it was in early March. Closed-end muni funds lost 25% or more.

These market paroxysms reflect a massive economic contraction that is just beginning. Last week, this column suggested that U.S. gross national product could see its most rapid fall on record, exceeding the 8% or so during the 2008 financial crisis or the credit controls of 1980. By Friday, respected major banks were ratcheting down their forecasts, with Goldman Sachs estimating that second-quarter GDP could shrink at an annual rate of 24%.

Rather than try to put a number on it, perhaps it's better to think in terms of biblical disasters. The best guess is this may last 40 days and 40 nights, like the flood Noah encountered. We're in the early days of being quarantined in our own arks. Maybe we'll see a dove when the waters are about to recede.

Treasury yields rose this past week while stocks slid. That's the opposite of the usual pattern when risky assets, such as equities, come under pressure. Normally, investors flock to the haven of government securities, pushing their prices higher and their yields lower. But this time, that relationship unraveled, with longer-term Treasuries failing to appreciate and to provide a cushion against falling stocks.

Is that good news or bad? With the ratcheting down of economic forecast and the Federal Reserve's full-court press to ease credit—notably last Sunday evening's surprise cut in its main policy interest rate to near zero—bond yields should have fallen. But by Tuesday, they were soaring, with the



Sen. Richard Burr, Republican of North Carolina, sold holdings on Feb. 13 worth some \$628,000 to \$1.7 million.

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Up & Down Wall Street Continued

benchmark 10-year note back above 1%, nearly double its closing low yield of 0.569% touched on March 9, and the 30-year bond up to 1.692%, after having temporarily dipped below 1% a week earlier and ending at 1.022% on March 9.

That this came amid the gut-wrenching plunge in stocks and other risky assets, including corporate credit, suggested that something was amiss or, perhaps, had changed. The main suspect: forced selling, especially by highly leveraged hedge funds, whose models, based on the historical relationships between the markets, might have become unglued as volatility in all sectors shot up.

As is his wont, Jim Paulsen, the Leuthold Group's chief investment officer, sees the upturn in longer-term Treasury yields as a glass-half-full story. The history of market crashes since 1987 shows that the 10-year note's yield turns upward as a bear market is close to running its course, he writes in a client note.

Looking at the five crashes in the past third of a century, Paulsen found after the plunge in October 1987, the 10-year note's yield began a "major post-crash rise" on Nov. 20 and that the S&P 500 bottomed on Dec. 4. Although the bond's yield slid to a lower low in early 1988, stocks continued to recover. A similar pattern was seen in the 1998 stock plunge. Bond yields bottomed on Oct. 5, while shares made their final low on Oct. 8 and "never looked back" as yields turned higher. After the dot-com crash of 2000, the 10-year yield and the S&P 500 finally reached their bottoms on Oct. 9, 2002.

The period around the Great Financial Crisis was the exception to this pattern, Paulsen observes. The S&P 500 made an interim low on Nov. 20, 2008, at 752, while the 10-year Treasury tumbled to its crisis low on Dec. 30. The S&P's nadir was reached on March 9, 2009, at 677, but it spent only 11 trading days below the November low.

Paulsen sees this past record as a possible prologue, with Treasury yields having turned higher. Still, he concedes, the parade of bad news doesn't make it feel as if the bear market is winding down. Market distortions from the Fed and the Treasury could potentially invalidate the positive message of higher yields, he concedes. But that also was the case at the lows of 1987, 2002, and 2009, and there was plenty of Fed and Treasury actions in past crises. Although Paulsen cautions against betting the farm on any single indicator, it's a favorable sign amid widespread gloom.

But others see the jump in bond yields as indicating far less favorable trends. Michael Darda, chief economist and market strategist at MKM Partners, points to deflationary aspects, notably that the rise has been in real (adjusted for inflation) yields and lower inflationary expectations. At the same time, the dollar is being pushed steadily higher and gold lower, while credit spreads in investment-grade and high-yield corporate bonds have expanded sharply. All are negative indicators for growth.

The surge in real yields on Treasury inflation-protected securities, or TIPS, from minus 1% to plus 0.40%, since March 9 has been the biggest spike in market history, writes David P. Goldman, former head of bond research at Bank of America and other major banks, in the Asia Times. As a result, "bonds offer no refuge from collapsing stock prices."

The jump in real yields coincides with governments in Europe and now the U.S. preparing to massively increase borrowing to fund programs to counter the effects of the coronavirus crisis. "The market has set a limit to how much money governments can spend to indemnify the world economy against a global freeze-up in activity," Goldman contends.

"Before the present crisis, the U.S. government was running a deficit of more than \$1 trillion, or over 4% of [gross domestic product], an extraordinarily high level at a time of full employment. The proposed stimulus measures will more than double the deficit, not including the nearly trillion dollars that the Federal Reserve is committed to spend to support the Treasury market, the interbank lending market, and—possibly—municipal and other bond markets.

"For the first time since the U.S. Civil War, the credit of the United States is in play," Goldman provocatively asserts.

At a minimum, the current bond market is providing a real-time experiment in the basic tenet of modern monetary theory, which holds that governments that borrow in their own currency can do so without limit, if it doesn't increase inflation. The prospect of annual federal deficits of \$2 trillion or higher, with expanded Treasury auctions to fund them, may be weighing on the bond market. The counter-evidence comes from Japan, with a vastly higher government debt level and near-zero interest rates. But given that country's three lost decades since its financial bubble burst, that's hardly encouraging. **B**

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STREETWISE

Will the recovery in GDP resemble a U, V, W, or dreaded L, where growth doesn't return to trend? Or a sharp rebound, but not to former levels right away?

A Few Good Stocks And Some Wild Market Predictions

Each day's virus news is heart-breaking. Wall Street is full of dread. I'm going to leave my metaphorical whoopee cushion in its drawer and write plainly about a few stocks for readers to consider, I told myself this past week. But there were two complications.

First, thinking about a metaphorical whoopee cushion reminded me that I own an actual whoopee cushion the size of a spare tire. One thing led to another, and I found myself clutching that crass noisemaker like bagpipes each time I turned on the financial channel. Call it stress relief, or a revolt against chaos, or the beginnings of work-from-home madness. All I know is that I've perfected a low, mournful rumble for when the Dow drops by more than 1,000 points; short, urgent blasts for late-day rallies; and a rising, inquisitive tone for press conferences about fiscal stimulus.

The second complication is even more serious. Now feels like an awful time to recommend stocks. Before trading started this past week, investment bank Jefferies published a list of 47 companies its analysts favor for strong fundamentals and compelling valuations. There were fine names on it, like **McDonald's** (MCD) and **Amazon.com** (AMZN). "Practically Stealing," the report was titled. By the end of Wednesday, some of the 47 were down 10%, 20%, and even more than 30%. Actual stealing would have been punished less harshly.

The Jefferies picks might be better deals now, but at some point, adding money to falling stocks starts to feel like dollar-cost hemorrhaging. I talked



By Jack Hough

about that with a colleague, who said that if *Barron's* wrote about shares of good companies when the Dow was near 30,000, it should do so at Dow 20,000, too. I'm still trying to think of a comeback.

When will the stock market hit bottom? The S&P traded recently at 2,305. Goldman Sachs predicts a slide to 2,000 by midyear, followed by a blast-off to 3,200 by year's end. Its model is based on the index's valuation shriveling to barely 12 times earnings before puffing back up to over 18 times. I predict an index low that's one point higher than Goldman's low, and a high that's one point lower. My model is based on watching a lot of Showcase Showdowns on *The Price Is Right*.

Now the banks seem to be competing for the grossest domestic product forecast. J.P. Morgan sees GDP declining by 1.5% this year, which on its own seems OK, considering malls, restaurants, theme parks, stadiums, and theaters are sitting empty. But that figure assumes a 4% decline in the first quarter, then a 14% collapse in the second, followed by rebounds of 8% and 4% in the third and fourth quarters, respectively.

Bank of America expects a slightly less dire 12% contraction during the second quarter, which will translate to a 37% earnings plunge. Goldman took the bad-news lead on Friday, predicting a 24% decline in second-quarter GDP. All the banks forecast bungee-like returns to growth in the second half. That's called a V-shaped recession, where things bounce back quickly. The other letters are worse: a U-shape, with a longer trough; a W-shape, with more than one downturn; and the feared L-shape, where growth doesn't return to trend.

We've never entered a recession with interest rates this low and a deficit this large. If pressed to guess a letter shape, I'd look for one that suggests a sharp rebound, but not to former levels right away. Maybe an L popping a wheelie.

The market's price-to-earnings ratio is "pretty useless" here, BofA wrote on Thursday. "In a pandemic, new cases matter." It notes that Italy could serve as a leading indicator for the U.S., because "more aggressive quarantine/social distancing measures were implemented later than in Southeast Asia." So watch Italy closely for good news.

If you're buying stocks, financial strength is key. From the aforementioned Jefferies list, **Home Depot** (HD) generates more than \$10 billion of free cash flow during ordinary times, which bodes well for its resilience during a downturn. Long-term, it stands to benefit from baby boomers upgrading homes to age in place, and more construction outside of city centers. Record-low mortgage rates don't hurt. Shares are down 23% this year. The dividend yield is 3.7%.

Mondelez International (MDLZ) is usually an expensive stock, but it's

down 17% this year. It has better growth potential than the food group because of its exposure to snacks, a top-performing category, and to overseas markets like India, which have more room than the U.S. for increased food spending. Shares pay 2.5%.

For contrarians, **Chevron** (CVX) has lost half its value this year, and yields more than 8%, a level that suggests investors expect a payment cut. The world is awash in oil, and a Russian-Saudi price war isn't helping. But Jefferies describes Chevron as being able to break even at a lower oil price than nearly all its peers, and having the group's strongest balance sheet by far.

Blackstone Group (BX), the biggest alternative-assets manager, is down 27% this year. Having \$150 billion in fresh dollars to put to work, and private-equity investors willing to lock up money for a long time, isn't such a bad hand now. The stock yields 4.8%.

For some hopeful news, read my Q&A with **Regeneron Pharmaceuticals** (REGN) CEO Leonard Schleifer, who talks about the race for a Covid-19 treatment (page 24). The stock is the best performer in the S&P 500 this year, but some buyers may be missing the point. "This is where the biotech industry shines in the ability to innovate and do right by humanity," Cowen analyst Yaron Werber told me on Friday. "This is not what we think is going to be a moneymaker."

Two other things will be more profitable for Regeneron. Short-term, its top-selling drug for macular degeneration, Eylea, could do better than expected, because a key competitor has had a safety setback. Longer-term, the same high-speed technology platform Regeneron hopes will yield a Covid-19 treatment—whereby mice are given human immune systems, causing them to create antibodies that can be used for people—will yield lucrative treatments for chronic diseases. Dupixent, the company's drug for eczema and asthma, came from this platform. It is expected to pass Eylea in sales next year.

Stay safe, look after your neighbors, and keep in touch. I'll be working on a jubilant whoopee-cushion roar to put into play once we've turned the corner



If you're buying stocks, financial strength is key. Among Jefferies' picks: Home Depot, Blackstone

PUBLISHER'S LETTER

Holding True to Our Mission in Turbulent Times

Dear *Barron's* readers,

I hope this note finds you well, in the safety of your home. The past few days feel like a nightmare. None of us have experienced simultaneous crises of this magnitude—an acute threat to the health of loved ones, neighbors, and ourselves; a sudden shock from near-full employment to what the Treasury secretary says could be as much as 20% unemployment; and a global financial crisis, with markets going haywire.

At *Barron's*, our reporters, editors, and other staff members largely have been working from home. They have worked all hours and across continents to provide you with the latest news and what it means to investors. Connected through video calls, we now get flashes of one another's living rooms, children, and emotions. We also feel connected to you, our readers, who have come to *Barrons.com* in greater force than ever before.

Throughout all of this week's news, we've kept our focus—the same focus that for nearly 99 years has served investors in the U.S. and beyond. Throughout this unprecedented all-fronts war on Covid-19, we will continue to give you our best analysis and news on all aspects of the crisis relevant to you: on the markets, the U.S. economy, global turmoil, and the health offensive. Uncertainty awaits as an invisible assailant moves among us. We will be alongside you to fulfill our mission: to put truth to good ends.

A.J. Latour
PUBLISHER

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Struggling to See the Bottom In Crude Oil's Price Slide

While plunges in the past have led to snapbacks, the coronavirus and oil geopolitics make this one different.

By AVI SALZMAN

Conventional wisdom holds that the cure for low prices is low prices. This past week, after another furious slide in crude oil, a Kentucky gas station dropped its price at the pump to 99 cents a gallon. Typically, such cheap gas means that people would buy more of it, and high demand would cause prices to rise again.

But the spread of the novel coronavirus makes that demand response impossible today. In fact, Citigroup analyst Ed Morse thinks demand could drop by as much as 14 million barrels of oil a day for two months, "multiple times larger than what the world has ever seen." For the year, global oil demand could fall by at least four million barrels a day, he estimates.

Morse says that oil prices could average as little as \$17 a barrel in the second quarter, down from his previous bear case of \$25. On Wednesday, West Texas Intermediate fell to \$20.37 a barrel, its lowest level since 2002.

The other release valve for low oil prices is on the supply side. To stop oil prices from falling further, big producers need to slow their drilling and bring supply in line with demand. The major state-supported producers are doing exactly the opposite, however.

Saudi Arabia has been ramping up production, as have other members of the Organization of Petroleum Exporting Countries and major producers like Russia. Saudi Arabia plans to increase its production to 12.3 million barrels a day from 9.7 million in February.

What initially looked like a power play by the Saudis to draw Russia to the negotiating table now appears to be a strategy meant to restore the kingdom's long-term market-share dominance, partly by forcing higher-cost U.S. producers out of business.

The supply-demand imbalance could approach 10 million barrels a day for an

extended period of time. As a practical matter, that will result in hundreds of millions of barrels of oil being put into storage throughout the world. It makes sense to hold oil now for sale later, because crude markets are in contango—futures dated next year are trading well above current-day prices. Oil tankers are being commissioned just to hold crude and refined products for sale at a later date.

The last time energy investors experienced such a breathtaking fall in oil prices was in 2014. In two years, West Texas prices dropped to \$26 from \$110. But oil didn't stay in the \$20s for long. Within weeks, it was back into the \$40s.

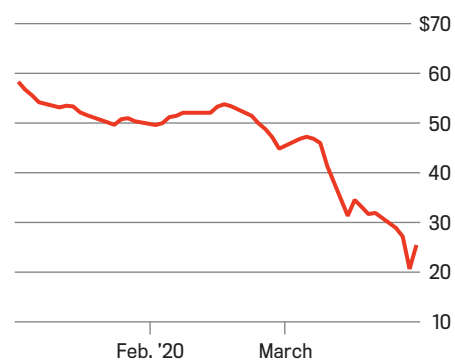
This time, that kind of snapback doesn't look likely.

The only way for oil prices to rise this time is if U.S. producers begin throwing in the towel. That is starting to happen, but probably not quickly or forcefully enough for the price to respond. Producers covered by SunTrust Robinson Humphrey analyst Neal Dingmann have announced about \$11 billion in cuts to their capital budgets, he says, but how much they are actually cutting production isn't clear. What is clear is that it's not enough.

"As a result, we believe the best solution for most U.S. E&Ps is to drop activity to not only maintenance capital levels, but to essentially zero," Dingmann wrote. "We expect many of our operators will soon have to consider dropping to no activity when faced with the potential of even lower crude prices." **B**

The Price Collapse

West Texas Intermediate crude has tumbled since late January.

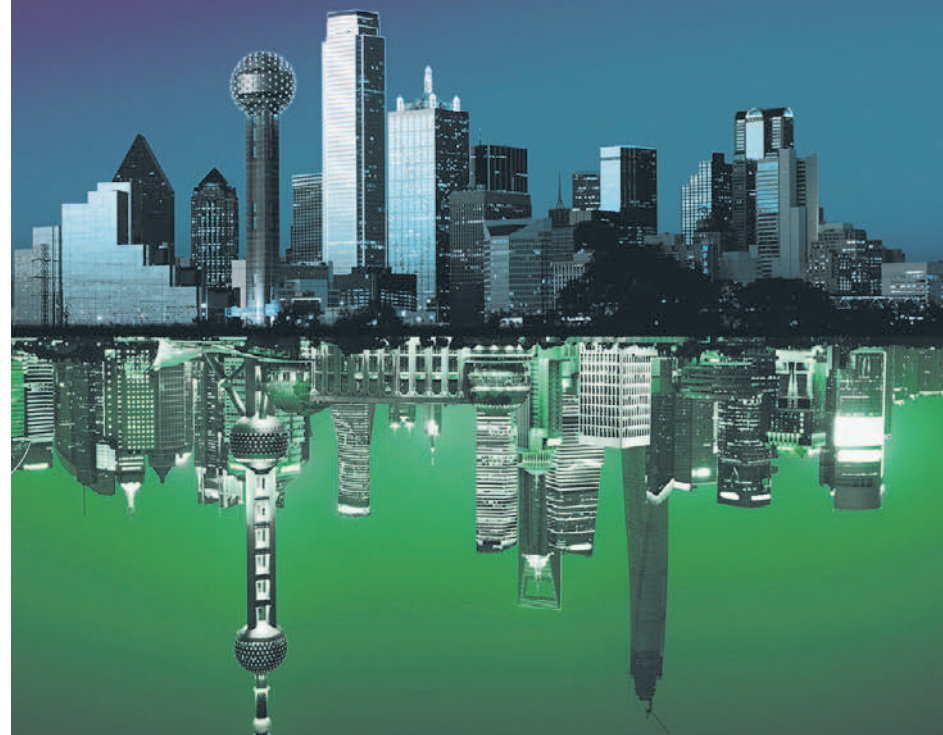


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1. US Energy Information Administration, Short Term Energy Outlook, September 12, 2018.

2. Based on the ETF.com per group segment Equity U.S. MLPs, January 1, 2019. MLP: Master Limited Partnership. Fund distributed by ALPS Portfolio Solutions Distributors, Inc.

REVIEW

19,173.98

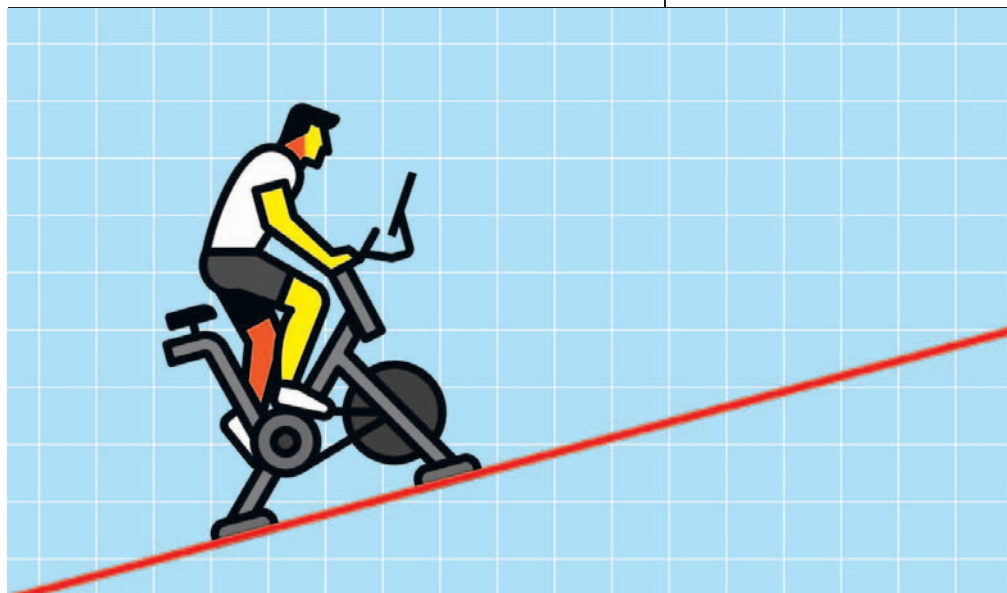
Dow Industrials: -4,011.64

302.17

Dow Global Index: -41.54

0.93%

10-year treasury note: -0.02



STOCK RISES 16.7%

Peloton Beats The Bear

With gyms closed and Americans stuck at home, investors are warming to **Peloton Interactive** shares on the obvious theory that people will shift workout spending to home-based options like Peloton's connected stationary bikes. Peloton shares surged 13% on Tuesday to \$25, and gained 16.7% for the week.

Bank of America analyst Justin Post repeated his Buy rating and \$36 price target on shares of Peloton, which is shutting its studios and retail stores, but will stream classes and deliver bikes to those who order online. "With over 80 million gym members in Peloton's addressable markets (the U.S., U.K., Canada, and Germany), we think the at-home fitness trends will benefit near term from increasingly aggressive virus-containment measures," he writes. Peloton joins **Amazon.com**, **Activision Blizzard**, **Chewy**, **Netflix**, **Take-Two Interactive Software**, and **Ubisoft Entertainment** as Post's top bets.

Canaccord Genuity analyst Michael Graham is also bullish on Peloton, Netflix, and to a lesser extent **GrubHub** and **Spotify Technology**. He maintains a Buy rating and \$40 target on the stock.

And Wedbush added Peloton to the firm's Best Ideas list. "We believe we are in the early stages of the 'work-in' trend, a long-term shift toward at-home fitness, based on a combination of worsening time poverty and evolving technology," the firm wrote. The company is not only insulated from the pandemic, but also "we see Peloton as a potential beneficiary of widespread social-distancing efforts, accelerating what we believe is already an inevitable shift." — **Eric Savitz**

THE NUMBERS

78 K

Unemployment claims in Ohio over three days this week, compared with 3,000 in the same period a week earlier

2 M

The estimated number of unemployment claims expected nationally this week

-12.7

Philadelphia Fed Manufacturing Index for March, down from 36.7 in February

85.47

Cboe Volatility Index high for last week, hit on Wednesday, just below the 89.53 on Oct. 24, 2008, so-called "Bloody Friday."

To get Numbers by Barron's daily, sign up wherever you listen to podcasts or at Barrons.com/podcasts

Uncertainty Unleashed

The Federal Reserve cut interest rates on Sunday, and Monday saw carnage, with another circuit-breaker halt and the Dow industrials losing 3,000 points. President Trump acknowledged that a recession might be in the works. Volatility raged, with stock futures rising on Monday night and tripping the limits-up breaker. On Tuesday, Fed moves to keep credit flowing triggered a rally. Stocks continued to swing wildly through the rest of the week, with oil prices skidding to about \$20 a barrel, then rising on a big U.S. oil-reserve buy. On the week—cover your eyes—the Dow lost 17.3%, to 19,173.98; the S&P 500 fell 15%, to 2304.92; and the Nasdaq Composite retreated 12.6%, to 6879.52. They are the steepest weekly declines since October 2008.

Stimulus Therapy

On Sunday, the Fed dropped rates to 0%-0.25% and said it would begin to buy \$700 billion in Treasuries and mortgage securities—actions taken to combat the economic disruption brought on by Covid-19. The biggest banks said they would put share buy-backs on hold, and they began to borrow from the Fed, steps they had avoided since the financial crisis. The Fed also launched facilities to provide support for primary dealers, commercial paper, and money-market mutual funds, and to supply dollars to central banks. The president signed a second rescue bill, for \$100 billion, providing sick leave and free testing, and Congress tackled a trillion-dollar stimulus that would include industry bailouts—\$50 billion for the airlines, among others—and \$500 billion to Americans. The Treasury Department extended tax filing to July 15.

Flattening the Curve

Covid-19 cases outside China exceeded those inside China for the first time, as the epicenter of the crisis moved to Europe. Italy's death toll exceeded China's, Spain went into lockdown, Germany closed its borders, and France announced a nationwide quarantine. The U.S. travel ban from Europe (the United Kingdom now included) created bottlenecks in U.S.

HE SAID

"The thing that fiscal policy—and, really, only fiscal policy—can do is reach out to affected industries and affected workers."

Federal Reserve Chairman Jerome Powell



airports. Much of the Las Vegas Strip closed, as did Colorado ski resorts and New York City schools. San Francisco became the first major U.S. city to go into lockdown, followed by all of California. Unemployment claims soared. For all of that, a poll showed nearly 40% of Americans didn't believe the virus was a threat.

Biden Rolls On

Former Vice President Joe Biden significantly lengthened his lead over Sen. Bernie Sanders for the Democratic presidential nomination. Biden won in Arizona, Illinois, and Florida. Ohio canceled its primary as a public health measure.

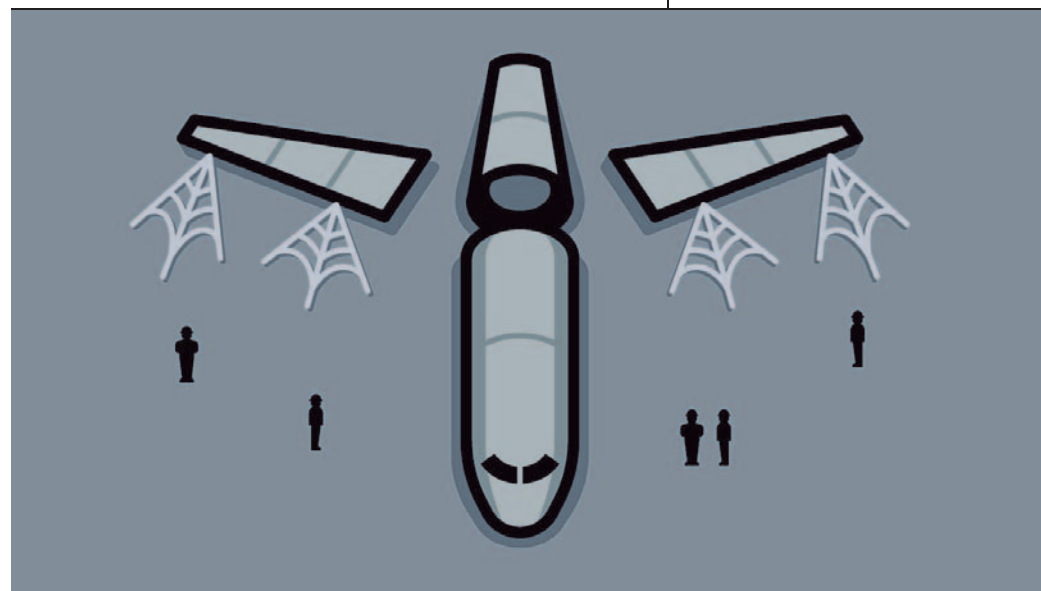
Press War

China revoked press credentials from reporters of The Wall Street Journal, the New York Times, and the Washington Post, an escalation of retaliation that included the expulsion of three Journal reporters from China and U.S. measures against Chinese media in the U.S.

PREVIEW

Thursday The Bank of England announces its monetary-policy decision. The BOE has made two emergency rate cuts since its last meeting, bringing rates down to a record-low 0.1%.

Sign up for the Review & Preview daily newsletter at Barrons.com/reviewpreview



A \$60 BILLION BAILOUT?

Why Boeing Is Too Big to Fail

Boeing's stock continues to slide as the company seeks a federal bailout to stay in business amid the coronavirus pandemic. Boeing won't be allowed to fail. The Dow component is the hub of the U.S. aviation industry, a major exporter, and the engine of the defense/aerospace industry. But Boeing is on the ropes: Airlines are cancelling orders for new planes and parts, production rates are falling, and Boeing has yet to resume production of its 737 MAX plane, one of its biggest sellers, following two fatal crashes.

Boeing wants \$60 billion in federal aid for itself and suppliers. The money could tide the company over for six months, estimates UBS analyst Myles Walton. He calculates that Boeing's commercial airplane group is burning through \$4 billion in cash a month and may need \$25 billion to cover manufacturing costs until orders recover and buyers resume making progress payments. Its debt load, meanwhile, is expected to hit \$40 billion this year, partly to help finance its deal for the commercial aviation unit of Brazil's **Embraer**.

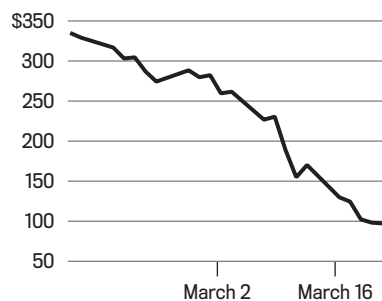
If Boeing gets a bailout, it may come at a steep price. A package could include restrictions on dividends and share buybacks, regulation on pay, labor controls, and more government oversight, including possible stress tests. Boeing may also have to hold more capital, lowering returns on equity and keeping its stock valuation under pressure.

Investors are bracing for it. The stock's 70% collapse has pushed its price/earnings ratio to 3.8 times estimated 2020 earnings; the shares yield 8.5%. Boeing has shed more than \$130 billion in market value since Feb. 14, to \$57 billion. The company will survive. But Boeing may end up smaller and less profitable, and paying a token dividend. — **Daren Fonda**

Losing Altitude

Boeing has lost over 60% of its value since the coronavirus emerged as a global threat in mid-February.

Boeing's Recent Stock Performance

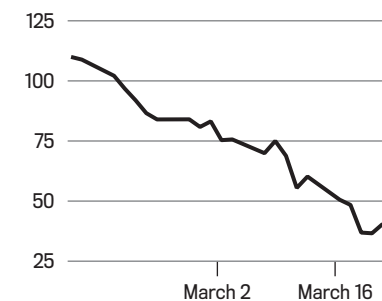


Source: FactSet

Demand Shock

Part of Boeing's problem is the 737 MAX. But the pandemic also grounded many of its airline customers, which also fell as a group over 60%.

NYSE ARCA Airlines Index



Source: FactSet

Monday 3/23

The Federal Reserve Bank of Chicago releases its Chicago Fed National Activity Index for February. Consensus estimates are for a -0.43 reading, in line with the January data. A figure below zero indicates that the economy is growing at a below-average rate. There is probably some downside to the estimates, as this past week the New York Fed's Empire State Manufacturing Index had its largest monthly drop on record, much worse than expected.

Tuesday 3/24

Grocery Outlet Holding, IHS Markit, and Nike report quarterly results.

The Census Bureau reports new residential home sales for February. Economists forecast a seasonally adjusted annual rate of 740,000 homes sold. That estimate would be down 3.1% from January's 764,000 rate.

IHS Markit releases its U.S. Purchasing Managers' Index for March. Expectations are for a 49 reading, down from February's 49.6 figure.

Sempra Energy and Square webcast their investor days.

Wednesday 3/25

Micron Technology and Paychex report earnings.

The Census Bureau releases its durable goods report for February. Consensus estimates are for a 0.3% decline, after a 0.2% fall in January. Excluding autos, new orders of manufactured goods are expected to plunge 0.6%, reversing a 0.8% gain in January.

The Federal Housing Finance Agency releases its Home Price Index for January. Home prices rose 5.1% last year according to the FHFA. The largest gains were out West, which

had the four states with the strongest housing markets, led by Idaho's 12% jump.

Thursday 3/26

GameStop and Lululemon Athletica report quarterly results.

The Bureau of Economic Analysis reports the third and final estimate for U.S. gross domestic product in the fourth quarter of last year. Expectations are for an annualized 2.1% rate of growth, unchanged from the second estimate released in late February.

The Department of Labor reports initial jobless claims for the week ending on March 21. This past week, initial jobless claims surged to 281,000, the highest figure since September 2017, which came in the aftermath of Hurricane Harvey.

Friday 3/27

The Bureau of Economic Analysis releases its Personal Income and Outlays report for February. Personal income is expected to rise 0.3%, following a 0.6% jump in January. Spending is seen gaining 0.3%, after edging up 0.2% in January.

Coming Earnings

	Consensus Estimate	Year ago
T		
Nike (Q3)	0.61	0.68
SYNNEX (Q1)	3.12	2.84
W		
Micron Technology (Q2)	0.37	1.71
Paychex (Q3)	0.96	0.89

More Earnings on Page 32.

Consensus Estimate

Day		Consensus Est	Last Period
T	Feb. New Home Sales	737,500	764,000
W	Feb. Durable Goods	-0.40%	-0.15%
TH	Q4 GDP	2.1%	2.1%
F	Feb. Personal Income	0.35%	0.60%
	Mar. Michigan Sentiment - f	94.0	95.9

Unless otherwise indicated, times are Eastern. a-Advanced; f-Final; p-Preliminary; r-Revised Source: FactSet

For more information about coming economic reports - and what they mean - go to Barron's free Economic Calendar at www.barrons.com

CORONAVIRUS: POLICY IMPERATIVES

Memo to DC: Go All-In Now or Pay Later

To mitigate a recession or avert a depression, lawmakers must take bold fiscal measures to help businesses and workers. The fate of the economy depends on it.

By **BEN LEVISOHN**
and **LISA BEILFUSS**

The coronavirus has scared everyone, from consumers and investors to central bankers and politicians. But one question looms over everything: Are we frightened enough to do what needs to be done?

That might seem surprising to say. The fiscal policy response to the coronavirus crisis is coming. It will be big. It will be costly. It will be messy. But it won't be big enough. A robust fiscal response is an imperative if the U.S. economy is to avoid a deep, lengthy recession or, as some fear, a depression. And it's going to have to be bigger than many of us can even imagine.

The coronavirus pandemic is the ultimate black swan event, unlike any threat faced by the U.S. since the Spanish Flu of 1918. It's not simply a financial system that needs to be back-stopped, an enemy to be defeated, or even a dislocation in the commodities market that was seen in the 1970s. It's a disease that will pass from person to person, cause dislocations in the financial system, bring economies to a standstill in its wake. And we need to be prepared to go to war on two fronts—the health crisis and the economic crisis.

To succeed, Washington needs to set aside partisan bickering, xenophobia, and blame-shifting, and pass legislation first to stanch the bleeding and then to help heal the people and businesses that will bear the brunt. The November



elections will be the first test of how successful these early fiscal efforts are.

The early returns, as reflected in the Dow Jones Industrial Average's 35% drop from its all-time high, aren't encouraging. But it isn't just stocks that are feeling the pain. The flight to cash has gathered steam, pulling in typically "safe" assets like municipal bonds and long-term Treasuries, further illustrating a level of fear not seen since the financial crisis of 2008.

The coronavirus' toll on the health and financial well-being of Americans is in its early days. The immediate priority now is getting help to the sick, assessing the extent to which the disease has spread, and helping those struggling to pay their bills and feed their families. Entire industries face existential threats that could spark vicious cycles of layoffs, bankruptcies, and pain for working taxpayers.

Whether the damage is contained to a few months or longer will depend on the policy response. The Federal Reserve has gotten the ball rolling on the monetary-policy front by bringing to bear some of the tools it used during the financial crisis. It cut short-term interest rates to near zero, said it would buy at least \$700 billion of Treasuries and mortgage-backed securities to keep rates tamped down, and is trying to ensure that short-term financing markets run smoothly and maintain dollar liquidity worldwide. But its mandate limits what it can buy

and what kind of stimulus it can roll out. That will need to change.

Even then, the real work will have to come from politicians. On the fiscal-policy front, Congress and President Trump have pushed through an emergency \$8.3 billion public-health spending bill that funds vaccine development and provides money to state and local governments to help with prevention efforts, and a second measure that provides free virus testing and an expansion of paid sick leave that could cost more than \$100 billion. And the Trump administration and Senate Republicans and Democrats are pursuing stimulus efforts on other tracks, including direct cash payments to Americans, a payroll-tax cut, credit facilities to rescue industries such as the airlines, and loan guarantees for small businesses.

Treasury Secretary Steven Mnuchin says the stimulus package the administration supports totals \$1.3 trillion, or of which about \$500 billion would go directly to Americans. Discussions around an additional \$1 trillion in stimulus are continuing. "We are closing down parts of the economy to make sure we destroy this disease," he says. "We're going to provide whatever economic aid we need to this economy" to ensure small businesses have money to keep paying their employees.

Even those figures might not be enough. Covid-19, the disease caused by the new coronavirus, is going to rack

the economy. Schools are closing, working from home is increasingly the norm in many industries, restaurants and bars are shuttered, and almost everyone is spending most of their time in and around their homes.

Early readings on the extent of damage the coronavirus outbreak poses to the economy aren't encouraging. China, which is about a month or so ahead of the U.S. in combating the disease, just reported a 13.5% drop in industrial production during the first two months of 2020, while its retail sales fell 20.5%. And this from a country whose data tend to play down problems.

The coronavirus is starting to show up in U.S. economic figures for the first time—adding to the urgency for a bold fiscal response. Initial claims for unemployment benefits surged 33% in the latest week, up 70,000, to 281,000—one of the biggest one-week jumps on record. Observers expect the total to explode when next week's data come out. Already, some states have said their reporting systems are overwhelmed due to spiking claims for jobless benefits. Earlier in the week, the reading on the New York Fed's Empire manufacturing survey fell to negative 21.5 in March, down from a positive 12.9 in February, reflecting the biggest one-month drop in its history.

The fallout from the Sept. 11 terrorist attacks provides a good starting point for contemplating how the coronavirus could affect the U.S. economy, and what needs to be done.

Satya Pradhuman, director of research at Cirrus Research, sees similarities in the hit to air travel, small business, and the like. "Think about lower Manhattan 12 to 18 months after 9/11...it was still a tough place," he wrote in an email to *Barron's*. "Now imagine that event across most major cities, days apart." Pradhuman sees two to three quarters of declining growth and "a few rounds of monetary and fiscal support...before we bottom."

The hit to the economy will be bigger than anything we've experienced, even during the financial crisis. JPMorgan predicts a 14% plunge in U.S. gross domestic product in the period, while Goldman Sachs sees a whopping 24% slump. Torsten Sløk, chief economist at Deutsche Bank Securities, predicts a 12.9% decline.

"We cannot stress enough the degree of uncertainty surrounding these projections," Sløk said of his latest eco-

"What our economy needs is funding to buy time to breathe, keep paying employees, and simply get to the other side."

Jefferies CEO
Rich Handler and
President Brian
Friedman

conomic estimates on Wednesday. “These are truly unprecedented events with no adequate historical example with which to precisely anchor our forecast...[and] the evolution of the virus is also highly uncertain.” It’s easy to imagine a still-worse outcome, he says, where the virus is harder to contain in the U.S. than it was in China, and financial markets trigger knock-on effects that lead to sharper and more protracted declines in activity. One only has to look at Italy, where the number of deaths has now surpassed those in China, for a sign of how bad the crisis can get.

Politicians will have to get creative quickly with fiscal measures—or else.

Capital Economics chief economist Neil Shearing offers a list of potential actions. “What would fiscal stimulus look like? This encompasses everything from the expansion of access to health care and increases in government-funded sick pay to tax breaks for businesses, and one-off payments to households,” he wrote in a recent paper. “Governments can also guarantee cheap loans made to the hardest-hit (but otherwise solvent) firms or—in the

extreme—assume the liabilities of private companies.”

Even that might not be enough. In a paper this past week, economists Emmanuel Saez and Gabriel Zucman, professors at the University of California, Berkeley, argued that the best way for the government to help the economy is to step in and replace lost demand. If demand drops 40%, for instance, plugging it with payments to businesses would cost about 10% of the nation’s \$20 trillion annual GDP.

Others suggest that Washington should allow companies to cite the pandemic as a “covered cause of loss” and then backstop the insurance companies that must make payments for the claims. Creativity and flexibility will be key to keeping a recession, which now appears unavoidable, from becoming something worse.

Jefferies has an investment-banking client base composed primarily of the very midsize public and private companies on the front lines of the coronavirus-driven hit to commerce. Its executives are calling for the government to do whatever is necessary to stem a

surge in unemployment and to backstop the huge numbers of businesses that will shut down or file for bankruptcy before prosperity returns. This response could involve Uncle Sam using access to cheap debt to set up a program that would essentially let companies mimic full employment for the next six months.

“What our economy needs is funding to buy time to breathe, keep paying employees, maintain capacity and capabilities, and simply get to the other side,” wrote Jefferies CEO Rich Handler and President Brian Friedman.

Barron’s agrees. If otherwise healthy companies and industries collapse, there could be nothing left for workers to return to when the coronavirus subsides. If people aren’t given the financial support they need to quarantine or practice social-distancing for what could be an extended period, the virus might not abate quickly enough for the economy to bounce back.

We’re still a bit away from thinking about the worst-case scenario—a depression—though it’s certainly on many observers’ radars.

Needed: Novel Solutions

Washington could let companies cite the pandemic as a “covered cause of loss” and then backstop the insurers that would pay the claims. Flexibility and creativity are keys to preventing any recession from becoming something far worse.

25%

The U.S. jobless rate in 1933, four years after the beginning of the Great Depression.

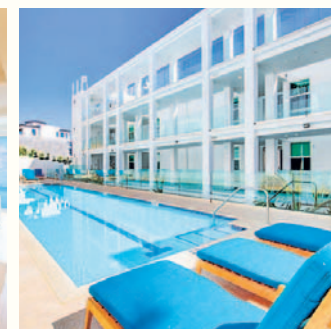
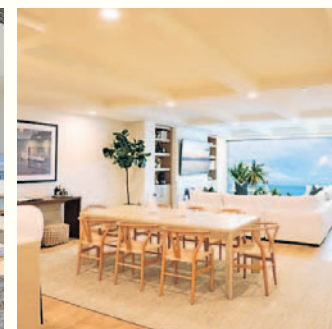
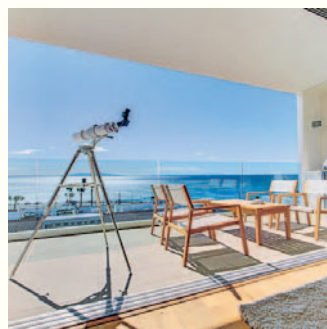
While there’s no clear definition of a depression, the San Francisco Fed has tried to put things in perspective by comparing the downturn that occurred from 1973 to 1975 to the first downward leg of the Great Depression, from 1929 to 1933.

During the 1973 recession, GDP fell 3.4%, while joblessness rose from 4% to 9%. In the first leg of the Great Depression, real output slid almost 30%, while unemployment jumped from 3% to nearly 25%. During a later leg of that awful downturn, many businesses and individuals went bankrupt. Banks failed, and the economy took more than a decade—and a world war—to recover. It took 25 years—until 1954—for stocks to return to the peak they hit in 1929.

So far, 2020 seems to be forming a perfect storm of its own. A global pandemic, interest rates at zero, an oil-price war, and a U.S. presidential election have never happened at the same time. Will that be the recipe for a depression? For now, no one knows.

The sooner our politicians realize that’s the end game—and do something to avoid it—the better. **B**

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CORONAVIRUS: BOOSTING HEALTH CARE



Drive-through testing for Covid-19 at the Doris Ison Health Center in Miami-Dade County, Florida

War Effort Needed to Combat Covid-19

State and local officials are calling for a much bigger response from Washington as ventilators, masks, and other medical gear are lacking.

By **JOSH NATHAN-KAZIS**

The mayor of New York sat ashen-faced before the cameras on Thursday evening and begged for help. “We need three million N95 masks,” Mayor Bill de Blasio said. “We need 50 million surgical masks. We need 15,000 ventilators, and 25 million each of the following items of personal protective equipment...surgical gowns, coveralls, face masks.”

The numbers were staggering: Nearly a 130 million pieces of medical gear for New York City alone, by early

next month at the latest. If they don’t arrive, the mayor warned, it would mean needless deaths.

And that’s just one city.

The nation has gone to war this week, as the Trump administration, Congress, and the Federal Reserve act quickly to try to shore up an economy in the grips of the coronavirus pandemic. Yet the industry that is facing down the immediate crisis—health care—is not the focus of Washington’s current \$1 trillion-plus push.

Mayors, governors, and other elected officials have asked the Trump administration for assistance in shoring up the medical system. They want

help securing gear, increasing the number of hospital beds available, and backing up local doctors with support from the military.

On Thursday, President Donald Trump batted back a central demand, saying that he did not want the federal government to buy medical equipment for the states. “The federal government is not supposed to be out there buying vast amounts of items and then shipping,” the president said. “You know, we’re not a shipping clerk.”

Yet experts say that the president has extraordinary power to wield the might of the federal government to refashion the economy and deploy vast amounts of resources.

“He has basically the equivalent of Soviet-style authority through the Defense Production Act,” says Robert Litan, a former associate director of the Office of Management and Budget during the Clinton administration, now a nonresident senior fellow at the Brookings Institution.

Using the powers of that act, the president could force U.S. industry to devote extraordinary resources to churning out needed protective gear.

Trump said on Friday that he had put the act in “high gear,” although he

did not specify what that meant.

Amid the confusion over whether Trump is using those powers, there are additional steps he could take.

Military doctors and nurses, some experts say, could be sent to shore up medical teams at hospitals being crushed by Covid-19 cases.

“The government needs to be taking the steps to ensure that both the military’s doctors, nurses, and medical personnel, as well as members of the National Disaster Medical System, are prepared so that within hours’ notice they can deploy and meet the needs of a local hospital to help prevent a local hospital from being overwhelmed,” says Chris Meekins, a Raymond James analyst who previously worked as a deputy assistant secretary for preparedness and response at the Department of Health and Human Services.

That doesn’t appear to be happening yet. The Pentagon has said it will send a hospital ship to New York City, and another to the West Coast. But the ship headed for New York is a 44-year-old converted oil tanker that’s not immediately ready to deploy, and it is not prepared to handle infectious disease patients.

Hospitals and other health-care providers, meanwhile, say they need direct aid. Medicaid payments to some hospitals are set to be cut on May 22 under a provision of the Affordable Care Act, a deadline Congress could easily delay.

The American Hospital Association is asking for more funding for hospitals and health systems from Congress, over and above the increase in Medicaid payments included in the stimulus bill recently passed. In a joint letter on Thursday, the AHA, the American Medical Association, and the American Nurses Association asked Congress for \$100 billion in spending, in the form of a stabilization fund to help pay health-care providers for emergency expenses incurred as a result of the outbreak, child care for medical workers, and payments to help build out emergency Covid-19 care facilities.

Changes are happening quickly; decisions not yet made as of Friday may have been taken by Saturday morning.

But the delays to swing the vast powers of the federal government into action so far highlight the failures that have contributed to the crisis.

“[The president] has basically the equivalent of Soviet-style authority through the Defense Production Act.”

Robert Litan

The signal failure came early this year when government health officials botched their first efforts to ready a diagnostic test for domestic use.

In the U.S., when a new virus appears, it is the job of scientists at the government's Centers for Disease Control and Prevention to come up with a test. That is for the same reason that drug companies generally don't work on treatments for emerging viral threats: It is hard to make money on new viruses. Viruses can pop up in one region, then fade away without spreading, and the potential market evaporates after companies have poured millions of dollars into it.

When government scientists distributed their Covid-19 diagnostic in early February, however, it became clear that the test had serious flaws. CDC officials promised to fix them quickly. It took too long.

"The reality is, once the CDC's initial test failed, all of the actions today, from reaching out to commercial labs to engaging with hospital systems and academic labs, should have been occurring three weeks ago," Meekins of Raymond James said. "Instead, the government relied on the CDC to fix their test, which came too late."

Tests of the sort being used now to diagnose Covid-19 infections, called real-time polymerase chain reaction assays, take a few hours to run. Lab-tools companies make devices that can perform hundreds simultaneously. Yet those commercial tests require authorization by the Food and Drug Administration, a process that can take time, even in a pandemic.

On Tuesday, Deborah Birx, who is coordinating the coronavirus response for the White House, suggested that tests used overseas may have been returning bad results.

Whether it was worth waiting for high-quality tests is debatable. Regardless, commercial tests that meet the FDA's standards are now beginning to become available in the U.S.

SVB Leerink analyst Puneet Souda says that the solution for the testing shortage is to use devices from **Roche Holding** (ticker: ROG, Switzerland) and **Hologic** (HOLX) that can run hundreds of tests at a time. The FDA has issued emergency authorizations for a Covid-19 test to run on such devices from Roche, **Thermo Fisher**

Scientific (TMO), and Hologic. "It's not too hard to imagine we can actually reach half a million samples per day" using these machines, Souda says.

Even with the tests themselves now available, challenges remain. For some tests, the chemicals and materials needed to use them are in short supply.

Qiagen (QGEN), a Dutch company that is being acquired by Thermo Fisher, told *Barron's* that it was having trouble meeting the demand for an RNA extraction kit used in the CDC's Covid-19 test. The company says it is increasing production at sites, which are now running three shifts a day, seven days a week.

Roche, meanwhile, said that there was currently a shortage of the transport media used for its Covid-19 test. Hologic said that there were no supply-chain issues with its tests.

Still, experts expect substantial availability of tests in the coming days. Yet that will come too late to have the effect it appears to have had in South Korea, where nearly 300,000 people had been tested for the virus as of Wednesday. South Korea's number of new cases leveled off this past week.

That means that across the U.S., the wave of patients is already coming. In New York, it has begun to crash into emergency rooms and intensive care units. For the patients most severely sickened by Covid-19, that is driving a dire need for ventilators, which help

seriously ill people breathe.

The machines, which cost tens of thousands of dollars, are made by a handful of manufacturers, including **Medtronic** (MDT), **Philips** (PHG), and **General Electric** (GE), as well as the private medical device firm Vyaire Medical, which was a unit of **Becton Dickinson** (BDX).

New York alone is short tens of thousands of the machines. On Wednesday and Thursday, the companies that make the ventilators said they had boosted production and were adding production lines and shifts, and that some factories would run non-stop. That won't spell an immediate surge of ventilators to the market.

Cheston Turbyfill, vice president of corporate communications at Vyaire, said an individual ventilator takes up to 40 days to build.

Ventilators are complex devices, perhaps best left to experienced manufacturers. But other items desperately needed to care for Covid-19 patients are far simpler to make.

That is where the Trump administration could be using its authority more assertively, Litan of the Brookings Institution said. The Defense Production Act allows a president to require companies to accept and prioritize contracts for necessary materials, and even install equipment in private factories.

"You could order them to do 24/7 production," Litan says. "At a minimum, the people who are producing it

The Supply Shortage

States say there are not enough ventilators to cope with the coronavirus.

40 Days

How long it can take to manufacture a single ventilator.

already, you tell them to work 24/7, don't worry about it, you're going to get paid. But I don't think that is enough." Litan advocates ordering other companies to make masks, gowns, and gloves, to help fulfill the dire needs already manifesting.

The federal government has done some work to increase the availability of masks. On Wednesday, the president signed a bill that, among other things, limited mask-makers' liability in a way that will allow N95 masks meant for nonmedical uses to be redirected to hospitals.

The president also highlighted the procurement of 500 million respirators by the Department of Health and Human Services. Until Friday, Trump had said that the use of the Defense Production Act was not yet necessary, tweeting on Wednesday that he would use the authorities "in a worst-case scenario in the future." But for officials in hard-hit areas, that worst-case scenario is already here.

"Every factory in America that can be converted to health-care production...should be ordered on a full production basis," de Blasio said on Thursday. The New York mayor also called for the military to deploy medical personnel to New York City.

"In an ideal situation, you would have it set up so that within 12 hours they can be deployed and ready," Meekins says.

Still, that is a complex demand, which could, in some cases, pull those doctors from medical facilities they staff elsewhere in the country. The Department of Defense has said it was considering using National Guard and Reserve units to help states with medical support.

"What we've got to be very conscious of and careful of as we call up these units and use them to support the states [is] that we aren't robbing Peter to pay Paul, so to speak," Secretary of Defense Mark Esper said at a news conference. "So we've got to be very conscious of that."

Like a war, the Covid-19 pandemic will wreak havoc across the nation.

"This is a national problem," says Michael Greenberger, a professor at the University of Maryland Francis King Carey School of Law and director of the school's center for health and homeland security.

And a national problem requires a federal response. **B**



A Qiagen employee demonstrating the use of the company's testing device for infectious diseases.

CORONAVIRUS: OUTLOOK FOR BANKS



The Banks' Stress Test Is Now All Too Real

Many of their borrowers and customers may be struggling as the reaction to the pandemic shuts down businesses, yet the biggest banks, with their financial strength, could be the economy's rock.

BY ANDREW BARY

ILLUSTRATION BY
Daniel Downey

This is crunch time for the big U.S. banks.

They have steadily taken market share from their smaller brethren over the past decade and built large capital cushions with record earnings. Now, they must navigate an unprecedented period of economic stress while servicing—and showing leniency toward—hard-hit businesses and consumers.

The banks say they have never been better prepared. Investors, however, are worried about whether they can deliver and get past the crisis without being swamped by bad loans.

The sector has been hammered lately. The shares of the six top institutions—**Bank of America** (ticker: BAC), **Citigroup** (C), **Goldman Sachs Group** (GS), **JPMorgan Chase** (JPM), **Morgan Stanley** (MS), and **Wells Fargo** (WFC)—were down an average of 15% last week and 40% for the

year. With banks amounting to leveraged plays on a reeling economy, the market setback is understandable.

Plenty of risk remains. There is uncertainty about what kind of action the government or banks may take to help borrowers, such as forgiveness of interest, fee waivers, or suspension of debt payments—and what effect that will have on profits.

The standard investor playbook is to avoid banks when the economy is going into recession—especially one whose depth and duration is especially hard to predict. The 2008-09 downturn was centered in the housing market, while the current crisis appears to be hitting nearly everything at once.

And many investors would rather stick with safer sectors such as technology (where many companies sit on big cash positions), pharmaceuticals, consumer staples, and electric utilities.

Nonetheless, the big bank stocks look

appealing.

“In the financial crisis, banks were part of the problem,” says Michael Mayo, the banking analyst at Wells Fargo. “Now, they can be part of the solution. They spent the past decade preparing for a time like now, so they can act as a source of strength for the economy.”

To appreciate the banks, investors may have to rely on a traditional value measure—tangible book value—rather than earnings, which are likely to come under pressure for a quarter or two as loan-loss reserves surely increase. Published 2020 earnings estimates for banks are probably too high.

JPMorgan traded on Friday at \$86, traded for 1.4 times tangible book, and Bank of America, at \$21, was at 1.1 tangible book. The other four fell below tangible book: Goldman, at \$142, and Citigroup, at \$39, fetched 70% and 55% of tangible book, respectively.

Tangible book is a conservative measure of shareholder equity that excludes goodwill and other intangibles and has often proved to be a floor under bank stocks.

Mayo says investors need to set aside their wariness of the banks. “It’s night and day versus the financial crisis,” he says. “Bank balance sheets were weak, and now they’re strong. The degree of resiliency is underappreciated. I would be shocked if one of the top 10 banks needs to raise equity or cut its dividend.”

Mayo favors JPMorgan, Bank of America, **U.S. Bancorp** (USB), and **PNC Financial Services Group** (PNC), the latter pair being among the highest-quality regional banks. JPMorgan has a diversified base of consumer and commercial lending, high net-worth wealth management, and investment banking. It has produced some of the industry’s best returns and has the best management team, led by CEO Jamie Dimon, who is recuperating from heart

CORONAVIRUS: OUTLOOK FOR BANKS

surgery.

Bank of America has transformed itself into the country's top consumer and commercial bank in the past decade under CEO Brian Moynihan, who has espoused what he calls "responsible growth." The bank has had the lowest loan losses among its peers, reflecting a know-your-customer consumer-loan strategy geared toward high-quality borrowers.

"We are here to be part of the solution," Bank of America Chief Financial Officer Paul Donofrio told *Barron's*. "We're a haven for consumers and businesses to deposit their money or keep their investments. We see ourselves as a conduit to economic activity in a time like this. For existing clients who want flexibility, we will work with them. That's our job, and we're in a position to do it."

Goldman Sachs and Morgan Stanley have less lending exposure than peers, since they tilt more toward banking, trading, investment banking, and asset and wealth management. Their business mix could limit the downside in their shares from currently depressed levels.

The regional banks have been hit even harder than the largest banks, with some down over 50% this year, because of their exposure to hard-hit small and midsize businesses as well as energy.

Yet both U.S. Bancorp and PNC have less exposure to energy relative to some peers. Mayo upgraded both stocks last week to Overweight. Of PNC, he wrote that its "risk profile is lower, making it a go-to bank in times of trouble, as it was during the financial crisis of 2008." PNC also has a valuable stake in behemoth asset manager **BlackRock** (BLK) that is worth about 35% of its market value.

U.S. Bancorp has a diversified model and gets only about half of its profits from traditional banking, with the rest from businesses such as payment processing and wealth management. It has historically been viewed as the highest-quality big regional.

Big banks have dividend payout ratios of earnings averaging about 30%, meaning that they can take a hit to profits without the danger of a cut. Among the largest banks, Bank of America has one of the most conservative payout ratios, at about 25% of last year's earnings. Wells Fargo has the most aggressive, at nearly 50%.

This is reflected in dividend yields.

Bank of America yields 3.4%, while Wells Fargo tops the group at 7.2%. The rest of the six range from 3.3% to 5.2%, with JPMorgan at 4.2%.

Investors can also get 6% to 7% yields on bank preferred stock after that sector was slammed last week, compared with 5% earlier this month. A proxy for the sector, the **iShares Preferred & Income Securities** exchange-traded fund (PFF), which has a heavy weighting in bank preferred, traded on Friday at \$28, down 16% in the past week, and was yielding 7%. Preferred stock offers a lower-risk way to play the banking sector, since preferred is senior to common shares, and the dividends are more secure.

The Federal Reserve has highlighted the banks' strength, noting last week that the largest banks have \$1.3 trillion in common equity and \$2.9 trillion in high quality liquid assets. This means that traditional capital ratios understate banks' strength because they hold so many low-risk, liquid assets like cash and government securities.

JPMorgan, for instance, had \$188 billion of tangible common equity to support \$2.6 trillion of assets at year end, but only \$948 billion are in loans.

In a statement last Sunday, JPMorgan said, "Even if circumstances get dramatically worse, we have the capabilities and balance sheet to support

the financial system and all of our constituencies. We stand ready to support our government in any way we can."

That could well play out, with entire industries like hotels, automobiles, energy, and restaurants feeling the strain. Energy loans are a problem as crude-oil prices have plunged.

For the largest banks, these loans look manageable. Mayo calculates that Citigroup, Bank of America, JPMorgan, and Wells Fargo have a range of \$13.6 billion to \$19.9 billion of exposure to energy, which accounts for 1% to 3% of their loans books and 6% to 11% of their equity. Banks have some protection because their loans tend to be the most senior obligations of energy companies.

Investors can take some comfort in the fact that the Fed puts the largest banks through annual stress tests, including a severe one that includes an 8% drop in U.S. gross domestic product, a 10% unemployment rate, and a 50% drop in the stock market. The banks emerged intact from this model with ample capital. And that's after returning cash to shareholders in dividends and stock buybacks.

Under this "severely adverse" scenario, a key bank capital measure, Tier 1 common equity dropped from an average of 12.3% among 18 top banks to 6.6% over a period of more than a year and held above the minimum requirement of 4.5%.

"As long as you can build a bridge through the next few quarters, it will be fine."

Jason Goldberg,
Barclays

Testing the Banks

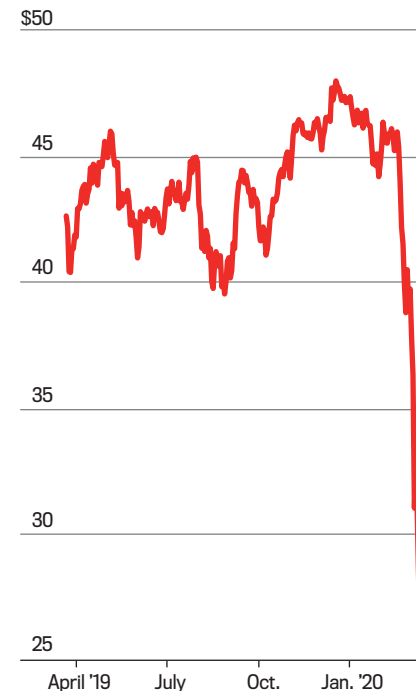
How the big U.S. banks stack up now and how their earnings could be affected by the current crisis.

Bank / Ticker	Recent Price	YTD Change	2020E EPS	Stressed 2020E EPS	2020E P/E	Stressed 2020E P/E	Price/Tangible Book	Dividend Yield	Market Value (bil)
Bank of America / BAC	\$21.20	-40%	\$2.94	\$0.71	7.2	29.9	1.1	3.4%	\$185.0
Citigroup / C	39.64	-50	8.55	4.87	4.6	8.1	0.6	5.2	83.2
Goldman Sachs Group / GS	149.49	-35	23.90	15.47	6.3	9.7	0.7	3.3	53.9
JPMorgan Chase / JPM	85.30	-39	10.76	3.84	7.9	22.2	1.4	4.2	262.2
Morgan Stanley / MS	30.92	-40	5.31	3.07	5.8	10.1	0.8	4.5	47.4
Wells Fargo / WFC	28.29	-47	3.91	1.77	7.2	16.0	0.8	7.2	115.7
Regionals									
Comerica / CMA	\$28.95	-60%	\$5.87	3.92	4.9	7.4	0.6	9.4%	\$4.1
M&T Bank / MTB	104.84	-38	13.23	10.26	7.9	10.2	1.4	4.2	13.6
PNC Financial Services Gp / PNC	92.42	-42	11.41	5.28	8.1	17.5	1.1	5.0	39.6
U.S. Bancorp / USB	33.21	-44	4.25	2.20	7.8	15.1	1.4	5.1	50.5

Data as of 3/19/20; E=Estimate

Withdrawals

Bank stocks have been hit hard over the past month, as reflected in the KBE (SPDR S&P Bank ETF).



Source: FactSet

The big banks have stopped their stock buyback programs through the end of second quarter. That will give them more capital to back new loans. It's a good bet that buybacks won't

Sources: Bloomberg; Barclays; company reports

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CORONAVIRUS: OUTLOOK FOR BANKS

The Buffers

How banks' minimum regulatory capital ratios could change by 2021 in a severely adverse scenario, according to the Federal Reserve.

Bank / Ticker	Common Equity Tier 1 Capital Ratio	
	Actual Q4 2018	Estimated Q1 2021*
Bank of America / BAC	11.6%	5.6%
Citigroup / C	11.9	6.9
Goldman Sachs Group / GS	13.3	6.7
JPMorgan Chase / JPM	12.0	4.6
Morgan Stanley / MS	16.9	7.7
Wells Fargo / WFC	11.7	7
Regionals		
PNC Financial Services Gp / PNC	9.6	5.8
U.S. Bancorp / USB	9.1	6.5
Average of 18 Participating Banks	12.3	6.6

*Projected minimum regulatory capital ratios in a severely adverse scenario, 1Q2019 to 1Q 2021

Source: Federal Reserve

resume until 2021 at the earliest.

Repurchase programs will almost certainly come under fire—just as they have in the airline industry—if any banks stumble and need government help. Even if they don't seek aid, banks may face criticism for wasting shareholder capital on big buybacks at high prices and being out of the money today. JPMorgan, for instance, bought back a total of \$44 billion of stock in 2018 and 2019 at an average price of \$111. With its shares at \$86, it is now out of the market.

The Fed's most severe stress test, which was last performed in the spring of 2019, has often been ignored by investors who considered its assumptions to be too harsh. Yet something worse could play out in the next year. Treasury Secretary Steven Mnuchin reportedly warned lawmakers that the jobless rate could hit 20% without major actions by the government. Yet the stress test is an encouraging marker.

"The banks were in very good shape coming into this," says Barclays banking analyst Jason Goldberg. He ticks off a few measures: tangible common equity at its highest level since 1940, liquidity as measured by the loan/deposit ratio at its strongest levels since the early 1980s, and credit quality as gauged by nonperforming assets at its highest since 2006.

"Banks will work aggressively with

corporate and consumer borrowers to get through these economic disruptions," Goldberg says. "As long as you can build a bridge through the next few quarters, it will be fine."

In a recent note, he outlined an adverse scenario for earnings that includes higher loan-loss provisions, narrower interest margins, and other factors. The result was that earnings estimates for the 24 banks in his coverage area had a median decline of 42%. All remained in the black.

Mayo says it could be near-term "earnings hell" for banks. "Bank profits will be on a one- to two-quarter sick leave," he says.

Still, investors have some smart company when it comes to the battered bank sector: Warren Buffett. He may be the largest single investor in bank stocks, with more than \$75 billion at the end of last year. His **Berkshire Hathaway** (BRK.A) held stakes in nearly every major bank stock at the end of 2019, with the exception of Citigroup and Morgan Stanley. Investors can now buy JPMorgan and U.S. Bancorp below Berkshire's cost.

Buffett has liked the banks' combination of low valuations and high returns. While the Berkshire CEO makes some mistakes—Berkshire is the single largest investor in airline stocks, for example—he rarely makes big ones. **B**

Smaller Banks, Big Opportunities

The nation's regional banks are particularly sensitive to the challenges posed by the pandemic.

They have less-diversified lines of business and loan portfolios and can be concentrated in one particular area. A regional bank in the oil patch, for instance, could not only see corporate credit lines tapped, but also face spillover effects from shuttered local businesses and out-of-work customers falling behind on their mortgages.

Their stocks reflect those worries: The KBW Regional Bank Index fell 40% from Feb. 20 through March 18, its worst 20-day decline since the index began in 2005.

The good news is that these banks are less exposed to commercial business than in previous years. While loans to nonfinancial businesses are near an all-time high, according to Wells Fargo data, they make up 26% to 34% of bank assets. At the same time, capital positions are better than they were in the past.

With so many regional banks hit hard, opportunities are beginning to emerge. Of course, you have to know where to look—and that isn't always easy.

About 40% of community banks disclose their exposure to retail and hotels, while only 36% disclose their exposure to energy companies, and 30%, to restaurants, according to Michael Young, a SunTrust Robinson Humphrey analyst.

The ones that do disclose their exposure have been hit hard. Some 18.1% of **BOK Financial's** (ticker: BOKF) loans are tied to the energy sector, and its stock price is down roughly 58% this year. Other energy-exposed banks, like **Zions Bancorp** (ZION) and **Comerica** (CMA), have sold off about 50% and 61% this year, respectively. But they all look cheap. BOK trades at 0.82 times its tangible book value, below even its lowest levels of the financial crisis, while Zions and Comerica have also seen their price-to-tangible-book ratios fall near 2008 levels. These banks have experience in the energy sector that can help get them through the crisis.

With oil prices in the mid- to low \$20s, exploration-and-production companies are likely to face bankruptcies, notes Gary Tenner, managing director at D.A. Davidson. In this kind of environment, he favors banks with less exposure to oil and other troubled areas. He points to **First Foundation** (FFWM), which does traditional banking but also wealth management and other services, as one opportunity. It has fixed-rate assets and a "greater magnitude of opportunity" to reduce its cost of funds, compared with its peers, Tenner says. It, too, trades below tangible book.

Investors could also look to some of the larger regional banks. Brian Klock, managing director at KBW, points to **M&T Bank** (MTB), **PNC Financial Services Group** (PNC), and **U.S. Bancorp** (USB).

The opportunities are there. Just don't expect the ride to be easy.

—Carleton English

CORONAVIRUS: AN INDUSTRY ACCOUNTING

Debt-Laden Sectors Stand to Fare Worst

As business comes to a near standstill across the U.S., industries from airlines to energy face liquidity pressure and potential bankruptcies

By AVI SALZMAN

When the world emerges from the coronavirus pandemic—hopefully sooner rather than later—some businesses, and perhaps entire industries, will probably have vanished, absent a federal rescue.

That's both because of the destructive impact of the virus, which has nearly frozen commercial activity in many corners of the economy, and the long period of low interest rates that has encouraged companies to add debt, much of which will soon come due.

Corporate debt as a percentage of gross domestic product is now at "the highest peak we've ever had," says Edward Altman, professor emeritus of finance at New York University Stern

School of Business. The value of corporate debt hit 47% of gross domestic product this year, higher even than the 45% it hit in 2008 before the last recession. More than half of investment-grade debt was rated BBB last year, at the edge of junk territory, and about 30% of that was vulnerable to a downgrade before the coronavirus outbreak.

In short, the country is about to be awash in junk debt, and companies in industries from airlines to energy will face a reckoning that could force them to merge or go out of business entirely.

By year end, Altman expects the default rate on high-yield bonds to rise as high as 10% from 2.9% last year. "The number of zombie companies likely to fail within 12 months has probably doubled since the start of the year," he says.

Here are some of the sectors that stand to be hardest hit during the

Debt Bomb
U.S. companies have added record debt since the financial crisis

47%

Value of corporate debt as a percentage of GDP, an all-time high

Marriott International suspended its dividend this past week. The hotel industry faces some of the same pressures as the airline and cruise sectors.

virus-driven slowdown and the first wave of debt reckoning:

Airlines

Airline stocks are so cheap that the entire U.S. industry is now valued at \$48 billion—less than a third of the market value of Walt Disney.

Airlines are pulling guidance for the year, and credit-rating firms are putting debtholders on notice. Moody's said on Tuesday that it has placed all ratings for **Delta Air Lines** (ticker: DAL) on review for downgrade. Delta expects revenue in March to fall by almost \$2 billion over last year, with projections for April falling even more. It said it's planning to cut capacity by 70%, with international routes down 80% over the next two to three months. Other carriers also are making deep capacity cuts.

The industry won't be allowed to fail—it is the transportation fabric of the global economy. Yet investors seem to be betting that airline stocks might not recover soon.

The industry is likely to receive \$50 billion in government-backed loans and other assistance to maintain operations. But such an aid package will probably come with strings attached, including restrictions on dividends, buybacks, and labor practices. The loans will eventually have to be repaid, adding to airline debt loads and financial stress.

—Daren Fonda

Energy

Energy companies may be the most at risk of going under in this crisis. They face not just the catastrophic decline in oil and gas use amid nationwide shelter-in-place guidelines but also a global supply war involving Saudi Arabia and Russia that could tamp down prices for more than a year.

"It's pretty well known that when oil prices are below \$40 a barrel, there's going to be an increase in defaults," NYU's Altman says. "Now they're below \$30, so it's pretty given that the industry's going to suffer big time."

Meanwhile, producers have tacked on \$120 billion in debt in the past five years, and much of it comes due in the next two. Energy makes up the largest portion of the high-yield debt market.

One company facing Wall Street scrutiny is **Oasis Petroleum** (OAS), a Houston producer whose stock traded as high as \$7.15 a year ago but is now below 50 cents. SunTrust Robinson Humphrey analyst Neal Dingmann cut

his price target on the shares to zero in part because he sees a liquidity crunch coming. The company didn't respond to a request for comment. —A.S.

Cruise Operators

U.S. cruise operators have shut down for 30 to 60 days, and that's likely to extend further unless the coronavirus pandemic is brought under control quickly. Are these stocks dead in the water? It depends on how long it takes the companies—**Carnival** (CCL) **Royal Caribbean Cruises** (RCL), and **Norwegian Cruise Line Holdings** (NCLH)—to ride this out.

Time is the enemy, but for now they do have some liquidity, including credit lines. But they'll probably need some kind of assistance from the U.S. government, possibly in the form of loan guarantees. Details of such a plan hadn't emerged as of Friday.

In the meantime, Harry Curtis, who covers cruise stocks for Instinet, says that Norwegian, the smallest of the three lines by revenue, is in the best shape. He puts the company's liquidity at about \$1.6 billion with a monthly cash burn of about \$140 million. Royal's monthly cash burn, he says, is about \$280 million against liquidity of \$1.3 billion. For Carnival, the monthly cash burn is roughly \$560 million versus liquidity of more than \$3 billion.

—Lawrence C. Strauss

Private Equity

Private-equity shops are everywhere—from fast-food restaurants and hotels to hospitals and even the dentist—and often their investments are financed using a lot of debt, sometimes as much as 70%.

Bill Ackman, head of hedge fund firm Pershing Square Capital Management, warned this past week that private-equity firms might go bankrupt if the crisis lasts 18 months.

It's not clear how much debt PE firms have piled onto their portfolio companies, but global PE groups collected \$2 trillion from investors from 2006 to 2008, according to a Harvard Business School study that looked at the industry's use of debt in the financial crisis. For each dollar of investment they raised, they typically borrowed \$2 of debt, the study said.

If the current debt load comes close to or exceeds 2008 levels, there could be pain for PE firms and their portfolio companies. —Luisa Beltran



CORONAVIRUS: BETTING ON BIOTECH

Regeneron CEO Ready For Battle Against Virus

Leonard Schleifer talks about his biotech company's platform and why a treatment for Covid-19 could come quickly



By JACK HOUGH

Regeneron this past Tuesday announced a breakthrough in the search for a Covid-19 treatment. It has identified hundreds of virus-neutralizing antibodies that could potentially be used in a cocktail drug.

"Similar to the approach the company pursued for MERS and Ebola viruses, we believe Regeneron's Covid-19 antibody cocktail may offer efficacy in preventing and treating the virus," SVB Leerink analyst Geoffrey Porges wrote in a note to investors.

A day earlier, **Regeneron Pharmaceuticals** (ticker: REGN) said it had started trials with its existing arthritis drug, Kevzara, which might prove useful in treating lung inflammation in Covid-19 patients.

Barron's spoke with Regeneron CEO Leonard Schleifer about the fight against Covid-19. His comments have been edited.

On the search for a Covid-19 drug:

You have a three-pronged approach. First, try to take existing drugs that may have been developed for other purposes and see if they'll work for Covid-19. Second, give people a human antibody that can fight off infection until there are vaccines around. Third, get a vaccine so that the body can make these antibodies itself.

On using existing treatments:

You can break them into two broad categories. People are looking at antivirals. There are drug trials that I'm aware of with Remdesivir, a **Gilead Sciences** [GILD] drug, which was tried with Ebola. The idea there is you interfere with the functioning of the virus. Another thing you can think about is, are there any drugs that can prevent the virus from wreaking havoc on the body? When the virus gets into the lungs, it causes this massive inflammation. Maybe, just maybe, if you control the inflammation, you'll be able to do something to prevent patients from needing a respirator, and make their fever go away.

That's our drug, Kevzara. It was discovered at Regeneron and developed for rheumatoid arthritis with our partner, **Sanofi** [SNY]. Its mechanism of action is that we have these inflammatory mediators in the body called cytokines, and one of the bad ones is interleukin-6, which causes lots of inflammation. This may be what's causing some of the inflammation in the lungs. In China, as this epidemic started, there was a drug made by **Roche Holding** [ROG.Switzerland] known as Actemra, which blocks the function of the interleukin-6 receptor. They had rather impressive, albeit uncontrolled, data. They treated 21 people, and all of these people did very well. They all got out of the hospital. A majority improved their ability to breathe, and their fevers went

"You have people who are risking their health ...with only one goal in mind: How fast can Regeneron produce this and deliver it to the public?"

Leonard Schleifer

away. People have also tried this drug in Italy, with reportedly good results.

On when a drug might be here:

If the drug is shown to work in hospitalized patients, we have lots on hand and can make much more. The best case is that people wouldn't progress from, let's say, needing a little oxygen to going on a respirator. If we all get sick at once, it could be a disaster because we won't have enough intensive-care beds. A drug like this could really slow down the number of people who needed really intensive respiratory therapy. If we can enroll the study quickly over the next month, you should know within a few weeks of treating people how they're doing.

On making a custom treatment:

One of the ways a body fights off infection is to make antibodies. That's why you like to vaccinate people to prepare them for infection. Another is to use mice. Through the miracle of genetic engineering, you can inject them with a piece of a virus, and they will generate human antibodies that can be manufactured and given to patients.

We recently applied this approach to go after Ebola. We immunized these mice with a piece of the Ebola virus, took the antibodies, manufactured them at scale, and gave them to patients who were literally dying in the Congo. We compared our drugs with other potential drugs, including Remdesivir from Gilead. The study people

found our drug was overwhelmingly effective, and stopped the study. That's exactly what we plan to do here. We've already had remarkable success and gotten hundreds of antibodies that neutralize this virus. We're going to pick the best and manufacture a cocktail. We hope to get started testing patients in June and manufacturing at large scale by the end of the summer.

On Regeneron's technology platform for speeding drug discovery:

The guts of this, the engine, is the VelocImmune mice. This is the brainchild of George Yancopoulos. He wrote about this 35 years ago as a graduate student at Columbia University. He joined Regeneron and created these mice through genetic engineering. He perfected them. But there's more to it than just mice. There's end-to-end technology so you can go seamlessly from a new sequence of a virus to an antibody that can be manufactured at scale.

On the economics of developing a Covid-19 treatment:

There are some people who suggest we're sitting around rubbing our hands together trying to figure out how to profit from the misfortune of this virus. This couldn't be further from the truth. You have people risking their health, and that of their families, by coming to work in the labs and manufacturing facilities to do all that stuff with only one goal in mind: How fast can Regeneron produce this and deliver it to the public? It's very frustrating for people to have any misimpression that this is easy work, at a time when many of us, including myself, are socially distancing. I'm sitting talking to you from home because I don't have to be in the lab, while so many dedicated people still have to come to work. They're heroes and heroines.

People at Barda [the Biomedical Advanced Research and Development Authority] realize that if they want to incentivize the industry to steer efforts toward these important diseases, and have shareholders take the risk, they have to have some marketplace. For a disease like Ebola, that might be a strategic stockpile, which we'll compete for. Government purchases will be a way for companies to reasonably return something to shareholders. We view that as important, but it's not driving us. We want to do well by doing good. The rest will take care of itself. **B**

Time to Call The Technicians

In chaotic times, technical analysis can offer unique insights into market trends. Three practitioners size up the outlook for stocks and sectors.



By **LAUREN R. RUBLIN**

To many, if not most, investors, stocks' brutal coronavirus-spurred selloff has defied fundamental analysis. After all, what good are traditional valuation metrics, such as price-to-earnings and price-to-sales ratios, when revenue and earnings estimates are thrown out the window as business activity comes to a halt?

If those who focus on fundamentals to determine an asset's fair value are rightly befuddled, technical analysts, who aim to gauge the direction of prices by focusing on historical price trends, buying and selling volume, and other statistical indicators, think they might have an edge. Technicians believe that history tends to repeat,

and that studying price charts, particularly in relation to past trends, can help identify turning points in the market, optimal entry and exit levels, and changes in leadership.

"In this environment, you can't explain the magnitude of the moves you're seeing via fundamental analysis, or even by looking at things from a macro perspective," says Katie Stockton, founder and managing partner of Fairlead Strategies, a Connecticut-based research firm specializing in technical analysis. "But studying charts and prices can give you some guidance as to how oversold markets are, and whether further breakdowns are at hand."

Robert Sluymer, technical strategist at FundStrat Global Advisors, puts it more succinctly: "At times like these, price is news," he says. "It is often the only guide investors have during a panic."

"I would not look for a meaningful bottom to occur until the number of stocks making new lows shrinks."

Andy Addison

Barron's recently checked in with Sluymer, Stockton, and Andy Addison, founder of the technical-analysis research service The Institutional View, to learn what their indicators say about the market's future. There's bad news—after falling nearly 30%, to a recent 2409, the S&P 500 could have further downside. But there's good news, too, in the relative outperformance of sectors such as health care and stocks such as **Walmart** (ticker: WM), which could be well positioned once the carnage ends.

ANDY ADDISON

Addison says his technical work—which draws on the study of prices, moving averages, measures of buying and selling volume and momentum, and relative strength, or the performance of a security in relation to its benchmark—first generated sell signals in early January on oil and copper, and later, on small- and mid-cap stocks. On Jan. 26, it signaled a buy on the Cboe Volatility index, or VIX, which subsequently shot from around 15 to a high of 85.47. "I had no idea what would prompt the market's decline," he says. "But those sell signals warned me that something very negative was going to happen."

Now we know what happened: The coronavirus, which first surfaced in China late last year, is sweeping through the U.S., and wreaking havoc on the health-care system, the economy, and the financial markets.

Addison describes the selloff in the S&P 500 as "worse than anything we've seen since 1929, and maybe worse than that in the way it began." Specifically, the index fell through every price level at which it previously found buying support, including its 200-week moving average, without bouncing up. The washout took the S&P back to its December 2018 closing low of 2351.

Addison expects the S&P to try to stabilize around 2300; if it does, it could bounce up to 2650-2800, he says. But he warns that if it breaks below 2300 decisively, there is no meaningful support until 2000-2100. "Even then, the market might not hold there, given the dismal action in bank stocks," he says. "I would not look for a meaningful bottom to occur until the number of stocks making new lows shrinks, and more stocks begin to trade above their moving averages at various time periods."

With 10-year Treasury yields bottoming and the Treasury yield curve steepening, bank stocks should have gotten a lift, he says. Instead, monthly charts of the group's benchmarks, such as the KBW Bank Index, have broken down from a nine-year trading range. "That tells me we're going to see big loan losses, which makes sense, given the devastation we have seen across the economy," he says.

Health care looks like a much better bet to Addison, who cites **Amgen** (AMGN), **Eli Lilly** (LLY), and **Merck** (MRK) as promising names, based on their relative strength. "One of the best ways to identify new leaders once the fire is extinguished is to look for groups or individual stocks that have been declining less than their benchmark indexes," he says.

Relative strength is calculated by dividing a security's price by that of its benchmark index. The more the ratio rises for a security, the better it is performing, relative to the index.

Addison cites Chinese e-commerce platform **Pinduoduo** (PDD) as another issue exhibiting relative strength; it has broken out of a two-year base and outpaced the S&P 500 by 16 percentage points since year end. "When the price either doesn't return to the previous floor or holds there and bounces, that's a signal the selling pressure has begun to lessen," he explains.

ROBERT SLUYMER

Sluymer's study of weekly momentum indicators, which track the rate of change of stock prices, led him to conclude late last year that the market would peak in mid- to late-February. "I thought we'd see a drop of 5% to 8% before bottoming in the middle of the second quarter," he says.

He still thinks the S&P 500 could bottom in April or May, and is eyeing support around 2346, the last major intraday market-cycle low for the index, hit on Dec. 26, 2018. "The S&P 500 undercut that level Wednesday and bounced off it, a move that coincided with a 62% retracement from 2016's low to 2020's high," he says, adding that markets often retrace 50% to 62% of their previous moves. "2346 is an important technical level that the market is challenging. If we see more backing and filling around it, we'll get more encouragement that it is a trading low."

Sluymer pays particular attention to



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How Low Can Oil Go?

Triangle formations are characterized by lower highs and equal lows. Often, they are followed by significant breakdowns. Final support for oil is around \$17/bbl, the 2001 low.



the market's 200-week moving average, currently around 2640.

During the secular bull markets of the 1950s, '60s, '80s, '90s, and 2010s, market-cycle lows often developed around their 200-week MAs. He harks back to what he calls the optimistic parallel—the 1957-'62 market cycle—which also saw a near-30% decline in the S&P 500, or a 62% retracement of the prior bull market, and a drop below the index's then-200-week MA. “We have to respect the market's recent break below its 200-week moving average, but the precedent for a recovery is there if you look at 1962 and other cycles,” he says.

That said, other trends are ugly. Sluymmer cites “significant technical damage” to charts of bank stocks, the energy sector, and emerging markets. Also, the MSCI EAFE index has broken an uptrend that had been in place since 1975.

But there are silver linings: Stocks such as Walmart and **Kimberly-Clark** [KMB] have done well, relative to the S&P 500, as has **Roper Technologies** [ROP], a maker of software and industrial products, along with some drug stocks. “It makes sense, especially for long-only institutional portfolios, to have some defensive names,” he says. “Unlike individuals, they don't have the option of going to cash.”

KATIE STOCKTON

Fairlead Strategies' Stockton pays most attention to charts' support and resistance levels, or potential areas of buying and selling pressure. “I'm looking for previous peaks and troughs where a security has found buyers and sellers before,” she says.

She uses price as a guide, and tools such as Fibonacci retracement levels, which

point to support and resistance levels derived from a number sequence discovered by a 13th-century mathematician. She also likes the “cloud model,” whose formulas are based on the midpoint of high/low price spreads.

She's looking for the 2305-2350 level to provide a footing for the S&P 500. “It would be a natural place for buyers to step in and add exposure into weakness, at least temporarily,” she comments. Stockton has a “neutral to lower” bias toward the index in the near term, but expects the current downdraft to give way to a buying opportunity in coming weeks. To gauge when, she'll be consulting a variety of indicators, including the stochastic oscillator—a momentum gauge that compares a particular closing price to a range of prices over a defined period. Readings range from zero to 100%, with 20% indicating oversold conditions, and 80%, overbought. “The stochastics currently are below 20%, and at least several weeks from turning up” she says.

Stockton is far more bearish on oil, whose most recent breakdown occurred in January from a “triangle formation,” characterized in this case by lower highs and equal lows. “Breakdowns from that type of pattern tend to be fairly high-probability,” she says. West Texas Intermediate crude is pending confirmation of a breakdown below \$26 a barrel; Friday, it was around \$23. Assuming it falls further over a two-week period—her definition of confirmation—final support, in her view, lies around \$17, near the 2001 low.

Stockton, too, considers health care a port in the storm. “We see signs of downside exhaustion in the XLV [**Health Care Select Sector SPDR**],” she says. **B**

FUNDS

Active management may be the best answer to the commodity-investing conundrum, but cheap options are scarce.

How to Choose a Commodity Fund to Protect Your Portfolio

By Lewis Braham

Should commodity investors be happy? While most asset classes are reeling from the coronavirus pandemic, commodities have held up better than stocks. Since the S&P 500 index peaked this year on Feb. 19, it has fallen 30%. The popular Bloomberg Commodity Index (BCOM) dropped 20% during the same period.

Investing in commodities isn't easy, though—and exchange-traded-fund investors are in a tougher spot. Unlike equities, commodity returns tend to be all over the map. In the past year, returns for the 115 commodity ETFs and exchange-traded notes ranged from 12.9% for the Aberdeen Standard Gold ETF (SGOL) to a 75.9% loss for the iPath S&P GSCI Crude Oil Total Return Index ETN (OILNF). With a return spread of 89 percentage points, how is the average investor to choose the right fund?

Even if you whittle down the sector to the 24 broadly diversified commodity ETFs, you still get a wide variance. **First Trust Alternative Absolute Return Strategy** (FAAR) and the iPath S&P GSCI Total Return Index ETN (GSP) are down 4.9% and 46.2%, respectively, in the past year.

"Investing in the passive indices for commodities is really like throwing a dart," says Renee Haugerud, founder of commodity investment firm Galtere and manager of the **SilverPepper Commodity Strategies Global Macro** fund (SPCAX). "It's not a singular asset class that trends in the same direction,

like equities. Each commodity can have singular fundamentals that are diametrically opposed to each other."

Yet it's a good time to buy certain commodities. "If you look at the BCOM, we're below 20-year lows on commodity markets," Haugerud says. Before the 2008 crash, the BCOM was as high as 240, but is now at 62, she observes. There's less room for prices to fall during this downturn, even if global growth slows because of coronavirus. Equities, by contrast, are still well above their 2009 lows, so they

have a greater potential downside.

Still, Haugerud isn't bullish on crude oil—often the largest commodity weighting in index funds—despite the recent selloff. Prices were too dependent on the "binary outcome" of OPEC production negotiations, she says. And after the OPEC deal to cut 1.5 million barrels a day of production failed and Saudi Arabia and Russia engaged in a price war, she accurately predicted that oil would fall as low as \$20 a barrel.

In the short term, Haugerud is fond of gold as a defensive play for "risk-off" environments from virus fears. Long-term, though, coffee, cocoa, corn, and copper look more promising.

For Haugerud, one sign of an attractive investment is whether or not a commodity is trading below its cost of production, something the standard index ETF or mutual fund ignores.

"Corn is definitely below the cost of production," she says. Coffee had suffered from the invention of pods, as they require fewer beans to make a cup, but now, "if you have any increase in demand, new K-Cup efficiency isn't going to make the differ-

ence. I think coffee over the next five years is going to probably double."

Another positive sign is when demand for a commodity outstrips supply. That's why Haugerud's also a copper fan: "We've seen a huge destocking of copper, with supplies going down."

The same goes for palladium, which is used in cars' catalytic converters to reduce harmful emissions. "Currently, worldwide palladium usage is about 500,000 ounces a year," says financial advisor Lou Stanasolovich, whose Pittsburgh-based firm, Legend Financial Advisors, is one of the largest holders of the **Aberdeen Standard Physical Palladium Shares** ETF (PALL), according to Morningstar. "There are about 300,000 ounces that are mined every year."

To play agricultural opportunities, you could buy a single commodity index exchange-traded product, such as the **iPath B Bloomberg Coffee Total Return** ETN (JO) or the **Teucrium Corn** fund (CORN). But they're problematic, since commodities funds generally gain their exposure through futures contracts. Most indexed ETFs buy their futures contracts in a systematic rules-based way that often leads to suboptimal results, as futures prices often fluctuate in nonsystematic ways.

Active management may be the best answer to the commodity conundrum, but it doesn't come cheap. Haugerud's SilverPepper fund has beaten 93% of its peers and its Morningstar benchmark in the past five years with less volatility, but it charges a hefty 2% expense ratio. Another benchmark-beating active fund is **BlackRock Commodity Strategies** (BCSAX), which combines both commodity futures and stocks, but it charges 0.97%.

The most affordable active products tend to be active-passive hybrids. Newcomer **Vanguard Commodity Strategy** (VCMDX), which launched in June of last year, is intriguing, with its cheap 0.2% fee. It offers exposure to the BCOM, but "the active portion comes in the way that we are going to go about managing the futures contracts within the BCOM," says Matt Jiannino, Vanguard's head of Quantitative Equity Product Management. Unfortunately, it has a \$50,000 minimum investment. **B**

Commodity Strategies for Individuals

Commodities have suffered during the long bull market in stocks, but now they could be a good strategy to protect your portfolio on the downside. Commodity funds are a diverse category, and often expensive. Choosing one isn't easy. Here are some suggestions.

Fund / Ticker	YTD Return	3-Yr. Return	AUM (mil)	Expense Ratio	Notes
Aberdeen Standard Physical Palladium / PALL	-16.0%	26.5%	\$207	0.60%	Demand exceeds supply; this ETF holds the actual metal.
BlackRock Commodity Strategies / BCSAX	-25.0	-8.4	135	0.97	Actively managed mutual fund combines stocks and futures.
iPath B Bloomberg Coffee Subindex Total Return / JO	-22.3	N/A	55	0.45	Any increase in demand for coffee will benefit the commodity.
SilverPepper Commodity Strategies Global Macro / SPCAX	-14.9	-6.2	130	2.01	Actively managed fund with a terrific record, despite high fees.
Teucrium Corn / CORN	-11.4	-11.8	59	1.11	Corn is trading below the cost of production, a good sign.
Vanguard Commodity Strategy / VCMDX	-22.8	N/A	256	0.20	A new, active/passive hybrid with a low cost
UBS ETRACS Bloomberg Commodity Total Return / DJCI	-24.9	-9.6	17	0.50	Tracks popular Bloomberg index.

Data as of March 17; three-year return annualized. N/A=Not applicable

Source: Morningstar Direct

THE ECONOMY

Checks Will Help People, But They're No Panacea

By Lisa Beilfuss

Stimulus checks are a nice idea in theory. They'll probably be too little, too late and not targeted enough to help much.

Markets have been clamoring for fiscal stimulus, some of it in the form of checks sent directly to households, as the coronavirus grinds the U.S. economy to a near-standstill. Many holed-up workers surely need cash as business shutdowns cascade across the country. Layoffs have started, as initial claims for unemployment benefits jumped 33% from the previous week—faster even than during the depths of the Great Recession—and it's only the beginning.

Treasury Secretary Steven Mnuchin said on Thursday that the Trump administration wants to send \$500 billion to American households, or \$1,000 per adult and \$500 per child. Senate Republican and House Democrat measures, as well as other ideas being bandied about, call for varying amounts of direct aid with varying income limits determining eligibility. The Trump-backed plan is part of a potentially bigger but fuzzy fiscal package of about \$1 trillion meant to help support families and businesses as the fast-spreading virus freezes the U.S. economy.

Economists have a pretty good handle on how stimulus works during normal periods of sluggish growth. Torsten Sløk, chief economist at Deutsche Bank Securities, said that for every \$1,000 issued by check, consumption increases by about \$250.

But this is a health crisis at its core, not a banking crisis, a housing crisis, or anything that resembles the stuff that stoked past recessions. That makes determining the most efficient stimulus approach difficult, as there is little by way of precedent. Given the logistical challenges of quickly getting checks into the hands of those who need it, the impact of stimulus checks on consumption seems limited at best.

Consider, as well, the relative size of the proposed sums. Consumption is 70% of

the U.S. economy, which translates to about \$14 trillion a year, or a little over \$1 trillion a month. The plan Mnuchin has floated would plug about a half-month of lost consumption. That's a long way from covering an entire quarter or more of near-zero consumption across many industries.

The probable timing of any distribution doesn't work in our favor, either. When the Bush administration sent one-time stimulus checks in 2008 during the financial crisis, it took about two months from when the program was approved to when consumers received the money, Sløk said.

Apart from these problems is the simple fact that, beyond crucial housing and food expenditures, there are few places to currently spend extra cash. "If we get a check in the mail, we can't go to the movies, out to eat, or shop," Sløk said. "There's nowhere to spend it. On top of that, do I feel this is a good time to book a vacation in June?"

The marginal propensity to consume an extra \$1,000 is thus lower than it otherwise might be, given the practical and logistical realities, he said.

"If you want to help the economy tomorrow, it's almost impossible," Sløk said.

The reality that stimulus checks probably can't move the needle much has some arguing that it's better to focus on the longer term.

James Angel, a professor at Georgetown University's business school, said that distribution of checks in 2008 didn't forestall the Great Recession. "We need to create jobs for the people who will lose them. Why not fix our roads and bridges, fix our health-care system, put it to work educating people," he said. "I don't think sending checks will solve the underlying problem."

Sending checks as quickly as possible can't cure the virus and won't save the economy. They're not nothing—plenty of people need a lifeline as more layoffs and economic disruption loom—but neither are they a game changer that will do much to put a floor under the recession upon us. **B**

INCOME INVESTING

Dividend Cuts Will Come, But Not Across the Board

By Lawrence C. Strauss

A week ago, dividends looked relatively safe across many industries—the operative words being “a week ago.”

While *Barron's* last week explored a few sectors that had been hit hard by the surging coronavirus outbreak and the oil sell-off, the breadth of the contagion's impact was seen as limited.

Since then, the outbreak has brought U.S. business to a near-standstill, and the broader picture has worsened for dividend safety as a severe recession looms. Iconic companies such as **Boeing** (ticker: BA) are now facing great financial stress, and **Exxon Mobil** (XOM) wasn't generating enough cash flow to cover its dividend even before the coronavirus emerged in the U.S.

"Dividend cuts are inevitable," says Richard Bernstein, CEO of Richard Bernstein Advisors. "Dividends are a function of cash flow, and cash flows will undoubtedly come under intense pressure."

Some companies are already making moves to preserve cash. **Allegiant Travel** (ALGT), which operates a small airline, on Wednesday said that it was suspending its dividend and stock buybacks. That move follows Sunday's announcement by eight major banks that they would suspend their stock-repurchase programs.

David Trainer, CEO of investment-research firm New Constructs, expects there will be more freezes, cuts, and suspensions "the longer and deeper the economic contraction continues." Without cash flow, he adds, "many companies will not be able to support their dividends."

Still, it's early days in understanding the impact on companies, and predicting how many of their payouts could be in peril is difficult. By way of comparison, during the 2008 financial crisis and recession, 40 S&P 500 index companies cut their dividends and 22 announced suspensions, according to S&P Dow Jones Indices. The following year, cuts rose to 68, and there

were 10 suspensions. However, 151 companies, or 30% of the S&P 500, did notch dividend increases that year as the economy emerged from recession and the stock market began its (recently ended) bull run.

Howard Silverblatt, senior index analyst at Dow Jones Indices, expects companies whose sales and cash flow are hit the most by the crisis "to suspend or minimize their dividends, with others keeping increases to a minimum."

To that point, even during the coronavirus crisis, some companies are increasing their payouts. On March 13, tech company **Applied Materials** (AMAT) announced that it will boost its quarterly payout by a penny, or nearly 5%, to 22 cents a share.

For dividend safety and the overall coronavirus crisis, time is the enemy.

"We don't know how long we will be in this situation, and of course the longer it goes on, the more stress there will be in the system," says Lee Spelman, head of U.S. equities at J.P. Morgan Asset Management.

She expects that many companies will halt share buybacks as a first step to preserve cash, as large banks did this past week. "We also know that there are likely going to be dividend cuts from some of the more financially stretched and vulnerable companies," Spelman adds.

"It is difficult to say definitively that any sector is immune to these events," she says, though energy companies have been hit hard, and that's "where we see the biggest dividend cuts." The oil patch is fighting a war on two fronts: the coronavirus and falling oil prices.

Many large banks have halted stock buybacks as a precaution with short-term interest rates near zero. But "balance sheets are in much better shape than during the 2008-09 period, and right now we are not expecting any dividend cuts," she says.

Spelman offers this advice: "Now is the time to keep a sharp eye on the financial conditions of every stock [you] own." **B**

TECH TRADER

Cash is now king. And on that front, tech stocks are better positioned than any other sector.

Big Tech—the Growth Play—Is Now a Defensive Stalwart

For a month, **Uber Technologies'** stock tumbled as investors worried about the company's survival in a socially distanced world. From Feb. 11 to March 18, the stock shed 64% of its value.

CEO Dara Khosrowshahi had seen enough. On Thursday, he quickly scheduled a conference call to tell investors that no matter how bad things got with coronavirus, Uber was "well positioned to weather this crisis and to emerge even stronger."

Uber (ticker: UBER), he noted, has \$10 billion of uncommitted cash in the bank, an untouched \$2 billion revolving credit line, and no long-term debt due before 2023. Even if Uber's ride-hailing business drops 80% for the rest of the year, Khosrowshahi said the company would finish 2020 with at least \$4 billion in cash on hand.

Khosrowshahi's reassurance sent Uber shares soaring, up nearly 40% right after his call. Rival **Lyft** (LYFT) jumped 29% on the news.

There's a clear lesson for investors here: Cash is now king. And on that score, tech stocks are far better positioned than any other sector.

For investors looking to jump back into the market, this is a rare opportunity to buy tech's Big Five—**Alphabet** (GOOGL), **Amazon.com** (AMZN), **Apple** (AAPL), **Microsoft** (MSFT), and **Facebook** (FB)—on the cheap. The virus issue affects them all, but each company is likely to come through the downturn with its business intact.

All five companies have sparkling



By Eric J. Savitz

balance sheets. Together, they have \$587 billion in cash against just \$200 billion in long-term debt. Apple has the biggest pile of total cash, with \$207 billion at year end, against \$108 billion in borrowings. Accounting for debt, Alphabet is even more flush. It has \$128 billion in net cash.

Alphabet, Amazon, Apple, Facebook, and Microsoft have shed a collective \$1.4 trillion in market value from their February peaks; the stocks were down an average of 25% through Wednesday. And therein lies the opportunity.

Steve Milunovich, a Wolfe Research strategist who has covered tech since the 1980s, says he's still feeling confident about the big-cap tech names. He remains bullish about the growth of cloud computing—a technology that makes it possible for many people to work from home, and a market that's dominated by Amazon, Microsoft, and Alphabet.

Meanwhile, Milunovich thinks governments may take a looser approach to tech regulation coming out of the

downturn than has been the case in recent quarters, as the focus shifts toward restoring growth. (See page 30 for a different view on that topic.)

Here's a closer look at the market's five largest tech companies:

Amazon's shares have held up well in the market's tumble, and still sport a modest gain year to date. The company is seeing a surge in retail demand, as homebound consumers expand their use of e-commerce to include more daily staples. "Amazon is serving as an important source of food, cleaning supplies, and other essential household items, as physical stores are closing and people increasingly avoid public spaces," J.P. Morgan analyst Doug Anmuth wrote in a research note last week.

The company plans to hire 100,000 additional workers for its fulfillment centers and delivery network. Anmuth thinks Amazon will come out of the crisis with a stronger share of both online commerce and overall retail. And Amazon Web Services continues to be the leading cloud-computing player.

Milunovich sees multiple reasons to like **Microsoft** shares. The software giant has warned about near-term weakness in demand for PC-related software, and enterprise-software demand could soften, as well. But the company's Azure cloud business is still growing rapidly, there's a new Xbox game console on the way, and the company is seeing huge growth for its own cloud-based service offerings.

Last week, Microsoft announced that it now has 44 million active daily

users for Teams, the company's workplace communications tool, a serious rival to **Slack Technologies** (WORK). Microsoft said it had signed up 12 million new users in the past week alone.

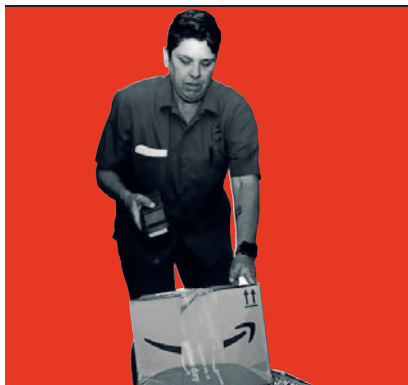
Apple was the first major tech company to warn about coronavirus, back on Feb. 17. At the time, Apple withdrew its March-quarter outlook, noting the outbreak was hurting demand and causing supply-chain issues.

But the supply chain in China is improving, with contract manufacturer Foxconn's factories coming back on-line. Apple has reopened all 42 of its stores in China. Granted, the company has now closed the rest of its stores worldwide. The slightly good news is that the March and June quarters are slower times for Apple, and stores could reopen in time for the iPhone 5G launch expected this fall. Meanwhile, Apple has spent the past several years bolstering its services business. Music, streaming, and app purchases could get a boost with consumers stuck at home.

RBC Capital internet analyst Mark Mahaney notes that both **Alphabet** and **Facebook** stand out in a world worried about liquidity—the two ad-driven giants have more than \$200 billion in cash and almost zero debt. Both companies will surely see an impact from the current crisis, but it's hard to imagine either one of them reporting negative free cash flow, Mahaney says.

Some 10% to 15% of revenue at Alphabet's Google comes from travel-related advertising. Those dollars are sure to dry up in the coming months. Facebook has less travel exposure, but could be more vulnerable to a pull-back in brand-related advertising. But the crisis is driving a surge in user activity—Facebook said last week that calls on WhatsApp and Messenger have been double their typical levels.

Mahaney contends the downturn offers investors a chance to upgrade the quality of their portfolios. "If you always wanted to own Google or Facebook or Amazon, this is a wonderful opportunity here. It's your chance to buy the highest quality assets, 25% cheaper," he says. "When you do decide to buy equities again, you can start there." ■



Alphabet, Amazon, Apple, Microsoft, and Facebook have a combined \$587 billion in cash on hand—and just \$207 billion in debt.



An Army of App Developers Pushes Back on Apple's Power

Why a global pandemic won't stop businesses—and governments—from pushing back on big technology companies.

By **MATT SMITH**

Ben Volach, co-founder of the email-app company Blix, was making the rounds of **Apple's** annual developer conference in June when he happened upon a presentation of Apple Mail's newest feature. The motto for the San Jose, Calif., conference was "Write code. Blow minds." But Volach found that it was his own mind being blown.

"We were shocked to see Apple

copying our technology and announcing it onstage," he says. "A couple of days later, there was the shock that our Mac application was kicked out of the App Store."

The feature allowed users to access websites anonymously using email, similar to a function that Blix's flagship BlueMail app had released 10 months earlier. Blix sued for patent infringement and claimed that Apple was using control of its App Store to bully competitors. In filings and statements, Apple (ticker: AAPL) scoffed at the idea that it's a monopoly and said

gate-keeping is carried out strictly in the interests of security and reliability. In February, after eight months, Apple returned BlueMail to its Mac App Store, saying the product now complied with Apple guidelines.

Apple told *Barron's* that Blix declined its offers to help the company comply with App Store guidelines, and that Blix's products posed security risks for customers. Once those issues were fixed, the app was allowed back in the store, Apple says.

But Blix—which has 40 employees worldwide, spread across Israel, New Jersey, and the United Kingdom—plans to fight on, seeking to lead a backlash against the App Store from a growing list of disgruntled App Store developers. Its patent-infringement claim against Apple is pending in federal court in Delaware.

Government officials in Europe, the U.K., and the U.S. have also taken notice. While **Facebook** (FB), **Amazon.com** (AMZN), and **Alphabet** unit (GOOGL) Google have dominated much of the regulatory attention, officials worldwide have made it clear that Apple is in their sights, as well.

The pressure hasn't abated, even as the world deals with the coronavirus

pandemic. On Monday, France fined Apple \$1.2 billion, the largest ever penalty from France's competition authority, which cited anticompetitive behavior in the distribution of iPads and other Apple products.

But Apple's App Store is likely to come under increased regulatory scrutiny of its own, particularly as developers like Volach push back on the platform.

Disgruntled customers and developers say Apple adds to its advantage by weighing the scales in favor of its own products, charging outside fees, restricting how and when developers may distribute phone apps, and collecting and hoarding valuable business information about the developers' own customers. Apple takes a 30% cut for in-app purchases and first-time subscriptions.

Developers in Europe and the U.S. are filing lawsuits, testifying before legislators, lobbying the European Commission, and urging regulators to look at Apple as a de facto monopolist whose moves warrant scrutiny.

Critics describe Apple's control over its App Store as more anticompetitive than Google's rival offering, known as Google Play. A study by

"We were shocked to see Apple copying our technology and announcing it onstage."

Ben Volach,
founder of email-app firm Blix

researchers affiliated with the University of Amsterdam concluded that Apple changes its rules when it releases its own products, whereas there appeared to be no such correlation with Google's Android software. Android users can get apps from various marketplaces, including from Amazon and Samsung Electronics, while iPhone users are restricted to the Apple App Store. Google also makes it easier to set up outside products as the default apps on Android phones, according to Blix's legal complaint.

In statements to *Barron's* and regulators, Apple refuted the idea that its policies and practices are intended to suppress competition. The company says its platforms are managed to promote developers' products, even in cases when Apple sells competing versions. Rules denounced by officials and merchants as anticompetitive actually protect consumers from fraud, eavesdropping, and other dangers, the company says.

"Giving developers a fair and level playing field has been key to our success—and we will stay on that course," the company said in a statement to *Barron's*.

As for the French fine, the company said the ruling went against precedent and harms French consumers. Apple says it's planning to appeal.

Apple's App Store generated roughly \$15 billion in sales in the last fiscal year, up 20% from a year earlier, according to data from Visible Alpha, making it one of Apple's fastest-growing units. iPhone sales were down 14% over the same period.

Gene Munster, a partner at Loup Ventures, a tech-focused venture-capital firm with offices in Minneapolis and New York, estimates that the App Store alone is worth somewhere from \$150 billion to \$200 billion. Apple's total market value is roughly \$1.1 trillion, accounting for the stock's coronavirus selloff.

The App Store's importance to Apple goes beyond revenue; the platform drives loyalty from users across Apple's entire hardware and software ecosystem. "If there's much more scrutiny of the App Store, there would be clear business-model implications and some revenue headwinds, and it's something that investors are keeping a close eye on as the Beltway takes a closer look at tech stalwarts," says Wedbush analyst Daniel Ives.

Munster, however, believes that Apple might come out better than its

peers. "I think Apple is in the safest camp, even though this is a topic that will gain momentum, because I think the company will navigate this and succeed in maintaining its pricing structure," he says.

But Apple is a large target across the globe. **Spotify Technology** (SPOT), the Swedish streaming-music pioneer, has a complaint working its way through the European Commission claiming that Apple sets an unfairly high, 30% commission rate on subscriptions bought through the App Store. Last May, the U.S. Supreme Court, against Apple's wishes, allowed a class-action suit alleging unfair App Store pricing. The case is scheduled to reach federal court in March 2022, but action could happen well before then.

"We're confident we will prevail when the facts are presented, and that the App Store is not a monopoly by any metric," Apple said in a statement released following the Supreme Court decision.

Tile, a maker of Bluetooth location-tracking devices, says it has come up against Apple's power in recent months. In January, the company learned that its products would no longer be sold in Apple's physical stores. The timing coincided with reports that Apple was releasing a similar product of its own, in the form of an enhanced Find My iPhone app, says Tile's general counsel Kirsten Daru. She adds that Tile began facing technical roadblocks with Apple starting last fall. "All this came at the same time," Daru says. Apple also hired one of Tile's key engineers shortly before the company released its new iOS 13 iPhone software in September, which, Daru says, gave Apple a "material competitive advantage over us."

Daru made similar comments to Congress in January. At the time, Apple told congressional members, "Stronger privacy protections may not be in everyone's business interest, but they are in the interest of every person with a smartphone."

More than a dozen parental-control apps, including Kidslox and Qustodio, fought a two-year battle to be reinstated to the App Store after they were booted when Apple introduced a rival app. They were allowed to return in September only after European Commission antimonopoly officials intervened on their behalf, says Viktor Yevpak, CEO and co-founder of Kidslox.

"Apple enjoys a dominant position,

and it abuses its position," Yevpak said in an interview from his office in Ukraine.

Apple said in a statement that it had acted to protect consumers: "We do not think it is okay for any apps to help data companies track or optimize advertising of kids."

Yevpak, like Volach, has stumbled into a role as resistance leader, as disgruntled app developers from all over the world contact him to discuss strategies to protest what they see as monopolistic behavior from Apple.

"Companies started coming up to me and saying, 'Me too. Me too,'" says Yevpak. "Everybody in this field, the Nortons, the Kasperskys, the big players and the small players, are approaching me to complain."

David Heinemeier Hansson, chief technology officer and co-founder of Basecamp, a project-management software offering, cites Apple's App Store fees as evidence that Apple enjoys a duopoly alongside Google. He told a congressional antitrust panel in January that Apple's onerous 30% commission is clear evidence that it has market power. Basecamp now avoids the fee by providing its apps free in Apple's store, while attempting to sell services on the internet, even though the process makes its product less customer-friendly.

"Most mobsters would not be so brazen as to ask for such an exorbitant cut," Hansson says.

Apple told the same panel that its fee was commensurate with the App Store's role as a "channel for the distribution of developers' apps and the cost of many services—including app review, app-development tools, and marketing services."

The rhetoric from app developers echoes U.S. anti-railroad rebellions in the late 19th century, when protests against that era's dominant commercial platform led to the creation of anti-cartel political parties and a national progressive movement with a trust-busting theme. Today's app-developing rebels haven't produced their version of the 1890 Sherman Antitrust Act. Not yet, at least.

"I would expect Europe to be much more aggressive in the near future in terms of enforcement related to Apple," says Gene Kimmelman, former chief counsel for the U.S. Department of Justice's antitrust division.

"We keep hearing concerns about the power of platforms, about the way

they control our access as businesses as well as us as individuals," European Union antitrust czar Margrethe Vestager said in a Brussels speech a year ago. "By controlling the terms of access, they expand their power across the digital world."

Last month, the EU released a "European Strategy for Data," which calls out "imbalances in market power" and highlights Vestager's past comments.

Asked during a recent antitrust event in San Francisco whether the European Commission's strategy might soon include a crackdown on Apple, Kris DeKeyser, the EC's deputy director general for antitrust, said, "The commission will be a bit more granular in upcoming events."

Separately, the European Commission has levied a 4.34 billion euro fine against Google for allegedly breaching EU antitrust rules on its Android apps platform. In that case, now on appeal, the commission said that Google and Apple's app stores operate as two separate markets, setting up Apple to be characterized as having market "dominance" on its own platform. Such a designation could enable European regulators to respond more aggressively to claims that Apple has abused its position.

The U.K. has also been assertive on this issue, with a major report last March urging the U.K. to enforce a "clear set of rules" to fight monopolistic digital platforms.

In the U.S., the House Judiciary Committee's antitrust panel has sent a document-request letter drawn specifically from developers' complaints.

Meanwhile, the Department of Justice and the Federal Trade Commission are both conducting reviews into the tech industry. Spokespeople for the FTC and DOJ declined to comment about Apple.

Elsewhere, state attorneys general are sharpening their pencils and studying up on internet technology following announcements that eight states will confront concerns that internet platforms use their dominance to squelch competition.

"If you're leveraging it to prevent or foreclose others from competing in your app store, preferencing yourself, or you have sweetheart deals, that can trigger a harm to competition that you could challenge under the antitrust laws," says Kimmelman, the former Department of Justice antitrust official. **B**

All About Apps

Apple's App Store is one of the company's fastest growing units.

\$15.3 B

Estimated App Store revenue in fiscal 2019, according to Visible Alpha

20%

Estimated growth for App Store revenue in fiscal 2019

-2%

Apple's overall revenue growth in fiscal 2019

Q&A

An Interview With **Inigo Fraser Jenkins**
Co-Head of Portfolio Strategy, Bernstein Research

Strategy For a Time Of Turmoil

By **LESLIE P. NORTON**

The job of a sell-side analyst is to have a market forecast, says Inigo Fraser Jenkins, the outspoken portfolio strategist at Bernstein Research. But given the unprecedented collapse in growth expectations, accompanied by central bank interventions and the slump in asset prices, most strategists find themselves unable to price major benchmarks like the S&P 500 index. Still, he says, a strategist can provide a framework for looking at the market and probable future returns. He even says it could be time to buy stocks, if you have a two-year horizon. *Barron's* spoke with Fraser Jenkins, 45, on Wednesday, March 18, as the market was rising briefly before falling again later that day. Here's an edited version of our conversation.

Barron's: We've had a lot of big moves in the markets, and policy responses don't seem to be working. What are you telling clients?

Inigo Fraser Jenkins: We're moving past the stage where using prior movements as a template is the way forward. They're useful as a benchmarking exercise. But two things are different: The scale of economic effect and the road to monetary policy, which leave us in the hands of government policy and fiscal policy. What we've seen in the past 24 hours—helicopter money, the suggestion that maybe Europe can get around to issuing common European debt—are the kinds of policy responses that are needed. We are at the beginning of the process. Helicopter money is a great start, but I suspect it won't be the final one. The huge uncertainty is what the profile of economic growth is. The shutdowns for social distancing may be for a more extended period [than most people expect]. That means the path of government policy becomes the critical floor for the market, rather than valuations.

Photograph by Tori Ferenc



The Bernstein strategist has worked at Nomura, Lehman Brothers, and the Bank of England. Based in London, he attended Imperial College Business School and the London School of Economics. He has degrees in physics, the history and philosophy of science, and finance.

“Policies previously regarded as unthinkable are on the table; it’s very hard to make a call.” Inigo Fraser Jenkins

What’s your market forecast?

It’s the job of a sell-side strategist to have a market forecast, but I don’t think it’s possible right now. The evolution of government policy, day by day, is driving the market. Policies previously regarded as unthinkable are on the table; it’s very hard to make a call. It’s a massive economic shock and change in the policy narrative.

OK, so what are some of your market assumptions?

The average peak-to-trough fall in S&P 500 operating earnings has been 26% over the six largest declines since 1980. Assuming a similar impact would put the current S&P forward multiple at 17.8 times, which is the average level over the past five years. That’s not depressed, and it’s above previous recessionary lows. Our estimate of the U.S. equity risk premium, using cyclically adjusted earnings, is 4.2%, still below the peaks reached in the global financial crisis and the euro zone crisis.

That said, one of the things we need to find out is how governments may shield companies from the fall in gross domestic product, including some proposals to pay salaries of workers or allowing people not to pay tax.

When will we see a rebound in the S&P 500?

I’d be a buyer on a two-year horizon, assuming vigorous response from governments and that we don’t get into a situation where we talk about certain sectors or companies being nationalized [outside the U.S.]. That’s a risk. Normally in a slowdown, companies can adjust their cost base in a gradual way. That’s not possible now. If companies are bailed out, there has to be a question of nationalization risk.

You are recommending U.S. stocks.

The basis for recommending the U.S. over Europe is the change in the policy driving the market. We’re seeing a pivot away from monetary policy to fiscal policy. The euro zone is at a structural disadvantage, because it never got around to [creating a] fiscal union. It will be easier for government policy change to take place in the U.S.

than across Europe. Some clients argue that Europe is cheaper than the U.S. [But it’s not,] adjusted for sectors and the absence of the tech sectors.

Sustainable-yield companies have good free-cash yields and haven’t cut their dividends over a 10-year history. We published a list, overlaid with analyst views. In the U.S., it’s names like **PepsiCo** [ticker: PEP], **Clorox** [CLX], **Kimberly-Clark** [KMB], **Johnson & Johnson** [JNJ], and **TJX** [TJX]. In Europe, it would be some of the health-care sector names like **Bayer** [BAYRY] and **Novo Nordisk** [NVO].

Will this crisis change the way people invest? Is “buy the dip” dead?

We’ve moved away from an era where the assumption was that the cycle could be cushioned by monetary policy. Now, it’s fiscal and government policy. The coronavirus might bring home the issue that return assumptions have been too high, which [could be] one of the key inputs to how investing changes.

How does one put together a cross-asset portfolio that can beat inflation and is suitable for pensions and endowments? The risks of bond markets can’t be overlooked—returns will likely be lower than inflation. I don’t think this will feed an immediate change in the expected return of pension plan assets. Lots of people will be hesitant to plug in lower expected returns. We might see an accelerated move toward private equity, a major feature of asset allocation for institutions and plans over the past five to 10 years. But people using this as a basis to increase allocations to private equity misunderstand the true volatility of those assets.

What’s a pension trustee to do?

Having a more flexible approach to asset allocation is even more critical. There are more-efficient ways for asset owners to invest than the simple 60% equities and 40% bonds or the equity-bond-alternatives split. It doesn’t allow asset owners to fully take advantage of the permanent fall in fees on certain return streams. I’d suggest, instead of dividing assets by class, thinking about the role those

assets play in a portfolio. I’d really draw a distinction between beta [market exposure] and idiosyncratic alpha [the excess return of an investment over a benchmark], and cash. Think about a portfolio as a much more flexible set of return streams. The other thing that forces things this way is the real risk of underperforming inflation.

Is inflation likely to be high, given the expected increase in government spending?

That’s incredibly uncertain, given the strong positive and negative forces: The crisis related to the virus and the price war in oil, which, if it makes new lows, will be very deflationary. At the same time, we’re likely to see a much looser labor market. Against that, we’ll see supply shock. And the fiscal changes we’re seeing in the amount of bond issuance from governments will be inflationary, but not anytime soon.

What does this mean for asset managers?

Active managers often feel they’re caught between two forces. On the one hand, they have to show alpha that goes over and above exposures to simple factors that investors can buy through smart beta [strategies]. On the other, they can actually go on the offensive, by engaging with companies and bringing about corporate change. That’s the same thing that private-equity managers do. If a portfolio manager is seeking to achieve alpha through engagement, and if clients who bought their funds sign on to that, it’s more likely those clients will stick around for longer to see the fruits of that engagement.

Sounds like old-fashioned shareholder activism.

A lot of these engagements have specifically focused around environmental, social, and corporate governance, or ESG, issues. But it can be issues that have more to do with fundamentals, such as a business strategy gone wrong, and working with companies to change that. Asset managers need to do a better job at capturing their history of engagements with companies and communicating it to clients.

Will there be changes in investing models, too?

Yes. At the moment, 99% of fundamental company models manifest themselves in Excel and look very similar to the old paper spreadsheets. We’ll see more fundamental company models [built based on software derived from digital tools such as] Python, a free coding language with online libraries containing prewritten chunks of code.

There will obviously be huge resistance to this: Why change something that has been working? The push force is cost pressures—updating the model, sourcing the data can be done by an algorithm. The pull force is the so-called idiosyncratic alpha, which can’t be achieved by a simple factor like value or momentum or quality. One route is to much more broadly expand the data used to make investment decisions: So, in the travel and leisure space, you have mass web scraping of websites to find the prices for products or services the company is selling. That ends up with numbers that you can put into your Excel spreadsheet. But there’s no reason that the intermediate [Excel] stage needs to be kept. You could go straight through to the end model, at some point.

You are famous for saying that passive investing was worse than Marxism, because at least in Marxism there’s a centralized body making decisions—whereas in passive investing, money moves indiscriminately into companies in an index. Do you regret that comparison?

No. It’s important to point out that the active-management industry plays a role in capital allocation over and above its role in generating some kind of return stream. It’s a role performed by the industry en masse. The growth of passive investing has been one of the greatest forces for democratizing investment and for cheapening access to the capital markets. Likewise, I wouldn’t want to be seen as defending all active management. The bar is being raised quite materially on the active industry.

Thanks, Inigo. ■

Key Factor

“Shutdowns for social distancing may be for a more extended period [than most people expect]. That means government policy becomes the critical floor for the market, rather than valuations.”

17.8 times

The S&P’s forward P/E if its operating earnings fall 26%.

OTHER VOICES

A month ago, with U.S. equity indexes at record highs, there were but few references to the virus in the U.S. media.

What's Coming Down the Track? Look to China.

By George Magnus

In the new world of coronavirus, life moves quickly. A month ago, with U.S. equity indexes at record highs, there were but few references in the U.S. media to the virus in China, in some other countries, and on cruise ships. By this week, with equity markets pausing momentarily, having slumped by 30%, there is 24/7 coverage of a pandemic that has put nation after nation into lockdown and quarantine. The economic consequences are going to be surprisingly ugly, with U.S. gross domestic product likely to record a double-digit annualized decline in the April-June quarter and a recessionary year pretty much baked in the cake.

The U.S. and Europe are about a month or so behind China, epidemiologically but also economically. To see what might be coming down the track, think about China for a moment.

In the past two weeks, Chinese economic data for February—the first month of lockdown—have shown an unprecedented collapse in readings for business confidence, industrial production, investment, and retail sales. Industrial production and services output, for example, were down about 13% in the year to January/February. The nominal value of retail sales was down 20%, in spite of a surge in online shopping and deliveries. Investment spending and property transactions fell off a cliff.

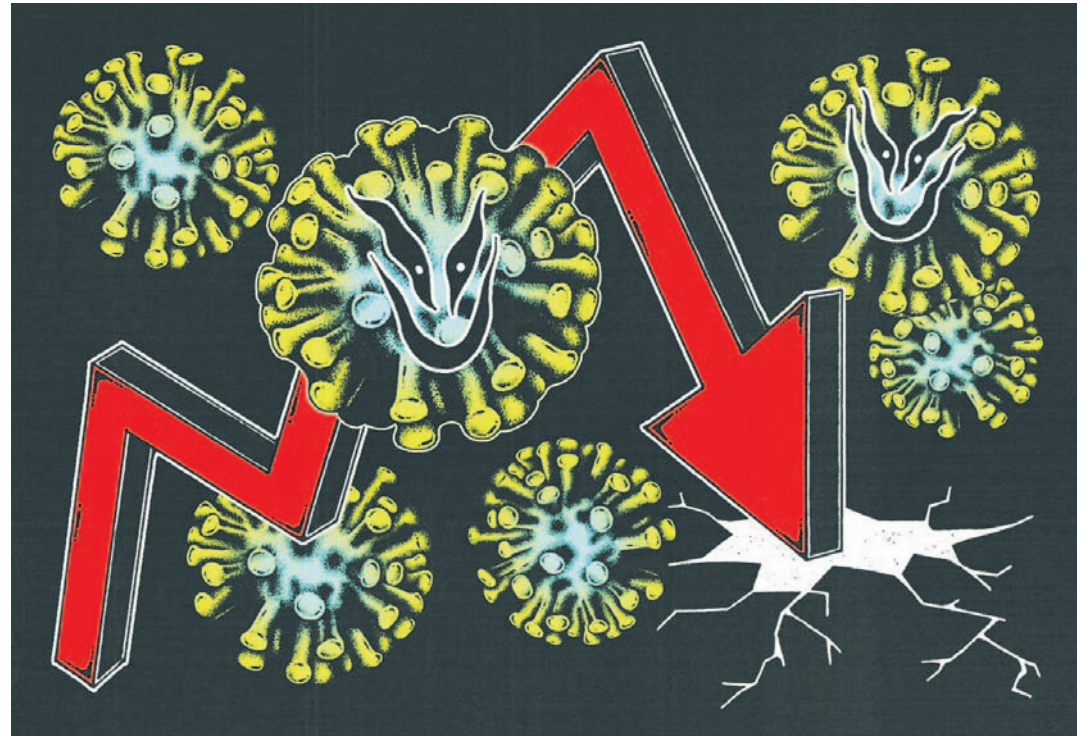
March data will hardly be much better, and there will be a unique and large contraction in China's GDP in the

first quarter. Year-on-year growth could be negative, too.

Even though China is now slowly getting back to work, the unemployment rate rose one percentage point, to 6.2% (certainly an underestimation). The global coronavirus recession now emerging will sting China's economy just as its leaders believe the worst to be over. Officially, the government is still targeting about 6% GDP growth in 2020, but China will be lucky to eke out a positive outcome at all.

The U.S. and Europe are in pursuit, even if Western lockdowns and quarantines are less draconian. That said, Italy, Spain, and France have recently mandated tough containment measures. So have a raft of U.S. cities and states. Open borders and public health crises do not make comfortable bedfellows, and in the past month the U.S., Canada, and the European Union have been among many to restrict access by foreign citizens. With airlines reeling, and shops and factories on the cusp of large losses, we have arrived at what economists call a "sudden stop" in the travel, tourism, hospitality, entertainment, retail, and housing sectors.

In response, the Federal Reserve and the Trump administration have joined other G-7 central banks and governments in conveying their angst about an unfolding recession, if not looming depression. The Fed announced emergency measures to cut the federal-funds rate to zero and pump several hundred billion dollars into the financial system to prevent a potentially damaging seizure of liquidity. Renewed purchases of Treasury bonds, or quantitative easing, and the



“The U.S. and Europe are about a month or so behind China, epidemiologically but also economically.”

George Magnus

establishment of a new lending facility to support the commercial paper market—a vital credit source for larger companies—were among initiatives designed to temper the “dash for cash” and instill order into credit markets.

The federal government has a potentially more powerful role to cushion the fall in GDP brought on by the inability or unwillingness of the private sector to spend and borrow. Treasury Secretary Steven Mnuchin is trying to get the Senate to agree to an \$850 billion package of stimulus, which ultimately might include a payroll-tax cut, help for the beleaguered airline and other sectors, loan assistance and tax-payment relief, health care and other investment, and direct income support payments.

At just over 4% of GDP, this figure would be significant. To be effective, though, a lot of fiscal stimulus might have to wait for the peak of the infection, the restart of businesses and factories, and normalization of work. It might not be enough.

The consumption share of GDP in the U.S. is 68%. Spending on transportation services, leisure activity, hospitality, and eating out amounts to just over \$2 trillion, or about 14% of total

consumption. A 20% drop in this sort of consumption alone translates into a direct 2% decline in GDP (8% annualized in a quarter). But the secondary effects of shutdowns, such as rising unemployment, bankruptcies, and loss of confidence, would compound the impact considerably.

China's experience may well foreshadow what's coming for the West. But neither in China nor anywhere else do we know if there might be a second wave of seasonal infections or when an effective vaccine will emerge.

On top of the U.S.-China trade war, relations have continued to sour during and because of this health crisis. Moreover, we have yet to think through the transformational impact of the crisis on supply chains, globalization, and Sino-Western relations—and at home, on public health systems, the nature of work, and fiscal legacies.

The 2020 economic effects of the coronavirus crisis are just an hors d'oeuvre. **B**

George Magnus is the author of *Red Flags: Why Xi's China Is in Jeopardy*; an associate of the China Centre in Oxford, Britain; and a former chief economist of UBS.

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Coronavirus: Threat and Response

To the Editor:

I wholeheartedly agree with Randall W. Forsyth's criticism of the Trump administration's response to the recent Covid-19 pandemic ("Trump's Response to Coronavirus Boosted the Stock Market. The U.S. Is Coming Up Short," *Up & Down Wall Street*, March 13). Amazingly, President Donald Trump put [Vice President Mike Pence], a political hack who doesn't believe in the science of evolution, in charge of the U.S. task force responsible for our safety. Our ability to test for the virus is woefully insufficient, compared with South Korea's highly efficient system.

Trump can't even accurately convey the details of his edicts to the public. And on Saturday morning, there he was on television actually patting himself on the back for Friday's rally, despite the huge losses during the week.

I greatly appreciate *Barron's* for the substantive and thorough analysis of where we are, where we are going, and what we should do. The expertise of such notables as Joseph Carson, Ed Yardeni, and the Roundtable ensemble offers a glaring comparison with Trump's fecklessness.

Bill Gottdenker
Mountainside, N.J.

To the Editor:

Forsyth seems to think there's a magic bullet to solve the coronavirus problem and that Trump should have found it right after the problem surfaced. In addition, he seems to think the administration should duplicate the measures taken abroad. I have to disagree.

First, the outbreak is not nearly as severe in the U.S. as it is in Europe. Second, statements like those made by Chancellor Angela Merkel that 70% of the population in Germany may contract the illness are counterproductive. Creating a panic only causes people to spend time and energy on irrational measures likely to lead to shortages of everyday products that are ineffective in stopping the virus. They will also lead to paralysis of the economy and weaken the country financially.

A more reasoned approach, like the public-private partnership laid out by the Trump administration, makes the most sense. If a pandemic does ensue, the government will not be able to cope with it. Government-run health care has come up woefully short in a Veterans Administration that has been beset by fraud and unacceptable wait times. Do we need this on a larger scale?

There are no simple answers to a pandemic like we might experience, and criticism with the benefit of 20-20 hindsight does little good. Cooler heads, like Trump, are what's needed, not Chicken Littles who proclaim the sky is falling.

Robert M. Sussman
Paradise Valley, Ariz.

Amid the Carnage

To the Editor:

Virologists in Germany expect a "second wave" of infections in July and August ("18 Stocks to Buy Amid the Coronavirus Carnage," *Roundtable*, March 13). On the other hand, the virus seems to be contained in China, where the infection rate has practically dropped to zero. It is going to be a race between development of a vaccine and the effectiveness of measures taken by health authorities. We

in Germany have closed hospitals for elective surgery. We have emptied hospital beds as a preparative matter to allow people to be isolated if tested positive. Drägerwerk [a German company whose products include breathing equipment] has been asked to provide an additional 10,000 ventilators for intensive-care units.

So far, the mortality rate in Germany is way lower than in Italy, and the reason is unclear. The mortality rate here has been 0.3%. Germany has long been criticized for having way too many hospital beds. Now, we are seemingly benefiting from this. I wonder what is going to happen in the Netherlands, where the number of hospital beds per capita is dramatically lower.

Because things happen with a short delay in the U.S., European countries should give you on the other side of the pond an idea of what is going to happen (and what is not going to happen). Still, I think that buying the dip right now is probably too early if you look at what is happening in Europe. No company has yet declared bankruptcy (apart from flybe in the United Kingdom).

If this is as bad as it seems, the worst may still lie ahead of us.

Ari Giagounidis
On Barrons.com

To the Editor:

Walt Disney is way overvalued, even at its latest price. Bob Iger retiring was probably no coincidence. He saw what is coming. Fox is looking pretty smart unloading its movie business to Disney, which has loaded up with debt just as the cash flow is going to go negative. And Disney+ is not going to help. Disney as an investment is in

the perfect storm—it has a long way to go down. When the insiders start buying Disney, you'll know it's time to get back in.

Joe Farrell
On Barrons.com

Think Like a Lender

To the Editor:

As a lifelong regional banker, it's nice to see an article about what we do and that, in times like this, the five "Cs" of credit can be applied to large public companies the same as to the small and middle market ("Shopping for Stocks? Think Like a Lender," *Streetwise*, March 13). This article touched on two: cash flow (capacity) and the balance sheet (capital). The other three are just as important. Collateral, although usually reserved for us bankers or bond investors, was noted in this week's magazine in several places (airlines, energy, cruise ships). Conditions: Well, we know how they are, but now more than ever requires an assessment of them and their impacts on various industries rather than just wholesale buying an index or the FAANGs or something.

Lastly, my favorite "C": character. Nothing pulls a company through a hard time like the character of a good CEO and management team, whether it's paying back the bank and bondholders or getting back to market cap growth. But most importantly, looking out for the employees, since when the tide turns in our favor again, the turnover (and costs) won't be the same as for those CEOs who ignored their people.

Thomas Fisher
On Barrons.com

"Our ability to test for the virus is insufficient, compared with South Korea's highly efficient system."

Bill Gottdenker, Mountainside, N.J.

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To be included in the ranking, a firm must have at least three funds in the general equity category, one world equity, one mixed equity (such as a balanced or target-date fund), two taxable bond funds, and one national tax-exempt bond fund.

Each fund's performance is measured against all of the other funds in its Lipper category, with a percentile ranking of 100 being the highest and one the lowest. This result is then weighted by asset size, relative to the fund family's other assets in its general classification. If a family's biggest funds do well, that boosts its overall ranking; poor performance in its biggest funds hurts a firm's ranking.

Finally, the score is multiplied by the weighting of its general classification, as determined by the entire Lipper universe of funds. The category weightings for the one-year results in 2019 were general equity, 35.4%; mixed asset, 21.1%; world equity, 17%; taxable bond, 21.8%; and tax-exempt bond, 4.6%.

Barron's Fund Family Rankings are calculated without the impact of expenses such as 12b-1 fees, front-end loads, or sales charges, which would reduce returns. Source: Barron's, 2/14/20.

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MARKET WEEK



March 16 through March 20, 2020

Euro Trader	P. M4	Commodities	P. M8
Emerging Markets	P. M4	Charting the Market	P. M9
Striking Price	P. M5	Winners & Losers	P. M10
Inside Scoop	P. M7	Research Reports	P. M11
13D Filings	P. M7	Market View	P. M12
Power Play	P. M7	Statistics	P. M13

MARKET PERFORMANCE DASHBOARD

Dow Jones Industrials

19,173.98

52-wk: -24.81% YTD: -32.81% Wkly: -17.30%

S&P 500

2304.92

52-wk: -17.70% YTD: -28.66% Wkly: -14.98%

Nasdaq Composite

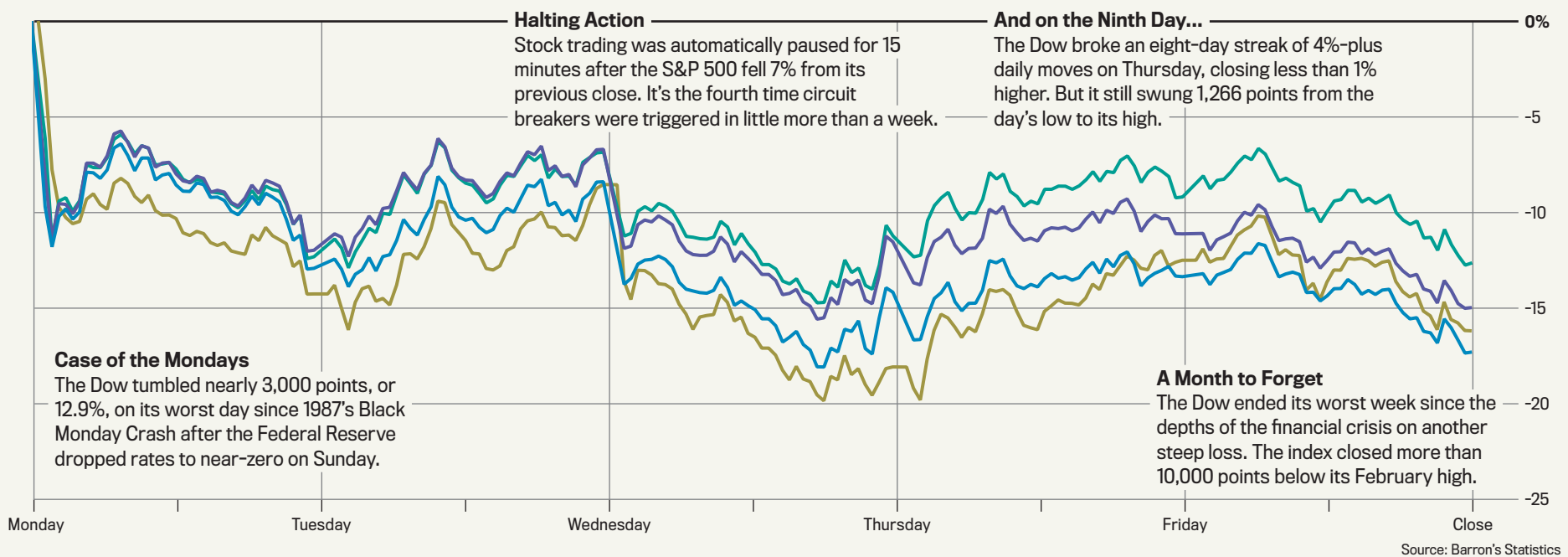
6879.52

52-wk: -9.99% YTD: -23.33% Wkly: -12.64%

Russell 2000

1013.89

52-wk: -32.67% YTD: -39.23% Wkly: -16.22%



THE TRADER

Stocks Revisit 2008 As Economy Looks Even Grimmer

Stores are closed, restaurants are empty, travel and events are canceled, manufacturing and production facilities are shut. Goldman Sachs is now forecasting that the novel coronavirus outbreak—and the unprecedented social-distancing efforts to combat it—will punch a record 24% hole in second-quarter U.S. gross domestic product.

The fact that a sharp downturn in the economy is already here is beyond doubt.

Markets have moved with lightning speed to price that in. The Dow Jones Industrial Average has tumbled more than 10,000 points, or 35%, over the past month, punctuated by a nearly



By Nicholas Jasinski

3,000-point, 12.9% plunge this past Monday—second only to 1987's Black Monday crash. The S&P 500 and Nasdaq Composite have followed a similarly steep path downward, while the more economically sensitive small-cap Russell 2000 has sold off even more.

This past week alone, the Dow plummeted 4,011.64 points, or 17.3%, to 19,173.98. The S&P 500 dropped 15%, to 2,304.92, and the Nasdaq Composite fell 12.6%, to 6,879.52. Each index had its worst week since the one ended on Oct. 10, 2008.

There are other parallels to that period during the global financial crisis besides their huge price swings. Beyond the dire forecasts investors are discounting in their models and decisions, there has been a dash for cash

that's exacerbated daily moves and spared no asset from fevered selling.

"We're still really in the scrambling liquidity phase of this whole move," says Lee Ferridge, head of macro strategy for North America at State Street. "It's all about raising dollar liquidity: People are selling whatever assets they have indiscriminately because they have a short-term need for dollar cash for redemptions, margin calls, collateral requirements, or whatever else."

Several times in the past few weeks, the U.S. dollar has been virtually the only asset flashing green in a sea of red. Scott Clemons, Brown Brothers Harriman's chief investment strategist, calls these "no-safe-haven, risk-off-everything, money-under-the-mattress, buy-canned-goods types of

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days." The U.S. Dollar Index, which measures the price of the dollar against a basket of other currencies, is up 8% in two weeks—an immense move.

The Federal Reserve is pulling out all the stops to respond and smooth out stressed markets, essentially deploying its entire 2008 financial crisis playbook in the span of a little more than two weeks. It has unveiled lending facilities for primary dealers and money-market mutual funds, and boosted the size of its daily overnight repurchase operations. And the Fed has opened dollar-swap lines with more than a dozen central banks around the world to make it easier for them to access the world's reserve currency.

The impact of those efforts will take some time to play out. Once markets start trading like normal again, investors can turn their focus to what the way out of the current crisis will look like. Commentators have suggested an alphabet soup of potential recovery paths: a V-shaped quick rebound? More of a U-shape that requires a slow bottoming? Maybe a W emerges, with a double-dip recession caused by the return of the coronavirus next flu season? Or will it be an L leaning slightly to the left, in which it takes much longer to recover than it has to fall?

Much will depend on how effective social-distancing measures prove and when the legions of medical researchers working on an answer develop one—factors beyond the control of the Fed, Congress, or the White House. As for the economic impact, it is certain to outlast the virus.

"You can shut down restaurants with an order from a mayor or governor," Clemons says. "But when they flip that switch back on, the restaurants won't all reopen. That reboot, to me, takes quarters, if not years."

It is there that monetary and fiscal policy makers can make their presence felt, and the Fed is ahead of Congress on that front. Last Sunday, the central bank said it would buy hundreds of billions of dollars of bonds, while dropping its benchmark interest rate

to near zero. "We knew coming in that the central banks didn't have a lot of ammunition to influence the real economy because rates were already so low," State Street's Ferridge says. "The Fed has done all it can right now...It really comes down to fiscal policy and what Congress can put together."

Legislators passed a coronavirus-relief bill on Wednesday, which expands paid sick leave and unemployment benefits for workers affected by the outbreak, while also providing funding for free coronavirus testing. Next up is a potential trillion-dollar fiscal-stimulus bill. Washington is considering direct cash payments to individuals, bailouts for hard-hit industries such as airlines, and low-cost loans to small businesses.

All this won't stop the economic data from getting a whole lot worse in the near term. This coming Thursday's initial jobless claims figures could jump by millions—from about 70,000 two weeks ago.

As for markets, they tend to move ahead of events. The turning point could be a decline in daily new cases in the U. S—which, following trends in China or South Korea, could be four to six weeks out. Or evidence that widespread testing is restoring some consumer confidence. But as the panic on Wall Street began well before the economic disruption was felt on Main Street, stocks should bottom before the economy does. It's just too early to say when that is.

The Case for Telecom

Americans are retreating to their homes en masse to work, entertain themselves, and communicate with one another during the novel coronavirus outbreak. That means a far greater reliance on their internet, TV, and phone connections—and potential gains for wireless carriers.

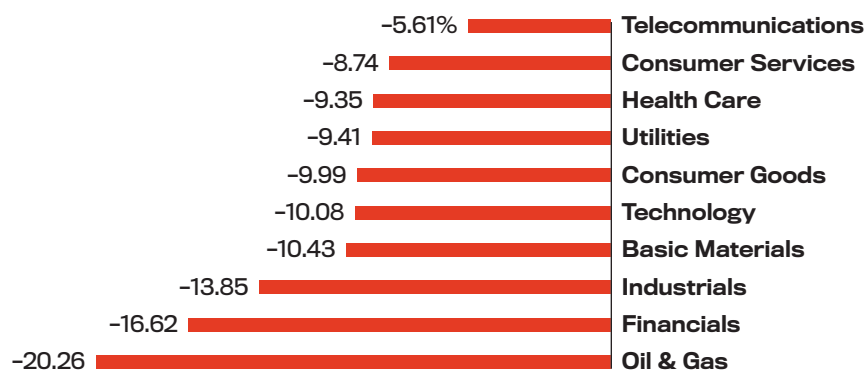
Analysts envision many customers upgrading to faster and more expensive connection speeds or buying larger data plans while stuck at home—or at least not going out to hunt for better deals from competing

Vital Signs

	Friday's Close	Week's Change	Week's % Chg.	Last Week	Week Earlier
DJ Industrials	19173.98	-4011.64	-17.30		
DJ Transportation	6837.72	-1101.68	-13.88		
DJ Utilities	646.13	-116.47	-15.27		
DJ 65 Stocks	6304.73	-1214.87	-16.16		
DJ US Market	563.72	-101.96	-15.32		
NYSE Comp.	9133.16	-1718.82	-15.84		
NYSE Amer Comp.	1408.94	-193.31	-12.06		
S&P 500	2304.92	-406.10	-14.98		
S&P MidCap	1257.86	-289.12	-18.69		
S&P SmallCap	604.74	-121.24	-16.70		
Nasdaq	6879.52	-995.36	-12.64		
Value Line (arith.)	3975.93	-763.07	-16.10		
Russell 2000	1013.89	-196.25	-16.22		
DJ US TSM Float	23105.30	-4183.03	-15.33		
NYSE Advances				184	85
Declines				2,892	2,995
Unchanged				8	5
New Highs				23	30
New Lows				2,714	2,535
Av Daily Vol (mil)				8,290.2	8,032.4
Dollar (Finex spot index)				101.95	98.75
T-Bond (CBT nearby futures)				175-310	176-210
Crude Oil (NYM light sweet crude)				22.43	31.73
Inflation KR-CRB (Futures Price Index)				123.88	140.84
Gold (CMX nearby futures)				1484.00	1515.70

Industry Action

Performance of the Dow Jones U.S. Industrials, ranked by weekly percent change.*



* For breakdown see page M32.

Source: S&P Dow Jones Indices

carriers. Greater demand and lower churn could potentially benefit cable and wireless telecom businesses in the coming months.

That hasn't stopped telecom stocks from selling off over the past month's market crash. Still, most have outperformed the S&P 500's 29% tumble since its Feb. 19 high. **Verizon Communications** (ticker: VZ) is down less than 8%, **AT&T** (T) is off 19%, and **T-Mobile US** (TMUS) has lost 22%.

Verizon stock's relative leadership is deserved. The company's management has warned that the negative impact due to the virus' disruption to the economy could be material to its business. It remains well set up to weather a downturn from both an operations and balance-sheet perspective.

Data-obsessed Americans won't quickly ditch their talk, text, and data plans even in a recession, and Verizon's 120 million wireless subscribers will continue to provide it with roughly \$65 billion a year in steady and dependable service revenue—about 85% of its business. The company's \$20 billion or so in free cash flow is double its dividend commitment, which currently translates to a 4.8% yield. Net debt to Ebitda—or earnings before interest, taxes, depreciation, and amortization—is at a comfortable 2.3 times.

Wells Fargo telecom analyst Jennifer Fritzsche called Verizon her top pick for 2020 in a recent report, noting that its strategic focus on the U.S. wireless business is a key advantage in the current environment. While other large telecoms like AT&T or **Comcast** (CMCSA) have diversified into media and entertainment businesses, which could suffer in an economic downturn, Verizon has doubled down on its network and oriented the business toward 5G.

Rollout of those next-generation wireless networks may be delayed if supply-chain disruptions make it more difficult for companies to secure necessary infrastructure equipment, but they are still coming.

AT&T's WarnerMedia segment is vulnerable to a downturn if companies cut back on advertising spending. Plus, the cancellation of the 2020 National Collegiate Athletic Association's March Madness basketball tournament and the suspension of the National Basketball Association season could result in \$250 million in lost ad revenues in the second quarter, estimates UBS' John Hodulik. On the other hand, the coming launch of the HBO Max streaming service in May could get a boost if people are still stuck at home looking for something to watch.

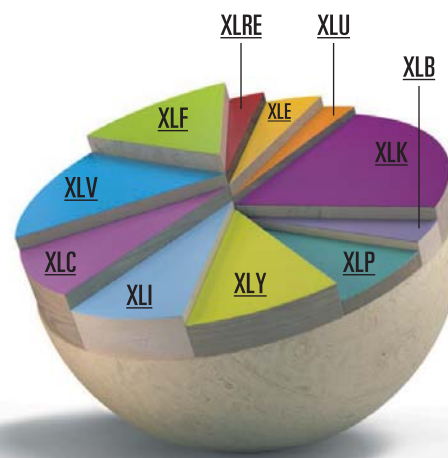
The core wireless business accounts for about 50% of AT&T's profits and could benefit from greater upgrades and lower churn, much as Verizon's does. AT&T's dividend is equally well covered—although with higher leverage—and the yield is an attractive 6.7%. That should compensate for some greater cyclicity than in Verizon's business. AT&T suspended its multibillion-dollar buyback program on Friday, sending shares lower.

For T-Mobile US, the coronavirus disruption comes at an awkward time. The company is at the cusp of closing its acquisition of **Sprint** (S), having defeated the biggest regulatory challenge to the deal last month. The company has led its competitors in subscriber growth in recent years, but growth industrywide could take a pause for several quarters.

T-Mobile had also planned to raise about \$23 billion in debt around the closing of the Sprint deal. Despite tumbling interest rates, credit markets are effectively shut for now. And it is also about to change CEOs. Nonetheless, while the next few quarters should be messy for T-Mobile, the merged company's long-term path still looks bright.

For investors with an investment horizon longer than a couple of quarters and the stomach to withstand some near-term volatility, U.S. wireless stocks aren't a bad place to be. **B**

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EUROPEAN TRADER

Banking Stocks Are Hit Hard in the Market Rout

By Pierre Briançon

Industries haven't all been equal in the month since the stock market rout began, and the European banking sector has been hit particularly hard. European stock markets are down by about 35% on average since Feb. 19. European bank shares have declined by about 45%.

Investors don't seem to distinguish between banks within the euro zone—the largest of which are supervised by the European Central Bank—and banks outside. Both France's **Société Générale** (ticker: GLE.France) and the United Kingdom's **Barclays** (BCS) are down by about 50%.

Markets have also equally treated the banks that were struggling before the coronavirus crisis and the ones whose business had picked up during the previous years of economic recovery. The shares of Germany's long-struggling banking behemoth **Deutsche Bank** (DB) have sunk by almost 50%, just like those of France's **BNP Paribas** (BNP.France).

The market pounding on the European sector came even as central banks, namely the Bank of England and the ECB, put special emphasis on helping the banking sector in their policy response to the crisis.

Special liquidity facilities at ultralow interest rates were announced. Regulators and supervisors cut some levels of capital requirements, or allowed banks to use capital buffers to live through the crisis. The idea was that it was important to allow banks to continue supporting the economy on the eve of an economic shock that may prove to be temporary but will certainly be volatile.

On the supply end of credit, banks were provided with cheap money to encourage them to keep lending. On the demand end—the borrowers, notably the thousands of small and medium companies that will be hardest hit—European governments multiplied state-sponsored schemes

of credit guarantees designed to reassure banks that they would be paid back in full—no more new “bad loans” to saddle their portfolios with.

Investors remained indifferent. Banks are trading at the bottom of their valuations, measured by the ratio of their market capitalization to the value of their assets. Here, at least, the hierarchy of performances before the crisis has been roughly maintained. Deutsche Bank trades at about 17% of its book value, and SocGen trades at about 19%. At the top of the ranking are the euro zone's perceived strongest lenders, such as BNP Paribas and **Banco Santander** (SAN), trading at about a third of their book value.

Policy makers point out that today banks are not in the sorry state they were caught in at the onset of the financial crisis, after years of ultralight regulation. According to the ECB, the euro zone banking sector's common equity Tier 1 ratio is now above 14%. It stood at barely 8% in 2008.

The bad loans on their balance sheets have shrunk after a decisive push by supervisors. And their liquidity ratios have improved, as well. Finally, the euro zone has since created a so-called resolution regime, which allows for the orderly shutdown of a big bank in case of a major crisis, and doesn't force taxpayers to foot the bill.

The problem is now whether these more solid foundations can withstand the challenge of an economic tsunami. Banks are exposed to industries such as airlines, the hotel industry, and the oil sector.

In spite of the hundreds of billions pledged by governments in the form of credit guarantees for struggling companies, bad loans could still come back to haunt balance sheets. Meanwhile, ever-lower interest rates are putting pressure on profits. At some point, governments that are helping the banks to help the economy may have to focus on helping the banks themselves. **B**

EMERGING MARKETS

Slumping Brazilian Stocks Aren't a Bargain

By Craig Mellow

Which big emerging market has been walloped hardest by the coronavirus panic? You probably didn't answer Brazil. The **iShares MSCI Brazil** exchange-traded fund (ticker: EWZ) has lost more than half of its value this year, compared with a 30% drop in global emerging markets. The Brazilian real has crashed more than 20% against the dollar.

Latin America's dominant nation is far from the global Covid-19 hot spots, so far. It does export slumping commodities like oil and iron ore, but its \$3 trillion-plus economy is mostly driven domestically. Still, bargain hunters had better pause for breath before pouncing on devalued Brazilian stocks.

One reason for the market's collapse this year is previous outperformance. The Brazil ETF doubled in 16 months after business-oriented President Jair Bolsonaro swept to power in late 2018, while global emerging markets declined. That run was buoyed by local retail investors trying their hand at stocks, as the central bank slashed interest rates on their traditional savings products.

The neophytes looked to juice performance with leveraged products and options, which are unwinding catastrophically after the external pandemic shock, says Jason Vieira, chief economist at Infinity Asset Management in São Paulo. “People got into very complex instruments, and most didn't hedge them,” he says.

Brazil's economy was coming up short even before the virus hit. Looser credit, record-low inflation, and a long-awaited pension reform that Bolsonaro pushed through last year were supposed to lift 2019 gross domestic product growth to at least 2%. It came in at 1.1% instead, indicative of deeper systemic ills.

“The country has chronically low investment leading to chronically low pro-

ductivity growth,” says Aaron Hurd, senior currency portfolio manager at State Street Global Advisors. “We are not fans of the real, and haven't been for quite a while.”

Brazilian politics are shifting toward the fractious and indecisive at just the wrong moment, too. Economy minister Paulo Guedes unfurled a \$30 billion anti-crisis package on March 16.

The situation requires at least twice that, says Monica de Bolle, who watches Brazil for the Peterson Institute of International Economics. “The fiscal package was very inadequate,” she says. “The economy minister seems to be in denial.”

Bolsonaro's fragile alliance with legislative leaders is also fraying. Congress overrode Bolsonaro's veto of a \$4.2 billion supplemental spending bill on March 11. The president, who revels in the nickname Trump of the Tropics, responded with sharp-tongued tweets. “The political noise in Brazil, just as all this was brewing, is what's ultimately led to an exaggerated market reaction,” says Verena Wachnitz, a portfolio manager for Latin American equities at T. Rowe Price.

Brazil does have resources to face the pandemic and position its markets for a rebound. The plunge in interest rates has slashed the government's interest expenditure to 4% from 14% of gross domestic product, says de Bolle, leaving room for an aggressive fiscal response.

Vieira hopes the politicians will find unity in calamity, moving on to the next reform challenge: overhauling Brazil's byzantine tax system. “Our president should shut up with his trash talk,” he says. “But he has still brought us to the verge of important changes that are long-lasting.”

Foreign investors are not betting on that kind of breakthrough in the midst of a worldwide tailspin, though. “We're trying to own the right companies, then eventually capture good performance,” T. Rowe's Wachnitz says. Eventually. **B**

THE STRIKING PRICE

Using the Rule of 16 allows you to use annual data to calculate a stock's probable daily volatility—the key to success in options trading.

Making Sense of the Three Types of Volatility

By Steve Sosnick

Pretty much anyone can tell you that markets have been volatile. Far fewer can tell you how to evaluate that volatility.

It was obvious that investors were extremely fearful when the Cboe Volatility Index, or VIX, closed above 80 earlier this past week, but only those who truly understand volatility measurements can grasp the ramifications of that extraordinary value. In times like these, anyone who trades or invests with options should fully comprehend such measurements.

It's time for a quick refresher course. The most common volatility measures used in options pricing are rooted in the statistical concept of standard deviation. In a market context, this measures the dispersion of a security's returns around its average. Two stocks may have similar mean returns, but one may have larger up and down moves. That stock would have a higher standard deviation. This dispersion of returns, measured over time, is the basis of the concept of *historical* volatility.

The concept of *implied* volatility is perhaps the most important to options pricing. It is related to historical volatility and expressed in similar terms, but is actually an arithmetically derived number, rather than a real-world measurement. Options prices frequently move somewhat independently from those of their underlying stocks. So, traders realized that if we start with a given options price and separate all of the visible inputs, the remaining variable is the implied volatility of that option.

Options traders are speculating on a third concept, *realized* volatility—the level that a trader experiences during the holding period of an option. In effect, it is the historical volatility reading that will be in place when the option expires or is sold. Buyers are betting that the realized volatility on their options exceeds the implied volatility at the time of purchase; writers (sellers) are speculating on the opposite.

Confusingly, these measures are usually expressed in annual, not daily, terms. The Black-Scholes options-pricing model uses annualized volatility in its calculations. It is of little practical value, however, to think in terms of annual volatility when the vast majority of options expire in days, weeks, or months, not years. Knowing that a stock has a reasonable likelihood of a 40% move over the course of a year isn't valuable information to someone buying or writing an option that expires within three weeks.

Fortunately for options traders, it is quite easy to convert those annualized volatility measurements into daily values. To do so, divide the annualized number by the square root of the number of business days in a year. That results in a divisor very close to 16. This "Rule of 16" allows us to demystify volatility, letting professionals and individual investors alike better assess short-term trading strategies.

A stock with an annualized volatility reading of, say, 40 has a daily volatility of 2.5%. If I am considering writing a three-week call on that stock, I find it much easier to conceive of that stock's likelihood of price changes averaging 2.5% a day over the next three weeks than its prorated likelihood of a 40% move in that period.

We now have the tools to better evaluate this week's 80 VIX reading. The VIX is constructed to provide the market's expectation of 30-day volatility; thus 80, when divided by 16, implied that options on the S&P 500 index were expecting roughly 5% daily moves over the next 30 days.

In light of recent market movement, that historically high level doesn't appear all that unreasonable. This type of thinking is also helpful in advance of earnings and other events. The short-term option with a 40 volatility is anticipating a 2.5% average daily move. It is relatively easy to consider whether an earnings release is likely to boost or drive down a stock by that amount. **B**

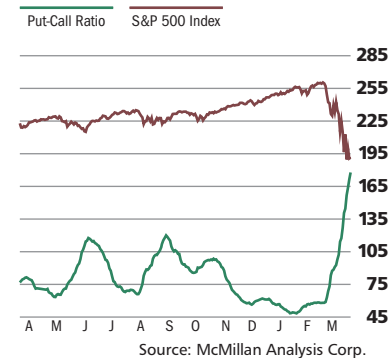
Steve Sosnick is chief strategist at Interactive Brokers and head trader of its Timber Hill subsidiary.

Equity Options

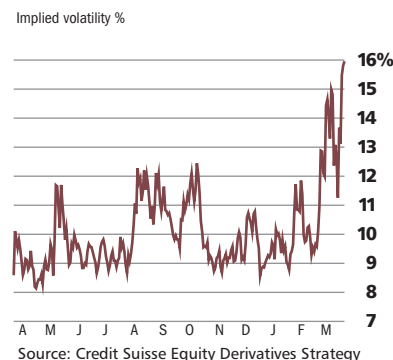
CBOE VOLATILITY INDEX



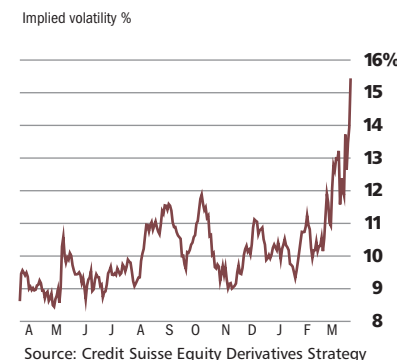
THE EQUITY-ONLY PUT-CALL RATIO



SPX SKEW



NDX SKEW



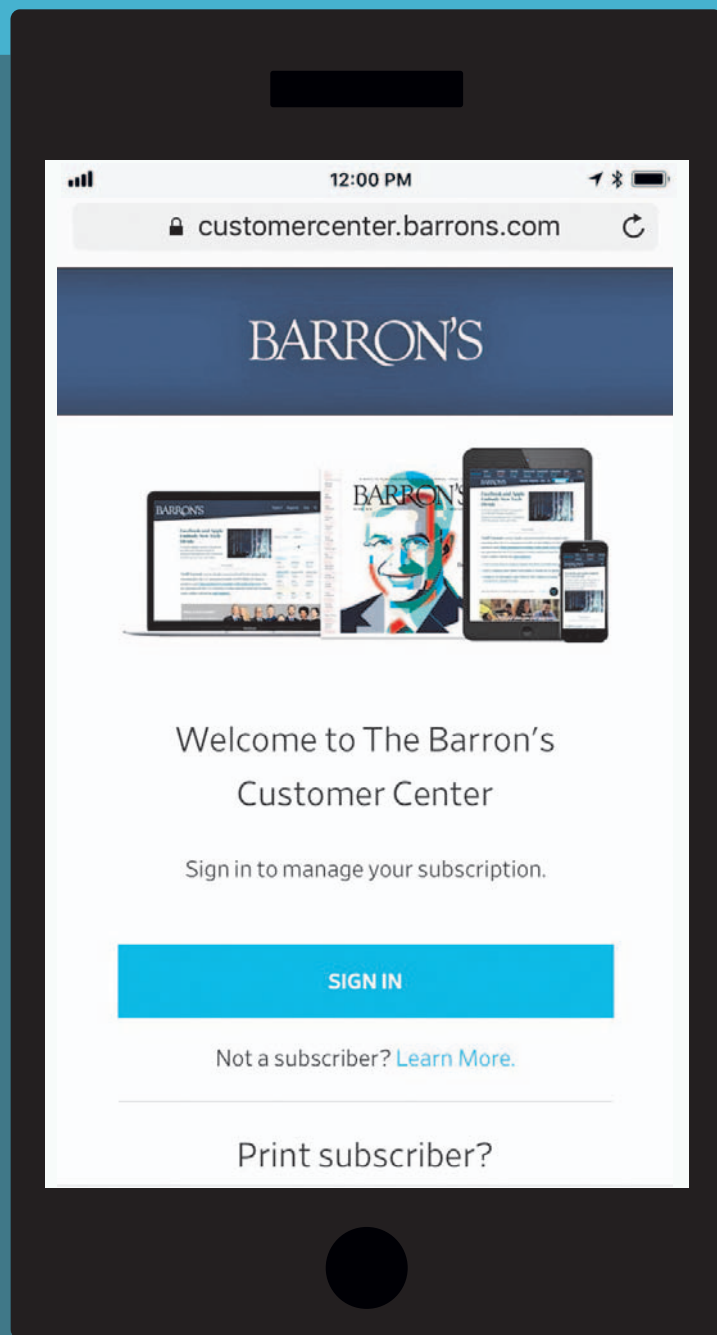
Skew indicates whether the options market expects a stock-market advance or decline. It measures the difference between the implied volatility of puts and calls that are 10% out of the money and expire in three months. Higher readings are bearish.

Week's Most Active

Company	Symbol	Tot Vol	Calls	Puts	Avg Tot Vol	IV %ile	Ratio
Waitr Holdings	WTRH	35580	32846	2734	160	100	222.4
ForeScout Technologies	FSCT	11022	185	10837	524	100	21.0
Blue Apron	APRN	123456	66705	56751	5936	100	20.8
US Dollar Bullish ETF	UUP	458975	443193	15782	22248	60	20.6
Tiffany & Company	TIF	72672	31813	40859	4204	11	17.3
3x Crude Oil ETF	OILU	342575	337613	4962	21632	96	15.8
US Foods	USFD	7916	5181	2735	972	100	8.1
New York Mortgage	NYMT	5342	4724	618	752	100	7.1
Japanese Yen ETF	FXJ	87640	4097	83543	13836	99	6.3
AerCap Holdings	AER	32905	415	32490	5608	100	5.9
Brookfield Property Partners	BPY	9654	2683	6971	1732	99	5.6
Navistar	NAV	7116	2164	4952	1416	65	5.0
Cannae Holdings	CNNE	3392	3125	267	744	100	4.6
Credit Suisse	CS	41853	17180	24673	9044	99	4.6
Post Holdings	POST	4006	438	3568	940	99	4.3
Junior Gold Miners 3x Bull ETF	JNUG	144927	122300	22627	34740	100	4.2
The Stars Group	TSG	9115	744	8371	2152	99	4.2
United Natural Foods	UNFI	25763	17976	7787	6080	99	4.2
France Index Fund ETF	EWQ	10794	12	10782	2636	100	4.1
Dave & Buster's	PLAY	19007	3033	15974	4800	100	4

This table of the most active options this week, as compared to **average** weekly activity – not just raw volume. The idea is that the unusually heavy trading in these options might be a predictor of corporate activity – takeovers, earnings surprises, earnings pre-announcements, biotech FDA hearings or drug trial result announcements, and so forth. Dividend arbitrage has been eliminated. In short, this list attempts to identify where heavy speculation is taking place. These options are likely to be expensive in comparison to their usual pricing levels. Furthermore, many of these situations may be rumor-driven. Most rumors do not prove to be true, so one should be aware of these increased risks if trading in these names
Ratio is the Tot Vol divided by Avg Tot Vol. IV %ile is how expensive the options are on a scale from 0 to 100.

Source: McMillan Analysis



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INSIDE SCOOP

Dow's CEO Bought the Slumping Chemical Stock

By ED LIN

Dow stock has been washed out this year, but insiders including CEO Jim Fitterling have bought nearly \$2 million of the chemical giant's shares.

Dow (ticker: DOW) separated about a year ago from conglomerate DowDuPont as part of a planned breakup. In January, Dow reported that fourth-quarter earnings came out ahead, but nearly \$3 billion in goodwill write-downs raised eyebrows.

Now, Credit Suisse analyst Christopher S. Parkinson notes that coronavirus fears are "destroying plastics/intermediates demand." Dow stock has lost half its value in 2020, but insiders see it as a buying opportunity.

Fitterling paid \$492,000 on March

13 for 20,000 Dow shares, a per share average of \$24.61. Jeff M. Fettig, nonexecutive chairman, paid \$771,400 on Feb. 28 to March 12 for a total of 23,100 shares, an average of \$33.39 per share. Dow director Wesley G. Bush, a retired CEO of Northrop Grumman, paid \$503,300 on March 12 for 20,450 shares, an average price of \$24.61.

Dow provided this statement to *Barron's*: "Recent purchases of Dow stock made by our CEO and members of our board underscore their belief in the steps we continue to take to ensure the financial and operating strength of our company, as well as their position that Dow's stock price is currently undervalued by the market."

Credit Suisse's Parkinson rates Dow stock Outperform but trimmed his price target to \$39 from \$51 this week. The new target still implies more than 40% upside. **B**

Dow stock has plunged in 2020, but insiders including CEO Jim Fitterling have bought nearly \$2 million of the chemical giant's shares.

Increases in Holdings

Lindblad Expeditions Holdings (LIND)

ValueAct Capital lifted its holding in the cruise, travel, and ecotourism firm to 4,873,247 shares. The higher stake resulted from the purchase of 1,200,000 shares at prices ranging from \$4.34 to \$9.57 apiece from March 9 through March 16. Following the latest round of investments, ValueAct now holds 9.8% of Lindblad's outstanding stock.

Kala Pharmaceuticals (KALA)

RA Capital Management more than doubled its stake in the biopharmaceutical company with its recent block trade purchase on March 13. RA Capital was already Kala's largest shareholder and further raised its interest to 19.9%, or 10,874,613 shares, after it bought 6,337,135 shares at \$7.89 each. No reason was cited for the added investment.

Avid Technology (AVID)

Impactive Capital reported on March 17 an increased stake in the maker of media software including Pro Tools. Impactive now owns

These disclosures are from 13Ds filed with the Securities and Exchange Commission. 13Ds are filed within 10 days of an entity's attaining more than 5% in any class of a company's securities. Subsequent changes in holdings or intentions must be reported in amended filings. This material is from March 12 through March 18, 2020. Source: **InsiderScore.com**

3,904,405 common shares, including 8,960 restricted shares tied to Impactive's co-founder Christian Asmar, who serves on Avid's board. Impactive's higher stake is the result of buying 166,586 additional shares from March 13 through March 17 at prices of \$5.90 to \$5.99 apiece. Following the latest purchases, Impactive holds 9% of the outstanding stock.

Xoma (XOMA)

BVF Partners disclosed an increased stake in the development-stage biopharmaceutical company. BVF bought 118,277 shares from March 13 through March 17 at per share prices ranging from \$15.73 to \$18.34. BVF was already Xoma's largest holder and, following the additions, owns 4,013,454 shares, or 36.4% of the outstanding stock; 1,252,772 of those shares underlie preferred convertible securities.

Decreases in Holdings

CymaBay Therapeutics (CBAY)

Engine Capital reduced its interest in the clinical-stage biopharmaceutical company to 6,443,977 shares. On March 6 and March 9, Engine Capital sold 568,276 shares at prices ranging from \$1.65 to \$1.71 each, and bought 325,000 shares at \$1.41 apiece on March 12. The net result was the reduction in Engine Capital's interest in CymaBay to 9.4%. Engine also revealed that it has nominated three representatives for election to CymaBay's board of directors at the upcoming 2020 annual shareholder meeting.

National Fuel Gas (NFG)

Gamco Investors (GBL) revealed a lower, 6.1% stake in the natural-gas firm, equal to 5,287,856 common shares. That figure accounts for the sale of 56,795 shares at prices ranging from \$35.25 to \$44.25 apiece and the purchase of 33,938 shares at per share prices that ranged from \$35.02 to \$44.94, all during the period of Jan. 21 through March 16.

POWER PLAY

Activist Funds Are Persistent

By CARLETON ENGLISH

Global financial markets are in turmoil, but activist investors are still pushing for change—albeit at a slightly slower clip.

Activist hedge fund Starboard Value, led by Jeff Smith, nominated four members to **eBay's** (ticker: EBAY) board on Thursday in an effort to accelerate a search for a new chief executive. A year ago, Starboard and fellow activist fund Elliott Management began agitating for change at eBay.

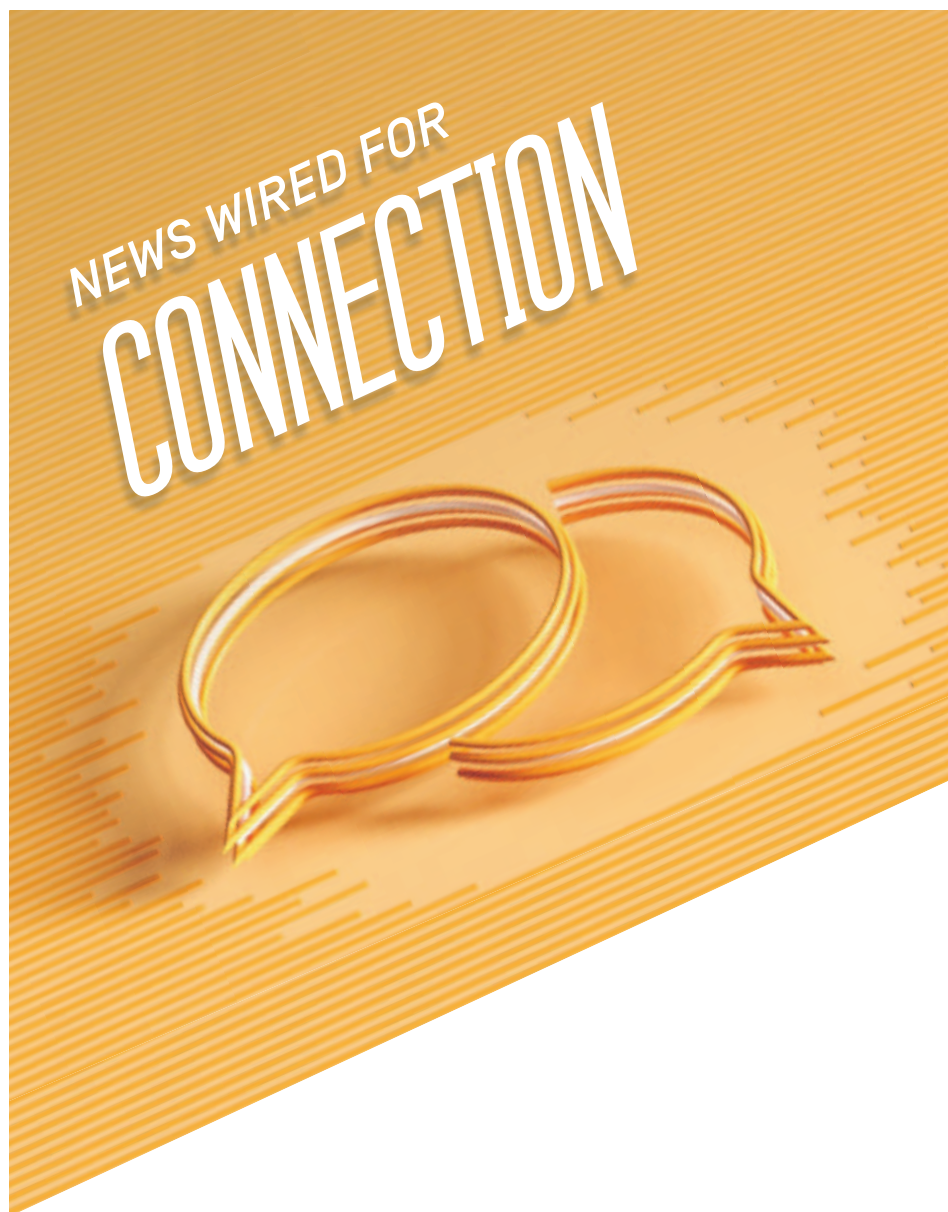
Elsewhere, Bow Street last week called for the ousting of **Mack-Cali Realty's** (CLI) CEO and nominated four directors to its board. And following the exit of **Harley-Davidson's** (HOG) CEO last month, Impala Asset Management is trying to replace two members of the motorcycle maker's board, following years of declining sales.

To be sure, activity is down roughly 13% from this time last year, according to data from Activist Insight, but some activists may find that the recent tumult makes it easier to make their case to shareholders, according to investors and advisors *Barron's* spoke with. Just look at billionaire investor Carl Icahn, who ratcheted up the pressure on longtime target Occidental Petroleum as oil prices fell.

But if all activists have to offer is recommendations for more stock buybacks, their demands will probably fall on deaf ears.

Expect them to keep pushing for the kind of change that could get them back in the green. "Investors have not gone to sleep or self-exiled from the market," says Bruce Goldfarb, chief executive of proxy solicitation firm Okapi Partners.

Nor should they. **B**



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COMMODITIES

Gas Prices Could Slide Below \$2 a Gallon

By Myra P. Saefong

Retail gasoline prices have hit their lowest level in more than three years, though U.S. drivers might not be fully able to enjoy it with many states on lockdown due to the coronavirus.

Oil refiners, meanwhile, are set to take a hit, as demand destruction for fuel in the age of Covid-19 has yet to reach a peak.

The average price for a gallon of regular gasoline already saw a “significant” decline of nearly 27 cents a gallon in the first 20 days of March, according to Jeanette Casselano, spokesperson at motorist and leisure travel group AAA, which shows the price on March 20 at \$2.174 a gallon. That’s the lowest price for the fuel since December 2016, according to AAA.

Crude-oil prices account for nearly 60% of the retail gasoline price, and U.S. benchmark crude futures settled at \$20.37 a barrel on March 18, the lowest since February 2002.

Futures prices for reformulated gasoline also dropped to 60.54 cents a gallon on March 19, the lowest settlement since the contract began trading in October 2005.

If futures and spot markets remain at current levels, retail gas prices would potentially catch up in three weeks, says Tom Kloza, global head of energy analysis at IHS Markit’s Oil Price Information Service, adding that gasoline prices are “almost certainly headed below \$2 a gallon, and we will probably see some sub-\$1 a gallon prices in the next 30 days.”

Casselano says retail gasoline prices may fall to about \$2 by the end of the month if “crude continues to sell for cheap.” As more people work from home and practice social distancing, “it’s likely that we will see a deduction in U.S. gasoline demand and an increase in supply,” she says.

Bjørnar Tonhaugen, head of oil mar-

kets at Rystad Energy, warns that “the potential loss of demand in March-April may dwarf anything the world has ever seen”—a possible global oil demand decline of more than 10 million barrels a day from precoronavirus levels.

And that could come just as “OPEC+ producers open the floodgates of new supply to the market,” he says. The Organization of the Petroleum Exporting Countries and its allies, or OPEC+, failed to reach an agreement earlier this month on further production cuts, and the current pact on output curbs expires at the end of March.

The demand loss is bad news for refiners. “Some refiners will opt to cut [crude oil] runs across an entire system, but others may temporarily shut down underperforming properties,” says Kloza, warning that “demand destruction is in the scope, but not in the rearview mirror.”

Aside from airlines, “I can’t think of a sector that has been harmed more than the U.S. refining sector,” Kloza says.

For now, the winners are “gasoline retailers who are enjoying unprecedented margins and reasonable sales,” but gas prices will drift lower, and “many retailers will see fuel volumes decline by 30% or more,” Kloza says.

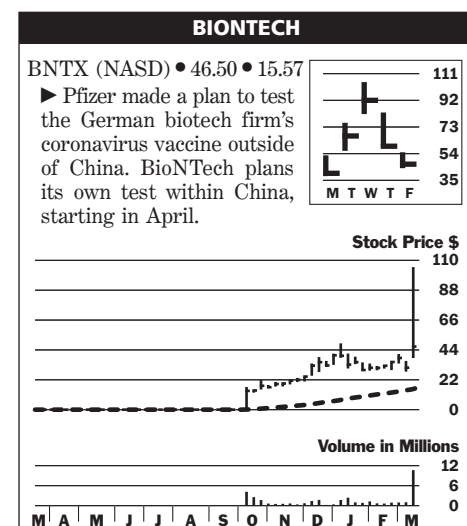
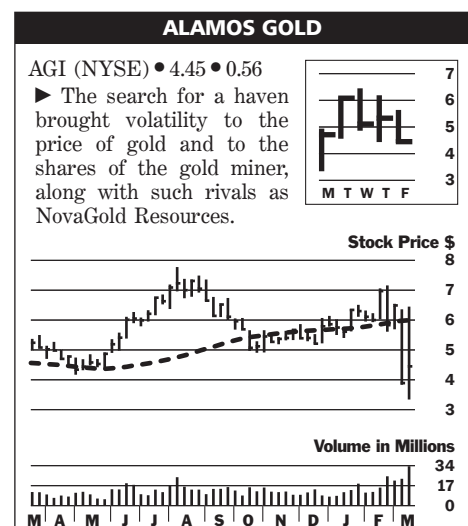
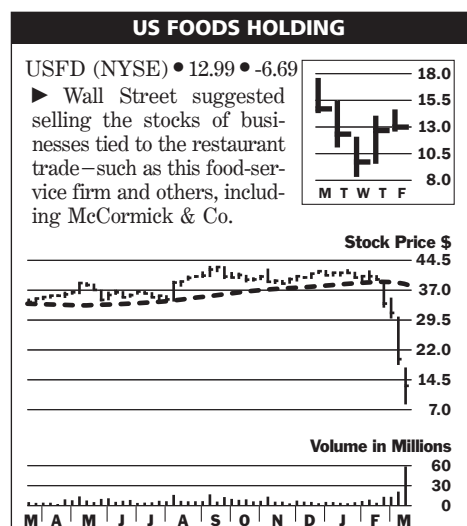
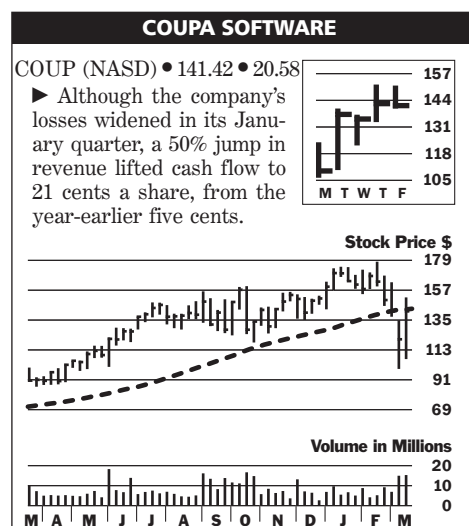
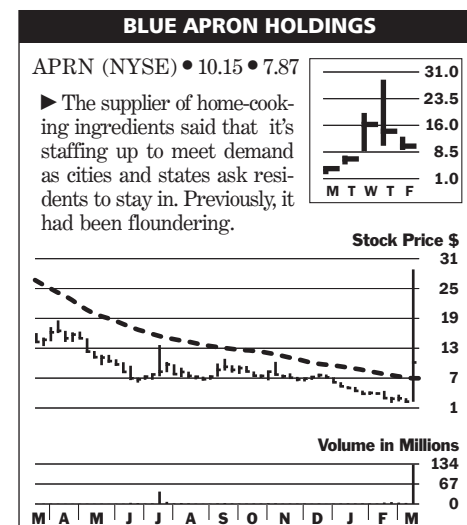
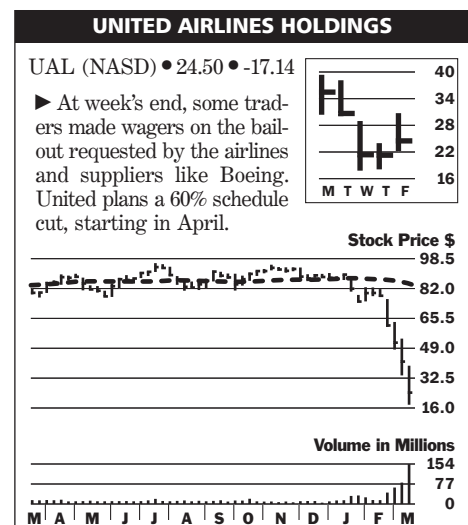
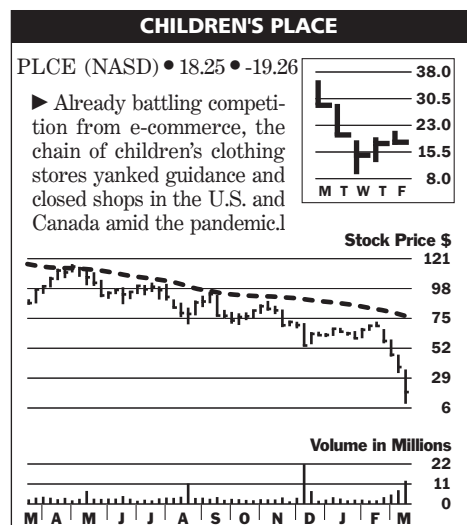
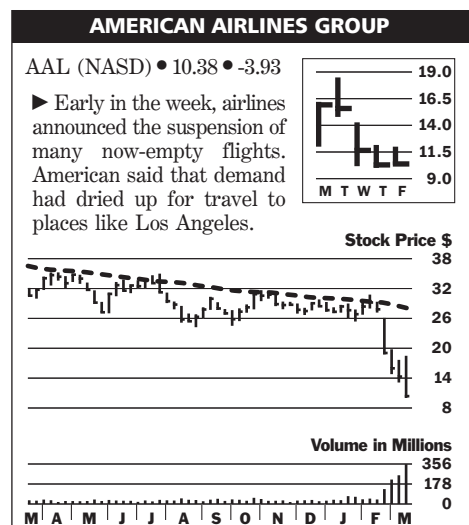
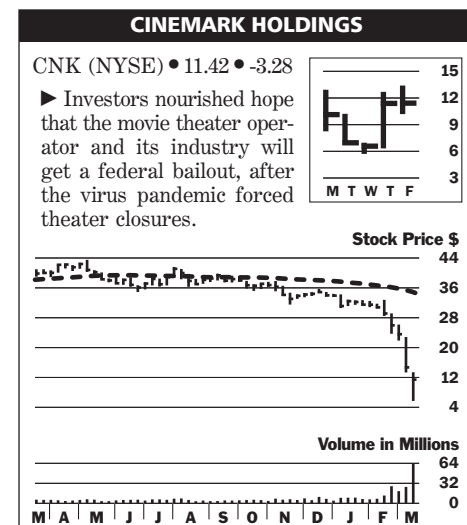
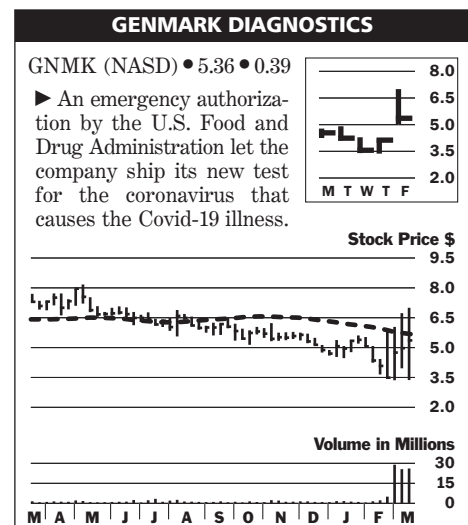
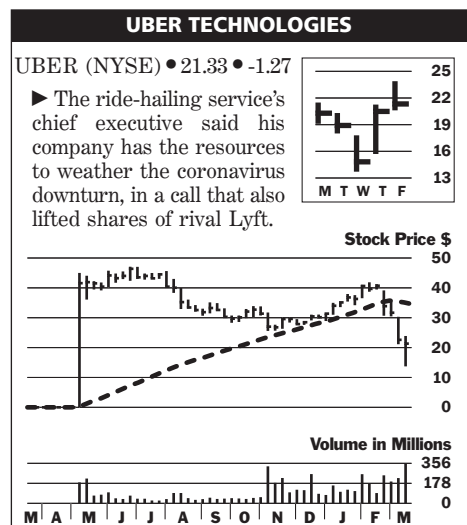
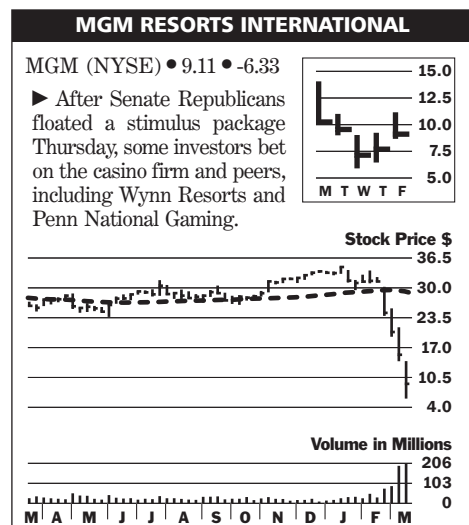
Some cities, such as New York and San Francisco, require that much of the population stay at home and avoid travel.

There is a checklist in place for how to address the current situation, since the industry has faced this type of scenario before from supply, or demand, disruption events such as hurricanes, says Jeff Lenard, spokesperson for the National Association of Convenience Stores, which represents convenience and fuel retailers.

“What is different here is that it is across the entire country, which makes it most similar to the days after Sept. 11, 2001,” and it’s also global, “so it is difficult to cite precedent, especially as the situation continues to evolve,” he says. **B**

Charting the Market

A graphic look at selected stock activity for the week ended on March 20, 2020 ■ Edited by Bill Alpert



The charts record the net change in share price, the high, low and closing trades, and share volume for companies with noteworthy stock activity last week. In addition, the graphs depict last week's daily price activity in detail. The dotted line on some graphs denotes the stock's 200-day moving average; lack of a moving average means the shares have traded for less than that time period.

Winners and Losers

NYSE BIGGEST % MOVERS

Winners				
Name (Sym)	Volume	Close	Change	%Chg.
BlueApron(APRN)	132340	10.15	+7.87	+345.2
UnitedNatFoods(UNFI)	25450	11.22	+5.50	+96.2
RiteAid(RAD)	50378	17.63	+5.93	+50.7
DelekUS(DK)	30407	15.08	+4.77	+46.3
Owens&Minor(OMI)	15024	5.91	+1.55	+35.6
ChinaGreenAg(CGA)	311	2.79	+0.64	+29.8
LionsGateA(LGF.A)	11926	6.87	+1.54	+28.9
Citizens(CIA)	928	5.69	+1.25	+28.2
Losers				
Name (Sym)	Volume	Close	Change	%Chg.
NewHome(NWHM)	1175	1.05	-1.98	-65.3
LadderCapital(LADR)	24055	4.51	-6.93	-60.6
Everi(EVRI)	30754	2.92	-4.48	-60.5
Viad(VVI)	2904	11.90	-17.90	-60.1
FlyLeasing(FLY)	2464	4.10	-6.10	-59.8
PlayAGS(AGS)	7280	1.63	-2.40	-59.6
DineBrands(DIN)	7966	17.41	-25.27	-59.2
OutfrontMedia(OUT)	21550	7.99	-11.39	-58.8

NYSE AMERICAN BIGGEST % MOVERS

Winners				
Name (Sym)	Volume	Close	Change	%Chg.
MAG Silver(MAG)	7999	7.82	+2.85	+57.3
SilverCrestMetals(SILV)	20942	5.18	+0.89	+20.7
SilvercorpMetals(SVM)	16263	2.43	+0.40	+19.7
Cel-Sci(CVM)	4604	11.95	+1.93	+19.3
Daxor(DXR)	402	13.63	+2.03	+17.5
NovaGoldRscs(NG)	29722	6.74	+0.87	+14.8
MetallaRoyalty(MTA)	1199	3.91	+0.40	+11.4
NatlHealthcare(NHC)	705	69.92	+6.50	+10.2
Losers				
Name (Sym)	Volume	Close	Change	%Chg.
MicronSolutions(MICR)	163	1.24	-1.53	-55.2
AeroCentury(ACY)	71	1.40	-1.43	-50.5
IMPAC Mortgage(IMH)	207	2.41	-2.45	-50.4
IndonesiaEnergy(INDO)	72	1.55	-1.18	-43.2
Ashford(AINC)	68	6.00	-4.45	-42.6
Flanigans(BDL)	53	8.90	-6.40	-41.8
CentrusEnergy(LEU)	301	4.25	-2.25	-34.6
MastechDigital(MHH)	167	9.59	-4.85	-33.6

NASDAQ BIGGEST % MOVERS

Winners				
Name (Sym)	Volume	Close	Change	%Chg.
WAVE LifeSci(WVE)	4882	11.88	+4.03	+51.3
BioNTech(BNTX)	10658	46.50	+15.57	+50.3
KaleidoBiosci(KLDO)	820	5.86	+1.92	+48.7
ArcutisBiotherap(ARQT)	1864	33.32	+10.66	+47.0
Preigen(PGEN)	10196	2.95	+0.94	+46.8
SpartanNash(SPTN)	4369	15.03	+4.60	+44.1
Synchronoss(SNCR)	2716	4.05	+1.11	+37.8
NatlSecurity(NSEC)	39	14.90	+3.89	+35.3
Losers				
Name (Sym)	Volume	Close	Change	%Chg.
GulfportEnergy(GPOR)	53567	0.71	-2.03	-74.2
ChefsWarehouse(CHEF)	15816	5.54	-11.94	-68.3
RuthsHospitality(RUTH)	11289	4.11	-8.32	-66.9
GreenPlainsPtrs(GPP)	863	3.81	-5.80	-60.4
Sabre(SABR)	45656	3.31	-5.02	-60.3
GIIIApparel(GIII)	15427	6.06	-9.12	-60.1
Franchise(FRG)	766	6.47	-9.54	-59.6
BJsRestaurants(BJRI)	9127	8.20	-12.09	-59.6

NYSE MOST ACTIVE

Volume Percentage Leaders				
Name (Sym)	Volume	%Chg.	Close	Change
PivotalInvl(PIC)	3746	1252.5	9.75	-0.10
CollierCreek(CCH)	4642	893.0	10.15	-0.13
ChurchillCapIIA(CCX)	5111	843.9	9.67	-0.28
PBFLogistics(PBFX)	5126	811.4	5.07	-2.99
HollyEnergy(HEP)	18601	669.5	13.42	+1.08
US Foods(USFD)	58829	618.2	12.99	-6.69
LadderCapital(LADR)	24055	574.7	4.51	-6.93
JamesHardie(JHX)	665	474.9	10.33	-4.55
NorwegCruise(NCLH)	129396	456.0	8.72	-2.38
Everi(EVRI)	30754	449.2	2.92	-4.48
PerformanceFood(PFGC)	28504	439.0	15.95	-9.68
MegalithFinAcqn(MFAC)	1967	437.8	10.10	-0.12
Sysco(SYY)	79276	432.0	35.33	-11.74
Welbilt(WBT)	34617	426.7	4.41	-2.41
RMGAcqn(RMG)	2208	424.0	9.62	-0.23
BrightHorizons(BFAM)	8652	420.9	83.96	-40.88
Boeing(BA)	224492	417.7	95.01	-75.19
Cinemark(CNK)	63113	417.1	11.42	-3.28
Guess(GES)	28830	416.8	7.04	-2.47
PlanetFitness(PLNT)	34420	415.6	33.93	-20.05

By Share Volume

Name (Sym)	Volume	Close	Change	%Chg.
BankofAmerica(BAC)	663035	19.67	-4.49	-18.6
ChesapeakeEner(CHK)	635272	0.19	-0.11	-36.7
GeneralElec(GE)	599579	6.52	-1.33	-16.9
FordMotor(F)	595112	4.33	-1.30	-23.1
AT&T(T)	371150	28.45	-6.02	-17.5
Uber(UBER)	354551	21.33	-1.27	-5.6
EnergyTransfer(ET)	337599	5.25	-1.48	-22.0
Carnival(CCL)	294593	12.00	-5.58	-31.7
WellsFargo(WFC)	294323	26.50	-4.39	-14.2
ExxonMobil(XOM)	266966	32.74	-5.38	-14.1
NIO(NIO)	256192	2.40	-0.71	-22.8
Pfizer(PFE)	247731	29.01	-3.70	-11.3
SouthwesternEner(SWN)	240748	2.08	+0.31	+17.5
ItauUnibanco(ITUB)	234901	4.38	-1.11	-20.2
DeltaAir(DAL)	232230	21.35	-17.01	-44.3
Snap(SNAP)	231574	10.09	-1.26	-11.1
PetroleoBrasil(PBR)	230411	4.85	-1.73	-26.3
Boeing(BA)	224492	95.01	-75.19	-44.2
Citigroup(C)	216377	38.06	-12.98	-25.4
Ambev(ABEV)	215944	2.40	-0.24	-9.1

By Dollar Volume

Name (Sym)	\$ Volume	Close	Change	%Chg.
Boeing(BA)	24177769	95.01	-75.19	-44.2
Alibaba(BABA)	19801050	181.30	-12.70	-6.5
Visa(V)	16181995	146.83	-29.00	-16.5
JPMorganChase(JPM)	15444046	83.50	-20.41	-19.6
Disney(DIS)	15375626	85.98	-16.54	-16.1
BankofAmerica(BAC)	13651308	19.67	-4.49	-18.6
BerkHathwyB(BRK.B)	12948423	170.06	-26.34	-13.4
Mastercard(MA)	12748148	211.42	-58.59	-21.7
J&J(JNJ)	11931105	119.89	-14.40	-10.7
AT&T(T)	11547272	28.45	-6.02	-17.5
UnitedHealth(UNH)	11213783	206.59	-65.45	-24.1
HomeDepot(HD)	11044600	152.15	-53.52	-26.0
WalMart(WMT)	10990887	113.97	-0.13	-0.1
Procter&Gamble(PG)	10777360	102.43	-11.64	-10.2
Verizon(VZ)	9924839	51.80	-2.37	-4.4
ExxonMobil(XOM)	9172916	32.74	-5.38	-14.1
McDonalds(MCD)	8755221	148.49	-28.64	-16.2
Citigroup(C)	8360878	38.06	-12.98	-25.4
Salesforce.com(CRM)	8217783	139.35	-8.43	-5.7
WellsFargo(WFC)	8109443	26.50	-4.39	-14.2

NYSE AMERICAN MOST ACTIVE

Volume Percentage Leaders				
Name (Sym)	Volume	%Chg.	Close	Change
CheniereEnerPtrs(CQP)	8112	404.8	22.11	-5.18
ImperialOil(IMO)	10996	395.2	9.00	-3.90
BiomX(PHGE)	307	383.0	6.70	-2.47
Daxor(DXR)	402	380.0	13.63	+2.03
EquinoxGold(EQX)	9873	244.5	6.15	+0.40
NatlHealthcare(NHC)	705	188.6	69.92	+6.50
ParkNational(PRK)	556	157.3	81.60	-4.32
ConTomka(CTO)	320	151.7	38.42	-11.72
TompkinsFin(TMP)	519	143.6	66.79	-1.45
Chase(CCF)	223	137.7	70.00	-4.35
NovaGoldRscs(NG)	29722	131.0	6.74	+0.87
DeltaApparel(DLA)	211	98.4	8.97	-3.42
BarHarborBkshs(BHB)	275	91.5	15.98	-1.40
CheniereEnergy(LNG)	24739	90.0	35.04	-0.36
AdamsRes(AE)	80	84.2	17.24	-5.76
VirnetX(VHC)	3986	82.5	5.23	-0.81
StdDiversified(SDI)	101	70.8	7.60	-1.52
IssuerDirect(ISDR)	77	64.2	9.24	+0.14
CaledoniaMining(CMCL)	198	63.7	6.67	-1.93
AcmeUnited(ACU)	68	54.2	19.96	-1.70

By Share Volume

Name (Sym)	Volume	Close	Change	%Chg.
iBio(IBIO)	107628	1.31	-0.29	-18.1
NovaBayPharm(NBY)	74050	0.84	+0.50	+146.3
B2Gold(BTG)	66722	2.71	-0.04	-1.5
NorthernOil&Gas(NOG)	39462	0.74	-0.21	-22.2
NewGold(NGD)	38084	0.50	+0.04	+8.3
DocumentSecSys(DSS)	31642	0.20	+0.02	+11.3
AIM Immuno(AIM)	30891	2.19	-0.66	-23.2
NovaGoldRscs(NG)	29722	6.74	+0.87	+14.8
GranTierraEner(GTE)	27817	0.18	-0.07	-26.6
CheniereEnergy(LNG)	24739	35.04	-0.36	-1.0
SilverCrestMetals(SILV)	20942	5.18	+0.89	+20.7
AmerGold&Silver(USAS)	20856	1.58	+0.21	+15.3
AlexcoRes(AXU)	20697	1.47	+0.55	+59.6
AlphaProTech(APT)	19483	10.67	-1.84	-14.7
SilvercorpMetals(SVM)	16263	2.43	+0.40	+19.7
ZomedicaPharm(ZOM)	15083	0.15	-0.01	-3.9
NorthernDynasty(NAK)	14863	0.36	-0.07	-17.0
GoldStandrdVntr(GSV)	13317	0.27	-0.12	-30.8
GreatPanther(GPL)	12327	0.25	-0.04	-12.3
HoustonAmEner(HUSA)	12888	0.10	-0.01	-9.2

By Dollar Volume

Name (Sym)	\$ Volume	Close	Change	%Chg.
CheniereEnergy(LNG)	817647	35.04	-0.36	-1.0
AlphaProTech(APT)	241600	10.67	-1.84	-14.7
NovaGoldRscs(NG)	220741	6.74	+0.87	+14.8
B2Gold(BTG)	197977	2.71	-0.04	-1.5
CheniereEnerPtrs(CQP)	187858	22.11	-5.18	-19.0
iBio(IBIO)	154973	1.31	-0.29	-18.1
SilverCrestMetals(SILV)	102878	5.18	+0.89	+20.7
ImperialOil(IMO)	101401	9.00	-3.90	-30.2
NovaBayPharm(NBY)	75395	0.84	+0.50	+146.3
AIM Immuno(AIM)	70719	2.19	-0.66	-23.2
EquinoxGold(EQX)	59310	6.15	+0.40	+7.0
MAG Silver(MAG)	56021	7.82	+2.85	+57.3
Cel-Sci(CVM)	50529	11.95	+1.93	+19.3
ParkNational(PRK)	48184	81.60	-4.32	-5.0
NatlHealthcare(NHC)	45934	69.92	+6.50	+10.2
SilvercorpMetals(SVM)	42561	2.43	+0.40	+19.7
TompkinsFin(TMP)	37573	66.79	-1.45	-2.1
AmerGold&Silver(USAS)	31092	1.58	+0.21	+15.3
NanoViricides(NNVC)	30294	6.23	-0.63	-9.2
GoldResource(GORO)	29946	2.36	-0.24	-9.2

NASDAQ MOST ACTIVE

Volume Percentage Leaders				
Name (Sym)	Volume	%Chg.	Close	Change
ChefsWarehouse(CHEF)	15816	1040.8	5.54	-11.94
BioNTech(BNTX)	10658	840.1	46.50	+15.57
CrossFirstBkshs(CFB)	6552	709.6	9.22	+2.22
GoldenEnt(GDEN)	3378	603.4	3.78	-5.08
PennNational(PENN)	102520	580.1	7.89	-7.58
SelectBancorp(SLCT)	1060	573.4	7.29	-1.52
Dave&Buster's(PLAY)	32642	564.8	7.76	-5.51
RedRockResorts(RRR)	23884	559.4	7.05	-1.75
BusFirstBcshs(BFST)	614	547.1	9.96	-5.04
RuthsHospitality(RUTH)	11289	514.0	4.11	-8.32
AmerFirstMultifam(ATAX)	4322	511.8	4.75	-1.73
Marriott(MAR)	82827	508.6	74.58	-21.03
BankofCommerce(BOCH)	1110	443.6	6.32	-2.58
UnitedAirlines(UAL)	153531	434.0	24.50	-17.14
GIIIApparel(GIII)	15427	423.6	6.06	-9.12
Bank7(BSVN)	305	400.8	7.00	-1.97
Caesarstone(CSTE)	2899	392.7	8.90	+0.23
HallmarkFin(HALL)	1646	388.5	3.87	-1.62
AvisBudget(CAR)	41430	386.8	10.98	-7.03
Franchise(FRG)	766	381.2	6.47	-9.54

By Share Volume

Name (Sym)	Volume	Close	Change	%Chg.
AdvMicroDevices(AMD)	479202	39.61	-4.29	-9.8
Microsoft(MSFT)	419340	137.35	-21.48	-13.5
Apple(AAPL)	404118	229.24	-48.73	-17.5
AmerAirlines(AAL)	355147	10.38	-3.93	-27.5
Waitr(WTRH)	313154	1.22	+0.91	+287.3
Intel(INTC)	251954	45.83	-8.60	-15.8
CiscoSystems(CSCO)	249444	35.60	-2.04	-5.4

Research Reports

How Analysts Size Up Companies

These reports, excerpted and edited by Barron's, were issued recently by investment and research firms. The reports are a sampling of analysts' thinking; they should not be considered the views or recommendations of Barron's. Some of the reports' issuers have provided, or hope to provide, investment-banking or other services to the companies being analyzed.

Cal-Maine Foods • CALM-Nasdaq

Overweight (Volatile) • Price \$37.39 on March 17
by Stephens

We are upgrading Cal-Maine to Overweight from equal weight and raising our price target to \$47 from \$45. Cal-Maine [the largest producer and distributor of eggs in the U.S.] is a best operator in an industry essential to the food chain. It operates with minimal debt and has weathered numerous economic cycles, utilizing challenging times as an opportunity to further consolidate its industry.

Cal-Maine is very well positioned in the current environment. Its price-to-book [valuation is] about a half-turn below its 10-year average and just 0.2 times above the low seen in the last recession. Estimates are likely bottoming, as significant pessimism is being modeled in due to a prolonged oversupply [of eggs], and the operating environment is in the early stages of improvement on the back of moderating supply growth and a pickup in retail demand, as consumers shift toward food-at-home consumption.

Baxter International • BAX-NYSE

Outperform • Price \$80.51 on March 18
by Raymond James

Baxter [a supplier of medical products and services] is taking appropriate steps to address customer needs as the Covid-19 pandemic expands. Baxter is seeing demand for IV solutions, antibiotics, and [other items], while its renal-care business remains stable. Manufacturing operations are running at planned levels, while supply-chain [problem] mitigation efforts are in place. The balance sheet is strong, as cash levels have been bolstered. Price target: \$90.

H&R Block • HRB-NYSE

Neutral • Price \$17.37 on March 18
by BTIG

H&R Block this morning disclosed that it

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was withdrawing the fiscal-2020 financial guidance it had provided on March 5, after U.S. Treasury Secretary [Steven] Mnuchin yesterday announced that, in response to the coronavirus pandemic, the Treasury would allow deferral of tax payments by individuals and corporations of up to \$1 million owed to the IRS for 90 days after the April 15 deadline.

While Mnuchin's announcement pertained to federal payments, H&R Block noted that many states have also allowed for deferral of tax payments due to the advent of the coronavirus. The Treasury secretary, who noted that taxpayers will not be subject to interest and penalties during the 90-day deferral period, encouraged taxpayers able to do so to file their taxes by April 15, insofar as many would be eligible for refunds.

H&R Block management had reiterated fiscal-2020 guidance for revenue growth of 1.5% to 3.5% and for its full-year margin, based on earnings before interest, taxes, depreciation, and amortization, of 24% to 26%. The company typically generates over 80% of its annual revenue and over 100% of its annual earnings during its fiscal fourth quarter, which overlaps with tax season. Our estimates for H&R Block are under review.

Alibaba Holding • BABA-NYSE

Buy • Price \$178.85 on March 16
by BofA Securities

We are shifting some weights [in our international portfolio], given the current market volatility. We increase our 4.5% weight in Alibaba to 6%, as we believe that it [the Amazon.com of China] has positive secular drivers in e-commerce and cloud computing.

Sage Therapeutics • SAGE-Nasdaq

Outperform • Price \$28.80 on March 16
by RBC Capital Markets

Sage Therapeutics shares are down 60% in the past month, owing to lack of clarity on lead drug 217's path forward, coupled with macro weakness on pandemic concerns. Although we acknowledge some uncertain-

ties, we believe that the downside has been excessive. The promise that 217 [a treatment for depression and other disorders] has shown in earlier trials, [along with] Sage's underappreciated drug platform, create multiple shots [toward its] goal for achieving more than \$2.5 billion in annual revenues, which the company's current market cap of about \$1.8 billion doesn't appear to reflect. At current levels, the most bearish scenarios are already baked in, and we see the reward/risk skewed to the upside on any progress with 217 or the rest of the company's product pipeline.

We lower our price target to \$60 from \$73, but upgrade Sage to Outperform from Sector Perform and add a speculative risk qualifier to our rating.

JOYY • YY-Nasdaq

Buy • Price \$42.74 on March 17
by Benchmark

JOYY, formerly YY, doesn't expect a negative impact on its YY Live and Bigo [social-media and streaming platforms] from the coronavirus outbreak. We are turning more positive on [China-based] JOYY's overseas expansion, driven by healthy user growth and increasing monetization [of its services].

That said, we expect JOYY's margins to remain under pressure, due to a potential step-up in YY Live investments. JOYY is trading at a single-digit earnings multiple, and we view it as a value play for longer-term investors. We maintain our Buy rating, but lower our price target to \$78 from \$90.

INSIDER TRANSACTIONS: Recent Filings

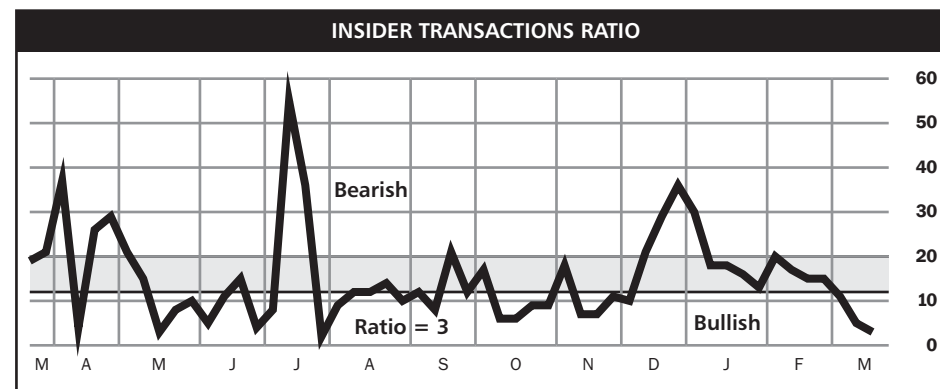
Purchases

Company / Symbol	Insiders	Shares	\$ Val (000's)
Simon Property SPG	7	362,358	20,426
Encompass Health EHC	2	166,000	9,971
Bunge BG	7	162,000	6,444
Wells Fargo & Co WFC	2	193,000	5,554
Cloudera CLDR	1	719,000	4,999
Hubspot HUBS	1	40,000	4,977
Enterprise Products Partners EPD	4	355,073	4,698
Lions Gate Entertainment LGF.A	2	798,122	3,836
Starwood Property Trust STWD	2	243,000	3,521
At Home HOME	1	1,100,408	3,370
Stitch Fix SFIX	1	250,000	3,190
Artisan Partners Asset Management APAM	1	150,000	3,153
Assured Guaranty AGO	1	96,068	3,001
Mercury General MCY	3	76,395	2,976
NCR NCR	6	158,000	2,800
Drive Shack DS	3	1,774,510	2,673
Nexpoint Residential Trust NXRT	2	75,516	2,633
Dsp Group DSPG	1	220,000	2,581
Trident Acquisitions TDAC	1	240,000	2,544
Valley National Bancorp VLY	2	332,000	2,500

Sales

Company / Symbol	Insiders	Shares	\$ Val (000's)
Choice Hotels International CHH	2	528,768	37,992
Masimo MASI	1	201,741	36,813
Ringcentral RNG	1	123,001	25,521
Lululemon Athletica LULU	1	173,544	24,998
Snap SNAP	4	2,637,629	24,573
Forty Seven FTSV	1	250,000	23,591
Digital Realty Trust DLR	2	133,021	16,870
Intercontinental Exchange ICE	1	175,000	15,263
Q2 Q2W	2	243,984	14,078
Uber Technologies UBER	1	510,000	13,312
Dexcom DXCM	7	46,288	12,255
Okta OKTA	6	113,802	12,120
Sba Communications SBAC	2	42,103	11,770
Adobe ADBE	2	38,351	11,437
Workday WDAY	2	86,095	10,527
Walmart WMT	1	85,000	9,980
Zoom Video Communications ZM	2	83,168	9,066
Activision Blizzard ATVI	1	159,452	8,770
Knight-Swift Transportation KNX	1	290,000	8,630
Comcast CMCSA	2	203,820	7,550

An insider is any officer, director or owner of 10% or more of a class of a company's securities. In most cases, an insider must report any trade to the SEC within two business days. The tables highlight companies that filed with the SEC through last Wednesday. The tables do not include pension-plan or employee stock-option activity, trades by beneficial owners of 10% or more, trades under \$2 per share or trades under 100 shares. The "Purchases" column includes only open-market and private purchases; the "Sales" column includes only open-market and private sales, and excludes trades preceded by option exercise in the 12 months prior to the reported event. Source: Thomson Reuters



Ratio of Insiders Sales to Buys. Readings under 12:1 are Bullish. Those over 20:1 are Bearish.

The total top 20 sales and buys are 335,116,650 and 95,846,193 respectively; Source: Thomson Reuters

Market View

A Sampling of Advisory Opinion

“Until recently, falling yields were bad—but now, evidently, rising yields are bad. Perhaps this is to be expected in the middle of an emotional crisis—everything turns bad!” —JAMES W. PAULSEN, Paulsen's Perspective

A Positive Omen, Maybe

*Paulsen's Perspective
by the Leuthold Group
leutholdgroup.com*

March 19: Overnight on Tuesday, stock futures hit their 5%-limit down trigger. Seemingly, in addition to the coronavirus, the stock market is also worried about rising bond yields, which many believe [are climbing] because governments around the globe are implementing massive fiscal-stimulus packages and, consequently, are poised to sell huge amounts of sovereign debt. Having yields rise amid a meltdown in the stock market, and against an economic backdrop that everyone knows is about to contract, is frightening—like most things today.

Last year, investors worried about why bond yields were falling and what the bond market “knew” that the stock market didn't? Indeed, the recent collapse below 1% in both the 10- and 30-year bond yield certainly added to anxiety surrounding the onslaught of the coronavirus. Watching bond yields fall as fast as stocks made the nightmare scenario of negative yields in the U.S. appear all too real. So, until recently, falling yields were bad—but now, evidently, rising yields are bad. Perhaps this is to be expected in the middle of an emotional crisis—everything turns bad!

Who knows if the bond-yield revival will be bad or good for the economy and the stock market. Historically, though, the first meaningful rise in bond yields after a significant collapse, both in yields and the stock market, has typically been a good indication that the stock market rout is nearing its end.

—JAMES W. PAULSEN

Rx for a Market Comeback

*Market View
by Renaissance Capital
rencap.com*

March 19: Markets have been as broken this week, as we expected when we expressed sympathy for the idea of closing them until the markets could digest current news. Proof

that the virus is being brought under control is needed before investors can focus on the economic fallout from the lockdowns.

Hubei [the Chinese province in which the disease is believed to have originated] was in lockdown and schools were closed when the number of active coronavirus cases was 0.7 per 100,000 [persons]. The figure rose to a peak of 86 active cases per 100,000. [There's] good reason to doubt Hubei's figures (they were a pack of lies in the first half of January, so may have been still understated in late January). But every other province in China was in lockdown, with schools closed, in the first half of February, and none had as many as two active cases per 100,000.

Italy did not go into national lockdown until there were 14.5 cases per 100,000. Spain did slightly better at 12.3, and France did better still at 10. Italy didn't close its schools until it had 4.5 cases per 100,000 (March 4), and, amazingly, some in Europe waited even longer. The United Kingdom just announced that it will close all schools on Friday (March 20), but its active cases ratio [is likely to] be around 5.6 by that afternoon. The U.K. has failed to get ahead of Italy, and Italy failed to get ahead of Hubei. —CHARLES ROBERTSON

Feds Have Tons of Fiscal Ammo

*Special Report
by Wells Fargo Securities
wellsfargo.com*

March 18: Just how big could fiscal stimulus get? During the Great Recession, the federal budget deficit peaked around 10% of gross domestic product. Were the federal government to run a similar deficit this year, it would amount to about \$2.2 trillion.

But even this 10% figure probably does not represent the true upper bound on federal borrowing. During World War II, the federal budget deficit peaked at nearly 30% of GDP in 1943, and was more than 20% each year in the 1943-45 period.

A federal budget deficit of 30% of GDP today would amount to nearly \$7 trillion. Of course, financing these deficits required extraordinary efforts, such as sizable war-

bond programs and direct coordination between the Treasury and the Federal Reserve. While we doubt the fiscal response will be anything quite that big, the federal government possesses significant fiscal ammunition, particularly when real interest rates on Treasury securities remain negative.

—MICHAEL PUGLIESE

The Dollar Problem

*World Watch
by National Bank of Canada
nbc.ca*

March 20: The coronavirus pandemic has, not surprisingly, prompted a rush toward havens, including the world's reserve currency. The U.S. dollar reached an 18-year high this month. That's bad news for an already weakened global economy.

In theory, USD appreciation is a positive development for non-U.S. economies because their exports are suddenly more competitive. But that impact tends to be more than offset by headwinds generated through financial channels. According to the Bank for International Settlements, roughly 35% of global trade is financed by the banking system, with around 80% of that denominated in U.S. dollars. So, if the cost of financing rises, this will slow lending and borrowing in U.S. dollars, hurting trade volumes.

A stronger buck also can make it harder for firms to service their dollar credits. U.S. dollar-denominated debt held by nonbank borrowers outside the U.S. stood at around \$12 trillion at the end of last year, or nearly 19% of World GDP (excluding the U.S.), roughly double the exposure 20 years ago.

—KRISHEN RAGASAMY

Gold Looks Golden

*Gold & Silver Stock Report
by Clif Droke
clifdroke.com*

March 20: Gold's relative value to copper has risen to its highest in more than 10 years, while its value compared with silver is the

highest on record. The coronavirus has clearly had a negative impact on industrial demand for metals, while safety-related demand for gold has benefited.

Reuters observed that, on Thursday, copper “was just over 10,000 times less valuable than gold—the biggest discount since 2009, when copper prices also tumbled during the financial crisis.” Whenever gold has outperformed the red metal this dramatically over a three-to four week period, it has usually gone on to continue its outperformance for the next three to six months.

Another indication that gold's intermediate-term outlook is still favorable is how well the yellow metal has performed versus its sister metal, silver. Historically, whenever gold is vastly outperforming silver, as it is now, it speaks to the intensity of safety-related demand for [gold]. —CLIF DROKE

Kroger Looks Ready to Rally

*Phases & Cycles
by Phases & Cycles
phases-cycles.com*

March 17: Kroger [ticker: KRO] stock declined from \$42.75 in January 2016 to \$20.46 in June 2017, below a falling trend line and its falling 40-week moving average. Subsequently, the stock settled in a large, bullish technical pattern known as a “W” formation. The recent rise to \$37.70 suggests a breakout from this pattern and the start of a new major up-leg. A sustained rise above \$34 would confirm it.

Behavior indicators including the rising 40-week moving average confirm the bullish status. There is very good support near \$27-\$28 where the stock has maintained support throughout the recent market weakness. Only a sustained decline below \$26-\$27 would be negative. Point & figure measurements provide targets of \$37 and \$40. The large “W” pattern supports higher targets.

—MONICA RIZK, RON MEISELS

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New York Stock Exchange Composite List

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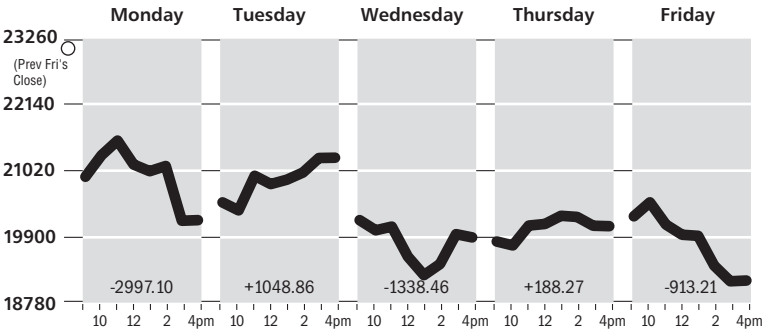
52-Week High	52-Week Low	Tick Sym	Yld P/E	Last	Div Chg. Amt.
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52-Week High	52-Week Low	Tick Sym	Yld P/E	Last	Div Chg. Amt.
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52-Week High	52-Week Low	Tick Sym	Yld P/E	Last	Div Chg. Amt.
52.78	8.56	AAR	AIR 2.2	cc 13.37	-5.63 .075
25.30	14.91	ABB	ABB	24 15.96	-1.66 ...
42.57	20.84	AdvantageAuto	ADM 9.5	10 21.05	-6.23 185
11.38	3.56	ACCO Brands	ACCO 6.5	4 3.97	-1.48 065
9.71	3.69	ADT	ADT 3.6	dd 3.87	-0.83 035
52.40	21.76	AECOM	ACM	dd 25.55	-7.85 ...
21.23	8.11	AES	AES 4.8	26 11.87	-1.13 1433
15.78	23.07	Aflac	AFL 4.2	6 26.73	-7.96 28
81.39	35.33	AGCO	AGCO 1.6	25 40.30	-15.03 16
4.77	2.03	AG Mortgage	MITT 39.3	2 4.56	-6.50 48
10.58	1.45	AH Belo A	AHC 18.5	3 1.70	-0.22 048
17.07	1.95	AMC Ent	AMC 3.8	dd 3.19	-0.03 03
89.22	45.04	AMN Healthcare	AMN	26 62.75	-11.73 ...
11.19	6.39	AMTD Intl	HKIB	7 7.41	-0.59 ...
2.47	0.38	ARC Document	ARC 7.3	8 5.5	-0.37 014
5.70	3.20	ASETech	ASX 3.1	14 3.40	-0.72 1607
72.66	29.04	ASGN	ASGN	10 33.97	-7.01 ...
39.70	28.18	AT&T	T 7.3	15 28.45	-6.02 52
8.29	3.43	A10 Networks	ATEN	dd 4.01	-0.37 ...
21.89	13.03	AVX	AVX 2.1	18 21.57	-10.13 115
67.51	31.82	AXIS Capital	AXS 4.3	10 13.38	-5.17 41
35.50	19.31	AZZ	AZZ 2.7	10 25.39	-5.42 17
72.45	14.80	Aaron's	AAAN 1.1	36 15.00	-15.13 04
98.25	67.95	Abbott Labs	ABT 2.1	31 68.00	-13.65 36
97.86	62.65	AbbVie	ABBV 9.9	13 68.82	-6.55 118
30.63	7.42	Abercrombie&Fitch	ANF 9.2	14 8.69	-2.59 20
29.55	12.44	Acadia Realty	AKR 7.8	25 14.79	-4.40 29
13.35	5.85	AccelEnt	ACEL	dd 5.60	-3.10 ...
3.30	0.85	AccelEntWt	ACELWt	dd	85.81 08
216.39	142.00	Accurent	ACN 2.1	20 149.94	-16.57 80
31.50	7.96	AccuInt'l	ATV	4 9.78	-2.38 ...
14.44	67.46	Acuity Brands	AYI 7	10 76.53	-19.15 13
33.50	21.91	Acushnet	GOLF 2.8	14 21.91	-4.25 155
7.70	3.58	Adcoagro	AGRO	dd 4.08	-0.98 ...
29.28	5.90	Adient	ADNT	dd 8.61	-5.34 ...
51.79	19.76	AdientGlbEdu	ATGE	12 22.55	-4.31 ...
132.55	73.74	AdvantaAuto	AL 1.3	11 75.03	-38.66 25
33.15	25.58	AdvDispos Svcs	ADSW	dd 31.30	-1.49 22
51.60	23.80	AdvDrainageSys	WMS 1.4	dd 25.86	-10.97 09
33.62	8.12	AdvanSix	ASIX	5 12.88	-12.18 ...
5.30	1.80	Aegion	AEG 12.1	5 2.38	-0.11 1736
64.86	10.42	AerCap	AER	2 18.51	-5.99 ...
57.27	30.11	AeroflotRckt	AJRD	23 38.62	-4.63 ...
115.63	47.03	AffiliatedMrgs	AMG 2.6	cc 48.77	-4.80 32
90.64	61.13	AgilentTechs	A 1.1	27 66.46	-2.74 18
84.88	31.00	AgnicoEagle	AEM 2.2	19 36.80	-4.07 20
80.51	45.23	Agree Realty	ADC 4.4	27 52.71	-20.08 585
49.96	8.41	Air Lease	AL 3.6	3 18.55	-7.21 15
237.01	87.43	AirProducts	APD 2.8	22 189.15	-17.21 134
32.47	19.11	Aircastle	AYR 4.4	14 29.05	-2.64 33
132.96	71.30	AlamoGroup	ALG 7	14 75.21	-24.22 13
7.78	3.34	AlamosGold	AGI	18 4.45	-0.56 ...
72.22	20.02	AlaskaAir	ALK 6.4	4 23.56	-14.39 375
92.40	50.02	AlbanyIntl	AIN 2.0	9 37.55	-6.56 19
99.05	53.02	Albermarle	ALB 2.9	11 53.45	-14.56 385
29.73	20.10	Alcoa	AA	dd 4.28	-2.52 ...
65.37	42.07	Alcon	ALC	dd 42.95	-10.17 ...
25.69	8.40	Alexander&Baldwin	ALEX 8.6	dd 8.84	-4.60 19
50.46	29.03	Alexanders	ARE 7.6	20 235.65	-34.39 450
174.14	120.16	AlexandriaREIT	ARE 3.3	40 123.31	-24.43 103
16.85	10.72	AlgonquinPwr	AQN 5.0	11 11.25	-1.83 140
231.14	147.55	Alibaba	BABA	Y 19 181.30	-12.70 101
847.95	454.39	Allegany	Y 0	8 467.71	-127.23 1500
27.49	6.22	AlleghenyTechs	ATI	3 6.25	-3.75 ...
139.24	81.61	Allegion	ALLE 1.5	19 82.84	-28.97 32
202.22	114.27	Allergan	AGN 1.7	dd 170.88	-12.97 74
88.60	53.17	Allete	ALE 4.5	15 54.71	-10.30 675
182.95	20.51	AllianceData	ADS 9.1	dd 27.55	-21.96 63
36.06	13.24	AllianceBernstein	AB 14.8	7 17.06	-7.10 85
50.46	29.03	AllisonTransm	ALSN 2.3	6 29.06	-3.94 17
125.92	64.13	Allstate	ALL 2.9	5 73.97	-18.39 54
35.42	10.22	AllyFinancial	ALLY 6.5	3 11.70	-8.87 19
19.84	7.74	AllyPncplProm	PINE 6.6	12 12.14	-1.09 20
10.80	3.59	AltaEquipment	ALTG	dd	3.76 -1.88 ...
1.84	0.39	AltaEquipWt	ALTGWt	dd	67 0.07 ...
160.11	75.17	Alteryx	AYX	cc 95.78	-7.41 ...
31.78	15.96	AlticeUSA	ATUS	90 19.10	-3.12 ...
57.88	34.14	Altria	MO 9.8	dd 34.28	-5.79 84
11.11	4.81	AlumOfChina	ACH	cc 4.90	-0.95 ...

FIVE-DAY DOW COMPOSITE

Delirium: The Dow dropped 17% last week, its worst decline since October 2008. Among individual stocks, Dow Inc. gained 6.8%, while Boeing lost 44% after requesting a government bailout.



52-Week High	52-Week Low	Tick Sym	Yld P/E	Last	Div Chg. Amt.
111.48	63.95	ArmstrongWorld	AWI 1.2	14 66.98	-20.79 20
86.62	39.25	ArrowElec	ARW	dd 46.86	-9.95 ...
38.09	17.69	ArtisanPrtsAsset	APAM 12.7	7 19.48	-2.79 60
123.45	39.36	AsburyAutomotive	ABG	5 50.60	-4.51 ...
5.82	0.47	AshfordHosp	AHT 17.3	dd 1.39	+0.39 06
81.82	39.98	AshtlandGlobal	ASH 2.6	4 42.61	-10.47 275
10.71	2.42	AspenAerogels	ASPEN	dd 5.21	-0.96 ...
34.02	15.35	AspenMarkFin	AMK	dd 15.35	-5.59 ...
23.26	10.72	AssociatedBanc	ASB 6.2	6 11.70	-2.14 18
65.46	26.34	AssocCapital	AC	7 16 27.48	-8.11 10
142.81	76.27	Assurant	AIZ 2.8	16 91.05	-13.48 63
50.77	13.64	AssureGuaranty	AGU 3.9	5 20.48	-14.08 20
51.55	38.15	AvayaZemeca	AZN 3.5	76 39.42	-2.86 95
24.81	1.20	AtHomeGroup	HOME	3 2.04	-1.33 ...
4.04	1.00	Atento	ATTO	dd 1.01	-0.67 ...
50.43	13.37	Athens	ATH	1 16.72	-10.28 ...
43.50	10.85	AtkoreIntl	ATKR	6 18.88	-10.28 ...
2.67	1.70	AtlanticPower	AT	dd 1.99	-0.03 ...
14.62	5.39	Atlas	ATCO 7.4	4 6.72	-1.02 125
121.08	85.56	AtmosEnergy	ATO 2.7	19 86.20	-14.47 575
9.48	0.60	AuroraCannabis	ACB	dd	7.30 -0.04 ...
117.99	63.01	Autohome	ATHM 1.2	16 63.71	-12.29 77
67.01	38.16	Autoliv	ATA 6.2	8 40.18	-16.55 62
53.19	23.59	AutoNation	AN	5 26.50	-7.51 ...
1274.14	720.88	AutoZone	AZO	11 728.13	-284.00 ...
96.96	53.04	Avalara	AVLR	dd 62.00	-10.97 ...
229.40	128.58	Avalonbay	AVB 4.8	23 131.62	-61.54 159
57.24	40.00	Avangrid	AGR 4.2	18 41.63	-4.17 44
48.07	21.04	AvanosMedical	AVNS	dd 21.14	-5.23 ...
19.59	6.66	Avantor	AVTR	dd 10.41	-1.40 ...
22.35	6.13	Avaya	AVYA	dd 8.15	-1.72 ...
141.09	88.01	AveryDennison	AVY 2.6	25 90.80	-15.28 58
5.02	0.62	Aviant	AVH 11.4	dd 9.90	-0.90 0418
53.00	35.16	Avista	AVA 4.5	12 36.16	-2.84 405
32.20	12.92	AvxelleCoating	AXA	14 14.79	-4.94 405
33.44	13.69	AxosFinancial	AX	6 15.55	-3.37 ...
44.55	5.30	Azul	AZUL	dd 7.14	-7.78 ...
16.80	10.10	AzurePowerGbl	AZRE	dd 14.40	-2.40 ...

B

52-Week High	52-Week Low	Tick Sym	Yld P/E	Last	Div Chg. Amt.
26.13	10.39	B&G Foods	BGS 10.8	15 17.61	+3.80 475
6.45	1.11	B&M CapitalA	BXA 4.0	7 1.25	-1.20 0125
49.58	35.06	BCE	BCE 7.0	14 35.90	-9.42 608
6.75	4.01	BEST	BEST	dd 5.12	...
23.99	6.01	BGP Staffing	BGSP 14.4	7 8.34	-2.92 30
52.92	29.78	BHP Group	BHP 9.1	8 31.47	-2.82 130
51.87	23.64	BHP Group	BLB 11.5	7 24.91	-2.67 130
31.19	18.84	BJ's Wholesale	BJ	18 24.69	+0.91 ...
17.08	6.41	BP Midstream	BPMP 15.9	5 8.31	-0.98 3475
45.38	15.51	BP	BP 14.4	15 17.39	-4.78 63
28.19	2.77	BRP Prudhoe	BRP 40.2	2 4.12	-0.44 4242
9.96	2.27	BRT	BRTS	79 2.16	-0.71 ...
79.75	6.00	BRT Apartments	BRT 9.0	dd 8.97	-3.88 129
70.75	40.00	BWX Tech	BWXT 1.8	17 42.79	-7.98 219
5.50	0.77	Banco&Wilcox	BW	dd 9.88	-0.67 ...
70.83	44.20	BakerMether	BMI 1.5	28 45.73	-9.04 17
28.32	9.18	BaggerHuges	BKR 7.2	46 10.00	-2.73 18
82.82	53.91	Ball	BALL 2.1	33 64.89	-8.95 15
19.12	7.13	BancoCalifornia	BANC 2.8	cc 8.52	-3.83 06
12.58	2.21	BancoBilva	BBAR 10.9	1 2.40	-0.51 261
9.48	2.80	BancoBBVA	BBVA 7.7	4 2.99	-0.66 1728
9.48	3.37	BancoBradesco	BBD 4.9	5 3.45	-1.12 0034
30.30	12.50	BancodeChile	BCH	cc 15.52	-1.60 32
22.95	10.04	Blaex	BLX 13.4	5 11.46	-4.26 385
77.31	14.05	BancoMacro	BMA 13.3	1 16.36	-4.98 2202
12.85	4.56	BancoSanBrasil	BMSB 12.5	9 4.99	-1.34 0645
31.26	11.43	BcoSanChile	BSAC 5.9	28 14.02	-2.79 11089
8.74	2.86	BancoSantMex	BSMX 10.2	4 3.06	-2.14 1855
5.25	2.04	BancoSantander	SAN 11.6	5 19.19	-0.52 109
56.10	18.19	BancoColombia	CIB 6.4	4 2.02	-10.20 318
32.97	18.05	BancoofSouth	BXS 3.7	9 20.13	-4.07 185
35.72	19.00	BankAmerica	BAC 3.7	9 19.67	-4.49 18
40.65	14.45	BankofButterfield	BTB 11.0	5 15.03	-6.62 44
95.68	53.74	BankofHawaii	BKH 5.0	10 53.96	-11.18 67
79.93	38.31	BankofMontreal	BMO 7.4	7 43.15	-7.93 7976
58.61	28.40	BankNY Mellon	BNK 4.3	6 29.07	-5.06 31
52.25	33.09	BankNovaScotia	BNS 8.0	7 34.83	-7.98 6772
37.60	14.50	BankUnited	BCU 5.0	6 18.46	-6.69 23
10.22	3.41	Barclays	BKS 11.2	cc 4.01	-3.19 148
10.59	4.67	BaringsBDC	BBDC 10.2	5 6.27	-1.96 16
5.10	1.38	Barnes&NobleEdu	BNED	dd 1.39	-0.91 ...
68.80	30.22	BarnesGroup	B 2.0	11 32.82	-7.30 16
22.57	11.65	BarrickGold	GOLD 1.8	7 15.88	+0.21 107
31.97	11.15	BauschHealth	BHC	dd 13.66	-5.14 ...
95.00	69.10	BaxterIntl	BAX 1.2	38 75.75	-5.24 22
2.32	0.20	BaystarEnergy	BTE	dd 2.95	-0.12 ...
53.61	28.40	BankNY Mellon	BNK 4.3	6 29.07	-5.06 31
28.72	33.09	BankNovaScotia	BNS 8.0	7 34.83	-7.98 6772
37.60	14.50	BankUnited	BCU 5.0	6 18.46	-6.69 23
10.22	3.41	Barcl			

New York Stock Exchange Composite List

Table with 10 columns: 52-Week High/Low, Ticker, Name, Div, Yld, P/E, Last, Chg, Amt. Includes entries like CanPacRlyw, Cango, Carnae, etc.

Table with 10 columns: 52-Week High/Low, Ticker, Name, Div, Yld, P/E, Last, Chg, Amt. Includes entries like SABESP, EngGr-Cmg C, EngGr-Cmg C, etc.

Table with 10 columns: 52-Week High/Low, Ticker, Name, Div, Yld, P/E, Last, Chg, Amt. Includes entries like DriveQuip, DriveShack, Ducommun, etc.

Table with 10 columns: 52-Week High/Low, Ticker, Name, Div, Yld, P/E, Last, Chg, Amt. Includes entries like Fabrinet, FactSet, FairSacc, etc.

Table with 10 columns: 52-Week High/Low, Ticker, Name, Div, Yld, P/E, Last, Chg, Amt. Includes entries like GlobalNetLease, GlobalPtnrs, GlobalPayments, etc.

New York Stock Exchange Composite List

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 3.62 22.65 HUM, 3.80 1.11 HuntCosFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 22.58 9.42 KinderMorgan, 3.21 1.53 KingswayFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 18.93 3.20 MarathonOil, 69.65 15.28 MarathonPetro, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 17.66 4.36 NewResidInt, 8.35 1.72 NewSeniorBor, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 51.74 21.79 IAA, 15.42 7.84 ICICI Bank, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.04 2.01 LAIX, 12.16 1.75 LatamAirlines, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.39 9.87 MegalithFinAcq, 10.94 10.20 MegalithFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 25.75 6.01 Irmx, 64.40 1.08 IndependenceConr, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.04 2.01 LAIX, 12.16 1.75 LatamAirlines, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.39 9.87 MegalithFinAcq, 10.94 10.20 MegalithFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 19.85 39.34 Inphi, 14.92 22.59 Inspirety, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.04 2.01 LAIX, 12.16 1.75 LatamAirlines, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.39 9.87 MegalithFinAcq, 10.94 10.20 MegalithFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 16.11 31.38 IntiFlavors, 56.25 22.59 Inspirety, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.04 2.01 LAIX, 12.16 1.75 LatamAirlines, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.39 9.87 MegalithFinAcq, 10.94 10.20 MegalithFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 11.63 3.90 Invacare, 18.30 2.75 InvacoreMtg, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.04 2.01 LAIX, 12.16 1.75 LatamAirlines, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.39 9.87 MegalithFinAcq, 10.94 10.20 MegalithFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.01 3.03 J Alexander's, 42.01 26.02 JBG SMITH's, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.04 2.01 LAIX, 12.16 1.75 LatamAirlines, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.39 9.87 MegalithFinAcq, 10.94 10.20 MegalithFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.97 2.15 JumiaTech, 49.59 9.50 JuniperIndustrial, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.04 2.01 LAIX, 12.16 1.75 LatamAirlines, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.39 9.87 MegalithFinAcq, 10.94 10.20 MegalithFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 28.61 11.81 KAR Auction, 42.90 21.16 KB Fin, etc.

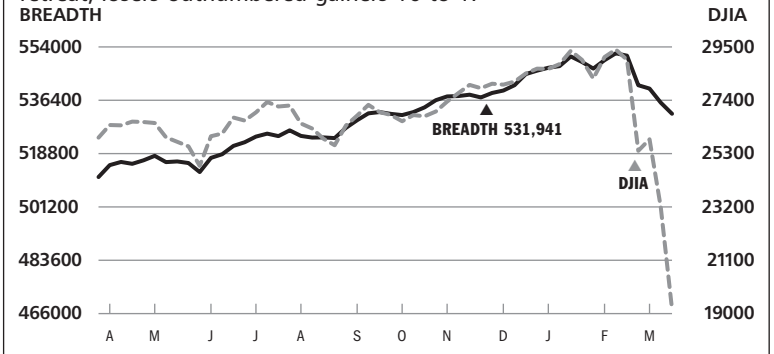
Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 12.04 2.01 LAIX, 12.16 1.75 LatamAirlines, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 10.39 9.87 MegalithFinAcq, 10.94 10.20 MegalithFin, etc.

Table with 5 columns: 52-Week High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

NYSE CUMULATIVE DAILY BREADTH vs DJIA

No Shelter: The S&P 500 Index fell 15%, for it's worst weekly loss since the 2008 financial crisis. With NYSE cumulative breadth in full retreat, losers outnumbered buyers 16 to 1.



In generating this chart, we subtract each day's NYSE composite declines from that day's advances. The resultant total is added to the next day's total, and so on. When all five day's numbers are added together, this produces the weekly figure we plot. Dec. 31, 1985=1000.

High/Low Name Ticker Div

Table with 5 columns: High/Low, Name, Ticker, Div, Amt. Includes entries like 106.91 33.49 NewRelic, 17.66 4.36 NewResidInt, etc.

High/Low Name Ticker Div

Table with 5 columns: High/Low, Name, Ticker, Div, Amt. Includes entries like 10.33 9.11 OspreyTechA, 1.05 0.69 OsgpsTechInt, etc.

O

Table with 5 columns: High/Low, Name, Ticker, Div, Amt. Includes entries like 24.95 8.63 OFGBancorp, 46.43 8.00 OGE Energy, etc.

PQ

Table with 5 columns: High/Low, Name, Ticker, Div, Amt. Includes entries like 35.15 6.25 PBF Energy, 22.00 3.06 PBF Logistics, etc.

New York Stock Exchange Composite List

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like PAA 25.4, PAPA 24.0, PFLT 24.1, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like SAP 1.3, S&P Global 1.3, SC Health 1.3, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like StanleyBlackDck 17.6, StanleyBlackDck 17.6, StanleyBlackDck 17.6, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like TortoiseAcqn SHLL, TortoiseAcqn SHLL, TortoiseAcqn SHLL, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like VantageHolding VNCE, VantageHolding VNCE, VantageHolding VNCE, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like RELX 3.4, RELX 3.4, RELX 3.4, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like TALEducation TAL, TALEducation TAL, TALEducation TAL, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like UBS Group UBS, UBS Group UBS, UBS Group UBS, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like VEREIT VER, VEREIT VER, VEREIT VER, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like XFINancial XYF, XFINancial XYF, XFINancial XYF, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like RYANREIT RYAN, RYANREIT RYAN, RYANREIT RYAN, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like S&P Global 1.3, S&P Global 1.3, S&P Global 1.3, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like TALEducation TAL, TALEducation TAL, TALEducation TAL, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like UBS Group UBS, UBS Group UBS, UBS Group UBS, etc.

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like XFINancial XYF, XFINancial XYF, XFINancial XYF, etc.

NYSE ARCA

Table with 10 columns: 52-Week High/Low, Name, Ticker, Div, Yld, P/E, Last, Chg., Amt. Includes entries like EmpireStateReal250 FISK, EmpireStateReal250 FISK, etc.

Nasdaq Issues

Nasdaq Issues includes stocks traded on the Nasdaq Global Select and Nasdaq Global Market tiers. They are eligible for inclusion on the basis of SEC-approved market value of publicly-held shares, trading volume, price and number of market-makers.

52-Week High	52-Week Low	Tick	Name	Sym	Yld P/E	Last	Chg.	Div Amt.	
A									
60.00	40.48	AAON	AAON	...	7.44	45.39	-6.71	16	
53.70	21.56	ACADIA Pharm	ACAD	...	dd	33.37	-2.26	...	
10.37	20.03	ACI Worldwide	ACIW	...	...	39.22	-4.63	...
39.14	4.07	AC Immune	ACIU	...	...	7.47	+0.07	...
61.20	15.21	ACM Research	ACMR	...	...	23.22	-0.80	...
5.31	1.45	ADMA Biologics	ADMA	...	...	2.25	+0.09	...
19.65	6.25	ADIC Inc	ADIC	...	...	9.83	-2.18	16
1.93	5.45	ALJ Regional	ALJU	...	...	5.45	-0.46	...
13.53	4.41	AMAG Pharm	AMAG	...	...	5.52	-0.46	...
61.13	22.83	AMC Networks	AMCX	...	...	4.27	-3.21	...
80.65	48.02	Amerisafe	AMSF	...	2.0	11.53	-1.27	27	
15.15	7.47	A-Mark PrecMet	AMRK	...	...	3.7	+0.06	-22
18.62	4.10	ANGI HomeSvcs	ANGI	...	...	72	+4.82	+0.18
86.96	28.28	ANI Pharm	ANIP	...	...	76	+36.11	+0.01
298.00	174.25	Ansys	ANSS	...	...	41	213.11	+23.21
23.80	7.19	AR Restaurants	ARRR	...	10.7	8.94	-4.87	25	
4.52	0.27	ASML	ASML	...	1.0	36.16	-40.85	158	
319.20	187.70	ATA Creativity	AACG	...	...	90	+0.05	...
70.00	37.01	ATN Intl	ATNI	...	1.2	57.56	+6.15	17	
18.50	2.23	AveoPharma	AVEO	...	...	2.62	-0.62	...
29.32	9.76	AVROBIO	AVRO	...	...	13.65	-1.23	...
6.14	1.85	AXT	AXT	...	...	50	+1.16	...
33.39	10.04	Acorned	ACMD	...	...	13.95	-2.16	...
69.00	4.28	AcaciaComm	ACIA	...	...	84	64.34	-2.65
3.50	1.75	AcaciaResearch	ACTG	...	...	2.29	-0.01	...
35.40	11.09	AcadiaHealthcare	ACHC	...	...	12.59	-9.23	...
97.56	37.01	AcceleroPharma	XLRN	...	...	7.20	-9.59	...
4.89	1.35	Accura	ARAY	...	...	1.56	-0.17	...
4.00	0.80	AcelRxPharm	ACRX	...	...	8.4	-0.19	...
7.15	0.70	ActavisTherap	ACTS	...	...	90	+0.03	...
14.04	0.70	AcordaTherap	ACOR	...	...	97	+10.10	...
64.53	41.84	ActiniumBliz	ATVI	...	8	27	55.05	-9.99	41
7.99	1.90	AdamasPharm	ADMS	...	...	2.41	-0.29	...
6.00	0.71	AdaptiveImmuneTher	ADAP	...	...	2.62	-0.10	...
55.12	15.19	AdaptiveBiotech	ADPT	...	...	22.93	+2.33	...
104.56	43.13	AdiusHomeCare	ADUS	...	...	39	57.50	-7.20
6.49	1.23	ADVantage	AEY	...	...	1.99	-0.44	...
386.73	253.13	Adobe	ADBE	...	...	45	295.34	-40.16
17.81	4.80	Adtran	ADTN	...	6.2	5.80	-0.59	09	
4.59	0.90	AduroBioTech	ADRO	...	...	2.50	-0.06	...
15.34	4.45	AdvEmissions	ADES	...	19.0	3.52	-1.55	25	
58.29	33.38	AdvGenetics	AEIS	...	...	21	35.91	-10.25
79.23	24.55	AdvMicroPharm	AMD	...	...	39.61	-4.29	...
10.80	4.21	Advaxis	ADXS	...	...	55	+0.04	...
18.00	0.20	AdvantBio	ADVM	...	...	10.50	+0.17	...
23.65	12.66	Advent	ADVN	...	...	13.95	-1.62	...
1.10	0.35	AegleBioTherap	AGLE	...	...	3.99	-0.81	...
9.70	3.37	Aemetis	AMTX	...	...	7.1	+0.11	...
49.40	11.60	AeriePharm	AERI	...	...	11.84	-2.83	...
72.00	45.00	AeroVironment	AVAV	...	...	53.45	+3.04	...
12.56	0.43	AestheticMed	AHII	...	...	8.65	-0.94	...
4.43	1.42	Affimed	AFMD	...	...	1.86	+0.18	...
34.47	14.73	Aiya	AFYA	...	...	15.07	-3.96	...
37.17	12.61	Aglysis	AGYS	...	...	12	13.72	-6.34
68.89	27.07	AgiosPharm	AGIO	...	...	33.30	-3.77	...
3.55	1.00	AgroFresh	AGFS	...	...	1.15	-0.31	...
0.11	0.01	AgroFresh Wt	AGFW	...	...	0.01	-0.01	...
37.00	10.09	AimuneTherap	AIMT	...	...	11.51	-3.47	...
24.50	10.45	AIRT	AIRT	...	...	12.75	-2.75	...
0.30	0.03	AIRT Wt	AIRTW	...	...	15	+0.08	...
25.90	13.20	AirTransportSvcs	ATSG	...	...	17	17.52	+7.75
37.17	12.61	Aigiosys	AGYS	...	...	28	82.12	+2.75
32.57	8.00	AkceaTherap	AKCA	...	...	12.34	-0.33	...
10.53	2.99	AkebiaTherap	AKBA	...	...	5.84	-0.04	...
34.00	10.78	AkeroTherap	AKRO	...	...	16.88	-2.12	...
5.46	0.37	Akorn	AKRX	...	...	54	-1.11	...
17.10	32.00	Alarm.com	ALRM	...	...	36	38.73	+2.24
2.28	1.19	AlaskaCommSvcs	ALSK	...	0.17	1.55	-0.23	09	
35.93	15.61	Alector	ALCX	...	...	12	15.32	+0.78
141.80	87.00	AlkermesPharm	ALXN	...	...	80.35	-0.09	...
28.35	22.55	Alcon	ALCO	...	1.2	28.94	-2.19	09	
334.64	127.88	AlightTech	ALGN	...	...	26	144.82	-61.06
17.10	...	AlimeraSciences	ALIM	...	...	3.75	-0.60	...
37.79	11.98	Alkermes	ALKS	...	...	13.38	-2.76	...
139.50	30.23	Allakos	ALLK	...	...	58.92	+6.31	...
39.59	22.76	AllerganBchsh	ABTX	...	1.6	24.92	-1.60	10	
193.20	106.00	AllerganPharm	ALOG	...	...	50.94	-4.06	70
7.31	0.53	AlleienaPharm	ALNA	...	...	90	-0.08	...
20.65	3.03	AllianceResource	ARLP	...	41.2	3.88	-0.83	40	
60.28	40.21	AlliantEnergy	LNT	...	3.7	17.40	-10.20	38	
49.98	19.00	AlliedMotionTech	AMOT	12	14.48	-11.33	03
33.80	17.43	AllogenTherap	ALLO	...	...	19.25	-2.80	...
13.05	6.44	Allot	ALTT	...	...	6.89	-2.14	...
12.02	4.56	AllscriptsHlthcr	MDRY	...	...	103.85	+2.28	...
134.51	82.00	AllscriptsPharm	ALTY	...	...	5	94.45	-4.06
14.50	5.85	AlphaOmegaSvcs	AOSL	...	...	5.88	-2.14	...
1530.74	1027.03	AlphabetA	GOOGL	...	...	22	1068.21	-146.06
112.21	1025.00	AlphabetC	GOOG	...	...	22	1072.32	-147.41
7.93	2.00	Alphatec	ATEC	...	...	2.35	-1.53	...
8.24	2.05	AlpineImmune	ALPN	...	...	2.37	-0.43	...
43.28	23.81	AltairEngng	ALTR	...	...	25.72	-3.50	...
4.45	1.51	Altimmune	ALTM	...	...	5.94	-0.06	...
77.29	44.83	AltimmunePart	ALTP	...	...	8.20	-0.95	...
44.93	12.00	AltitudeMotion	AIMC	...	4.5	8.15	-1.33	17	
6.33	0.75	AltusMidstream	ALTM	...	...	90	-0.28	...
20.00	8.47	AmalgamBank	AMAL	...	3.5	9.08	-2.69	08	
216.12	8.58	Amarin	AMRN	...	...	10.64	-1.91	...
265.95	168.03	Amaزون.com	AMZN	...	...	80	184.69	+61.09
73.59	36.02	Ambarella	AMBA	...	...	7.23	-0.31	4.88
17.29	44.83	Amdocs	AMDO	...	2.8	42.92	-11.90	3275	
7.27	10.65	Amedisys	AMED	...	...	149	67.30	+7.00
23.59	10.85	AmerantBancorpA	AMTB	...	...	12	14.71	-0.01
17.50	8.01	AmerantBancorp	AMTB	...	...	7.85	-2.32	...
426.50	235.15	Amerco	UHAL	15	241.61	-66.14	10
8.18	4.10	AmerFirstMultim	ATAX	...	10.5	11.47	-1.73	125	
35.24	10.01	AmerAirlines	AAL	...	3.9	31.38	-3.93	10	
15.18	4.20	AmericanFin	AFIN	...	15.2	7.22	-0.07	0917	
41.70	21.50	AmericanBank	BZLN	13	21.39	-3.25	27
12.37	65.75	AmericanOutdoors	ANAT	...	4.8	68.02	-12.78	82	
10.94	5.41	AmerNatOut	ANOC	2.9	7.70	-1.17	...
34.97	18.47	AmericanPublic	APCI	37	23.24	+2.80	...
16.43	8.25	AmerRvrBksh	AMRB	...	3.4	8.27	-1.23	07	
19.82	9.05	AmerSoftware	AMSW	...	4.0	44	11.04	-2.07	11
14.16	4.52	AmerSupercond	AMSC	...	...	4.64	-0.81	...
117.70	36.86	AmericanFoodMk	AMWD	9	43.02	-14.79	...
47.50	35.18	AmerCarMart	CRMT	11	40.94	-41.97	...
44.90	18.56	AmerisBancorp	ABCB	...	2.9	20.76	-4.93	15	
4.30	2.96	AmeriServFin	ASRV	...	3.3	3.04	-0.66	025	
244.99	166.30	Amgen	AMGN	...	3.4	158.25	-13.85	160	
14.62	6.25	AmicusTherap	FOLD	...	...	8.57	+3.00	...
15.25	5.40	AmkorTech	AMKR	...	...	6.95	-1.08	...
23.96	12.33	AmphastarPharm	AMPH	12	12.66	-1.53	...
7.96	3.55	AmtechSystems	AMTS	...	...	4.04	-0.01	...

52-Week High	52-Week Low	Tick	Name	Sym	Yld P/E	Last	Chg.	Div Amt.	
5.75	1.40	Amrys	AMRS	...	...	2.23	+0.39	...
127.30	79.08	AnalogueDevices	ADI	...	2.9	26	85.08	-7.71	62
83.10	10.00	AnalogBio	ANAB	...	...	12.25	-2.04	...
33.96	10.00	Andersons	ANDE	...	4.0	32	17.36	+0.28	175
25.48	7.48	AngioDynamics	ANGO	6	8.66	-0.50	...
75.72	22.01	AnikaTherap	ANIK	14	25.74	-6.20	...
12.18	5.22	AnPacBioMed	ANPC	...	...	7.30	-0.05	...
45.04	16.85	ApellisPharm	APLS	24	41.14	-1.24	...
46.70	13.77	ApogeeEnt	APOG	...	5.0	11	15.13	-6.49	1875
4.08	1.24	ApollonEnt	APEN	...	...	2.15	+0.39	...
18.33	5.20	ApollonInv	AINV	...	23.2	8	7.75	-3.44	45
148.07	74.93	AppFolio	APPF	86	87.60	-13.51	...
63.77	29.07	Appian	APPN	35	42.28	-0.73	...
327.85	170.27	Apple	AAPL	...	1.3	18	229.24	-48.73	77
10.42	2.29	AppliedGenetic	AGTC	...	...	2.91	-0.22	...
69.44	36.64	AppliedMaterials	AMAT	...	2.3	13	37.99	-12.90	22
15.56	0.40	AppliedOptoelec	AOOI	...	...	6.74	+0.68	...
57.39	7.95	AppliedTherap	APLT	27	0.00	-0.83	...
53.11	15.10	AppiaTherap	APRE	...	...	32.60	-8.49	...
5.25	1.60	Apptiny	APTXY	...	...	2.13	-0.11	...
33.28	1.66	Aptorum	APRM	...	...	2.68	+0.03	...
8.59	3.18	ApyxMedical	APYX	...	...	3.53	-2.01	...
10.00	1.41	AquestivaTherap	AQST	...	...	1.86	+0.18	...
15.62	3.34	Aravive	ARAV	...	...	3.64	-0.71	...
41.56	0.40	ArctiaBiopharma	ARCB	...	1.7	13	19.29	-4.08	08
48.32	25.55	ArchCapital	ACGL	...	...	25.97	-6.80	...
59.49	28.35	ArcoPlatform	ARCO	40	40.71	-4.13	...
19.00	4.85	ArcturusTherap	ARCT	...	...	12.08	+2.77	...
40.88	17.10	ArctusBioTherap	AROT	...	...	33.32	+10.66	...
6.88	2.10	Ardeley	ARDX	...	...	5.33	+0.04	...
84.25	32.95	ArenaPharm	ARNA	5	38.13	-3.12	...
13.33	7.90	AresCapital	ARCP	...	15.4	6	10.39	-4.26	26
169.50	103.75	ArgenX	ARGX	...	...	118.84	-4.40	...

Nasdaq Issues

52-Week High	52-Week Low	Tick	Name	Div	Yld	P/E	Last	Chg.	Am't.
14.80	10.60	DonegalGroup	DB	4.4	8	11.61	-0.10	1275	
21.46	8.71	DorchesterMinis	DMPL	19.4	6	9.56	-1.85	3612	
95.72	46.98	DormanProducts	DOM		23	59.53	-2.36		
8.50	2.27	DownEast	DOV		3	14.27	-0.17		
26.20	14.55	Dropbox	DBX		47	17.59	-0.76		
24.52	2.82	DuluthHoldings	DLTH		8	4.81	-0.86		
84.74	38.51	Dunkin'	DNKN	4.1	14	39.68	-22.27	4025	

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10.62	5.50	ECMOHO	MOHO		37	8.00	+0.65		
5.42	1.46	EDAP TMS	EDAP		24	1.98	-0.36		
17.73	10.47	ESSA Bancorp	ESSA	3.3	11	23.29	+0.67	11	
57.30	25.76	E TRADE	ETFC	1.9	8	28.98	-1.73	14	
31.93	10.12	EVRAID	EVOP		47	14.18	-5.74		
4.97	2.00	EXFO	EXFO		25	11.57	-0.11	095	
22.98	1.74	EagleBncpMkt	EBMT	2.4	9	15.37	-0.11	095	
5.92	1.52	EagleBnkShp	EBLT		47	1.87	-0.35		
64.94	33.80	EagleBank	EGRX		37	36.87	-2.44		
52.97	27.29	EastWestBncP	EWBC	3.7	6	29.55	-2.41	275	
31.97	18.75	Eastern	EMLT	3.3	9	19.10	-6.47	11	
42.00	27.21	eBay	EBAY	2.3	13	27.58	-6.41	16	
53.94	8.75	EBX	EBIX	2.2	4	13.50	-2.79	075	
15.25	14.17	EchoGloballog	ECHO		29	16.34	-0.52		
45.23	25.23	EchoStar	SATS		47	30.01	-1.10		
34.37	14.01	EditasMedicine	EDIT		47	19.08	-0.27		
9.65	3.07	EduocDev	EDUC	5.3	5	3.74	-0.64	05	
14.57	9.14	EHand	EH		10	16.16	-0.11		
152.19	49.89	EHealth	EHTH		39	102.76	-19.98		
66.56	20.83	EidosTherap	EIDX		44	47.4	+0.94		
15.92	4.56	Eli LillyBioPharm	ELI		6	5.59	-0.32		
47.25	14.00	Elion	ELNB		29	16.34	-0.52		
16.65	6.15	EliPolLoCo	LOCO		12	7.88	-1.54		
16.75	10.00	ElitSystems	ESLT	1.5	29	11.97	-3.11	44	
70.74	6.02	EldoradoResorts	ERI		9	8.82	-9.40		
9.10	0.32	electroCore	ECOR		44	4.9	-0.05		
114.13	85.69	ElectronicArts	EAX		9	86.94	-10.12		
13.46	2.01	ElonixPharm	ELPX		40	2.52	-0.33		
18.25	1.46	Elumina	ELMN		10	6.27	-0.28		
6.34	1.71	EmmisComm	EMMS		47	1.95	-0.04		
10.12	3.88	EnantaComm	ENTA		29	46.76	-7.17		
40.16	15.27	EncoreCapital	ECAP		4	20.06	-15.39		
62.08	38.66	EncoreWire	EWIR	2	14	39.12	-4.72	02	
9.10	1.97	Endoint	ENDP		44	3.01	-0.92		
8.14	0.60	Endologix	ELGX		47	7.2	-0.21		
7.74	3.11	EnduroPharm	ENPH		4	1.49	-0.80		
59.15	8.57	EnphaseEnergy	ENPH		21	26.06	-6.86		
58.92	24.06	EnsignGroup	ENSG	6	17	33.28	-1.89	05	
213.99	94.58	EnstarGroup	ENSG		3	123.60	-33.60		
9.25	1.75	EntasisTherap	ETTX		47	2.71	-0.01		
59.05	33.75	Entegris	ENTG	8	21	39.03	-8.34	08	
34.75	22.00	EnterpriseBanc	EBTC	3.0	8	23.00	-8.00	175	
48.81	26.72	EnterpriseFinSvcs	EFIV	2.7	8	26.25	-3.20	18	
47.92	9.74	Enzym	ENZM		10	14.07	-7.26		
99.63	42.53	Epius	PLUS		9	47.32	-13.16		
4.74	2.40	EpionEnergy	EPNS		8	2.54	-0.22		
8.66	2.42	Equinix	EQIX		47	3.23	+0.25		
657.00	440.72	Equinix	EQIX	2.1	84	506.52	-114.57	266	
31.91	13.63	EquiVcsBs	EQBK		10	16.31	-3.30		
27.23	13.20	Erinelliandent	ERIE	2.2	29	17.11	+22.66	965	
61.18	1.85	ErigenPharm	ERIG		10	6.27	-0.78	3025	
3.24	0.55	ErigenPharm	ERIG	8.3	12	6.06	-2.26	125	
76.98	24.82	EsperionTherap	ESPR		47	34.16	-0.27		
10.20	5.50	EsperionTherap	ETON		47	3.10	-0.80		
71.80	31.00	Etsy	ETSY		42	31.69	-17.32		
17.25	6.127	EuroWorld	EEFT		13	78.32	-13.47		
10.09	3.01	EvetoBioScience	EVET		47	3.42	-0.11		
5.79	0.10	Everglory	EVGL		47	0.01	-0.04		
42.08	59.83	EverQuote	EVBS		47	10.27	-1.63		
48.23	7.27	EverQuote	EVER		47	26.88	-7.28		
9.24	1.75	EverspinTech	MRAM		47	2.38	-0.17		
2.65	0.70	Evgene	EVGN		47	9.1	-0.12		
29.40	3.12	Evolus	EOLS		47	3.63	-1.33		
29.86	11.54	Exagen	XOGL		47	15.90	-2.80		
25.20	13.87	Exelixis	EXEL		15	15.15	-1.62		
51.18	28.42	Exelixis	EXEL	4.9	10	28.42	-15.63	3025	
79.78	41.29	ExService	EXLS		22	42.80	-16.65		
9.60	3.55	ExOne	XONE		47	4.40	+1.25		
12.55	6.51	ExoWorld	EXPI		47	7.33	-2.89		
14.00	40.76	Expedia	EXPE	2.8	13	48.80	-20.33	34	
81.64	52.85	ExpeditorsIntl	EXPD	1.8	16	54.90	-10.21	50	
82.82	34.38	Exponeut	XPO	1.3	39	60.21	-7.48	19	
18.76	5.55	ExtendedStayHm	EXTD	13.0	40	7.08	-0.58	23	
14.37	6.21	ExxonMobil	XOM		47	30.01	-0.77	0447	
8.50	1.43	EyePointNetworks	EYPT		47	2.27	-1.38		
2.69	0.81	EyePointPharm	EXTR		47	0.92	-0.15		
11.25	4.24	Ezcorp	EZPW		30	3.84	-0.43		

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64.99	35.39	FARO Tech	FARO		46	36.28	-11.04		
168.94	79.78	FASNetwork	FFIV		15	100.14	-5.56		
60.00	38.00	FRP Holdings	FRPH		22	35.06	-2.82		
22.40	13.10	FaceBook	FB		23	149.73	-20.55		
16.60	5.66	FactNetwork	FUO		26	9.94	-0.41		
35.55	16.19	FanDuel	FND	6.0	37	18.18	+1.13	30	
22.98	5.94	FarmVestBros	FVBS		47	6.39	-0.78		
39.31	28.38	Fastenal	FAST	3.5	21	28.74	-5.35	25	
32.39	12.59	FateTherap	FATE		47	22.38	+1.65		
17.91	10.07	FedNet	FNHC	3.3	40	10.80	-0.40	09	
2.48	0.35	Ferroglobe	GSM		47	4.4	-0.06		
55.71	22.65	FibroGen	FGEN		47	24.87	-6.70		
70.00	40.30	FidelityD&D	FDDB	2.4	15	46.99	-0.19	28	
11.82	5.94	FidelityInvestm	FIDV		47	6.39	-0.78		
31.84	11.00	FifthThirdBanc	FTIB	8.4	4	12.91	-7.27	27	
97.08	57.12	51job	JOBS		55	60.52	-4.45		
32.28	17.78	FinIntSystems	FISI	7.2	5	14.50	-5.10	26	
18.34	7.54	FireEye	FEYE		47	9.81	-0.20		
41.34	18.57	FirstBancorpNC	FBNK	3.4	7	20.93	-4.01	18	
40.84	18.22	FirstBancorp	FBNK	6.1	8	19.61	-0.25	30	
35.88	15.88	FirstBancshares	FBSM	2.4	7	16.95	-3.36	10	
11.82	6.01	FirstBank	FBSA	1.9	9	6.42	-1.73	03	
20.20	11.00	FirstBusiness	FBUS	6.2	8	14.17	-3.56	22	
27.35	13.45	FirstBusFinSvcs	FBFC	4.5	5	14.61	-0.33	165	
54.12	27.08	FirstCitizBschA	FNCA	6	7	28.20	-6.14	40	
22.31	18.35	FstComstBsch	FCCB	4.5	9	22.46	-4.00	25	
35.90	16.62	FstConstBnc	FCCY	2.8	8	12.75	-1.88	09	
32.39	10.98	FirstDefiance	FDEF	6.9	5	12.77	-6.70	22	
26.19	9.82	FirstFinBncOH	FFBO	6.9	6	13.20	-2.88	12	
36.65	30.30	FirstFinancial	FFIN	2.0	23	34.21	-2.28		
49.83	28.63	FirstFinNW	FFNF	3.5	8	29.30	-8.12	52	
17.24	8.76	FirstFinNW	FFNW	4.5	9	8.86	-1.12	10	
17.64	8.46	FirstFoundation	FFWM	3.3	7	8.52	-0.95	07	
22.38	11.33	FirstGuarBschs	FGBI	3.8	12	17.04	+2.26	16	
31.25	17.06	FirstHawaiian	FHB	6.0	8	17.39	-1.75	26	
28.50	12.13	FirstIntermed	FINB	1.8	5	13.20	-4.50	06	
43.33	24.89	FirstIntermed	FINB	5.2	8	26.06	-2.30	60	
42.48	22.86	FirstMerchants	FRME	4.2	8	24.88	-4.07	26	

36.45	20.00	FirstMidBschs	FMBH	3.9	7	20.42	-2.61	40	
23.64	12.45	FirstMidWestBncP	FMBW	4.3	7	13.04	-1.86	14	
18.25	9.60	FirstNWbncP	FNBK	1.8	12	10.86	-2.57	05	
51.75	22.47	FirstSource	FSR	47	47	33.69	-7.57		
53.42	27.14	FirstSource	FSRCE	4.2	8	27.79	-5.21	29	
24.99	12.12	FirstUnited	FUNC	4.1	7	12.77	-3.39	13	
18.98	11.70	FirstWesternFin	FWF		13	13.00			

Exchange-Traded Portfolios

Table with columns: Name, Tick Sym, Yld, Last, Chg, Div Amt. Section: Bats. Lists various exchange-traded funds and their performance metrics.

Table with columns: Name, Tick Sym, Yld, Last, Chg, Div Amt. Continuation of the Bats section, listing various exchange-traded funds.

Table with columns: Name, Tick Sym, Yld, Last, Chg, Div Amt. Continuation of the Bats section, listing various exchange-traded funds.

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Table with columns: Name, Tick Sym, Yld, Last, Chg, Div Amt. Continuation of the Bats section, listing various exchange-traded funds.

Table with columns: Name, Tick Sym, Yld, Last, Chg, Div Amt. Continuation of the Bats section, listing various exchange-traded funds.

NASDAQ

Table with columns: 52-Week High/Low, Name, Tick Sym, Yld P/E, Last, Chg, Div Amt. Section: NASDAQ Issues. Lists various stocks and their performance metrics.

Exchange-Traded Portfolios

Table with columns: Name, Ticker, Yld, Last, Chg, Div Amt. Lists various exchange-traded funds including iShares, SPDRs, and others.

Table with columns: Name, Ticker, Yld, Last, Chg, Div Amt. Lists NYSE exchange-traded funds.

NYSE

Table with columns: Name, Ticker, Yld, Last, Chg, Div Amt. Lists NYSE ARCA exchange-traded funds.

NYSE ARCA

Table with columns: Name, Ticker, Yld, Last, Chg, Div Amt. Lists NYSE ARCA exchange-traded funds.

Table with columns: Name, Ticker, Yld, Last, Chg, Div Amt. Lists various exchange-traded funds.

Table with columns: Name, Ticker, Yld, Last, Chg, Div Amt. Lists various exchange-traded funds.

Table with columns: Name, Ticker, Yld, Last, Chg, Div Amt. Lists various exchange-traded funds.

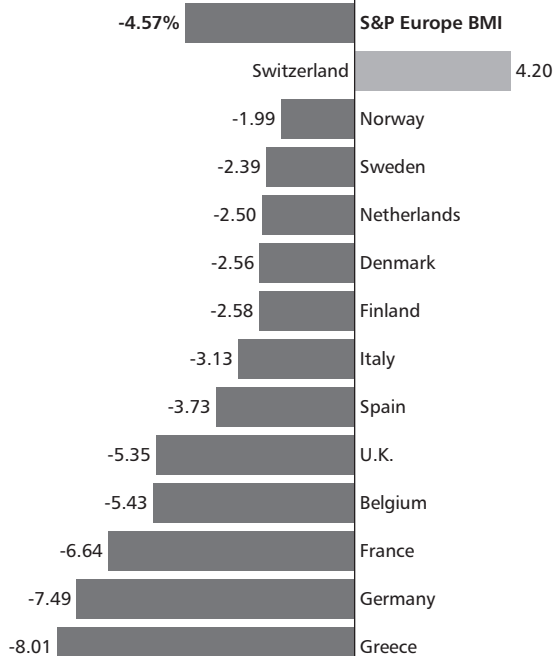
Table with columns: Name, Ticker, Yld, Last, Chg, Div Amt. Lists various exchange-traded funds.

Exchange-Traded Portfolios

Table with 10 columns: Name, Tick Sym, Yld, Last, Chg, Div Amt, and 10 columns of portfolio names and their corresponding metrics (Yld, Last, Chg, Div Amt).

Europe

Support Groups: Central banks in Europe and Britain aided their markets—boosting confidence.



Indexes based on S&P Global Broad Market Indices Source: S&P DJ Indices

GLOBAL STOCK MARKETS

Index	In Local Currencies			In U.S. Dollars ¹		
	Week's % Chg.	3/20	52-wk Range	Week's % Chg.	3/20	52-wk Range
The World	-11.1	1288.6	1874.3-1288.6	-12.3	1650.9	2435.0-1650.9
E.A.F.E. ²	-2.1	865.7	1219.1-843.7	-5.8	1393.9	2057.7-1376.2
Australia	-13.5	962.3	1434.7-955.5	-17.9	502.3	872.8-500.4
Austria	-4.3	322.4	603.9-273.9	-7.6	651.2	1286.9-560.7
Belgium	3.4	727.6	1169.3-644.9	-0.1	963.9	1602.7-867.7
Canada	-13.5	1502.8	2271.5-1481.6	-15.7	1132.0	1856.1-1102.4
Denmark	-1.4	8027.2	10485.5-7907.1	-4.7	8615.1	11367.5-8551.9
Finland	0.2	520.5	766.4-492.2	-3.3	369.0	555.2-353.7
France	-1.7	1469.7	2210.8-1356.1	-5.0	1327.9	2055.9-1241.8
Germany	-3.2	680.1	1048.0-639.1	-6.5	1360.0	2153.2-1295.2
Greece	-6.1	33.8	62.2-29.7	-9.3	13.4	25.8-11.9
Hong Kong	-8.3	13091.5	18576.5-12618.3	-8.1	9373.8	13153.7-9029.6
Ireland	-8.3	162.3	251.4-152.4	-11.4	132.3	214.6-125.9
Italy	-0.3	523.1	835.4-490.8	-3.8	180.5	291.1-175.6
Japan	0.2	772.9	1053.1-754.2	-3.5	2503.2	3462.4-2503.2
Netherlands	-0.8	1424.8	2022.8-1339.8	-4.0	2506.1	3616.3-2386.2
New Zealand	-2.7	156.9	194.0-145.0	-7.6	136.8	186.9-136.8
Norway	3.1	2290.6	3077.5-2130.0	-11.0	1400.8	2565.4-1400.8
Portugal ³	-5.1	74.8	113.1-74.0	-8.4	52.4	80.0-51.9
Singapore	-9.0	1269.4	1798.0-1229.2	-11.2	2688.6	4060.9-2609.0
Spain	-1.8	626.5	974.0-589.8	-5.2	281.7	442.2-276.4
Sweden	-1.6	10668.0	15073.5-10477.3	-6.6	5342.2	8070.5-5317.7
Switzerland	2.9	1166.8	1511.4-1115.4	-0.4	5081.3	6600.7-4985.6
U.K.	-2.8	1484.2	2211.0-1454.7	-8.0	726.3	1196.0-713.1
U.S.A.	-15.0	2191.0	3236.7-2191.0	-15.0	2191.0	3236.7-2191.0

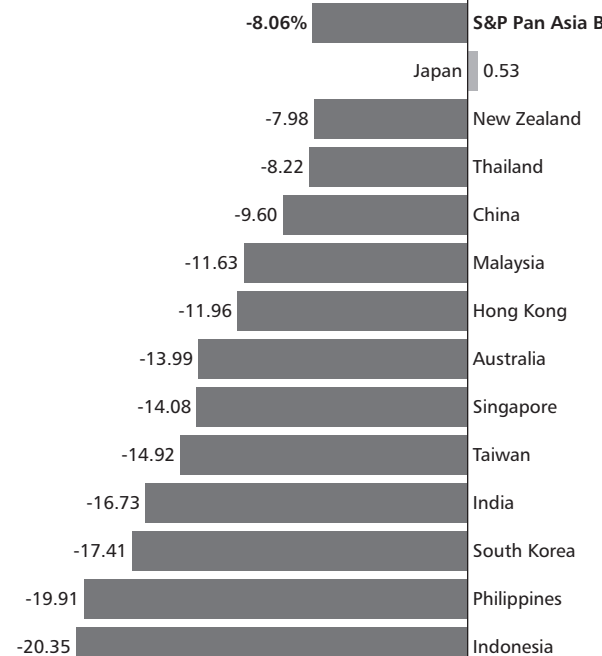
Base Jan. 1, 1970=100¹ Adjusted for foreign exchange fluctuations relative to the U.S. \$.

²Europe, Australasia, Far East Index. ³Base: Jan. 1, 1988=100.

Source: Morgan Stanley Capital International Perspective, Geneva.

Asia

Bent Curve: China's stocks fell less than America's, as new coronavirus cases subsided there.



Indexes based on S&P Global Broad Market Indices Source: S&P DJ Indices

KEY FOREIGN STOCK MARKET INDEXES

	Most Recent Close	Week's % Chg.	Year-to-Date Chg.	Year-to-Date % Chg.		Most Recent Close	Week's % Chg.	Year-to-Date Chg.	Year-to-Date % Chg.
Amsterdam AEX	431.98	-0.20	-172.60	-28.55	Mexico City IPC	34269	-10.02	-9271.51	-21.29
Athens General	555.13	+0.57	-361.54	-39.44	Milan FTSE All Share	16859	-3.19	-8769.12	-34.22
Bangkok SET	1127.24	-0.15	-452.60	-28.65	Moscow RTS	924.22	-6.80	-624.70	-40.33
Bombay Sensex	29915	-12.28	-11337	-27.48	Oslo Composite	725.06	-0.81	-307.18	-29.76
Brussels Bel-20	2771.49	+1.42	-1184.34	-29.94	Paris CAC	4048.80	-1.69	-1929.26	-32.27
Buenos Aires Merval	23890	-16.02	-17781	-42.67	Santiago Selective	2191.06	-18.28	-1144.80	-34.32
Copenhagen OMX 20	972.81	-0.70	-162.98	-14.35	Sao Paulo Bovespa	67069	-18.88	-48575	-42.00
Dublin ISEQ	4432.01	-13.54	-2751.40	-38.30	Seoul Composite	1457.64	-17.71	-740.03	-33.67
EURO STOXX SXXE	278.85	-1.80	-125.09	-30.97	Shanghai Composite	2702.13	-6.42	-347.99	-11.41
EURO STOXX 50 SXSE	2548.50	-1.45	-1196.65	-31.95	Shenzhen B Share Idx	826.87	-6.85	-134.75	-14.01
Frankfurt DAX	8928.95	-3.28	-4320.06	-32.61	Singapore FTSE STI	2410.74	-8.48	-812.09	-25.20
Helsinki OMXH	7137.01	-2.54	-2737.65	-27.72	Stockholm OMXS	505.08	-3.11	-175.74	-25.81
Hong Kong Hang Seng	22805	-5.11	-5384.68	-19.10	STOXX Europe 50 SXSP	2500.07	+0.18	-902.96	-26.53
Istanbul IMKB	85795	-10.26	-28629	-25.02	STOXX Europe 600 SXXP	293.04	-2.04	-122.80	-29.53
Jakarta Composite	4194.94	-14.52	-2104.59	-33.41	Sydney S&P/ASX 200	4816.60	-13.05	-1867.47	-27.94
Johannesburg All Share	40272	-8.84	-16812	-29.45	Taipei Weighted	9234.09	-8.83	-2763.05	-23.03
Kuala Lumpur Composite	1303.28	-3.08	-285.48	-17.97	Tel Aviv 125 Index	1161.80	-2.75	-454.90	-28.14
LISBON PSI	2530.63	-5.34	-834.62	-24.80	Tokyo Nikkei-225	16552	-5.04	-7103.79	-30.03
London FTSE - 100	5190.78	-3.27	-2351.66	-31.18	Toronto S&P/TSX	11851	-13.59	-5211.62	-30.54
Madrid IBEX 35	6443.31	-2.81	-3105.89	-32.53	Vienna ATX	1889.19	-5.58	-1297.75	-40.72
Manila Composite	4778.76	-17.52	-3036.50	-38.85	Wellington S&P/NZX 50	9201.64	-6.36	-2290.26	-19.93
					Zurich Swiss	8623.86	+3.06	-1993.08	-18.77

Indexes are based on local currencies. Because of various holidays and other market closings, the most recent close is not necessarily that of the week of publication.

S&P Global Broad Market Indices

Region/Country	S&P Global Indexes, Local Curr. 03/19/20	Wkly % Chg.	S&P Global Indexes, U.S. \$ 03/19/20	Wkly % Chg.	SP Global Indexes, U.S. \$ on 12/31/19	Point Chg. From 12/31/19	% Chg. From 12/31/19
Americas			253.89	-11.94	352.84	-98.95	-28.04
Brazil	689.52	-17.54	150.93	-23.50	321.59	-170.66	-53.07
Canada	368.82	-11.27	324.08	-14.19	512.59	-188.50	-36.78
Chile	222.06	-18.27	113.23	-20.42	197.06	-83.83	-42.54
Mexico	578.24	-8.81	194.10	-17.04	310.96	-116.85	-37.58
U.S.	24116.65	-11.62	24116.65	-11.62	33035.38	-8918.73	-27.00
Latin America			154.53	-21.77	304.77	-150.24	-49.30
Europe			265.60	-7.74	408.14	-142.54	-34.92
Austria	170.64	-15.18	151.58	-18.00	299.44	-147.86	-49.38
Belgium	251.99	-5.43	223.83	-8.57	368.41	-144.58	-39.24
Denmark	1536.30	-2.56	1378.24	-5.81	1769.38	-391.14	-22.11
Finland	1017.76	-2.58	904.03	-5.81	1329.35	-425.32	-31.99
France	287.10	-6.64	255.02	-9.74	412.89	-157.86	-38.23
Germany	314.88	-7.49	279.69	-10.56	455.73	-176.04	-38.63
Greece	12.35	-8.01	12.01	-11.07	23.73	-11.72	-49.40
Ireland	443.37	-13.48	393.82	-16.35	665.38	-271.55	-40.81
Italy	153.15	-3.13	136.04	-6.34	217.35	-81.31	-37.41
Netherlands	491.95	-2.50	436.98	-5.74	624.39	-187.41	-30.02
Norway	440.87	-1.99	276.38	-11.82	500.64	-224.26	-44.80
Portugal	47.35	-6.22	46.03	-9.33	68.24	-22.21	-32.54
Russia	1656.40	-3.17	166.00	-9.68	290.94	-124.95	-42.95
Spain	290.06	-3.73	257.65	-6.92	399.59	-141.95	-35.52
Sweden	976.58	-2.39	668.85	-7.57	982.90	-314.05	-31.95
Switzerland	514.97	4.20	763.22	1.01	940.04	-176.82	-18.81
United Kingdom	205.10	-5.35	158.38	-11.01	267.99	-109.61	-40.90
South Africa	587.26	-17.13	164.73	-22.05	316.49	-151.76	-47.95
Pacific Region			169.91	-10.04	238.86	-68.95	-28.87
Australia	338.66	-13.99	288.31	-18.03	485.26	-196.95	-40.59
China	401.13	-9.60	483.87	-9.78	590.76	-106.89	-18.09
Hong Kong	362.97	-11.96	362.61	-11.83	477.15	-114.54	-24.01
India	783.34	-16.73	410.39	-17.92	624.41	-214.02	-34.27
Japan	99.37	0.53	112.73	-2.12	155.29	-42.55	-27.40
Malaysia	179.09	-11.63	106.23	-14.23	156.90	-50.67	-32.29
New Zealand	303.76	-7.98	344.37	-11.45	494.63	-150.27	-30.38
Philippines	234.96	-19.91	183.47	-19.99	313.51	-130.05	-41.48
Singapore	129.07	-14.08	146.49	-15.83	224.34	-77.85	-34.70
South Korea	563.98	-17.41	743.59	-21.67	1222.99	-479.40	-39.20
Taiwan	85.27	-14.92	91.48	-15.64	129.43	-37.95	-29.32
Thailand	230.86	-8.22	340.56	-10.44	567.16	-226.59	-39.95
Euro Zone			93.47	-9.02	148.72	-55.25	-37.15
Europe Developed (ex U.K.)			349.54	-6.66	520.07	-170.52	-32.79
Europe (Nordic)			693.49	-7.23	1005.63	-312.14	-31.04
Pacific (ex Japan)			225.88	-14.59	321.74	-95.86	-29.79
World (ex US)			144.25	-9.75	214.75	-70.50	-32.83
S&P Global Broad Market Indices			196.54	-10.80	279.60	-83.06	-29.71
GLOBAL DOW			2237.13	-9.45	3251.24	-1014.11	-31.19

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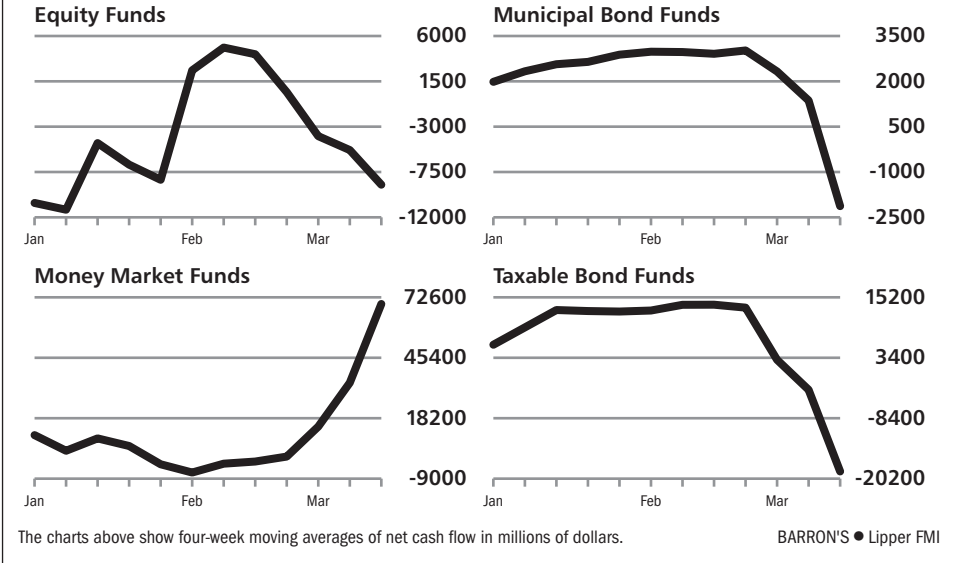
Mutual Funds

Data provided by LIPPER

NOTICE TO READERS: Due to technical difficulties at Lipper, the Mutual Fund data below is from March 19, 2020.

Table with columns: Fund Name, Net YTD, 3-Yr. NAV Chg., % Ret., % Ret. Includes sections for American Century I, American Century Inv, American Century Ret, American Century Y, American Funds A, American Funds C, American Funds D, American Funds E, American Funds F, American Funds G, American Funds H, American Funds I, American Funds J, American Funds K, American Funds L, American Funds M, American Funds N, American Funds O, American Funds P, American Funds Q, American Funds R, American Funds S, American Funds T, American Funds U, American Funds V, American Funds W, American Funds X, American Funds Y, American Funds Z.

CASH TRACK
Cashing Out: Cash fled stocks and bonds, dropping the last month's average weekly outflow from equity funds to \$8.8 billion. Taxable-bond funds lost a huge \$18.8 billion, muni-bond funds shed \$2.1 billion. But money-market funds gained an impressive \$69.6 billion.



Summary table for Cash Track charts with columns: Fund Category, Net YTD, 3-Yr. NAV Chg., % Ret., % Ret.

Table of mutual fund performance data with columns: Fund Name, Net YTD, 3-Yr. NAV Chg., % Ret., % Ret. Includes sections for American Century I, American Century Inv, American Century Ret, American Century Y, American Funds A, American Funds C, American Funds D, American Funds E, American Funds F, American Funds G, American Funds H, American Funds I, American Funds J, American Funds K, American Funds L, American Funds M, American Funds N, American Funds O, American Funds P, American Funds Q, American Funds R, American Funds S, American Funds T, American Funds U, American Funds V, American Funds W, American Funds X, American Funds Y, American Funds Z.

Table of mutual fund performance data with columns: Fund Name, Net YTD, 3-Yr. NAV Chg., % Ret., % Ret. Includes sections for American Century I, American Century Inv, American Century Ret, American Century Y, American Funds A, American Funds C, American Funds D, American Funds E, American Funds F, American Funds G, American Funds H, American Funds I, American Funds J, American Funds K, American Funds L, American Funds M, American Funds N, American Funds O, American Funds P, American Funds Q, American Funds R, American Funds S, American Funds T, American Funds U, American Funds V, American Funds W, American Funds X, American Funds Y, American Funds Z.

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About our Funds

The listings include the top 2500 open-end funds by assets. These funds value their portfolios daily and report net asset values (the dollar amount of their holdings divided by the number of shares outstanding) to the National Association of Securities Dealers. Total returns reflect both price changes and dividends; these figures assume that all distributions are reinvested in the fund. Because Lipper is constantly updating its database, these returns may differ from those previously published or calculated by others. 3 year returns are cumulative. The NAV is the last reported closing price for the week. Footnotes: NA: not available. NE: performance excluded by Lipper editor. NN: fund not tracked. NS: fund not in existence for whole period. E: ex capital gains distributions. F: previous day's quote. n: no front- or back-end sales charge. P: fund assets are used to pay marketing and distribution costs (12b-1 fees). R: fund levies redemption fee or back-end load. S: stock dividend or split of 25% or more. T: fund charges 12b-1 fees (for marketing and distribution) and a back-end load. V: capital-gains distribution may be a return of capital. X: ex cash dividend.

Market Index

Data provided by LIPPER

Table with columns: Net YTD NAV Chg, 3-Yr % Ret, 3-Yr % Ret. Rows include TM IntV, US Sm, US TSTG, etc.

Table with columns: Net YTD NAV Chg, 3-Yr % Ret, 3-Yr % Ret. Rows include ShtIncls, Federated RB, Fidelity, etc.

Table with columns: Net YTD NAV Chg, 3-Yr % Ret, 3-Yr % Ret. Rows include FAFree20351, FAFree2045A, FF2005 n, etc.

Table with columns: Net YTD NAV Chg, 3-Yr % Ret, 3-Yr % Ret. Rows include UtilGr nr, Fidelity Series, Canada, etc.

Table with columns: Net YTD NAV Chg, 3-Yr % Ret, 3-Yr % Ret. Rows include Growth A p, World A p, FrankTemp Temp Adv, etc.

Table with columns: Net YTD NAV Chg, 3-Yr % Ret, 3-Yr % Ret. Rows include Gabbelli Funds, ABC pn, Asset pn, etc.

Table with columns: Net YTD NAV Chg, 3-Yr % Ret, 3-Yr % Ret. Rows include Hartford Funds Y, DivGwth, IntVal, etc.

Table with columns: Net YTD NAV Chg, 3-Yr % Ret, 3-Yr % Ret. Rows include Invesco Funds C, Equ Inc, EquWtd, etc.

Mutual Funds

Table with columns: Fund Name, Net NAV Chg., YTD % Ret., 3-Yr. % Ret. Includes sections like RetCho2040R4, Lazard Open, Legg Mason A, Lord Abbett A, JP Morgan C Class, JP Morgan R5 Class, Laidus Funds, and Lazard Inst.

Table with columns: Fund Name, Net NAV Chg., YTD % Ret., 3-Yr. % Ret. Includes sections like MFS Funds Class A, Neuberger Berman Tr, Nicholas Group, Northern Funds, Nuveen C I, Oak Associates Funds, Oakmark Funds, Oberweis Funds, Old Westbury Funds, Optimum Funds Inst, Pacific Life Funds, Palmer Square, Parnassus Funds, Pax World Funds, Payden Funds, PACE Funds Cl P, and Nationwide Funds R6.

Table with columns: Fund Name, Net NAV Chg., YTD % Ret., 3-Yr. % Ret. Includes sections like Eaglelnv, Perm Port Funds, PGIM Funds C I, PGIM Funds C I Z, PGIM Funds Admin, PGIM Funds Inst, PIMCO Funds A, PIMCO Funds I2, PIMCO Funds C, PIMCO Funds I2, PIMCO Funds C, PIMCO Funds I2, PIMCO Funds C, PIMCO Funds I2.

Table with columns: Fund Name, Net NAV Chg., YTD % Ret., 3-Yr. % Ret. Includes sections like SpecIntl n, Price Funds - Adv Ct, Price Funds - R Ct, PRIMECAP Odyssey Fds, Principal Investors, Profunds Inv Class, Putnam Funds Class A, RBC Funds, RiverNorth Funds, Royce Funds, Russell Funds S, Russell Funds S, Russell Funds S, Russell Funds S.

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Mutual Funds

Data provided by **LIPPER**

	Net YTD NAV Chg.	3-Yr. % Ret.	3-Yr. % Ret.
TIAA-CREF/Instl Ct:			
CoreBondInst	10.00 -0.62	-5.5	6.8
CorePISBd	9.95 -0.64	-6.4	6.2
TIAA-CREF/Retail Ct:			
Eqldn	17.46 -2.29	-26.6	2.8
Gr&Inc	14.86 -2.01	-27.7	0.2
LgCpGrn	17.64 -1.84	-19.2	28.2
MgdAlloc	10.25 -1.10	-20.5	-1.1
TIAA-CREF Funds:			
BdldXinst	10.90 -0.40	-1.4	10.3
EqldXinst	17.14 -2.24	-26.6	3.7
EqldRet	17.40 -2.28	-26.6	2.9
Gr&IncRet	10.69 -1.45	-27.7	1.1
Gr&IncRet	10.90 -1.47	-27.7	0.4
HdYldInst	7.79 -0.92	-20.3	6.9
IntlKdBdInst	11.11 -0.30	-3.5	3.6
IntlEqldInst	13.73 -1.57	-31.3	-15.5
IntlEqldRet	14.06 -1.59	-31.3	-16.1
IntlEqInst	7.76 -0.88	-32.3	-21.8
LC2015Ret	10.48 -0.86	-15.6	2.2
LC2020Ret	10.92 -0.97	-17.1	1.7
LC2025Ret	11.03 -1.07	-19.2	0.6
LC2030Ret	11.06 -1.16	-21.3	-0.5
LC2035Ret	11.18 -1.28	-23.5	-1.8
LC2040Inst	7.98 -0.97	-25.2	-2.3
LC2040Ret	11.22 -1.37	-25.3	-3.1
LC2045Ret	9.36 -1.20	-27.0	-4.6
LCdX2020Inst	15.15 -1.17	-15.4	5.0
LCdX2025Inst	16.68 -1.34	-17.4	4.2
LCdX2035Inst	16.61 -1.71	-21.6	2.2
LCdX2040Inst	16.78 -1.87	-23.6	1.0
LCdX2045Inst	16.54 -1.97	-25.4	-0.6
LifeStkldX	20.58 -2.69	-26.6	3.6
LrgCpGrldXinst	28.95 -3.42	-20.4	27.4
LrgCpGrldXret	29.17 -3.45	-20.4	26.5
LrgCpGrldXret	17.68 -1.85	-19.1	29.5
LrgCpVlIdXinst	13.85 -2.01	-31.7	13.8
LrgCpVlIdXret	14.11 -2.04	-31.8	-14.5
LrgCpVlInst	12.52 -1.95	-32.0	-19.1
LrgCpVlRet	12.48 -1.94	-32.0	-19.7
MdCpGrInst	15.18 -2.34	-28.7	1.8
MdCpVlInst	10.83 -2.04	-39.6	-29.2
MdCpVlRet	10.76 -2.01	-39.6	-29.2
QuantSmCpEqInst	9.90 -1.73	-40.2	-27.6
RealSecInst	12.78 -3.20	-28.2	-0.1
RealSecRet	13.35 -3.34	-28.3	-0.8
S&P500IdXinst	16.51 -3.31	-25.1	7.4
S&P500IdXret	26.33 -3.29	-25.1	6.6
ShTrmbdInst	10.13 -0.24	-1.7	5.4
SmCpBlIdXinst	13.26 -1.89	-36.3	-20.4
SmCpBlIdXret	13.32 -1.90	-36.4	-21.0
SocChqInst	15.31 -1.99	-26.2	4.8
SocChqRet	15.57 -2.02	-26.2	4.1
Tortoise Capital:			
MLP&EqInvt	3.54 -0.93	-49.5	-52.2
TorMLP&EqInvt	5.54 -1.82	-55.6	-56.0
Touchstone Family Fd:			
FlexInc	9.48 -0.87	-12.6	-1.6
FocEqY	34.80 -3.63	-23.7	-1.8
LagCapFocA	33.06 -3.77	-22.7	12.0
MdCpGrWV	23.43 -4.22	-30.1	11.3
MdCpVlIdX	12.62 -2.12	-35.2	-24.5
MdCpY	29.05 -3.65	-27.6	9.5
SandsCapGr	18.55 -1.78	-16.9	39.1
SandsCapGrV	10.90 -1.07	-17.1	37.4
SmCoA	3.02 -0.49	-37.2	-21.7
Transamerica A:			
AsAlCnsrv	9.14	NA	NA
AsAlGroup	8.53	NA	NA
AsAlMod	9.06	NA	NA
AsAlModGr	8.80	NA	NA
Balanced	24.04 -2.30	-16.9	5.6
Trust for Professional Mgt:			
PrtTrtStrtBd Ins	21.86 -1.13	-3.3	12.1
SmeadValueInst	33.39 -4.65	-33.7	-7.6
Twenty Browne Fds:			
GblValue	20.34 -1.69	-27.3	-15.6

UV

Ultimus:			
LyricalUSVlEq	7.93	NA	NA
UM Funds:			
BehavVal	31.88	NA	NA
USA Group:			
500Index Reward	32.98	NA	NA
CA Bd	11.01	NA	NA
CapGr	7.73	NA	NA
CnrsMod	12.39	NA	NA
CnrsModAgr	20.49	NA	NA
ExtMktIn	12.25	NA	NA
Gr&Inc	14.74	NA	NA
Gr&TxStr	18.86	NA	NA
Grwth	20.60	NA	NA
Hilcmn	6.41	NA	NA
Inco	12.78	NA	NA
IncStk	12.81	NA	NA
Intl	16.63	NA	NA
IntlTerm	13.19	NA	NA
LgTerm	13.05	NA	NA
Nasdaq100	20.04	NA	NA
ntTermBd	11.94	NA	NA
PresMM	12.09	NA	NA
S&P500	32.96	NA	NA
SocTech	17.01	NA	NA
SHIT	10.28	NA	NA
SHITBd	9.03	NA	NA
SmCpStk	9.69	NA	NA
TarRet2020	10.41	NA	NA
TarRet2030	10.01	NA	NA
TarRet2040	9.51	NA	NA
TarRet2050	9.54	NA	NA
VA Bd	11.11	NA	NA
ValueFdn	10.24	NA	NA
WldGr	18.52	NA	NA

	Net YTD NAV Chg.	3-Yr. % Ret.	3-Yr. % Ret.
CoreBd	11.10 -0.50	-4.1	8.0
CoreVal	8.13 -0.93	-30.7	-11.9
FrgnVal	6.14 -0.86	-37.4	-35.1
GlobEq	5.98 -1.05	-30.9	-17.4
HighYd	6.38 -0.75	-19.4	-4.9
HlthSci	16.80 -1.66	-21.3	16.4
IntlPro	10.20 -0.68	-8.9	0.4
IntlEq	4.94 -0.56	-31.6	-17.1
IntlGr	9.73 -1.29	-24.4	9.3
IntlSmCpEq	13.82 -1.92	-33.1	-11.1
LgCpGr	13.29 -1.61	-23.1	26.7
MidCpVal	15.46 -2.68	-35.9	-20.9
MidCpVal	11.82 -2.52	-39.3	-26.7
SciTech	21.53 -2.15	-19.9	37.0
SmCpEq	11.43 -1.62	-36.4	-21.4
SmCpEq	18.10 -2.37	-35.4	5.8
StkAdm	31.61	NA	NA
StrdBd	10.31 -0.74	-10.2	-1.7
ValUltra	13.70	NA	NA
Value Line Funds:			
AsAlClnv	32.63 -3.26	-15.2	18.6
Van Eck Funds:			
EmgMktsY	12.74	NA	NA
VANGUARD ADMIRAL:			
400MCPdInst	17.73 -20.81	-35.9	-20.2
500Admln	22.25 -27.82	-25.1	7.4
BalAdmln	32.57 -29.94	-17.0	7.7
CAITAdmln	11.37 -0.54	-5.5	6.5
CALTAdmln	11.66 -0.66	-6.5	8.8
CapOpAdmln	113.97 -14.19	-27.8	5.8
CoStxAdmln	66.67 -3.41	-15.8	3.0
DvApplAdmln	26.75 -2.45	-21.0	14.2
EMAdmln	25.98 -4.11	-29.7	-14.9
EnergyAdmln	42.95 -9.24	-51.7	-50.8
EqncAdmln	17.19 -7.38	-28.1	-4.4
EuropeAdmln	47.60 -6.78	-34.9	-18.5
ExplrAdmln	63.96 -10.09	-34.2	-2.6
ExtnAdmln	62.19 -10.50	-35.0	-15.1
FintkAdmln	23.79 -4.40	-37.4	-18.6
GlobUSREInvt	22.21 -5.98	-37.8	-19.2
GNMAAdmln	10.49 -0.09	0.0	9.3
GrolncAdmln	62.86 -8.39	-25.9	4.7
GrwthAdmln	74.82 -9.07	-20.3	23.3
HlthCAdmln	76.42 -7.92	-20.1	15.1
HlthCareAdmln	70.90 -6.44	-19.2	8.4
HYCorAdmln	4.92 -0.54	-16.5	-0.8
IntlProAd	24.82 -0.93	-4.3	4.4
IntlTechldX	100.12 -12.62	-19.9	49.7
IntlGrAdmln	77.99 -8.47	-24.1	11.6
ITBndAdmln	11.58 -0.48	-1.4	12.0
ITCorpX	22.22 -1.90	-9.1	6.6
ITGradeAdmln	9.52 -0.54	-4.7	8.5
ITsryAdmln	11.77 -0.09	4.0	13.5
ITResldX	23.13 -0.16	4.0	13.5
LarCapAd	55.94 -7.07	-25.1	7.4
LITGradeAdmln	9.66 -1.27	-11.1	12.8
LITsryAdmln	14.11 -0.80	8.0	31.8
LTTResldX	30.12 -1.67	8.0	32.2
MdCpAdmln	45.43 -4.89	-33.2	-20.9
MdCpAdmln	20.37 -2.12	-31.5	-8.8
MrgBkldX	21.07 -0.27	0.4	10.1
MuHYAdmln	10.82 -0.63	-7.2	10.1
MultAdmln	13.65 -0.61	-5.2	6.7
MuLAdmln	11.13 -0.57	-5.9	9.4
MuLdAdmln	10.69 -0.29	-3.1	3.7
MuSHAdmln	15.56 -0.22	-1.5	3.2
NJLAdmln	11.54 -0.59	-6.6	11.6
NYLAdmln	11.20 -0.56	-5.9	8.1
PacAdmln	61.16 -6.08	-28.9	-15.1
PAITAdmln	11.17 -0.54	-5.2	10.9
PrcmpAdmln	10.69 -1.20	-26.6	10.1
RealEstAdmln	89.25 -23.59	-31.6	-13.0
S&P500IdX	191.13 -27.21	-37.6	-21.9
S&P500IdX	51.51 -8.46	-36.1	-17.6
SmGthAdmln	47.56 -6.99	-31.8	-1.8
STBndAdmln	10.61 -0.10	0.8	8.2
STCorpX	20.92 -0.86	-4.6	4.7
STFedAdmln	10.85 -0.05	1.6	8.0
STIGradeAdmln	10.36 -0.33	-2.9	5.4
STIPStAdmln	24.03 -0.37	-2.7	3.0
STsryAdmln	10.74 -0.04	1.7	7.2
STResldX	20.59 -0.01	1.9	7.3
TotBdAdmln	10.87 -0.36	-1.1	11.1
TotBdAdmln	22.36 -0.55	-1.4	12.8
TotIntAdmln	20.27 -2.75	-32.1	-17.0
TotStAdmln	58.48 -7.66	-26.6	3.7
TxMbal	28.94 -2.43	-15.5	7.0
TxMCapAdmln	12.38 -16.21	-25.6	6.5
TxMIn	9.51 -1.22	-32.7	-17.5
TxMNSC	42.54 -5.99	-37.3	-21.4
USGROAdmln	89.95 -9.83	-19.3	31.0
UtilAdmln	57.25 -5.70	-19.7	11.2
ValAdmln	32.82 -4.33	-29.8	-5.4
WldsrAdmln	44.91 -6.63	-30.5	-9.1
WltsAdmln	57.54 -4.55	-13.1	6.7
WltsAdmln	59.86 -6.56	-20.1	4.6
WltsAdmln	46.93 -7.57	-35.1	-17.0
VANGUARD FDS:			
CAIT	11.37 -0.54	-5.5	6.2
CALT	11.66 -0.66	-6.5	8.5
CapOp	9.88 -1.65	-27.1	-15.4
CapValue	9.88 -1.49	-23.1	-5.4
DirGr	23.30 -1.89	-23.1	12.7
DirGr	27.58 -3.75	-27.4	9.5
EmgMktsStk	15.15 -1.78	-34.5	-18.2
Energy	22.89 -4.93	-51.7	-51.0
Eqnc	27.28 -3.52	-28.1	-4.6
Explr	68.75 -10.85	-34.2	-3.0
ExpValFd	20.75 -4.89	-43.4	-30.5
FTAIWldAdmln	22.87 -3.01	-31.5	-15.9
GlbCapCylInv	5.66 -0.59	-32.1	-41.7
GlbEq	22.72 -3.06	-28.5	-9.9
GlobInvtFdlnv	10.85 -1.31	-25.3	-1.0
GlobInvtFdlnv	21.70 -2.63	-25.4	-0.9
GNMA	10.49 -0.09	-0.1	9.0
Grolnc	38.51 -5.13	-25.9	-4.4

	Net YTD NAV Chg.	3-Yr. % Ret.	3-Yr. % Ret.
HlthCare nr	168.11 -15.27	-19.3	8.2
HYCor	4.92 -0.54	-16.5	-1.1
IntlPro	12.61 -0.48	-4.3	4.0
IntlExpInr	11.25 -1.74	-37.2	-25.9
IntlGr	24.52 -2.66	-24.1	11.2
IntlVal	24.74 -3.10	-34.1	-19.6
INSTFRF2015	20.21 -1.26	-12.1	6.0
INSTFRF2020	20.25 -1.58	-16.0	

Weekly Closed-End Funds

Data provided by **LIPPER**

NOTICE TO READERS: Due to technical difficulties at Lipper, we are unable to run this weeks Closed End Funds data.

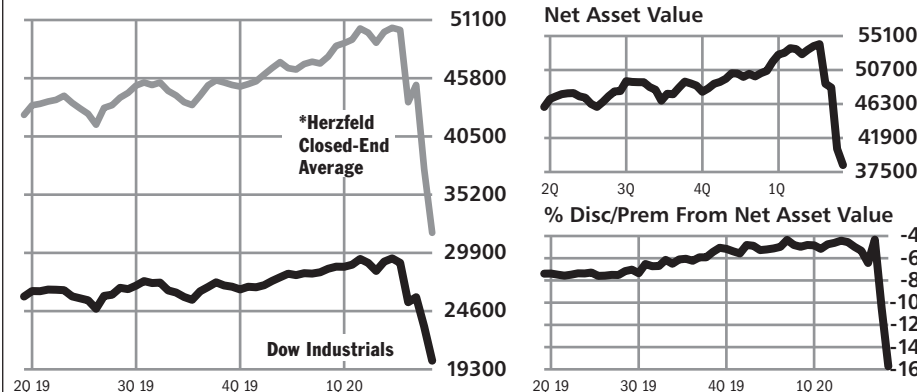
WEEKLY DJ TRANSPORT AVERAGE

The weekly Dow Transports; with a high/low range based upon the daily closing average.

Week Ended	First	High	Low	Last	Chg.
2020					
Mar 20	7023.44	7468.23	6837.72	6837.72	- 1101.68
13	8083.49	8520.84	7259.02	7939.40	- 1016.66
6	9475.68	9512.05	8956.06	8956.06	- 432.13
Feb 28	10509.92	10509.92	9388.19	9388.19	- 1520.75
21	10865.58	11032.96	10865.58	10908.94	+ 46.02
14	10866.58	11003.45	10862.92	10862.92	+ 5.19
7	10590.66	10928.84	10590.66	10857.73	+ 290.99
Jan 31	10796.83	10905.64	10566.74	10566.74	- 493.10
24	11075.01	11143.42	10999.36	11059.84	- 219.01
17	11062.74	11304.97	11062.74	11278.85	+ 304.97
10	10848.73	11025.82	10848.73	10973.88	+ 62.48
3	10874.58	10994.31	10874.58	10911.40	- 25.30
2019					
Dec 27	10912.68	10950.60	10912.68	10936.70	+ 35.97
20	10867.32	10900.73	10779.78	10900.73	+ 124.97
13	10676.51	10789.41	10629.87	10775.76	+ 67.22
6	10734.85	10734.85	10499.29	10708.54	- 149.03
Nov 29	10948.50	10970.23	10857.57	10857.57	+ 72.42
22	10879.09	10879.09	10681.29	10785.15	- 91.14
15	11029.55	11029.55	10842.63	10876.29	- 190.87
8	10982.15	11091.37	10982.15	11067.16	+ 328.35
1	10853.36	10853.36	10498.86	10738.81	- 117.60
Oct 25	10652.12	10856.41	10652.12	10856.41	+ 347.67
18	10256.10	10508.74	10256.10	10508.74	+ 216.76
11	10014.56	10291.98	9829.20	10291.98	+ 262.14
4	10363.58	10363.58	9884.35	10029.84	- 311.43

TRACKING CLOSED - END FUNDS

Deep Discounts: Both the Herzfeld Average and the Dow got pummeled in the week ended Thursday—dropping 10.3% and 5.3%, respectively. The Herzfeld Average now trades at a 15.5% discount to net asset value, a level not seen since April of 2009.



The Herzfeld Closed-End Average measures 15 equally-weighted closed-end funds based in the U.S. that invest principally in American equities. The net asset value is a weighted average of the funds' NAVs. Source: Thomas J. Herzfeld Advisors Inc., Miami. 305-271-1900/www.herzfeld.com

YEARLY HIGH/LOWS DOW JONES STOCK AVERAGES

Year	Dow Industrials				Dow Transportation Cos.			
	High	Date	Low	Date	High	Date	Low	Date
2020	29551.42	Feb 12	19173.98	Mar. 20	11304.97	Jan. 16	6837.72	Mar. 20
2019	28645.26	Dec 27	22686.22	Jan. 3	11098.99	Apr. 24	8881.49	Jan. 3
2018	26828.39	Oct 3	21792.20	Dec. 24	11570.84	Sept. 14	8637.15	Dec. 24
2017	24837.51	Dec. 28	19732.40	Jan. 19	10697.21	Dec. 28	8783.74	May 18

WEEKLY DJ INDUSTRIAL AVERAGE

The weekly Dow Industrials; with a high/low range based upon the daily closing average.

Week Ended	First	High	Low	Last	Chg.
2020					
Mar 20	20188.52	21237.38	19173.98	19173.98	- 4011.64
13	23851.02	25018.16	21200.62	23185.62	- 2679.16
6	26703.32	27090.86	25864.78	25864.78	+ 455.42
Feb 28	27960.80	27960.80	25409.36	25409.36	- 3583.05
21	29232.19	29348.03	28992.41	28992.41	- 405.67
14	29276.82	29551.42	29276.34	29398.08	+ 295.57
7	28399.81	29379.77	28399.81	29102.51	+ 846.48
Jan 31	28535.80	28859.44	28256.03	28256.03	- 733.70
24	29196.04	29196.04	28989.73	28989.73	- 358.37
17	28907.05	29348.10	28907.05	29348.10	+ 524.33
10	28703.38	28956.90	28583.68	28823.77	+ 188.89
3	28462.14	28868.80	28462.14	28634.88	- 10.38
2019					
Dec 27	28551.53	28645.26	28515.45	28645.26	+ 190.17
20	28235.89	28455.09	28235.89	28455.09	+ 319.71
13	27909.60	28135.38	27881.72	28135.38	+ 120.32
6	27783.04	28015.06	27502.81	28015.06	- 36.35
Nov 29	28066.47	28164.00	28051.41	28051.41	+ 175.79
22	28036.22	28036.22	27766.29	27875.62	- 129.27
15	27691.49	28004.89	27691.49	28004.89	+ 323.65
8	27462.11	27681.24	27462.11	27681.24	+ 333.88
1	27090.72	27347.36	27046.23	27347.36	+ 389.30
Oct 25	26827.64	26958.06	26788.10	26958.06	+ 187.86
18	26787.36	27025.88	26770.20	26770.20	- 46.39
11	26478.02	26816.59	26164.04	26816.59	+ 242.87
4	26916.83	26916.83	26078.62	26573.72	+ 246.53
Sept 27	26949.99	26970.71	26807.77	26820.25	- 114.82
20	27076.82	27147.08	26935.07	26935.07	- 284.45
13	26835.51	27219.52	26835.51	27219.52	+ 422.06
6	26118.02	26797.46	26118.02	26797.46	+ 394.18
Aug 30	25898.83	26403.28	25777.90	26403.28	+ 774.38
23	26135.79	26252.24	25628.90	25628.90	- 257.11

TOP SAVINGS DEPOSIT YIELDS

Money Market Account¹

Institution	Location	Telephone No.	Min. Deposit	Recent % Rate	Effect. % Yield
CIT Bank	Livingston, NJ	(855)462-2652	1	1.78	(CD) 1.80
American Express	Salt Lake City, UT	(800)446-6307	1	1.69	(CD) 1.70
First Internet Bank	Indianapolis, IN	(888)873-3424	100	1.60	(CM) 1.61
BankDirect	Dallas, TX	(877)839-2737	10000	1.50	(CD) 1.51
Dollar Savings Direct	Ossining, NY	(866)395-8693	1	1.49	(CD) 1.50

One-Year CDs

Institution	Location	Telephone No.	Min. Deposit	Recent % Rate	Effect. % Yield
CIT Bank	Livingston, NJ	(855)462-2652	1000	1.84	(CD) 1.86
American Express	Salt Lake City, UT	(800)446-6307	1	1.83	(CD) 1.85
Barclays Bank	Wilmington, DE	(888)710-8756	1	1.83	(CD) 1.85
BankDirect	Dallas, TX	(877)839-2737	10000	1.74	(CD) 1.75
Discover Bank	Greenwood, DE	(800)347-7000	2500	1.73	(CD) 1.75

Five-Year CDs

Institution	Location	Telephone No.	Min. Deposit	Recent % Rate	Effect. % Yield
Travis CU	Concord, CA	(800)435-4040	500	2.23	(CM) 2.25
American Express	Salt Lake City, UT	(800)446-6307	1	1.98	(CD) 2.00
TIAA Bank	Jackson, FL	(888)882-3837	5000	1.88	(CD) 1.90
Barclays Bank	Wilmington, DE	(888)710-8756	1	1.83	(CD) 1.85
Discover Bank	Greenwood, DE	(800)347-7000	2500	1.78	(CD) 1.80

Six-Month CDs²

Institution	Location	Telephone No.	Min. Deposit	Recent % Rate	Effect. % Yield
BankDirect	Dallas, TX	(877)839-2737	10000	1.24	(CD) 1.25
PenFed Credit Union	Alexandria, VA	(800)247-5626	1000	1.15	(MA) 1.15
TIAA Bank	Jackson, FL	(888)882-3837	5000	1.09	(CD) 1.10
First Internet Bank	Indianapolis, IN	(888)873-3424	1000	1.05	(CM) 1.06
Emigrant Direct	New York, NY	(800)836-1997	1000	1.00	(CD) 1.00

2½-Year CDs

Institution	Location	Telephone No.	Min. Deposit	Recent % Rate	Effect. % Yield
Discover Bank	Greenwood, DE	(800)347-7000	2500	1.73	(CD) 1.75
BankDirect	Dallas, TX	(877)839-2737	10000	1.50	(CD) 1.51
Community Commerce Bk	Los Angeles, CA	(323)268-6100	10000	1.40	(CM) 1.41
TIAA Bank	Jackson, FL	(888)882-3837	1000	1.19	(CD) 1.20
Bank OZK	New York, NY	(212)218-8383	1000	1.14	(CM) 1.15

90-Day Jumbo CDs

Institution	Location	Telephone No.	Min. Deposit	Recent % Rate	Effect. % Yield
First Internet Bank	Indianapolis, IN	(888)873-3424	1000	0.85	(CM) 0.86
TIAA Bank	Jackson, FL	(888)882-3837	5000	0.80	(CD) 0.80
Bank OZK	New York, NY	(212)218-8383	1000	0.75	(CM) 0.75
BankDirect	Dallas, TX	(877)839-2737	10000	0.75	(CD) 0.75
Popular Direct	New York, NY	(800)274-5696	10000	0.75	(CD) 0.75

¹Including passbook, statement savings, and bank-offered liquid asset accounts.

²Six-month CD yields assume reinvestment of principal and interest at the same rate for an additional six months.

Rates are the highest yields on six types of accounts offered by federally-insured banks and savings associations nationwide.

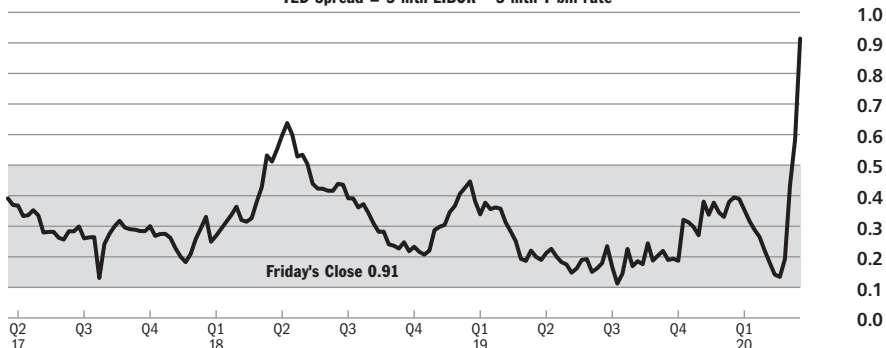
Yields are based on the stated rate and compounding method in effect Friday and are subject to change. Phone to verify before investing or sending money.

(CC) Compounded continuously; (SA) compounded semiannually; (CD) compounded daily; (CA) compounded annually; (CM) compounded monthly; (SI) simple interest; (CQ) compounded quarterly

Source: (c) 2020, Informa Research Services, 30501 Agoura Road, 2nd Floor, Agoura Hills, CA 91301 818-880-8877. All rights reserved. May not be reproduced or retransmitted in any form without express written consent of Informa Research Services.

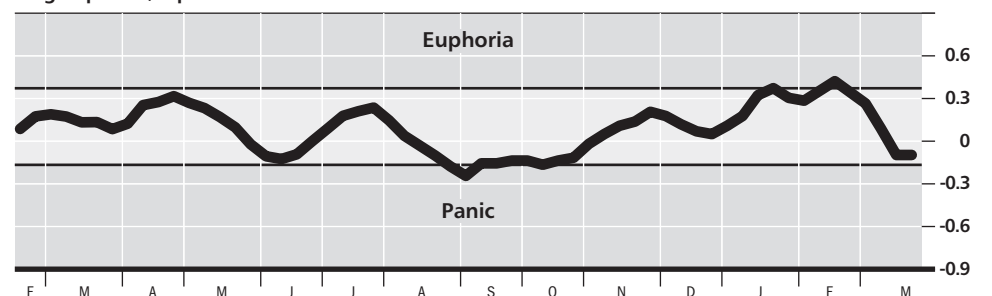
THREE YEAR TED SPREAD

TED Spread = 3-mth LIBOR - 3-mth T-bill rate



Market Sentiment LAST -0.08

Citigroup Panic/Euphoria Model



The panic/euphoria model is a gauge of investor sentiment. It identifies "Panic" and "Euphoria" levels which are statistically driven buy and sell signals for the broader market. Historically, a reading below panic supports a better than 95% likelihood that stock prices will be higher one year later, while euphoria levels generate a better than 80% probability of stock prices being lower one year later.

Source: Citigroup Investment Research - US Equity Strategy

Preferred Stock Listings

Includes preferred like and repackaged securities

NYSE AMER

Table of NYSE AMER preferred stock listings with columns for Stock, Div, Yld, Close, Net Chg.

NASDAQ

Table of NASDAQ preferred stock listings with columns for Stock, Div, Yld, Close, Net Chg.

Table of NYSE AMER preferred stock listings (continued) with columns for Stock, Div, Yld, Close, Net Chg.

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Table of NYSE AMER preferred stock listings (continued) with columns for Stock, Div, Yld, Close, Net Chg.

Market Laboratory

DJ HALF-HOURLY AVERAGES

Dow Jones 30 Industrial (divisor: 0.14744568353097)					
Daily	Mar 16	17	18	19	20
Open (t)	20395.44	20627.39	19896.55	19777.32	20255.53
Open (a)	20917.53	20487.05	20188.69	19830.01	20253.15
10:00	20805.83	19961.16	20233.93	19599.65	20101.96
10:30	20884.22	20319.47	20329.49	20018.28	20309.92
11:00	21267.48	20305.94	20004.79	19760.60	20471.50
11:30	21697.77	20660.68	19884.88	20274.12	20081.36
12:00	21513.07	20934.49	20072.84	20090.84	20105.93
12:30	21321.58	20932.94	19803.09	19996.47	19787.93
1:00	21121.72	20812.99	19576.75	20143.07	19944.37
1:30	21180.51	20668.18	19292.87	20047.02	19885.26
2:00	20997.63	20864.51	19272.30	20265.13	19926.39
2:30	20945.32	21198.08	18984.34	20205.62	19655.15
3:00	21102.45	20987.76	19457.98	20223.51	19427.59
3:30	20782.73	20754.06	19209.86	20145.45	19593.89
Close	20188.52	21237.38	19898.92	20087.19	19173.98
High (t)	21968.90	21671.30	20809.15	20806.71	20798.95
Low (t)	19652.12	19620.21	18576.47	18869.12	18858.64
High (a)	21768.28	21379.35	20489.33	20442.63	20531.26
Low (a)	20116.46	19882.26	18917.46	19177.13	19094.27
Change	-2997.10	+1048.86	-1338.46	+188.27	-913.21

Theoretical (t): High 21968.90 Low 18576.47

Actual (a): High 21768.28 Low 18917.46

Dow Jones 20 Transport (divisor: 0.16385001129960)

Open (t)	7020.57	7160.33	7014.34	6915.59	7188.95
Open (a)	7574.15	7125.27	7215.94	6938.85	7152.64
10:00	7137.29	6935.28	7128.68	6935.72	7015.12
10:30	7136.47	7108.30	7133.29	7117.42	7139.42
11:00	7330.42	7127.68	6977.39	6984.65	7407.83
11:30	7459.99	7251.24	6848.46	7177.01	7143.98
12:00	7359.97	7448.55	6876.39	7188.75	7133.19
12:30	7250.10	7462.97	6789.29	7089.01	6979.63
1:00	7200.02	7401.80	6640.21	7103.76	7051.23
1:30	7208.77	7347.09	6538.92	7079.10	7030.92
2:00	7164.82	7353.01	6548.58	7158.91	7056.09
2:30	7091.77	7467.56	6559.13	7130.71	6952.01
3:00	7155.01	7426.37	6872.44	7125.56	6858.95
3:30	7099.88	7310.71	6766.43	7091.97	6927.26
Close	7023.44	7468.23	6971.44	7078.73	6837.72
High (t)	7581.14	7773.69	7352.12	7461.73	7492.40
Low (t)	6781.93	6824.56	6311.72	6622.83	6681.05
High (a)	7574.15	7617.70	7215.94	7324.23	7418.91
Low (a)	6996.32	6905.10	6481.20	6743.07	6799.38
Change	-915.96	+444.79	-496.79	+107.29	-241.01

Theoretical (t): High 7773.69 Low 6311.72

Actual (a): High 7617.70 Low 6481.20

Dow Jones 15 Utilities (divisor: 1.41366797515660)

Open (t)	695.29	693.42	725.74	735.53	696.53
Open (a)	727.21	686.45	758.77	735.34	695.97
10:00	701.35	693.71	727.49	707.68	682.15
10:30	697.73	724.70	736.94	713.84	691.77
11:00	717.92	741.35	727.74	708.05	689.59
11:30	740.84	744.93	726.27	714.30	681.71
12:00	727.39	748.53	742.45	711.11	683.66
12:30	722.02	747.30	743.05	701.59	676.28
1:00	709.46	751.21	737.66	700.73	683.04
1:30	709.42	741.78	730.27	697.64	686.78
2:00	704.29	757.58	726.67	713.45	678.66
2:30	698.15	766.02	726.19	704.97	673.98
3:00	711.61	759.04	731.80	707.38	668.98
3:30	697.93	747.42	710.76	708.07	665.44
Close	678.03	769.69	737.25	695.92	646.13
High (t)	752.26	784.76	766.32	748.85	710.01
Low (t)	663.62	683.24	685.92	674.10	634.39
High (a)	750.37	773.49	758.77	735.34	696.63
Low (a)	675.80	686.45	696.63	691.63	640.76
Change	-84.57	+91.66	-32.44	-41.33	-49.79

Theoretical (t): High 784.76 Low 634.39

Actual (a): High 773.49 Low 640.76

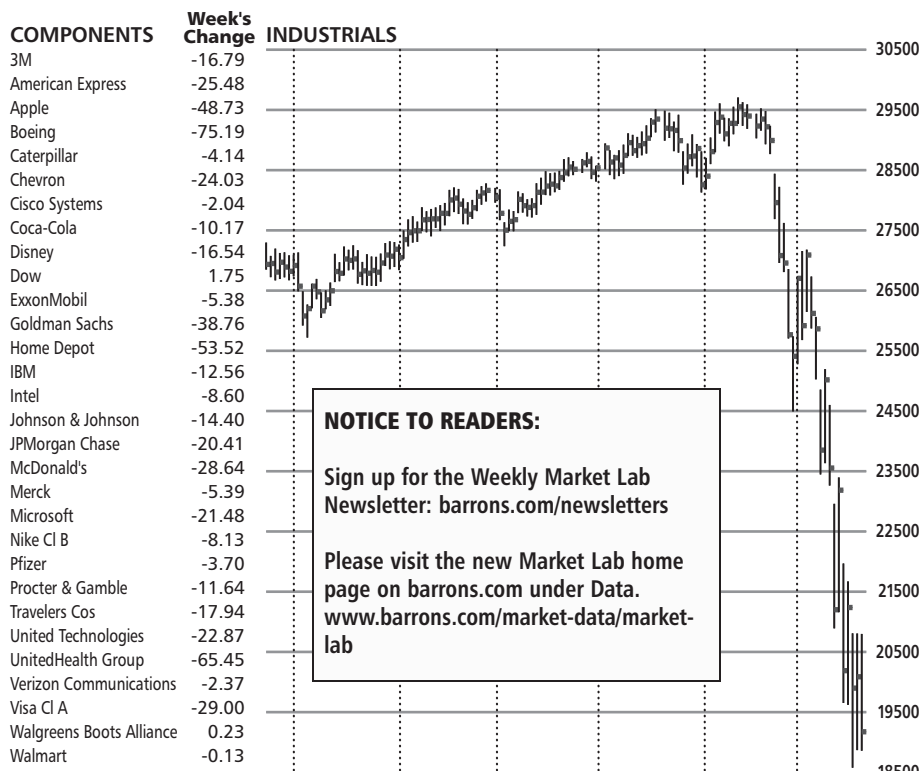
Dow Jones 65 Composite (divisor: 0.77099142654354)

Open (t)	6667.32	6737.96	6626.42	6600.58	6678.62
Open (a)	6943.35	6690.89	6785.70	6615.26	6669.43
10:00	6781.73	6563.25	6718.46	6519.82	6585.95
10:30	6789.89	6725.36	6755.03	6649.79	6669.77
11:00	6941.44	6757.42	6642.94	6561.67	6754.80
11:30	7093.29	6858.08	6589.90	6713.09	6608.58
12:00	7012.05	6958.98	6661.46	6673.81	6614.58
12:30	6942.22	6959.50	6592.47	6617.13	6507.58
1:00	6870.34	6930.73	6507.60	6646.72	6565.11
1:30	6883.37	6874.12	6418.25	6617.44	6556.35
2:00	6829.64	6941.89	6409.77	6705.09	6554.67
2:30	6792.86	7045.14	6356.05	6672.09	6472.11
3:00	6861.02	6983.72	6523.51	6678.92	6399.63
3:30	6761.88	6893.15	6414.94	6658.12	6439.46
Close	6596.71	7059.90	6638.87	6621.89	6304.73
High (t)	7191.83	7235.42	6947.14	6937.94	6871.75
Low (t)	6416.39	6455.31	6151.64	6252.04	6189.61
High (a)	7130.81	7097.55	6807.47	6768.49	6766.73
Low (a)	6582.84	6535.79	6323.55	6390.69	6281.25
Change	-922.89	+463.19	-421.03	-16.98	-317.16

Theoretical (t): High 7235.42 Low 6151.64

Actual (a): High 7130.81 Low 6281.25

THE DOW JONES AVERAGES

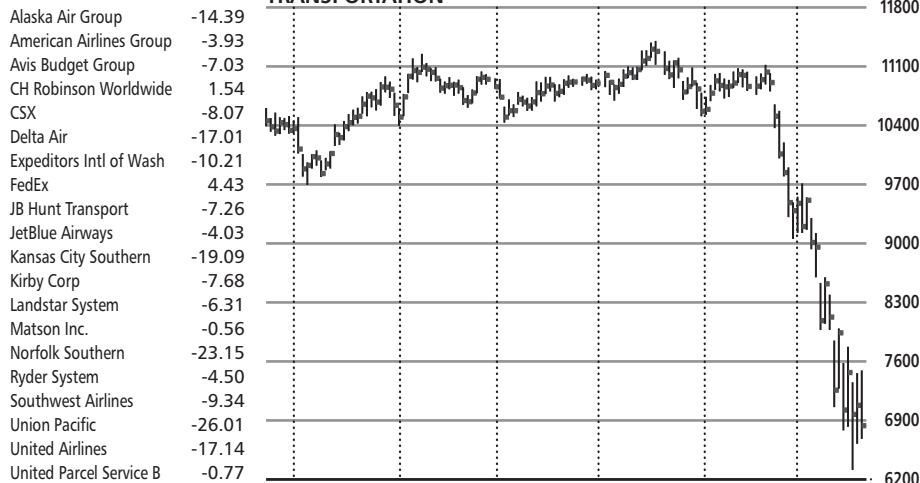


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TRANSPORTATION



UTILITIES



Note: Theoretical highs and lows are shown.

TRADING DIARY

Market Advance/Decline Volumes					
Daily	Mar 16	17	18	19	20
NY Up	114,658	1,322,001	133,775	1,227,785	957,748
NY Off	1,767,814	615,655	1,785,568	473,400	1,733,148
NY Up - Composite	511,994	5,273,732	585,209	5,659,019	3,410,851
NY Off - Composite	7,172,485	2,764,516	8,087,909	2,153,787	5,603,532
NYSE Amer Up	11,602	15,492	5,681	25,304	31,522
NYSE Amer Off	20,368	10,205	23,297	4,194	30,146
NASD Up	690,995	3,364,742	827,569	3,431,558	2,082,303
NASD Off	3,825,842	1,456,785	4,043,776	1,245,804	3,095,849
NYSE Arca UP	218,133	551,413	69,086	575,750	257,505
NYSE Arca Off	660,501	158,789	866,063	188,931	471,861
% (QCHA)	-11.58	+1.39	-14.31	+9.01	-6.8
% (QACH)	-8.27	+3.51	-11.10	+6.86	-1.5
% (QCHAQ)	-10.93	+4.55	-9.91	+7.43	-7.7

Market Advance/Decline Totals

Week ended last Friday compared to previous Friday

Weekly Comp.	NYSE	NYSE Amer	Nasdaq	NYSE Arca
Total Issues	3,084	290	3,501	1,576
Advances	184	50	510	162
Declines	2,892	239	2,966	1,414
Unchanged	8	1	25	...
New Highs	23	1	38	92
New Lows	2,714	198	2,580	1,354

NYSE Composite Daily Breadth

Daily	Mar 16	17	18	19	20
Issues Traded	3,060	3,050	3,046	3,056	3,055
Advances	119	1,817	186	2,309	1,316
Declines	2,934	1,202	2,853	724	1,703
Unchanged	7	31	7	23	36
New Highs	2,001	1,324	14	5	29
New Lows	8,480	7,998	2,233	1,051	361
Blocks - primary	8,480	7,998	8,770	7,258	8,127
Total (000) - primary	1,885,585	1,959,129	1,920,591	1,711,425	2,700,203
Total (000)	7,694,730	8,180,587	8,679,597	7,852,677	9,043,541

NYSE American Composite

Daily	Mar 16	17	18	19	20
Issues Traded	280	274	282	279	278
Advances	25	163	32	204	146
Declines	253	110	249	71	127
Unchanged	2	1	1	4	5
New Highs	138	66	131	83	20
New Lows	307	184	201	218	220
Blocks - primary	32,123	25,697	28,980	29,511	62,408
Total (000) - primary	186,725	174,278	220,230	216,227	222,752

Market Laboratory

INDEXES' P/ES & YIELDS

DJ latest 52-week earnings and dividends adjusted by Dow Divisors at Friday's close. S&P Dec. 4-quarter's GAAP earnings as reported and indicated dividends based on Friday close. S&P 500 P/E ratios based on GAAP earnings as reported. For additional earnings series, please refer to www.spglobal.com. DJ latest available book values for FY 2018 and 2017, and S&P latest for 2018 and 2017. r-Revised data

	Last Week	Prev. Week	Year Ago	Last Week	Prev. Week	Year Ago
DJ Ind Avg	19173.98	23185.62	25502.32			
P/E Ratio	14.89	18.00	17.63	Divs Yield %	4.01	3.39
Earns Yield %	6.72	5.56	5.67	Divs \$	25.92	25.87
Earns \$	1288.07	1288.07	1446.49	Mkt to Book	1.74	2.06
Divs Yield %	3.40	2.81	2.28	Book Value \$	370.98	370.98
Divs \$	652.42	652.35	581.80	S&P 500 Index	2304.92	2711.02
Mkt to Book	2.94	3.56	4.11	P/E Ratio	17.34	20.40
Book Value \$	6512.92	6512.92	6201.99	Earns Yield %	5.77	4.90
DJ Trans Avg	6837.72	7939.40	10052.30	Earns \$	132.90	132.90
P/E Ratio	11.97	13.67	16.27	Divs Yield %	2.67	2.27
Earns Yield %	8.35	7.32	6.15	Divs \$	61.54	61.54
Earns \$	571.07	580.84	617.81	Mkt to Book	2.71	3.18
Divs Yield %	2.54	2.18	1.59	Book Value \$	851.62	851.62
Divs \$	173.59	173.47	159.36	S&P Ind Index	3197.76	3724.43
Mkt to Book	2.11	2.45	3.12	P/E Ratio	19.87	23.14
Book Value \$	3239.67	3239.67	3217.98	Earns Yield %	5.03	4.32
DJ Utility Avg	646.13	762.60	784.26	Earns \$	160.94	160.94
P/E Ratio	16.94	19.99	23.85	Divs Yield %	2.19	2.07
Earns Yield %	5.90	5.00	4.19	Divs \$	70.03	77.10
Earns \$	38.14	38.14	32.89	Mkt to Book	3.62	4.22
				Book Value \$	883.41	883.41

144 FILINGS

SEC Form 144 must be filed by holders of restricted securities (also called letter stock) who intend to sell shares. Shares Indicated: the number to be sold. Sales Date: the approximate date of the sale. (Sometimes shares aren't sold, even though their owner has filed a Form 144.) Source: Thomson Reuters

Company	Sym	Shares Indicated	\$ Value	Sale Date	Seller	Title
Snap	SNAP	1,485,521	20,736,387	3/3/20	Spiegel, Evan	O
Ameresco	AMRC	800,000	17,000,000	3/5/20	Sakellaris, George	CEO
Stoke Therapeutics	STOK	599,103	14,827,799	3/1/20	Nash, Huw	O
Fastly	FSLY	280,418	6,028,987	3/4/20	Dhalwal, Sunil	AF
Microsoft	MSFT	280,174	48,411,265	3/3/20	Nadella, Satya	AF
Clorox	CLX	252,794	41,230,701	3/2/20	Dorer, Benno	O
Nike	NKE	165,000	15,006,295	3/2/20	Parker, Mark	OE
10X Genomics	TXG	135,000	9,799,650	3/6/20	Hindson, Benjamin	AF
Realpage	RP	131,043	8,200,000	3/3/20	Chaney, William	AF
Abbott Laboratories	ABT	127,882	10,230,661	3/2/20	Yoor, Brian	FO

THE WEEK IN STOCKS FOR THE MAJOR INDEXES

12-Month		Weekly		Friday		12-Month		Change From	
High	Low	High	Low	Close	Chg.	Chg.	% Chg.	12/31	% Chg.
Dow Jones Indexes									
29551.42	19173.98	30 Indus	21237.38	19173.98	19173.98	-4011.64	-17.30	-6328.34	-24.81
11304.97	6837.72	20 Transp	7468.23	6837.72	6837.72	-1101.68	-13.88	-3214.58	-31.98
960.89	646.13	15 Utilities	769.69	646.13	646.13	-116.47	-15.27	-138.13	-17.61
9710.01	6304.73	65 Comp	7059.90	6304.73	6304.73	-1214.87	-16.16	-2146.73	-25.40
Dow Jones Indexes									
34631.28	23105.30	US TSM Float	25309.87	23105.30	23105.30	-4183.03	-15.33	-5711.99	-19.82
840.63	563.72	US Market	617.73	563.72	563.72	-101.96	-15.32	-133.60	-19.16
698.43	487.28	Internet	517.78	487.28	503.63	-48.62	-8.80	-118.65	-19.07
New York Stock Exchange									
14183.20	9133.16	Comp-z	10063.36	9133.16	9133.16	-1718.82	-15.84	-3406.25	-27.16
8908.29	5348.94	Financial-z	5987.96	5348.94	5348.94	-1307.70	-19.65	-2251.77	-29.63
18588.15	13630.24	Health Care-z	15015.13	13630.24	13630.24	-2205.84	-13.93	-2404.97	-15.00
11093.82	4032.17	Energy-z	4655.54	4032.17	4354.79	-1033.74	-19.18	-6280.03	-59.05
NYSE American Stock Exchange									
2629.04	1317.22	NYSE Amer Comp	1503.07	1317.22	1408.94	-193.31	-12.06	-1110.01	-44.07
2852.12	1810.96	Major Mkt	2006.31	1810.96	1810.96	-373.67	-17.10	-777.36	-30.03
Standard & Poor's Indexes									
1518.94	1065.65	100 Index	1159.11	1065.65	1065.65	-171.55	-13.87	-173.44	-14.00
3386.15	2304.92	500 Index	2529.19	2304.92	2304.92	-406.10	-14.98	-495.79	-17.70
4605.11	3197.76	Indus	3482.08	3197.76	3197.76	-526.67	-14.14	-601.42	-15.83
2106.12	1257.86	MidCap	1403.28	1257.86	1257.86	-289.12	-18.69	-597.13	-32.19
1041.03	600.82	SmallCap	760.06	600.82	604.74	-121.24	-16.70	-313.35	-34.13
Nasdaq Stock Market									
9817.18	6879.52	Comp	7334.78	6879.52	6879.52	-995.36	-12.64	-763.15	-9.99
9718.73	6978.02	100 Index	7473.95	6994.29	6994.29	-1000.97	-12.52	-331.77	-4.53
7463.47	5239.66	Indus	5576.71	5239.66	5239.66	-658.65	-11.17	-928.32	-15.05
10673.14	6687.82	Insur	7410.80	6687.82	6687.82	-1253.61	-15.79	-2005.49	-23.07
4011.98	2266.54	Banks	2574.39	2266.54	2266.54	-402.26	-15.07	-1129.54	-33.26
6590.23	4330.70	Computer	4929.89	4610.32	4610.32	-754.86	-14.07	-30.16	-0.65
439.67	298.17	Telecom	322.10	298.17	307.76	-23.65	-7.14	-100.75	-24.66
Russell Indexes									
1875.24	1260.64	1000	1381.49	1260.64	1260.64	-227.40	-15.28	-290.31	-18.72
1705.22	991.16	2000	1106.51	991.16	1013.89	-196.25	-16.22	-492.03	-32.67
1984.26	1324.77	3000	1564.66	1324.77	1324.77	-239.94	-15.33	-324.29	-19.66
1591.36	874.66	Value-v	975.95	874.66	874.66	-171.97	-16.43	-327.52	-27.24
1931.39	1346.94	Growth-v	1454.45	1346.94	1346.94	-225.40	-14.34	-154.34	-10.28
2472.07	1519.37	MidCap	1696.67	1519.37	1519.37	-337.47	-18.17	-600.86	-28.34
Others									
6789.54	3854.81	Value Line-a	4280.57	3854.81	3975.93	-763.07	-16.10	-2071.28	-34.25
562.05	306.90	Value Line-g	342.71	306.90	313.68	-68.95	-18.02	-210.41	-40.15
11510.08	6621.12	DJ US Small TSM	7392.86	6621.12	6750.47	-1405.50	-17.23	-3443.09	-33.78
746.64	468.81	Barron's 400	513.48	468.81	468.81	-86.04	-15.51	-201.68	-30.08

High/Low's are based upon the daily closing index. a-Arithmetic Index. G-Geometric Index. V-Value 1000 and Growth 1000 y-Dec. 31,1965=50 z-Dec. 31,2002=5000

PER SHARE VALUES OF STOCKS IN THE DOW JONES AVERAGES

This is a list of the Dow Jones trailing 52-week diluted share earnings, dividends and book values as reported by the company. Bolded numbers indicate new values. Sources Barron's Stats and FactSet.

Industrial Stocks		Earnings		Book Value		
	Earns	Divs.	Value	Earns	Divs.	
Am Exp	7.98	1.64	26.32	JPMorgChase	10.72	3.40
Apple	12.66	3.08	22.53	McDonalds	7.88	4.82
Boeing	(1.20)	8.22	0.60	Merck Co	3.81	2.32
Caterpillar	10.71	3.95	24.39	Microsoft	5.74	1.94
Chevron Corp	1.51	4.86	81.22	Nike Inc	2.86	0.93
Cisco Sys	2.56	1.40	9.36	Pfizer	2.87	1.46
Coca Cola	2.07	1.61	3.98	Proc Gam	1.69	2.98
Disney Walt	6.28	1.76	32.52	3M Co	7.81	5.79
Dow	(2.35)	2.80		Travelers Cos	9.94	3.28
ExxonMobil	3.36	3.48	45.27	UnitedHealth Grp	14.33	4.32
Goldman Sachs	21.00	4.60	214.80	UtD Tech	6.41	2.94
Home Depot	10.25	5.58	(1.70)	Verizon	4.65	2.45
IBM	10.93	6.48	18.82	Visa	5.48	1.10
Intel	4.72	1.275	16.51	Walgreens	4.07	1.8185
Johnson&John	6.78	3.80	22.44	Wal-mart	5.19	2.13
Transportation Stocks						
Alaska Air Group	6.20	1.425	30.45	KC Southern	5.41	1.52
American Airlines	3.81	0.40	(0.37)	Kirby Corp	2.38	Nil
Avis Budget Grp	4.01	Nil	5.45	Landstar Sys	5.73	0.70
C.H. Robinson	4.18	2.02	11.62	Matson Inc	1.92	0.87
CSX Corp	4.17	0.98	15.35	Nord So	10.25	3.68
Delta Air Lines	7.32	1.5575	20.13	Ryder Sys	(0.21)	2.20
Expeditors Int'l	3.39	1.00	11.58	Southwest Air	4.28	0.72
FedEx	(1.39)	2.60	68.08	Un Pacific	8.39	3.79
Hunt (JB)	5.07	1.05	19.33	UPS	5.11	3.89
JetBlue Air	1.92	Nil	15.02	United Airlines	11.63	Nil
Utility Stocks						
AES Corp.	0.45	0.5528	4.84	Exelon	3.01	1.47
Am Elec	3.89	2.74	38.58	FirstEnergy	1.70	1.53
American Water Works	3.43	2.00	32.45	NexEra Energy	7.77	5.15
CenterPt Energy	1.33	1.1525	12.61	NiSource Inc.	0.88	0.81
Con Ed	4.07	2.985	52.11	Pub Sv Ent	3.33	1.90
Dominion Energy	3.40	3.6925	29.53	Sempra Energy	7.24	3.9475
Duke Energy	5.06	3.7625	60.27	South Co.	4.55	2.48
Edison Int'l	3.81	2.4425	32.10			

DISTRIBUTIONS & OFFERINGS

Secondary Distributions of common stocks			
Safehold	1,495,000	\$46.88	\$70,085,600
Village Farms International	3,125,000	\$3.20	\$6,881,602

Source: Dealogic LLC, New York City; (212) 577-4400.

DELTA MARKET SENTIMENT INDICATOR

The Delta MSI measures the position of ~1,800 stocks relative to an intermediate-term moving average crossover (MAC) point. When greater than 50% of the stocks followed are above this MAC point, the market is bullish and equities are attractive. When the indicator is below 50%, risk is elevated and stock exposures should be reduced. Manager uses discretion on asset allocation when MSI is 50% +/- 3%.

Current Sentiment	Last Week	2 Weeks Ago	3 Weeks Ago
BEARISH	2.5%	10.3%	19.6%

Current Market Exposure: 0% Equities, 0% Bonds, 100% Cash
Source: Delta Investment Management
www.deltaim.com, (415) 249-6337

BARRON'S 50-STOCK AVERAGE

This index is an weighted average of 50 leading issues. Useful in security valuation. Source: Barron's Stats

	Mar 19 2020	Mar 12 2020	Mar 19 2019	Yr-to-Yr % Chg
S&P 500 Index	2409.39	2480.64	2806.93	-14.16
Barron's 50 Index	6493.98	6822.84	8867	-26.76
Projected quarterly earn	103.15	105.81	95.26	8.29
Annualized projected earn	412.61	4		

Market Laboratory

DOW JONES U.S. TOTAL MARKET INDUSTRY GROUPS

Top 20 Weekly Ranked	IG-Sym	Net Change			% Change and Ranking					52 Week			
		Close	Wkly	YTD	Week	Rank	Yr Ago	Rank	YTD	Rank	3 Yr	High	Low
Coal	DJUSCL	7.02	+5.9	-9.79	+9.17	[1]	-87.30	[142]	-58.22	[131]	-42.69	55.95	4.75
Mining	DJUSMG	86.04	+4.44	-10.75	+5.44	[2]	+11.92	[4]	-11.11	[8]	+5.22	109.51	71.12
Gold Mining	DJUSPM	92.52	+4.76	-10.74	+5.42	[3]	+19.73	[2]	-10.40	[6]	+9.20	117.80	70.75
Broadline Retailers	DJUSRB	2012.01	+92.79	-8.13	+4.83	[4]	+8.71	[6]	-4.0	[1]	+26.35	2,272.42	1,791.13
Delivery Svcs	DJUSAF	748.42	+10.15	-197.50	+1.37	[5]	-22.22	[72]	-20.88	[31]	-7.60	1,016.62	666.48
Drug Retailers	DJUSRD	730.36	+5.6	-113.35	+0.08	[6]	-17.33	[59]	-13.43	[11]	-13.99	895.26	649.45
Food & Drug Retailers	DJUSDR	658.95	-2.19	-67.01	-0.33	[7]	+4.03	[9]	-9.23	[3]	+1.52	749.58	596.90
Food Retailers & Whlsrs	DJUSFD	482.11	-2.25	-40.54	-0.46	[8]	+14.35	[3]	-7.76	[2]	+14.57	547.43	421.17
Nondurable Hshld Pdts	DJUSHN	888.49	-14.94	-93.78	-1.65	[9]	+8.36	[7]	-9.55	[5]	+6.53	1,003.84	815.15
Mobile Telecom	DJUSWC	358.56	-6.14	-43.54	-1.68	[10]	-5.28	[21]	-10.83	[7]	+1.64	405.63	341.25
Telecom Equipment	DJUSCT	1011.39	-21.46	-272.53	-2.08	[11]	-25.29	[86]	-21.23	[34]	+1.17	1,454.29	928.91
Distillers & Vintners	DJUSVN	306.73	-10.41	-130.91	-3.28	[12]	-17.31	[58]	-29.91	[71]	-2.96	475.69	298.71
Trucking	DJUSTK	691.30	-30.08	-163.27	-4.17	[13]	-11.50	[37]	-19.11	[22]	+3.17	911.64	659.48
Biotechnology	DJUSBT	1859.81	-85.70	-299.42	-4.40	[14]	-8.61	[27]	-13.87	[13]	+1.79	2,213.12	1,774.85
Retail	DJUSRT	1207.27	-60.30	-186.13	-4.76	[15]	-4.56	[18]	-13.36	[10]	+10.95	1,519.42	1,135.92
Containers & Packaging	DJUSCP	292.77	-14.86	-110.10	-4.83	[16]	-22.75	[77]	-27.33	[57]	-6.20	413.92	274.57
Gas Distribution	DJUSGU	245.96	-13.15	-69.39	-5.07	[17]	-24.56	[81]	-22.00	[35]	-4.59	337.51	229.80
General Retailers	DJUSGT	1337.33	-75.94	-216.47	-5.37	[18]	-5.70	[22]	-13.93	[14]	+13.64	1,706.84	1,258.95
Food Producers	DJUSFO	313.83	-20.01	-89.62	-5.99	[19]	-10.03	[31]	-22.21	[38]	-8.07	405.76	309.21
Food Products	DJUSFP	434.23	-27.68	-124.00	-5.99	[20]	-10.03	[32]	-22.21	[39]	-8.07	561.42	427.83

Groups are weighted by capitalization. 52-week highs and lows are based on daily closes. Dec. 31, 1991=100. In the U.S. listings, % vol chg column shows the change from previous 65-day moving average. Volume figures do not reflect extended trading hours.

MONTHLY DOW JONES INDUSTRIAL AVERAGE

Year Month	First Closing	Closing High	Closing Low	Close Avg Mean	Last Close	Chg.	% Chg.	Avg. P/E	Avg. Yield
2020									
Feb	28399.81	29551.42	25409.36	28519.73	25409.36	- 2846.67	- 10.07	21.95	2.28
Jan	28868.80	29348.10	28256.03	28879.99	28256.03	- 282.41	- 0.99	21.34	2.21
2019									
Dec	27783.04	28645.26	27502.81	28167.01	28538.44	+ 487.03	+ 1.74	20.90	2.24
Nov	27347.36	28164.00	27347.36	27797.05	28051.41	+ 1005.18	+ 3.72	20.52	2.24
Oct	26573.04	27186.69	26078.62	26736.80	27046.23	+ 129.40	+ 0.48	19.29	2.30

PULSE OF THE ECONOMY

Only includes new reports.	Latest Date	Latest Data	Preceding Period	Year Ago	YroYr % Chg
Economic Growth and Investment					
Durable manufacturing (NAICS) a	Feb	108.0	r107.7	109.3	-1.19
Capacity utilization %	Feb	77.0	r76.6	79.0	-2.53
Industrial output a	Feb	109.6	r109.0	110.3	-0.63
Manufacturing (NAICS) a	Feb	106.1	r106.0	106.6	-0.47
Nondurable manufacturing (NAICS) a	Feb	104.1	r104.2	103.8	0.29
Production					
Electric power, (mil. kw hrs) (EEL)	Mar 14	69,145	72,083	70,792	-2.33
Mining (NAICS) a	Feb	133.0	r135.0	132.2	0.61
Petroleum, related capacity, %	Mar 13	86.4	86.4	88.9	-2.81
Rotary rigs running, U.S. & Can., (Hughes)	Mar 20	870	967	1,121	-22.39
Steel, (thous. tons)	Mar 14	1,878	1,903	1,930	-2.69
Steel, rated capacity, % (AISI)	Mar 14	80.5	81.6	82.9	-2.90
Utilities a	Feb	105.4	r98.4	108.2	-2.59
Consumption and Distribution					
Business sales, (mil. \$)	Jan	1,471.21	r1,462.94	1,441.50	2.06
Instinet Research Redbook Avg. (monthly %)	Mar 14	1.06	-0.05	-4.97	.....
Baltic Dry Index	Mar 20	625	633	690	-9.42
Retail store sales, (bil. \$)	Feb	528.11	r530.93	506.11	4.35
Inventories					
Business inventories, (bil. \$)	Jan	2,035.25	r2,038.13	2,013.18	1.10
Domestic crude oil, (thous. bbls) Comm. (Excl. Lease Stock)	Mar 13	453,737	451,783	439,483	3.24
Gasoline, (thous. bbls)	Mar 13	240,819	246,999	241,503	-0.28
Inventory-to-sales ratio (Business)	Jan	1.38	r1.39	1.40	-1.43
Orders					

No Activity for this Week

US TREASURY BILLS

Maturity	Bid	Asked	Wkly Chg.	Ask Yld.
Mar 24 '20	0.06	0.05	-0.35	0.05
Mar 26 '20	0.04	0.03	-0.38	0.03
Mar 31 '20	0.05	0.04	-0.25	0.04
Apr 02 '20	-0.03	-0.04	-0.29	-0.04
Apr 07 '20	0.03	0.02	-0.16	0.02
Apr 09 '20	0.02	0.01	-0.25	0.01
Apr 14 '20	0.04	0.03	-0.29	0.03
Apr 16 '20	0.05	0.04	-0.18	0.04
Apr 21 '20	0.03	0.02	-0.23	0.02
Apr 23 '20	0.05	0.04	-0.22	0.04
Apr 28 '20	0.04	0.03	-0.22	0.03
Apr 30 '20	0.03	0.02	-0.22	0.02
May 05 '20	.....	-0.01	-0.24	-0.01
May 07 '20	0.05	0.04	-0.16	0.04
May 12 '20	0.01	.....	-0.28	.....
May 14 '20	0.03	0.02	-0.24	0.02
May 19 '20	0.03	0.02	.....	0.02
May 21 '20	0.05	0.04	-0.18	0.04
May 28 '20	0.03	0.02	-0.22	0.02
Jun 04 '20	0.04	0.03	-0.23	0.03
Jun 11 '20	0.03	0.02	-0.24	0.02
Jun 18 '20	0.03	0.02	-0.23	0.02
Jun 25 '20	0.03	0.02	-0.22	0.02
Jul 02 '20	0.04	0.03	-0.25	0.03
Jul 09 '20	0.02	0.01	-0.29	0.01
Jul 16 '20	0.04	0.03	-0.25	0.03
Jul 23 '20	0.03	0.02	-0.28	0.02
Jul 30 '20	0.04	0.03	-0.29	0.03
Aug 06 '20	0.04	0.03	-0.31	0.03
Aug 13 '20	0.04	0.03	-0.30	0.03
Aug 20 '20	0.03	0.02	-0.32	0.02
Aug 27 '20	0.03	0.02	-0.31	0.02
Sep 03 '20	0.04	0.03	-0.30	0.03
Sep 10 '20	0.05	0.04	-0.30	0.04
Sep 17 '20	0.02	0.01	.....	0.01
Oct 08 '20	0.01	.....	-0.31	.....
Nov 05 '20	0.04	0.03	-0.30	0.03
Dec 03 '20	0.07	0.06	-0.25	0.06
Dec 31 '20	0.12	0.11	-0.21	0.11
Jan 28 '21	0.14	0.13	-0.20	0.13
Feb 25 '21	0.14	0.13	-0.20	0.13

NYSE HALF-HOURLY VOLUME

Daily	3/16	3/17	3/18	3/19	3/20
9:30-10:00	178,980	194,746	209,723	186,883	428,236
10:00-10:30	135,100	113,180	101,274	101,619	89,416
10:30-11:00	117,151	104,551	95,167	86,848	89,858
11:00-11:30	96,041	100,919	95,516	79,401	95,897
11:30-12:00	85,294	79,359	79,854	85,209	69,906
12:00-12:30	77,969	96,655	77,726	75,289	73,412
12:30-1:00	68,045	72,045	68,945	68,477	66,393
1:00-1:30	64,501	67,890	79,376	55,191	59,514
1:30-2:00	62,833	67,174	97,464	62,528	55,443
2:00-2:30	67,071	73,490	86,514	66,002	66,534
2:30-3:00	80,003	76,472	91,872	76,935	73,732
3:00-3:30	87,509	94,377	109,086	95,507	99,786
3:30-4:00	765,090	818,273	728,271	671,567	1,432,075

Coming Earnings

Day	Consensus Estimate	Year Ago
Continued from page 13 of the main section.		
TH		
FactSet Research (Q2)	2.49	2.42
Gamestop (Q4)	0.79	1.60
Science Applications (Q4)	1.34	-0.20

(Earnings are diluted and report dates are tentative. All forecasts and historical numbers exclude extraordinary items by accounting definitions.)

Source: FactSet

YEARLY HI/LO BARRON'S GOLD MINING INDEX

The yearly Barron's Gold Mining Index price; with a high/low range based on the weekly close.

Year	High	Date	Low	Date
2020	614.99	Feb 20	391.56	Mar 19
2019	597.01	Dec 26	400.31	Jan 24
2018	540.76	Jan 25	382.52	Oct. 25
2017	567.38	Feb 16	456.65	Dec 07
2016	634.16	Aug 11	245.05	Jan 21
2015	557.39	Jan 22	265.74	Dec 17
2014	815.69	July 17	499.10	Dec 24
2013	1035.18	Jan. 10	619.44	June 28
2012	1370.44	Feb. 02	963.93	Jul 12
2011	1635.01	Apr. 07	1179.98	Dec 29
2010	1624.69	Dec 30	1027.10	Feb. 04
2009	1314.69	Dec 03	677.00	Jan. 15
2008	1528.87	Mar 13	464.11	Nov 20
2007	1469.94	Nov 08	920.13	Jan. 11
2006	1175.33	May 11	866.06	Mar 09
2005	892.22	Dec 29	547.82	May 12
2004	708.59	Nov 24	518.90	May 13
2003	716.04	Dec. 04	404.45	Mar 27
2002	523.52	May 23	324.28	Jan 03
2001	355.14	May 17	241.92	Jan 11
2000	365.43	Feb. 10	224.55	Nov 16
1999	433.68	Oct. 14	297.75	Apr 08
1998	487.85	Apr. 23	281.93	Aug 27
1997	709.58	Feb 27	353.74	Dec 11
1996	901.36	Feb 01	649.54	Dec 26
1995	771.42	Jun 15	652.37	Oct.

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WEEK'S NEW HIGHS AND LOWS

Weekly Comp.	NYSE	NYSE Amer	Nasdaq
New Highs	23	0	38
New Lows	2714	198	2580

NOTICE TO READERS: Due to space constraints, we are publishing an abbreviated highs and lows listing this week.

NYSE AMER

NEW LOWS

Abrdn AP IncFd	CompX Intl	GoldResource	PalatinTech
AbrdnAusEq	CondorHospitality	GoldStandrdVntr	ParamountGoldVn
AberdeenEq	ConTorka	GoldenStarRscs	ParkNational
AbrdnGlbncFd	ContangoO&G	GranTerraEner	PioneerDiversHIT
ActiniumPharm	ContinentalMats	GreatPanther	PlatinumGrpMts
AdamsRes	CoreMoldingTech	GrupoSimce	PlymouthREITPfdA
AeroCentury	CorMedix	HMG Court	PolymetMining
AgEagleAerial	CornstnStrat	HillmanGroupPfd	PowerREIT PfdA
AgeX Therap	CornerstoneTRFD	HoustonAmEnr	RENN Fund
AirIndustries	CPI Aero	IMPAC Mortgage	RMR Real Estate
Alexores	CS AssetMgmtIncm	ImperialOil	RadiantLogistics
AlidoGold	CS HY Bond	IndiaGlbCap	ReavesUtilFd
AlmadenMinerals	CynergisTek	IndonesiaEnergy	RegionalHealth
AmbowEduc	DPW	InnSuitesHosp	RegionalHlthPfdA
AmShrHosp	DE MN Fd II	InspireMD	SachemCapital
AmerGold&Silver	DE CO Munifd	InspireMD Wt	SachemNts2024
AnnovisBio	DE InvNtlMunFd	IntelligentSys	SachemNts2024
ArconicPfd	DeltaApparel	IntlTowerHill	SanchezMidstrm
Ashford	DenisonPines	intTEST	Seaboard
AurynResources	DunxinFinl	Inuvo	Senseonics
AvalonHoldings	EVI Industries	InvescoAdvMunil	Servotronics
AvinoSilver	EquicapGrowth	IssuerDirect	SierraMetals
BK Tech	EtnVncCA	Kaleya	SifcoInd
BNYM MunIncm	EtnVncCA MIT	KelsoTechs	SilvercorpMetals
B2Gold	EtnVncLtdFd	Libbey	SolitarioZinc
BallantyneStrong	EtnVncMuni	MAG Silver	SouthwestGA Fin
BancroftFund	EtnVncNY	MatinasBioPharma	SparkNetworks
BancroftDfPfdA	EtnVncNY MIT	MaverixMetals	StdDiversified
BarHarborBkshs	EllsworthGrw&Incm	IndxPlus 03-1	SuperiorDrilling
BioceresCropWt	EllsworthPfdA	MexcoEnergy	SyntheticBio
BiomX	EmersonRadio	MicronSolutions	TalenoEnergyWt
BioPharmX	Enservco	Myomo	TanzaniaGold
BlueRidgeBkshs	EvansBancorp	NTN Buzztime	TasekoMines
BluerockResREIT	EvolutionPetrol	NatlHealthcare	TompkinsFin
BluerockResPfdA	FT EnerIncome	Network1 Techs	TransEnterix
BluerockREITPfdC	Flanigans	NewbrgrBrmHY	TrilogyMetals
BluerockResPfd	FlexSolnt	NeubergBermaCn	TrinityPlace
BowlAmerica	FranklinLdDuratn	NewBermaMLP&E	TrioTech
CKX Lands	FranklinStPp	NeubergBermaMun	UniqeFabricating
CRH Medical	FriedmanInds	NeubergBermaNY	US Antimony
cbdMD	GAMCOGlbMat&Inc	NubrgRIEstSec	UnvInseclstr
cbdMD PfdA	GAMCOGlbGoldPfb	NewConceptEner	Un-Energy
CentralSecs	GEE Group	Nv Realty	VolitionRX
Chase	GabelliUtilInco	NewGold	VoltnfoSci
ChenieryEnergy	GabelliPfdB	NexGenEnergy	VS3XINV SILVER
ChenieryEnerPtrs	GabelliGoAnywhere	NorthernDynasty	VS2XVIXShortTerm
ChicagoRivet	GabelliGoAnyPfdA	NorthernOil&Gas	VS1XVIXShortTerm
CloughGlbDiv	GeneralMoly	NuverraEnvl	WirelessTel
CloughGlbEqFd	GlobalSCAPE	PEDEVCO	XtantMedical
CloughGlbOpp	Globalstar		

NASDAQ

NEW HIGHS

AdvShrDorseyShrt	CitrixSystems	iSh1-3YTreasuryBd	RegenPharm
ArctusBiotherap	CrescentAcqn	iSh1BdsDec22YrA	ShenandoahTel
ARYA SciencesWt	CrossCityHlthcr	iShShortTreaBd	StableRoadWt
Athersys	EdtechX Un	LancasterColony	SummitTherap
ATN Intl	Everbidge	Lumix	VS 3X INV SILVER
BellerophonTherap	FT MC US Equity	MuscleMaker	VS2XVIXShortTerm
Betterware	GileadSciences	NatlSecurity	VS1XVIXShortTerm
Biomerica	GoresMetrop	Quidel	WD-40
BioNTech	GreenVisionAcqn	RandCapital	ZoomVideo
Centogene	Imara		

NEW LOWS

1-800-FLOWERS	DuosTechs	InvscIntllowBeta	ProfessionalHldg
1347 Property	DXP Ents	InvscKBWBk	ProfireEnergy
1347PropInsPfdA	DiadicIntl	InvscKBWHDVfn	ProgenicsPharm
180DegreCap	DynavaxTechs	InvscKBWP&Clns	ProgressSoftware
1895Bancorp	E TRADE	InvscKBWPReqREIT	Propoint
1LifeHealthcare	EqleBancorp	InvscKBWRqBkg	PropTechAcqna
1stConsBncp	EqleBncpMT	InvscQsdInt	PropTechAcqUn
1stSource	EqleBulkShip	InvscQslnt	ProQR Therap
360Finance	Eastern	InvscR1000Lobeta	ProShEquRising
36Kr	EastsideDistilling	InvscRAFIStDvX	ProShUltNasBio
51job	EastStoneAcqn	InvscRAFIStRAEM	ProShUltNdbio
89bio	EastWestBncp	InvscRAFIStRAEQ	ProShUltPQQQ
8iEntsAcqn	eBay	InvscRAFIStDevSm	ProtectivelsA
8iEntsAcqnUn	eBay Nts2056	InvscRAFIStUSM	ProtectivelsB
Abeona Therap	Ebis	InvscS&PSCnsDisc	ProvidenceService
Abiomed	EchoStar	InvscS&PSCFnls	ProvidentBncp

WEEK'S NEW HIGHS AND LOWS

AbraxisPetro	EDAP TMS	InvscS&PSCHlthCr	ProvidentFin
AC Immune	EdesaBiotech	InvscS&PSCInds	PrudentialBncp
AcaciaResearch	EditasMedicine	InvscS&PSCInfTech	Psychemedics
AcadiaHealthcare	eGain	InvscS&PSCMatls	PTC
AcamarPtrs	EigerBioPharma	InvscS&PSCUtlty	PTC Therap
AcamarPtrs	EkoBionics	InvscVArRetInvt	PulseBiosciences
AcamarPtrsWt	ElbitSystems	InvscWaterRscs	PumaBiotech
AcasiPharm	EldoradoResorts	lonisPharm	PureCycle
AcceleratDiag	ElectraVehicles	IPG Photonics	QAD A
Accuray	Electro-Sensors	IO Chaikin US SC	QAD B
AcelRxPharm	electroCore	IOChaikinUSLC	QCR Holdings
AcerTherap	ElectronicArts	iRadimed	QIWI
AchieveLifeSci	ElmiraSvgsBank	Qualstar	Qualstar
ACIWorldwide	EloxPharm	Iridium	Qualys
AclarisPharm	EIPolloLoco	iRobot	Quantarix
AcordaTherap	EmcloreFin	IRSA Prop	Quantum
ActiGlbAcqn	Emcor	iShSHYOil&Gas	QuestResource
ActiGlbAcqnWt	EmmcsComm	iSh5YInvGrdCbnd	QuickLogic
AdamasPharm	EnantaPharma	iSh13YearIntlTbd	QuinStreet
Adamas	EncoreCapital	iShAsia50ETF	Qumu
AdaptiveBiotech	EncoreWire	iShRdUtlInVcDbp	Quotient
AddeXTherap	Endologix	iShCommndS&Strat	QuarteRetailA
AddusHomeCare	ENDRALifeWt	iShCore1-5YUSD	QuarteRetailB
AdialPharm	EnduranceIntl	iShCoreMSCITotnt	QRUM
ADMA Biologics	Energous	iShCorS&PUSGrwth	RadaElectronic
Adobe	EnergyRecovery	iShCorS&PUSValu	Radiom
ADP	ENGLobal	iShCoreTotalUSD	RadiomHealth
Adtran	EnlivexTherap	iShCurrHdMSCGrmny	RadNet
AdvEmisys	EnsignGroup	iShESG1-5YCbnd	Radware
AdvEnergyInds	EnstarGroup	iShESGEMLdrs	Rambus
AdvShDorseyMc	EnstarPfd	iShESGUSALdrs	RandCapital
AdvShDW F5M AC	EnstarPfdE	iShESGUSCIAEF	RandolphBancorp
AdvShDW F5M US	EntasisTherap	iShESGUSDCorpbd	Rapid7
AdvShDWAlphaEtf	EnterpriseFimSvcs	iShExpnntialTech	RaplTherap
AdvViceETF	EpsilonEnergy	iShGlobalUSD8	RavenIndustries
Aegion	Equillum	iShGlbCleanEnergy	RBB Bancorp
AegleaBioTherap	EquityBchsh	iShGlbGreenBnd	RBC Bearings
AehrTestSys	Ericsson	iShGlbTimber	RCI Hospitality
AerPharm	ErieIndemnityA	iShGlobalInfra	RCM Tech
AeroVironment	ErytechPharma	iShGlbDec23Trea	Reading A
AerpioPharm	Escalade	iShGlbDec26Trea	Reading B
AETernaZentaris	EserpionTherap	iShGlbDec28Trea	RealNetworks
Affimed	EsquireFinancial	iShGlbDec29Trea	RealPage
Afyx	ESSA Bancorp	iShIndia50ETF	RealReal
Agenus	EstablishLabs	iShIntercomPbd	ReconTech
Agilysys	EtonPharm	iShIntlDevRealEst	Redfin
AgiosPharm	Etsy	iShIntlTreasuryBd	RedHillBio
AGNC InvPfdC	EuroDry	iShMORNDEmBd	RedRiverBchsh
AGNC Inv	EuronetWorldwide	iShMORNMCValu	RedRobin
AGNC InvPfdC	EveloBiosci	iShMSCIACWJ	RedRockResorts
AGNC InvPfdE	Ever-Glory	iShMSCI EAFE SC	Reebonz
AGNC InvPfdF	EVO Payments	iShMSCI EM Asia	Red's
AGNC InvPfdF	Evogene	iShMSCIACX&Jpn	REGENXBIO
AgroFresh	Evolus	iShMSCIBrazilISX	RegulusTherap
AkidoPharma	EvolvingSystems	iShMSCIChina	RegulusTherap
AimmuneTherap	ExactSciences	iShMSCIEMChina	Remark
Airgain	ExelaTech	iShMSCIEuroFinls	Renasant
Airt	Exelon	iShMSCIGlbImpact	RenA-Center
AirTPfd	EXFO	iShMSCIGlbGmct	Replimune
AirTransportSvcs	Excure	iShMSCIGlbGmct	Replimune
AkarTherap	ExiService	iShMSCIJapanEvo	RepublicBcpKYA
Akazeo	ExOne	iShMSCIJapanEvo	RepublicFirstBncp
Alkermes	Expedia	iShMSCIJapanEvo	ResourcesConnect
Alkermes	expeditorsIntl	iShMSCIJapanEvo	resTORbio
Alkermes	Experiencelntv	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvA	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvB	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvC	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvD	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvE	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvF	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvG	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvH	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvI	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvJ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvK	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvL	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvM	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvN	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvO	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvP	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvQ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvR	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvS	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvT	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvU	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvV	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvW	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvX	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvY	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvZ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAA	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAB	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAC	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAD	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAE	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAF	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAG	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAH	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAI	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAJ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAK	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAL	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAM	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAN	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAO	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAP	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAQ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAR	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAS	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAT	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAU	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAV	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAW	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAX	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAY	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvAZ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBA	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBB	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBC	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBD	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBE	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBF	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBG	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBH	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBI	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBJ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBK	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBL	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBM	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBN	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBO	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBP	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBQ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBR	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBS	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBT	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBU	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBV	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBW	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBX	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBY	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvBZ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCA	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCB	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCC	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCD	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCE	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCF	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCG	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCH	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCI	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCJ	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCK	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCL	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCM	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCN	iShMSCIJapanEvo	RhythmComms
Alkermes	ExperiencelntvCO	iShMSCIJapanEvo	RhythmComms
Alkermes</			

Market Laboratory

MONEY RATES

	Latest Week	Prev. Week	Yr Ago
Discount Rate (NY)	0.25	1.75	3.00
Prime Rate (base)	3.25	4.25	5.50
Fed Funds Rate			
Avg effective offer	0.28	1.12	2.43
Avg weekly auction-c	1.09	1.29	2.40
T-Bills Rate			
13 weeks, Coupon Yield	0.294	0.396	2.465
13 weeks, Auction Rate	0.290	0.390	2.410
26 weeks, Coupon Yield	0.305	0.406	2.522
26 weeks, Auction Rate	0.300	0.400	2.450
Avg weekly auction-c	0.35	0.76	2.40
Broker Call Rate	2.00	3.00	4.25
Bankers Acceptances			
1 month	1.50	1.13	2.48
2 months	1.51	1.13	2.53
3 months	1.51	1.23	2.63
6 months	1.52	1.30	2.73
Euro Libor Rate			
1 month	-0.476	-0.527	-0.416
3 months	-0.353	-0.427	-0.336
6 months	-0.290	-0.380	-0.297
12 months	-0.211	-0.298	-0.181

Libor Interbank Rate	Latest Week	Prev. Week	Yr Ago
1 month	0.93	0.80	2.50
3 months	1.20	0.84	2.61
6 months	0.99	0.82	2.68
12 months	0.93	0.82	2.79

Foreign Prime Rates	Latest Week	Prev. Week	Yr Ago
Canada	2.95	3.45	3.95
Germany	0.00	0.00	0.00
Japan	1.475	1.475	1.475
Switzerland	0.50	0.50	0.50
Britain	0.75	0.75	0.75

Other Money Rates	Latest Week	Prev. Week	Yr Ago
Fannie Mae Home Loan:			
30-Year Fixed Conv	3.01	2.99	3.62
Bank money market-z	0.18	0.20	0.23
Interest Checking-z	0.07	0.07	0.08
6-Month Certif-z	0.37	0.41	0.59
12-Month Certif-z	0.57	0.67	0.97
30 Month Accounts-z	0.55	0.71	1.12
5-Year Certificates-z	0.85	0.96	1.48
U.S. Savings EE Bonds:			
Long-Term (5yrs+)	0.10	0.10	0.10

c-Annualized yields, adjusted for constant maturity, reported by the Federal Reserve on a weekly average basis.

Sources: Tullett Prebon information, Ltd. Factset. z-Bankrate.com.

WEEKLY BOND STATISTICS

	Last Week	Prev. Week	Yr Ago Week
New Offerings, (mil \$) (v)			
Corporate (z)	37,317	r22,837	18,475
Municipal (z)	950	r6,277	3,691
Best Grade Bonds-y (Barron's index of 10 high-grade corporate bonds.)	4.01	2.87	3.61
Interm-Grade Bonds-y (Barron's index of 10 medium-grade corporate bonds.)	5.37	3.90	4.40
Confidence Index (High-grade index divided by inter-mediate-grade index; decline in latter vs. former generally indicates rising confidence, pointing to higher stocks.)	74.5	73.5	82.0

Other Confidence Indicators:

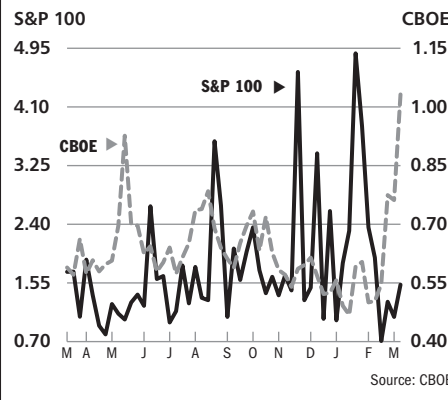
Bloomberg Barclays US Long Treasury*	Latest Week	Prev. Week	Yr Ago
(This index measures the performance of fixed-rate, nominal US Treasuries with at least 10 years to maturity. Jan. 1, 1973=100.)	4625.06	4652.88	3590.39

Bloomberg Barclays US Credit	Latest Week	Prev. Week	Yr Ago
(This index includes all publicly issued, fixed-rate, non-convertible, investment-grade, dollar-denominated, SEC-registered corporate debt. All issues have at least one year to maturity and outstanding par value of at least \$250 million. Jan. 1, 1973=0.) (v)	2801.69	3069.56	2808.87

Ryan Labs Treasury Index	Latest Week	Prev. Week	Yr Ago
(Index of total return from active Treasury notes and bonds. Dec. 31, 1996=100.)	321.65	329.79	278.57

CBOE PUT/CALL RATIO vs S&P 100

Readings in the CBOE equity put-call ratio of 60:100 and in the S&P 100 of 125:100 are considered bullish, for instance. Bearish signals flash when the equity put-call level reaches the vicinity of 30:100 and the index ratio hits 75:100.



INVESTOR SENTIMENT READINGS

High bullish readings in the Consensus stock index or in the Market Vane stock index usually are signs of Market tops; low ones, market bottoms.

	Last Week	2 Weeks Ago	3 Weeks Ago
Consensus Index			
Consensus Bullish Sentiment	31%	47%	53%
Source: Consensus Inc., P.O. Box 520526, Independence, Mo. Historical data available at (816) 373-3700. editor@consensus-inc.com			
AAIL Index			
Bullish	34.4%	29.7%	38.7%
Bearish	51.1%	51.3%	39.6%
Neutral	14.5%	19.0%	21.6%
Source: American Association of Individual Investors, 625 N. Michigan Ave., Chicago, Ill. 60611 (312) 280-0170.			

Market Vane

	Last Week	2 Weeks Ago	3 Weeks Ago
Bullish Consensus	29%	33%	38%
Source: Market Vane, P.O. Box 90490, Pasadena, CA 91109 (626) 395-7436.			

TIM Group Market Sentiment

	Last Week	2 Weeks Ago	3 Weeks Ago
Indicator	47.9%	40.8%	49.0%
Source: TIM Group, 3 Columbus Circle, Suite 1592 New York, NY 10019 (844) 207-1445. timsupport@timgroup.com			

FOREIGN EXCHANGE

Friday, March 20, 2020
The New York foreign exchange mid-range rates are quoted at 5 p.m. Eastern time by Tullett Prebon. Retail transactions provide fewer units of foreign currency per dollar.

Country	Foreign Currency in U.S.\$ Fri.	Foreign Currency in U.S.\$ Last Fri.	U.S.\$ in Foreign Currency Fri.	U.S.\$ in Foreign Currency Last Fri.
Argentina (Peso)-y	.0157	.0159	63.7998	62.9000
Australia (Dollar)	.5784	.6193	1.7289	1.6147
Bahrain (Dinar)	2.6476	2.6489	.3777	.3775
Brazil (Real)	.1975	.2058	5.0643	4.8595
Bulgaria (Lev)	.5456	.5657	1.8330	1.7678
Canada (Dollar)	.6966	.7243	1.4354	1.3807
Chile (Peso)	.001158	.001192	863.30	839.00
China (Renminbi)	.1409	.1427	7.0958	7.0082
Colombia (Peso)	.0002427	.0002486	4120.50	4023.01
Croatia (Kuna)	.1404356	.1465545	7.12	6.82
Czech Rep. (Koruna)	.03924	.04220	25.485	23.697
Denmark (Krone)	.1432	.1486	6.9830	6.7290
Ecuador US Dollar	1.0000	1.0000	1.0000	1.0000
Egypt (Pound)-y	.0635	.0637	15.7487	15.7007
Hong Kong (Dollar)	.1289	.1287	7.7569	7.7695
Hungary (Forint)	.003050	.003277	327.92	305.18
Iceland (Krona)	.007109	.007404	140.67	135.07
India (Rupee)	.01326	.01354	75.398	73.840
Indonesia (Rupiah)	.0000628	.0000677	15925	14770
Israel (Shekel)	.2772	.2728	3.6076	3.6662
Japan (Yen)	.009023	.009261	110.82	107.98
Kazakhstan (Tenge)	.002181	.002460	458.53	406.55
Kuwait (Dinar)	3.2199	3.2457	.3106	.3081
Macau (Pataca)	.1254	.1250	7.9742	7.9972
Malaysia (Ringgit)-b	.2276	.2337	4.3945	4.2785
Mexico (Peso)	.0409	.0456	24.4252	21.9168
New Zealand (Dollar)	.5709	.6068	1.7516	1.6480
Norway (Krone)	.0848	.0994	11.7859	10.0583
Oman (Rial)	2.5959	2.5982	.3852	.3849
Pakistan (Rupee)	.00631	.00636	158.600	157.150
Philippines (Peso)	.01952	.01958	51.230	51.070
Poland (Zloty)	.2359	.2538	4.2393	3.9402
Qatar (Rial)	.2746	.2754	3.6410	3.6312
Russia (Ruble)-a	.01250	.01377	79.978	72.623
Saudi Arabia (Riyal)	.2661	.2664	3.7580	3.7532
Singapore (Dollar)	.6902	.7070	1.4489	1.4145
South Africa (Rand)	.0569	.0614	17.5891	16.2771

FEDERAL RESERVE DATA BANK

Member Bank Reserve Chgs. (Mil. \$)	Latest Week	Prev. Week Change	Year Ago Change
One week ended Mar 18:			
U.S. Gov't securities:			
Bought outright	3,929,025 +	38,893 +	147,655
Federal agency secur:			
Bought outright	2,347	....	-62
Reserve bank credit:			
Primary Credit	6,687 +	6,679 +	6,686
Secondary Credit	....	....	....
Seasonal Credit	....	....	-9
Float	-230	-36	-58
Other F.R. Assets	23,059 +	1,841	-658
Total Fed Credit #	4,463,041 +	241,451 +	534,834
Gold stock	11,041	....	....
SDR Certif. Accounts	5,200	....	....
Treas. Curr. Outst.	50,225 +	14 +	377
Total	4,550,208 +	240,979 +	535,211
Currency in circ	1,827,149 +	13,078 +	106,546
Treas. Cash Hldgs	317 +	10	-18
Treas. Fed Deposits	362,576	-17,980 +	58,953
Foreign Fed Deposits	6,359 +	1,004 +	1,115
Other Fed Deposits	171,306 +	81,089 +	106,481
Other FR liab/cap	44,857	-1,279 +	174
Total factors	2,654,620 +	89,916 +	269,354
Reserves F.R. banks	1,895,588 +	151,063 +	265,857
Fgn hold U.S. debt	3,410,689	-29,305	-68,695

Reserve Aggr (Mil. \$ sa)	Latest Wk.	Prev. Week	Wk. % Chg.	Year Ago
Two Wks Ended Mar 11:				
Total Reserves:	1,788,394	1,709,136	4.64	1,776,276
Nonborrowed Res #	1,788,384	1,709,134	4.64	1,776,265
Required Res ##	212,269	211,982	0.14	193,591
Excess Reserves:	1,576,125	1,497,154	5.27	1,582,685
Borrowed Reserves	10	2	400.00	12
Free Reserves ###	1,576,115	1,497,152	5.27	1,582,673
Monetary Base	3,530,486	3,438,834	2.67	3,430,136

Fed supply of permanent reserves provided.
Demand for reserves to back deposits.
Free reserves equal excess reserves minus discount window borrowings other than extended credit. Free reserves are shorthand method of determining the degree of ease of Fed policy, or when they are negative net borrowed reserves, tightness.

Country	Foreign Currency in U.S.\$ Fri.	Foreign Currency in U.S.\$ Last Fri.	U.S.\$ in Foreign Currency Fri.	U.S.\$ in Foreign Currency Last Fri.
South Korea (Won)	.0007968	.0008252	1254.95	1211.78
Sri Lanka (Rupee)	.0054	.0054	186.6800	184.4000
Sweden (Krona)	.0963	.1030	10.3858	9.7050
Switzerland (Franc)	1.0146	1.0521	.9856	.9505
Taiwan (Dollar)	.03303	.03317	30.280	30.144
Thailand (Baht)	.03059	.03138	32.690	31.870
Turkey (New Lira)-d	.1526	.1579	6.5525	6.3337
Ukraine (Hryvnia)	.0359	.0383	27.8252	26.1356
U.K. (Pound)	1.1639	1.2284	.8592	.8141
Uruguay (Peso)	.....	.....	.....	.....
Financial	.02180	.02304	45.870	43.410
Euro	1.0697	1.1104	.9349	.9006

Special Drawing Rights (SDR) are based on exchange rates for the U.S., British, and Japanese currencies. Source: International Monetary Fund. a-Russian Central Bank rate. b-government rate. d-rebased as of Jan. 1, 2005. y-floating rate.

ARMS INDEX

The Arms index, also known as the short term trading index, is a number derived by dividing one quotient into another quotient. The numerator in the index is the number of advancing stocks divided by the number of declining stocks. As of 3/14/11, the denominator in the index is now the composite volume of advancing stocks divided by the composite volume of declining stocks.

Daily	3/16	3/17	3/18	3/19	3/20
NYSE	.57	.79	.90	1.21	1.27
NYSE American	.78	.97	.32	.55	1.35
Nasdaq	.48	.84	.55	1.17	.96

BARRON'S GOLD MINING INDEX

12-Month		3/19	3/12	Year Ago	Week % Chg.	
High	Low					
614.99	391.56	Gold mining	391.56	429.03	450.00	-8.73

GOLD & SILVER PRICES

Handy & Harman	3/20	3/13	Year Ago
Gold, troy ounce	1494.40	1562.80	1311.30
Silver, troy ounce	12.54	14.78	15.42

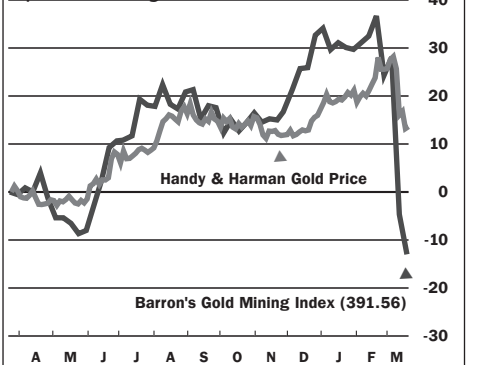
Base for pricing gold and silver contents of shipments and for making refining settlement.

Coins	Price	Premium \$	Premium %
Krugerrand	1540.03	59.23	4.00
Maple Leaf	1554.84	74.04	5.00
Mexican Peso	1793.40	8.00	0.45
Austria Crown	1454.48	3.00	0.21
Austria Phil	1554.84	74.04	5.00
U.S. Eagles	1554.84	74.04	5.00

Premium is the amount over the value of the gold content in the coin. Source Manfra, Tordella & Brookes, Inc. Bullion spot gold price **1480.80**

GOLD PERFORMANCE

Dulled Shine: Expectations of recession, without inflation, took 4.4% off gold's price—leaving it at \$1,494 an ounce.



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