Yardeni Research

MORNING BRIEFING
September 23, 2021

Natural Gas & Unnatural Exosuits

Check out the accompanying chart collection.

(1) Evergrande's demise continues to unfold. (2) Watching for the ripple effects on the Chinese economy. (3) US companies may get caught in the morass. (4) Natural gas supplies becoming the world's latest problem. (5) Less wind and low natural gas production leads to spiking prices. (6) Europe's dependence on US/Russia natural gas imports grows. (7) Demand for LNG strong in Asia and Brazil too. (8) High gas prices have UK energy retailers going bust and fertilizer factories closing. (9) Sensitive robots with soft, smart attachments can pick up fruit and Peeps.

China: More on Evergrande. As the drama around Evergrande continues to unfold, the company reported Wednesday that it had "reached an agreement" with yuan bondholders, which isn't the same as saying, "We've made our interest payment." But that statement plus a large liquidity injection by the Chinese central bank was enough to stabilize the situation for the moment.

Foreign investors in the company's dollar-denominated bonds will get a better idea today of how they'll be treated when a dollar-denominated bond interest payment is due. Our guess: They won't be treated as well as yuan bondholders.

The importance of the real estate market to the Chinese economy is unquestionable. One analyst on Twitter *listed* no fewer than 31 Chinese real estate companies, which had leverage ranging from 20% to 123%. At least eight Chinese cities have come up with measures to prevent developers from selling homes at sharp discounts, thereby harming the broader market, a September 22 *article* in the *South China Morning Post* reported.

Some analysts are speculating that Chinese President Xi Jinping is okay with the demise of Evergrande and some pain in the real estate market if it washes out the sector's speculation and means that apartment prices fall to levels more affordable for the average Joe. But sometimes, you have to be careful what you wish for. Those real estate companies have workforces. They employ tradespeople. They buy materials and furniture. So any slowdown in the real estate business would have ripple effects that extend far beyond the real estate companies at the center of the problem. Put differently, the Chinese Central Bank might not have felt the need to make such a large liquidity injection if all were well.

US companies that generate revenue from China should be concerned, particularly if they sell products to real estate developers or to Chinese consumers. Names mentioned in this 2020 CNBC *article* as having large Chinese exposure include Wynn Resorts and Las Vegas Sands, which have large chunks of revenue coming from Macau. Other standouts with large revenue generated in China include: Apple (17%), Nike (17), Estee Lauder (17), Tapestry (15), and Starbucks (10). Meanwhile, 7%-10% of fees at Marriott and Hyatt are sourced from their Chinese operations. And we haven't touched upon the companies that produce commodities used in apartment building construction.

So while financial markets rallied on Wednesday, we wouldn't take it as a sign that the Evergrande crisis is over.

Energy: Running Low on Gas. Corporate margins, while still at record highs, are facing a trifecta of pressures. US wages are on the rise as employers are having difficulties filling open jobs. Transportation costs are soaring, as more than 70 container ships bob outside of the Port of Los Angeles. And then there's the latest problem: the soaring price of natural gas.

The price of natural gas futures has risen 89% ytd, from $2.54 as the year began to $4.81 as of Tuesday's close, off a bit from this year's high of $5.46 last Wednesday (*Fig. 1*). The price hasn't been this high since a brief spike in 2013. The surge in the price of natural gas is particularly notable because it comes in advance of the winter heating season, when a price pop normally occurs. The natural gas price jump has caused the price of electric power and carbon credits in Europe to jump as well (*Fig. 2*).

The potential problem is rooted in Europe, where we may be witnessing the unexpected consequences of the European Union's push to cut greenhouse emissions. Less natural gas is being produced in Europe, and a greater dependency on wind power and imports is proving unreliable. The skyrocketing price of natural gas is affecting business operations in Europe and raising questions about the wisdom of the US exporting our natural gas supplies. Here's a quick look at the situation:

(1) *No wind in the sails.* The UK has noble intentions of cutting its carbon footprint by turning to electricity generated by windmills and by closing all coal plants by late 2024. Wind power represented about a quarter of the power used by Great Britain last year. But the wind in the North Sea unexpectedly dropped dramatically in September, reducing related

electricity production, a September 13 *WSJ* *article* reported. The shortfall of wind-generated electricity has forced a return to gas- and coal-fired electricity plants.

(2) *Low gas inventories.* The need for natural gas-generated electricity comes at an inauspicious time. Natural gas inventories are extremely low in Europe, which is unusual for this time of year because the heating season hasn't begun. There has been lower production of natural gas in Europe due in part to EU taxes on carbon emissions meant to discourage the use of fossil fuels. Denmark committed to stop pumping oil and gas by 2050. And a Dutch gas company decided to close a huge gas field near Groningen due to public pressure after earthquakes hit nearby, a September 22 *WSJ* *article* reported.

Capital expenditures for upstream oil and gas projects worldwide fell more than 25% in 2020 to about $305 billion, down from $420 billion a year earlier, according to *data* from Statista. This year, capex is expected to increase by only 2% to $310 billion. That likely won't be large enough to keep up with increasing demand for energy as the global economy rebounds from Covid.

As natural gas production has slowed, Europe has grown increasingly reliant on imports from the US and Russia. Russia supplies about 40% of Europe's natural gas. While Kremlin-controlled Gazprom has fulfilled its long-term contracts, it has restricted additional sales and allowed its storage facilities in Europe to fall to low levels, a September 22 *FT* *article* noted.

A September 19 Bloomberg *article* attributed Russia's lack of additional sales to Europe to an energy crunch that Russia is facing. However, the International Energy Agency has called on Russia to increase natural gas supplies to Europe, while the European parliament has launched an investigation into Gazprom's actions, the *FT* article stated. The unanswered question is whether Russia is cutting off supplies in retaliation for the US opposition to the Nord Stream 2 pipeline, which would carry gas from Russia to Europe and, from the US perspective, make Europe even more dependent on Russia's natural gas supplies.

Adding to the difficult situation, European buyers are competing against Brazilian and Asian buyers for liquid natural gas (LNG) supplies. "[C]ountries from Japan to India are panic-buying before the winter, heightening competition for the small fraction of the supply that trades freely in the spot market and isn't tied to long-term contracts," a September 20 Bloomberg *article* reported. Demand for LNG is also coming from Brazil, which has turned to the energy source because it is suffering from a drought that has reduced the hydropower that's normally generated by dams.

(3) *Ripple effects.* European governments have started to plan how to provide emergency aid to households and utilities hurt by the high costs of natural gas and electricity. UK energy retailers are distressed because of the spike in gas and electric prices. PFP Energy and MoneyPlus Energy went out of business when electricity prices spiked earlier this month. Green Energy and Avro—a small energy retailer and a medium-sized energy retailer covering 1.5 million UK households—declared bankruptcy this week. More bankruptcies are expected.

Natural gas is used to make ammonia, which is used in the production of ammonium nitrate, a fertilizer. Two fertilizer factories in the UK owned by CF Industries Holdings shut down because of high gas prices, as did a Norwegian fertilizer manufacturer Yara International. The British government struck a deal with CF Industries to restart and run one of its plants.

If farmers don't have access to fertilizer, food production could fall and prices could spike. Or farmers could pass on the higher cost of fertilizer and charge more for their crops. In addition, carbon dioxide is a byproduct of fertilizer production and is used by numerous industrial processes including the slaughter of animals and manufacture of vacuum packs, dry ice, and beer, a September 20 *WSJ* *article* reported.

(4) *Impact at home.* US and Russian gas exporters are making hay. US LNG exports have grown to record highs in the first half of 2021, and natural gas sales to Mexico through a pipeline increased 25% y/y in June, noted a September 20 *article* in Oilprice.com. In total, US natural gas exports rose to 5.4 trillion cubic feet in June, up from 3.4 trillion a year ago and 1.8 trillion five years ago (*Fig. 3*). The shares of Cheniere Energy, a US LNG exporter, have climbed almost 50% ytd.

As a result, 16% of US natural gas production is now being exported, and US inventories are about 8% below their five-year average. A trade group representing chemical, food, and materials manufacturers, the Industrial Energy Consumers of America, has urged the Department of Energy (DOE) to order LNG producers to reduce exports due to the risk of price increases and shortages of natural gas in the US this winter, a September 17 Reuters *article* reported.

ICEA also has asked the DOE to freeze permitting for new LNG export plants and to order producers to reduce shipments until US inventories increase, the Reuters article stated. "Buyers of LNG who compete for natural gas with U.S. consumers are state-owned enterprises and foreign government-controlled utilities with automatic cost pass through," said Paul Cicio, president of IECA. "U.S. manufacturers cannot compete with them on prices."

The world needs a warm winter.

Disruptive Technologies: Sensitive Robots. We may be hopelessly old-fashioned, but when we think "robot," what comes to mind is Rosie the Robot in *The Jetson's* 1960s cartoon. Rosie had a heart of gold, though her body was made of steel. Some of today's newest robots are made of much softer materials, allowing them to be worn comfortably and pick things up delicately. Here's a look at some of the new tricks these soft robots have learned:

(1) *Spiderman's suit comes alive.* Muscle and joint injury is one of the top reasons a soldier is removed from combat. Early R&D had focused on exoskeletons, robotic limbs that a soldier could strap on to increase the body's strength. But exoskeletons tend to be bulky and uncomfortable for long-term use.

In 2011, the Defense Advanced Research Projects Agency (a.k.a. DARPA) started the *Warrior Web* program to spur development of a lightweight "exosuit" for soldiers to wear under their uniforms to augment the work of muscles and reduce injuries, a June 3 SRI International *blog post* explained. SRI answered the call by developing the SuperFlex, a soft, flexible body suit with "artificial muscle actuators." The actuators use "twisted pair transmissions" that can duplicate the "forces and motions of natural muscles with very little added bulk or weight."

Basically, the fabric contains devices that help the muscles move. The suit is also made of a fabric that distributes loads across the skin. In addition, it contains motion trackers that can predict the user's action to know when to complement the motion of the user and not fight against it.

SRI's technology was spun off into another company, *Seismic*, and Seismic Powered Clothing was developed. It aims to help workers avoid injury and to give the elderly and disabled additional core support, strength, power, and mobility.

(2) *Picking Peeps.* Soft Robotics has developed claw-like devices made of flexible materials that have the dexterity to pick up and move soft, irregular items like fruits and vegetables, rolls, chicken wings, and *Peeps* without damaging them. The company has combined its

soft pickers with 3D machine perception and artificial intelligence to make even smarter pickers that have hand-eye coordination. The privately held company counts ABB Technology Ventures, FANUC, Honeywell Ventures, and Yamaha Motor as investors.

RightHand Robotics' picking system can delicately pick up irregularly shaped products of various weights. The company's robots were chosen by Apologistics, an online pharmacy in Europe, to pick up products in its new fulfillment center. A facility that sends out 25,000-30,000 parcels per day requires no more than 20 employees working in automation. "Competitors our size have 250 to 300 people in fulfillment working around the clock for the same output," said Michael Fritsch, founder of Apologistics, in a RightHand *presentation*.

(3) *Electrifying invention.* Grabit uses electrohesion—the static cling that makes a balloon stick to your hair—to automate the lifting and moving of items. It's a technology invented at the above-mentioned SRI International by a group led by Harsha Prahlad. The technology was licensed to Grabit, where Prahlad is a co-founder and chief technology and products officer.

Grabit says its machines can pick up items as delicate and light as an egg or as large as a 50-pound box. One machine stacks products like leathers, meshes, and composite fibers; another keeps packages from bunching up on conveyor belts. Grabit even offers a conveyor belt that sorts items as they move.

Nike uses Grabit machines to stack the 40 pieces of material used in the upper part of a sneaker; the task, which takes a human 20 minutes, is completed by a Grabit machine in just 50 seconds, according to a *case study* by TM Robotics that appeared in Robotics Tomorrow on April 15.

Calendars

US: Thurs: Leading Indicators 0.7%, C-PMI, M-PMI, and NM-PMI Flash Estimates 58.3/61.5/55.0, Kansas City Manufacturing Index, Initial & Continuous Jobless Claims 320k/2.65m, Chicago Fed National Activity Index. **Fri:** New Home Sales 714k, Baker-Hughes Rig Count, Powell. (Bloomberg estimates)

Global: Thurs: Eurozone, Germany, and France C-PMI Flash Estimates 58.5/59.2/55.8, Eurozone, Germany, and France M-PMI Flash Estimates 60.3/61.5/57.0, Eurozone, Germany, and France NM-PMI Flash Estimates 58.5/60.2/56.0, UK Spain GDP 2.8%q/q/19.8%y/y, UK M-PMI 59.0, UK Gfk Consumer Confidence -8, Canada Headline & Core Retail Sales -1.2%/-1.5%, Japan CPI, BOE Interest Rate Decision & QE Total 0.10%/£875b, ECB Economic Bulletin, Elderson, Wuermeling. **Fri:** Germany Ifo Business Climate Index, Current Assessment, and Business Expectations 98.9/101.8/96.5, Italy Consumer & Business Confidence 115.8/112.6, Lane, Elderson, Tenreyro. (Bloomberg estimates)

Strategy Indicators

Stock Market Sentiment Indicators (*link*): The Bull/Bear Ratio (BBR) fell for the second week this week to 2.11, the lowest since May 2020; it was as high as 4.00 10 weeks ago, which was the highest since late January 2018. Bullish sentiment fell to 47.1% this week, the fewest bulls since May 2020. It's down 14.1ppts since its recent peak of 61.2% in mid-July, with the correction count climbing 7.1ppts (to 30.6% from 23.5%) and bearish sentiment increasing 7.0ppts (22.3 from 15.3) over the period. The AAII Ratio sank to 36.4% last week—the lowest since September 2020—after increasing the prior three weeks from 48.6% to 58.8%. The ratio's bullish sentiment component dropped from 43.4% to 22.5% over the past two weeks—the lowest since late July 2020—with bearish sentiment rising from 27.2% to 39.3% last week.

MSCI World & Region Net Earnings Revisions (*link*): Analysts' recent earnings revisions through September suggest continued optimism about profits across Europe, but slightly weaker optimism about profits in the US and much of the Emerging Markets. The US's NERI was positive in September for a 14th straight month after 14 negative readings, and was the world's top-performing region even as it dropped to a five-month low of 18.1% from 19.5% in August. That compares to an 11-year low of -36.9% in May 2020. The AC World ex-US MSCI's NERI was positive for a 12th month after 30 straight negative readings, but dropped to a five-month low of 5.7% from 6.0%. That compares to an 11-year low of -23.9% in May 2020. With the exception of the EMU, which had NERI turn positive in January, all of the world's regions have had positive NERI readings since September and October 2020. Here are September's scores among the regional MSCIs: US (18.1% in September, down from 18.5% in August), Europe ex-UK (16.1 [record high], 16.1), EMU (15.2 [record high], 14.8), Europe (15.0, 15.2 [record high]), EAFE (11.4, 11.5 [record high]), EM Eastern Europe (10.6, 10.0), AC World (8.9, 9.5), AC World ex-US (5.7, 6.0), EM Latin America (5.3, 6.4), Emerging Markets (1.7 [12-month low], 2.0), and EM Asia (1.1 [13-month low], 1.3).

MSCI Countries Net Earnings Revisions (*link*): NERI was positive for 34/44 MSCI countries in September. That's down from 35/44 in July and August and down from 38/44 during May, which had matched the record-high count from November 2009. That also compares to zero countries with positive NERI from April to June 2020. NERI improved m/m in September for 14/44 countries, the weakest count since May 2020 and down from 16/44 in August and 31/44 in July. Among the countries with improving NERI in September, just two were at record highs: France and the Netherlands. Four other countries were at multi-year highs dating back to 2017. The US and the following five countries have had positive NERI for 14 straight months: Canada, Korea, Norway, Sweden, and Taiwan. New Zealand has the worst negative-NERI streak, at 12 months, followed by Indonesia (7), Hong Kong (4), and India (4). NERI flipped back into positive territory for Egypt and Greece, but turned negative for Australia, China, and Malaysia. The highest NERI readings in September: Austria (32.6%), Ireland (21.9), Sweden (21.3), Norway (20.1), Hungary (19.6), France (19.5), and the Netherlands (18.7). The weakest NERIs occurred this month in New Zealand (-13.6), Hong Kong (-8.0), Indonesia (-6.3), Thailand (-4.7), Australia (-3.4), and Singapore (-3.2).

AC World ex-US MSCI (*link*): This index has dropped 0.3% in local-currency terms so far in Q3, but is still up 9.9% ytd. In US dollar terms, the index is down a greater 1.1% in Q3 to a lesser 6.6% gain for 2021 to date. Local-currency forward revenues rose 0.6% m/m and has risen 6.0% since it bottomed in late January, but remains 7.4% below its record high of May 2019. Local-currency forward earnings rose 1.0% m/m to another record high, its first since October 2018, and has soared 41.6% since it bottomed in July 2020. Revenues are expected to rise 13.5% in 2021 and 5.8% in 2022 following a decline of 6.2% in 2020, and earnings are expected to increase 51.1% (2021) and 7.3% (2022) after falling 13.6% (2020). The industry analysts' sales forecasts imply short-term 12-month forward revenue growth (STRG) of 7.9% and short-term 12-month forward earnings growth (STEG) of 15.1%, compared to 4.1% and 10.0% before Covid-19 hit the news. These measures bottomed at -0.1% and -0.3%, respectively, during May 2020. The profit margin implied by analysts' earnings and revenue estimates calls for a gain to 9.0% in 2021 from 6.8% in 2020, and an increase to 9.2% in 2022. The forward profit margin forecast of 9.1% is up from a 10-year low of 6.6% at the end of May and first exceeded its prior 9.0% record high from September 2007 during August . The Net Earnings Revision Index (NERI) for the AC World ex-US MSCI was positive in September for a 12th straight month following 30 negative readings. It dropped to 5.7% in September from 6.0% in August, which compares to a 12-year high of 6.4% in July and an 11-year low of -23.9% in May 2020. The forward P/E of 14.8 remains near August's 15-month low of 14.7 and compares to an 18-year high of 17.1 in mid-February. The forward P/E drops to 14.3 using normalized forward earnings.

Those readings are up from their March 2020 lows of 10.8 and 10.2, respectively. The index's current 19% discount to the World MSCI P/E is at a record low now.

EMU MSCI (*link*): The EMU MSCI price index has risen 2.1% in local-currency terms so far in Q3 to a ytd gain of 16.1%. In US dollar terms, EMU is up a lesser 1.0% in Q3 to a smaller ytd gain of 11.4%. Local-currency forward revenues gained 0.1% m/m and has risen 6.0% since its bottom in late January but is still 12.1% below its record high in September 2008. Local-currency forward earnings gained 1.2% m/m and is up 44.8% since its bottom in July 2020, but remains 17.4% below its record high from January 2008. Revenues are expected to rise 10.7% in 2021 and 4.5% in 2022 after falling 8.1% in 2020. That's expected to lead to an earnings gain of 61.3% in 2021 and 8.8% in 2022, following a 28.8% decline in 2020. Forecasted STRG of 6.0% is down from a record-high 8.3% during April, but that's up from an 11-year low of -0.9% during April 2020. STEG has dropped to 17.7% from a record high of 47.4% in December, but that's up from a record low of -6.7% in April 2020. The implied profit margin is expected to rise from 5.6% in 2020 to 8.1% in 2021 and 8.4% in 2022. The forward profit margin has risen to a 12-year high of 8.3% from a 12-year low of 6.0% at the end of July 2020, but remains well below its 9.1% record high in October 2007. NERI was positive in September for a ninth month after 27 straight negative readings, and rose to a record high of 15.2% from 14.8% in August. That compares to a record low of -35.9% in May 2020. EMU's forward P/E of 16.2 remains near November's five-month low of 15.8 and compares to a record high of 18.3 in July 2020. The P/E drops to 15.5 using normalized forward earnings. That's up sharply from those figures' March 2020 lows of 10.2 and 9.7, respectively. The index is trading at a 12% discount to the World MSCI P/E, which is in line with its discount since 2001.

Emerging Markets MSCI (*link*): The EM MSCI price index has dropped 6.9% in US dollar terms so far in Q3 to a decline of 0.9% ytd. In local-currency terms, EM is down a lesser 6.1% in Q3 to a ytd gain of 0.4%. Local-currency forward revenues gained 1.0% m/m and has risen 6.1% since its bottom in late January but is still down 8.9% from its record high in May 2019. Local-currency forward earnings gained 1.2% m/m to another record high and is up 38.9% since its bottom in June 2020. It now exceeds its prior record high from October 2018 by 7.4%. Revenues are expected to rise 17.8% in 2021 and 8.3% in 2022 after falling 1.2% in 2020. That's expected to lead to an earnings gain of 54.6% in 2021 and 7.9% in 2022, following a 2.4% drop in 2020. Forecasted STRG of 10.6% remains near an 11-year high, up from a five-year low of 3.6% at the end of April 2020. STEG has dropped to 15.8% from a record high of 33.7% in December, but that's up from a 14-month low of 7.5% in April 2020. The implied profit margin is expected to rise from 6.3% in 2020 to 8.3% in 2021 before dropping to 8.2% in 2022. The forward profit margin of 8.2% is up from a four-year low of 6.1% at the end of May 2020 and compares to its 10.3% record high in December 2007. NERI was positive in September for a 13th month after 30 straight negative readings, but fell to a 12-month low of 1.7% from 2.0% in August. That compares to an 11-year high of 6.0% in February and an 11-year low of -18.7% in May 2020. Emerging Markets' forward P/E of 12.9 remains near August's 15-month low of 12.7 and compares to a record high of 16.3 in mid-February. The P/E drops to 12.2 using normalized forward earnings. That's up sharply from those figures' March 2020 lows of 10.1 and 9.3, respectively. The index is trading at a 30% discount to the World MSCI P/E, which is near its biggest discount since 2005.

China MSCI (*link*): The China MSCI price index is the worst performer of the 49 MSCI countries so far in Q3, with a drop of 16.6% in local currency terms. Its 15.7% ytd decline ranks third-worst ytd. Local-currency forward revenues has risen 3.3% since its five-year low in June 2021 and was up 0.7% m/m, but is still down 35.3% from its record high in October 2014. Local-currency forward earnings is up 10.8% since its bottom in June 2020, and improved 0.5% m/m to 9.0% below its record high in June 2018. Revenues are expected to rise 17.0% in 2021 and 10.4% in 2022 after 0.2% growth in 2020. That's expected to lead to an earnings gain of 16.0% in 2021 and 16.3% in 2022, following a 4.1% gain in 2020. Forecasted STRG of 12.0% remains near an 11-year high, up from a five-year low of 5.0% at the end of April 2020. STEG has dropped to 15.5% from a 10-year high of 18.6% during December, but that's up from a four-year low of 8.0% in April 2020. The implied profit margin ranks as one of the lowest in the world; it's expected to drop y/y to 4.9% in 2021 from 5.0% in 2020 and to rise to 5.2% in 2022. The forward profit margin of 5.1% is down from a record high of 5.2% in July, but that's little changed from its pandemic low of 4.5% in May 2020. NERI was negative in September, dropping to -0.1% from 0.0% in August. That ranks 10th worst among the 44 MSCI countries that we follow. China's forward P/E of 13.4 remains near August's 14-month low of 13.1 and drops to 12.2 using normalized forward earnings. That compares to those figures' March 2020 lows of 10.5 and 9.8, respectively. The index is trading at a 27% discount to the World MSCI P/E, which is near its biggest discount since 2015.

US Economic Indicators

Existing Home Sales (*link*): "Sales slipped a bit in August as prices rose nationwide," said Lawrence Yun, NAR's chief economist. "Although there was a decline in home purchases, potential buyers are out and about searching, but much more measured about their financial limits, and simply waiting for more inventory." Existing home sales retreated 2.0% in August to 5.88mu (saar) after rebounding 3.8% during the two months through July following a four-month slide of 13.2%. Sales are down 12.6% from the recent peak of 6.73mu in October, though 3.2% above the 5.70mu level before the pandemic hit. Single-family sales sank 1.9% last month to 5.19mu (saar), following a similar pattern to total sales, rising 4.3% during the two months through July after falling 14.2% during the four months through May. These sales are down 13.6% since peaking in October at 6.01mu. Meanwhile, multi-family sales fell for the second month, by a total of 5.5% to 690,000 units, remaining in a volatile flat trend at a high level. Regionally, total sales fell in all four regions in August and versus a year ago: West (-0.8% m/m & -1.6% y/y), Midwest (-1.4 & -2.1), Northeast (-1.4 & -2.7), and the South (-3.0 & -0.8). While inventory remains low, it has been improving some in recent months, with yearly gains in median home prices easing from their recent peak rates: Northeast (16.8 y/y from 23.6 y/y), South (to 12.8 from 22.4 y/y), West (11.4 from 24.2), and Midwest (10.5 from 18.5).

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