



"Judge a tree from its fruit, not from its leaves" – **Euripides**

THURSDAY, APRIL 20, 2017

Morning Summary: Stocks are slightly higher to start the day. Despite a few recent setbacks the Nasdaq is still up close to +20% in the past 12-months and the S&P 500 up near +13%. Traders say the recent sideways to lower movement has come amid worries about increasing geopolitical tensions, anxieties over U.S. corporate earnings moving forward and a recent sell-off in oil market. Oil stocks have been a drag on the indexes as of late, with oil prices yesterday falling by around -4%, taking a their biggest tumble in over a month. Data from the U.S. Energy Information Administration showed U.S. gasoline inventories unexpectedly rose for the first time in nine weeks while U.S. crude production rebounded back hitting its highest level since the summer of 2015. Oil prices have regained a small portion of those losses this morning on comments from oil ministers in Kuwait and Saudi Arabia, who are talking about extending production cuts. In the geopolitical space, the French Presidential election this weekend is considered the biggest ticket item and simply too close to call. I should also note the closer we get to this election the more nervous the global trade seems to become. Remember, results of the last two major elections in the world, the U.K. referendum to leave the E.U. and the U.S. Presidential election, took pollsters, political experts and investors all by surprise. Hence traders seem to be taking a more cautious approach into the French election. The current shifts and changes to the overall geopolitical landscape is making it difficult for big-money to figure out how to best position themselves ahead of another big event that could lead to a ton of unknowns. This is adding to volatility and has some opting to move more cash to the sideline. U.S. corporate earnings so far have been a bit mixed. IBM was one of the "big misses" yesterday, reporting a -13% drop in earnings. However, Morgan Stanley knocked it out of the park with quarterly earnings jumping +70%. All in all, earnings have been fairly good, in fact about 3/4ths of S&P 500 companies that have reported so far have beat expectations. Earnings results today are scheduled from Bank of New York Mellon, Blackstone, Danaher, Nucor, Philip Morris, Quest Diagnostics, Sherwin Williams, Travelers, Verizon and Visa. Fresh economic data for today is pretty sparse, with just Weekly Jobless Claims and the Philadelphia Fed Business Outlook due out. Federal Reserve Governor Jerome Powell will be participating in a Q&A discussion early this morning at the Global Finance Forum in Washington, D.C. It seems like the two key components the Fed has been watching most as of late, the labor market and inflationary data, have been somewhat mixed, making many believe they could postpone or push back the next rate hike.

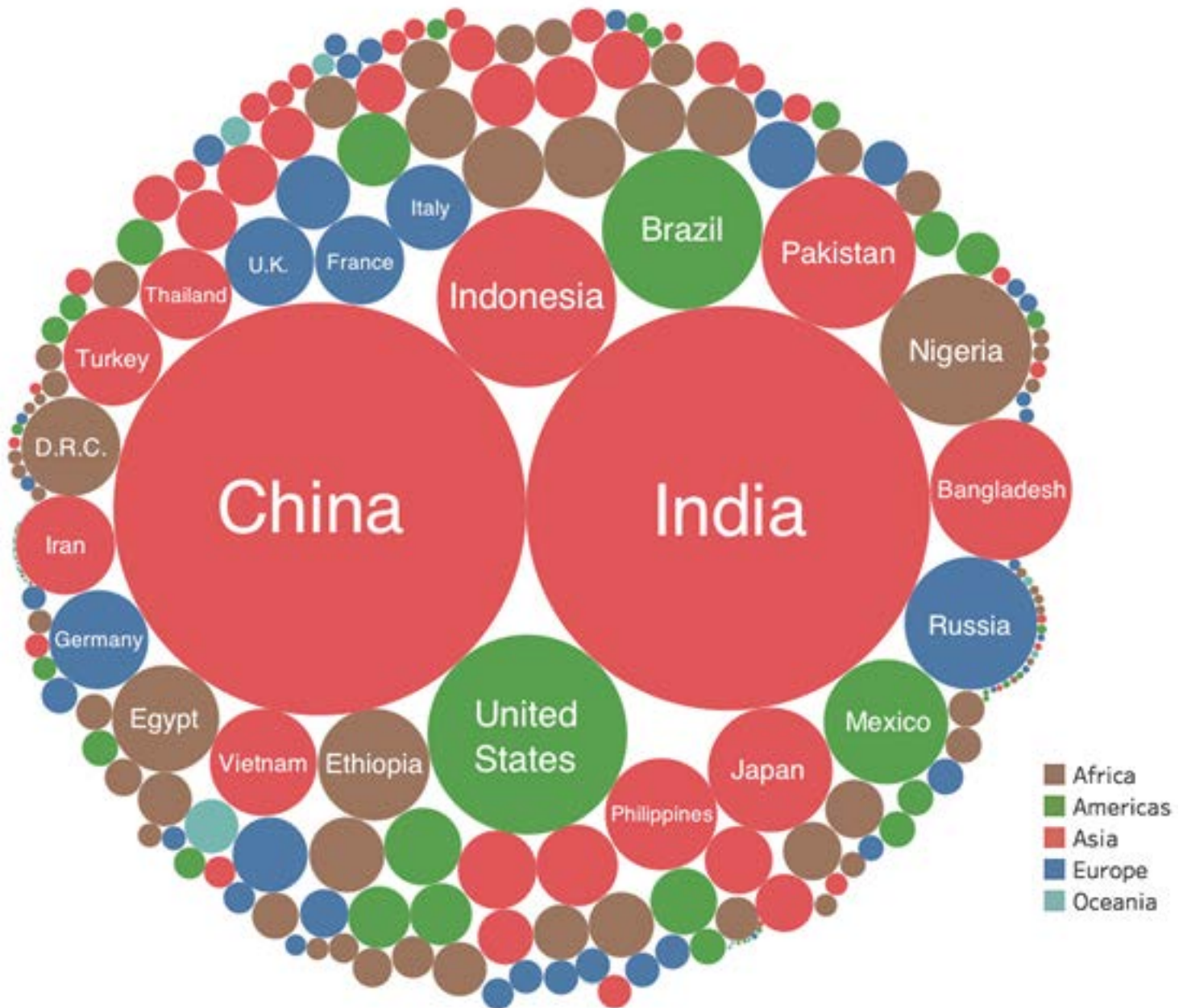
Why We Need To Be Paying Attention To Turkey: *Turkey's electoral board has rejected appeals from the country's main opposition parties to annul the referendum granting President Tayyip Erdogan sweeping new powers. Opposition parties had called on the electoral board to annul Sunday's vote, which was narrowly won by the "Yes" camp, because unstamped ballot papers were included. Some groups are now plan-*

ning to appeal to Turkey's constitutional court and, if it is unsuccessful there, then the European Court of Human Rights. Election monitors say they are aware of up to 2.5 million tampered referendum votes and also criticized the government for holding the vote during a state of emergency that was imposed after the failed coup in July against Mr. Erdogan. There have been public protests every night since the election results were announced. Though dozens of people were rounded up yesterday morning for participating in the demonstrations, organizers say they plan to continue showing up. Tens of thousands of people have been detained for political reasons in Turkey in recent months, but these were the first political arrests reported since the referendum. Mr. Erdogan and his allies say their victory will help bring stability and prosperity to the country, while their critics argue that it will give the president too much power, insulate the post from judicial scrutiny and, as a result, contribute to greater instability. It's expected that protests will continue, which will likely be accompanied by further arrests, escalating violence and more worrisome headlines. We should continue to pay close attention to the developments in Turkey. (Sources: Reuters, CNBC)

Soda Consumption Down For 12th Year In A Row: *With consumers choosing healthier options and a slew of sugar taxes, U.S. soda and energy drink sales decreased by another -1.2% in 2016, falling for the 12th year in a row, according to trade publication Beverage Digest. However, total sales dollars increased +2% to \$80.6B as soft drink makers pushed smaller packs at higher prices per ounce, while lowering emphasis on large discounts packs. (Source: SeekingAlpha)*

Population of Every Country Represented By Bubbles: *The beautiful thing about data visualization is that it can appear deceptively simple. The world is infinitely complex and burgeoning with all kinds of information. As a result, it seems counterintuitive that things can be reduced to a basic bubble chart or a graph – and to be fair, most things can't. Today's visualization helps to give some perspective on world population. Although all countries are represented, only the labels of the biggest are shown. If you want to dive into the granular data, [HERE](#) is an interactive version of the same diagram, with all countries and population statistics embedded. (Source: Visual Capitalist)*

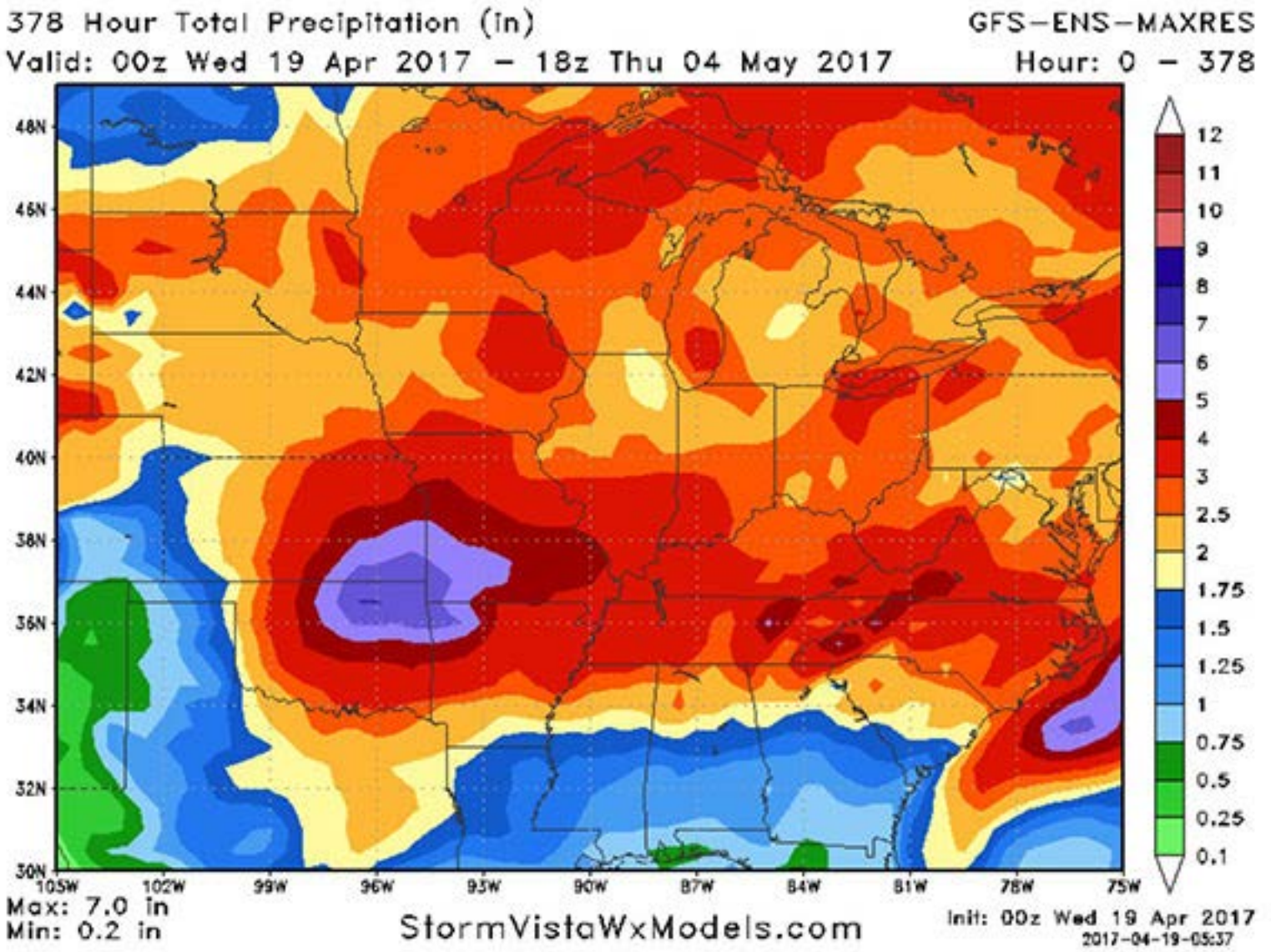
Countries by Population Size



Weather continues to see multiple disturbances maintaining showery conditions across large parts of the U.S. Yesterday saw the heaviest rain fall in eastern Nebraska and southern Iowa. Elsewhere, chilly conditions in the upper Midwest contrast with warm, humid weather across the southern Corn Belt. Long-term forecasts indicate rain through the next week, into the final few days of April in the Midwest. The rain will produce an uneven pace of corn planting while maintaining adequate to surplus soil moisture. On the Plains, cooler, rainy weather stretches from eastern Montana to Nebraska. In the southern Plains, periods of rain remain in the forecast with favorable soil moisture impact for winter wheat. Northern Plains crop areas have few chances for any fieldwork during the rest of this week due to periodic rain and already wet soils. From Kansas southward, however, warm, dry weather favors spring planting and a rapid pace of crop development. This week, a storm

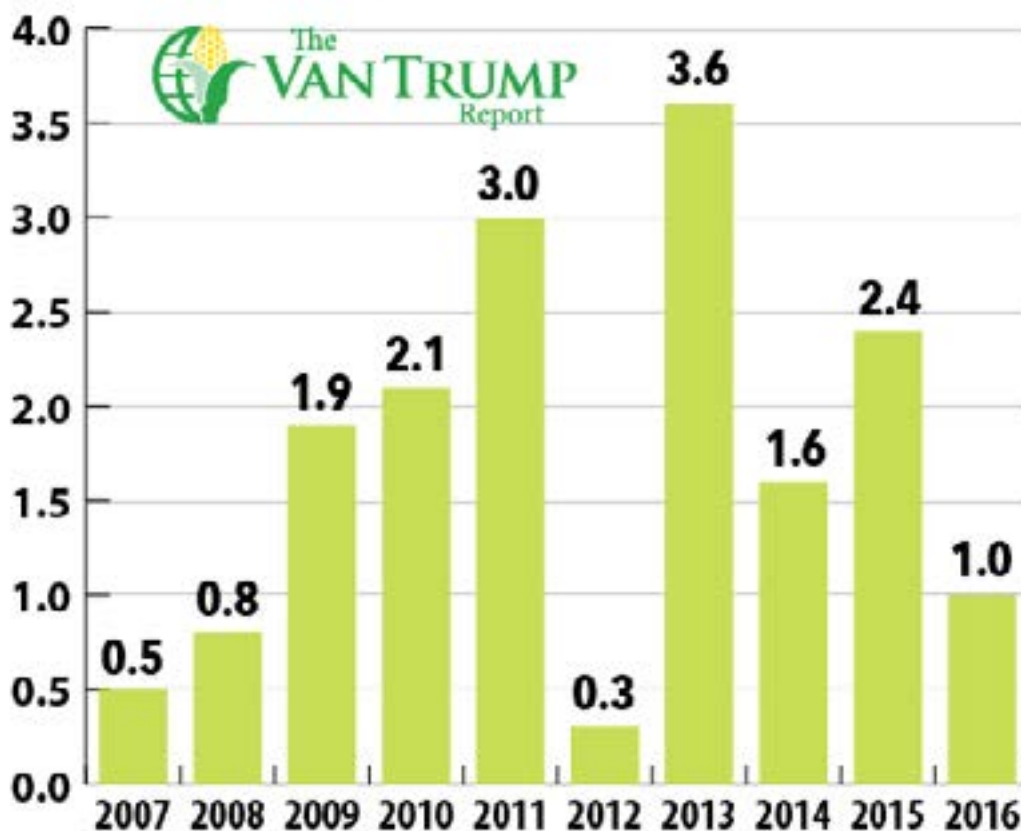
system moving from the southern Plains to the Mid-Atlantic States will provide the focus for heavy rain. As a result, 5 day rainfall totals could reach 2 to 4 inches from Kansas and Oklahoma to the Mid-Atlantic coast. Cool air in the storm's wake may result in weekend freezes as far south as the central High Plains. Meanwhile, 1 to 2 inch totals can be expected in much of the northern U.S., except for locally higher amounts in the Pacific Northwest. Looking to South America, scattered rain is in store for Parana and Mato Grosso do Sul through the end of the week. The rain will favor development of second-crop corn. In Argentina, mostly dry conditions remain for central growing regions through next week. This should help improve conditions for developing crops and harvesting following recent episodes of very heavy rain and flooding.

Expect Rain Delays...: *Overall, the active weather pattern we have seen the past two weeks isn't going anywhere. Delayed fieldwork will continue. Rainfall next 2 weeks via EPS/GEFS. Map below shows Total Precipitation in inches for a the time period April 19 through May 4.*



Corn bulls continue to see a weather forecast that is offering up delays into early-May. There will be some windows of opportunity nearby but it looks like more heavy rains will be moving across the Midwest during the next two to three weeks. On the flip side the weather forecast in Brazil seems very cooperative for second-crop corn and is giving the bulls very little to talk about. One could argue that a few small areas in Brazil are dry, but it would be a big stretch and nothing the trade would digest as game changing. The Brazilian crop looks almost certain to be record large and South American production some +26 to +30 MMTs more than last year. Demand here in the U.S. remains strong with weekly ethanol production again proving better than most have been anticipating. Margins at most all ethanol plants remain much improved compared to last year and look to remain strong in the weeks ahead. Hence the logical reasoning the USDA, for the second month in a row, elected to raise their corn used for ethanol estimate by +50 million bushels, which is now estimated at 5.450 billion. Exports have been strong but the question is will that strength continue? Not only will South America be swimming in record supply, but it looks like U.S. winter wheat yields could be making big improvements on the recent rounds of rain. There's also some fear that if "quality" becomes a concern for wheat on too much moisture, more bushels will be downgraded and shifted to compete with corn for feed demand. From a technical perspective it seems like the new-crop DEC17 contract could be stuck in a nearby channel between \$3.75 and \$4.00 per bushel. If weather conditions prove more challenging we could push toward the higher-end of the range. If we start to feel more comfortable with the planting pace we will challenge the lower-end of the range. With all the talk about wet fields and too much moisture I thought it would be interesting to take a look back at "prevent plant" acres and what could occur...

FSA - Prevent Plant Corn Acres (in Million acres)

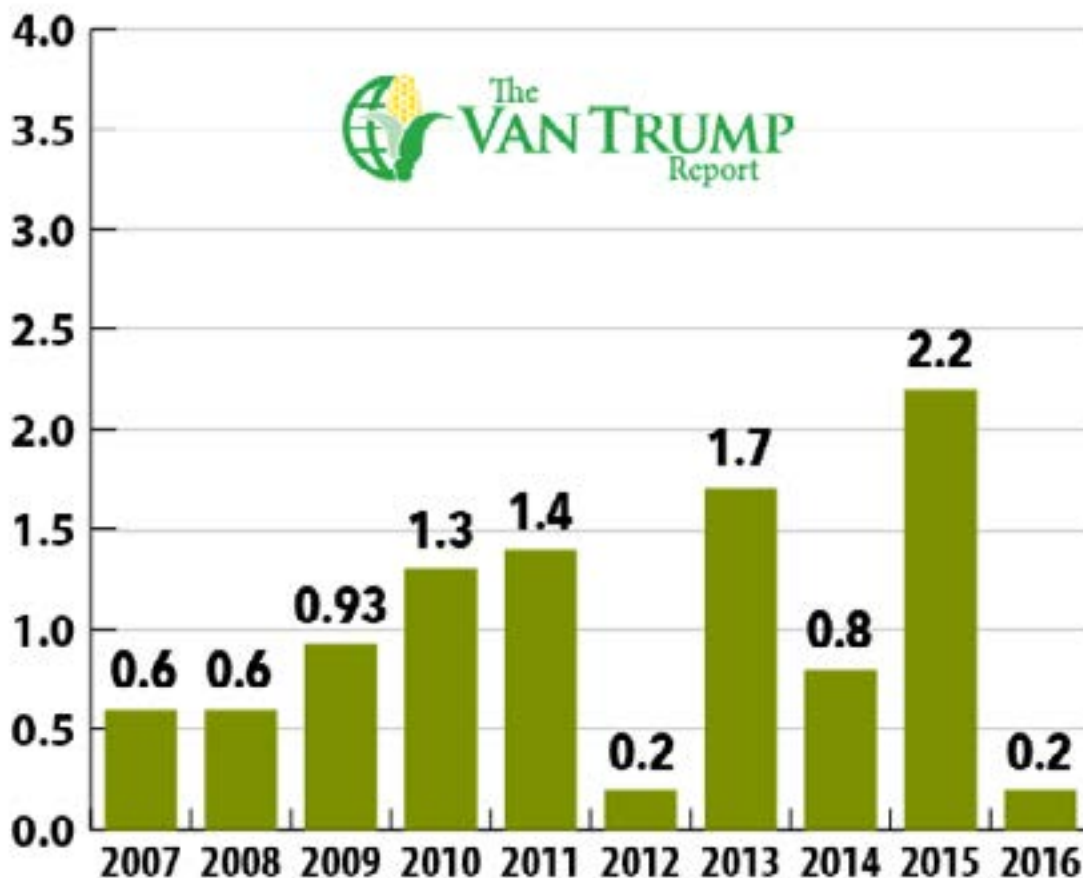


Source: FSA - updated with 2016 acreage data as of January 1, 2017

Soybean bears see little reason to add nearby risk-premium as forecasts for record large U.S. planted acres could ultimately push a bit higher, perhaps near 90 million, +6.5 million more than last year. There's also a record crop coming out of the field in South America and a more burdensome global supply outlook. Remember the most recent USDA forecast showed global soybean production estimated at a whopping 346 MMTs which dwarfs the previous high of 319.6 MMTs set a couple of years back. The glut of supply and recent round of lower prices has the bulls pointing to better than expected Chinese demand. There's also some logistical concerns in the fact South America may have a tough time getting a record number of bushels out of their ports in a timely fashion. Bulls are also hoping to see some renewed fund interest by the macro traders who are betting on a boost in global growth. From a technical perspective the new-crop NOV17 contract looks trapped in a nearby range of between \$9.40 and \$9.80 per bushel. As both a spec and a producer I suspect we could see the downside challenged, at least until we move further down the road in regard to U.S. weather concerns and or see more interest from the macro commodity bulls. We are also keeping a close eye on Washington and the bio-fuel mandate. There's a ton of speculation and talk about how things could play out but at this point mostly just talk. I personally suspect we see a ruling in favor of the U.S. bio-diesel industry and some type of shift or restriction in incentives used with foreign imports. Of course this would provide a knee-jerk to the upside. As a producer I continue to keep my current downside hedges in place. As a spec I'm waiting for lower prices before dipping a toe in on the longer-term bullish side of the market.

FSA - Prevent Plant Soybean Acres

(in Million acres)

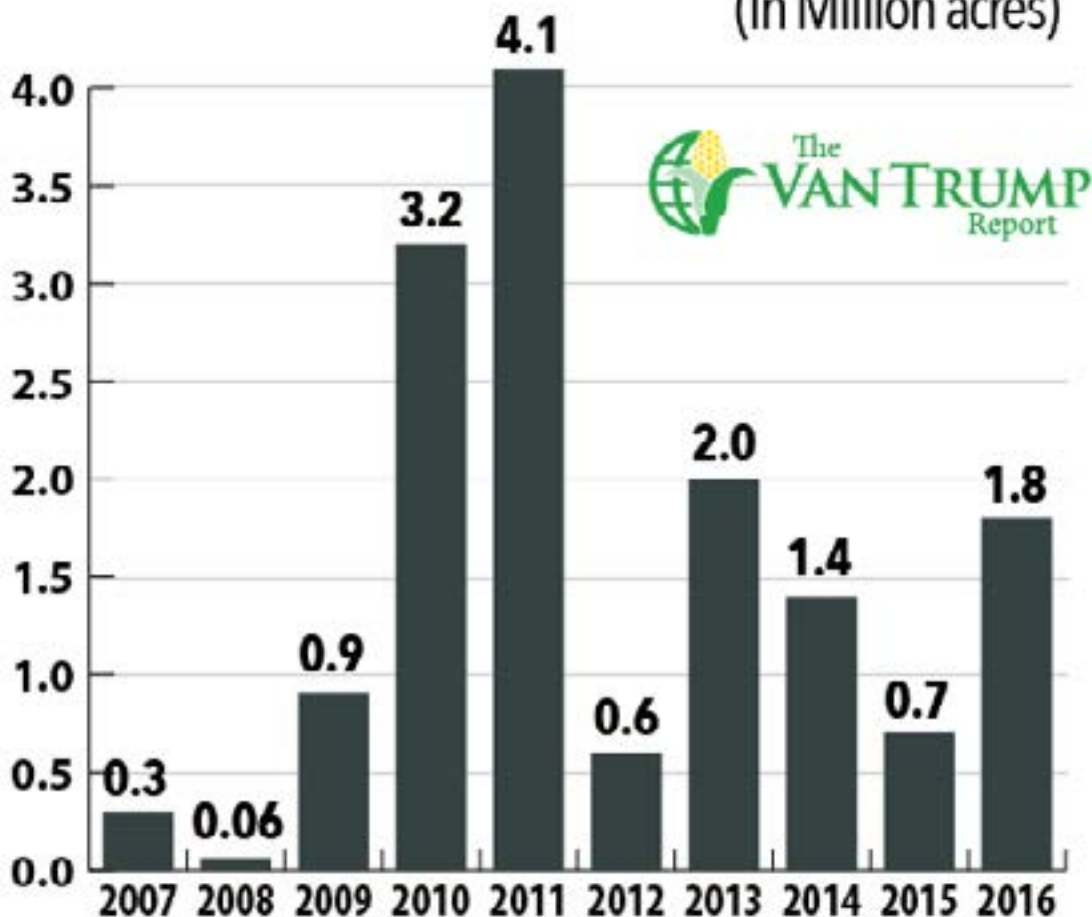


Source: FSA - updated with 2016 acreage data as of January 1, 2017

Wheat traders are debating improved crop-conditions and moisture levels here in the U.S. against increasingly dry-conditions and abnormally cold temps in a few key parts of Europe. There's also some bullish weather rumblings in regard to parts of Canada, southern Russia and areas in the Ukraine. Despite an all-time record low number of U.S. wheat acres being in the ground the trade is looking at dramatically improved moisture levels and improved crop-conditions during each of the past few weeks. This has many inside the trade talking about larger yields. Keep in mind the USDA recently bumped ending stocks higher by +30 million bushels to 1.159 billion, the most burdensome domestic supplies we've seen in almost 30-years. In other words, even though we've planted a million fewer wheat acres in Kansas, nearly a million fewer in North Dakota, -500,000 in Oklahoma; - 260,000 in Nebraska; -200,000 in South Dakota; -200,000 in Texas; -180,000 in Michigan; -110,000 in Ohio; -90,000 in California; -70,000 in Missouri; -70,000 in Indiana, etc... without headlines or talk of a more significant "yield-drag," the overly burdensome supply is keeping the trade from being nervous about record low acres. Lets also keep in mind global stocks are now projected to be record large at 252.3 MMTs. Bottom-line, traditional fundamentals are clearly bearish on talk of over-supplied balance sheets. There are a few bullish cards being turned over, but nothing as of yet the bulls can pick up and use to aggressively make bets on a winning hand. I suspect since the bears have seen nothing picked up by the bulls that can beat their current hand, they will continue to "call" most all bullish bluffs which keeps a lid on most all nearby rallies. I like being a bull longer-term, but I don't see any significant wind being blown behind our sails anytime soon. Staying extremely patient and long-term oriented.

FSA - Prevent Plant Wheat Acres

(in Million acres)



Source: FSA - updated with 2016 acreage data as of January 1, 2017



> **Ethanol Production Week Ending April 14:** Weekly ethanol production for the week averaged 993,000 barrels per day, up +0.71% from last week but up +5.75% compared to last year. Stocks rose to 23.034 million barrels, up +0.57% from last week and up +4.48% from last year. Total corn usage is estimated at 104.27 million bushels.

> **Ukraine Grain Output Upgraded:** Ukraine's UkrAgroConsult agriculture consultancy on Wednesday raised its forecast for the 2017 grain harvest to 61.4 million metric tons from a previous estimate of 60.9 million metric tons. A stronger harvest would likely raise the 2017/18 grain export forecast to 39.5 million metric tons from 38.8 million, the consultancy said in a statement. Total corn production is forecast at 26.2 million metric tons, an increase of +700,000 metric tons from their last estimate. At the same time, planting progress has been slowed by a cold snap and snowfall in the eastern regions. Corn planting is lagging the most with 842,629 acres planted versus 2.24 million acres at this same time last year. (Source: Reuters, Bloomberg)

> **Brazil Safrinha Harvest Could Leave "Huge Piles" of Corn:** Millions of tons of corn could be left outside by Brazilian farmers if they do not clear out soybeans before the safrinha (second crop) corn harvest begins in June. Dr. Michael Cordonnier of Soybean & Corn Advisor says, "Brazil always has a chronic shortage of storage space for its increasing grain production, but this year it could be even worse," pointing to the record large soybean crop as well as what's expected to be a record large safrinha harvest. Cordonnier notes that the size of the second crop corn harvest alone would make it difficult to provide ample storage, but the situation could be exacerbated by slow farmer sales of soybeans. Estimates from the Brazilian consultancy AgRural showed that as of the end of March, farmers had sold just 49% of their soybean crops, the slowest pace in seven years as producers hold out for better prices.

> **China Will Work Off Corn Stockpile In 3-5 Years:** China will work off its corn stockpile in the next three to five years, according to a COFCO executive, as firms ramp up processing capacity to use up the old stocks of grain. For example, COFCO Biochemical, a subsidiary of the state-owned grains trader, will boost its annual corn processing capacity to more than 10 million metric tons by 2020. That compares to 6 million metric tons a year currently. (Source: Reuters)

> **Australia, New Zealand Backing U.S. On Possible Action Against Canada:** Australia and New Zealand dairy industry leaders said on Wednesday they would support moves by the United States to draw the World Trade Organization into a trade dispute with Canada, after President Donald Trump said existing rules were unfair. Canada's dairy farmers and processors, including Saputo Inc and Parmalat Canada, struck a pricing agreement in 2016 that industry groups in Australia, New Zealand, the European Union, Mexico

and the United States say would price domestic milk ingredients for cheese-making below cost, under-cutting their exports. On a visit to the U.S. cheese-making state of Wisconsin on Tuesday, Trump said he would "stand up for our dairy farmers" adding that "in Canada some very unfair things have happened to our dairy farmers and others". The United States is the world's biggest cheese exporter outside Europe. (Source: Reuters)

> Mexico Hopes To Complete Argentine Trade Deal By Year End: Juan Carlos Baker, Mexico's deputy trade minister, said Tuesday that he expects his country's negotiations with Argentina involving cars and agricultural products to be finished around the end of the year, Reuters reports. Baker was part of a team of Mexican negotiators to visit Buenos Aires this week. The comments are sure to rattle U.S. producers. Mexico imported \$2.3 billion worth of U.S. corn and \$1.4 billion of U.S. soy in 2015, but Baker reportedly said those numbers will likely decrease under a renegotiated NAFTA deal.

> South Korea Will Continue Importing Eggs Despite Bird Flu Downgrade: South Korea is set to keep importing eggs from overseas for the next few weeks despite downgrading the country's worst-ever bird flu outbreak by one notch from the highest level. The downgrade was introduced from Wednesday as no new cases of the virus have emerged for about two weeks, but government sources said egg imports would keep pouring into the country as it would take time for domestic output to recover after more than a fifth of the nation's total poultry population was culled. An agriculture ministry official said local supply would return to normal in the second half of the year, but that in the meantime imports would continue, mainly from Australia. The official, who asked to remain anonymous, said the government was also looking to clear egg imports from Thailand. Shipments from the United States were halted after a bird flu outbreak was reported.

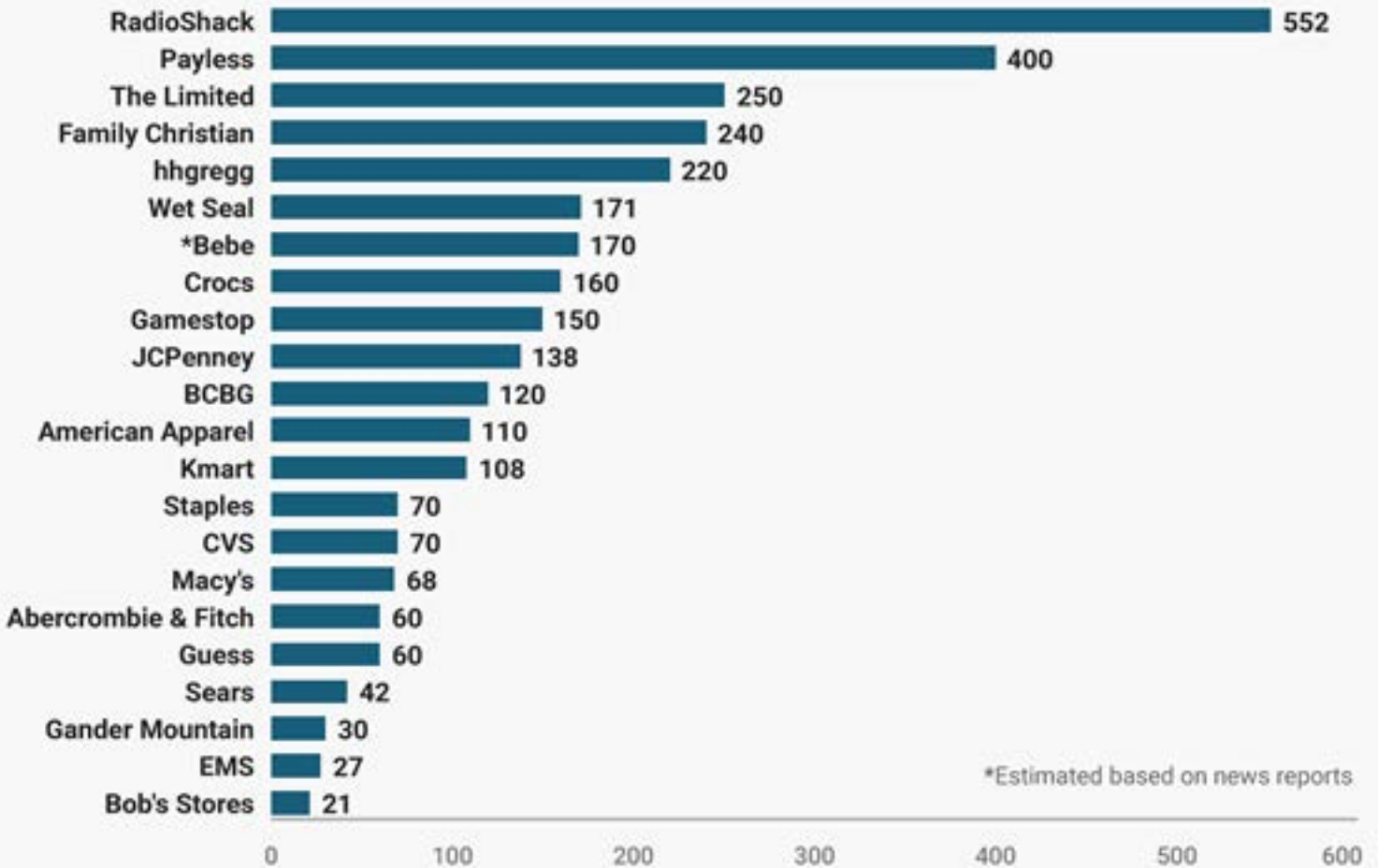
> India Predicts Average Monsoon Rains: India's crucial monsoon rains are expected to be average in 2017, a senior official at the weather office said, easing concerns over farm and economic growth; monsoon rains in 2017 would be 96 percent of a long-term average; India's weather office defines average, or normal, rainfall as between 96 percent and 104 percent of a 50-year average of 89 cm for the entire four-month season beginning June. (Source: Reuters)

> China's \$8.5 Trillion Shadow Banking Industry Is Back In The Spotlight: Data released by China's central bank shows that off-balance sheet lending surged +754 billion yuan (\$109 billion) in March, taking the first quarter's total shadow lending increase to a record +2.05 trillion yuan. Since late last year, the PBOC and regulators have taken steps to rein in risks to China's financial system, including raising short-term interest rates, clamping down on leverage in the bond market, and curbing funding for property speculation. The measures have sent debt-reliant borrowers scurrying to shadow financing, an industry Moody's Investors Service estimates is worth about \$8.5 trillion, and another area where regulators are trying to reduce risk. Just yesterday, it was reported that some \$400 million of investor money had disappeared from a branch of the bank China Minshen. The wealth management product was found to be forged and "does not exist", according to officials. Many of the investors were members of a "club" that was established by the branch, which asked them for a minimum investment of about \$145,000. This is just one example of the various off-book financial products that lurk in the country's shadow banking industry. Most of the funds that flow into these so-called investments are used to fund loans in the coal, steel and real estate sectors. Analysts fear that Chinese investors, who often display a herd mentality, could dump the products once bad news spreads, creating

a liquidity crunch that could derail the country's economy. (Sources: Bloomberg, New York Times)

> **More Than 3,200 Stores Are Shutting Down This Year:** Retailers are closing thousands of stores following years of declines in sales and customer traffic. Business Insider compiled a list of the more than 3,200 closures that have been announced so far in 2017. Most of these are scheduled for the first half of the year. (Source: Business Insider.)

NUMBER OF RETAIL STORES CLOSING IN EARLY 2017



SOURCE: Company data

BUSINESS INSIDER



Northern North Dakota - *We are still a good two or three weeks away from getting going in the fields. We still have snow in the trees and ditches and we have had some very cold rain. The weather has not turned the corner with no drying days as of yet. We grow spring wheat, canola and soybeans. How much of each gets planted and when will depend on the weather and the soils temps. We feel very comfortable planting by May 5th with the hope of being no later than May 10th. Three years ago we had everything in by April 30th which doesn't happen very often. All of our farms are completely no till. We are questioning the spring wheat plantings this year and may add more beans. The markets are pushing us towards increasing the bean acres. We have been very happy and mildly surprised on the beans up here. The yields have been between 40bpa to 45bpa which is profitable for us and we have very good markets to sell them.*

Central Missouri - *I am planting corn right now as we speak. The dirt has had plenty of moisture over the past 4 weeks that has really helped with this seed going in the ground. We are along the river so we have some low areas that are wet spots right now. We will just work through them because they will probably still be wet in a month. There have been a couple guys in the area that finished up planting a few weeks ago. We have been no till for many years. We do use some cover crops. Over the past couple years, we have used chick weed as a poor mans cover crop. Instead of trying to kill as much as we can, we let it all grow. It will grow all winter and then this time of year will naturally die off. The roots only go down 3" or 4" but it definitely holds the dirt in place and limits erosion. It is a winter annual that has already bloomed and seeded which makes for a good winter crop. Our crops did not have the best production last year but it was a good year with no big problems or floods, which I will take. We will finish up the corn planting next week and head straight to the beans. We will not add any bean acres but I think that there will end up being more guys add some. The guys that are normally a 50/50 rotation will maybe add 10 to 20 percent more beans, is what I am hearing.*

Western Iowa - *There is a little field work being done but the majority of the fields are wet not letting guys do much. We will usually get a good portion of the field work done in the fall but that was not the case last year. The other thing that slowed guys down was that there was the question of who would be farming a big portion of acres. There was a lot of leases that got renegotiated. After a wet few days, we were extremely cold last night with the low right at 25 degrees, with some pretty heavy hail. The guys that I am talking to will not be making any rotation changes and roll with what they have done in the past unless they have picked up some acres that have been corn on corn for awhile. The commercials seem to be working through the ground piles but I am hearing of some severe quality issues. Also, there have been a lot of bushels dumped on the ethanol plants recently which has caused the basis to widen way out.*

CROSSING WIRES

A place to share intelligent thoughts...

Revenues Below \$700 per Acre Possible with Corn in 2017: From [Gary Schnitkey, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign](#) - For farmland having an expected corn yield of 190 bushels per acre, a reasonable expectation of 2017 gross revenue is \$741 per acre. Obviously, revenue will vary from the \$741 expectation depending on price and yield outcomes. In this article, possible 2017 crop revenues, crop insurance payments, and Agricultural Risk Coverage (ARC) payments are evaluated using the historical price and yield changes from 1975 to 2016. The analysis uses corn yields from Logan County, Illinois. For each year, the sum of crop revenue, crop insurance payments, and ARC payments equals gross revenue. The historical analysis suggests that 2017 gross revenues can range from a low in the mid-\$600 range to a high of over \$900 per acre.

House Ag Leader Suggests Getting Rid Of ARC: The Ranking Member of the House Agriculture Committee says if he were in charge of writing the next Farm Bill, he would push for an overhaul of the crop commodity title one programs. Minnesota Congressman Collin Peterson tells *Brownfield* the Agriculture Risk Coverage (ARC) program used by most corn and soybean farmers won't be sufficient in the event of an average or below-average crop. "But in this climate, the best we're probably able to do is just keep what we got. But I don't think it's going to be adequate. I think we should put more money into the Farm Bill. In my view, I think we should get rid of the ARC program. We should have PLC (and) raise the floor (to) \$4 dollars for corn (and) \$10.50 for soybeans and just have PLC." Peterson would also like future commodity programs to reflect planted acres instead of base acres, which are used to calculate ARC and PLC payments. Read more and listen to the full interview with [Brownfield Ag](#).

An Emotionally Connected Ride Adjusts To Your Fear: When you buckle in for a roller coaster ride, you surrender yourself to the precipitous falls and dizzying loops. But what if there was a ride that could slow down when you started to feel scared or nauseous? Dutch industrial designer Daniel de Bruin has created a one-person ride called the Neurotransmitter 3000 that speeds up or slows down based on biometric data it gathers from the rider's body. The rider wears sensors that measure heart rate and muscle tension. Those vital signs are then processed to determine how fast the ride should be. A resting heart rate of around 80 beats per minute (the average person resting heart rate ranges from 60 to 100 bpm) launches the ride into full speed (one full revolution every two seconds). A higher heart rate keeps the machine rotating, but hitting a heart rate of 130 bpm or passing a muscle tension threshold—the ride also measures muscle tension based on how tightly the rider grips the seat—act like a brake that brings the ride to a halt. Read more [HERE](#).

USAFACTS: Steve Ballmer's latest venture tracks Gov't Spending: Ex-Microsoft CEO Steve Ballmer has kept busy since his 2014 retirement – and we don't just mean

buying the LA Clippers. His latest project, USAFacts, went live online today in beta form. The site and its reports present a comprehensive set of data that tracks the spending of US government money from source to outcome. The USAFacts website is organized into a number of sections with several navigation options, but there's currently a flow chart-like user interface. See what the new site offers [HERE](#).

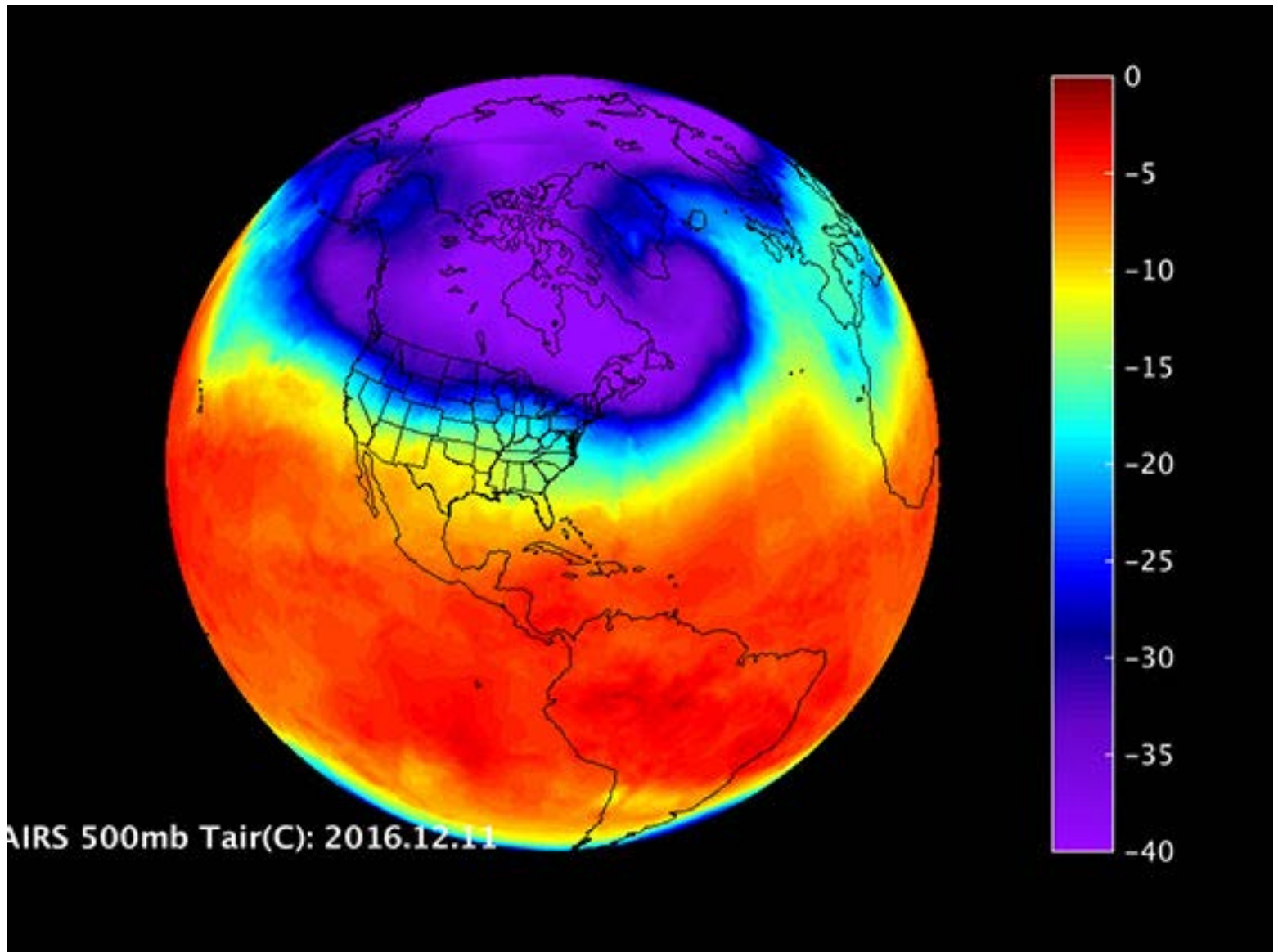
Russia Made A Robot Gunslinger: Russian military research videos usually deliver something to behold, whether it's tanks on parade or just Vladimir Putin totally not worried that this sub is going to sink. Dmitry Rogozin, the country's deputy prime minister, tweeted out some video battlefield research to show off FEDOR, the baddest robot gunslinger in the East. While this clip does make one feel like the Terminator apocalypse is nigh, the purposes of FEDOR (Final Experimental Demonstration Object Research) are more benign, for now. Once its non-militant motor skills are refined, it will embark on a mission to space in 2021, possibly alone. Check out some video over at [Popular Mechanics](#), which features a humanoid robot mowing down targets with a pistol in each hand like some movie super villain.



What You Need To Know About The Airborne Ammonia Hotspots

A recent study published in the journal "Geophysical Research Letters" revealed that airborne ammonia gas has created "hotspots" of the pollutant over four of the world's most productive agricultural regions. A University of Maryland led research team discovered

steadily increasing ammonia concentrations from 2002 to 2016 over agricultural centers in the United States, Europe, China and India. Although the specifics vary between areas, the increases in ammonia are being broadly tied to crop fertilizers, livestock animal wastes, changes to atmospheric chemistry and warming soils that retain less ammonia. Data was gathered using NASA's Atmospheric Infrared Sounder (AIRS) satellite instrument. "Our study reports the first global, long-term trends of atmospheric ammonia from space," said Juying Warner, an associate research scientist in atmospheric and oceanic science at UMD. "Measuring ammonia from the ground is difficult, but the satellite-based method we have developed allows us to track ammonia efficiently and accurately. We hope that our results will help guide better management of ammonia emissions." In the troposphere—the lowest, densest part of the atmosphere where all weather takes place and where people live—ammonia gas reacts with nitric and sulfuric acids to form nitrate-containing particles that contribute to aerosol pollution. Ammonia gas can also fall back to Earth and enter lakes, streams and oceans, where it contributes to harmful algal blooms and "dead zones" with dangerously low oxygen levels. Each major agricultural region highlighted in the study experienced a slightly different combination of factors that correlate with increased ammonia in the air from 2002 to 2016. For the U.S. it appears the successful legislation in the 90's to reduce acid rain had the unintended effect of increasing gaseous ammonia. The acids that cause acid rain also scrub ammonia gas from the atmosphere, and so the sharp decrease in these acids in the atmosphere is the most plausible explanation for the increase in ammonia over the same time frame. Europe experienced the least dramatic increase in atmospheric ammonia of the four major agricultural areas highlighted by the study. The researchers suggest this is due in part to successful limits on ammonia-rich fertilizers and improved practices for treating animal waste. China's increase arises from greatly expanded agricultural activities since 2002, widening its use of ammonia-containing fertilizers and increasing ammonia emissions from animal waste. Warming of agricultural soils, due at least in part to global climate change, could also contribute. India, has also seen an increase in fertilizer use coupled with large contributions from livestock waste that have resulted in the world's highest concentrations of atmospheric ammonia. Warner, Dickerson and their colleagues hope that a better understanding of atmospheric ammonia will help policymakers craft approaches that better balance the high demand for agriculture with the need for environmental protection. "As the world's population grows, so does the demand for food—especially meat," Dickerson said. "This means farmers and ranchers need more fertilizer, which makes it harder to maintain clean air and water. Wise agricultural practices and reduced greenhouse gas emissions can help avoid adverse effects." It's clear to me that the reports and studies are going not keep targeting agriculture, we have to make certain we see the writing on the wall and make the necessary adjustments. My friends in professional sports always said the reason they were the best is because they could make the quickest "adjustments".... (Source: Phys.org)



Remembering Columbine High School...

It seems like just yesterday, but it was 18 years ago today that two teenage gunmen killed 13 people in a shooting spree at Columbine High School in Littleton, Colorado. It was before noon when Dylan Klebold and Eric Harris, dressed in long trench coats, began shooting students outside the school before moving inside to continue their rampage. By the time SWAT team officers finally entered the school at about 3:00 p.m., Klebold and Harris had killed 12 fellow students and a teacher, and had wounded another 23 people. The two killers then turned their guns on themselves and committed suicide. The horrific crime turned our nation on edge as millions debated and searched for the blame... is it society, poor parenting, religion, prescription meds, bullying, gangs, etc... In the days immediately following the shootings, many claimed that Klebold and Harris purposely chose jocks, blacks, and Christians as their victims. In one particular instance, student Cassie Bernall was allegedly asked by one of the gunmen if she believed in God. When Bernall said, "Yes," she was shot to death. Her parents later wrote a book entitled "She Said Yes," and toured the country, honoring their martyred daughter. Subsequent investigations bring to question the above mentioned claim and lead us to believe that Klebold and Harris chose their victims completely at random. Their original plan was for two bombs to explode in the school's cafeteria, forcing the survivors outside and into their line of fire. When the homemade bombs didn't work, Klebold and Harris decided to go into the school

to carry out their murderous rampage. Mark Manes, the young man who sold a gun to Harris and bought him 100 rounds of ammunition the day before the murders, was sentenced to six years in prison. Carla Hochhalter, the mother of a student who was paralyzed in the attack, killed herself at a gun shop. Several other parents filed suit against the school and the police. Even Dylan Klebold's parents filed notice of their intent to sue, claiming that police should have stopped Harris earlier. The shootings at Columbine stood as the worst school shooting in U.S. history until April 16, 2007, when 32 people were shot and many others wounded by a student gunman on the Virginia Tech campus in Blacksburg, Virginia. There's really not much I can say about these horrific events. I suspect it's a combination of nature, nurture, society, lack of faith and other outside and internal influences that lead people down such destructive paths. I hope I have to never experience the pain felt by the survivors. Take a moment and count your blessings!



Some Summer Vacation Ideas

With the end of the school year fast approaching, a lot of parents are looking ahead to the annual summer vacation with the family. Luckily, it's also that time of year when travel experts and websites start weighing in on some of the best deals or just plain cool things going on this summer. Keep in mind that exchange rates are pretty good with a higher U.S. dollar, so everyone seems to be recommending more international trips. My wife and I are still yet to take the kids to Europe. I'm thinking by the way things are shaking out with the European Union and the immigration crisis we might need to do it sooner rather than later. I've just always been one that loves everything there is to see here in the United States. Below are a few thoughts and several we've taken the kids on... Great times and awesome memories!

Touring the Hall of Fames: *One year we rented a giant van with another sports family and headed out on journey that took us to the NFL Hall of Fame in Canton, OH; the Rock-N-Roll Hall of Fame in Cleveland, Ohio; and the MLB Hall of Fame in Cooperstown, New York. On the same trip we also swung by and visited Niagara Falls; spent the night at Time Square in downtown New York; visited Yankees Stadium; spent a couple of nights in Boston; went to a game at Fenway Park; went to Atlantic City; visited Jersey Shores; went on boat rides in the Atlantic; visited Plymouth Rock and so much more. It was a crazy trip but a lifetime of fun memories...*

Traveling Down HWY 101 and Exploring The Left Coast: *Say what you will about high taxes, crazy traffic and liberal attitudes, the state of California has some amazing sites to see. I came home one afternoon and told the family everyone has a one-way ticket to Los Angeles, CA and gets one carry-on bag. The non-stop flights were cheap and the kids had never seen the West Coast. We landed in L.A. made a few quick tourist stops in Hollywood then got on to the good stuff. We visited the Giant Sequoias and touched the largest known tree on earth called, "General Sherman". We visited the Redwoods; Watched Tim Lincecum pitch a no-hitter into the 9th inning at an amazing, but cold AT&T Park; visited Fishermans Wharf, Alcatraz, the Golden Gate Bridge. Headed south down the One-Oh-One visiting Carmel, Monterey, and Malibu. Went to the Boardwalk and carnival in Santa Cruz. Seen the amazing sunsets along the Big Sur. Had fun in the waters in Ventura, Long Beach and Santa Barbara, even crashed a wedding out on the beach, one of the most simple yet beautiful weddings we've ever seen. Topped it off by taking a boat and spending two amazing nights out on Catalina Island. The trip was amazing and best of all not one single bit of planning. We never knew where we were going to stay from night to night and just did whatever we all wanted. We had such a great time!*

Yellowstone: *This is a bucket-list destination for many American families. The country's oldest national park consistently ranks among the top of several annual lists, including U.S. News & World Report's "#1 in Best Affordable Family Vacations." Yellowstone is an outdoor enthusiast's paradise. Even though about 3 million people visit the national park each year, you're unlikely to see many of them unless you spend all your time at its most popular attractions, like Old Faithful. Yellowstone covers 2.2 million acres that stretch from the northwest corner of Wyoming into the edges of Idaho and Montana, offering plenty of untouched territory to explore. That is 3,000-plus square miles of mountains, canyons, geysers and waterfalls.*

Colorado Springs: *Colorado Springs and the surrounding Pikes Peak region is one of America's perfect family destinations. Family-friendly activities include a scenic drive or hike at the Garden of the Gods. At an altitude of 6,800 feet, explore the 40 acres of Cheyenne Mountain Zoo, America's only mountain zoo, where kids can feed the giraffes. Step on board the Pikes Peak Cog Railway for a year-round summit view, or take a short road trip to Canon City, and take in the view from Royal Gorge Bridge and Park, one of the world's highest suspension bridges.*

Alaska: *How about a summer cruise to Alaska? If you're traveling with the younger set, Carnival Cruise Line not only has great excursions and ports of call, but the ships have plenty of kid-friendly options on board. Stops include Ketchikan, Skagway, Juneau, and Sitka and family-friendly excursions include dogsledding, helicopter flightseeing, hiking over glaciers, and canoeing and kayaking the fjords. Plus, it's not uncommon to see whales, bears and moose. The cruises have on-board naturalists, too, who explain the region's habitat full of animals and marine life.*

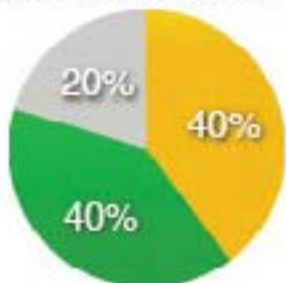
Washington D.C.: *This is of course a must visit for many Americans. For families with school age children, planning that visit over July 4th comes highly recommended. The capital not surprisingly takes these festivities very seriously. The traditional celebration starts with the morning parade (classic high school marching bands, Uncle Sam on stilts, beauty queens in convertible cars); an afternoon at the National Archives to take a peak at the Constitution; then the early evening concert on the West Lawn of the U.S. Capitol with the National Symphony Orchestra followed by an elaborate firework display over the city's monuments and Reflecting Pools. And all of that is free!*



CASH SALES & HEDGING TOTALS

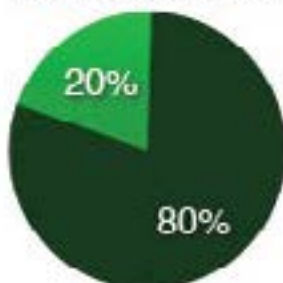
CORN 2016 CROP

40% SOLD
40% HEDGED
20% UNPROTECTED



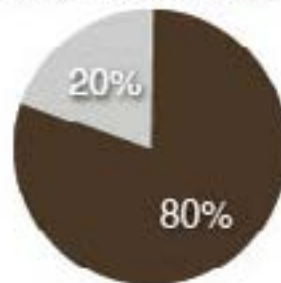
SOYBEANS 2016 CROP

80% SOLD
20% HEDGED
0% UNPROTECTED



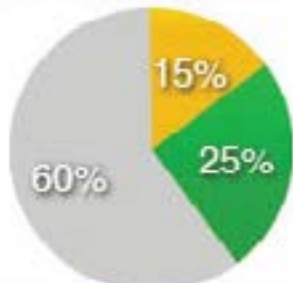
WHEAT 2016 CROP

80% SOLD
0% HEDGED
20% UNPROTECTED



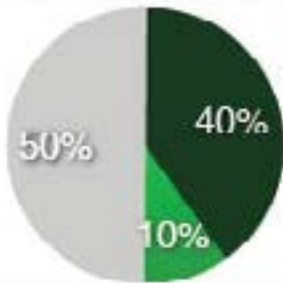
CORN 2017 CROP

15% SOLD
25% HEDGED
60% UNPROTECTED



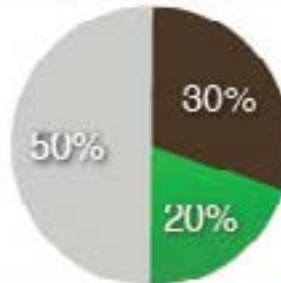
SOYBEANS 2017 CROP

40% SOLD
10% HEDGED
50% UNPROTECTED



WHEAT 2017 CROP

30% SOLD
20% HEDGED
50% UNPROTECTED



CORN 2018 CROP

0% SOLD
0% HEDGED
100% UNPROTECTED



SOYBEANS 2018 CROP

0% SOLD
0% HEDGED
100% UNPROTECTED



WHEAT 2018 CROP

0% SOLD
10% HEDGED
90% UNPROTECTED

