WINTHROP PARTNERS

Wealth Planning & Investment Management

2020 Market and Economic Outlook

Doylestown, PA | Pittsburgh, PA | Buffalo, NY

Overview

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Preface

The future is already here

-it's just not very evenly distributed.

-William Gibson, Author

Most Impactful Business Trends 0f 2020

Each year Winthrop Partners provides its clients with an annual review of a handful of trends and their impact upon the various sectors of the economy.

- **Artificial Intelligence**   Machine learning is the trend that will significantly impact the widest array of sectors

- **The Internet of Things (IoT)** As more devices, sensors and machines connect to the internet and interface among themselves, industries will be transformed, and their efficiency should markedly increase

- **Targeted Gene Therapy** Man is on the verge of editing the Human Genome in the same manner that we presently write computer code. Along with the easily recognized benefits come some ethical and environmental issues.

- **Medical Economics** A decades old economic model is increasingly being adopted by all sides of the issue of how to price new pharmaceutical, medical device and genetic therapies.

- **Energy Creation** Alternative energies become more efficient and powerful while disruptive technologies emerge.

- **Energy Storage** Long the Achille's heal of the alternative energy, storage is becoming cheaper and more efficient.

- **IT Governance** Old laws couldn't contain the rise in IT monopolies, but fresh thinking from unexpected sectors may.

- **Meat Alternatives** If producers can continue to develop production methods, meat alternatives offer many benefits

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Trend: Artificial Intelligence

Overview: Artificial Intelligence ("AI") may be the most impactful technology of the coming decade. Virtually every sector of the economy is adopting its usage. Although its precursors have been around for decades in the form basic computer programs, AI is now evolving from human designated algorithms to machine learning – where AI begins to recognize its own patterns and acts upon these patterns without human intervention.

Discussion: Artificial Intelligence progresses in tandem with our understanding of neuroscience. Early computers were simply an advancement on manual calculators and for many decades computer science progressed along this path. In the last four decades computing power steadily grew allowing for the development of increasingly sophisticated computing programs.

So far, the evolution of Artificial Intelligence can be described in two phases.

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The first phase was AI operating under rules hard-coded by humans that were built to analyze specific data sets most frequently comprised of numerical data. This phase is still being built out to include more complex data sets like object recognition (e.g. facial recognition) and biological markers (DNA). This first phase is limited by the man-made rules governing the interpretation of data. This phase, which is similar to using a flashlight in the dark (it illuminates only a defined space of darkness), is having extraordinary impacts on science and industry greatly impacting the speed and accuracy of scientific discovery, automating complex business processes like credit analysis and making possible human interfaces as diverse as chatbots and virtual reality.

The second phase of AI, inspired by neuroscience is just beginning to come to fruition. In this phase (Machine Learning) the program is capable of learning on its own. Self-learning AI can quickly uncover patterns and structures that are difficult for humans to identify or to conceptualize when building the rules used in AI's phase one. Phase II AI has already designed cooling systems that have reduced data centers' massive power consumption by 30%. In biology AI is being trained on the production of human proteins and their shapes as predicting the structure of these proteins will help scientists better address and cure genetic diseases.

Virtually every industry including fashion, retailing, logistics, medicine, engineering transportation, manufacturing, entertainment and communication is launching AI initiatives with the hope of taking a quantum leap forward in their sector.

Trend: Internet Of Things ("IOT")

Overview: In the last 30 years we have watched the internet evolve from a communication system between a few scientist into a global computer network that enables all types of connectivity and communication among most of the worlds population. The IoT focuses on the connectivity of devices not humans. The IoT is rapidly expanding allowing computers to use embedded sensors in machines, objects and animals to monitor these items. The IoT can then command remote machines and report vital information to humans and to Artificial Intelligence platforms.

Discussion: The first example of the concept now called the IoT occurred at Carnegie Mellon University in 1982 when they hooked up sensors to a Coke machine attached to the early internet allowing the scientist to track inventory. Chances are, you are already familiar with smart home technologies like internet connected thermostats, appliances, lights and security systems which are both programable and internet accessible. Engineers also making these devices more interactive by connecting them to human interfaces like Alexa and Echo.

- TRENDS -

As ubiquitous and impactful as the IOT has been on homes, its impact on Business and Industry will be orders of magnitude higher . The IoT converging with technologies like high speed 5G networks, Artificial Intelligence and the miniaturization of multiple technologies will allow the creation of fully automated factories, warehouses and transportation modes. Current examples of the IoT include: Fully automated copper mines, a worldwide network of sensors attached to buoys to detect Tsunamis , sensors attached to jet engines that remotely monitor their performance and sensors that monitor the performance of diverse machines like elevators, generators, pipelines, HVAC systems.

Since 2016 private industries as diverse as manufacturing, medicine, and transportation have spent over $200 Billion annually to improve productivity, efficiency, quality control, machine utilization, and optimize supply chains. Today 10.6 Billion devices are connected and by 2030 46 Billion devices are projected to be connected. While the immediate impact of the IoT has been dramatic, the data that is generated by all of these connected devices is staggering and has yet to be fully analyzed and utilized. The analysis of this data could impact a spectrum of activities as mundane as traffic lights to as esoteric as tracking meteorites.

As with all digital technologies trade-offs exist with privacy and security. Most people have seen the news clips of hackers watching and communicating with children in private homes using video monitors installed by parents. In industry, foreign hackers and criminals are entering highly secure corporate networks by accessing relatively insecure access points like thermostats and then tracing their way into what were though to be highly secure databases.

Trend: Targeted Gene Therapy

Overview: The Human Genome has been mapped. Scientists now view editing genes in a similar manner to the writing of computer code. As man's ability to genetically code improves, the ability to correct or alleviate many genetic conditions and mutations (cancer) will expand from the handful of therapies that now exist to an infinite number of individualized therapies and other genetic modifications that could fundamentally change healthcare and could also pose ethical and environmental concerns.

Discussion: Every human cell contains DNA, the code for building the human body, its double helix structure looks like a spiral staircase built with combinations of sugar, phosphate and four nitrogen molecules: **A**denine, **T**hymine, **G**uanine and **C**ytosine. Each DNA sequence that contains instructions to make a protein is known as a gene. Human genes contain 1 million bases (combinations of ATGC that define every human characteristic down to eye color) . The complete DNA instruction book, or genome, for a human contains about 3 billion bases and about 20,000 genes on 23 pairs of chromosomes. Genes only make up about 1 percent of the DNA sequence. DNA sequences outside this 1 percent are involved in regulating when, how and the amount of a protein to be made.

- TRENDS -

Genetic mutations/defects allow us to evolve, by producing new or varying degrees of proteins that allow us to adapt, but only one of the 3 billion bases need to go wrong to produce one of 10,000 known genetic disorders including prevalent disorders like Sickle Cell Anemia, Down Syndrome and Cystic Fibrosis.

Scientists have decoded the DNA sequence, but they are only at the beginning of truly understanding how the myriad of steps synthesize and regulate protein production. More importantly they are now only beginning to understand how to intercede to repair genetic defects. In the past two decades 2,900 clinical trials have been conducted producing a number of genetic therapies including Luxturpa (blindess), Kymriah (non-Hodgkin lymphoma), Zolgensma (spinal muscular atrophy), Patisiram (polyneuropathy) and a large number of therapies are set to emerge in the near future.

The technologies powering these therapies are diverse and include Artificial Intelligence (which identifies and predicts the shapes of proteins produced), Robotic testing systems, CRISPER (gene editing technologies) and targeted delivery systems into genes such as adenovirus vectors and GalNAc transporters and antisense oligonucleotides (the ability to turn faulty genes off).

Scientists are now on the horizon of being able to reprogram the human genetic code in much the same way as software developers develop programs, but along with the pros of these technologies come many ethical and environmental issues.

Trend: Medical Economics – ICER's QALY

Overview: In the last decade there has been an explosion of new high-priced medicines, medical devices, procedures and now ultra-expensive genetic therapies. The producers demand these higher prices to offset their R&D costs and to produce a profit, but governments, insurance companies and consumers are revolting. How do you reconcile these competing forces? Enter QALY (Quality Adjusted Life Year) a complex, yet decades old, economic model that both sides can agree upon.

Discussion: The cost of health care seems to be expanding unabated. For medicines, new drugs that have taken decades and billions of dollars to develop are coming to market, the cost of expensive drug failures need to be recouped, increasing costs of FDA trials must be absorbed and lawsuits and corporate greed also increase drug prices. Implantable medical devices are becoming more complex and more prevalent and "One Dose" gene therapies can cost $2,000,000 or more.

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Arguments over the cost of healthcare have been raging since the 1970s with providers of all stripes charging ever higher prices for their technological advances. Insurers and Governments have tried many techniques with varying effectiveness to limit some of these costs, but ultimately the consumers have both enjoyed the benefits of these advances and borne their financial brunt.

In the past producers, consumers and middlemen have simply talked past one another because they could not establish a rational dialogue without introducing concepts like Death Panels and Rationed Healthcare into their discussions.

Enter the Institute for Clinical and Economic Review (ICER), a Boston based spin-off of Harvard Medical School and its re-deployment of a 1960s era economic model called QALY (Quality Adjusted Life Year). All sides seem to agree upon the concept although they may debate over various input. At the heart of the model lies the concept of putting a dollar figure on a year of healthy life and then calculating how much a drug, device or therapy restores that life to an afflicted individual and prices the treatment accordingly.

As proposed price points of these new drugs and therapies were reduced to actual sales prices, usage of this model has produced some amazing results: Paulent: $14,600 down to $4,500, Aimovig: $10,000 to $6,900 Zolgensma $5 million to $2.1 Million. QALY is gaining more and more traction as a reasonable mode for determining healthcare price points and may ultimately stabilize if not rationalize the cost of new drugs implants and therapies.

Trend: Energy Creation

Overview: Established renewable energy sources like wind, solar, geothermal, and tidal/hydro are becoming more efficient and prevalent and newer energy sources including "green" hydrogen, fusion and G4 nuclear have moved beyond the development phase and are now in demonstration phase.

Discussion: Off-shore windmills which are the height of 60 story office buildings are capable of generating 12MW of power, enough to power 16,000 homes are now being constructed. Just over the horizon from the east coast huge windfarms are soon to be erected stretching from Massachusetts to New Jersey and are expected to become a major contributor to these states' electric grids.

Perovskite, a compound made of cheap commonly available materials can be printed onto flexible roles turning rooftops and the sides of buildings into inexpensive solar cells that rival the efficiency today's silicon panels. When paired with existing silicon panels the hybrid panel's efficiency doubles.

- TRENDS -

A 35-country consortium including the US is building the first thermonuclear fusion reactor which instead of splitting atoms will generate energy by fusing atoms at 150 Million degrees. Instead of producing radioactive waste its by-products will be helium and tritium. If successful, and this is a big if, Fusion will be come the world's largest source of renewable power by 2050.

Green Hydrogen is hydrogen produced using electrolysis the process of sending an electric current through water splitting hydrogen atoms from oxygen. If renewable energy, like wind or solar, is used, hydrogen is produced without any emissions. Why bother creating hydrogen n the first place? There are a number of reasons to produce Hydrogen:
1) Hydrogen burns clean only leaving water vapor,
2) Hydrogen burns in the absence of oxygen (think space)
3) Hydrogen burns extremely hot replacing the industrial use of coal
4) Hydogen can be mixed with natural gas reducing its carbon footprint
5) Hydrogen can be economically stored in fuel cells

Presently industry produces 10% of global carbon dioxide emissions - more than that produced by all of the worlds cars and aircraft combined. Factories require hot burning coal to produce steel, cement, glass, and chemicals and refine oil. Hydrogen burns as hot as coal. Unfortunately with todays electrolysis techniques it costs more than $2.50-$6.00 a kilogram to produce while coal costs $2.00/Kilo and LNG costs $0.60/kilo. Experts believe that, with the use of electrolysis techniques and scale, Hydrogen will be economical by 2030.

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Trend: Energy Storage

Overview: Donald Trump (Love Him or Hate Him) has summed up the shortfall with today's renewable energy – storage, when he commented "Honey we can't watch TV tonight because the wind isn't Blowing" Scientists have been developing a multitude of energy storage devices from Grid Scale Batteries that can power hundreds of thousands of homes for 3-4 hours, hydrogen fuel cells, compressed and liquid air, pumped Hydro and molten state batteries. Will one or a combination of these technologies keep the lights (and TV) on?

Discussion: Electricity exists in the present, electrical inventory does not exist. Today if you want a constant source of electricity you need to have a constant source of fossil or nuclear fuel to produce the energy . Solar and wind are not constant, there is either too much electricity produced by renewables or not enough.

For years, Industry has looked for systems to buffer the creation and consumption of energy. As far back as the turn of the twentieth

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century pumped hydro (Pumping water to a higher reservoir during times of low energy consumption to be released downhill to spin turbines in times of peak demand) has been a favored technique.

As the focus on renewable energy increases the need for efficient and environmentally friendly storage capacity is in high demand. Currently the following technologies are either: In Use (IU), Demonstration facilities are Running (DR) or are in Lab Scale Tests (LST):

Hydrogen Fuel Cells (IU) used in cars, space and as a back up. Presently hydrogen is produced by separating Natural gas, not yet green
Lithium ION Batteries (IU) The expected leader in storage for the next decade. Grid scale plants capable of storing 3 hrs of power for small towns or city sections are now coming on-line.
Flow Batteries(DR) stores electricity in the form of chemical energy and then converted back into electricity
Flywheels (IU) In use, but only for power management
Capacitators (IU) are used to bridge large scale but fast power gaps
Liquid Air (DR) Liquify air by chilling to -196 C store it, and vent it to turn turbines
Compressed Air(IU) compressed air stored in caverns used to run turbines
Green Hydrogen (LST->DR) Producing hydrogen using green electrolysis.

Although Li Ion Batteries are the immediate future of storage all of the above technologies have the potential to scale up and be as efficient or cost effective as batteries and many may be more environmentally friendly.

Overview: Tech Companies have been trafficking in personal data and shielding their operations from lawsuits for decades. Because many of these services are free (Facebook, Google) or collect information as an ancillary part to their main service (Apple, Amazon, cable and phone companies) they have evaded anti-trust laws. Furthermore Title V of the Telecommunications Act of 1996 shields internet companies who post content or post other companies' wares for sale from lawsuits arising from these posts or products.   But the legal system is catching up internationally and at the state and federal levels.

Discussion: Although some of your data is anonymized at the collection level, your data is later appended (matched) with other anonymized and non-anonymized data collected about you to provide an indepth, complete, highly personalized and personal identifiable profile of you to anyone willing to pay for it or to steal it by hacking.

Your medical data is collected sometimes under HIPPA, but at other

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times not (23 & Me, Ancestry.com, internet searches), tech firms screen scrape your finances, your email is read by Google, your phone data is monitored by the government, weather apps track your exact locations, grocery loyalty cards track your purchases, participants willingly provide mountains of personal data to Facebook, the government tracks your time and location using easy-pass, nationwide camera networks using facial recognition and other artificial intelligence techniques police deploy license plate readers on police cars and roadside trackers. The NSA accesses all these databases plus IRS and all other government data bases and maintains its own. You are not anonymous and virtually everything about you is known by the government or those willing to pay.

However like the tremors that proceed earthquakes, government and anti trust groups are slowly waking up to the monetizing of personal data. European Union launched its General Data Protection Regulation, California will enact its privacy regulations on 1/1/20, and anti-trust groups have refocused on the collection of private data in exchange for service instead of the payment of funds for the service. Nationwide it is expected that data privacy laws will emerge from private data related anti-trust lawsuits against the big tech collectors. It is also expected that earnest efforts will not begin in an election year and will take eighteen months or more to complete once initiated.

Although its still unclear these actions could result in the breakup of big tech companies, limits on their abilities to acquire and consumers being charged the true cost of these services instead of paying with personal data.

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Overview: Impossible Foods and Beyond Meat's recent product introductions have created quite a stir in the grocery isle, the fast food lane, and on Wall Street but these early "meat substitutes" are just the beginning of an array of new plant -based meat substitutes. One leading researcher recently said "making hamburger is easy, making a steak is really difficult". Plant based meat is simply following the path of margarine in the 1900s and soy and almond milk in the past few decades

Discussion: Margarine was invented in France in the 1860s as a shelf stable alternative for butter used by the military. When it was introduced in the US, Dairymen were able to erect high taxes and regulatory hurdles such as prohibiting margarine to be sold with yellow coloring. Today Margarine comprises about 35% of the butter/margarine Market. Similarly milk substitutes including Soy and Almond milk despite a myriad of protests now have a 15% market share. The cattlemen and pork and chicken producers have been watching as beef sales have dropped slightly while alternative

- TRENDS -

Meat grew 8% and the number of alternative meat producers expanded with industrial food suppliers like Cargill, Tyson and Smithfield joining the burger chains that address the $14 Billion (2019) alternative meat category; a category that is projected to grow to $140 Billion by 2029. In fact there were 327 new meat alternative products launched this year.

Aside from the health, taste and ethical debates, the rearing, processing and transportation of animals consumes 90% more environmental resources than plant-based meat (source The Economist/Wiezmann Inst):

Per Kilo of:	Kg Co2 Produced	Liters H2O Consumed	Sq Mtrs of land used
Beef	99.5	1,451	326
Pork	12.3	1,796	7.8
Chicken	9.9	660	6.7
Beyond	3.5	97	2.7
Impossible	3.5	107	2.5

Given these variances one would expect the price of alternative meat to be substantially less expensive, but at present this is not the case as alternative meats cost $11-12 per pound and hamburger costs $4-9 per pound.

As new ingredients and production techniques including 3D printing and fermentation technologies make alternative meats closer to their animal-based competitors, prices should decline, and alternative meats could become a viable alternative to animal-based meat by 2030.

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Business Trends' Impact Upon Market Sectors

SECTOR	Artificial Intelligence	Internet of Things	Targeted Gene Therapy	Medical Economics	Energy Creation	Energy Storage	IT Governance	Meat Alternatives
(5 = High Impact 1 = Low Impact)								
Consumer Discretionary	5	4	3	3	4	4	4	5
Consumer Staples	5	4	3	3	4	4	4	1
Energy	5	5	2	3	5	5	1	2
Financials	5	2	2	3	3	3	4	2
Health Care	5	5	5	5	3	3	4	3
Industrials	5	5	2	3	4	4	2	2
Information Technology	5	5	5	3	4	4	5	2
Basic Materials	5	5	2	3	4	4	1	2
Real Estate	5	5	3	3	4	4	1	3
Communication Services	5	5	2	3	4	4	5	2
Utilities	5	5	2	3	5	5	1	2

Business Trends 2020

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Market and Sector Performance

❑Historic Sector Performance

❑Analysts' Projections of Market Performance

YTD Sector Performance (12-17-19)

Sector Name 04:20 PM ET 12/17/2019	1 Month	3 Month	YTD	1 Year	3 Year	5 Year	10 Year
Consumer Discretionary (.GSPD)	1.66%	-0.16%	23.80%	19.78%	46.19%	75.97%	312.36%
Financials (.GSPF)	3.34%	8.05%	28.74%	27.19%	29.96%	58.62%	166.91%
Utilities (.GSPU)	1.85%	2.08%	20.51%	13.07%	33.10%	40.88%	101.98%
Materials (.GSPM)	0.27%	2.71%	19.81%	18.59%	19.13%	30.48%	93.22%
Communication Services (.GSPL)	1.40%	4.53%	29.79%	24.71%	4.53%	22.31%	58.78%
Energy (.GSPE)	1.64%	-0.04%	5.56%	-1.82%	-20.07%	-17.11%	5.47%
Consumer Staples (.GSPS)	2.26%	3.34%	23.30%	15.82%	20.65%	31.82%	131.49%
Industrials (.GSPI)	-0.92%	2.97%	26.53%	22.26%	26.47%	46.46%	177.34%
Health Care (.GSPA)	4.40%	11.42%	17.49%	14.57%	46.23%	49.49%	222.23%
Information Technology (.GSPT)	3.34%	11.20%	45.22%	39.95%	92.32%	134.83%	341.13%
Real Estate (.GSPRE)	-1.95%	-1.87%	21.37%	13.53%	25.22%	--	--
S&P 500 ® Index (.SPX)	2.27%	6.12%	27.31%	22.75%	41.09%	60.40%	188.06%

Source: Fidelity Investments

Analysts' Outlook on the 2020 S&P 500

Year-end 2020 S&P 500 targets

*

ANALYST	ORGANIZATION	TARGET	IMPLIED GAIN 12/17
Craig Johnson	Piper Jaffray	3,600	▲ 12.8%
Julian Emanuel	BTIG	3,450	▲ 8.1%
Tony Dwyer	Cannaccord Genuity	3,440	▲ 7.8%
Sam Stovall	CFRA	3,435	▲ 7.6%
Jonathan Golub	Credit Suisse	3,425	▲ 7.3%
David Kostin	Goldman Sachs	3,400	▲ 6.5%
Dubravko Lakos-Bujas	J.P. Morgan	3,400	▲ 6.5%
Brian Belski	BMO	3,400	▲ 6.5%
Lori Calvasina	RBC	3,350	▲ 5.0%
Tobias Levkovich	Citi	3,300	▲ 3.4%
Maneesh Deshpande	Barclays	3,300	▲ 3.4%
Savita Subramanian	Bank of America	3,300	▲ 3.4%
Barry Bannister	Stifel	3,265	▲ 2.3%
Scott Wren	Wells Fargo Institute	3,250	▲ 1.8%
Binky Chadha	Deutsche Bank	3,200	▲ 0.3%
Kristina Hooper	Invesco	3,150	▼ -1.3%
Mike Wilson	Morgan Stanley	3,000	▼ -6.0%
Francois Trahan	UBS Group	3,000	▼ -6.0%

Source: MarketWatch survey

*2020 S&P Performance statistics provided by a MarketWatch 12/17/19 Poll of large bank and brokerage analysts. Winthrop Partners does not make market predictions and this poll does not necessarily reflect our outlook.

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Sector Reviews

❑ Overviews of the 11 S&P Sectors

❑ Each Sector's Correlation to Economic Factors

❑ Analysts Predictions of Sector Performance

Sector Overviews

Sector:	Communications Services	
Group:	Sensitive	2020 Proj. Perf. *:	12.30%
Most Impactful Trends:		
1	IT Governance	
2	Artificial Intelligence	
3	Internet of Things	

Sector:	Consumer Discretionary	
Group:	Cyclical	2020 Proj. Perf. *:	12.20%
Most Impactful Trends:		
1	Artificial Intelligence	
2	Energy Creation/Storage	
3	Internet of Things	

Sector:	Consumer Staples	
Group:	Defensive	2020 Proj. Perf. *:	6.60%
Most Impactful Trends:		
1	Meat Alternatives	
2	Artificial Intelligence	
3	Internet of Things	

Consumer Discretionary Sector of the S&P 500

The Consumer Discretionary sector consists of businesses that have demands that rise or fall based on general economic conditions such as manufacturers of washers and dryers, sporting goods, cars, and engagement rings. At present, the Consumer Discretionary sector contains 11 industries.
1. Automobile Components Industry
2. Automobile Industry
3. Distributors Industry
4. Diversified Consumer Services Industry
5. Hotels, Restaurants & Leisure Industry
6. Household Durables Industry
7. Leisure Products Industry
8. Multiline Retail Industry
9. Specialty Retail Industry
10. Textile, Apparel & Luxury Goods Industry
11. Internet & Direct Marketing

At 1-25-9, the total value of all Consumer Discretionary stocks in the U.S. was $2.62 trillion, or 10.11% of the market. Examples of CD stocks include Apple, Disney, and Starbucks.

Consumer Staples Sector of the S&P 500

The Consumer Staples sector consists of businesses that sell the necessities of life, ranging from bleach and laundry detergent to toothpaste and packaged food. At present, the Consumer Staples sector contains six industries.
1. Beverages Industry
2. Food & Staples Retailing Industry
3. Food Products Industry
4. Household Products Industry
5. Personal Products Industry
6. Tobacco Industry

As of January 25, 2019, the total value of all Consumer Staples stocks in the United States came to $1.86 trillion, or about 7.18% of the market. Companies include Procter & Gamble and Kroger.

Communication Services Sector of the S&P 500

From telephone access to high-speed internet, the Communication Services sector of the economy keeps us all connected. At present, the Communication Services sector is made up of five industries:
1. Diversified Telecommunication Services
2. Wireless Telecommunication Services
3. Entertainment
4. Media
5. Interactive Media & Services

As of January 25, 2019, the total value of all Communication Services stocks in the United States came to $2.68 trillion, or 10.33% of the market. The communications industry includes stocks such as AT&T and Verizon.

Sector Overviews

Sector:	Energy	
Group:	Sensitive	2020 Proj. Perf. *: 30.30%

Most Impactful Trends:

1	Energy Creation
2	Energy Storage
3	Artificial Intelligence

Sector:	Financial Services	
Group:	Cyclical	2020 Proj. Perf. *: 5.40%

Most Impactful Trends:

1	Artificial Intelligence
2	IT Governance
3	Medical Economics

Sector:	Healthcare	
Group:	Defensive	2020 Proj. Perf. *: 8.20%

Most Impactful Trends:

1	Targeted Gene Therapy
2	Medical Economics
3	Artificial Intelligence

Energy Sector of the S&P 500

The Energy Sector consists of businesses that source, drill, extract, and refine the raw commodities we need to keep the country going, such as oil and gas. At present, the energy sector contains two industries.
1.Energy Equipment & Services Industry
2.Oil, Gas & Consumable Fuels Industry

As of January 25, 2019, the total value of all energy stocks in the United States came to $1.43 trillion, or about 5.51% of the market. Falling energy prices have made energy stocks a declining part of the S&P 500 in recent years. Major energy stocks include Exxon Mobil, Chevron, and Halliburton.

Financials Sector of the S&P 500

The Financial Sector consists of banks, insurance companies, credit card issuers, and a host of other money-centric enterprises that keep the debits and credits of the economy flowing. At present, the Financial Sector contains seven industries.
1.Banking Industry
2.Capital Markets Industry
3.Consumer Finance Industry
4.Diversified Financial Services Industry
5.Insurance Industry
6.Mortgage Real Estate Investment Trusts (REITs) Industry
7.Thrifts & Mortgage Finance Industry

As of 1-25-19, the total value of all financial stocks in the U.S. came to $3.54 trillion, or about 13.63% of the market. JP Morgan Chase, Goldman Sachs, and Bank of America are all examples of financial stocks.

Health Care Sector of the S&P 500

The Health Care sector consists of drug companies, medical supply companies, and other scientific-based operations that are concerned with improving and healing human life. At present, the Health Care sector contains six industries.
1.Biotechnology Industry
2.Health Care Equipment & Supplies Industry
3.Health Care Providers & Services Industry
4.Health Care Technology Industry
5.Life Sciences Tools & Services Industry
6.Pharmaceuticals Industry

As of January 25, 2019, the total value of all Health Care stocks in the United States came to $3.95 trillion, or about 15.21% of the market. Examples of health care stocks include Johnson & Johnson, Gilead, and Pfizer.

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Sector Overviews

Sector:	Industrial	
Group:	Sensitive	2020 Proj. Perf. *:	18.10%
Most Impactful Trends:		
1	Artificial Intelligence
2	Internet of Things
3	Energy Creation/Storage

Sector:	Information Technology	
Group:	Sensitive	2020 Proj. Perf. *:	10.10%
Most Impactful Trends:		
1	Artificial Intelligence
2	Internet of Things
3	Targeted Gene Therapy

Sector:	Materials	
Group:	Cyclical	2020 Proj. Perf. *:	15.60%
Most Impactful Trends:		
1	Internet of Things
2	Energy Creation/Storage
3	Artificial Intelligence

Industrials Sector of the S&P 500

The Industrial Sector comprises railroads and airlines to military weapons and industrial conglomerates. At present, the industrial sector contains fourteen industries.
1. Aerospace & Defense Industry
2. Air Freight & Logistics Industry
3. Airlines Industry
4. Building Products Industry
5. Commercial Services & Supplies Industry
6. Construction & Engineering Industry
7. Electrical Equipment Industry
8. Industrial Conglomerates Industry
9. Machinery Industry
10. Marine Industry
11. Professional Services Industry
12. Road & Rail Industry
13. Trading Companies & Distributors Industry
14. Transportation Infrastructure Industry

As of 1/25/19, the value of all Industrial Stocks in the United States came to $2.42 trillion, or about 9.33% of the market. Major industrial stocks include Lockheed Martin and CSX.

Information Technology Sector of the S&P 500

The Information Technology (IT) sector is home to the hardware, software, computer equipment, and IT services operations. From microprocessors to printers, operating systems to cell phone handsets, recent advances in technology have turned IT into a giant part of the domestic and global economies. At present, the Information Technology sector contains six industries.
1. Communications Equipment Industry
2. Electronic Equipment, Instruments & Components Industry
3. IT Services Industry
4. Semiconductors & Semiconductor Equipment Industry
5. Software Industry
6. Technology Hardware, Storage & Peripherals Industry

As of January 25, 2019, the total value of all Information Technology stocks in the United States came to $5.15 trillion, or about 19.85% of the market. It is the largest sector in the S&P 500. Top IT stocks include Microsoft and Alphabet.

Materials Sector of the S&P 500

The building blocks that supply the other sectors with the raw materials it needs to conduct business, the material sector manufacturers, logs, and mines everything from precious metals, paper, and chemicals to shipping containers, wood pulp, and industrial ore. At present, the Material Sector contains five industries.

1. Chemicals Industry
2. Construction Materials Industry
3. Containers & Packaging Industry
4. Metals & Mining Industry
5. Paper & Forest Products Industry

As of January 25, 2019, the total value of all Materials stocks in the United States came to $703 Billion, or about 2.71% of the market. Major materials stocks include Dupont, Ecolab, and International Paper.

Sector Overviews

Sector:	Real Estate		
Group:	Cyclical	2020 Proj. Perf. *:	5.90%
Most Impactful Trends:			
1	Artificial Intelligence		
2	Internet of Things		
3	Energy Creation/Storage		

Sector:	Utilities		
Group:	Defensive	2020 Proj. Perf. *:	5.40%
Most Impactful Trends:			
1	Energy Creation/Storage		
2	Internet of Things		
3	Artificial Intelligence		

Real Estate Sector of the S&P 500

The Real Estate sector includes all Real Estate Investment Trusts (REITs) with the exception of Mortgage REITs which are housed under the financial sector. The sector also includes companies that manage and develop properties. At present, the Real Estate sector is made up of two industries:

1.Equity Real Estate Investment Trusts
2.Real Estate Management & Development

As of January 25, 2019, the total value of all Real Estate stocks in the United States came to $768 Billion, or 2.96% of the market. The real estate industry includes stocks such as American Tower, Simon Property Group and Prologis.

Utilities Sector of the S&P 500

The Utilities Sector of the economy is home to Electric, Gas and Water utilities. At present, the utilities sector is made up of five industries.
1.Electric Utilities Industry
2.Gas Utilities Industry
3.Independent Power and Renewable Electricity Producers Industry
4.Multi-Utilities Industry
5.Water Utilities Industry

As of January 25, 2019, the total value of all Utilities stocks in the United States came to $825 Billion, or about 3.18% of the market. Utilities stocks include many local electricity and water companies including Exelon and Dominion Resources.

Notes:

*2020 Sector Performance statistics provided by a FactSet 9-20-19 Poll of S&P Analysts. Winthrop Partners does not make market predictions and this poll does not necessarily reflect our outlook.

Sector descriptions provided by About.com's .Dash Group

Group performance correlation to economic factors provided by Morningstar

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