# A NEW INFLATION CYCLE

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## Summary and Major Conclusions:

*Inflation is a double-edged sword for investors in common stocks, depending upon time horizon. Higher inflation raises the capitalization rate used to discount future earnings and dividends. Inflation is also detrimental to the equity market because it triggers a tightening in monetary policy that culminates in slower growth in corporate earnings. But it also raises the nominal value of corporate assets — plant and equipment, inventories, land, patents, trademarks, and intellectual property — which become incorporated in stock prices in the long term.*

- The US economy is at an early phase of a new inflation cycle that could persist over the next several years. I expect consumer inflation to remain in a generally rising trend in coming years, having a potentially profound impact on financial markets.
- The current inflation cycle is likely to evolve in three phases. The US economy is currently in phase one, which encompasses the volatile and disorderly response of consumers and businesses to a sudden reopening of the economy.
- The reopening of the economy is a shock to both supply and demand but should be viewed as a one-time event. Supply chains were disrupted during the pandemic, causing many firms to have an insufficient supply of materials, components, and workers to rebuild inventories. Massive pent-up demand materialized as spending was curtailed.
- The phase should be transitory and could persist for the next four to six months before the logistics of supply and aggregate demand return to equilibrium. Currently at a rate of 3%, the core Consumer Price Index (CPI) could rise to a peak annual rate of 4% to 5% during the summer months.
- This first phase should evolve into another interim phase, which is expected to be a period of selling price consolidation and stability. This second phase of inflation should be a countercyclical reversal of the spike in consumer prices expected during the spring and summer months.
- The third phase is far more worrisome than the phase one spike because the expected rise in inflation at that time would be sustainable, the result of enduring fundamental forces pertaining to fiscal and monetary policy excesses. Extremes in government policy almost always precede a period of rising inflation.
- The M2 money supply has increased at a 24% rate over the past year, the fastest pace since the early 1940s. An unprecedented divergence between the expansion in money and production of goods and services greatly increases the odds of a sustained inflation cycle.
- Rapid government spending also provides fuel for faster aggregate spending, resulting in a more rapid return to full employment. A narrowing of the output gap accentuates inflationary pressures, exerting upward pressure on the CPI.
- Over time, massive government expenditures will result in growing federal budget deficits, which must be financed by large issuance of Treasury debt. Aggressive accumulation of US Treasury securities by the Federal Reserve results in an expansion in bank reserves, which can ignite an increase in credit creation.
- Wages are also likely to increase at an accelerating pace over the next several years. A combination of strong demand for labor and a shortage of skilled workers should exert upward pressure on wages beginning in 2022.

- My forecast assumes that the US economy will experience a sustained rise in inflation beginning later next year and persisting throughout 2024. At its cyclical peak in 2024, consumer inflation could rise as high as 4% or 5%.

- Long-term financial assets and inflation are enemies. Rising inflation raises the discount rate used to capitalize the future stream of cash flows to holders of financial assets. The bond market is most profoundly impacted by a sustained rise in inflation.

- As is true of bonds, rising inflation raises the capitalization rate used to discount future earnings and dividends for shareholders. It is also detrimental to stock values because it triggers a tightening in monetary conditions that culminates in slower growth in corporate earnings.

- But inflation also raises the value of corporate assets — plant and equipment, inventories, real estate, land, patents, trademarks, and intellectual property. A rapid rise in prices also increases the nominal values of company earnings, cash flow, and dividends.

- History teaches that stocks decline while inflation is in an accelerating trend, but eventually appreciate in value once the rate of inflation is in retreat and the Fed has begun to ease monetary conditions. In the long term, common stocks can be an effective hedge against inflation.

The US economy is at an early phase of a new inflation cycle that could persist over the next several years. The core Consumer Price Index (CPI) shocked financial markets, rising by a staggering 0.8% in April alone. Consumer inflation has been increasing at an accelerating rate in recent months, jumping from an annual rate of 1.6% in March to 3.0% in April. I expect consumer inflation to remain in a generally rising trend over the next several years, with a potentially widespread and profound impact on financial markets (see chart 1).

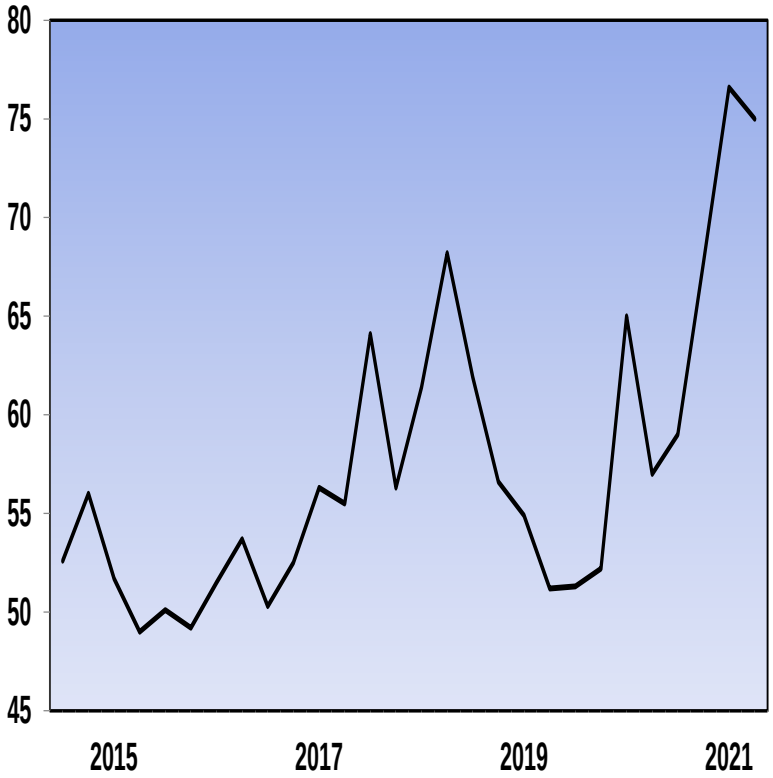
Inflation will peak only after the Federal Reserve has tightened monetary conditions sufficiently to reduce economic growth to a below-trend pace. The rate of inflation typically slows with a lag of 12 months following the initial decline in economic growth. This week's *Economic Perspective* provides an analysis of the outlook for inflation and implications for the economy and financial markets.

## THREE PHASES OF INFLATION

The current inflation cycle is likely to evolve in three separate phases. The US economy is currently in the beginning of phase one, which reflects the culmination of a volatile and disorderly response of consumers and businesses to the sudden reopening of the economy. Specifically, a burst in spending is occurring at a time when production and inventories remain depressed as the economy exits the pandemic. This first phase should evolve into an interim second phase, which could be a period of selling price consolidation and stability.

Chart 1: US Consumer Prices Surge in April
Core Consumer Price Index, Percent Annual Change
Consumer Prices Excluding Food and Energy
Source: Bureau of Labor Statistics


Chart 2: US Businesses Reporting Longer Delivery Times
Monthly Manufacturing Survey, Index of Vendor Performance
Source: The Institute for Supply Management (ISM)



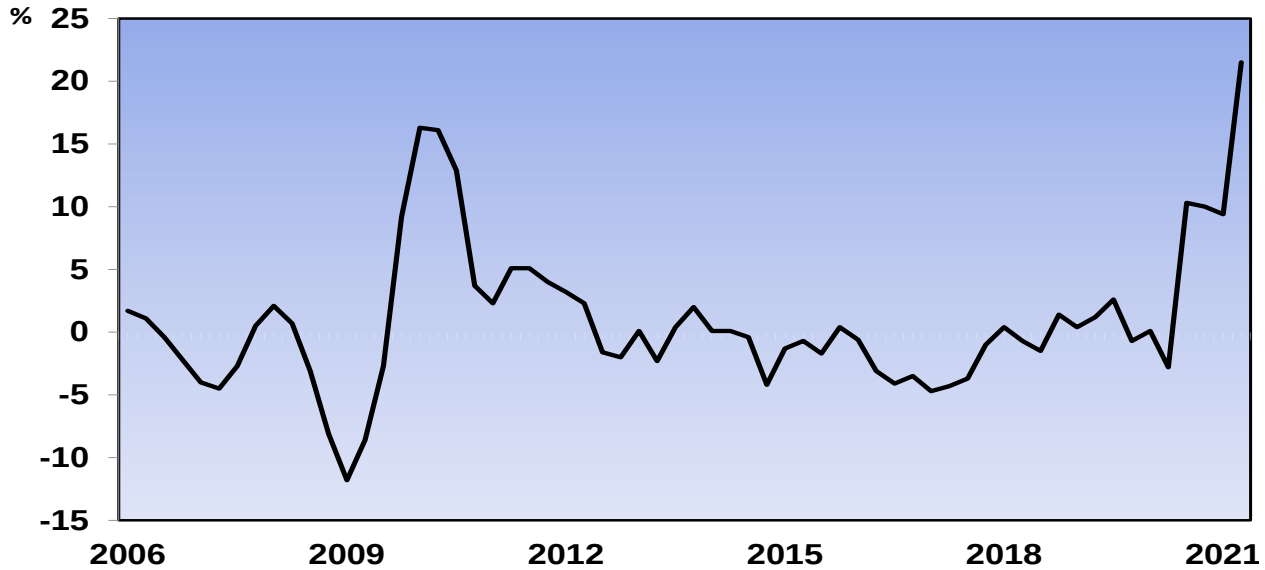

My forecast assumes that the rate of inflation will peak and temporarily decline to more normal levels later this year. Businesses will adjust to bottlenecks in the supply side of the economy by lifting production to meet demand. The final phase could be the most worrisome because the resumption in inflationary pressures would be the culmination of the unprecedented fiscal and monetary stimulus of the past year.

## PHASE ONE INFLATION

The US economy is currently in the early stage of a classic supply-demand squeeze, reflected in rapid increases in both producer and consumer prices. This condition was caused by a combination of a strong revival in demand and limitations on supply resulting from the prior shutdown of production and liquidation of inventories during the pandemic. The surge in spending in the context of enormous pent-up demand has also been augmented by generous government income-support programs.

**Scrambled Supply Chains:** *The reopening of the economy is a one-time event*. Supply chains were disrupted during the pandemic, causing many businesses to have an insufficient supply of materials, components, and workers to rebuild inventories. The *inventory-to-sales ratio* is near an all-time low, while measures of ***delivery lead times*** in the manufacturing sector have lengthened significantly in recent months. *I estimate that the reopening of the economy and supply-chain bottlenecks accounted for two-thirds of the outsized rise in the April CPI* (see chart 2).

Chart 3: Surge in Used Car Prices
CPI: Used Cars and Trucks, Percent Annual Change
Source: Bureau of Labor Statistics




**Recouping Earlier Price Cuts:** As demand recovers, business firms will attempt to recoup price cuts made early in the pandemic when demand imploded. This phenomenon is particularly evident in the travel industry. In the month of April alone, prices for airfares, car rentals, and lodging away from home rose by 10%, 16%, and 8%, respectively. Elsewhere, the combination of record low inventories of new cars and a surge in auto demand resulted in a whopping 10% spike in used cars and trucks in the month (see chart 3).

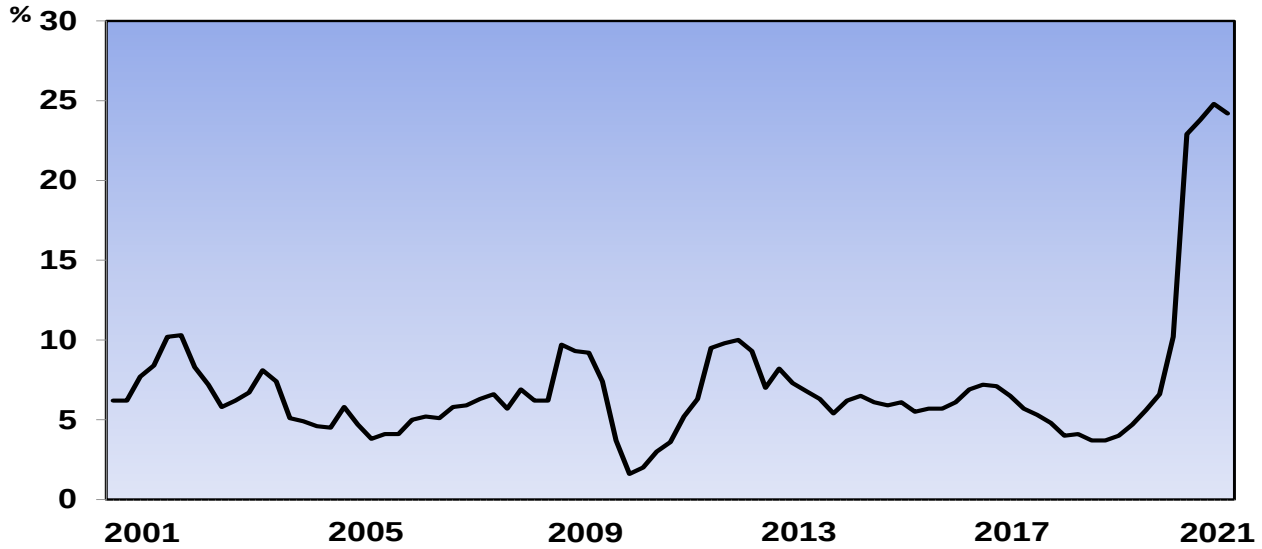
**Peak Inflation:** The spike in prices during this first phase should be transitory, persisting for the next four to six months before the dynamics of supply and demand are restored to equilibrium. Currently at a rate of 3%, the core CPI could rise to a peak annual rate of 4% to 5% during the summer months before moderating to an average annual rate of 2.5% by the middle of next year. Consumer inflation could average 3% to 3.5% over the next 12 months.

## PHASE TWO INFLATION

The second phase of inflation should involve a ***countercyclical*** unwinding of the spike in consumer prices expected over the next four to six months. This initial surge in prices should gradually fade as supply and demand reach a state of equilibrium, resulting in an interim period of more modest price increases.

The amount of pent-up demand should moderate as government income-support programs expire and as households reduce a portion of their excess savings accumulated during the pandemic. Once supply-chain issues are resolved, consumer inflation could decline to an annual rate of 2.5% during this interim period of price consolidation.

Chart 4: Unprecedented Expansion in the Money Supply
US M2 Money Supply, Percent Annual Rate
Source: Federal Reserve




## PHASE THREE INFLATION

*The third phase of the looming inflation cycle is far more worrisome than phase one because the expected rise in inflation would be sustainable, the result of enduring fundamental forces pertaining to fiscal and monetary policy excesses*. Extremes in government policy almost always result in rising inflation, although the lead times could be two years or more. Of greatest importance is monetary policy: The M2 money supply has increased at a 24% rate over the past year, the fastest pace since the early 1940s (see chart 4).

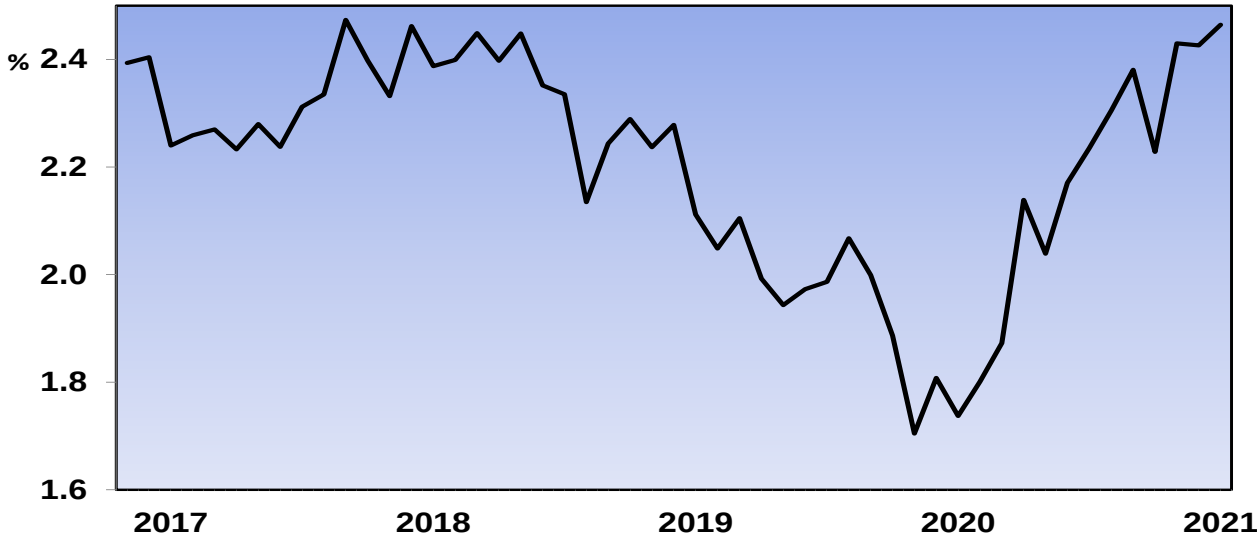
**Money Supply Growth:** While the linkage between the quantity of money and inflation has been less consistent over the past 25 years, rapid growth in money poses a long-term danger to price stability. *The unprecedented divergence between money creation and the production of goods and services greatly increases the odds of a sustained inflation cycle*.

- **New Policy Framework:** Most worrisome is the Federal Reserve's novel policy framework announced one year ago. Rather than preemptively tightening monetary conditions as inflation reaches its 2% price target, the Fed plans to exercise "patience" and allow inflation to exceed 2% for an extended period.

**Fiscal Policy:** The unprecedented growth in government spending over the past year also raises the risk of rapid inflation. Fiscal policy can affect inflation through two channels:

- **Full Employment:** Government spending provides fuel for faster aggregate spending, resulting in a more rapid return to full employment. Closing the ***output gap*** accentuates inflationary pressures, exerting upward pressure on the CPI.

Chart 5: Inflationary Expectations on the Rise
US CPI Swap Rate
Implied Inflation in Five Years
Source: Chicago Board of Trade



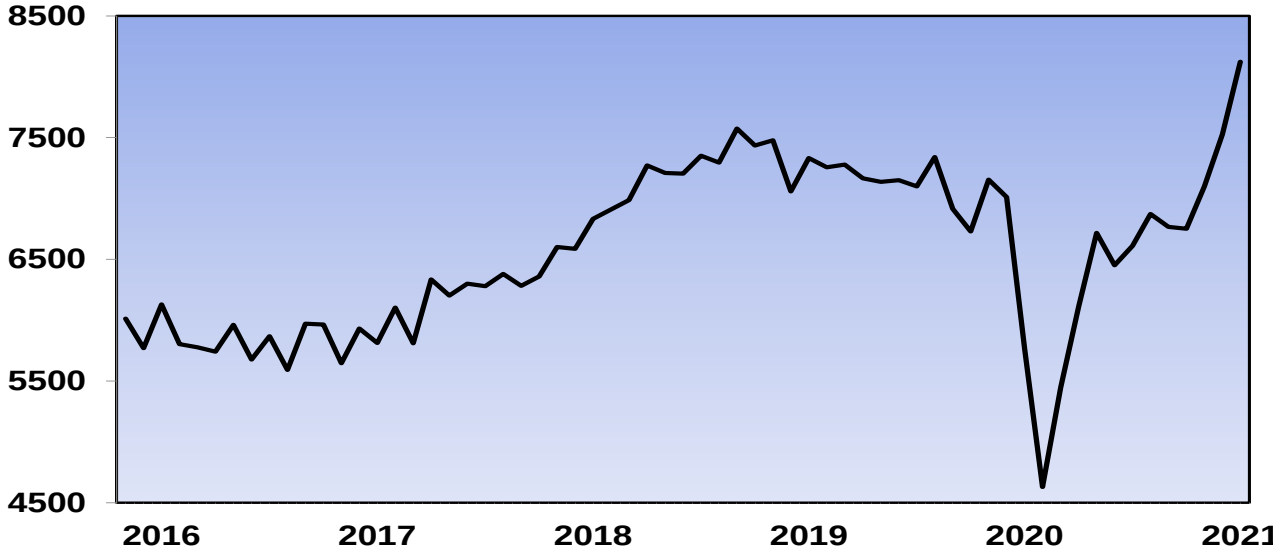

- **Deficit Spending:** In the absence of higher taxes, massive government outlays result in growing federal budget deficits over time. These deficits must be financed by large Treasury debt issuance, which in theory exerts upward pressure on market interest rates. Aggressive Federal Reserve purchases of government debt — in an endeavor to suppress borrowing costs — expand the Fed's balance sheet, while increasing the amount of bank reserves to support credit creation. This process has been the source of accelerating inflation in the past.

**Inflationary Expectations:** Various measures of inflationary expectations are flashing red. Consumers, businesses, and investors expect higher inflation in coming years. Various financial market instruments also reflect a rise in inflationary expectations. The US CPI swap rate — a market-based indicator of inflation in five years — has risen from 1.7% one year ago to a current rate of 2.5% (see chart 5).

**Wage Inflation:** Wages are likely to increase at an accelerating pace over the next several years but could trail the rise in price inflation over the next year. *History shows that wage increases tend to lag price increases during the initial phase of an inflation cycle, but eventually catch up*. A combination of strong demand for labor and a shortage of skilled workers should exert upward pressure on wages.

- **Worker Shortages:** Recent nonfarm payroll data showing weakness in employment are misleading: *Surprisingly slow job creation appears to be a supply, rather than demand, phenomenon*. Business surveys show that firms are faced with a severe shortage of skilled workers: *Nationwide job openings* in April rose to an all-time high of 8.1 million workers, an unambiguous reflection of the strong demand for labor (see chart 6).

Chart 6: US Job Openings at an All-Time High
Number of Listed Job Openings, Thousands
Source: US Department of Labor




## INFLATION OUTLOOK

My forecast assumes that the US economy will experience a temporary burst in inflation in the short term followed by a sustained uptrend beginning later next year and persisting throughout 2024. Consumer inflation could rise to as high as 4% or 5% during 2024, depending upon the timing of the Fed's shift in policy from accommodative to monetary restraint.

The rate of inflation usually peaks following a tightening in monetary conditions and slowdown in economic growth, with a lag time of one year. My forecast assumes that core consumer inflation will average 3.5% this year, falling to an interim low of 2.5% during the middle of next year, before accelerating to 4% in 2023 and 5% in 2024.

In conclusion, inflation will rise rapidly over the next several years if the following developments take place: Consumer spending goes into overdrive because of rapid growth in personal income and a massive pool of excess savings in household bank accounts; bank loans recover rapidly; the Fed remains on hold and delays raising policy rates in a timely manner; and the Fed monetizes the federal debt through aggressive purchases of government bonds. *My assumption is that each of these four scenarios are likely to come to fruition, resulting in much higher future inflation*.

## INVESTMENT IMPLICATIONS

*Long-term financial assets and inflation are enemies*. Rising inflation raises the discount rate used to capitalize the future stream of cash flows for owners of financial assets. The bond market is most profoundly impacted: Rising inflation reduces the present value of future payments of interest and principal, triggering a decline in bond prices. The sustained rise in bond yields that I expect over the next several years should result in negative rates of return for bond investors.

The equity market will also be affected by rising inflation. The longest expansion in American history — from 2009 to 2019 — was accompanied by an unprecedented period of exceptionally low inflation. The equity bull market during that decade was also the longest in stock market history. *In a similar manner, the duration of the current economic expansion and equity bull market that began roughly one year ago is predicated upon the future trend in inflation*.

*Inflation is a double-edged sword for investors in common stocks, depending upon time horizon*. As is true of bonds, rising inflation raises the capitalization rate used to discount future cash flows — earnings and dividends — to shareholders. Inflation is also detrimental to the equity market because it triggers a tightening in monetary conditions that culminates in slower growth in corporate earnings. *But it also raises the nominal value of corporate assets* — plant and equipment, inventories, land, patents, trademarks, and intellectual property — in the long term.

*Inflation also raises the nominal values of earnings, cash flow, and dividends*. History shows that stocks decline while inflation is in an accelerating trend, but eventually appreciate in value once the rate of inflation is in retreat and monetary conditions improve. The return of price stability and falling long-term interest rates then trigger a catch-up phase, as stock prices rightfully incorporate the higher value of corporate assets. In short, unlike bonds, common stocks can be an effective ***long-term*** hedge against inflation.

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**Bloomberg Barclays US Aggregate Bond Index:** is a broad base, market capitalization-weighted bond market index representing intermediate term investment grade bonds traded in the United States. Investors frequently use the index as a stand-in for measuring the performance of the US bond market.

**Dow Jones Industrial Average:** is a stock market index that measures the stock performance of 30 large companies listed on stock exchanges in the United States.

**MSCI World Excluding US Equity Index:** is a stock market index comprising of non-U.S. stocks from 23 developed markets and 26 emerging markets. The index is calculated with a methodology that focuses on liquidity, investability, and replicability.

**NASDAQ:** is an American stock exchange at One Liberty Plaza in New York City. It is ranked second on the list of stock exchanges by market capitalization of shares traded, behind the New York Stock.

**Russell 2000 Index:** is a small-cap stock market index of the smallest 2,000 stocks in the Russell 3000 Index. It was started by the Frank Russell Company in 1984. The index is maintained by FTSE Russell, a subsidiary of the London Stock Exchange Group.

**Russell 3000 Growth Index:** is a market capitalization-weighted index based on the Russell 3000 index. The Russell 3000 Growth Index includes companies that display signs of above-average growth. The index is used to provide a gauge of the performance of growth stocks in the United States.

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**S&P 500® Index:** Measures the performance of 500 widely held stocks in US equity market. Standard and Poor's chooses member companies for the index based on market size, liquidity and industry group representation. Included are the stocks of industrial, financial, utility, and transportation companies. Since mid-1989, this composition has been more flexible and the number of issues in each sector has varied. It is market capitalization-weighted.

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