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PAGE 1 What is a Stock?

A stock, also known as <u>equity</u>, is a security that represents the ownership of a fraction of the issuing corporation. Units of stock are called "<u>shares</u>" which entitles the owner to a proportion of the corporation's <u>assets</u> and profits equal to how much stock they own.

Stocks are bought and sold predominantly on stock exchanges and are the foundation of many individual investors' portfolios. Stock trades have to conform to government regulations meant to protect investors from fraudulent practices.

Understanding what a stock is?

Corporations issue stock to raise funds to operate their businesses and the holder of stock, a shareholder, may have a claim to part of the company's assets and earnings.

A <u>shareholder</u> is considered an owner of the issuing company, determined by the number of shares an investor owns relative to the number of <u>outstanding</u> <u>shares</u>. If a company has 1,000 shares of stock outstanding and one person owns 100 shares, that person would own and have a claim to 10% of the company's <u>assets</u> and <u>earnings.2</u>

Stockholders do not *own* a corporation but corporations are a special type of organization because the law treats them as legal persons. Corporations file taxes. can borrow, can own property, and can be sued. The idea that a corporation is a "person" means that the corporation *owns its assets*. A corporate office full of chairs and tables belongs to the corporation, and *not* to the shareholders.

What is shareholder ownership?

What shareholders own are shares issued by the corporation, and the corporation owns the assets held by a firm. If you own 33% of the shares of a

company, it is incorrect to assert that you own one-third of that company. However, you do own one-third of the company's shares. This is known as the "separation of ownership and control."

Owning stock gives you the right to vote in shareholder meetings, receive <u>dividends</u> if and when they are distributed, and the right to sell your shares to somebody else.

If you own a majority of shares, your voting power increases so that you can indirectly control the direction of a company by appointing its board of directors. 4 This becomes most apparent when one company buys another. The acquiring company buys all the outstanding shares.

The board of directors is responsible for increasing the value of the corporation and often does so by hiring professional managers, or officers, such as the <u>chief executive officer</u>, or CEO. Ordinary shareholders do not manage the company.

The importance of being a shareholder is that you are entitled to a portion of the company's profits, which is the foundation of a stock's value. The more shares you own, the larger the portion of the profits you get. Many stocks, however, do not pay out <u>dividends</u> and instead reinvest profits back into growing the company. These <u>retained earnings</u>, however, are still reflected in the value of a stock.

Quiz on definitions

What is a stock?

A security that represents the ownership of a fraction of the issuing corporation
B a company owned by investors
C Chance of losing all investment
D electronic platform to sell share
What is a shareholder?
A owner of the issuing stock
B a company's profit
C a company owned by the person
D net income after subtracting expenses
What is a dividend?
A the distribution of a company's earnings to its shareholders
B profit
C money

D the place where you buy stocks

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What is the Stock Market?

The term stock market refers to several exchanges in which shares of publicly held companies are bought and sold. Both "stock market" and "stock exchange" are often used interchangeably. Traders in the stock market buy or sell shares on one or more of the stock exchanges that are part of the overall stock market.

The leading U.S. stock exchanges include the <u>New York Stock Exchange</u> (NYSE) and the <u>Nasdaq</u>.

What is to Buy and Sell a stock?

When you open a 'buy' position, you are essentially buying an asset from the market. And when you close your position, you 'sell' it back to the market.

Why is the Stock Market Important?

The stock market is a component of a free-market economy. It allows companies to raise money by offering stock shares and corporate bonds and allows investors to participate in the financial achievements of the companies, make profits through <u>capital gains</u>, and earn income through dividends. The stock market works as a platform through which savings and investments of individuals are efficiently channeled into productive investment opportunities and add to the capital formation and economic growth of the country.

What is the stock Market?

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What Is the Average Return of the Stock Market?

The average return of the stock market over the long term is just above 10%, as measured by the S&P 500 index. Over the past decade, through to March 31, 2022, the annualized performance of the S&P 500 was 14.5%.



Compound Interest Calculator insert

\$1000 invested with interest rate of 10% per year

In 50 years will return \$117,390.85



What is 10q and 10k?

Understanding 10-Ks

Because of the depth and nature of the information they contain, <u>10-Ks</u> are fairly long and tend to be complicated. But <u>investors</u> need to understand that this is one of the most comprehensive and most important documents a public company can publish on a yearly basis. The more information they can gather from the 10-K, the more they can understand the company.

The government requires companies to publish 10-K forms so investors have fundamental information about companies so they can make informed investment decisions. This form gives a clearer picture of everything a company does and what kinds of risks it faces.

Where to Find the 10-K?

Notably, 10-K filings are public information and readily available through a number of sources. In fact, the vast majority of companies include them in the Investor Relations section of their website. The information included in a 10-K can be difficult to move through, but the more familiar investors become with the layout and the type of information included, it will likely become easier to identify the most important details.

Along with the 10-K, the SEC requires that public companies regularly file forms 10-Q.

Form 10-Q must be submitted to the <u>SEC</u> on a quarterly basis. This form is a comprehensive report of a company's performance and includes relevant information about its financial position. Unlike the 10-K, the information in the

10-Q is usually unaudited. The company is only required to file it three times a year as the 10-K is filed in the fourth quarter.

Page 5 What are financial statements and what do you look for in them?

There are three main financial statements investors should be aware of: the income statement, the balance sheet, and the cash flow statement

Income statement

A company's income statement tells you how much money a company brought in and how much of a profit (hopefully) it earned from that revenue.

- The "top-line" number: The first major number on the income statement
 is a company's net sales or revenues, also known as the top-line
 number. In many cases a company's income statement will break down
 different sources of income. For example, Apple's (NASDAQ:AAPL)
 income statement breaks its revenue into product sales and service
 revenue.
- Net income (earnings): From there, the company's cost of sales is subtracted to produce its gross income. Its operating costs (like research and development) are subtracted to calculate its operating income. Then income tax expenses are subtracted, and the result is the company's net income, also known as its "earnings." Net income is often expressed both as one large number and by share (the latter being earnings per share, or EPS).

Example of Income Statement

Net sales: Products	Se		S	September 25.	-	Santamber 20	
Products	September 24, 2022		September 25, 2021			September 26, 2020	
	jis		(S - C)	<u></u>	8-10		
	\$	316,199	\$	297,392	\$	220,747	
Services		78,129		68,425		53,768	
Total net sales		394,328		365,817		274,515	
Cost of sales:							
Products		201,471		192,266		151,286	
Services		22,075		20,715		18,273	
Total cost of sales		223,546		212,981		169,559	
Gross margin		170,782		152,836		104,956	
Operating expenses:							
Research and development		26,251		21,914		18,752	
Selling, general and administrative		25,094		21,973		19,916	
Total operating expenses		51,345		43,887		38,668	
Operating income		119,437		108,949		66,288	
Other income/(expense), net		(334)		258		803	
Income before provision for income taxes		119,103		109,207		67,091	
Provision for income taxes		19,300		14,527		9,680	
Net income	\$	99,803	\$	94,680	\$	57,411	
Earnings per share:							
Basic	\$	6.15	\$	5.67	\$	3.31	
Diluted	\$	6.11	\$	5.61	\$	3.28	
Shares used in computing earnings per share:							
Basic		16,215,963		16,701,272		17,352,119	
Diluted		16,325,819		16,864,919		17,528,214	
		September 24,		September 25,		September 26,	
Net income	\$	99,803	\$	2021 94,680	\$	2020 57,411	
Other comprehensive income/(loss):	<u>-</u>	00,000	<u> </u>	0.1,000	- <u>*</u>	07,111	
Change in foreign currency translation, net of tax		(1,511)		501		88	
Change in unrealized gains/losses on derivative instruments, net of tax:							
Change in fair value of derivative instruments		3,212		32		79	
Adjustment for net (gains)/losses realized and included in net income		(1,074)		1,003		(1,264	
Total change in unrealized gains/losses on derivative instruments	-	2,138		1,035		(1,185	
Change in unrealized gains/losses on marketable debt securities, net of tax:							
Change in fair value of marketable debt securities		(12,104)		(694)		1,202	
Adjustment for net (gains)/losses realized and included in net income		205		(273)		(63	
Total change in unrealized gains/losses on marketable debt securities		(11,899)		(967)		1,139	
Total other comprehensive income/(loss)		(11,272)		569		42	
Total comprehensive income	\$	88,531	\$	95,249	\$	57.453	

Balance sheet

A balance sheet gives you a snapshot of a company's financial condition at a given time (typically the end of a quarter). And as with the income statement, the data is typically presented as a comparison between the current period and the same time a year prior.

There are three sections on a balance sheet:

- Assets: What the company owns. This is further broken down into current and noncurrent assets. Current assets include liquid assets and assets that can be expected to become liquid within a year. Examples include cash, short-term Treasuries, accounts receivable, and inventory. Noncurrent assets include long-term investments, real estate, and equipment used in manufacturing, just to name a few.
- Liabilities: What the company owes. These are also divided into current
 and noncurrent. Current liabilities include payments a company will have
 to make within a year, such as accounts payable and short-term debt.
 Noncurrent liabilities include things like long-term debts.
- Shareholder's equity: Think of shareholder's equity as what the company would have if it shut down, sold all of its assets, and paid all of its debts. Shareholder's equity is the difference between assets and liabilities and is the company's net worth.

Example of Balance Sheet of Apple

	Se	September 24, 2022		September 25, 2021	
ASSETS:					
Current assets:					
Cash and cash equivalents	\$	23,646	\$	34,940	
Marketable securities		24,658		27,699	
Accounts receivable, net		28,184		26,278	
Inventories		4,946		6,580	
Vendor non-trade receivables		32,748		25,228	
Other current assets		21,223		14,111	
Total current assets		135,405		134,836	
Non-current assets:					
Marketable securities		120,805		127,877	
Property, plant and equipment, net		42,117		39,440	
Other non-current assets		54,428		48,849	
Total non-current assets		217,350		216,166	
Total assets	\$	352,755	\$	351,002	
LIABILITIES AND SHAREHOLDERS' EQUITY:					
Current liabilities:					
Accounts payable	\$	64,115	\$	54,763	
Other current liabilities	Ψ	60.845	Ψ	47.493	
Deferred revenue		7,912		7,612	
Commercial paper		9,982		6,000	
Term debt		11,128		9,613	
Total current liabilities		153,982		125,481	
Non-current liabilities:					
Term debt		98,959		109,106	
Other non-current liabilities		49,142		53,325	
Total non-current liabilities		148,101	-	162,431	
Total liabilities		302,083		287,912	
Commitments and contingencies					
Shareholders' equity:					
Common stock and additional paid-in capital, \$0.00001 par value: 50,400,000 shares authorized; 15,943,425 and 16,426,786 shares issued and outstanding, respectively	5	64,849		57,365	
Retained earnings/(Accumulated deficit)		(3,068)		5,562	
Accumulated other comprehensive income/(loss)		(11,109)		163	
Total shareholders' equity		50,672		63,090	
	\$	352,755	\$	351.002	

Cash flow statement

A company's cash flow statement shows the money flowing into and out of the business. This is broken down into a few categories:

- **Operating activities:** This includes the net income from the company's business, stock-based compensation, receivables collected, accounts payable that were paid, and other business-related items.
- **Investing activities:** If a business buys or sells stocks or bonds, this activity is included in this part of the cash flow statement. The same is true if the business buys or sells real estate or equipment.
- **Financing activities:** If a company issues new common stock, it is included in this part of the cash flow statement. Dividend payments are a common outflow in this section, as are stock buybacks. And if a company repays debt, that will appear as a line item here.

All of these categories added together produce the company's total cash flow. A positive number indicates that the company's cash increased during the period, while a negative number shows that the cash decreased. Just under the cash flow number will be a total of the cash and cash equivalents the company currently has.

Example Cash Flow Statement of Apple

	September 24, 2022	S	eptember 25, 2021	September 26, 2020
Cash, cash equivalents and restricted cash, beginning balances	\$ 35,929	\$	39,789	\$ 50,224
Operating activities:				
Net income	99,803		94,680	57,411
Adjustments to reconcile net income to cash generated by operating activities:				
Depreciation and amortization	11,104		11,284	11,056
Share-based compensation expense	9,038		7,906	6,829
Deferred income tax expense/(benefit)	895		(4,774)	(215
Other	111		(147)	(97)
Changes in operating assets and liabilities:				
Accounts receivable, net	(1,823)	(10,125)	6,917
Inventories	1,484		(2,642)	(127)
Vendor non-trade receivables	(7,520)	(3,903)	1,553
Other current and non-current assets	(6,499)	(8,042)	(9,588)
Accounts payable	9,448		12,326	(4,062)
Deferred revenue	478		1,676	2,081
Other current and non-current liabilities	5,632		5,799	8,916
Cash generated by operating activities	122,151		104,038	80,674
Investing activities:				
Purchases of marketable securities	(76,923)	(109,558)	(114,938)
Proceeds from maturities of marketable securities	29,917		59,023	69,918
Proceeds from sales of marketable securities	37,446		47,460	50,473
Payments for acquisition of property, plant and equipment	(10,708)	(11,085)	(7,309)
Payments made in connection with business acquisitions, net	(306)	(33)	(1,524)
Other	(1,780)	(352)	(909)
Cash used in investing activities	(22,354)	(14,545)	(4,289)
Financing activities:				
Payments for taxes related to net share settlement of equity awards	(6,223)	(6,556)	(3,634)
Payments for dividends and dividend equivalents	(14,841)	(14,467)	(14,081)
Repurchases of common stock	(89,402)	(85,971)	(72,358)
Proceeds from issuance of term debt, net	5,465		20,393	16,091
Repayments of term debt	(9,543)	(8,750)	(12,629)
Proceeds from/(Repayments of) commercial paper, net	3,955		1,022	(963)
Other	(160)	976	754
Cash used in financing activities	(110,749)	(93,353)	(86,820)
Decrease in cash, cash equivalents and restricted cash	(10,952	, —	(3,860)	(10,435)
Cash, cash equivalents and restricted cash, ending balances	\$ 24,977	\$	35,929	\$ 39,789
Supplemental cash flow disclosure:				
Cash paid for income taxes, net	\$ 19,573	\$	25,385	\$ 9,501
Cash paid for interest	\$ 2,865	\$	2,687	\$ 3,002

Understanding 10-Ks

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How to evaluate a stock compared to others using Fundamental Analysis?

Fundamental analysis is a method of determining a stock's real or "fair market" value.

Quantitative Fundamentals to Consider: Financial Statements

Financial statements are the medium by which a company discloses information concerning its financial performance. Followers of fundamental analysis use quantitative information from financial statements to make investment decisions. The three most important financial statements are income statements, balance sheets, and cash flow statements.

The Balance Sheet

The balance sheet represents a record of a company's assets, liabilities, and equity at a particular point in time. It is called a balance sheet because the three sections—assets, liabilities, and shareholders' equity—must balance using the formula:

Assets = Liabilities + Shareholders' Equity

Assets represent the resources the business owns or controls at a given time. This includes items such as cash, inventory, machinery, and buildings. The other side of the equation represents the total financing value the company has used to acquire those assets.

Financing comes as a result of <u>liabilities</u> or <u>equity</u>. Liabilities represent debts or obligations that must be paid. In contrast, equity represents the total value of money that the owners have contributed to the business—including retained earnings, which is the profit left after paying all current obligations, dividends, and taxes.

The Income Statement

While the balance sheet takes a snapshot approach in examining a business, the income statement measures a company's performance over a specific time frame. Technically, you could have a balance sheet for a month or even a day, but you'll only see public companies report quarterly and annually.

The income statement presents revenues, expenses, and profit generated from the business' operations for that period.

Statement of Cash Flows

The statement of cash flows represents a record of a business' cash inflows and outflows over a period of time. Typically, a statement of cash flows focuses on the following cash-related activities:

- Cash from investing (CFI): Cash used for investing in assets, as well as the proceeds from the sale of other businesses, equipment, or long-term assets
- Cash from financing (CFF): Cash paid or received from the issuing and borrowing of funds
- Operating Cash Flow (OCF): Cash generated from day-to-day business operations

The cash flow statement is important because it's challenging for a business to manipulate its cash situation. There is plenty that aggressive accountants can do to manipulate earnings, but it's tough to fake cash in the bank. For this reason, some investors use the cash flow statement as a more conservative measure of a company's performance.

How to evaluate a stock

People buy stocks because there is an intrinsic value in the company and believe that the current intrinsic value is higher than the current value. How people could evaluate a stock is by reading the company's 10k and 10q looking into their financials such as

balance sheet income statement and cash flow but also it provides a view on what the company is working on and how they are trying to drive sales to the company.

Comparing stocks to others

How people compare stocks that are undervalued is by comparing them to similar companies in terms of checking each other's market cap and industries. One of the most popular ratios people use is the P/E ratio. This stands for Price/Earnings ratio. You compare it to another company's ratio and whichever one is lower is better because it trading for less than other companies with a higher P/E. The next is P/B

Qualitative Fundamentals to Consider

There are four key fundamentals that analysts always consider when regarding a company. All are qualitative rather than quantitative. They include:

The Business Model

What exactly does the company do? This isn't as straightforward as it seems. If a company's business model is based on selling fast-food chicken, is it making its money that way? Or is it just coasting on royalty and franchise fees?

Competitive Advantage

A company's long-term success is primarily driven by its ability to maintain a competitive advantage—and keep it. Powerful competitive advantages, such as Coca-Cola's brand name and Microsoft's domination of the personal computer operating system, create a <u>moat</u> around a business allowing it to keep competitors at bay and enjoy growth and profits. When a company can achieve a competitive advantage, its shareholders can be well rewarded for decades.

Management

Some believe management is the most important criterion for investing in a company. It makes sense: Even the best business model is doomed if the

company's leaders fail to execute the plan properly. While it's hard for retail investors to meet and truly evaluate managers, you can look at the corporate website and check the resumes of the top brass and the board members. How well did they perform in previous jobs? Have they been unloading a lot of their stock shares lately?

Corporate Governance

Corporate governance describes the policies in place within an organization denoting the relationships and responsibilities between management, directors, and <u>stakeholders</u>. These policies are defined and determined in the <u>company charter</u>, its bylaws, and corporate laws and regulations. You want to do business with a company that is run ethically, fairly, transparently, and efficiently. Particularly note whether management respects shareholder rights and shareholder interests. Make sure their communications to shareholders are transparent, clear, and understandable. If you don't get it, it's probably because they don't want you to.

Industry

It's also important to consider a company's industry: its customer base, <u>market share</u> among firms, industry-wide growth, competition, regulation, and business cycles. Learning how the industry works will give an investor a deeper understanding of a company's financial health.

What Is Ratio Analysis?

Ratio analysis is a quantitative method of gaining insight into a company's liquidity, operational efficiency, and profitability by studying its financial statements such as the balance sheet and income statement. Ratio analysis is a cornerstone of fundamental equity analysis.

Types of Ratio Analysis

The various kinds of financial ratios available may be broadly grouped into the following six silos, based on the sets of data they provide:

1. Liquidity Ratios

<u>Liquidity ratios</u> measure a company's ability to pay off its short-term debts as they become due, using the company's current or quick assets. Liquidity ratios include the current ratio, quick ratio, and working capital ratio.

2. Solvency Ratios

Also called financial leverage ratios, <u>solvency ratios</u> compare a company's debt levels with its assets, equity, and earnings, to evaluate the likelihood of a company staying afloat over the long haul, by paying off its long-term debt as well as the interest on its debt. Examples of solvency ratios include: debt-equity ratios, debt-assets ratios, and interest coverage ratios.

3. Profitability Ratios

These ratios convey how well a company can generate profits from its operations. Profit margin, return on assets, return on equity, return on capital employed, and gross margin ratios are all examples of **profitability ratios**.

4. Efficiency Ratios

Also called activity ratios, <u>efficiency ratios</u> evaluate how efficiently a company uses its assets and liabilities to generate sales and maximize profits. Key efficiency ratios include: turnover ratio, inventory turnover, and days' sales in inventory.

5. Coverage Ratios

<u>Coverage ratios</u> measure a company's ability to make the interest payments and other obligations associated with its debts. Examples include the <u>times</u> <u>interest earned ratio</u> and the <u>debt-service coverage ratio</u>.

6. Market Prospect Ratios

These are the most commonly used ratios in fundamental analysis. They include <u>dividend yield</u>, <u>P/E ratio</u>, <u>earnings per share</u> (EPS), and <u>dividend payout ratio</u>. Investors use these metrics to predict earnings and future performance.

For example, if the average P/E ratio of all companies in the S&P 500 index is 20, and the majority of companies have P/Es between 15 and 25, a stock with a P/E ratio of seven would be considered undervalued. In contrast, one with a P/E ratio of 50 would be considered overvalued. The former may trend upwards in the future, while the latter may trend downwards until each aligns with its intrinsic value.

Examples of Ratio Analysis in Use

Ratio analysis can predict a company's future performance—for better or worse. Successful companies generally boast solid ratios in all areas, where any sudden hint of weakness in one area may spark a significant stock sell-off. Let's look at a few simple examples

Net profit margin, often referred to simply as profit margin or the bottom line, is a ratio that investors use to compare the profitability of companies within the same sector. It's calculated by dividing a company's net income by its revenues. Instead of dissecting financial statements to compare how profitable companies are, an investor can use this ratio instead. For example, suppose company ABC and company DEF are in the same sector with profit margins of 50% and 10%, respectively. An investor can easily compare the two companies and conclude that ABC converted 50% of its revenues into profits, while DEF only converted 10%.

Using the companies from the above example, suppose ABC has a P/E ratio of 100, while DEF has a P/E ratio of 10. An average investor concludes that investors are willing to pay \$100 per \$1 of earnings ABC generates and only \$10 per \$1 of earnings DEF generates.

Why Is Ratio Analysis Important?

Ratio analysis is important because it may portray a more accurate representation of the state of operations for a company. Consider a company that made \$1 billion of revenue last quarter. Though this seems ideal, the company might have had a negative gross profit margin, a decrease in liquidity ratio metrics, and lower earnings compared to equity than in prior periods. Static numbers on their own may not fully explain how a company is performing.

Before you begin to research your investment strategy, it's important to gather some basic information about your financial situation. Ask yourself these key questions:

- What is your current financial situation?
- What is your cost of living including monthly expenses and debts?
- How much can you afford to invest—both initially and on an ongoing basis?

Even though you don't need a lot of money to get started, you shouldn't start investing until you can afford to do so. If you have <u>debts</u> or other obligations, consider the impact investing will have on your short-term cash flow before you start putting money into your portfolio.

Next, set out your goals. Everyone has different needs, so you should determine what yours are. Are you <u>saving for retirement</u>? Are you looking to make big purchases like a home or car in the future? Are you saving for your or your children's education? This will help you narrow down a strategy as different investment approaches have different levels of liquidity, opportunity, and risk.

Next, figure out what your <u>risk tolerance</u> is. Your risk tolerance is determined by two things. First, this is normally determined by several key factors

including your age, income, and how long you have until you retire. Investors who are younger have time on their side to recuperate losses, so it's often recommended that younger investors hold more risk than those who are older.

Risk tolerance is also a highly-psychological aspect to investing largely determined by your emotions. How would you feel if your investments dropped 30% overnight? How would you react if your portfolio is worth \$1,000 less today than yesterday? Sometimes, the best strategy for making money makes people emotionally uncomfortable. If you're constantly worrying about the state of possibly losing money, chances are your portfolio has too much risk.

Strategy 1: Value Investing

<u>Value investors</u> are bargain shoppers. They seek stocks they believe are undervalued. They look for stocks with prices they believe don't fully reflect the intrinsic value of the security. Value investing is predicated, in part, on the idea that some degree of irrationality exists in the market. This irrationality, in theory, presents opportunities to get a stock at a discounted price and <u>make money from it</u>.

It's not necessary for value investors to comb through volumes of financial data to find deals. Thousands of value <u>mutual funds</u> give investors the chance to own a basket of stocks thought to be undervalued. The <u>Russell 1000 Value Index</u>, for example, is a popular benchmark for value investors and several mutual funds mimic this index.

For those who don't have time to perform exhaustive research, the <u>price-earnings ratio</u> (P/E) has become the primary tool for quickly identifying undervalued or cheap stocks. This is a single number that comes from dividing a stock's share price by its <u>earnings per share</u> (EPS). A lower P/E ratio signifies you're paying less per \$1 of current earnings. Value investors seek companies with a low P/E ratio.

Strategy 2: Growth Investing

Rather than look for low-cost deals, growth investors want investments that offer strong upside potential when it comes to the future earnings of stocks. It could be said that a growth investor is often looking for the "next big thing." Growth investing, however, is not a reckless embrace of speculative investing. Rather, it involves evaluating a stock's current health as well as its potential to grow.

A drawback to growth investing is a lack of <u>dividends</u>. If a company is in growth mode, it often needs capital to sustain its expansion. This doesn't leave much (or any) cash left for dividend payments. Moreover, with faster earnings growth comes higher valuations, which are, for most investors, a higher risk proposition.

While there is no definitive list of hard metrics to guide a growth strategy, there are a few factors an investor should consider. Growth stocks do tend to outperform during periods of falling interest rates, as newer companies can find it less expensive to borrow in order to fuel innovation and expansion. It's important to keep in mind, however, that at the first sign of a downturn in the economy, growth stocks are often the first to get hit.4

Growth investors also need to carefully consider the management prowess of a business's <u>executive team</u>. Achieving growth is among the most difficult challenges for a firm. Therefore, a stellar leadership team is required. At the same time, investors should evaluate the competition. A company may enjoy stellar growth, but if its primary product is easily replicated, the long-term prospects are dim.

Strategy 4: Dollar-Cost Averaging

<u>Dollar-cost averaging</u> (DCA) is the practice of making regular investments in the market over time and is not mutually exclusive to the other methods described above. Rather, it is a means of executing whatever strategy you chose. With DCA, you may choose to put \$300 in an investment account every month.

This disciplined approach becomes particularly powerful when you use automated features that invest for you. The benefit of the DCA strategy is that it avoids the painful and ill-fated strategy of market timing. Even seasoned investors occasionally feel the temptation to buy when they think prices are low only to discover, to their dismay, they have a longer way to drop.

When investments happen in regular increments, the investor captures prices at all levels, from high to low. These periodic investments effectively lower the average per-share cost of the purchases and reduces the potential taxable basis of future shares sold.

90/10 Strategy

What Is the 90/10 Strategy?

Legendary investor Warren Buffett invented the "90/10" investing strategy for the investment of retirement savings. The method involves deploying 90% of one's investment capital into stock-based index funds while allocating the remaining 10% of money toward lower-risk investments.1

This system aims to generate higher yields in the overall portfolio over the long-term. Following this method, Buffett professes the potential gains an individual investor could achieve will be superior compared to those investors who employ high-fee investment managers. However, much depends on the quality of the <u>index funds</u> the investor purchases.

How the 90/10 Strategy Works

A typical application of the 90/10 strategy involves the use of short-term <u>Treasury Bills (T-Bills)</u> for the 10%, fixed-income component of the portfolio. Investment of the remaining 90% is in higher-risk (but low-cost) index funds.

For example, an investor with a \$100,000 portfolio electing to employ a 90/10 strategy might invest \$90,000 in an S&P 500 index fund. The remaining \$10,000 might go toward one-year Treasury Bills, which in our hypothetical scenario yield 4% per annum.

Investing vs Trading

Passive index fund 80% of time beat Actively Managed Funds

Investing and trading are two very different methods of attempting to profit in the <u>financial markets</u>. Both investors and traders seek profits through market participation. In general, investors seek larger returns over an extended period through buying and holding. Traders, by contrast, take advantage of both rising and falling markets to enter and exit positions over a shorter time frame, taking smaller, more frequent profits.

Investing

The goal of investing is to gradually build wealth over an extended period of time through the buying and holding of a portfolio of stocks, baskets of stocks, mutual funds, bonds, and other investment instruments.

Investors often enhance their profits through compounding or reinvesting any profits and dividends into additional shares of stock.

Investments often are held for a period of years, or even decades, taking advantage of perks like interest, dividends, and stock splits along the way. While markets inevitably fluctuate, investors will "ride out" the downtrends with the expectation that prices will rebound and any losses eventually will be recovered. Investors typically are more concerned with market fundamentals, such as price-to-earnings ratios and management forecasts.

Anyone who has a 401(k) or an IRA is investing, even if they are not tracking the performance of their holdings on a daily basis. Since the goal is to grow a retirement account over the course of decades, the day-to-day fluctuations of different mutual funds are less important than consistent growth over an extended period.

rading

Trading involves more frequent transactions, such as the buying and selling of stocks, commodities, <u>currency pairs</u>, or other instruments. The goal is to generate returns that outperform buy-and-hold investing. While investors may be content with <u>annual returns</u> of 10% to 15%, traders might seek a 10% return each month. Trading profits are generated by buying at a lower price and selling at a higher price within a relatively short period of time. The reverse also is true: trading profits can be made by selling at a higher price and buying to cover at a lower price (known as "<u>selling short</u>") to profit in falling markets.

While buy-and-hold investors wait out less profitable positions, traders seek to make profits within a specified period of time and often use a protective stop-loss order to automatically close out losing positions at a predetermined price level. Traders often employ technical analysis tools, such as moving averages and stochastic oscillators, to find high-probability trading setups.

A trader's style refers to the timeframe or <u>holding period</u> in which stocks, commodities, or other trading instruments are bought and sold. Traders generally fall into one of four categories:

- **Position Trader**: Positions are held from months to years.
- **Swing Trader**: Positions are held from days to weeks.
- **Day Trader**: Positions are held throughout the day only with no overnight positions.
- Scalp Trader: Positions are held for seconds to minutes with no overnight positions.

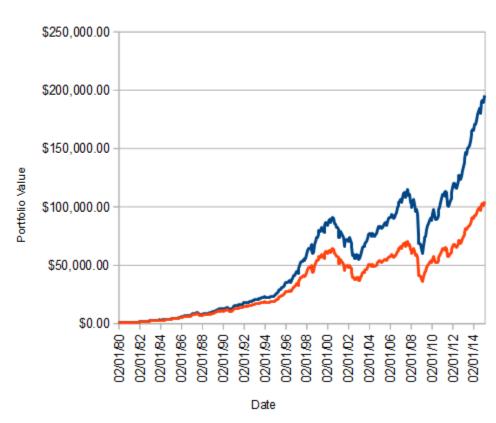
Traders often choose their trading style based on factors including account size, amount of time that can be dedicated to trading, level of trading experience, personality, and <u>risk tolerance</u>.

Passive index fund 80% of time beat Actively Managed Funds

Passive vs Active Index, S&P 500

February 1980 - 2015, 0.06% Fees vs 2.27%





Where to buy stocks?

Online Brokers

Brokers are either full-service or discount.

Full-Service Brokers

Full-service brokers, as the name implies, offer a full range of traditional brokerage services, including financial advice for college planning, retirement planning, estate planning, and for other life events and opportunities. This custom-tailored advice justifies the higher fees that they typically charge, compared to other brokers. These can include a percentage of your transactions, a percentage of your assets under management, and sometimes, a yearly membership fee. Minimum account sizes can start at \$25,000.

Discount Brokers

Discount brokers used to be the exception but are now the norm. They offer you tools to select your investments and place your orders. Some also offer a set-it-and-forget-it robo-advisory service (more below). Many provide educational materials on their sites and mobile apps, which can be helpful for beginning investors.

Some brokers have no (or very low) minimum deposit restrictions. However, they may have other requirements and fees. Be sure to check on both of these as you look for a brokerage account that meets your stock investing needs.

Robinhood vs Fidelity

Fidelity is considered to be one of the leaders in the investment and asset management industry. The company offers zero-commission trades on stocks,

ETFs and options, a huge list of in-house Fidelity mutual funds, multiple types of investment accounts and excellent customer service.

Beyond a broad spectrum of products, Fidelity also offers an easy-to-use app for beginners as well as a desktop platform packed with expert research and advanced trading tools for more serious investors. In most situations, you will find what you need at Fidelity.

There are a few downsides. Fidelity does not offer cryptocurrency investing. The company is also missing some features found on other investment platforms, like futures trading and paper trading, where you can practice trading.

Investors who really want the simplest mobile-experience possible may find Robinhood easier to navigate, though keep in mind that the Fidelity app has also won awards for its quality.

Who Should Choose Robinhood?

Robinhood makes investing about as easy as possible. The mobile app is quick to download, set up and fund, allowing you to start making trades almost immediately. In fact, this is a common criticism of Robinhood: It makes investing so easy it feels more like a game than a serious activity.

Still, it's hard to beat the convenience of the Robinhood app. If you want to invest through your mobile device and don't need extensive research tools like

screeners, you should get what you need from Robinhood. The company offers commission-free trades for all their investments, including cryptocurrency.

The reason Robinhood offers commission-free trades is that it accepts payment for order flow, meaning they process trades through brokers who give them the highest fee, not necessarily the best rate for your investment. As a result, you could be paying more to buy and getting less when you sell investments.

Robinhood is missing several of the investment accounts and trading options found with Fidelity and is also lacking in terms of customer service. You can only request calls, and in-person branches aren't accessible like Fidelity. Last, Robinhood doesn't provide as many educational materials as the best online brokers for beginners.

These drawbacks haven't hurt Robinhood's popularity, though, especially with the younger smartphone generation. For many investors, the ease of use is worth it.

Robinhood Pros

- A very easy-to-use investment app
- No commissions or fees on investments
- No account minimums
- Offers cryptocurrency trading

Robinhood Cons

- Not many investment research tools
- Earns money through payment-for-order-flow
- No retirement accounts

• Limited customer support

Fidelity Pros

- Extensive selection of commission-free investments
- Quality mobile and desktop trading platforms
- Top-notch research and investment tools
- Excellent customer service

Fidelity Cons

- No cryptocurrency trading
- No futures trading or paper trading
- Transaction fees for non-Fidelity mutual funds
- Small per-contract fee for options

More Strategies to investing?

How interest rates affect stock prices and what to buy?

Interest Rates: An Overview

While it usually takes at least 12 months for a change in the interest rate to have a widespread economic impact, the stock market's response to a change is often more immediate. Markets will often attempt to price in future expectations of rate hikes and anticipate the actions of the FOMC are made official.

Besides the federal funds rate, the Federal Reserve also sets a <u>discount</u> rate. The discount rate is the interest rate the Fed charges banks that

borrow from it directly. This rate tends to be higher than the target federal funds rate (in part, to encourage banks to borrow from other banks at the lower federal funds rate).

What Stocks Go Up When Interest Rates Go Up?

When interest rates go up, the Federal Reserve is attempting to cool an overheating economy. By making credit more expensive and harder to come by, certain industries such as consumer goods, lifestyle essentials, and industrial goods sectors that do not rely on economic growth may poised for future success. In addition, any company that is not reliant on growth through low-cost debt can go up along with interest rates as it does not require external costly financing for expansion.

What Is the Best Investment When Interest Rates Are Rising?

All macroeconomic situations are different, so there is no single best investment suitable for all investment conditions. With that said, some investment classes do tend to perform better when interest rates are rising. There is more risk locking into long-term rates, so shorter-term bonds are often more preferable. If rising rates are in response to inflation, you may consider inflation-specific government bonds. Last, if you believe interest rates will have a detrimental impact on equities, you may consider shorting the stock market. For direct investment guidance, please consult your financial advisor.

What Happens When Interest Rates Fall?

When the economy is slowing, the Federal Reserve cuts the federal funds rate to stimulate financial activity. A decrease in interest rates by the Federal Reserve has the opposite effect of a rate hike. Investors and economists alike view lower interest rates as catalysts for growth—a

benefit to personal and corporate borrowing. This, in turn, leads to greater profits and a robust economy.

Consumers will spend more, with the lower interest rates making them feel that, perhaps, they can finally afford to buy that new house or send their kids to a private school. Businesses will enjoy the ability to finance operations, acquisitions, and expansions at a cheaper rate, thereby increasing their future earnings potential. This, in turn, leads to higher stock prices.

Particular winners of lower federal funds rates are dividend-paying sectors, such as utilities and real estate investment trusts (REITs). Additionally, large companies with stable cash flows and strong balance sheets benefit from cheaper debt financing.

Inflation and Stock Market Returns

Examining <u>historical returns</u> data during periods of high and low inflation can provide some clarity for investors. Numerous studies have looked at the effect of inflation on stock returns. Unfortunately, the studies have often produced conflicting results.7

8 Still, most researchers have found that higher inflation has generally correlated with lower equity valuations.9

This has also been shown in emerging countries, where the volatility of stocks is greater than in developed markets. 10 Since the 1930s, the research suggests that almost every country suffered its worst real returns during high inflation periods.

Real returns are nominal returns minus inflation. When examining S&P 500 returns by decade and adjusting for inflation, the results show the highest real returns occur when inflation is 2% to 3%.

Inflation greater than or less than this range tends to signal a U.S. macroeconomic environment with larger issues that have varying impacts on stocks.11 Perhaps more important than the actual returns are the volatility of returns inflation causes and knowing how to invest in that environment.

Growth vs. Value Stock Performance and Inflation

Stocks are often subdivided into value and growth categories. <u>Value stocks</u> have strong current cash flows more likely to grow slowly or diminish over time, while <u>growth stocks</u> are likely to represent fast-growing companies that may not be profitable.12

Therefore, when valuing stocks using the <u>discounted cash flow</u> method, in times of rising interest rates, growth stocks are negatively impacted far more than value stocks.1314 Since interest rates are usually increased to combat high inflation, the corollary is that in times of high inflation, growth stocks will suffer more.

How recession affects stock price

The Impact of Recessions on Investors

Stage 1: Peak

At its peak, the economy is running at full steam. Employment is at or near maximum levels, <u>real gross domestic product (GDP)</u> is growing at a healthy rate, and incomes are rising. All this positive economic activity is reflected in stock prices, with share prices for many companies and industries rising to all-time highs. To show their gratitude to shareholders for their continued support and investment, companies may increase <u>dividend payouts</u>.

Less encouragingly, prices tend to be rising due to <u>inflation</u>. Even so, most businesses, workers, and investors are enjoying the boom times.

Stage 2: Recession

The adage "what goes up must come down" applies perfectly here. After experiencing a great deal of growth and success, income and employment begin to decline due to any number of causes. It could be an external event that triggers the downturn, such as an invasion or a <u>supply shock</u>, a sudden correction in overheated asset prices, or a drop in consumer spending due to inflation, which in turn can lead firms to lay off employees.

During a recession, stock prices typically plummet. The <u>markets can be</u> <u>volatile</u>with share prices experiencing wild swings. Investors react quickly to any hint of news—either good or bad—and <u>the flight to safety</u> can cause some investors to pull their money out of the stock market entirely.

Stage 3: Trough

The <u>trough</u> is the part of the business cycle when output and employment bottom out before they begin to rise again. At this point, spending and investment have cooled down significantly, pushing down prices and wages.

Troughs can be challenging to pinpoint while they are happening, but they are recognizable in hindsight. Troughs are the point where business activity moves from <u>contraction</u> to recovery. A sign that the trough has occurred—or is about to occur—is when <u>stock prices begin to rally</u> after a significant decline. This rebalancing of the economy makes new purchases attractive to consumers and new investments—in labor and assets—attractive to firms.

Stage 4: Recovery and Expansion

During a <u>recovery</u> or "expansion," the economy begins to grow again. As consumers spend more, firms increase their production, leading them to hire more workers. Competition for labor emerges, pushing up wages and putting more money in the pockets of workers and consumers. That allows firms to

charge more for products, sparking inflation that starts low and slow but may eventually bring growth to a halt and start the cycle over again if it rises too high. Over the long-term, however, most economies tend to grow, with each peak reaching a higher high than the last.

The Bottom Line: The Business Cycle Isn't Perfect

The business cycle model is, of course, oversimplified. Economies sometimes experience <u>double-dip recessions</u>, for example, in which another recession follows a short recovery. Nor do all economies enjoy a positive long-term growth path. The relationships among spending, prices, wages, and production described above are also too simple. Governments often have a large influence at all stages of the cycle. Excessive taxation, regulation, or money-printing can spark a recession, while fiscal and <u>monetary stimulus</u> can turn a shrinking economy around when the supposedly natural tendency to rebalance fails to materialize.

How bond prices affect stock price?

bond prices and stocks are generally correlated to one another. When bond prices begin to fall, stocks will eventually follow suit and head down as well. The rationale stems from the fact that bonds are generally considered less risky investments than stocks. Therefore, as bond interest rates increase, there is more demand from investors to move out of stocks and into bonds. Falling demand for stocks has a negative impact on prices. In addition, as interest rates increase it costs companies more to borrow, which increases costs and lowers profits, putting additional pressure on stock prices.

As borrowing becomes more expensive and the cost of doing business rises due to inflation, it is reasonable to assume that companies (stocks) will not do as well. Once again, we will see a lag between bond prices falling and the resulting stock market <u>decline</u>.

There are times when the relationships between commodities, bonds, stocks, and currencies will seem to break down. For instance, during the Asian

collapse of 1997, the U.S. markets saw stocks and bonds <u>decouple</u>. This violates the aforementioned <u>positive correlation</u> relationship of bond and stock prices. So why did this occur? The typical market relationships assume an inflationary economic environment. So, when we move into a <u>deflationary</u> environment, certain relationships will shift.

Deflation is generally going to push the stock market down, as poor growth potential in stocks means that it is unlikely they will increase in value. Bond prices, on the other hand, will likely move higher to reflect falling interest rates (i.e., interest rates and bond prices move in opposite directions). Therefore, we must be aware of inflationary and deflationary environments in order to determine the resulting correlations between bonds and stocks.

What are bubbles and the history of bubbles	s ?
☐ Tulip Bubble	
☐ 1929 stock Market Crash	

An <u>asset bubble</u> occurs when the price of a financial asset or commodity rises to levels that are well above either historical norms, the asset's <u>intrinsic value</u>, or both. The problem is that since the intrinsic value of an asset can have a very wide range, a bubble is often justified by the flawed assumption that an asset's intrinsic value has skyrocketed, meaning the asset is worth much more than it fundamentally is.

Some bubbles are <u>easier to predict</u> than others. When it comes to the stock market, traditional valuation metrics can be used to identify extreme overvaluation. For example, an equity index that is trading at a <u>price-to-earnings ratio</u> that is twice the historical average is likely in bubble territory, though more analysis may be needed to make a conclusive determination. Other bubbles are harder to detect, and may only be identified in hindsight.

. The Dutch Tulip Bubble

The <u>Tulipmania</u> that gripped Holland in the 1630s is one of the earliest recorded instances of an irrational asset bubble. During the <u>Dutch Tulip</u>

<u>Bubble</u>, tulip prices soared twentyfold between November 1636 and February 1637 before plunging 99% by May 1637, according to former UCLA economics professor Earl A. Thompson.

As bubbles typically do, Tulipmania consumed a wide cross-section of the Dutch population, and at its peak, some tulip bulbs commanded prices greater than the price of some houses.

The Dot-com Bubble

When it comes to sheer scale and size, few bubbles match the dot-com
bubble
of the 1990s. At that time, the increasing popularity of the Internet triggered a massive wave of speculation in "new economy" businesses. As a result, hundreds of dot-com companies achieved multi-billion dollar valuations as soon as they went public.9

The <u>NASDAQ Composite Index</u>, home to most of these technology/dot-com company stocks, soared from a level of about 750 at the beginning of 1990 to a peak of over 5,000 in March 2000.9 The index crashed shortly thereafter, plunging 78% by October 2002 and triggering a U.S. recession.10 The next time the Index reached a new high was in 2015, more than 15 years after its previous peak.

Why the crypto bubble has finally imploded

From 8 March to 12 March 2020, the price of Bitcoin fell by 30 percent from \$8,901 to \$6,206. [30] By October 2020, Bitcoin was worth approximately \$13,200. [31]

In November 2020, Bitcoin again surpassed its previous all-time high of over \$19,000. [32] After On Wednesday, 20 October 2021, Bitcoin reached a new all-time high of \$66,974. [36]

In early 2021, Bitcoin's price witnessed another boom, rising over 700% since March 2020,^[37] and reaching above \$40,000 for the first time on 7 January. On 11 January, the UK Financial Conduct Authority warned investors against lending or investments in cryptoassets, that they should be prepared "to lose all their money".^[38] On 16 February, Bitcoin reached \$50,000 for the first time.^[39]On 13 March, Bitcoin surpassed \$61,000 for the first time.^[40] Following a smaller correction in February, Bitcoin plunged from its peak above \$64,000 on 14 April to below \$49,000 on 23 April, representing a 23% mini-crash in less than 10 days, dipping below the March bottom trading range and wiping half a trillion dollars from the combined crypto market cap.

Other cryptocurrencies' prices also sharply rose, then followed by losses of value during this period. In May 2021, the value of Dogecoin, originally created as a joke, increased to 20,000% of value in one year. [42] It then dropped 34% over the weekend.

By 19 May, Bitcoin had dropped in value by 30% to \$31,000, Ethereum by 40%, and Dogecoin by 45%. Nearly all cryptocurrencies were down by double-digit percentages. [43] Major cryptocurrency exchanges went down amid a market-wide price crash. This was partly in response to Elon Musk's announcement that Tesla would suspend payments using the Bitcoin network due to environmental concerns, along with an announcement from the People's Bank of China reiterating that digital currencies cannot be used for payments. [43]

Bitcoin and other cryptocurrencies experienced a solid recovery after Elon Musk met with leading Bitcoin mining companies to develop more sustainable and efficient Bitcoin mining.^[44] After bottoming out on July 19, by early September Bitcoin had reached \$52,633.54 while Ethereum grew by over 100% to \$3,952.13. After a short but significant fall, both crypto's peaked on November 7, 2021 at \$67,566.83 and \$4,812.09, respectively. The NASDAQ would peak 12 days later on November 19 at 16,057.44. Since

bottoming out after the covid crash in 2020, Bitcoin had grown over 1,200% in value while Ethereum had grown over 4,000% in value while the NASDAQ had only grown around 134%.

In September, Bitcoin officially became a legal tender in El Salvador with many news sources wondering what countries would be next.^[45]

As of October 2021, China has continued shutting down crypto trading and mining activities, and Tesla has not yet resumed payments with Bitcoin.

How global events affect companies and their prices?

OPEC 1970's

Oil Embargo, 1973-1974

During the 1973 Arab–Israeli War, Arab members of the Organization of Petroleum Exporting Countries (OPEC) imposed an embargo against the United States in retaliation for the U.S. decision to re-supply the Israeli military and to gain leverage in the post–war peace negotiations. Arab OPEC members also extended the embargo to other countries that supported Israel including the Netherlands, Portugal, and South Africa. The embargo both banned petroleum exports to the targeted nations and introduced cuts in oil production. Several years of negotiations between oil–producing nations and oil companies had already destabilized a decades–old pricing system, which exacerbated the embargo's effects.

While the fighting was still going on, on October 17, 1973, Saudi Arabia and the members of Organization of the Petroleum Exporting Countries (OPEC) wanted to punish the supporters of Israel by announcing a 5 percent cut in oil output. President Nixon and Congress responded by providing an additional \$2.2 billion to the Israelis. That led to a Saudi decision, backed by OPEC, to go further and place an embargo on oil shipments to the United States and Western European countries, a decision that caused the first oil crisis of the 1970s.

Five nations – Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela – had formed the OPEC cartel in 1960. With an additional seven nations joining by 1973, OPEC countries' production accounted for half the oil produced in the world. OPEC had powerful leverage in setting production output and in establishing a benchmark price for crude oil in the world. It was willing to use this leverage politically in a number of crises in the 1970s.

Through World War II, the United States had been the biggest producer of oil in the world (a status it regained in 2018). Oil fields in Texas, Oklahoma, other states, and the Gulf of Mexico produced enough oil to maintain the cheap gasoline Americans enjoyed in the 1950s and 1960s. By 1973, U.S. consumption of oil was also the highest in the world; with only 6 percent of the world's population, the United States consumed one-third of the oil produced. Moreover, with tremendous industrial growth and the expansion

of highways and automobile production, oil imports were increasingly necessary to sustain America's economic expansion and growth. By the early 1970s, imports accounted for about 30 percent of the oil consumed in the United States, which had begun to curtail domestic production and exploration due to environmental concerns and governmental regulations.

The OPEC embargo showcased the new power of the cartel in the world economy and struck many Americans as another example of their nation's decline in the 1970s. When the embargo took hold, oil prices jumped from \$2 per barrel to \$11. The impact hit American consumers in their wallets as retail prices for gasoline soared by 40 percent in November 1973 alone. Fearful of shortages of gasoline, Americans lined up at the pump to refuel while gas stations raised their prices several times per day. The gas lines exposed the panic that set in during the embargo as motorists worried that if they did not fill up today, then the price might be higher tomorrow. Not surprisingly, with demand high, many stations ran out of fuel, and signs saying "Sorry, No Gas Today" became quite common in the late fall months.



During the 1973 oil crisis, a man and his son warn that gas thieves will be punished.

Nixon was diverted from the problem by the Watergate scandal. On October 20, 1973, he had fired the special prosecutor in the Watergate investigation, Archibald Cox, and found himself embattled because of his own cover-up of the Republican break-in at the Democratic National Committee headquarters at the Watergate Hotel in June 1972. The Western European countries and Japan, key allies of the United States, faced much more difficult problems with the embargo, because they relied on the OPEC states for 45 to 50 percent of their oil.

However, a break in the oil crisis came in January 1974 when National Security Advisor Henry Kissinger met with King Faisal of Saudi Arabia and persuaded him that the conditions for the embargo had ended with the end of the Yom Kippur war. More importantly, Egypt's Sadat realized that the embargo was hurting his country's image. After Kissinger negotiated the terms for reconciliation and helped end the embargo, Nixon visited Israel, Egypt, and Saudi Arabia in May 1974 and gained a massive outpouring of support from the Egyptian people, who welcomed the U.S. president, the first ever to visit Egypt. Three months later, Nixon resigned the presidency.



President Nixon meeting with Syrian President Hafez al-Assad at Damascus, Syria, in July 1974.

Beyond the oil crisis, rising energy costs were only one manifestation of the great inflation that ripped through the economies of the West during the 1970s. Prices rose for several reasons: expansion of government spending on social programs and the war in Vietnam; low interest rates established by the Federal Reserve Board, which encouraged more borrowing by businesses; rising energy costs; and, in 1971, the end of the Bretton Woods monetary system linking the value of the U.S. dollar to the value of gold. The result was skyrocketing consumer prices that outpaced wage increases for workers. Nixon responded by applying artificial wage and price controls to the economy in 1971. They began to produce shortages until, when they were lifted after 90 days, prices skyrocketed again.

President Gerald Ford, lacking any better solutions, used psychology to get control of inflation, asking citizens to wear Whip Inflation Now (WIN) buttons. President Jimmy Carter reined in government spending by reducing its growth and began deregulating industry, but kept price controls on oil. Carter also appointed Paul Volcker, an anti-inflation hawk, as chair of the Federal Reserve Board in 1978, and his policy of driving up interest rates ended the great inflation by 1983 (but the result was a recession in 1979-1980 and again in 1981-1982). Clearly, more than just high oil prices

was responsible for the inflation of the 1970s. As economist Milton Friedman wrote in his 1979 book *Free to Choose:* "There is one simple way to end the energy crisis and the gasoline shortages tomorrow. Eliminate all the controls on the prices of crude oil and other petroleum products."

Americans faced a second, more severe shock at the pump after Iran cut oil exports entirely from December 1978 until the autumn of 1979, during the consolidation of power by the new Iranian Islamic government under Ayatollah Khomeini. Other nations, like Saudi Arabia, picked up the slack, but the result was a second major panic that tripled the price of gasoline at the pump (to more than \$1.00 per gallon, which, adjusted for inflation, was the highest gas price U.S. consumers had ever paid). The price per barrel more than doubled from \$15 per barrel to \$39 per barrel by mid-1979. Again, panic ensued as drivers lined up for gas and shortages resulted.



Long lines at gas stations became common again during the 1979 oil crisis in the United States.

The 1979 Three Mile Island nuclear accident in Pennsylvania that resulted in a partial nuclear meltdown turned the public against nuclear power and triggered additional fears of skyrocketing energy costs. The price of home heating oil doubled in the harsh winters of 1979 and 1980. Most importantly, the oil crunch fueled a new round of inflation because railroads and airlines were hit hard by the fuel crisis and raised fares in response. Jimmy Carter spoke to this topic in his 1979 "malaise speech," calling the oil crisis "the moral equivalent of war," yet he chose not to ease up on

regulations on oil production in the United States to expand supply and lower prices to meet the crisis.

The full impact of the embargo, including high inflation and stagnation in oil importers, resulted from a complex set of factors beyond the proximate actions taken by the Arab members of OPEC. The declining leverage of the U.S. and European oil corporations (the "Seven Sisters") that had hitherto stabilized the global oil market, the erosion of excess capacity of East Texas oil fields, and the recent decision to allow the U.S. dollar to float freely in the international exchange all played a role in exacerbating the crisis. Once the broader impact of these factors set in throughout the United States, it triggered new measures beyond the April and November 1973 efforts that focused on energy conservation and development of domestic energy sources. These measures included the creation of the Strategic Petroleum Reserve, a national 55-mile-per-hour speed limit on U.S. highways, and later, President Gerald R. Ford's administration's imposition of fuel economy standards. It also prompted the creation of the International Energy Agency proposed by Kissinger.

UKRAINE WAR AFFECT ON ECONOMY

Since the war between Russia and Ukraine began in February, financial markets have reacted to the conflict with relative equanimity. US stocks rose during the early days of the war and though markets have turned volatile since the Russian military entered Ukraine, that volatility more reflects uncertainty about US monetary policy rather than Russian military policy. So far, the markets' reaction to the war is consistent with what history shows which is that geopolitical crises don't typically have long-term consequences for investors. However, new signs are appearing that suggest the economic fallout from the conflict and resulting sanctions may be increasing.

Dirk Hofschire of Fidelity's Asset Allocation Research Team explains that, "Geopolitical crises don't tend to have significant and lasting impacts on global financial markets unless they have a sustained macroeconomic impact on major economies." Russia's economy ranks as the world's 11th largest, according to the International Monetary Fund, at only 1/20th the size of the US and 1/15th the size of China, so while Russia has been battered by sanctions against it by the US and Europe intended to punish it for its actions in Ukraine, it is likely not big enough by itself to affect global markets or economic growth.

But because Russia is also the source of nearly 50% of the energy consumed in Europe—the policy responses from the US and Europe that have disrupted energy and other commodity supplies are raising risks beyond the 2 countries' borders. The issue is particularly significant in Europe. Analyst Cait Dourney says that while Europe's economy is still growing, the outlook for the near future now shows a rising risk of recession. "We see higher risk in our recession probability models, especially for the biggest European countries like Germany and Italy. This is due in part to Europe's reliance on Russian oil and natural gas, which is squeezing the consumer sector and in some cases causing production bottlenecks. Some of this may be offset by increased spending on services by consumers and tourists. Overall we'd characterize Europe as being in a late stage expansion with rising recession risks. The speed and magnitude of the slowdown will be determined by political developments with regard to the Ukraine war. Even though no one knows exactly how the war will play out, we can assess the recession risk as higher for Europe than for the US."

What it means for you

Because of its huge domestic economy and its ability to meet its energy needs without imports, the US is more insulated than Europe is from the effects of the Ukraine war. However, the globalized nature of financial markets could mean that US investors will see more volatility in the months ahead, even if the US avoids recession while Europe doesn't. The European Union's economy is larger than that

of the US and many US-listed companies rely on European consumers for a significant part of their earnings. If those consumers spend less out of fear of losing their jobs in a recession, company earnings and prices of stocks in US investors' portfolios could also decline. Fidelity's geopolitical risk analyst, David Bridges, says investors shouldn't rule out the possibility that the conflict may fuel higher volatility in the months to come. "This is the start of a new cold war. The conflict could take a variety of forms and isn't likely to be resolved soon. Over time, it will also become more difficult to get information about what's happening in Ukraine, which will add to uncertainty," he says.

Beyond the military situation, uncertainty is also likely to be heightened by the prospect of unintended consequences resulting from western sanctions against Russia and the risks that policymakers will entangle the US in a conflict that the US could otherwise largely avoid the effects of.

Inflation rising, but US economy still growing

Besides raising the likelihood of market volatility, the war and sanctions are adding to inflationary pressures by disrupting exports of oil, natural gas, and wheat from Russia and Ukraine.

The impacts of the conflict will likely vary depending on geography. Europe—and particularly countries such as the Baltic states and Poland—are likely to experience more difficulties than countries that depend less on Russia for energy. Western Europe, particularly Germany, also has no easy alternative source of energy to replace Russian natural gas.

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