Excerpts from
Predicting the Markets: A Professional Autobiography
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On Predicting the Markets

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On the bull market's nine-year anniversary:

On March 16, 2009, I wrote: "We've been to Hades and back. The S&P 500 bottomed last week on March 6 at an intraday low of 666. This is a number commonly associated with the Devil. . . . The latest relief rally was sparked by lots of good news for a refreshing change, which I believe may have some staying power. . . . I'm rooting for more good news, and hoping that 666 was THE low." That very same day, the bullish news included the Fed's announcement that its QE1 bond-buying program would be expanded to $1.25 trillion in mortgage-related securities and $300 billion in Treasury bonds.

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I realized early on that the bull market since March 2009 was likely to be plagued by frequent anxiety attacks, because the trauma of 2008 had left investors feeling overly jittery. Their PTSD was understandable, certainly, given the S&P 500's 56.8% plunge in less than a year and a half, from October 9, 2007 through March 9, 2009. But investors' fears that a similar calamity might strike their world again at any moment clearly were overblown. So I predicted that panic attacks would be followed by relief rallies once proven to be false alarms, i.e., when nothing bad happened. Indeed, the pattern I had foreseen unfolded as if scripted: recurring panic attacks were followed by relief rallies, carrying the market to new cycle highs and then on to new record highs after March 28, 2013, when the S&P 500 exceeded its previous record high of October 9, 2007.

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During the latest bull market in stocks, there have been lots of vocal bearish prognosticators who warned that the stock market was on a "sugar high" from all the liquidity injected by the central banks into the financial markets. My response to their warnings: "So what's your point?" Their point was often simply that "this will all end badly." I retorted, "All the more reason to make lots of money before that happens." The pessimists countered that the central banks were just "kicking the can down the road." "That might be better than doing nothing" was my reply. The doomsayers said that it was all heading toward a widely dreaded "endgame" in a repeat of 2008 or worse. I countered with arguments suggesting there might be no end to this game.

On the bullish implications of tax reform:

In another *Barron's* interview, on February 4, 2017, I said: "It would be a mistake to bet against what President Trump might accomplish on the policy side. I'm giving him the benefit of the doubt, hoping good policies get implemented and bad ones forgotten. We could get substantial tax cuts. All his proposals don't need to be implemented for the Trump rally to be validated. If you got $1 trillion to $2 trillion coming back from overseas because of a lower tax on repatriated corporate earnings, that would be very powerful in terms of keeping the market up."

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At the start of 2018, after Trump had signed the Tax Cut and Jobs Act at the end of 2017, the stock market continued to climb to new highs. I remained bullish and lifted my odds of a meltup from 55% to 70%. However, I also observed in my January 16 commentary: "We may be experiencing an extremely unusual earnings-led meltup. If so, it is more likely to be sustainable than the run-of-the-mill P/E-led meltup, as long as it doesn't morph into one."

On flash crashes:

During 2017, money poured into exchange-traded funds (ETFs). That influx was driving a broad-based surge in stock prices, since the most popular ETFs tend to track the broad market indexes. It increasingly looked like the meltup that I had begun to anticipate in early 2013. The problem with the popularity of this investment vehicle is that while it works great on the way up, it has the potential to worsen future corrections and bear markets. A "flash crash" can occur as indiscriminate selling of ETFs causes indiscriminate selling of all the stocks they include, however strong might be the companies' underlying fundamentals. Unlike mutual funds, ETFs don't hold liquid assets to meet redemption orders; they have to sell stocks when investors decide to redeem.

On the stock market's trend:

No wonder an age-old adage among stock investors is: "Let the trend be your friend." Since its 1935 inception, the S&P 500 stock price index likewise has tracked the 7% trend line along with earnings. This is the most convincing argument for the thesis that stocks are among the best investments in the long run. That's assuming stock investors will continue to enjoy a compounded annual appreciation rate of roughly 7%, which is determined by the trend growth in revenues and earnings.

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I firmly believe and often say that recessions are the major risk for stock investors. The stock market tends to rise along with earnings as long as the economy is expanding, not contracting. . . . [S]ince World War II, recessionary periods have been infrequent and relatively short. From 1948 through 2016, real GDP rose during 236 quarters and fell during just 39 of them, with one showing no change.

On corporate earnings:

Why use analysts' expectations? Think about it: the stock market discounts future expected earnings. Past and current earnings are relevant, but only to the extent that they influence the outlook for earnings. Whose earnings expectations does the market discount, and how far into the future? The market doesn't discount the earnings expectations of individual investment strategists or even the consensus expectations of top-down strategists. It discounts the bottom-up consensus earnings expectations of industry analysts. It's those expectations that I want to quantify and use in the stock market equation as a benchmark for my own forecasts.

On stock market valuation:

Like any objective judge at a talent show, I want to see all the contestants compete before I pick the winner. That's what I do on a regular basis when I assess the various valuation models. In recent years, I've given more of my votes to the contestants that incorporate inflation and interest rates into their acts. That's led me to a more sanguine opinion about stock valuation than suggested by the more traditional reversion-to-the-mean models, especially the ones based on trailing earnings.

On stock market corrections:

The popular view is that occasional selloffs are "healthy" pauses in a bull market. On a regular basis, market watchers will warn that the stock market is "overdue for a correction" simply because stocks have risen too far and/or too fast without one, in their opinion. Sometimes they are right, but more often they are wrong. In any event, corrections are very hard to time. In addition, to profit from them requires two remarkably prescient decisions, namely when to get out and when to get back in.

On the stock market and geopolitical crises:

Geopolitical troubles aren't necessarily bad for stocks if investors can hope that better times are coming. Notice that the stock market rallied less than five months after Pearl Harbor. After World War II, it stalled for a short while. Stocks rallied through the Korean War, the Cuban Missile Crisis, and much of the war in Vietnam. The only geopolitical crises that arguably caused bear markets were the two oil shocks of the 1970s because both triggered recessions. Geopolitical crises that don't cause recessions don't usually trigger bear markets.

On signs of trouble for the stock market:

I've found that when a sector's market-capitalization share and/or earnings share rises close to 30%, that's a sign of possible trouble ahead for the sector as well as the market. That was the case for Information Technology during the late 1990s and for Financials during the years prior to the financial crisis of 2007 and 2008.

On the Bull/Bear Ratio:

Sentiment indicators, including various "fear and greed" indexes, are widely followed by contrarian investors. I have a few personal favorites. I am particularly fond of the sentiment readings produced by Investors Intelligence, which reports on a weekly basis the percentages of bullish and bearish market letter writers that the organization tracks. There is also a percentage for those who are in the correction camp, anticipating a selloff but not an outright bear market. This survey's bull-to-bear ratio is widely followed as a contrary indicator. I've found that when it falls below a reading of 1.00, it works quite well as a signal to buy stocks. On the other hand, when it exceeds 3.00, it doesn't work as well as a sell signal. So the message is: don't sell just because it's over 3.00, but do load up on stocks the next time the ratio is at 1.00 or less. This advice does not come with a money-back guarantee, of course.

On investing:

Investing isn't a moral pursuit. It's not about right or wrong, good or evil. It's about bullish or bearish. In other words, don't let your political views bias your investment decisions. . . . History shows that optimistic investment strategies tend to work better over time than pessimistic ones. Doomsdays occur from time to time, but they don't last as long as the good times. If you are going to be bearish, try to be so when everyone is too bullish. Then when everything falls apart, you can say, "I told you so." However, don't forget to turn optimistic once everyone else is pessimistic.

On the bond market:

If inflation remains subdued and the economic expansion continues, bond investors should earn yields on their bonds surpassing inflation. If this scenario persists for five to 10 years, they should earn a modest real return if their bonds mature over the same period. They are unlikely to have significant capital losses or gains along the way.

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The Bond Vigilantes Model relates the bond yield to the growth rate in nominal GDP, which reflects inflation as well as the real growth of the economy. The divergence between the nominal growth rate and the bond yield may very well be influenced by the inflationary expectations of investors as well as by their expectations for monetary policy.

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The great bond bull market may be over, though I wouldn't rule out even lower yields in coming years. A bear market is conceivable if inflation makes a comeback, though that's not the most likely outlook, in my opinion. More likely is that bond yields will meander for a prolonged period.

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The secular forces that have brought bond yields down since the early 1980s remain intact and in some ways are more powerful than ever. These same forces are keeping a lid on inflation. They are global competition, technological innovation, and aging populations.

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In this Yield Curve Model, inflation matters a great deal to markets because it matters to the central bank. Investors have learned to anticipate how the Fed's inflationary expectations might drive short-term interest rates, and to determine yields on bonds accordingly. So the measure of inflationary expectations deduced from the yield spread between the Treasury bond and the TIPS might very well reflect not only the expectations of borrowers and lenders but also their assessment of the expectations and the likely response of Fed officials! The data are very supportive of these relationships among inflation, the Fed policy cycle, and the bond yield.

On commodity markets:

A truism I learned over the years is one that all traders in the commodity pits agree on: "The best cure for high commodity prices is high commodity prices." In other words, high commodity prices tend to boost supply and trim demand. So high prices are usually followed by falling prices. Low prices tend to reduce supply and lift demand. So they are usually followed by rising prices.

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My favorite of all the economic indicators that I track is the raw industrials spot price index compiled daily by the Commodity Research Bureau (CRB). It is composed of the spot prices of the following 13 commodities. . . . I've been relying on it for years as a very sensitive indicator of both global and US economic activity. . . . Over the years, I've found that the CRB raw industrials spot price index is highly correlated not only with almost all the major US business-cycle indicators but also with global ones.

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The frackers offer a great example of how unexpected technological innovations tend to solve problems when market forces can work relatively freely. Their story is also a reminder of the ability of entrepreneurs to see inherent opportunities in solving problems. In the midst of widespread pessimism about an economic problem, entrepreneurs find a solution that benefits all consumers. In other words, one of the reasons that high prices lead to low prices is that entrepreneurs figure out how to increase supplies with new technological innovations.

On real estate:

Housing is one of the most boom-prone economic sectors in the United States, which means it's also prone to significant busts. Home construction and purchases are highly sensitive to financial conditions, i.e., the availability and cost of credit. Conversely, the health of the financial services sector is greatly affected by the health of the housing sector. When credit conditions tighten, the resulting downturn in housing activity can cause builders to default on their construction loans and lay off workers. During recessions, when the unemployment rate rises, more homeowners become seriously delinquent in making their mortgage payments. Rising loan-loss provisions depress the earnings of lenders exposed to housing. Loan charge-offs erode their capital, which means that credit conditions tighten even further. To halt such deadly debt spirals, the Fed typically has responded by easing monetary policy to revive the housing industry, with broad positive ripple effects economy-wide.

On currencies:

Over the years, I've learned that one insight can lead to another. My analysis of country data was like looking at the trees without seeing the forest. It dawned on me that maybe I could create a monthly capital flows series for the world excluding the United States, and that it might help to explain, if not forecast, the moves in the trade-weighted dollar.

On financial crises:

I'll go out on a limb and predict that there will be another financial crisis in our lifetimes. However, like previous ones, it probably will offer a great opportunity for buying stocks.

On globalization and protectionism:

When the Cold War ended, I also learned about the increasing importance of having a global perspective in my job as a forecaster. Globalization has integrated not only national economies but also national financial markets. That insight was especially useful during the current bull market, which started in early 2009, as I recognized that it was driven by the ultra-easy monetary policies of all the major central banks, not just the Fed. In this environment, national economies and financial markets will become increasingly globalized and synchronized.

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My research led me to conclude that the Great Depression was caused by the Smoot–Hawley Tariff Act of June 1930. . . . Donald Trump won the presidential election on November 8, 2016. He did so to an important extent because he promised to bring jobs back to the United States by either renegotiating trade agreements or imposing tariffs if necessary. His policies could pose a threat to global trade. However, the threat level seems more like what it was during the Reagan years than the debacle of the Hoover administration.

On technology and the economy:

The latest (19th) edition of *Economics* (2010) by Samuelson and Nordhaus teaches students that economics "is the study of how societies use scarce resources to produce valuable goods and services and distribute them among different individuals." . . . I've learned that economics isn't a zero-sum game, as implied by the definition. Economics is about using technology to increase everyone's standard of living. Technological innovations are driven by the profits that can be earned by solving the problems posed by scarce resources. Free markets provide the profit incentives to motivate innovators to solve this problem. As they do so, consumer prices tend to fall, driven by their innovations. The market distributes the resulting benefits to all consumers. From my perspective, economics is about creating and spreading abundance, not about distributing scarcity.

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The good news is that robots may not eliminate lots of jobs done by humans, as is widely feared. Instead, they may be filling the gap as shortages of working human stiffs become more prevalent.

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One of the main themes of my book is that economists, especially of the pessimistic persuasion, rarely pay much attention to technological developments. Yet these developments regularly transform the course of human history. Human nature may not change much over time, but technology often does so in ways that profoundly impact human societies and their economies and financial markets.

On inflation and monetary policy:

Accurately predicting price inflation is one of the most important prerequisites for predicting the outlook for the stock and bond markets. A bad inflation forecast almost certainly will result in bad investment choices in all the major financial markets. The error is likely to be compounded if monetary policy decisions also are based on incorrect assumptions about the future path of inflation, because monetary policy and the course of the economy are very much functions of inflation.

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To explain the war-and-peace cycle in the CPI, I came up with my Tolstoy Model of inflation. During wartimes, global markets are fragmented. Countries don't trade with their enemies. They face military obstacles to trading with their allies and friends. Commodity prices tend to soar as the combatants scramble to obtain the raw materials needed for the war effort. A significant portion of the labor force has been drafted and is in the trenches. The upward pressure on labor costs and prices often is met with government-imposed wage and price controls that rarely work. Entrepreneurs, engineers, and scientists are recruited by the government to win the war by designing more effective and lethal weapons.

Peacetimes tend to be deflationary because freer trade in an expanding global marketplace increases competition among producers. Domestic producers no longer are protected by wartime restrictions on both domestic and foreign competitors. There are fewer geographic limits to trade and no serious military impediments. Economists mostly agree that the fewer restrictions on trade and the bigger the market, the lower the prices paid by consumers and the better the quality of the goods and services offered by producers. These beneficial results occur thanks to the powerful forces unleashed by global competition during peacetimes.

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The US economy is less prone to transmit inflationary shocks today and in the future than in the past. The oil price shocks of 1973 and 1979 were rapidly passed through to wages by cost-of-living adjustments in the labor contracts of unionized workers. Today and tomorrow, similar price shocks are much less likely to trigger a broad and sustained upturn in inflation. That's as long as globalization persists and perhaps even proliferates despite populist resistance.

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To take this a step further: other things being equal, inflation is likely to be structurally lower the less that market forces are messed with. Monopoly, oligopoly, cartelization, price-fixing, collusion, subsidization, protection, and socialism all exist to some extent in every economic system, and all distort the action of market forces.

On the business cycle:

Left to its own devices, our economy tends to grow naturally and create increasing prosperity for more people. There always has been a business cycle. History suggests that the policies of well-intentioned macroeconomists aiming to moderate the business cycle can sometimes have unintended consequences that, on balance, create more grief and pain than joy.

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Over the years, I've come to believe that the profits cycle drives the business cycle. Causality works both ways, of course. However, my simple thesis is that profitable companies expand their payrolls and capacity, while unprofitable companies struggle to stay in business by cutting their costs. They do so by reducing their payrolls and their spending on new equipment and structures to revive their profitability.

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The interactions of the business, profits, and credit cycles discussed above strongly suggest that just as recessions have a tendency to be self-healing, booms are self-destructive. However, focusing on cycles misses important secular trends that can influence the economy—including the demographic, technological, and political trends that this book examines.

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I agree that some of the sinning during booms often can be blamed on the central bankers. I also agree that soaring credit facilitates the booms that turn to busts. Credit is a better measure of these excesses than are money-supply measures, which tend to have a less stable relationship with the economy. Credit measures also can pinpoint the epicenter of the excesses and predict where the damage will be greatest when the speculative bubble bursts. I think that consumers, investors, and business managers tend to behave rationally more often than not but can behave irrationally as well on a regular basis. They tend to be rational during and after recessions. They tend to lose their minds during booms.

On the standard of living:

I conclude that the standard of living for most American households, rather than stagnating since 1999, has been rising to record highs along with real personal consumption per household for most of that time. That's because real personal income has been providing purchasing power to households in a relatively equitable fashion, contrary to the misleading implications of the money income measures.

On the Fed:

Predicting monetary policy is obviously very important for predicting financial markets. To do so, I learned early in my career the importance of trying to think like the Fed chairs. I've had to think like Paul Volcker, Alan Greenspan, Ben Bernanke, and Janet Yellen. As I will explain below, Volcker was the great price disinflator, Greenspan was the great asset inflator, and Bernanke was the great moderator. Yellen was the gradual normalizer.

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On my firm's website, we post and update all the FOMC statements, with the record going back to 1997. That allows me to search for key words and phrases when I'm writing about changes in Fed policy or trying to keep track of how long a key word appeared in the statements. We also provide links to all the FOMC minutes over that same period. Often when the minutes are released, I count certain key words to help assess whether increasing or decreasing frequency of mention suggests that something relevant to policymaking is becoming more important or less so.

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At the time, I argued that if the Fed's econometric model was calling for a negative official policy rate, then either there was something wrong with the model or the Fed was trying to fix economic problems that could not be fixed with monetary policy. In my opinion, when the federal funds rate was lowered to zero, Fed officials should have said that that was all they could do. While I expected and endorsed QE1, I am not convinced that QE2 and then QE3 were necessary. But there I go again, critiquing monetary policy.

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However, my focus from the beginning of my career has been on objective, rather than subjective, analysis. I'm not advocating either ending the Fed or changing it. My job is to understand the Fed and the other central bankers as they are, not as I think they should be, and to predict their actions accordingly. Nevertheless, I do try occasionally to puzzle out whether technological innovation might put the central bankers out of business or radically change their modus operandi. I'm particularly intrigued by the impact of bitcoin and other cryptocurrencies on our monetary system.

On central bankers:

I'm an investment strategist, not a preacher. I don't do right or wrong; I do bullish or bearish. While I have had many reasons to be critical of monetary policymaking in the United States and overseas, my job is to predict how long those policies will be bullish and when they might turn bearish.

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But why has it been so hard to get inflation back up to a measly 2.0% on a sustainable basis following the financial crisis of 2008, especially in Japan and the Eurozone, at least through mid-2017? In the United States, both the headline and the core PCED inflation rates also remained stubbornly below 2.0% post-crisis. The answer is that the central banks have been fighting powerful forces of deflation unleashed by peacetime, global competition, technological innovation, and aging demographics.

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I can understand why there was so much unease about the extreme measures that the major central banks took to avoid another financial crisis. They were indeed extreme, and without precedent. From time to time, I too was shocked by their latest maneuver and accused them of being "central monetary planners." I objected to their central conceit, namely that monetary policy could solve all our problems. The central bankers occasionally admitted that they didn't really believe that but had no choice except to do whatever it took to save the day, since fiscal policymakers seemed incapable of taking appropriate action.

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In my opinion, after the financial crisis of 2008, ultra-easy monetary policies may very well have propped up supply much more than they boosted demand. Credit crunches are nature's way of cleaning out insolvent borrowers from the economy. Easier credit conditions may exacerbate the zombie problem, resulting in more deflationary pressures.

On economics and economists:

I now view myself as a "recovering macroeconomist." I'm not in a position to make policy in my current role, but I still occasionally criticize the policymaking of Washington's macroeconomists. In other words, I get the urge to meddle by suggesting that my policy insights make more sense than theirs do. I regularly must remind myself that my job is to forecast the impact of their policies as well as to forecast the changes in their policies, not to make policy.

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My complaint with treating economics and the other "social sciences" as sciences—governed by the immutable laws of physics and nature—is that they aren't. The social sciences are concerned with human behavior, and human behavior is quite mutable, constantly changing in response to the ever-changing course of human events. The laws of physics have been discovered over time, gradually advancing our understanding of our universe. Similar progress has eluded social scientists trying to understand, predict, and even change human nature. It's hard enough to get humans to obey their own laws let alone any universal laws of human behavior. The natural universe is much more stable and predictable than human society.

On Washington:

When I visit some of our bearishly inclined accounts, who bemoan the mess that is our gridlocked political system, I accentuate the positive: "Look how well our economy has done despite Washington!" The US economy remains very competitive and entrepreneurial, more so than almost all other economies. It is highly diversified among numerous very dynamic and profitable industries. It remains the global epicenter of technological innovation.

On demography:

Furthermore, most macro models of consumption omit what I believe are among the most important variables: demographic ones, which are usually deemed to change too slowly to explain consumption over the relevant forecasting period. I disagree with that conventional wisdom. I've found that demographic variables are always relevant. True, they do take time to change, but their trends are immensely important for understanding consumer spending and saving behavior. So while I spend lots of time analyzing the macro relationship between consumption and income, I also make sure to monitor the demographic variables regularly, slow changing though they are.

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Globally, the most significant demographic development has been the collapse in recent years of fertility rates around the world. . . . All around the world, humans are not having enough babies to replace themselves. There are a few significant exceptions, such as India and Africa. Working-age populations are projected to decline along with general populations in coming years in Asia (excluding India), Europe, and Latin America. The United States has a brighter future, though the pace of its population growth is projected to slow significantly in coming years.

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There is increasing buzz about the need for a universal basic income to support people who can't compete with robots . . . Maybe what we need instead is a fertility income subsidy to encourage married couples to have children.

On capitalism & creative destruction:

In other words, notwithstanding politicians' claims, it is businesses that create jobs, not Washington's policymakers and their macroeconomic advisers. To be more exact, it is small businesses started and run by entrepreneurs that create most of the jobs in our economy.

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Capitalism provides the incentive for entrepreneurs to innovate. The creators of new goods and services at affordable prices get rich by selling their products to consumers who benefit from them. They are the true revolutionaries. Destroyed are the producers who fail to innovate and to provide consumers with the best goods and services at the lowest prices on a regular basis. Entrepreneurial capitalism naturally promotes technological innovation and progress that benefit all of society.

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Schumpeter's process of creative destruction naturally leads to the "paradox of progress." On balance, society benefits from creative destruction, as this creates new products, better working conditions, and jobs, thus raising the standard of living. But it also destroys jobs, companies, and industries—often permanently. That's the theory. In practice, this process doesn't happen rapidly enough, for an obvious reason: such restructuring is painful. While there are many more winners than losers overall, knowing this doesn't make it easier on the losers. Politicians intervene to reduce the pain with policies aimed at preserving jobs and protecting industries, thus slowing or even arresting the pace of progress. The results of such political intervention in the markets are likely to be excess capacity, deflation, and economic stagnation.

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Running my own company has been a great learning experience about "entrepreneurial capitalism." I am using the adjective "entrepreneurial" to describe the brand of capitalism that I heartily endorse, as distinguished from "crony capitalism," which is just one of many variations of corruption. . . . My experience as the owner of a small business is that entrepreneurs are driven by insecurity, not selfishness. Our number-one worry is that we won't satisfy our customers, so they will go elsewhere, putting us out of business. That's why we strive so hard to grow our businesses. Growth confirms that we are doing right by our customers in the competitive market. This requires that we put our customers first, not ourselves.