The dramatic decline of risk - part 1

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In a world of risk-on/risk-off investing, it is important for investors to know where true risks lie and where they do not lie.

This new PROFILE details the transformation of risk confronting investors. It discusses dramatic changes in the magnitude of three different kinds of risk over past decades: (i) risk in economies; (ii) risk in the world political order; and (iii) risk in the financial markets. The developments that have caused such riskiness to decrease are quite counterintuitive.

RISK IN ECONOMIES

Main Street economic risk is the most important risk since it bears directly on uncertainty about our individual lives, e.g., the frequency with which we are hired or fired for "cyclical" or other economic reasons. But Main Street economic risk is also important because, to the extent that fundamentals drive financial markets, a proper forecast of fundamentals risk will be required for predicting the future riskiness of markets.

At present, we are asked weekly: "Isn't it time for the next recession, as many Democratic economists are predicting?" The answer is "No, for recessions in the classical sense of that term no longer exist". There are ups and downs, of course, but these are not part of any proper "cycle" for reasons we shall see.

The magnitude and nature of economic risks have changed profoundly, and the reasons why are very relevant to investors.

Our principal finding here is a startling decline in the riskiness of economic life on Main Street. By many different metrics, macroeconomic risk has decreased by well over 80% during the eight decades since 1930, a development impacting us all in profound ways. Yet this development is not widely appreciated.

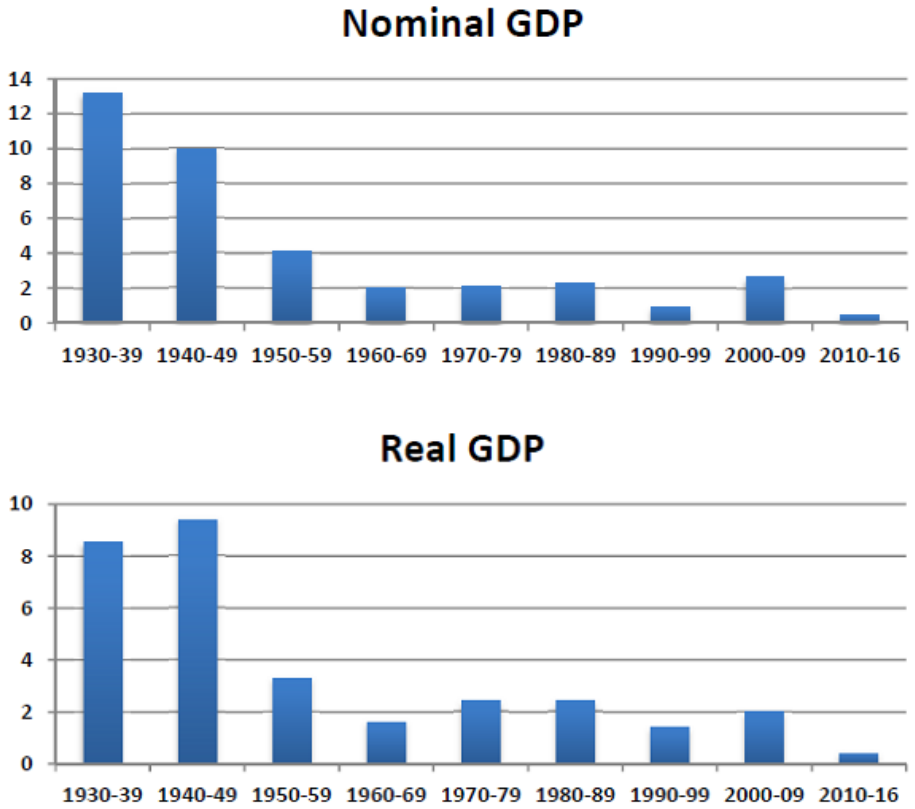
In this section, we document this decline in volatility but will also explain it from first principles. Doing so conforms to the methodological bias we have clung to for many years in these pages - historical data about any subject should not be used as a blueprint for future action unless such data can be explained at a causal level. Only if we know why a particular pattern (e.g., the business cycle) has existed in the past can we make a bet as to whether this pattern will recur in the future.[1]

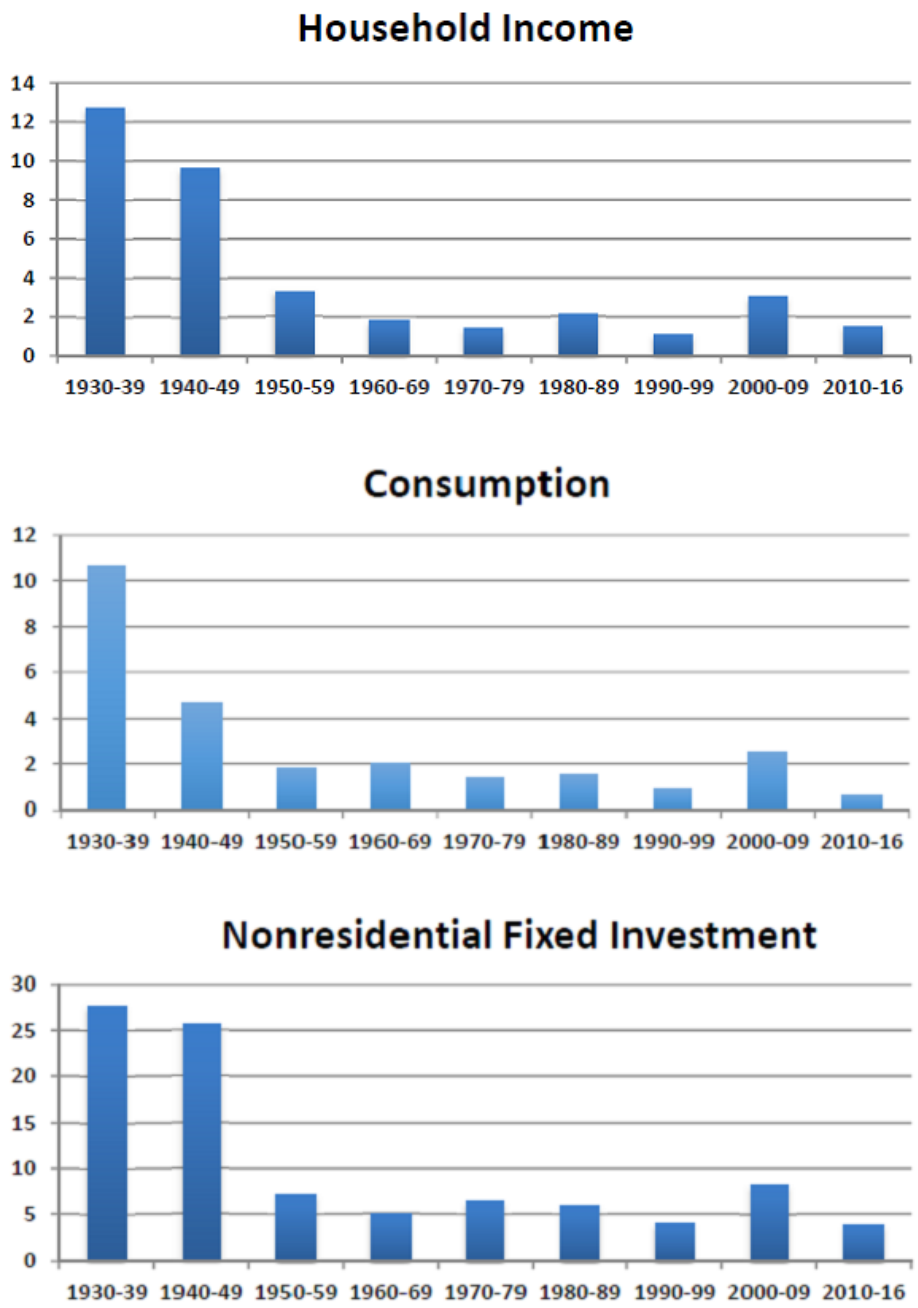
What Has Happened – the Data

A Paradox: We are bombarded daily with the *pronunciamenta* of prophets of doom about how risky life has become in recent decades. We read about overshooting markets, systemic instability, future job losses to robots, etc. Contrast this gloom with the optimistic story told by the remarkable data in Figure 1 below. By virtually all measures shown, the riskiness of life on Main Street USA has never been lower than it is today. Measuring the "riskiness" of a given variable for any given decade by its standard deviation, the data reveal an overall reduction in riskiness of over 80% for the five variables shown.

What about the threat from robotisation? Will it spoil the party? Probably not. It was the past century when automation (and to a certain extent robotisation) eliminated some 70% of US jobs existing back in 1900. Yet the unemployment rate did not rise at all over the century. For reasons we have explained in past reports, the same is likely to hold true for the 21st century. Assuming governments abstain from intervening in the labor markets and from attempting to halt the process of "creative destruction" then the labor markets will clear.[2] The only question is at what wage rates the markets will clear. In our view, there is no reason to expect that average wages will decline as many economists suggest. Yet regardless of wages, ever-growing productivity (properly defined and measured) will continue to boost living standards and life expectancy.

Figure 1: Decade-by-Decade standard deviations of US economy





Source: BEA; SED

While the data shown are only those of the US, similar patterns of declining risk on Main Street are evident throughout the G-7. And they should have been, for the reasons underlying the US decline have held true in most other advanced economies.

Four developments that caused the reduction in Main Street risk

1. The end of the inventory cycle

Back in the 1930s and for the previous 30 years, the inventory cycle was very important in precipitating recessions – very serious recessions where the unemployment rate could easily rise from 3% to 13%, and then decline back to 3%. Consider Henry Ford's plant in Dearborn Michigan. It ran at one speed, with thousands of workers all "at their stations". If there was a weakness in demand for Fords, then the plant would cease production, workers would be dismissed, product demand would then fall off even more, and the recession would deepen. But it always ended due to "pent-up demand', interest rate cuts, or whatever.

Risk on Main Street was made worse because of the high correlation between the principal industries, a correlation due at a causal level to the nature of the input-output structure of the economy. Coke and iron were inputs in steel production, and steel was an input in automobile production. So was rubber. But this was not true the other way around – cars were finished products that were not inputs in making steel or rubber. This meant that if Ford sharply reduced auto production for cyclical reasons, then the industries providing inputs to Ford also reduced production. Inter-sectoral correlation of output was high, thus amplifying the business cycle.

But this story changed over the past 50 years. The rate of production of new Fords would become variable so it could be speeded up or slowed down depending upon demand. Later still, the advent of "just-in-time" software further improved management's ability to manage the demand/inventory cycle story. As a result, the classical inventory cycle ceased to exist, and the classical business cycle was dampened significantly.

3. The rise of the service sector

The second major development over past decades has been the arresting rise of the service sector, and its dampening impact on economic volatility – household income and consumption, in particular. Today's service employment consists of 103 million jobs, accounting for 84% of private sector jobs, and 71% of total non-farm jobs. As for output, services now represent 80% of total GDP. These percentages were inconceivable many decades ago. How does the rise of the service sector reduce risk on Main Street?

There are three characteristics of services that distinguish them from manufacturing. To begin with, the demand for most services is very stable – we all go on visiting doctors, eating at restaurants, repairing computers, preparing tax forms, etc. Additionally, there is no inventory cycle in most services. To be sure, there are cycles such as "spring cleaning" and "tax preparation time". But these cycles are totally predictable and cause no unexpected layoffs or GDP declines as did classical inventory cycles. These were driven by unpredictable changes in demand. Finally, the average correlation between the sectors within a service

economy is much lower than in a manufacturing economy. This reflects an input-output matrix totally different from that of classical manufacturing. Creating service A requires services B and C as inputs. But creating service B requires inputs of services A and C in turn. The input-output matrix is no longer "skewsymmetric".

3. Reduced global linkages

To the extent that many services are "non-tradable", shocks from overseas do not impact the US economy as much as many commentators assume, or as much as they used to. Thus, a GDP shock to an "all-important" nation like China or Germany will not cause a reduction in the demand for most (but not all) US services. This is because New York restaurants do not export their meals, hair-cutting is local, tax preparation is local, video production is local, etc. Of course, to the extent that US services are exported, distress overseas will cause pain on Main Street in the US.

At a deeper level, many of us think that the world is far more interconnected than it used to be. After all, we are bombarded with news about ever greater "global linkages". But what does this really mean? There are two generic kinds of global linkages - transnational capital flows, and trade links in goods and services. Whereas the former have increased greatly, it is not clear that trade flows have. This is because of the increased GDP share of non-tradeable services. [We have not been able to find good data on this matter, so we regard it as unresolved.]

4. Proactive government fiscal and social policies

Recall from Figure 1 the remarkable decrease in the riskiness of US household income and consumption. One very important reason for this was the advent of income-stabilisation policies such as unemployment insurance and disability payments. These provided an important cushion for household spending in periods of distress. Before the mid-1930s, such benefits scarcely existed at all. They have mushroomed ever since.

Additionally, Keynesian macroeconomic stabilisation policies were introduced in the 1930s by President Roosevelt, and then implemented as a matter of course starting with the Kennedy administration. Indeed, upon entering office during the recession of 1961, one of Kennedy's first acts was to summon James Tobin and Kenneth Arrow to Washington to establish the Council of Economic Advisors. The policies recommended by the Council ended the recession Kennedy inherited, and this boosted the appeal of macroeconomic policy in future decades.

Conclusion: The data offered in Figure 1 portray one of the most extraordinary transformations in the history of economics, even if many are unaware of this story. The numbers themselves are hard to believe.

Why GDP still exhibits cyclical behavior – asset market bubbles

In principle, the developments cited could have reduced Main Street volatility by even more than they did. They would have – but for certain offsetting developments that have increased the magnitudes of ups and downs. The principal such development was the rise in the frequency and magnitude of asset market bubbles which burst, adversely impacting Main Street.

To understand the importance of these bubbles – bubbles that could often have been avoided by proper government policies – just consider the standard deviation of GDP during the period 2000 through 2009. The values of 2.6 nominal and 2.0 real are outliers on the high side, outliers that interrupted the long-term decline seen in our data.

What drove this unusually high volatility?

First, there was the market collapse of the early 2000s, often known as the bursting of the tech bubble. This was followed by a significant recovery, adding to volatility.

Second, there were the interrelated disasters of 2007 to 2009 in the housing and banking sectors. These developments generated significant wealth effects which in turn caused recessions – the second one very serious. It is precisely this asset-market-driven variability of GDP that shows up in the heightened GDP standard deviation statistics for the period 2000 – 2009.

1. Wealth effect confusions

There is much confusion about so-called wealth effects. Most people do not own stocks directly (their pension funds may, however). The econometric evidence makes clear that significant drops in the stock markets do not adversely impact household spending, at least not to a significant degree.

But the wealth effect of a complete collapse in the housing market is altogether different. Home equity is the principal asset of most families and, when it evaporates as it did for the first time in decades during the 2007-2010 crisis, the impact on Main Street was dramatic. It not only impacted consumer confidence far more than a stock market decline would have, but it wrecked the residential housing and home repair businesses for many years, and did so in an unprecedented manner.

2. Out-of-proportion leverage

What was behind the huge rise and collapse of the stock market around 2000? And what underpinned the twin crises of 2007-2009? As former Fed Chairman Paul Volcker put it bluntly, "outrageous levels of leverage made possible by so-called financial innovations". Consider the "markets know best" policies of Chairman Greenspan, adopted at the same time as the explosion of derivatives-based leverage. These policies were championed by

Greenspan because of his personal philosophy based in part upon the free market beliefs of Adam Smith. Yet, while Smith knew that unregulated markets do indeed know what is best in the production of cupcakes, he pointed out that they do not know what is best in the case of leveraged finance. He stressed the importance of the stabilising regulatory role of the Bank of England established back in 1688. Greenspan seemed unaware of these distinctions.

It was for this reason that, right up until the Greenspan Era, the Fed and the SEC maintained policies that prevented excess leverage from causing bubbles, to the extent possible. For example, margin account requirements were increased from 15% to 85% in the late 1950s as a means of dampening a stock market bubble.

Sensible policies of this kind were terminated in the 1980s. The Greenspan Era ended with over 20 million families having put nothing down on their houses, and/or having taken out loans based upon little or no income. The resulting leverage was disastrous.

And while the public blames greedy bankers for all that went wrong in the Great Financial Crisis, they should blame policy makers first and foremost - the officials and Congressmen supporting the policies of Fannie Mae and Freddie Mac, in particular.

The larger point here is that bursting asset price bubbles have replaced the inventory cycle as the main (new) cause of ups and downs on Main Street.

Fortunately, however, the transmission channels to GDP of most asset market collapses is minor when compared to yesterday's transmission cycles such as the inventory cycle. Today, most everyone lives on service sector incomes which are surprisingly stable, and not on the gains/losses of asset prices. Wealth effects have thus been modest, with the exception of the implosions of 2000 and especially 2007-2009.

3. The oil shocks

During the past 40 years, asset price bubbles were not the only culprit causing recessions. Prior to the worst of the bubbles, it was soaring oil prices between 1973 and 1983 that precipitated Main Street distress throughout the West.

The oil price bubble was a singular commodity price shock quite different from either classical business cycle drivers or asset bubbles. It impacted the economy in two ways.

First, oil back in the 1970s was a "necessity" with inelastic demand - wage-earners had to commute to work and had to heat their homes. Thus, in rising from $3 to $32, peoples' real incomes were hit badly, and so therefore was GDP.

Second, the rise in oil prices translated into soaring inflation, primarily due to the advent of Cost of Living Allowances which saw wages soar. The resulting inflation caused sky-high interest rates and these, in turn, impacted Main Street for reasons transcending shrinking disposable incomes.

Yet, despite the magnitude of these shocks and their impact on Main Street, the standard deviation of nominal and real GDP rose only modestly from its lower levels in the 1960s and the 1990s, as a decomposition of our data makes clear. This is still further evidence of the growing stability of Main Street over time. But it also reminds us that shocks will always exist.

[Part 2 (Global Political Risk) and Part 3 (Financial Market Risk) will follow in subsequent weeks – Ed.]

ENDNOTES

1. This statement is true because the stochastic process generating historical data is non-stationary in the real world. That is, it is corrupted by ongoing structural change which causes history not to repeat itself, but to rhyme. More formally, the joint distribution of the relevant variables is not time-invariant.

2. Formally, when capital is substituted for labor, the reasons why is that capital deepening improves business productivity/profitability. If it did not, why purchase the equipment? This shifts the business supply curve outward – that is all. But all supply and demand curves continue to "intersect" at some price whereby supply = demand. Thus all markets clear at some price — including the labor market. Of course, the kinds of jobs available change during this process of creative destruction, as they have for the past four centuries of progress.

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Woody is a regular Faculty member at PortfolioConstruction Forum programs. This paper is abridged and reproduced with permission.