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Hot off presses, the latest thoughts from our friend! Comments, suggestions, trade ideas that emerge from this, etc, would be welcomed. - *Andres Drobny*

The Paradox of Diminishing Risk (Perception) in a Dangerous World

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The paradox: Diminished risk (perception) in a seemingly risky world

We appear to be witnessing what Dan Bernstein and Jason Rotenberg of Bridgewater have called 'the death of volatility … across global [capital] markets'.[1] They look back twenty years and find that their aggregated implied volatility index is as low now (at 10 per cent) as in three previous periods – mid-1985, mid-1991 and late 1996. Standard measures of implied equity volatility are also at nine-year lows.

Almost as striking as declining volatility measures are the low risk-premia currently manifesting themselves in emerging market sovereign bond spreads and corporate bond spreads. Emerging market spreads are at their lowest level since the mid-1990s. U.S. bond yields remain close to the 4 per cent, a level last seen in the early 1960s.

A third symptom of diminished risk perception can be found in the behavior of 'Anglosphere' (British, American and Australian) households. The U.S. personal savings rate is close to zero. Americans have geared up to unprecedented levels, borrowing unprecedented sums against their homes and pushing up unsecured credit card debt to record levels. All this seems to strange to many observers because in all kinds of ways the world is far from risk-free.

Consider first the economic risks, which are discussed in the financial press on a daily basis. Global capital markets seem menaced in at least six ways:

• The informal 'system' of fixed exchange rates that has emerged since 1998 between the U.S. dollar and the Asian currencies looks like breaking down sooner rather than later. Speculation is almost incessant that there will be some kind of revaluation of the Chinese

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[1] Dan Bernstein and Jason Rotenberg, 'The Death of Volatility', *Bridgewater Daily Observations*, May 18, 2005.

renminbi. Many commentators – notably Nouriel Roubini of New York University – anticipate a dollar crisis. There is also anxiety about the stability of the euro, given the miserable performance of core Eurozone economies, notably Italy, Germany and France, and the mood of Euro-skepticism which surfaced in the recent French and Dutch referenda on the proposed E.U. constitution.

• *The Economist* is not alone in predicting a collapse of the alleged real estate bubbles in the United States, the United Kingdom, Australia and elsewhere.

• Though Asian economies are less vulnerable to possible currency and/or banking crises than in the 1990s, there are other countries – Turkey springs to mind – that look distinctly vulnerable.

• There are signs that capital controls are enjoying a quiet revival, following their apparent success in Malaysia and actual success in China as a means of controlling short-term capital flows. Step forward Russia and, most recently, Argentina.

• Inflation seems far from dead. Commodity prices have risen sharply in the past three years. The spread between ordinary and index-linked bonds has also widened by around 100 basis points.

• Perhaps most disturbing is the possibility of a resurgence of trade protectionism in response to the sharply deteriorating American trade deficit. The recent penetration of the U.S. market and the markets of traditional U.S. trading partners by low-cost Asian manufacturers and, increasingly, service-providers represents an unprecedented threat to the post-war American consensus in favor of free trade. The new mood in Congress is epitomized by the Schumer-Graham bill, currently before the Senate, to impose across-the-board penalty tariffs of 27.5 per cent on goods imported from China in the absence of significant renminbi revaluation.

To these risks should be added the obvious political risks of our time:

• The United States, for decades the dominant capitalist power in the world and the effective underwriter of globalization, is suffering from imperial overstretch. In 1920 when the British (in fact mainly Indian) army suppressed an insurgency in Iraq, the ratio of Iraqis to occupiers was around 23 to 1. Today the ratio of Iraqis to Americans is more like 179 to 1. The three deficits that afflict the American empire – the economic deficit, the manpower deficit and the attention deficit – are now making themselves felt. There are not enough funds, not enough troops and not enough public support to defeat the insurgency. Unfortunately, the more bogged down the United States gets in Iraq, the harder it becomes for it credibly to ensure the security of traditional allies in the region, like Saudi Arabia, and outside the region, like South Korea and Taiwan. Moreover, the fact that civil war has effectively begun in Iraq raises the prospect of wider regional destabilization as the country's neighbors, especially Iran, are drawn in. Bad though things currently seem in Iraq, they clearly have the potential to get a lot worse. Imagine Lebanon's civil war to the power of ten – or the Congo conflict relocated to Mesopotamia.

• Great power rivalry is intensifying between America and China. This is as much strategic as economic. The danger of a trade war is matched by the danger of a real war, given China's commitment to resist any Taiwanese move towards independence, and America's commitment to uphold Taiwanese democracy if necessary by force. China is systematically building up its diplomatic influence throughout the world; the United States can no longer be regarded as the hegemonic power in the Asia-Pacific region. Meanwhile, the European Union increasingly disassociates itself from the increasingly anachronistic notion of a monolithic 'West'.

• There are numerous 'rogue regimes' actively engaged in sponsoring terrorist organizations and those who sympathize with them. These include established foes like Iran and established allies like Saudi Arabia, both countries that are gaining significant additional resources from the rise in oil prices.

• A radical anti-Western movement is operating with near impunity if not explicit support not only in Muslim countries but in parts of Europe. Moreover, 'Islamism' has demography on its side. Thanks to the high birthrates that characterize most Islamic societies, there will soon be more Yemenis than Germans, and more Egyptians than Russians. It might also be added that, with rising greenhouse gas emissions, the probability is growing of extreme meteorological events associated with climate change. How are we to make sense of these apparently dissonant phenomena – financial indicators indicating diminished volatility and risk premia, and headline news indicating both economic and political threats to the status quo?

Is the world not really risky at all?

One simple answer is that the world is not as risky as the headlines would lead is to believe. It is certainly less risky than the 1930s. As Nick Crafts has recently argued, we have learned how to avoid worsening recessions with tariffs, tight money and tax hikes, without going to the other extreme of stoking up inflation with excessively lax fiscal and monetary policies. The performance of the Bush administration and the Federal Reserve in mitigating the effects of the dot.com bust suggests that we have also got better at managing asset price deflation. We have abandoned the gold standard in favor of the greater flexibility of fiat currencies and floating exchange rates. And we have created new international institutions like the WTO and the IMF, designed to reduce the risks of international economic crisis. In short, 'our management … has … improved'.[2]

Lest he appear too Panglossian, Crafts does worry about large current account imbalances as a source of possible trouble. This is the convention wisdom in the economics profession these days and the constant refrain of respected financial commentators like Martin Wolf.[3] Yet it could be argued that financial globalization also makes large current account deficits more sustainable *for mature markets*. These are large capital flows to the United States, not to Argentina. And they are denominated in the borrowing country's currency. The Asian markets have learned from 1997/8 – hence their huge build-up of reserves, which have been crucial to the financing of the U.S. twin deficits. Meanwhile, if the dollar were to fall 30 per cent, who really loses out? Not the United States, but Asian institutions who bought 4 per cent yielding assets at top dollar prices.

To these points, two further political 'reasons to be cheerful' might be added. Political trends are in fact quite positive around the world. The process of democratization continues to advance; when President Bush says that 'democracy is on a roll' he is not making it up. There is also reason to think that armed conflict is at a lower level today than at any time since the end of the Cold War. If you're an insurer, your biggest worry is not strife but old fashioned natural disaster.

In these and other ways we could – and some do – rationalize the evidence from financial markets of diminished risk. Yet there is a danger here; the danger of complacency.

Bernstein and Rotenberg argue that markets today are simply assuming a continuation of the downward trend of actual volatility, which has been due to the declining volatility of inflation and growth since the mid-1970s. Markets simply anticipate that these trends will continue. This is a case, they conclude, of 'markets simply pricing the future as a function of the recent past'. [4] What can a longer-term perspective tell us?

Forward to the Past

George Magnus has recently argued we are heading towards a period not unlike the (late) nineteenth century, a time of low inflation and modest growth. Low growth of nominal

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[2] Nick Crafts, 'Is the World a Riskier Place?', *Merrill Lynch Global Securities Research and Economics*, May 16, 2005, p. 4.

[3] See most recently Martin Wolf, 'Flowing Uphill: Why Capital from Poorer Countries Must One Day Reverse its Course', *Financial Times*, June 27, 2005, p. 17.

[4] Bernstein and Rotenberg, 'Death of Volatility'.

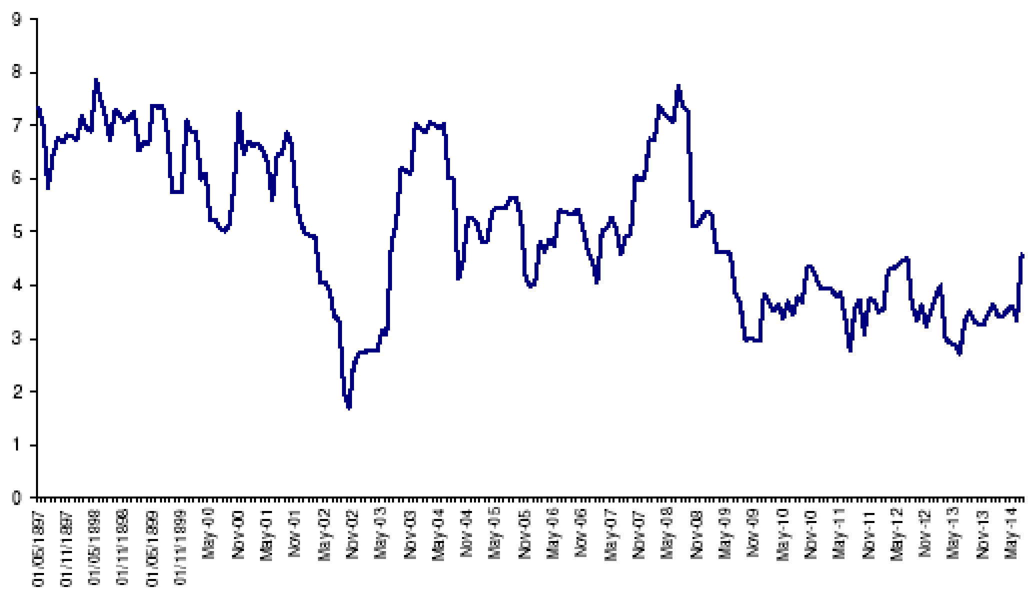
GDP, he suggest, should translate into low bond yields. Waning returns on capital (due partly to demographic changes) point the same way.[5] He is surely right that meaningful lessons for our own time are more likely to be gleaned by studying the years 1880-1914 than by studying any subsequent period.

There is now widespread agreement among economic historians that this was the true 'first age of globalization', a time when the international integration of capital, commodity and labor markets reached levels comparable with our own day. Crafts own figures make it clear that in terms of both the average rates and standard deviations of inflation and growth, the economic performance of the G7 economies in our time much more closely resembles the period before 1914 than any intervening period.

Nor do the similarities end there:

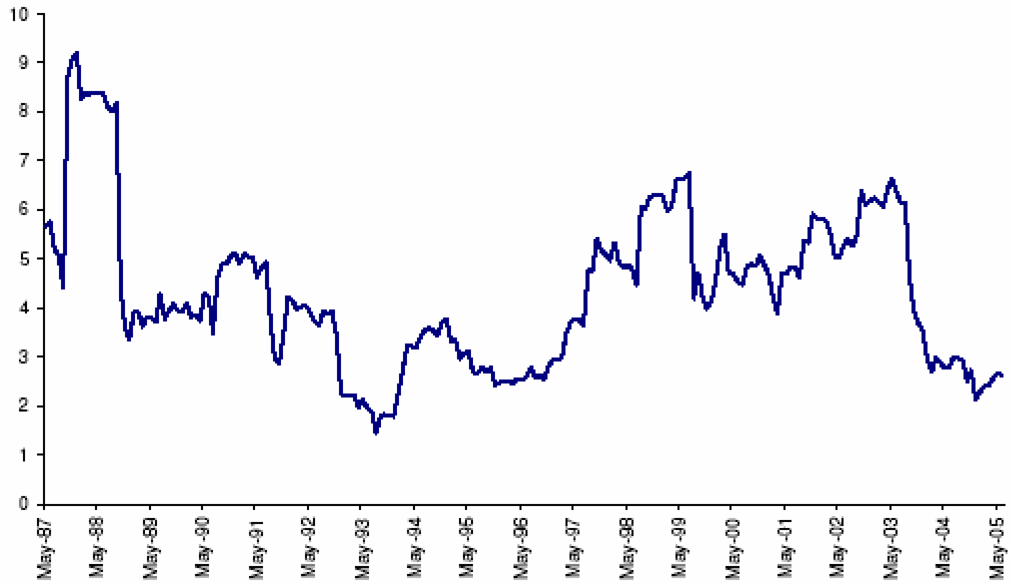
• If one calculates equity volatility (by computing standard deviations of the monthly percentage change in the Dow Jones Industrial Average), it declined markedly from 1897 to the June 1914. The trend looks more marked than when the same calculation is done from the period 1987 to the present (see figures 1 and 2).

1. Standard deviation of monthly percentage change of Dow Jones index (12 month rolling window), May 1897-June 1914



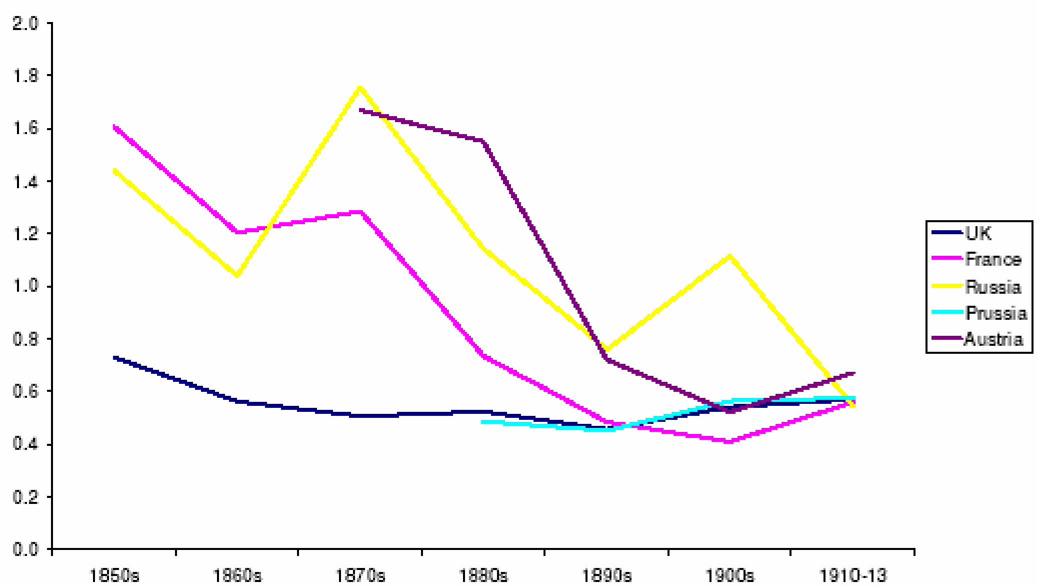
5 George Magnus, 'Uncertainty, Turbulence and Treasuries', *Drobny Guest Research*, May 18, 2005.

2. Standard deviation of monthly percentage changes in the Dow Jones index (12 month rolling window), May 1987 to the present



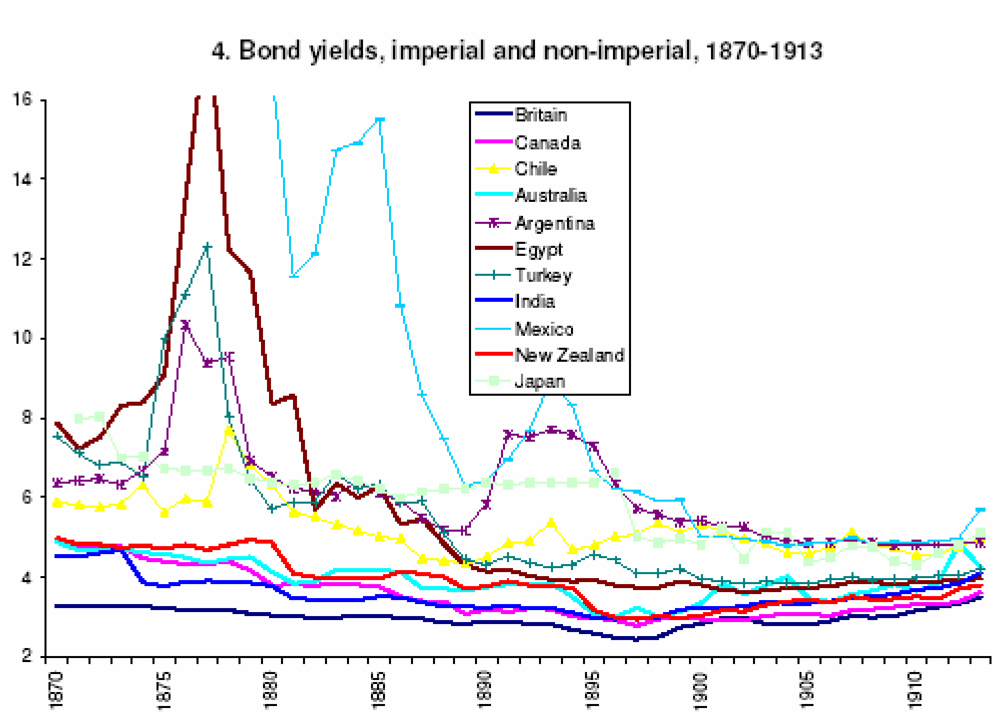
• Volatility in the international bond market also declined quite markedly. For the great powers (Britain, France, Russia, Austria and Prussia-Germany), it was markedly lower in the decades after 1880 than in the 1850s, 1860s and 1870s (see figure 3).

3. Standard deviation of percentage changes in returns on great-power bonds, 1850-1913



• Gilt-edged securities – in this era the British perpetual 'consol' – traded at close to par, yielding between 2.2 per cent and 3.5 per cent.

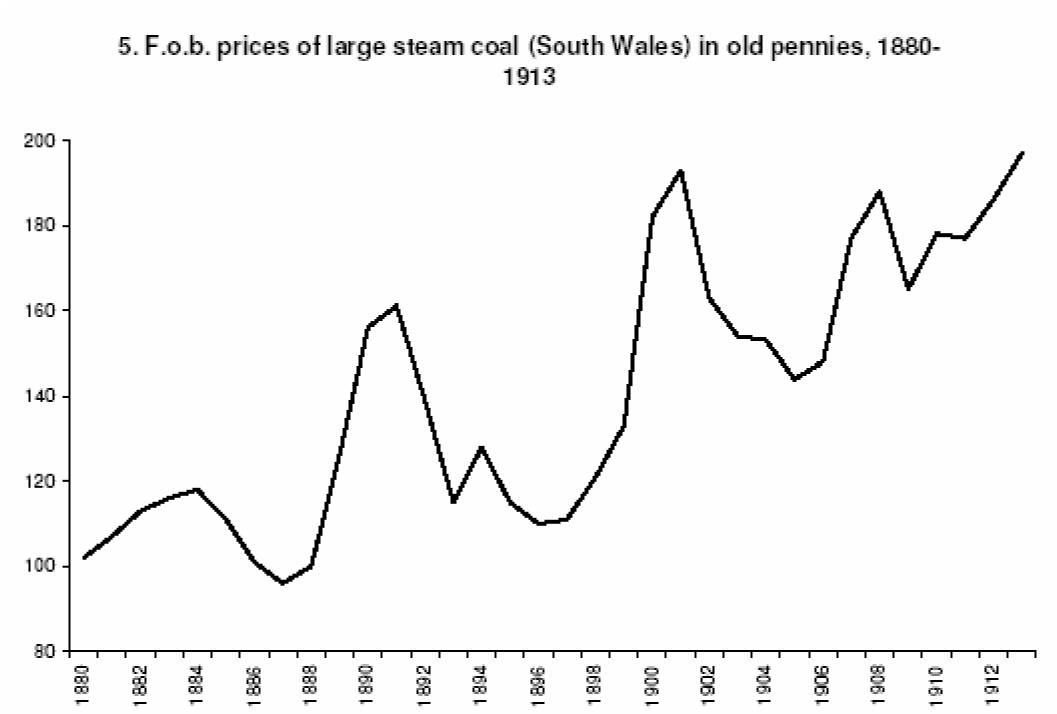
• Despite recurrent financial and banking crises in emerging markets such as Argentina, Brazil, Mexico and Turkey, global sovereign debt spreads over British consols declined to unprecedented levels from the 1880s to the years 1910–13 (see figure 4).



Yet all these reassuring indicators were at odds with some disquieting trends:

• There was a shift after around 1897 from mild deflation to mild inflation, usually attributed by economists to monetary expansion associated with new gold discoveries. Interestingly, certain commodities – notably coal – evinced a marked upward trend in price. The price of Welsh coal, for example, rose by around 90 per cent between 1880 and 1913 (see figure 5, next page).

• Protectionism was ratcheting up everywhere except the United Kingdom from the late 1870s onwards. Given the widespread consternation about competition from German manufactured goods, the enduring commitment of British voters to free trade seems rather remarkable. Elsewhere, both agricultural and heavy industrial producers were offered at least some protection from cheap imports. In the United States and Russia, two of the most rapidly growing economies of the period, tariff rates were high across the board, reflecting a conscious strategy of import substitution.



At the same time, it might be thought, political risk was high and rising.

• The British Empire was showing clear signs of imperial overstretch. Although it was able to maintain the largest navy in the world, the Boer War had exposed the limits of its ground forces. Nationalist movements from Cork to Calcutta posed a growing challenge to a thinly staffed imperial bureaucracy. And, of course, the relative decline of Britain as a manufacturing power – specifically, its failure to keep pace with American and German advances in electrical engineering and chemicals – suggested an erosion of the economic foundations of the Empire.

• Great power rivalry was nothing new; but after around 1890 it changed fundamentally in its character as the long-running rivalries between Britain and France and Britain and Russia were replaced by a new alignment which pitted France and Russia against Germany and Austria, with Britain inclining towards the former. The naval and land arms races of the decade before 1914 are usually seen by historians as harbingers of world war. So too is the 'scramble' for African colonies believed (usually wrongly) to be resource-rich.

• The international order was menaced by at least one 'rogue regime' which sponsored terrorism, namely Serbia which gave assistance to ethnic Serbs seeking to oust Austria from Bosnia.

• Finally, a radical anti-capitalist movement was growing in both radicalism and strength. Extreme socialists like the Bolsheviks were ready to use violence to overthrow the European empires. Such organizations had demography on its side; as more and more peasants left the countryside to become industrial proletarians, they were potential recruits to revolutionary politics.

If all this sounds familiar, it is supposed to. Each of these political risks has an analogy in our own time. ***The trouble is that pre-1914 globalization came to an end. And it did so with a bang.***[6]

The bolt from the blue

On July 22, *The Times* reported the first English-language allusion (that I have been able to trace) to the possibility that the crisis in the Balkans precipitated by the Austrian Archduke Franz Ferdinand's assassination less than a month before might have negative financial consequences. The report appeared on page 19 and read as follows:

> *STOCK EXCHANGE*
> *DEPRESSED BY FOREIGN POLITICAL NEWS*
> *LATE RALLY IN AMERICANS*
>
> *Stock markets at the opening were entirely overshadowed by the news that the relations between Austria-Hungary and Servia are daily growing more strained. … Owing to the increasing gravity of the situation in the Near East the attention of members [of the Stock Exchange] has for the moment appeared to be diverted from the Ulster crisis … there being a general disinclination to increase commitments in view of the obscurity of the outlook both at home and abroad.*[7]

Considering the vast body of literature that has been written about the origins of the First World War – tracing these back as far as the 1870s, or at least the 1900s – it is remarkable that from the vantage point of financial journalism the war had virtually no origins at all. Other evidence strongly supports my contention that to investors, who were without question among the best informed people in the world at that time, the war that broke out in the first days of August 1914 came as a complete 'bolt from the blue'.[8]

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[6] Niall Ferguson, 'Sinking Globalization', *Foreign Affairs*, (March/April 2005), pp. 64–77.

[7] *The Times*, July 22, 1914.

[8] Niall Ferguson, 'Political Risk and the International Bond Market between the 1848 Revolution and the Outbreak of the First World War', *Economic History Review* (forthcoming).

As late as August 1, the headline on the front page of the *New York Times* was the wildly optimistic: 'CZAR, KAISER AND KING MAY YET ARRANGE PEACE'.[9]

Investors clearly began to sell off in the week after July 22, but the striking thing is how little the bond yields of all the future combatant powers moved – at most 50 basis points in the case of Austrian bonds quoted in London. We do not know how much further they might have fallen in the week after August 1 for the simple reason that the Stock Exchange had been closed on July 31. It did not re-open until January 4, 1914. The story was much the same in all the world's principal financial markets. Even before war had broken out, stock markets from Vienna to New York were forced to close to avoid a complete collapse of prices and a generalized liquidity crisis.

The financial crisis of 1914 was the biggest of all time. ***Simply in terms of equity price volatility it far overshadows that of 1929.*** If there are close resemblances between our own time and that of a roughly a century ago, then we should not blithely celebrate the rebirth of globalization. We should ask ourselves: Could globalization in our time end with equally shattering suddenness?

I am not suggesting here that exactly the same thing could happen again – that is, a great power war, emanating from an act of state-sponsored terrorism (though such a thing is far from unimaginable). My point is that financial markets could quite easily be thrown into disarray by any unforeseen crisis – political, economic, climatic or even geological – if it is sufficiently large to cause a fundamental shift in expectations. Whether it is a war, a financial crisis, a hurricane or an earthquake does not really matter. They key point is that it should be a shock that has not been priced in.

However, there is a difference between man-made and natural disasters. No one has yet worked out how to predict, much less to avoid, an earthquake. Even major climatic events can arise with just a few days' notice. Yet we ought to be able to anticipate big political and economic shocks. They are, after all, the result of human agency, not acts of God. The historical puzzle is why investors in 1914 did not see the First World War coming until it was almost upon them. Could we make a comparable mistake today?

Why people didn't and don't price in big risks

There are two possible explanations why a shock like that of the First World War might take investors and other market participants by surprise even when, with the benefit of hindsight, we can see that it was far from an improbable event.

[9] Austria had declared war on Serbia on July 28. On July 31 Russia began general mobilization. Germany declared war on Russia on August 1 and on France on August 3. Britain entered the war on the 4th.

The first is that financial globalization creates very broad and very deep capital markets. The institutional innovations of pre-1914 finance were many and various. Transoceanic cables wired markets together, greatly increasing the speed at which financial news could be transmitted and transactions executed. Banks relied increasingly on cash-less methods of payment – checking accounts and direct transfers (what the Germans called *Giroverkehr*). Stock markets, commodity markets (including futures markets) and insurance markets grew to unprecedented size. Volumes of trading were immense.

Perhaps most importantly, immense new savings banks were created all over the developed world in the late nineteenth century, which for the first time allowed smaller savers to have indirect access to the bond market. The home bias of such institutions (often, as in Britain, legally enforced) had the effect of driving down domestic bond yields.

The ensuing high liquidity and low interest rates almost certainly contributed to the pre-1914 perception of financial stability and diminished risk. Yet this was an illusion. The world was not less dangerous; just more liquid. But as became clear on July 31, a big shock could choke off that liquidity with amazing speed. *Note bene*: The crash of 1914 was highly correlated across asset classes and markets.

A second reason for market myopia may have been political. We know, looking back, that the British Empire was overstretched. Some contemporaries knew it too. Yet British dominance on both land – a quarter of the world's land surface – and sea – a navy that really did rule the waves – may have encouraged investors to underestimate the Empire's vulnerabilities. The *pax britannica* looked very real to investors; that was why they were willing to lend to emerging markets under British rule at rates that were only a few basis points higher than those on consols.[10] The best argument Norman Angell could make to support his contention that war had become a 'great illusion' was to point out how terribly costly it would be to German investors if their government were so foolish as to challenge British hegemony.[11] Unfortunately, the real illusion was the one Angell labored under – that 'the delicate interdependence of international finance' would deter the German General Staff from gambling on a pre-emptive strike against Russia and France.

Are either or both of these 'illusions' at work today. Both are. Financial innovation – the emergence of megabanks like Citigroup, the proliferation of hedge funds, the

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[10] Niall Ferguson and Moritz Schularick, 'The Empire Effect: The Determinants of Country Risk in the First Age of Globalization, 1880–1913", *Journal of Economic History* (forthcoming).

[11] Norman Angell, *The Great Illusion* (London, 1910).

enormous growth in the size and liquidity of markets, the development of new financial instruments like derivatives – all these things, taken together, make our world even more liquid than the world of 1914.

At the same time, most of us continue to subscribe to the conventional wisdom that the United States – despite its little local difficulty in Iraq – is the world's sole military hyperpower, which no potential rival would dare to challenge head on. Yet actual liquidity and perceived security do not mean that risk itself has been abolished. Modern techniques of risk management are very sophisticated, no doubt. But unless we factor in such apparently outlandish scenarios as, say, a war between China and the United States over Taiwan, or an Al Qaeda regime in Saudi Arabia, we are only managing some of the risk that is 'out there'. In the summer of 1914, most investors attached very low probabilities to events like a war between Britain and Germany over Belgium and a Bolshevik regime in St Petersburg. Yet by August 4 the former had begun and just over three years later the latter was a reality.

History Makes Poverty Less Likely

One final thought: Perhaps the key to understanding why markets struggle to price in low-frequency, high-calamity events lies in the short-term memory of market participants. Unless they systematically study financial history, most investors and their advisers have access to, at most, around forty years of personal or shared experience of market behavior. Generally, the most senior figure in most major institutions will have been in the business for rather less time than that. In the same way, most time series in the databases used by financial institutions go back not much further than around 1965.

Yet the events of the 1970s, 1980s and 1990s do not furnish us with anything like the right kind of experience when it comes to understanding the present decade. To do that we need to extend our knowledge far beyond the range of living memory.

Today's fashionably philanthropic slogan in London is 'Make Poverty History'. A variation on this theme is that knowing some history could help you avoid poverty.

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