

# Speech

# What the return of 19<sup>th</sup> century economics means for 21<sup>st</sup> century geopolitics

Speech given by

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I would like to thank - without implicating – my advisors at the Bank of England, Tomas Hellebrandt and especially Marilyne Tolle, for their advice and assistance with this speculative exercise. I also have benefitted from the discussion of earlier related presentations to the Real Instituto Elcano and to the GAIM/GMA Conference 2011. The views expressed here, and particularly those that may subsequently be proven erroneous, are solely my own, and not those of the MPC, the Bank, or of PIIE.

I am very pleased to have the opportunity to speak to the audience here at Chatham House. I have always appreciated the chance to exchange ideas with people active in international affairs, who have different approaches to understanding than macroeconomists. I would like to thank my long-standing colleagues and friends, DeAnne Julius and Robin Niblett, for inviting me here tonight. It is particularly gratifying to have the Chairman of the Royal Institute in the chair, not just because it shows the seriousness with which this organization takes economic issues, but because DeAnne exemplifies someone bringing together economic and political concerns in the real world. And that is what I am going to try to do in my remarks tonight.

What I would like to discuss today is the longer time-horizon of next 10-20 years, rather than the two to three-year time-horizon, let alone crisis responses, with which central bankers are usually pre-occupied. This is in part to remind everyone that there will be a tomorrow, despite the rather grim economic prospects for the near-term. And this is part to indicate how I believe some of the policy choices we make today will influence the longer-term development of our economies. Primarily, though, the reason that I am speaking with this longer time-frame in mind is because I want to start an active discussion where I think there is a gap in our understanding (or at least in my understanding).

A number of authors have made the case persuasively that the weight of the economic world is undergoing a fundamental shift from West to East, and to a lesser but increasing degree from North to South (with all the charged meanings of those 'directional' labels). The economic ascent of China and of other major emerging markets relative to the US and other advanced economies is now largely taken for granted, as it likely should be, at least in size terms, and as largely positive for human welfare, as it definitely should be. That is fine, as far as it goes. The implications of this major shift in relative global wealth and income for financial and monetary developments, however, are not yet clear. I'm going to try to take that speculative exercise a little further today.

## Globalization will continue with new supporters (and weaker opponents)

Of course, this relative economic shift takes place against the background of the European and US economies having a long way to go to recover from the accumulation of public and private indebtedness over the last decade. While overt financial panic has ended, and economic recovery is underway in the US and the major emerging markets, there remain significant risks for the West and its economic and thus foreign policy leadership. Moreover, the global financial system, including but not limited to US-based entities, has not yet been sustainably reformed. The growth rates of the G7 economies and the ability of their governments to finance responses to future crises, both military and economic, will be meaningfully curtailed for several years to come given the debts incurred. In short, the recent developments accelerate the long-run trends of economic convergence and declining US hegemony. Importantly, this will reduce shock-absorption and provision of public goods to the international system as a whole.

The preceding description would seem to confirm the rise of the Rest over the West. Going that far would be premature. The empirical record is that economic recovery from financial crises, while painful and sometimes slow, is doable even by the poorest countries, and in advanced countries rarely leads to lasting economic dislocation. Even large fiscal debt burdens can be reined in over a few years where political will and institutions allow, and the UK and US, at least, have historically fit in that category. Though the relative rise of the major emerging markets will be accelerated by the crisis, that acceleration will be insufficient to rapidly close the gap with the US in size, let alone in technology and well-being. None of those countries, except perhaps for China, can think in terms of rivaling the US in all the aspects of being a hegemon. These would include: a large, dynamic and open economy; favorable demographic dynamics; monetary stability and a currency with a global role; an ability to project hard power abroad; and an attractive economic model to export for wide emulation.

This last point is key. In the area of alternative economic models, one cannot beat something with nothing – communism fell not just because of its internal contradictions, or the costly military build-up, but because capitalism presented a clearly superior alternative. The Chinese model is in part the American capitalist (albeit not high church financial liberalization) model, and is in part mercantilism.

There has been concern that some developing or small countries could take the lesson from China that building up lots of hard currency reserves through undervaluation and export orientation is smart. That could erode globalization, and lead to greater conflict with and criticism of the US-led system. While in the abstract that is a concern, most emerging markets – and notably Brazil, India, Mexico, Russia, South Africa, and South Korea – are not pursuing that extreme line. So unlike in the 1970s, the last time that the US economic performance and leadership were seriously compromised, we will not see leading developing economies like Brazil and India going down the import substitution or other self-destructive and uncooperative paths.

In fact, what has emerged and is likely to gain further influence is a new set of politically influential supporters for globalization at the international level. The very emerging markets whose populations have benefited the most from global integration in recent years are the ones whose relative role in global affairs is being advanced as a result of the crisis. Consequently, the likelihood is that global support for international economic integration will remain as strong, if not be strengthened, in the coming years as it was under US economic ascendance in the 1990s and early 2000s – but without as much of a role for US leadership in of that support. Ironically, though it will remain in the US and the West's economic and security interests to support a liberal economic order, the battle will increasingly shift from opening up developing countries to maintaining that support domestically within the advanced countries. But increasingly, the major emerging markets see globalization as in their own interests (rightly so).

If this assessment is correct, the policy challenge for Western supporters of globalization is to deal with relative US economic decline, but not outright hostility to globalization as the US has promoted or overthrow of the current international economic system. That is reassuring, for it leaves us in the realm of normal

economic diplomacy, probably to be pursued more inclusively and chaotically, and less high-handedly, than the US has done it over the past 30 years. This will be the chronicle of a post-hegemony long foretold.

## The Old Normal of globalized economies

We have seen before a world in which global economic integration proceeds against the background of international relations somewhere between a clear hegemon and outright conflict. This kind of multipolar world is what existed in the late 19<sup>th</sup> century, roughly between 1870 and 1910. The United Kingdom did provide some leadership and public goods over this period, but simultaneously was rightly conscious of rivalry, economic and political, with Germany, the United States, and in certain areas France and Russia. In this period, the economically significant nation-states pursued their own self-interests, but saw those self-interests as including some measures of economic liberalization (or maintaining the integration that emerged) and protecting the status-quo against non-state actors (including terror groups, labor activism, and anti-imperialist forces). I am not proclaiming nostalgia for such an era, let alone for such a set of values – rather, I am asserting that this international situation has much in common with the situation in which we find ourselves now and that, I believe, is likely to persist for the next couple of decades.

The economic implications of such a world are worth drawing out. Looking back at what happened to macroeconomic aggregates from 1870-1910 tells a coherent and relevant story. While one cannot map precisely from then until now, I think the parallels will prove rather tight in coming years, not least because most of the dominant political interests in the major economies have interests and ideologies similar to their noble and *haute bourgeois* counterparts of the *Belle Epoque*. Where one spoke about landed interests in the late 1800s, one should now think of holders of government protected franchises (be they broadcasting, banking, lawyering, medical services, or the like). Where one spoke of declining transport costs driving change and threatening those interests then, one should think of internet technology doing the same now. And where one spoke of the United States then, one should think of China now (and of the United Kingdom then, the US now).

The first thing to recognize is that the late 19<sup>th</sup> century was a time of relatively high real economic volatility. While GDP growth rates were reasonable on average, they fluctuated a great deal (figures 1 and 2). The burden of adjusting these fluctuations fell primarily on labor, so unemployment rates fluctuated as well around a low average level (figures 3 and 4). Partly, this was due to the monetary regime in place at that time, the gold standard, which did not allow much room for stabilization policy by central banks (or the non-existence of a central bank in the US), so we should be able to avoid some of this real volatility in future. That said, some of this volatility was due to the emphasis on price stability and budgetary discipline, which does apply to our current monetary arrangements. And some of this volatility was due to the incidence of real economic shocks, which also applies to our current situation (the early 2000s were a lucky respite). As seen here, the average growth rate of the lead economy (the UK then, the US going forward) was not

spectacularly high, while the average growth rate of the catching-up rival (the US then, and China now) was sustained at a high though variable rate.

In both economies, real wage growth lagged overall economic growth (consistent with a declining labor share), and at times both real and nominal wage growth were negative (figures 5 and 6). Again, while some welcome institutional changes since the late 1800s mean that actual negative nominal wage growth will be rare, the broad pattern is already being seen in the Western economies, and has been seen in China for some time (despite some recent catch up in wages). Contrary to what many might think, given our image of the Gilded Age as a time of rapid technological progress, labor productivity growth was not all that high by today's standards, even in the more rapidly growing frontier economy (figures 7 and 8). We should expect some slowdown in Chinese productivity growth in the years to come, but not down to the levels seen in the US in the 1880s and 1890s. The more important point is that a world of price stability, weak labor, and active international competition does not automatically produce technological progress – convergence of rich and poorer economies, yes subject to preconditions, but not automatic development.

What will be the environment for business, particularly multinational companies, in such a world? In the late 19<sup>th</sup> century, property rights, especially intellectual property rights, were not very well respected. Governments were in no position to enforce them abroad for home country companies and owners. Companies wanting to move production abroad, or even more to access foreign markets, would give up what protection they had. We already see this emerging in multinationals' dealings with China and to a lesser degree other emerging markets. This is a shift from the enforcement of intellectual property rights that occurred when the US was dominant, when most markets were in countries dependent upon or allied with the US for national security, and when technologies and intellectual property were easier to keep hidden. We are now re-entering a period of declining enforcement of those rights, abetted by the digital technologies of today.

The development of global supply chains will continue, but every component of production will be broken down and separated further from the others, insofar as possible. This will be a defensive reaction by multinational corporations in two senses: first, this will limit how much intellectual property (and brand and other value-added) transfer takes place from any given activity; second, this will limit vulnerability to disruption of global production from a loss of production in any one place. Both aspects of this corporate vulnerability to local expropriation will increase with political fluidity in host nations. There will be greater political fluidity, if not instability, in the coming years, analogous to the late 19<sup>th</sup> century, because of multipolarity, absence of a stabilizing and enforcing hegemon, and the pressures from real economic volatility. That is not to say we should shed tears for the exposure of the multinational corporations – they will still be in an all-too-strong bargaining position against governments regarding taxation (a topic to address another day) – but that in this specific sense, the Old Normal will have implications for corporate direct investment and production decisions. Political risk will only go up from here as a concern in C-suites.

### The Old Normal of price stability with occasional deflation

The political risk that will affect investments in the real economy will not extend to the monetary environment, in my opinion. I know there are some people out there concerned that we are facing a coming period of inflation, with central banks untethered, if not actively inflating away government debt. These concerns are unfounded. As I have argued since my first publication nearly 20 years ago, independent central banks pursue price stability over the medium-term because there is effective opposition to inflation in those societies that have independent central banks. That remains the case. If anything, political opposition to inflation has strengthened among working people and in emerging markets, as revealed in the policies pursued there and the parties elected. While many people are in debt, the ideology of the day is not to forgive debtors, and the interests with the biggest influence on politicians remain those on government fixed incomes and lenders not borrowers. Furthermore, the mandated and actual goal of central banks worldwide remains price stability – assessments of central bank failures in the past decade blame too easy monetary policy (wrongly) and too lax financial supervision (rightly). No one is making an influential argument for a different set of monetary priorities over the medium-term.

In this sense, the late 19<sup>th</sup> century provides a relevant parallel for the monetary environment in the coming years. While thankfully we will not be returning to the gold standard, we are and will remain in a regime in all the relevant major economies that is in important aspects similar to it. The challenge for monetary policy will be to keep inflation expectations anchored in the face of real rather than nominal volatility, coming from both sustained long term movements in relative prices (commodities then and energy now) and shorter sharper real shocks (natural disasters then and now). Price stability on its own will be achievable without stabilizing credit cycles, and it will not be sufficient on its own to smooth those cycles (figures 9 and 10). Deviations from price stability will have to be justified by reference to large unforeseeable shocks, and will come and go – inflationary wage-price spirals will be rare, and therefore so will be sustained inflation. In fact, deflation will occur more frequently than in the recent past, if the late 19<sup>th</sup> century is precedent (figures 11 and 12).

Given these factors, and the shift in relative economic weights from West to East, there will be a leading global currency, but not a single dominant reserve currency – much as Sterling, dollar and franc co-existed, each with their own adherents in the 1870-1910 period. As with the gold standard, there will be temporary suspensions or depreciations by countries that face extreme short-term adjustments. But re-entry to approved monetary policies and standards will be clearly demarked, and enforced by sovereigns' creditors. Credibility of policies compared to other monetary authorities in other currencies and economies will be a first order concern. The exorbitant privilege of governments issuing and paying debt in one's own currency will continue to be more widely shared and continue to reduce in magnitude of benefit (that's what a world with few AAA-rated sovereigns means). In the major economies, exchange rate intervention will become more defensive, against both rapid depreciation and appreciation, and less about manipulating currencies with an eye to undervaluation. This all assumes a time of greater capital mobility and international diversification than we have today, and thus more akin to the late 19<sup>th</sup> century.

### Investment in a time of lower normal returns

My last assumption or assertion regarding capital mobility may sound particularly suspect. Many observers of recent economic crises have argued with good reason that large capital flows and their reversals are a source of international economic instability. This is one explanation for the self-insurance against financial crisis by governments through the accumulation of official foreign reserves (and thus through undervaluation of their currencies) that has proliferated in East Asia and elsewhere following the 1997-98 crisis and China's lead. Yet, I believe that period of reserve accumulation is coming to an end, and that we will move instead to a time of increased private investment diversification across borders.

Fundamentally, the incentives for investor diversification are increasing. The relative attractiveness of US and other advanced country government bonds versus those from emerging markets and from selected multinational corporations is markedly declining. Macroeconomic cycles and long-run growth trends are increasingly diverging if not decoupling between the West and the rest. The rise of sizable and politically influential middle classes in the emerging markets increases the pressures on those economies' governments to be more accountable with their pots of money (such as official reserves) withheld from their people and to allow purchasing power to rise. Intra-emerging market ('South-South') trade and investment ties are rapidly deepening, while transparency and transactions in these economies' securities markets are improving. Here, too, the relative advantages of intra-Western trade and securities markets are shrinking. These developments are in addition to the long-standing economic reasons for capital to flow 'downhill' from Western savers to emerging market investments – the uphill flow having been to some degree the inherently temporary result of US hegemony and the poor economic regimes of the third world up through the 1980s. The bourgeoisie of Gilded Age Western Europe and the United States learnt to diversify their portfolios abroad to a degree we and our parents never have in response to similar forces at play for them. I expect that the middle classes around the world will now find themselves practicing that lesson in the coming years.

The increasing requirements of investors and financial intermediaries to hold government bonds will actually support rather than counteract this trend to diversification, in my assessment. I do not like the term 'financial repression' – one person's financial repression is another person's prudential regulation, and thus the negative implication of the term is not always justified – but it is unquestionable that governments are forcing greater shares of portfolios to be held in sovereign debt, one way or another. Yet, that was certainly the case in the 1870-1910 period as well, increasingly so in anticipation of the conflict that became World War I. And as noted, international diversification and capital flows were greater then than now. Why did this happen?

I believe a few factors were at work in the late 1800s, which will also apply in the coming decade or two. First, from a straight portfolio optimization point of view, if one is forced to hold more domestic government exposure with high correlation to the domestic cycle and capped returns, then one is led to being more

aggressive in diversifying one's portfolio and finding higher returns to compensate. Second, with many of the growth opportunities taking the form of large capital and/or infrastructure projects in emerging markets, there are mutually reinforcing incentives to issue bonds from these countries to foreign investors. Third, most small investors and working individuals will be more risk averse regarding, and arguably shy away from, equities and real estate in the aftermath of the recent boom-bust cycle, and will have little choice but to increase savings in the form of bonds and bank accounts. That gives opportunities for financial intermediaries to arbitrage from low cost pools of savings and limited investment choices towards riskier higher-rewarding assets. Those intermediaries will increasingly be multinational corporations and sovereign wealth funds which have incentives to diversify abroad for longer-term investments, along with merchant banks that put up their own money at risk. This should sound a lot like the late 19<sup>th</sup> century, with investors' aggressiveness and sophistication running well ahead of the average savers', but with I would argue welcome government limitations on what can be done with small savers' assets in the first instance.

What does such an investment environment produce in terms of returns to and volatility of capital? During the Old Normal, long-term government bonds had a relatively steady nominal yield, in part reflecting the forced holdings and purchases (figures 13 and 14). This gave sovereign bondholders small positive real returns on average, though the real returns were quite volatile, given the fluctuations in inflation around a low level. Real returns on domestic equities (figures 15 and 16) differed significantly with GDP growth trends, as one would expect. The US stock market then had much higher real returns and much higher volatility of those returns than the UK stock market; presumably, the same will hold true for China versus the US respectively in the fullness of time. (I wish I could provide a comparison of corporate bonds' performance, but comparable data has proven difficult to come by.)

Capital outflows from the UK were extremely large at the end of the 19<sup>th</sup> century, for reasons of imperial dominance and London's financial precedence that are unlikely to be replicated for the US and New York today. The important point, however, is that they were on net positive even as they fluctuated over time (figure 17), meaning capital outflows. The US had on average a zero capital account balance over the period (figure 18), which is somewhat surprising when one thinks of it as the destination for investment, but more sensible when one thinks of the US as the rising rival to the hegemon, partway developed and investing outwards in its neighborhood. It again seems fair to think that what held for the US in the Old Normal will hold for China going forward from here.

# Some further possible geopolitical implications of the Old Normal

Efforts to draw tight historical analogies are always flawed, not just in the detail, but often in the big picture. Nevertheless, such analogies are crucial to our understanding and point us in useful directions for further analysis. The main conclusions that I would like you to take away from my claim that international economics will return for the next couple of decades to what I call the Old Normal of 1870-1910 are:

- Globalization in the form of integration of national economies and markets across borders will
  continue, with increasing support from important constituencies in emerging markets;
- As US hegemony, that is relative economic dominance, recedes into multipolarity, the international
  economic system will have less strict rule enforcement and be subject to greater economic volatility;
- The erosion of (intellectual and other) property right enforcement will have significant effects on the global division of labor, which will reinforce this multipolarity and income convergence;
- Price stability will prevail, with sharper fluctuations around low average inflation driven by real (relative price) shocks, and deflation will occur from time to time;
- More than one currency will play a global or reserve role, and the benefits in terms of lower interest rates from having such a role will diminish;
- International diversification of investment will increase, and so will the gross flows of capital, with capital accounts in the major emerging markets moving more towards balance if not deficit;

This is a tale of getting closer to unfettered markets in many ways, which I hasten to say I am solely forecasting, not recommending or endorsing. That being the case, it raises a host of potential parallels with the late 19<sup>th</sup> century in politics, regarding popular protest from labour, status quo countries coordinating against 'revolutionary' and non-state actors, rivalry being moved into imperial competition for markets and resources, and of course the eventual political limit to international integration that contributed to the First World War and what Harold James has called "the end of globalization." Domestic politics and international relations have changed far more than economics in the intervening century since 1910, given the lessons of the world wars, the spread of democracy, the development of nuclear deterrence among the major powers, the creation of safety nets and welfare states even in emerging markets, and the strong barriers against outright imperialism.

I hope my remarks tonight prompt the wise international relations scholars in this House and elsewhere to think through how an Old Normal global economy will affect today's global politics. I would suggest that a good place to start that thinking is with the domestic political reactions working their way up, rather than with to my mind wishful speculation on the emergence and adaptation of formal international institutions. That will not be determinative of what will happen in geopolitics – economic interests alone never are – but it will determine a lot of how the relatively declining West is pressured to respond (or not) to the continued emergence of a new global middle class.

**UK real GDP at factor cost** Annual growth 10 8 6 4 2 0 -2 -4 -6 1880 1890 1870 1900 1910

Figure 1: UK real GDP growth

Source: Chained composite measure of GDP. Chained volume measure £mn, reference year 2006, using components in Columns D to I of the Data Annex to the 2010 Q4 Quarterly Bulletin article "The UK recession in context — what do three centuries of data tell us?" by Sally Hills, Ryland Thomas and Nicholas Dimsdale).

The Data Annex is available at <a href="http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm">http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm</a>.

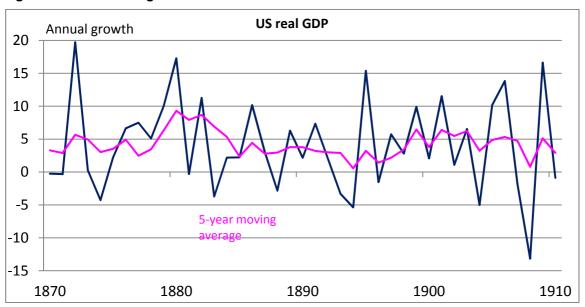


Figure 2: US real GDP growth

Source: "Gross domestic product: 1790–2002 [Continuous annual series]", series Ca9, Table Ca9-19 in Historical Statistics of the United States, Millennial Edition, Volume 3: Economic Structure and Performance, edited by Susan B. Carter and Richard Sutch. New York: Cambridge University Press, 2006.

UK unemployment rate

Percent

14

12

10

8

6

4

2

0

1870

1880

1890

1900

1910

Figure 3: UK unemployment rate

Source: Data are obtained by adding a constant, equal to the difference between the Claimant Count (ONS code BCJE) and LFS (ONS code MGSX) measures of unemployment in 1971, to data from Feinstein (1972). For Feinstein (1972) data, see column G in "Supply side data" in the Data Annex to the 2010 Q4 Quarterly Bulletin article "The UK recession in context — what do three centuries of data tell us?" by Sally Hills, Ryland Thomas and Nicholas Dimsdale).

The Data Annex is available at http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm.

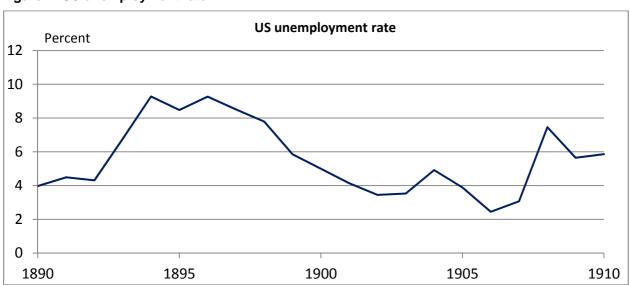


Figure 4: US unemployment rate

Source: "Labor force, employment, and unemployment: 1890–1990 [Weir]", series Ba475, Table Ba470-477 in Historical Statistics of the United States, Millennial Edition, Volume 2: Work and Welfare, edited by Susan B. Carter and Richard Sutch. New York: Cambridge University Press, 2006.

Annual growth

UK whole-economy Average Weekly Earnings

Nominal Nominal S year moving average
Real Real S year moving average

1870 1880 1890 1900 1910

Source: Crafts and Mills (1994), Feinstein (1972) and ONS (code LNMQ before 1999). Includes bonuses. See column H in "Supply side data" in the Data Annex to the 2010 Q4 Quarterly Bulletin article "The UK recession in context — what do three centuries of data tell us?" by Sally Hills, Ryland Thomas and Nicholas Dimsdale). Real earnings are obtained by deflating nominal earnings by consumer prices (see Figure 11). The Data Annex is available at <a href="http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm">http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm</a>.

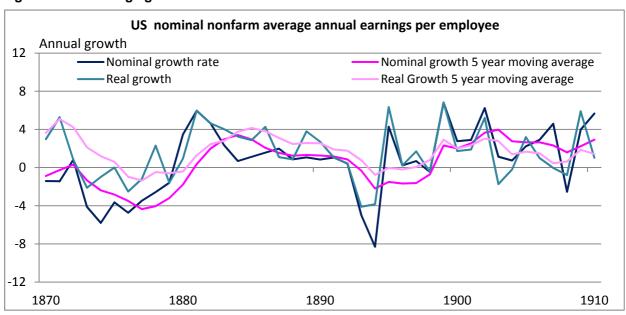


Figure 6: US earnings growth

-6

Source: "Daily and annual earnings of employees – all and nonfarm: 1860-1929", series Ba4282, Table Ba4280-4282 in Historical Statistics of the United States, Millennial Edition, Volume 2: Work and Welfare, edited by Susan B. Carter and Richard Sutch. New York: Cambridge University Press, 2006. Real earnings are obtained by deflating nominal earnings by consumer prices (see Figure 12).

UK Productivity (real output per hour worked)

Annual growth

5-year moving
average

1870 1880 1890 1900 1910

Figure 7: UK labor productivity growth

Source: Calculated as real GDP (see source on slide 3) divided by total hours worked. Total hours worked calculated as the product of employment in heads and average hours. See columns B and D in "Supply side data" in the Data Annex to the 2010 Q4 Quarterly Bulletin article "The UK recession in context — what do three centuries of data tell us?" by Sally Hills, Ryland Thomas and Nicholas Dimsdale). The Data Annex is available at <a href="http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm">http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm</a>.

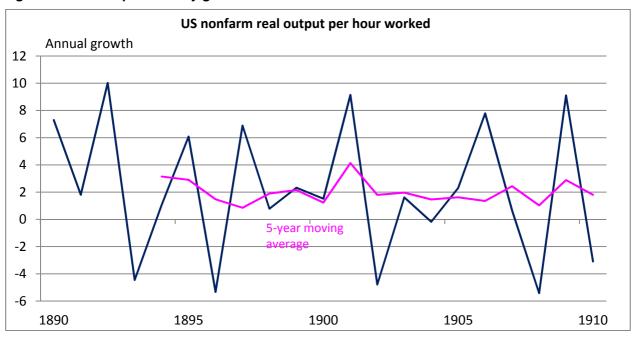


Figure 8: US labor productivity growth

Source: "Indexes of national productivity, by sector and type of input: 1889-1957", series Cg267, Table Cg265-272 in Historical Statistics of the United States, Millennial Edition, Volume 3: Economic Structure and Performance, edited by Susan B. Carter and Richard Sutch. New York: Cambridge University Press, 2006.

UK broad money aggregate (M3)

15 Annual growth

5-year moving average

5 -5 -10

Figure 9: UK broad money growth

Source: Capie and Webber (1985) and Bank of England/ONS. M3 seasonally-adjusted, break-adjusted stock outstanding at end of each year, £mn. See column D in "Money, interest and prices" in the Data Annex to the 2010 Q4 Quarterly Bulletin article "The UK recession in context — what do three centuries of data tell us?" by Sally Hills, Ryland Thomas and Nicholas Dimsdale). The Data Annex is available at <a href="http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm">http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm</a>.

1891

1901

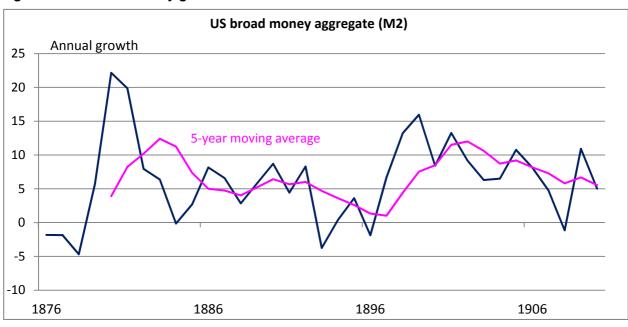


Figure 10: US broad money growth

1881

1871

Source: Data are from the tables of quarterly data from Appendix B of "The American Business Cycle: Continuity and Change", edited by Robert J. Gordon, National Bureau of Economic Research Studies in Business Cycles Volume 25, University of Chicago Press 1986. See <a href="http://www.nber.org/data/abc/">http://www.nber.org/data/abc/</a>.

**Figure 11: UK Consumer Price Inflation** 

Source: ONS Composite Consumer price index by O'Donoghue et al (2004). Annual average. See column G in "Money, interest and prices" in the Data Annex to the 2010 Q4 Quarterly Bulletin article "The UK recession in context — what do three centuries of data tell us?" by Sally Hills, Ryland Thomas and Nicholas Dimsdale). The Data Annex is available at <a href="http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm">http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm</a>.

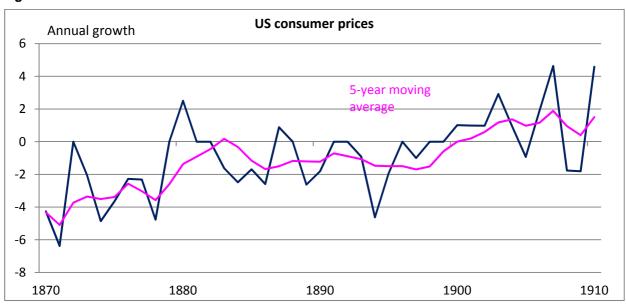


Figure 12: US Consumer Price Inflation

Source: "Consumer price indexes, for all items: 1774–2003", series Cc1 in Table Cc1-2, in Historical Statistics of the United States, Millennial Edition, Volume 3: Economic Structure and Performance, edited by Susan B. Carter and Richard Sutch. New York: Cambridge University Press, 2006.

UK long-term government bond yields

Percent

2

Figure 13: UK government bond yield

Source: Janssen et al (2002), Mitchell (1988). Yield on Consols. Annual average. See column F in "Money, interest and prices" in the Data Annex to the 2010 Q4 Quarterly Bulletin article "The UK recession in context — what do three centuries of data tell us?" by Sally Hills, Ryland Thomas and Nicholas Dimsdale). The Data Annex is available at <a href="http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm">http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm</a>.

1890

1900

1910

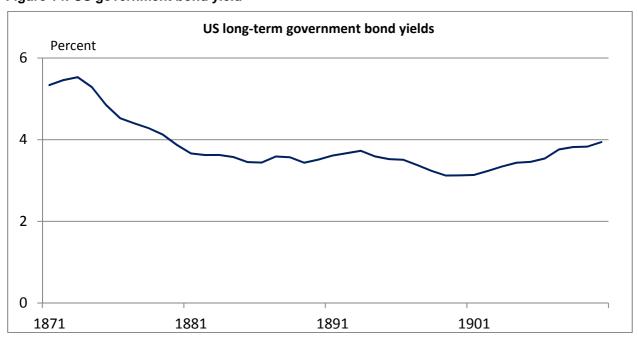


Figure 14: US government bond yield

1870

1880

Source: "Irrational Exuberance" by Robert J. Shiller, Princeton University Press, 2000, 2005, updated by the author. See column G in "Data". Spreadsheet available at <a href="http://www.econ.yale.edu/~shiller/data.htm">http://www.econ.yale.edu/~shiller/data.htm</a>. Annual average.

UK FTSE all-share index

1200 —— Actual
—— Deflated by CPI

300 ——
1870 1880 1890 1900 1910

Figure 15: UK stock prices

Source: FTSE all-share, FAME code EQP\_LR.A. Annual average. For CPI, see Figure 11. The deflated series is indexed such that in 2007, it is equal to the nominal FTSE index.

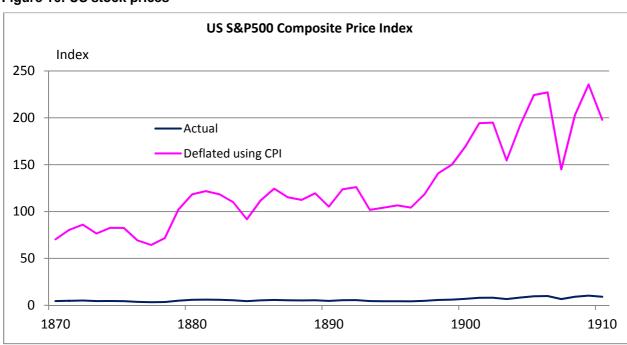


Figure 16: US stock prices

Source: "Irrational Exuberance" by Robert J. Shiller, Princeton University Press, 2000, 2005, updated by the author. See column C in "Data". Spreadsheet available at <a href="http://www.econ.yale.edu/~shiller/data.htm">http://www.econ.yale.edu/~shiller/data.htm</a>. For CPI, see Figure 12. S&P at close, last month of the year. The deflated series is indexed such that in 2007, its value is equal to the nominal S&P index.

As a percentage of GDP

8
6
4

Figure 17: UK current account

Source: Mitchell (1988). See columns B in "Nominal GDP and G in "Trade data" in the Data Annex to the 2010 Q4 Quarterly Bulletin article "The UK recession in context — what do three centuries of data tell us?" by Sally Hills, Ryland Thomas and Nicholas Dimsdale). The Data Annex is available at <a href="http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm">http://www.bankofengland.co.uk/publications/other/monetary/mpreadinglistf.htm</a>.

1890

1900

1910

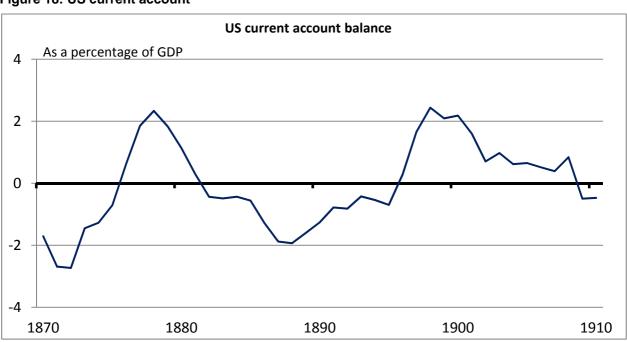


Figure 18: US current account

1880

2

0

1870

Source: Jones-Obstfeld Saving, Investment, and Gold Data for 13 Countries, available on the NBER website at <a href="http://www.nber.org/databases/jones-obstfeld/">http://www.nber.org/databases/jones-obstfeld/</a>. Columns B and E in "Final".

Table 1: "The Old Normal and the Recent Past"

	UK		US	
	The Old Normal (1870-1910)	The Recent Past (1970-2010)	The Old Normal (1870-1910)	The Recent Past (1970-2010)
Real GDP Growth	1.91	2.16	4.11	2.80
Real GDP Volatility	2.51	2.13	7.06	2.23
Unemployment Rate (a)	5.96	7.06	5.63	5.91
Real Earnings Growth	0.86	2.17	1.53	0.77
Real Earnings Volatility	1.35	2.18	2.76	1.58
Labour Productivity Growth (a)	1.01	2.06	2.15	2.29
Broad Money Growth	1.77	11.00	6.21	6.50
Broad Money Volatility	2.86	5.24	6.16	2.94
Government Bond Yields	2.80	8.63	3.83	7.20
Government Bond Volatility	0.35	3.17	0.71	2.66
CPI Inflation	0.05	5.97	-0.85	4.48
Stock Price Returns	1.29	2.78	3.62	3.81
Stock Price Volatility	6.63	15.26	16.71	17.41
Current Account Deficit	4.60	1.33	-0.04	-1.92
(a) Average for 1890-1910 and 1990-2010 for the US due to unavailable data				