

PERSPECTIVES

**SUBPRIME NATION?
AMERICA'S ECONOMIC POLICY CHALLENGES**

MARK THIRLWELL

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Subprime nation?

America's economic policy challenges

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The big shift

Not that long ago, economists considering a career in the area of applied international macroeconomics might have found themselves debating whether to focus on developed or emerging markets. Developed markets offered the obvious attraction of being the most important parts of the world economy, but came with the downside that – by and large – they were rather predictable: economic growth would be close to the long-term trend with an adjustment up or down depending on the stage of the business cycle, and recessions and recoveries were relatively orderly (almost predictable) affairs. Emerging markets, on the other hand, seemed to offer something different. While not as central to the world economy, there was the prospect of more excitement: growth rates that could surge or plummet; economic miracles and economic catastrophes; and the prospects of dramatic financial crises, debt blowouts and sovereign downgrades.¹

Times have changed.²

Worrying about the United States

Today, we are in of one of those periods when people worry about the future of the US economy. Actually, we are in the midst of a period where people are fretting about a whole range of economies, with the Eurozone top of a disturbingly long list. Still, there's certainly plenty of economic angst being directed at the United States.

¹ Yes, and the author opted for the latter.

² As one example of this change and for a short take on the shift in the distribution of sovereign risk, see Mark Thirlwell, *The great sovereign risk shift*. International Economy Comments #1. Sydney, Lowy Institute for International Policy, 3 November, 2010.

So, what are *outsiders* worrying about when they look at what is still the single most important country in the world economy?³ Well, there are plenty of candidates, but prominent examples would be the adverse consequences of the current hyper-partisan political environment for the quality of US policymaking; the declining relative position of the United States in the world economy; the tide of red ink that now characterises the US fiscal position; a growing debt burden that is increasingly owed to overseas investors, including key strategic rivals; and an increasingly squeezed middle class.

After the downgrade

Given recent events, an obvious place to start is with politics and economic governance. In the weeks leading up to August of this year, the rest of the world looked on in disbelief as US politicians played a game of chicken over whether to allow an increase in the government's debt ceiling and so avoid the possibility of a technical debt default. A default, if it had occurred, would have risked an increase in funding costs for the US federal government, triggered a much broader (international) rise in risk premia, and inflicted significant albeit hard-to-calculate damage on the status of the US dollar as the world's (effective) global currency and that of US government debt as the world economy's preferred safe asset. The world's largest economy was publicly and (apparently) seriously debating whether to shoot itself in the foot. In the event, last-minute negotiations managed to reach a deal on the debt ceiling on 2 August 2011. By then, however, US economic policy credibility had already taken a significant hit.

That was made apparent on 5 August 2011, when Standard & Poor's, one of the rating agencies that dominate the global ratings business, announced that it was downgrading the long-term debt rating of the United States to AA+.⁴ The same agency had warned earlier, in July 2011, that such a move was on the cards, and now the United States had lost its coveted AAA rating.⁵

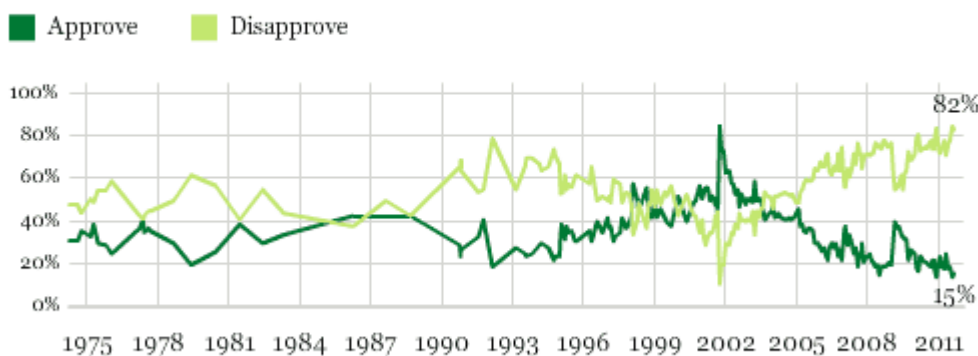
³ The focus here is on outsiders, in part because many US observers seem to have either different views (more scepticism as to the extent that current political circumstances differ from past levels of partisanship, for example) or different priorities (more emphasis on high unemployment rates vs. debt sustainability issues, for example). Moreover, the author is also an outsider in this debate.

⁴ Estimates suggest that Standard & Poor's, Moody's and Fitch between them account for about 95 per cent of all ratings, with the first two accounting for about 80 per cent.

⁵ At the time of writing both Moody's and Fitch continued to award the United States their strongest rating.

Do you approve or disapprove of the way Congress is handling its job?

Full trend



GALLUP

The rating agency cited two main reasons for its action: First, ‘our opinion that the fiscal consolidation plan that Congress and the Administration recently agreed to falls short of what, in our view, would be necessary to stabilize the government’s medium-term debt dynamics’; and second, ‘our view that the effectiveness, stability, and predictability of American policymaking and political institutions have weakened at a time of ongoing fiscal and economic challenges to a degree more than we envisioned when we assigned a negative outlook to the rating on April 18, 2011.’⁶ Since the first of these outcomes was largely a product of the second, it seems reasonable to interpret the downgrade as due to the consequences of the current US political situation for the quality of US policymaking.

To be fair, the initial damage to the United States from the downgrade proved to be slight: the aftermath of the rating action actually saw yields on US government debt decline and bond prices rise as markets fretted more about growth than debt sustainability. Indeed, there was probably more damage to the already GFC-dented credibility of the rating agency.⁷ Nevertheless, the downgrade did represent an important symbolic moment, capturing a general feeling of negative sentiment about the quality of US policymaking. Interestingly, that deterioration in sentiment is perhaps most marked in the United States itself, where public opinion is now very negative on both Congress and the Obama presidency. A September 2011 Gallup Poll, for example, had just 15 per cent of respondents approving of the way the US Congress is handling its job.⁸ Gallup has recorded only three measures lower than this rating, one of which was in August 2011 when the rating dipped to 13 per cent, reflecting the debt ceiling debacle.⁹ Gallup also notes that ‘Americans are not very positive in their ratings of most things associated with the federal government these days . . . 81% of Americans say

⁶ Standard & Poor’s, *United States of America long-term rating lowered to ‘AA+’ on political risks and rising debt burden: outlook negative*. Research Update, Standard & Poor’s, 5 August, 2011.

⁷ The US Treasury was able to point to a US\$2 trillion error in the rating agency’s arithmetic.

⁸ Frank Newport, Congressional job approval at 15%. *Gallup*, 12 September 2011.

⁹ Mind you, the agency notes that Americans have never responded particularly positively when asked to rate Congress, with the average approval rating since 1974 just 34 per cent.

they are dissatisfied with the way the nation is being governed.’¹⁰ The general public’s sense of dissatisfaction is seemingly shared by US business: Daniel Kaufmann has tracked surveys of US executives by the World Economic Forum and finds that confidence in Congress has fallen steadily since 2002. At the same time, the United States’ ranking in the World Bank’s annual survey of governance indicators has likewise trended down since 2000.¹¹

Granted, then, that there is currently a general sense among outside observers that there is a problem with the quality of US economic policymaking, and that this is often seen as a product of political bickering in Washington, is there anything more to the current pessimism regarding US economic performance?

Perhaps it’s all relative

One possibility is that it’s all relative. That is, much of the concern about the US economy right now is not so much about any failings of the United States itself, but rather about the relative decline of the country’s position in the world economy.

Such fears are not new. There is a history of ‘US declinism’, although such fears have so far all turned out to be premature.¹² During the 1980s, for example, the concern was that the United States was losing out to Japan in economic terms. Today, the equivalent concern is that the United States is losing out to China. Or, put a bit less pejoratively, that Washington has to get used to living in a multipolar global economic order.¹³ Moreover, the onset of the global financial crisis is widely assumed to have accelerated this development.¹⁴

There is certainly something to the proposition that relative changes in economic standing are playing an important role in colouring current perceptions about US economic performance. But there are at least three reasons to be very cautious about this line of argument.¹⁵

¹⁰ Newport, Congressional job approval at 15%.

¹¹ Cited in *The Economist*, No thanks to anyone: The debt ceiling deal. *The Economist*, 6 August 2011.

¹² For a sceptical review of some declinist arguments, see for example Eric S Edelman, *Understanding America’s contested primacy*. Washington DC, Center for Strategic and Budgetary Assessments, 2010, especially pp23-27. See also Samuel P Huntington, The US - decline or renewal? *Foreign Affairs* 67 (2) 1988.

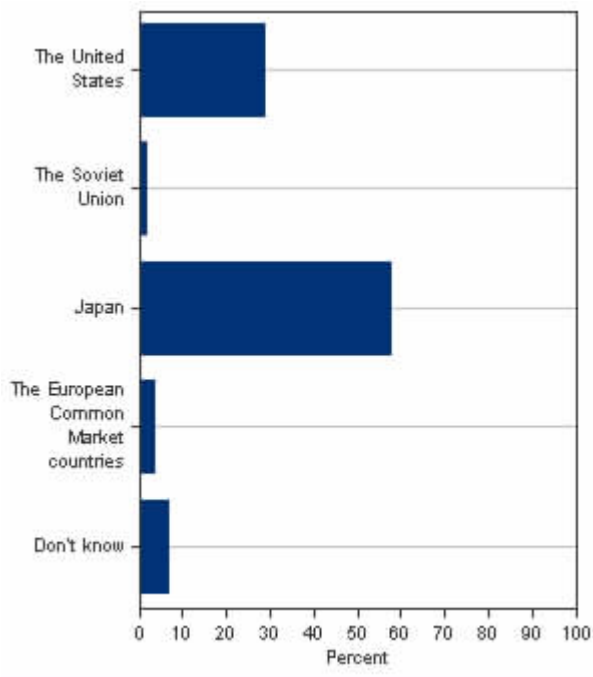
¹³ This is the message of National Intelligence Council, *Global trends 2025: A transformed world*. Washington DC, National Intelligence Council (NIC), November, 2008.

¹⁴ Mathew J Burrows and Jennifer Harris, Revisiting the future: Geopolitical effects of the financial crisis. *The Washington Quarterly* 32 (2) 2009. See also Mark Thirlwell, *Our post-GFC world economy*. Lowy Institute Perspectives. Sydney, Lowy Institute for International Policy, December, 2010.

¹⁵ A fourth factor to keep in mind is that all of the other contenders for ‘world’s leading economic power’ face substantial policy challenges of their own which are at least as large as those facing the United States. This is to go beyond the remit of this paper, however.

US attitudes in January 1989:

Q. Today, which one of the following do you think is the world's leading economic power?



Source: Pew Research Center

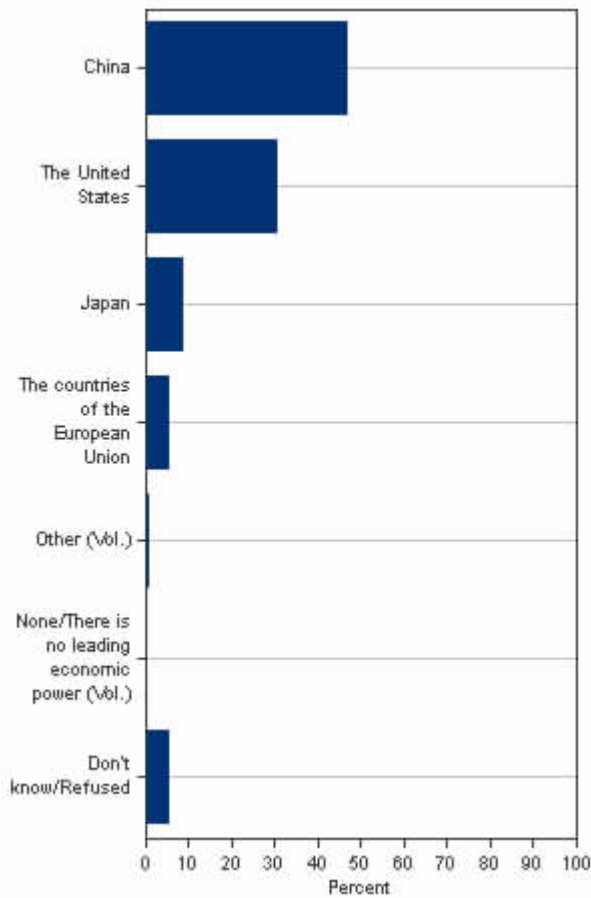
First, perceptions about shifts in relative economic strength have a tendency to run ahead of reality. So, for example, back in January 1989 when Americans were asked to identify which country was the world's leading economic power, 58 per cent of those polled identified Japan, as opposed to just 29 per cent who picked their own economy.¹⁶ When asked the same question in January of this year, some 47 per cent of those polled picked China, as opposed to 31 per cent choosing the United States . . . and just nine per cent chose Japan:¹⁷

¹⁶ Survey by Times Mirror based on interviews conducted by Gallup January 27 - February 5, 1989. Chart from Pew Research Center.

¹⁷ Survey by Pew Research Center for the People & the Press based on interviews conducted by Princeton Survey Research Associates International, January 6 - January 9, 2011. Chart from Pew Research Center.

US attitudes in January 2011:

Q. Today, which one of the following do you think is the world's leading economic power?



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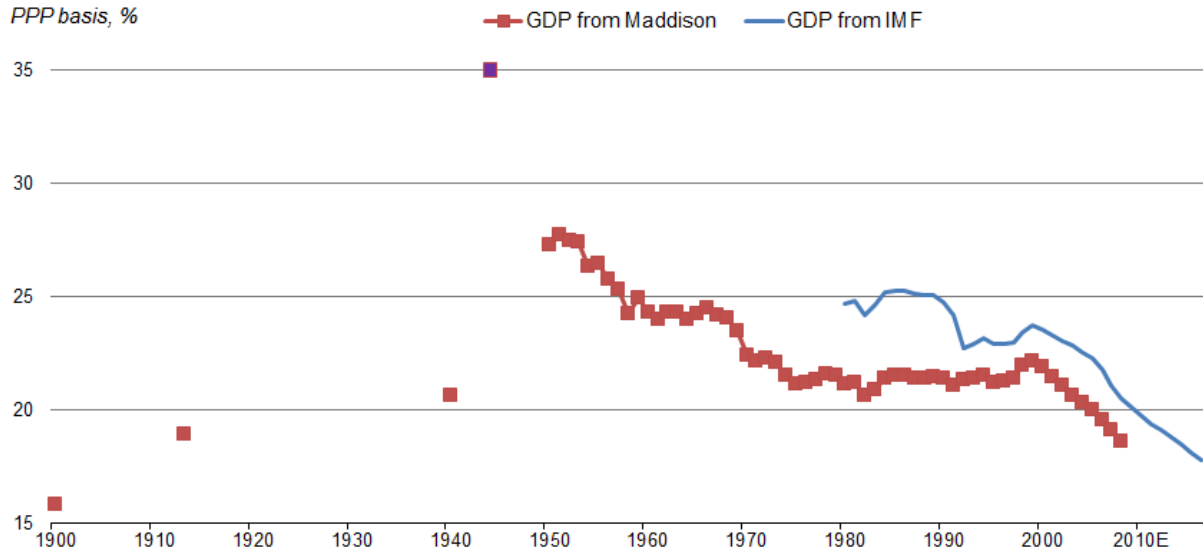
Comparing these two surveys tells us that although perceptions about relative performance matter, those perceptions can also change quite radically.¹⁸

Second, the erosion of US economic primacy is hardly a new story. Measured as a share of global output, for example, the peak of US economic power probably occurred sometime towards the end of the Second World War. Since then, the country's share of world output has been on a downward trend:

¹⁸ Incidentally, an April 2011 poll showed that Chinese respondents had a quite different view as to relative economic status. Of those polled, 50 per cent picked the United States as the world's leading economic power compared to 26 per cent opting for China. Source: Pew Global Attitudes Project.

US share of world output, 1900-2016F

PPP basis, %



Source: <http://www.ggdc.net/MADDISON/oriindex.htm> for Maddison data and IMF World Economic Outlook data based (April 2011) for IMF data. Value for 1944 is estimate by author.

Note also that relative GDP shares are only an imperfect indicator of economic power. They do not capture a range of other important factors, such as the size and depth of US financial markets, the unique status of the greenback and the central role of the US Federal Reserve in the world economy. According to IMF forecasts, China will overtake the United States to be the world's largest economy in 2016, for example, but there is no parallel assumption that the United States will suddenly cease to be the most important part of the world economy in the same year.

Last, and crucially, the most important factor driving this relative 'decline' as captured by the share of world output has *not* been any particular failure on the part of the United States, but rather the success of other economies – beginning with Western Europe and Japan rebuilding after the Second World War and then followed by the onset of successful, sustained economic growth in the developing world. To a very large extent, the rise of other economic players is outside US control.¹⁹ It is certainly not an obvious indicator of US economic failure.²⁰

¹⁹ This is the view taken for example in Arvind Subramanian, The inevitable superpower: Why China's dominance is a sure thing. *Foreign Affairs* 90 (5) 2011.

²⁰ Indeed, most economists wouldn't see these relative shifts as a problem at all. Strategists view the world differently however, placing a much greater emphasis on the downside of relative change for global power. See for example Samuel P Huntington, Why international primacy matters. *International Security* 17 (4) 1993. This difference is discussed at greater length in Mark Thirlwell, *The return of geo-economics: Globalisation and national security*. Lowy Institute Perspectives. Sydney, Lowy Institute for International Policy, September, 2010.

. . . or perhaps not

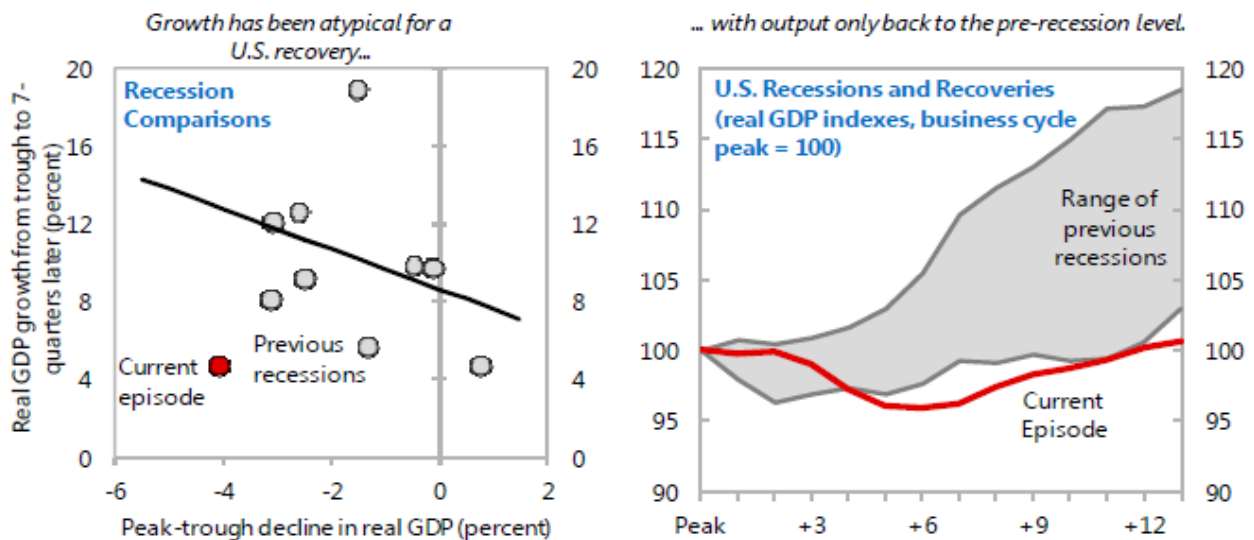
If (aside from the problems with policy arising from the current political environment) a major source of angst about US economic performance is about relative shifts, and if these are largely outside of US control, does it follow that there is nothing substantive to worry about other than US politics? Not quite. While it does seem to be the case that relative shifts are an important part of the story, at the same time they are not the whole story. In particular, there are several other, home-grown, issues that are cause for concern. Three in particular have been receiving a fair amount of attention:

- The extremely subdued recovery from the so-called Great Recession;
- Ongoing worries about US fiscal fragility and a growing debt burden; and
- Rising inequality and a squeezed middle class.

Post-crisis blues

According to those whose job it is to date these things, the last US downturn – or the Great Recession as it is often known – started in December 2007 and ended in June 2009. Over that period, it delivered the most severe US economic contraction since 1947, as measured by the peak-to-trough fall in real GDP. The toll on jobs has also been substantial: nonfarm payroll employment fell by about 8.5 million jobs from peak to trough while the overall unemployment rate increased from 4.7 per cent in November 2007 to a peak of 10.1 per cent in October 2009 and has since been stuck at around nine per cent.²¹

²¹ Kevin J Lansing, *Gauging the impact of the Great Recession*. FRBSF Economic Letter. San Francisco, Federal Reserve Bank of San Francisco, 11 July, 2011.



Source: From Figure 1 in International Monetary Fund (IMF), *The United States: Staff Report for the 2011 Article IV Consultation*. (2011)

Given the depth of the downturn, past experience might have suggested a rapid bounce back in activity: an old forecasting rule of thumb for previous US recessions has been the deeper the slump, the sharper the subsequent recovery.²² Yet at the time of writing, neither output nor employment are back to pre-crisis levels, and any hoped-for V-shaped recovery is noticeable only by its absence. To the contrary, as the latest IMF Article IV report on the US economy highlights, the current recovery has been distinctly lacklustre by the standard of previous ones. In its report, the Fund points to the presence of large, negative feedback loops between housing, consumption and employment as an explanation for this.²³ Problems in the US housing sector are at the heart of the slow recovery, as the Fund reckons that sustained weakness in US housing markets (due to a large overhand of vacant or distressed properties) continues to weigh on household balance sheets and depress consumption. Weak consumption then helps hold back growth in employment, which in turn contributes to keeping the housing market soft.

In fact the disappointing nature of the US recovery to date really should not have come as a surprise. Any hopes for a V-shaped recovery failed to take into account the way in which the current downturn was different from its predecessors, in that it was triggered by a major financial crisis rather than by Fed tightening designed to cool an overheating economy. Economic history tells us that recoveries

²² This is sometimes known as the ‘plucking theory’ of recessions, after Milton Friedman’s famous analogy.

²³ International Monetary Fund (IMF), *The United States: Staff Report for the 2011 Article IV Consultation*. IMF Country Report No.11/201. Washington DC, International Monetary Fund, July, 2011

from financial crises tend to be slow and shallow.²⁴ Seen in this context, there is nothing particularly unusual about the nature of the current US recovery.²⁵

The problem then becomes how to deal with the particular nature of this recovery. The obvious solution would seem to be to provide more policy support, but there are two – equally obvious – problems with this:

- First, conventional monetary policy has already been pushed to its limits. As a result, the US Federal Reserve has had to turn to unconventional policies such as the rounds of quantitative easing (QE1 and QE2) and the current Operation Twist, whose efficacy is unpredictable.
- Second, fiscal policy has been hobbled by a combination of political constraints and fears about medium-term sustainability.

As a result, policy support for the recovery has been strictly limited, and certainly below that which might otherwise have been expected. The unfortunate but predictable result of all this is a weak recovery, and as a consequence, another source of pessimism about US economic performance, albeit one that is still linked back to concerns about politics and policymaking.

A tide of red ink

One reason that fiscal policy has not provided as much support to the recovery as outside observers might have hoped is that there are already significant concerns about prevailing levels of US federal government deficits and debts.²⁶ According to the IMF's latest Article IV report on the US economy, for example, 'US federal finances are on an unsustainable trajectory.'²⁷ Similarly, according to an August 2011 assessment by the non-partisan US Congressional Budget Office (CBO), the United States is now facing 'profound budgetary and economic challenges.'²⁸

²⁴ See Mark Thirlwell, *'New normal' or just the same old nasty?* International Economy Comments #2. Sydney, Lowy Institute for International Policy, 4 November, 2010.

²⁵ Mark A Wynne, *The sluggish recovery from the Great Recession: Why there is no 'V' rebound this time.* Economic Letter, Federal Reserve Bank of Dallas, September, 2011.

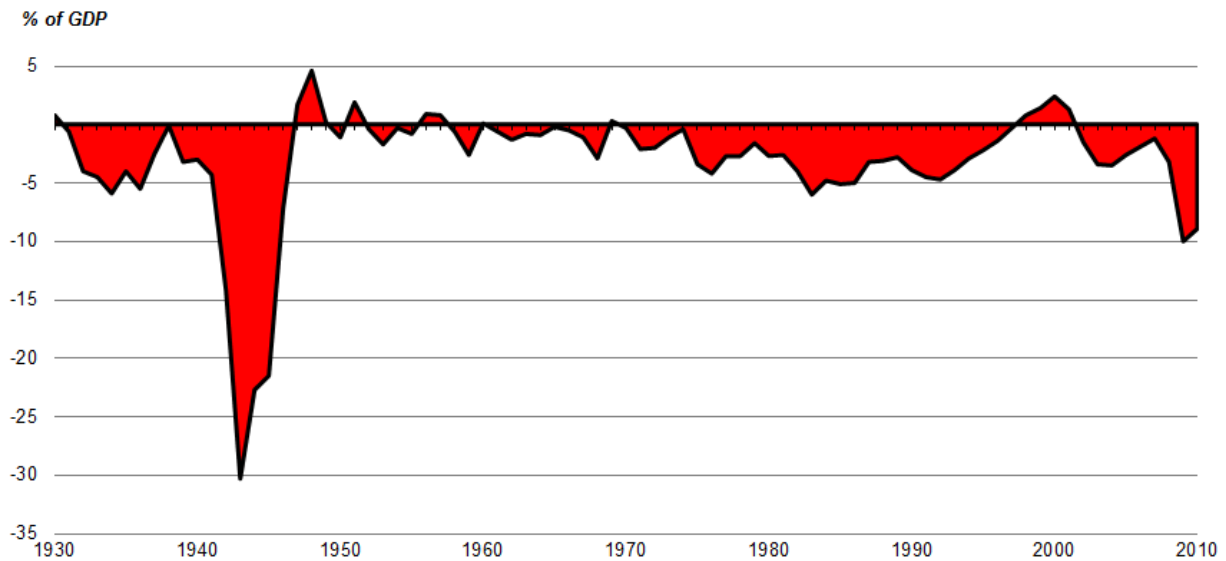
²⁶ In fact, the preferred policy would accommodate these challenges by combining short-term fiscal support with credible plans for medium-term fiscal consolidation. Disappointingly, this does not currently appear to be a politically feasible option.

²⁷ International Monetary Fund (IMF), *The United States: Staff Report for the 2011 Article IV Consultation.*

²⁸ Congressional Budget Office (CBO), *The budget and economic outlook: An update.* Washington DC, Congressional Budget Office, August, 2011.

As of August this year, the CBO estimated that the federal government would run a budget deficit in 2011 equivalent to about 8.5 per cent of US GDP.²⁹ That's down marginally from the 8.9 per cent of GDP deficit recorded last year, and the 10 per cent of GDP shortfall of 2009. But it is still the third largest budget gap in some 65 years, exceeded only by its two predecessors. That leaves it well above the US average annual deficit for the past forty years of 2.8 per cent of GDP and exceeded only by the huge wartime deficits run in the 1940s:

US Federal budget surpluses and deficits, 1930-2010



Source: Office of Management and Budget Historical tables at <http://www.whitehouse.gov/omb/budget/Historicals>

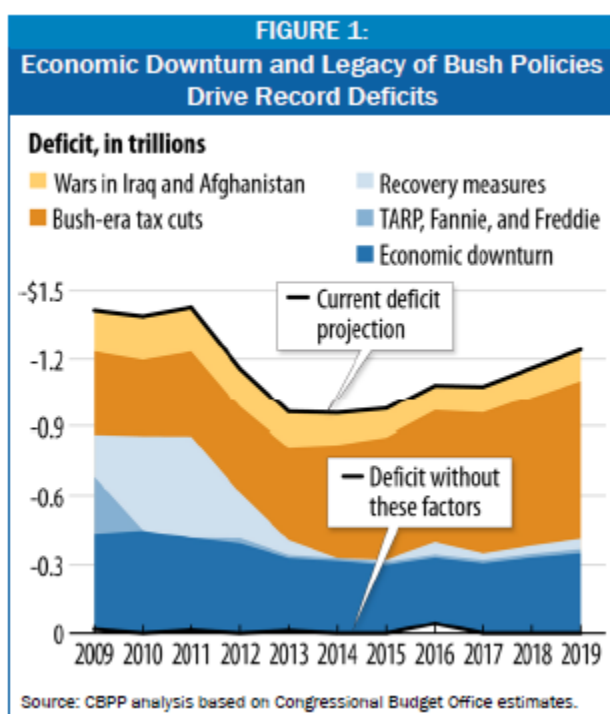
One particularly pessimistic way to view this is to argue that the United States has largely been unable to run a balanced budget since the 1970s, and that this indicates a fundamental flaw at the heart of US fiscal policy. However, this is to neglect the fact that for the four years between 1998 and 2001, Washington managed to run a series of budget surpluses. Indeed, so successful was this period of fiscal consolidation that in March 2001, the then Fed Chairman Alan Greenspan testified to Congress that contemporary budget projections showed fiscal surpluses out to 2030 and beyond, with the near-term prospect of paying off all of the federal debt. Greenspan even expressed his concerns regarding the likelihood of surpluses leading to the large-scale accumulation of private assets by the US government, and suggested that tax cuts might be needed to limit future surpluses!³⁰ Between 1993

²⁹ The latest IMF *Fiscal Monitor* predicts a 9.6 per cent of GDP general government deficit for 2011. The general government balance includes the deficits of US states and local governments as well as the federal deficit.

³⁰ Alan Greenspan, *Current fiscal issues*. Testimony of Chairman Alan Greenspan before the Committee on the Budget. Washington DC, US House of Representatives, 2 March, 2001.

and 2001, federal debt in the hands of the public as a share of US GDP fell in consecutive years.³¹ In other words, given the political will, Washington can achieve a robust fiscal position, and has managed to do so in the fairly recent past.

The sources of the current deficit, then, are down to a mix of previous policy choices and the current recession. When the Bush administration took office in 2001, it inherited a federal surplus of more than US\$200 billion. That surplus has been replaced by the current huge deficits thanks to a series of major tax cuts in 2001 and 2003, the wars in Iraq and Afghanistan, and the consequences of the global financial crisis and the subsequent Great Recession, with roughly half of the current deficit reflecting changes in policies that took place *before* the financial crisis:



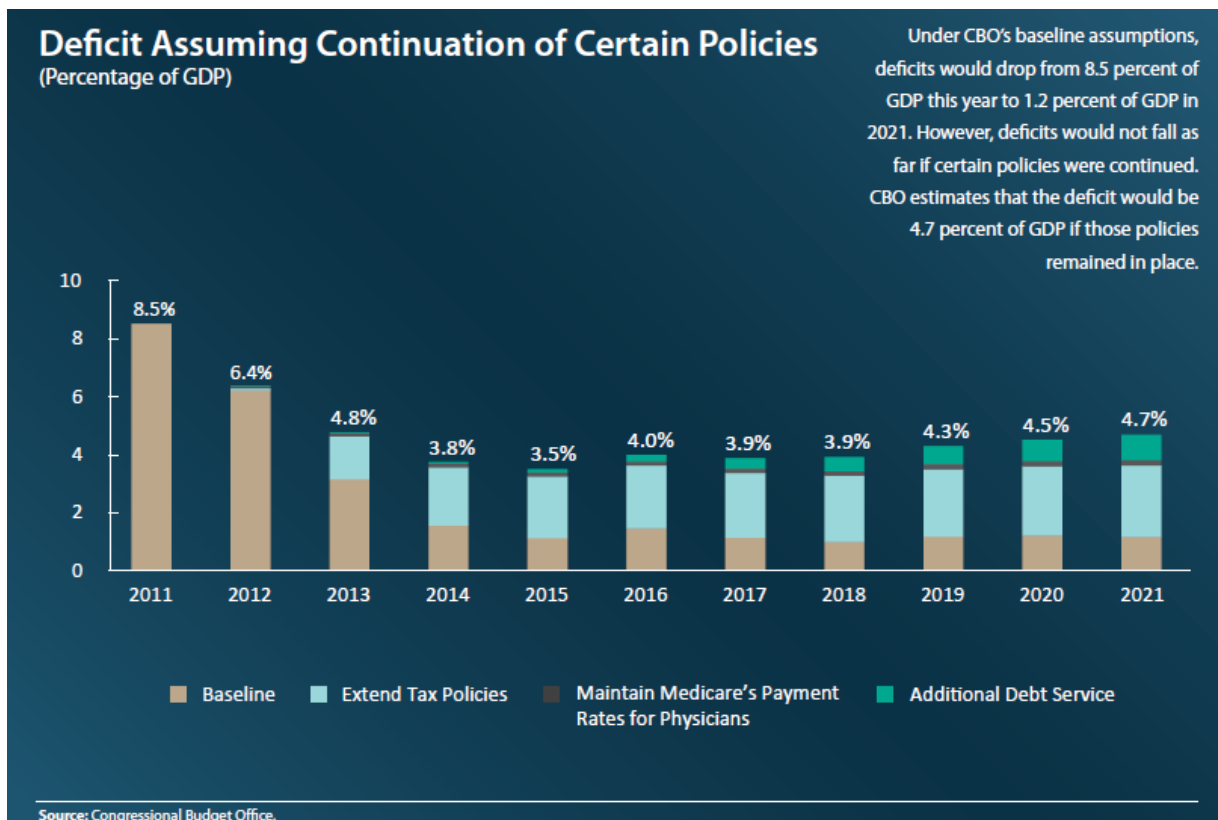
Source: Figure 1 in Ruffing and Horney, *Economic downturn and Bush policies continue to drive large projected deficits*. (2011)

A look at CBO projections for US federal government deficits confirms the sensitivity of the deficit to pre-crisis policy choices. The CBO produces two sets of projections for US fiscal policy. The first of these is the so-called baseline scenario, which reflects current law. Under this scenario, US deficits will drop markedly as a share of GDP over the next few years, falling to 6.2 per cent of GDP in 2012

³¹ A significant contribution to this fiscal consolidation was the adoption of a 'pay-as-you-go' policy requiring that any tax cuts or permanent new spending be offset so as to be deficit neutral or deficit reducing. The pay-as-you-go law was allowed to lapse in FY2002. See Chapter 3 in Barry Eichengreen, Robert Feldman, Jeff Liebman, Jurgen von Hagen and Charles Wyplosz, *Public debts: Nuts, bolts and worries*. Geneva Reports on the World Economy. Geneva and London, International Center for Monetary and Banking Studies (ICMB) and the Centre for Economic Policy Research (CEPR), 2011.

and 3.2 per cent in 2013, before averaging 1.2 per cent of GDP from 2014 to 2021. This is enough to stabilise the government’s debt to GDP ratio: by the end of 2021, debt held by the public is projected to have fallen back to 61 per cent of US GDP compared to a forecast 67 per cent for the end of this year.³²

The CBO’s baseline scenario makes the assumption that all current laws will operate as written. That means, for example, that if a particular tax cut is scheduled to expire by a given date, the CBO assumes that it will duly expire. Unfortunately, this does not do a good job of capturing reality. Thus the 2001 and 2003 tax cuts that helped erode so much of the previous budget surpluses were scheduled to expire after 10 years, but the former set of cuts have already been renewed. Similarly, the so-called alternate minimum tax (AMT) does not compensate for inflation and so is subject to revenue-enhancing bracket creep – but every year Congress routinely indexes the tax thresholds for inflation, one year at a time.

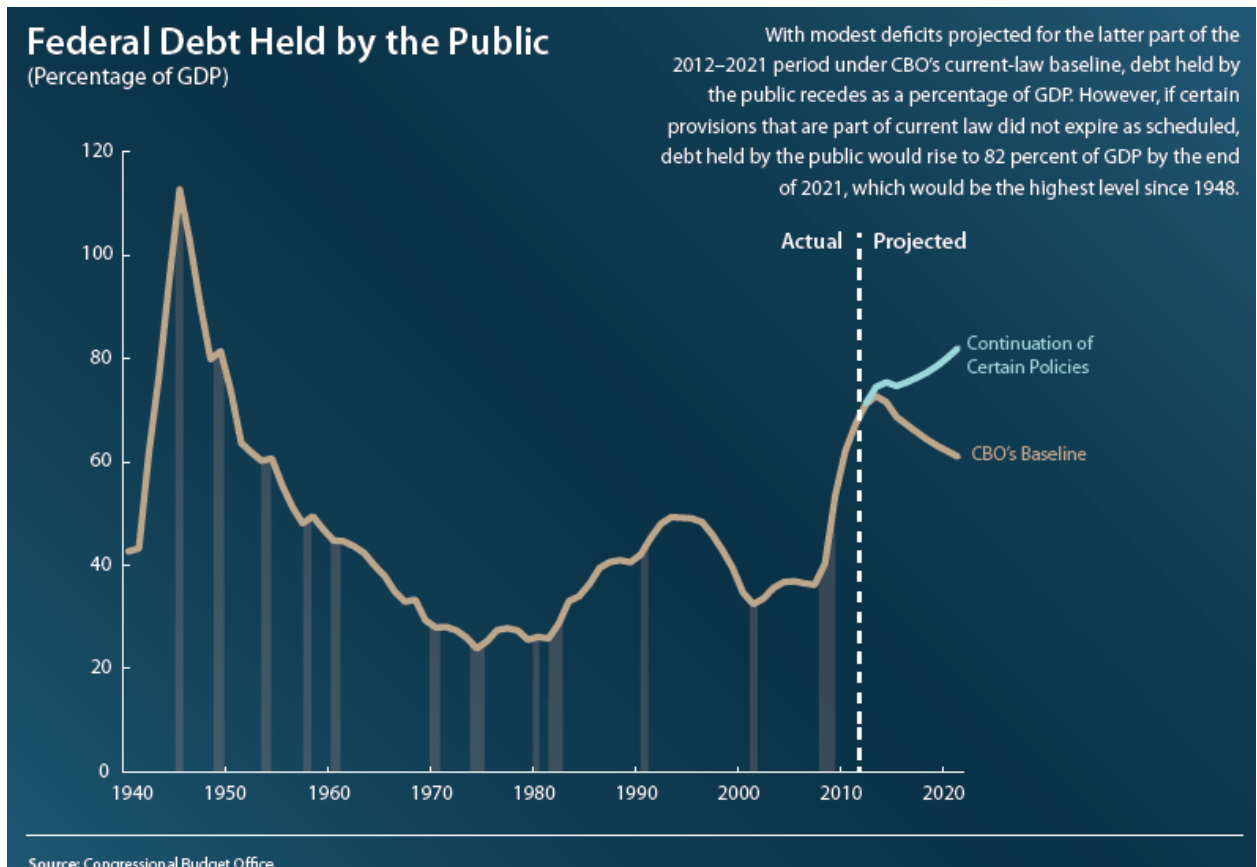


Source: Congressional Budget Office (CBO), *The budget and economic outlook: An update*. (2011)

To take this into account, the CBO also produces a forecast that more accurately reflects current *policy*, rather than current law, which it describes as ‘the continuation of certain policies’. As the CBO notes, assume that some of the changes specified in current law do not occur but rather that

³² Congressional Budget Office (CBO), *The budget and economic outlook: An update*.

current policies are continued instead, and the result is much bigger debts and deficits. For example, the CBO estimates that: if most of the provisions in the 2010 tax act that were originally enacted in 2001, 2003, 2009, and 2010 were extended (rather than allowed to expire on December 31, 2012, as scheduled); the alternative minimum tax was indexed for inflation; and cuts to Medicare's payment rates for physicians' services were prevented, then annual deficits from 2012 through 2021 would average 4.3 per cent of GDP, compared with 1.8 per cent in CBO's baseline projections. As a result, debt held by the public would keep climbing, and reach 82 per cent of GDP by the end of 2021. ³³

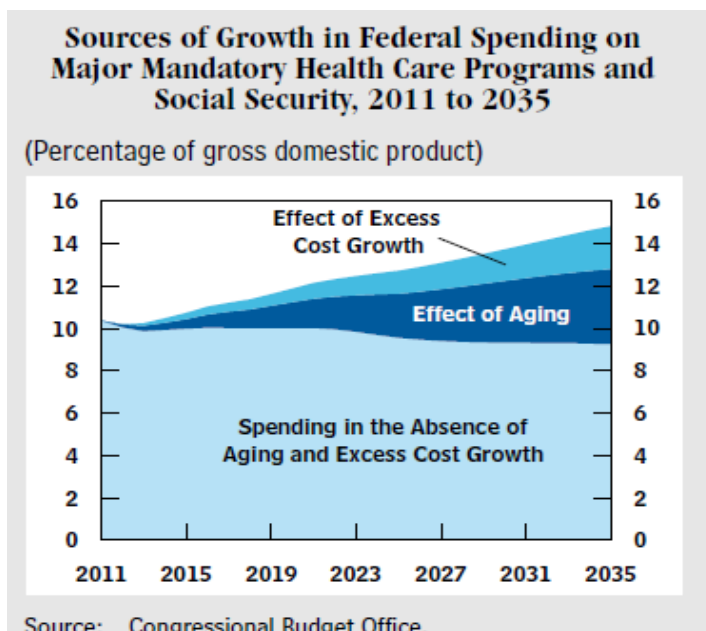


Source: Congressional Budget Office (CBO), *The budget and economic outlook: An update*. (2011)

This analysis suggests that fixing the US fiscal position looks eminently doable from a *policy* perspective: simply letting existing tax cuts and other provisions expire as mandated under current law would be enough to set the United States well on the way to stabilising the ratio of debt to GDP and delivering a sustainable fiscal position. Then other options such as the introduction of a sales tax or value added tax could be considered to make up the rest of the difference. Or some of the burden could be taken by spending cuts, subject to the need not to unduly weaken the current recovery. Of course, the *political* perspective currently offers a very different view.

³³ Ibid.

Moreover, this is not the end of the story. Look beyond the current fiscal challenges and the United States faces another daunting set of problems related to the longer-term outlook. In the 2012 budget papers, for example, the Whitehouse’s Office of Budget Management (OMB) notes that after 2021 the US fiscal position will come under renewed pressure due to population ageing and the high cost of government-funded health programs.³⁴ In particular, the OMB emphasises that as of 2010 just three major government programs – Medicare, Medicaid and Social Security – already accounted for some 44 per cent of non-interest federal government spending, up from 30 per cent in 1980. By 2035, when the United States’ surviving baby boomers will be aged 70 or over, the OMB reckons that these same three programs could account for more than 60 per cent of non-interest federal spending, and continue at this level through until 2085, implying that ‘the overall budget may not be sustainable without either new cost-reducing measures or additional revenues.’³⁵



Source: From Box 1.1 in Congressional Budget Office (CBO), *CBO's 2011 long-term budget outlook*. (2011)

One important part of this longer-term sustainability problem arises from the fact that both Social Security and Medicaid are financed on a pay-as-you-go basis, meaning that current benefits paid out to today’s retirees have to be funded by those currently in the workforce via payroll taxes. As the US population ages, the ratio of workers to recipients will fall over time, with the share of people aged 65 or older forecast to grow from about 13 per cent now to 20 per cent by 2035, even as the share of the

³⁴ Office of Management and Budget (OMB), *Analytical perspectives, Budget of the US Government, Fiscal Year 2012*. Washington DC, Office of Management and Budget 2011.

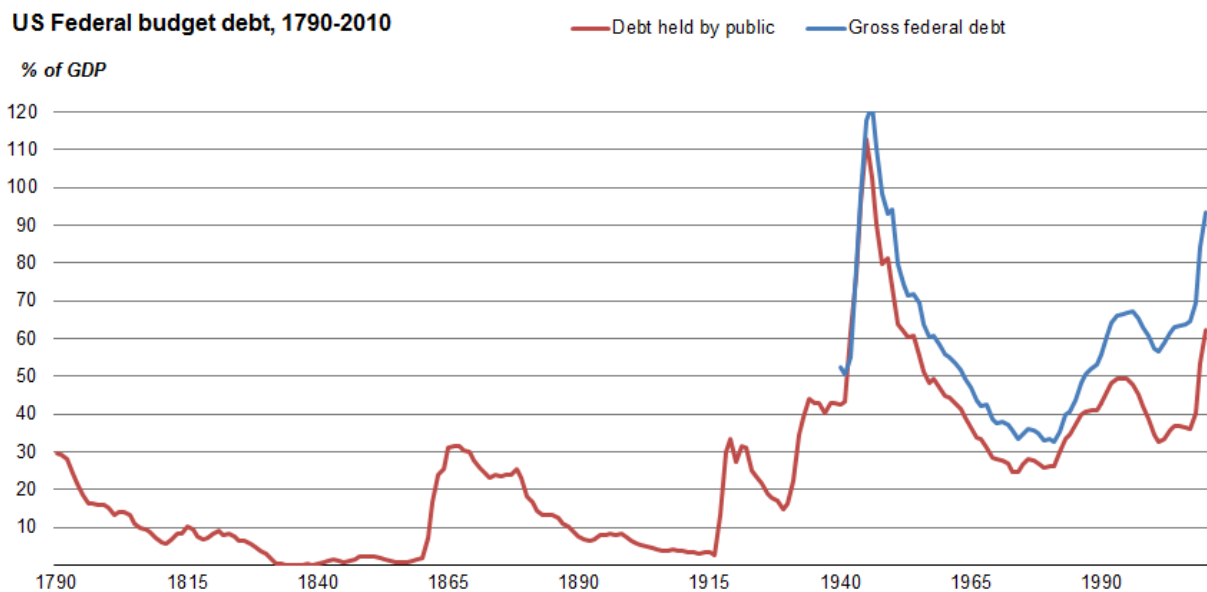
³⁵ *Ibid.* Baby boomers are the generation born between 1946 and 1964.

20-64 age group is forecast to fall from 60 per cent now to 55 per cent in 2035. As a result, the number of workers per beneficiary is expected to decline from about three now to two by 2035.³⁶

The other big part of the problem is a rapid increase in health care costs. Indeed, while much current policy discussion is on social security, CBO estimates suggest that health care represents the greater challenge: on CBO projections, social security spending is forecast to increase by 1.3 percentage points of GDP between now and 2035, while health spending is forecast to increase by as much as 4.8 percentage points. Moreover, once the baby boomer retirement process is complete, the shortfall on social security will stop worsening, while federal health spending is forecast to continue to grow.

Once again, there is some good news here. From a policy perspective, fixing the sustainability of social security is relatively uncomplicated: some combination of an increase in retirement age or indexing benefits to inflation instead of wages would help balance the books. Controlling health costs looks harder, but should still be feasible. The not-so-good news is that Washington has known that this problem was coming since 1974.³⁷ Yet it's still on the to-do list.

Drowning in debt?



Source: Congressional Budget Office for historical data up to 1999; 2000 onwards from Office of Management and Budget

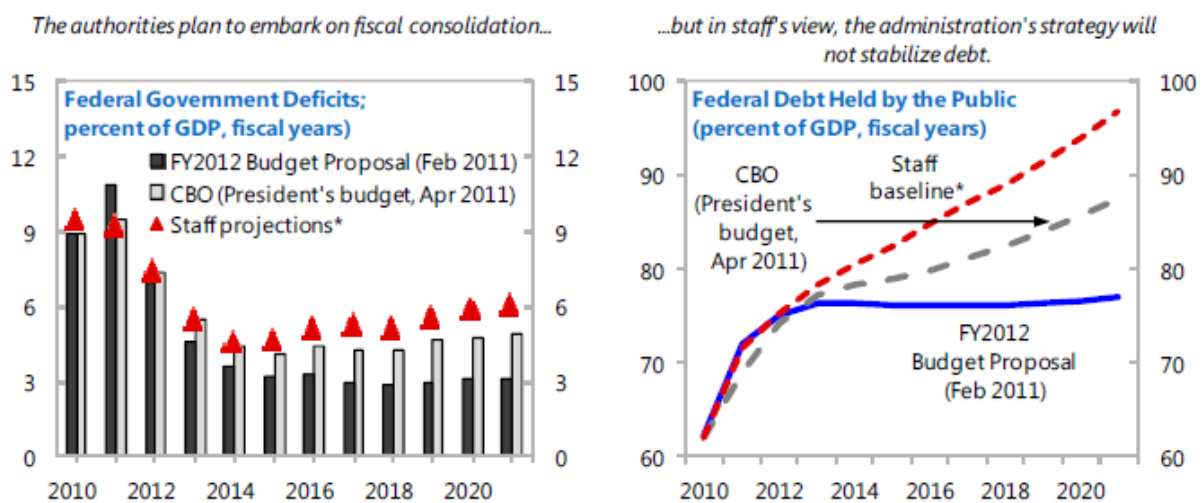
³⁶ Congressional Budget Office (CBO), *CBO's 2011 long-term budget outlook*. Washington DC, Congressional Budget Office, June, 2011. Marc Labonte, *The economic implications of the long-term federal budget outlook*. CRS Report for Congress. Washington DC, Congressional Research Service, 16 August, 2011.

³⁷ As early as 1974, US government projections showed that the retirement of the baby boom generation was set to deliver a period of fiscal stress. Eichengreen, Feldman, Liebman, von Hagen and Wyplosz, *Public debts: Nuts, bolts and worries*.

The series of large budget deficits described above has already produced a marked increase in the amount of federal government debt held by the public.³⁸ At the end of 2008, that debt stood at about 40 per cent of US GDP, or only a little above the 40-year average of 37 per cent. By the end of this year, the figure is estimated to hit 67 per cent, its highest level in the post-World War Two period.³⁹

So far, there has been no sign of markets being unduly worried about the capacity of the United States government to carry this debt: to the contrary, markets have been much more worried about the absence of strong economic growth, and have been prepared to lend to Washington at rock-bottom interest rates. As a result, interest payments on this expanded debt stock are still lower as a share of GDP than they were back in the 1990s.

While financial markets are not worried, however, others are. The IMF thinks that current US fiscal initiatives will be insufficient to stabilise the debt-GDP ratio, and that federal debt held by the public could exceed 95 per cent of GDP by the end of the current decade, leaving the US economy increasingly vulnerable to any *future* change in market sentiment that triggered a sharp rise in interest rates:⁴⁰



Source: From Figure 12 in International Monetary Fund (IMF), *The United States: Staff Report for the 2011 Article IV Consultation*. (2011)

There is also some risk that these higher debt burdens could on their own act as a further drag on US economic activity.⁴¹

³⁸ The holders of US government debt can be divided into two broad categories: debt held by the public and intra-governmental debt (that is, debt owed by one part of the federal government to the other). For issues of sustainability, it is debt held by the public that is the relevant metric.

³⁹ According to the latest IMF Fiscal Monitor, gross general government debt will be 100 per cent of GDP in 2011, while net government debt will be 72.6 per cent.

⁴⁰ International Monetary Fund (IMF), *The United States: Staff Report for the 2011 Article IV Consultation*.

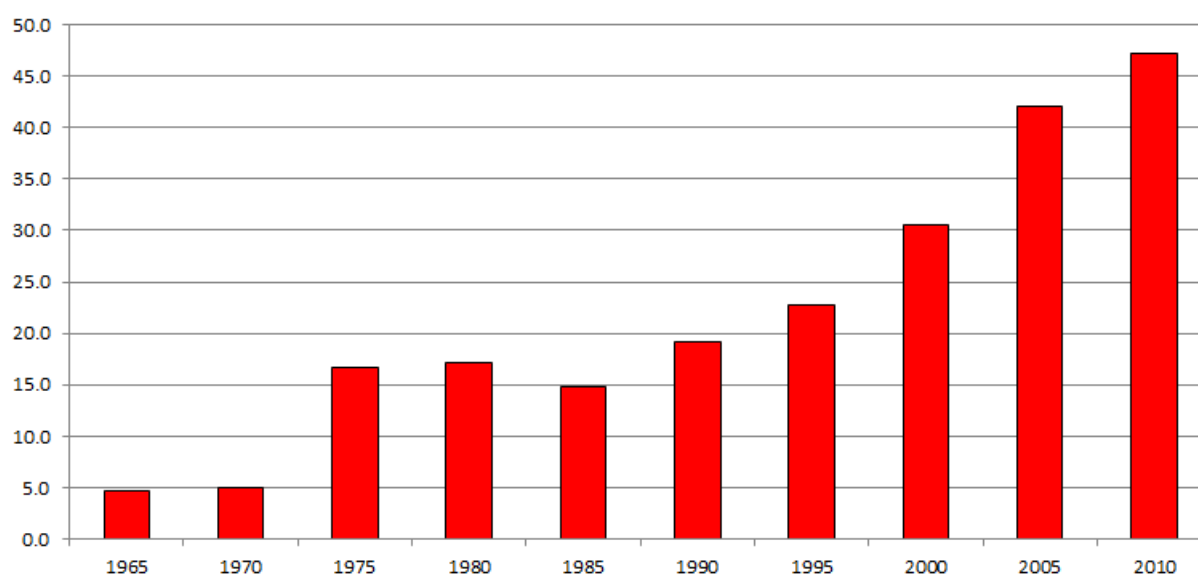
⁴¹ Carmen M Reinhart and Kenneth Rogoff, Growth in a time of debt. *American Economic Review* 100 (2) 2010.

The kindness of strangers

One further wrinkle to the debt and deficits story is the changing composition of the holders of US government debt. Until the 1960s, almost all US federal debt was held by individuals and institutions within the United States: in 1965, foreign holdings accounted for less than five per cent of debt held by the public. By the start of the 1990s, that share had risen to almost 20 per cent, by the start of the 2000s it was about 30 per cent, and it is currently around 50 per cent. Foreign central banks and other official institutions account for about three-quarters of these holdings, with China alone accounting for more than twenty per cent of all foreign holdings:⁴²

Foreign holdings of US federal government debt

% of total debt held by the public



Source: Calculated from Table 6-7 in Office of Management and Budget (OMB), *Analytical perspectives, Budget of the US Government, Fiscal Year 2012*. (2011)

What are the implications of the emergence of the United States as the world's largest debtor? One obvious point is that the need to keep foreign investors on board – especially government-controlled capital – represents an additional constraint on US policymaking.⁴³ The interesting question is how important is this constraint. On one view, for example, the fact that China is now a significant creditor of the United States means that it has a degree of control over US actions, in part because of the ability to reduce its holdings of US debt and so inflict pain on the US economy.⁴⁴ Thus Arvind

⁴² Office of Management and Budget (OMB), *Analytical perspectives, Budget of the US Government, Fiscal Year 2012*.

⁴³ See the discussion in Stephen S. Cohen and J. Bradford Delong, *The end of influence: What happens when other countries have the money*. New York, Basic Books, 2010.

⁴⁴ Brad W Setser, *Sovereign wealth and sovereign power: The strategic consequences of American indebtedness*. Council on Foreign Relations Report No 37. New York, September, 2008.

Subramanian in a recent article in *Foreign Affairs* canvases the possibility of a Suez-crisis style scenario, whereby Beijing is able to use its financial muscle to rein in a recalcitrant United States in much the same way as Washington was able to curb British adventurism in the 1950s.⁴⁵

Other analysts are more sceptical of this parallel. For a start, it's actually quite difficult to find many examples of cases where *large* powers have been effectively coerced by financial leverage in this way, particularly since any such action would also imply significant costs for China.⁴⁶ The similarity between the situation of the United States today and the UK during the Suez crisis has also been challenged, since unlike China today, the United States back then did not have to worry about significant self-inflicted capital losses on a huge stock of sterling reserves, or fret to anywhere near the same extent about continued access for its exporters to the UK market.⁴⁷ Still, in this context it is perhaps worth noting that one of the first rating agencies to decide that the United States no longer merited AAA status (before the Standard & Poor's downgrade) was one of China's leading credit rating agencies, Dagong Global Credit Rating Co., which stripped the United States of its AAA rating back in July 2010, with a downgrade to AA.⁴⁸

Growing apart

If a sub-par recovery and worries about fiscal fragility have been among the most commonly discussed economic challenges facing the United States, they have been closely followed by fears about the fate of the country's middle class, and by issues of poverty and inequality more generally.⁴⁹

The latest report from the US Census Bureau showed that last year roughly one in seven Americans were living below the poverty line, the highest rate since 1993. The same report showed that median household incomes in 2010 were back at 1996 levels – the first time since the 1930s and the Great Depression that real (inflation-adjusted) household incomes have not risen over such a long period.⁵⁰

⁴⁵ Subramanian, The inevitable superpower: Why China's dominance is a sure thing.

⁴⁶ Daniel Drezner, Bad debts: Assessing China's financial influence in great power politics. *International Security* 34 (2) 2009.

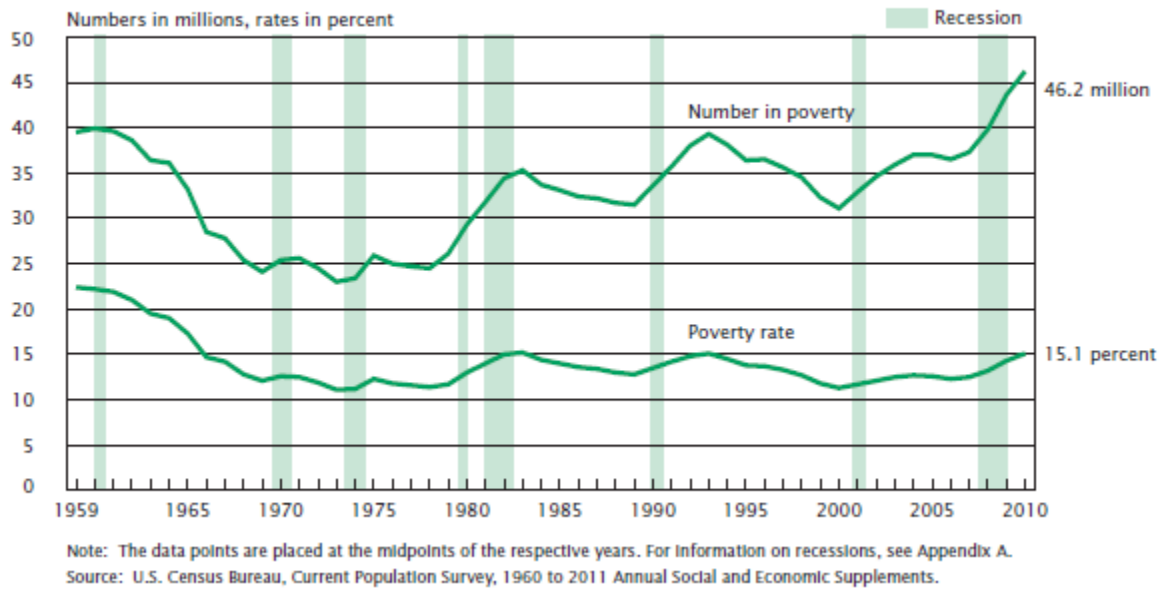
⁴⁷ Barry Eichengreen, *Exorbitant Privilege: The rise and fall of the dollar*. Oxford, Oxford University Press, 2011.

⁴⁸ Ambrose Evans-Pritchard, Chinese rating agency strips western nations of AAA status. *The Telegraph*, 12 July 2010. Since then there have been further downgrades, to A+ in November 2010 and then again to A in August 2011.

⁴⁹ On the former see for example Don Peck, Can the Middle Class be saved? *The Atlantic*, September 2011.

⁵⁰ Sabrina Tavernise, Soaring poverty casts spotlight on 'lost decade'. *The New York Times*, 13 September 2011.

Figure 4.
Number In Poverty and Poverty Rate: 1959 to 2010



Source: US Census Bureau 2010 Annual Social and Economic Supplement (ASEC)

From the end of the Second World War until the 1970s, US economic prosperity was shared relatively evenly across the economy, with all parts of the US income distribution expanding at roughly the same (rapid) rate: Americans were ‘growing together’. But from the early 1980s onwards, the benefits of economic growth have been much more unevenly distributed, so that Americans nowadays are ‘growing apart’.⁵¹ Indeed, work by Picketty and Saez finds a U-shaped pattern of income inequality in the United States; they track the share of the top decile over 1918-2008 and find that its share was around 45 per cent from the mid-1920s to 1940, then fell to just above 32.5 per cent in four years during World War II and stayed fairly stable at around 33 per cent until the 1970s, before rising sharply over the past quarter century to return to the kind of levels last seen in the late 1920s.⁵² Moreover, most of these shifts in the fluctuations of the top decile have been driven by changes in the share of the very top percentile: its share has swung from about 24 per cent in the late 1920s down to about nine per cent during the 1960s and 1970s before moving back to more than 23 per cent by 2007. During the 2002-2007 boom, the incomes of the top one per cent in the United States grew at an annual rate of more than 10 per cent, while incomes of the remaining 99 per cent grew at only a little

⁵¹ Claudia Goldin and Lawrence F Katz, Long-run changes in the wage structure: Narrowing, widening, polarizing. *Brookings Papers on Economic Activity* 38 (2) 2007.

⁵² Thomas Picketty and Emmanuel Saez, Income inequality in the United States, 1913-1998. *The Quarterly Journal of Economics* 118 (1) 2003 and Emmanuel Saez, *Striking it richer: The evolution of top incomes in the United States (updated with 2008 estimates)*. Department of Economics, University of California, Davis, 17 July, 2010.

above one per cent: as a result, the top one per cent captured roughly two-thirds of all income growth over this period.⁵³

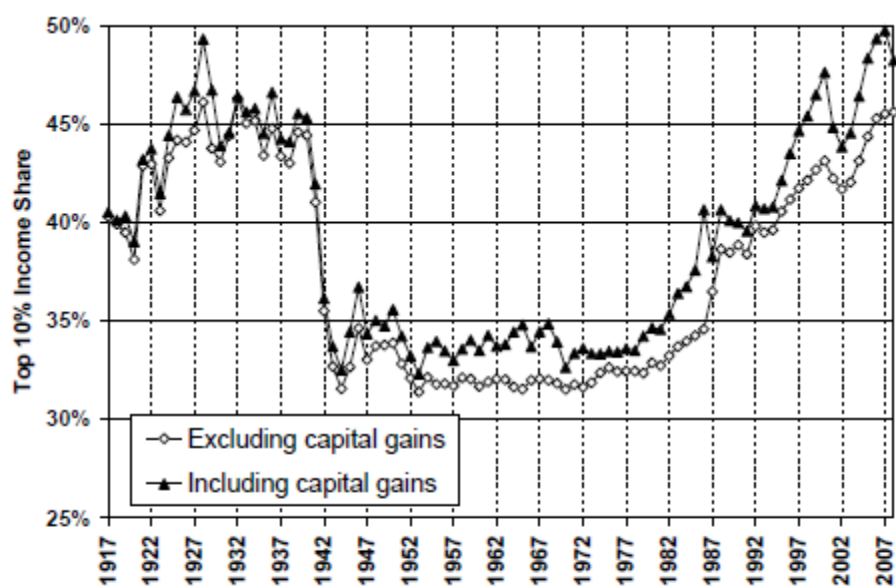


FIGURE 1
The Top Decile Income Share, 1917-2008

Source: Table A1 and Table A3, col. P90-100.

Income is defined as market income (and excludes government transfers).

In 2008, top decile includes all families with annual income above \$109,000.

Source: Figure 1 in Saez, *Striking it richer: The evolution of top incomes in the United States (updated with 2008 estimates)*. (2010)

This pattern of growing inequality is also found in work by Heathcote, Perri and Volante, which finds a ‘continuous and sizable’ increase in wage inequality over the period 1967-2006.⁵⁴

Of course, the challenge of rising inequality is not one that is confined to the United States. Over the past thirty years or so, top income shares have increased substantially in most English-speaking countries, as well as in India and China.⁵⁵ Similarly, work by the OECD suggests that for most member economies, income inequality was higher in the mid-2000s than it was in the mid-1980s, with only a handful of countries bucking this trend.⁵⁶

⁵³ Saez, *Striking it richer: The evolution of top incomes in the United States (updated with 2008 estimates)*.

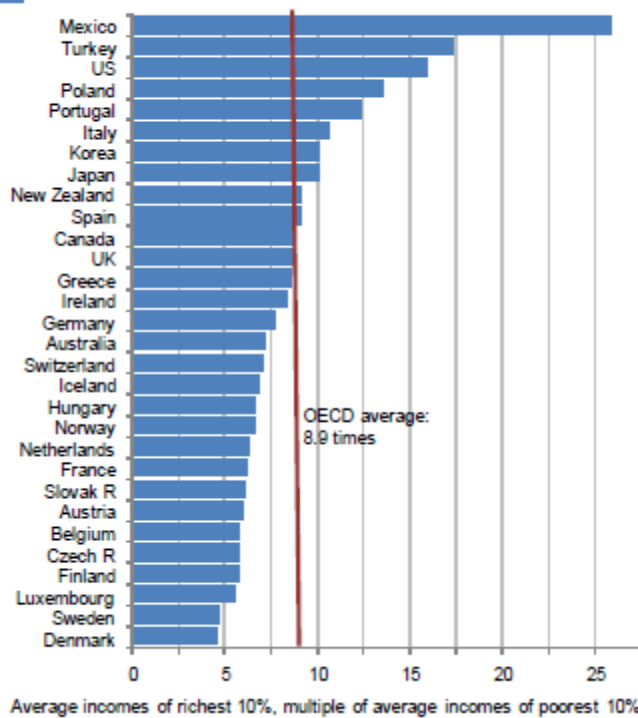
⁵⁴ Jonathan Heathcote, Fabrizio Perri and Giovanni L. Violante, Unequal we stand: An empirical analysis of economic inequality in the United States: 1967-2006. *Review of Economic Dynamics* 13 (1) 2010.

⁵⁵ Anthony B Atkinson, Thomas Piketty and Emmanuel Saez, Top incomes in the long run of history. *Journal of Economic Literature* 49 (1) 2011.

⁵⁶ Organisation for Economic Co-operation and Development, *Growing unequal? Income distribution and poverty in OECD countries*. Paris, OECD, 2008.

Even so, the United States still stands out. For example, only Mexico and Turkey have higher inequality and poverty rates across the OECD:

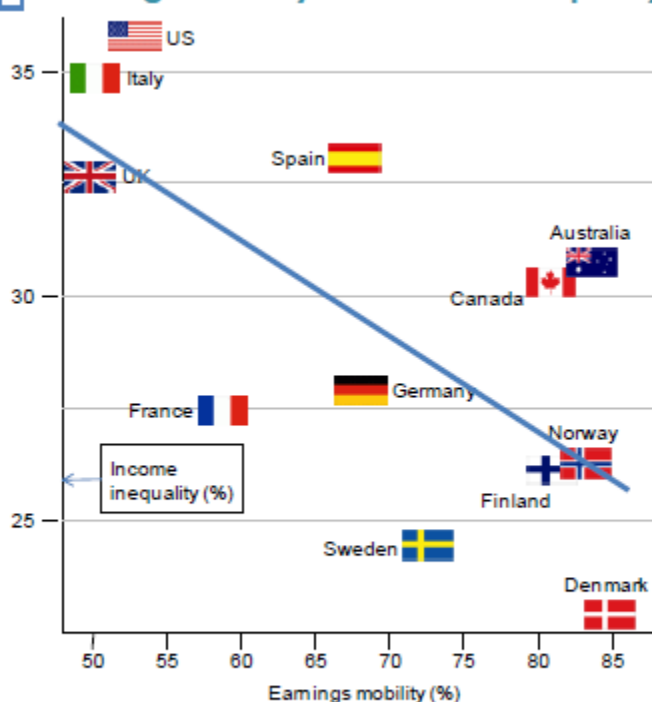
I The gap between rich and poor in 2005



Source: Organisation for Economic Co-operation and Development, *Growing unequal? Income distribution and poverty in OECD countries*. (2008)

Moreover, it's not as if this greater inequality in *outcomes* is being offset by greater economic *opportunities*: the same OECD report finds that, to the contrary, it is the countries with more equal incomes that tend to have higher levels of income mobility, as measured by the correlation in earnings between fathers and sons:

7 Earnings mobility and income inequality



Note: the inequality measure is the Gini coefficient, expressed as a percentage. The measure of earnings mobility is calculated from the intergenerational elasticity of earnings: see the report for details.

Source: Organisation for Economic Co-operation and Development, *Growing unequal? Income distribution and poverty in OECD countries*. (2008)

What has been driving the rise in US income inequality? One place to look is at trends in US wages, where this is a large literature that seeks to explain the changes in the distribution of US wages that began during the 1980s. This work tends to reach two broad conclusions.⁵⁷ First, that much of the increase in earnings inequality over this period was caused by changes in the demand for, and supply of, skills, along with the erosion of key labour market institutions such as trade unions and the minimum wage.⁵⁸ Second, that a steady rise in the demand for skilled labour, perhaps accelerated by the onset of the ICT revolution, coinciding with an abrupt slowdown in the relative supply of skilled workers, played a major role in explaining growing wage differentials.

Subsequent efforts to update this work to cover the 1990s and 2000s finds that wage inequality continued to grow over the later period, reflecting ongoing changes in the structure of the US labour market. In particular, during the 1990s, employment shares in very low- and very high-skill

⁵⁷ As summarised in David H Autor, Lawrence F Katz and Melissa S Kearney, Trends in US wage inequality: Revising the revisionists. *The Review of Economics and Statistics* 90 (2) 2008.

⁵⁸ Levy and Temin describe this as a shift from the 'Detroit Consensus' forged in the late 1940s (minimum wages, very progressive income tax rates, high marginal tax rates) to the Washington Consensus in the 1980s. Frank Levy and Peter Temin, *Inequality and institutions in Twentieth Century America*. NBER Working Paper 13106. Cambridge, Mass, National Bureau of Economic Research, May, 2007.

operations increased, while those in moderately-skilled operations tended to decline.⁵⁹ At the same time, the rate of growth of supply of skilled workers was slowing, with the result that in the ‘race between technology and education’, the supply of (college-educated) workers has failed to keep pace with rising demand.⁶⁰ This explanation, then, points to a key role for the US education system.

The bad news is that the current recession and in particular the heavy toll it has taken on the US labour market seems likely to have exacerbated some of these adverse trends.⁶¹

Life on credit

The rise in income inequality and poverty in the United States is one potential explanation for the growth of partisan politics that has hampered the quality of economic policymaking. There is also some risk that it will undermine America’s commitment to participating in an open global economy by increasing demands for protection from the cold winds of global competition.⁶² And it is also possible that it played a significant role in contributing to the current recession and especially the crisis that preceded it.

Recent research has started to focus on the links between inequality, debt and the financial sector. One starting point for this work is the observation that both of the major financial crises experienced by the United States over the past century – the 1930s Great Depression and the current Great Recession – were preceded by sharp increases in income and wealth inequality, and by parallel increases in debt-to-income ratios among lower- and middle-income households.⁶³ Part of the crisis story seems to be that rising income inequality has not translated directly into rising inequality in consumption because instead poor- and middle-income households took on more debt, using higher leverage to sustain their consumption in the face of weaker relative income growth. Once that debt became unsustainable, this was one trigger for the financial crisis.

A related version of this story is presented by Raghuram Rajan in his recent book on the financial crisis, where he argues that growing income inequality, stagnant wages and rising job insecurity have

⁵⁹ Autor, Katz and Kearney, Trends in US wage inequality: Revising the revisionists. See also David H Autor, Lawrence F Katz and Melissa S Kearney, The polarization of the US labor market. *American Economic Review* 96 (2) 2006.

⁶⁰ Claudia Goldin and Lawrence F Katz, *The race between education and technology*. Cambridge, Belknap Press for the Harvard University Press, 2008.

⁶¹ David H Autor, *The polarization of job opportunities in the US labour market*. Washington DC, The Center for American Progress and The Hamilton Project, April, 2010.

⁶² See the discussion in Mark Thirlwell, *Second thoughts on globalisation: Can the developed world cope with the rise of China and India?* Lowy Institute Paper 18. Sydney, Lowy Institute for International Policy, 2007.

⁶³ This argument is presented in Michael Kumhof and Romain Ranciere, *Inequality, leverage and crises*. IMF Working Paper WP/10/268. Washington DC, International Monetary Fund, November, 2010.

all placed a significant proportion of the US population under pressure, which has in turn encouraged Washington to look for ways to increase the supply of credit to lower-income Americans in order to support consumption.⁶⁴

A third, and somewhat different, version of the story – albeit one which still involves a crucial role for both finance and inequality – is presented by Simon Johnson and James Kwak.⁶⁵ Their focus is on the growing wealth and power of Wall Street, a development which has resulted in the creation of ‘a new American oligarchy – a group that gains political power because of its economic power, and then uses that political power for its own benefit.’⁶⁶ Warnings about what Jagdish Bhagwati once called the Wall Street-Treasury complex⁶⁷ have become another feature of the post-GFC US economic landscape.

Summary

The current period has been marked by a rise in pessimism about the US economy, with the recent Standard & Poor’s downgrade – and the debt ceiling debacle that preceded it – often seen by outside observers as indicative of problems with the quality of US policymaking. In turn, those problems are usually ascribed to the hyper-partisan US political environment.

Bouts of angst about US economic performance are a recurring phenomenon. Today, as in the past, one significant factor explaining current sentiment is a perception on the part of Americans and non-Americans alike of US relative economic decline. While it is true that the US share of world GDP is falling, and that this trend has likely been exacerbated by the financial crisis, however, such relative shifts are, on their own, less indicative of problems with the United States than they are of success stories elsewhere in the world economy. Moreover, the United States is hardly alone in the world economy in facing a series of tough economic policy challenges right now.

That said, there are clear issues of concern about current and future economic policy that go beyond these relative shifts. Prominent amongst these are the subdued pace of recovery from the current recession, worries about fiscal fragility and a growing debt burden, and rising income inequality. None of these challenges is insurmountable, but all of them require a more effective policy response than has been seen to date.

⁶⁴ Raghuram G Rajan, *Fault lines: How hidden fractures still threaten the world economy*. Princeton, Princeton University Press, 2010.

⁶⁵ Simon Johnson and James Kwak, *13 Bankers: The Wall Street takeover and the next financial meltdown*. New York, Pantheon Books, 2010

⁶⁶ Ibid. p. 6.

⁶⁷ In Jagdish Bhagwati, The capital myth: The difference between trade in widgets and dollars. *Foreign Affairs* 77 (3) 1998.

References

- Atkinson, Anthony B, Thomas Piketty and Emmanuel Saez. Top incomes in the long run of history. *Journal of Economic Literature* 49 (1) 2011, pp 3-71.
- Autor, David H. *The polarization of job opportunities in the US labour market*. Washington DC, The Center for American Progress and The Hamilton Project, April 2010.
- Autor, David H, Lawrence F Katz and Melissa S Kearney. The polarization of the US labor market. *American Economic Review* 96 (2) 2006, pp 189-194.
- . Trends in US wage inequality: Revising the revisionists. *The Review of Economics and Statistics* 90 (2) 2008, pp 300-323.
- Bhagwati, Jagdish. The capital myth: The difference between trade in widgets and dollars. *Foreign Affairs* 77 (3) 1998, pp 7-12.
- Burrows, Mathew J and Jennifer Harris. Revisiting the future: Geopolitical effects of the financial crisis. *The Washington Quarterly* 32 (2) 2009, pp 27-38.
- Cohen, Stephen S. and J. Bradford DeLong. *The end of influence: What happens when other countries have the money*. New York, Basic Books, 2010.
- Congressional Budget Office (CBO). *The budget and economic outlook: An update*. Washington DC, Congressional Budget Office, August 2011.
- . *CBO's 2011 long-term budget outlook*. Washington DC, Congressional Budget Office, June 2011.
- Drezner, Daniel. Bad debts: Assessing China's financial influence in great power politics. *International Security* 34 (2) 2009, pp 7-45.
- Economist, The. No thanks to anyone: The debt ceiling deal. *The Economist*, 6 August 2011.
- Edelman, Eric S. *Understanding America's contested primacy*. Washington DC, Center for Strategic and Budgetary Assessments 2010.
- Eichengreen, Barry. *Exorbitant Privilege: The rise and fall of the dollar*. Oxford, Oxford University Press, 2011.
- Eichengreen, Barry, Robert Feldman, Jeff Liebman, Jurgen von Hagen and Charles Wyplosz. *Public debts: Nuts, bolts and worries*. Geneva Reports on the World Economy. Geneva and London, International Center for Monetary and Banking Studies (ICMB) and the Centre for Economic Policy Research (CEPR) 2011.
- Evans-Pritchard, Ambrose. Chinese rating agency strips western nations of AAA status. *The Telegraph*, 12 July 2010.
- Goldin, Claudia and Lawrence F Katz. Long-run changes in the wage structure: Narrowing, widening, polarizing. *Brookings Papers on Economic Activity* 38 (2) 2007, pp 135-168.
- . *The race between education and technology*. Cambridge, Belknap Press for the Harvard University Press, 2008.

Greenspan, Alan. *Current fiscal issues*. Testimony of Chairman Alan Greenspan before the Committee on the Budget. Washington DC, US House of Representatives, 2 March 2001.

Heathcote, Jonathan, Fabrizio Perri and Giovanni L. Violante. Unequal we stand: An empirical analysis of economic inequality in the United States: 1967-2006. *Review of Economic Dynamics* 13 (1) 2010, pp 15-51.

Huntington, Samuel P. The US - decline or renewal? *Foreign Affairs* 67 (2) 1988, pp 76-96.

———. Why international primacy matters. *International Security* 17 (4) 1993, pp 68-83.

International Monetary Fund (IMF). *The United States: Staff Report for the 2011 Article IV Consultation*. IMF Country Report No.11/201. Washington DC, International Monetary Fund, July 2011.

Johnson, Simon and James Kwak. *13 Bankers: The Wall Street takeover and the next financial meltdown*. New York, Pantheon Books, 2010.

Kumhof, Michael and Romain Ranciere. *Inequality, leverage and crises*. IMF Working Paper WP/10/268. Washington DC, International Monetary Fund, November 2010.

Labonte, Marc. *The economic implications of the long-term federal budget outlook*. CRS Report for Congress. Washington DC, Congressional Research Service, 16 August 2011.

Lansing, Kevin J. *Gauging the impact of the Great Recession*. FRBSF Economic Letter. San Francisco, Federal Reserve Bank of San Francisco, 11 July 2011.

Levy, Frank and Peter Temin. *Inequality and institutions in Twentieth Century America*. NBER Working Paper 13106. Cambridge, Mass, National Bureau of Economic Research, May 2007.

National Intelligence Council. *Global trends 2025: A transformed world*. Washington DC, National Intelligence Council (NIC), November 2008.

Newport, Frank. Congressional job approval at 15%. *Gallup*, 12 September 2011.

Office of Management and Budget (OMB). *Analytical perspectives, Budget of the US Government, Fiscal Year 2012*. Washington DC, Office of Management and Budget 2011.

Organisation for Economic Co-operation and Development. *Growing unequal? Income distribution and poverty in OECD countries*. Paris, OECD, 2008.

Peck, Don. Can the Middle Class be saved? *The Atlantic*, September 2011.

Piketty, Thomas and Emmanuel Saez. Income inequality in the United States, 1913-1998. *The Quarterly Journal of Economics* 118 (1) 2003, pp 1-39.

Rajan, Raghuram G. *Fault lines: How hidden fractures still threaten the world economy*. Princeton, Princeton University Press, 2010.

Reinhart, Carmen M and Kenneth Rogoff. Growth in a time of debt. *American Economic Review* 100 (2) 2010, pp 573-578.

Ruffing, Kathy A and James R Horney. *Economic downturn and Bush policies continue to drive large projected deficits*. Economic Recovery Watch. Washington DC, Center on Budget and Policy Priorities, 10 May 2011.

- Saez, Emmanuel. *Striking it richer: The evolution of top incomes in the United States (updated with 2008 estimates)*. Department of Economics, University of California, Davis, 17 July 2010.
- Setser, Brad W. *Sovereign wealth and sovereign power: The strategic consequences of American indebtedness*. Council on Foreign Relations Report No 37. New York, September 2008.
- Standard & Poor's. *United States of America long-term rating lowered to 'AA+' on political risks and rising debt burden: outlook negative*. Research Update, Standard & Poor's, 5 August 2011.
- Subramanian, Arvind. The inevitable superpower: Why China's dominance is a sure thing. *Foreign Affairs* 90 (5) 2011, pp 66-78.
- Tavernise, Sabrina. Soaring poverty casts spotlight on 'lost decade'. *The New York Times*, 13 September 2011.
- Thirlwell, Mark. *The great sovereign risk shift*. International Economy Comments #1. Sydney, Lowy Institute for International Policy, 3 November 2010.
- . *'New normal' or just the same old nasty?* International Economy Comments #2. Sydney, Lowy Institute for International Policy, 4 November 2010.
- . *Our post-GFC world economy*. Lowy Institute Perspectives. Sydney, Lowy Institute for International Policy, December 2010.
- . *The return of geo-economics: Globalisation and national security*. Lowy Institute Perspectives. Sydney, Lowy Institute for International Policy, September 2010.
- . *Second thoughts on globalisation: Can the developed world cope with the rise of China and India?* Lowy Institute Paper 18. Sydney, Lowy Institute for International Policy 2007.
- Wynne, Mark A. *The sluggish recovery from the Great Recession: Why there is no 'V' rebound this time*. Economic Letter, Federal Reserve Bank of Dallas, September 2011.

ABOUT THE AUTHOR

Mark Thirlwell is Director of the International Economy Program at the Lowy Institute for International Policy. Before joining the Institute, Mark worked as an economist for the Bank of England, JP Morgan and the Australian Export Finance and Insurance Corporation. Mark is a graduate of Cambridge University and has an MPhil degree in economics from Oxford University.

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