

## IMPLICATIONS OF THE CRISIS FOR US ADJUSTMENT NEEDS

### 1. Introduction

The US economy is arguably following an unsustainable trajectory. The main indicators of this are a large current account deficit, a large federal budget deficit and trend-wise increasing costs of Social Security and Medicare. In this chapter, we will discuss these observations and to what extent the financial and economic crisis may have changed the outlook. Before this, we need to define what we mean by sustainability. An often used definition of sustainability is that the inter-temporal budget restriction is satisfied. In the context of fiscal sustainability, this means that the discounted sum of current and future government revenues (at least) covers the discounted sum of current and future outlays plus the value of current outstanding debt. Similarly, a sustainable path of current accounts must imply that the discounted value of income generated by exports of goods and services covers the cost of imports and other transfers to abroad plus the initial value of foreign debt. Sustainability implies that the ratios of government debt to GDP and foreign debt to GDP do not follow an explosive path.<sup>1</sup>

Defining a sustainable fiscal policy as one that satisfies the inter-temporal budget constraint is not free of problems. First, it can be argued that it is trivial in the sense that if extraordinary income, like inflation taxes or the implicit income generated by defaults is included, all government spending will be financed in one way or another. Second, the definition requires that the future is predictable, which is difficult, but the definition also allows different future scenarios. The multitude of different future possibilities calls for other criteria to be included in the definition of sustainability. Specifically, one may require that the future paths of government revenues and outlay should (i) be fair from an inter-generational perspec-

tive, (ii) be efficient, for example, not involving strongly increasing or variable tax rates, and (iii) that they should be politically feasible. The latter is certainly an important issue in the US, where tax paths that would be easy to implement in Europe may be politically impossible in the US.

Despite these caveats, an important policy question is whether current fiscal policy, including current spending programmes and tax law, is sustainable given forecasts of economic growth and demographic change. If this is not the case, creditors will in some way or another force the government to change its policy. Pre-crisis estimates of the long-run sustainability of US fiscal policy suggests that government income would have to be raised and/or expenditure cut. Gokhale and Smetters (2003) calculated that the required change is dramatic – to be sustainable, the government's fiscal balance would have to be permanently improved by 6.5 percent of GDP over pre-crisis long run forecasts (see Box 4.2). To the extent that the crisis will have long-run negative effects on economic growth and activity, the required adjustments are even larger. The Congressional Budget Office (CBO, 2009a), has calculated that the required adjustment has increased and is now 8.1 percent of GDP. They also show that by waiting, the required adjustment continues to grow; to 9.7, 12.1 and 15.5 percent of GDP if adjustments wait for another one, two or three decades, respectively. These figures illustrate the claim by Kotlikoff (2006) that the US is going bankrupt.

Recognising that fiscal sustainability requires a long-run perspective on future spending and revenues, our aim in this chapter will, however, be narrower. We will focus on two questions. We will first describe how fiscal deficits have evolved over recent years and in particular study how the forecasts for the coming decade have changed during the crisis. This allows us to discuss whether the crisis has increased the urgency of fiscal consolidation. The second question is to what extent the current account deficit of the US is an indicator of a non-sustainable consumption pattern that needs to be corrected.

<sup>1</sup> See, e.g., Neck and Sturm (2008) on this.

Before discussing the empirical issues, we need to demonstrate some arithmetic facts and make some definitions. The definition of sustainability as derived from the inter-temporal budget constraint of the government implies that public debt as a share of GDP is non-explosive. However, this does not rule out a permanent deficit. As shown in Box 4.1, a permanent fiscal deficit  $d$  will lead to a stable debt-to-GDP ratio of  $d/g$  where  $g$  is the growth rate of nominal GDP. If, for example the deficit is 3 percent, a 5 percent growth rate of nominal GDP leads to a stable debt-to-GDP ratio of 60 percent. Given that interest rate on government debt tends to be larger than the growth rate of GDP, a positive debt crowds out other types of spending or requires higher government revenues, i.e. it must be financed by a primary surplus. In steady state this crowding out is equal to the relative difference between the interest rate and the growth rate times the deficit. As an example, if interest rates are 6 percent and the growth rate of GDP is 5 percent, the interest rate is 20 percent larger than the growth rate. A permanent deficit of

say 3 percent thus requires a primary surplus of  $(0.2 * 0.03 =) 0.6$  percent of GDP. During the transition to the steady state from a lower debt ratio, the crowding out is smaller than in steady state. Therefore, the transition involves inter-generational transfers from future to current generations.

## 2. US government debt

Let us now focus on the development of the debt of the US government. An immediate problem is that there are a number of different definitions of government debt. The two main dimensions in which these measures differ are (i) what branches and levels of government are included and (ii) whether the measure is gross or net of financial assets like loans to the private sector, shares in publically traded companies and foreign exchange reserves. A particular problem, making international comparisons difficult, is that assets and liabilities related to the pension system are treated differently in different countries. For example, the US government has an un-

### Box 4.1

#### The arithmetic of stable deficits

The law-of-motion for public debt can be written

$$b_{t+1} = (b_t + d_t)/(1 + g_{t+1}) \quad (1)$$

where  $b_{t+1}$  is the debt-to-GDP ratio in period  $t+1$ ,  $g_{t+1}$  is the nominal growth rate of GDP between period  $t$  and  $t+1$  and  $d_t$  is the fiscal deficit. Here we note that the term  $1 + g_{t+1}$ , i.e., GDP-growth, tends to reduce the debt ratio. All else equal, a high rate of GDP growth dilutes the debt-to-GDP ratio by spreading a given debt over a larger GDP base.

It now follows immediately that as long as growth is positive, any constant deficit will lead to a non-explosive debt ratio and is therefore consistent with the general definition of sustainability. Specifically, assuming for simplicity a constant GDP growth rate, a constant deficit  $d$  leads to a constant debt ratio of  $d/g$ . We see this by assuming all variables in equation (1) to be constant and then solving for  $b$ :

$$b(1 + g) = b + d \Rightarrow b = \frac{d}{g}$$

This is, however, generally not a free lunch for the government, since a higher debt requires more interest payments. Specifically, note that the fiscal deficit can be written

$$d_t = r_t b_t - p_t \quad (2)$$

where  $r_t$  is the interest rate on public debt and  $p_t$  is the *primary surplus*, defined as government revenues minus net interest payments. Using the steady state result  $b=d/g$  in this equation and solving for  $p$ , we find that in a steady state with deficit  $d$ , the primary surplus must satisfy

$$p = d \frac{r - g}{g} \quad (3)$$

Thus, as long as the interest rate is higher than the GDP growth rate, a permanent deficit leads to a debt buildup that requires a permanent primary surplus. Specifically, at any point in time, sustainability requires that outstanding government debt equals the discounted sum of all future *primary surpluses*.

The arithmetic of budget deficits can easily be adapted to the issue of sustainability of the foreign affairs of a country. The equivalent of a budget deficit is a current account deficit, and a permanent current account deficit is therefore in principle consistent with sustainability. Specifically, a constant current account deficit  $CA$  leads to a stable foreign debt ratio  $b_f$  equal to  $CA/g$ , where  $g$  is the growth rate of nominal GDP. The counterpart of the primary surplus is the trade balance plus other net income from abroad not related to the debt position. Sustainability requires that the initial foreign debt is matched by future surpluses from trade and other income.

## Box 4.2

## Long run fiscal and generational imbalances

To evaluate the long run fiscal sustainability and inter-generational fairness, the development of government debt is an insufficient indicator. A major reason is that various long-term government payment obligations, notably in Social Security and Medicare, are underfinanced and the shortfall is not included in the national debt. Gokhale and Smetters (2003) argue that the government should report two more informative measures, namely the fiscal imbalance (FI) and the generational imbalance (GI). The first is defined as the difference between the present value of projected government spending (not counting interest payments) plus current debt and the present discounted value of projected revenues. Both spending and revenues are calculated using current spending programmes and tax law but take into account trends in demography and expected growth. If FI is positive, it means that sooner or later government spending must be reduced and/or revenues (taxes) increased to prevent government bankruptcy – i.e., the current fiscal system is not sustainable.

The generational imbalance is defined as the share of the fiscal imbalance that is due to *past and living* generations. A higher GI measure thus implies that past and living generations are passing on a debt to future generations.

Gokhale and Smetters (2003) estimate that FI is of an order of 4 times GDP, i.e. much larger than the official debt. About 80 percent of this debt is due to the Medicare system being seriously underfinanced in the long run. Around 40 percent of the deficit in the Medicare system is due to past and living generations. This means that past and living generations are handing over a debt larger than GDP to future generations via Medicare. The imbalance in social security is smaller but is mostly due to past and living generations, implying that another debt almost as large as GDP is handed over to future generations.

The calculations by Gokhale and Smetters imply that US fiscal policy is very far from being sustainable. Changes must necessarily be made and the later these are undertaken the larger they must be. If measures are taken immediately, they are still very large. If no spending cuts are undertaken, revenues must permanently be increased by 6.5 percent of GDP. If this extra revenue is to be achieved by income taxes, these have to be raised by 16.6 percentage points according to Gokhale and Smetters calculations. Alternatively, Social Security and Medicare spending could be permanently cut in half.

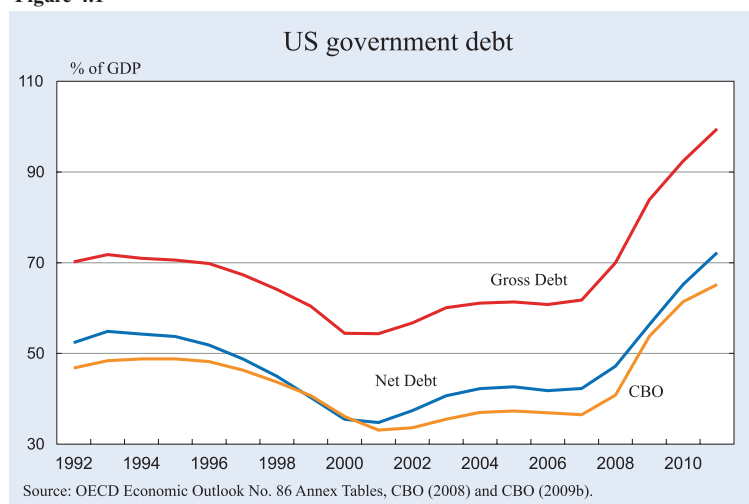
The European Commission regularly publishes sustainability reports (EU 2009). The key index is the S2 indicator that in principle is similar to the GI measure. However, rather than expressing the deficit in the inter-temporal budget, it is defined as the necessary improvement in the government budget to reach sustainability. The S2 indicator shows that also EU needs to change its fiscal policies. In particular, the aging population implies that the fiscal balance of the EU as a whole needs to be improved by 3 percent permanently. This number should be compared to the 6.5 percent necessary improvement for the US. In the latest sustainability report, the consequences for sustainability of various post-crisis scenarios are evaluated. It is shown that if growth remains lower than what was previously expected for the coming decade, only gradually returning to trend at 2020, an extra percentage point improvement in the fiscal balance is required to reach sustainability.

funded pension liability to its own employees amounting to around 10 percent of GDP that is not included in the official debt figures.<sup>2</sup> For other countries, this implicit debt may be larger or smaller than for the US.

In Figure 4.1, we report three measures of the US government's debt. The upper curve is the OECD's measure of general government gross financial liabilities including forecasts for year 2009–2011.<sup>3</sup> Here, all branches and levels of the government are consolidated, but financial assets of the government are not deducted from the debt. The next curve from above is the OECD

measure of net debt, where the government's financial assets are deducted from its financial liabilities. The third curve is the Congressional Budget Office's (CBO) measure of US federal government debt held by the public.<sup>4</sup> Assets and intra-government assets and liabilities are here netted out.

Figure 4.1



<sup>2</sup> OECD reports that this debt was 10.2 percent of GDP in 2005.

<sup>3</sup> OECD Economic Outlook No. 86 Annex Tables.

<sup>4</sup> Historical data from CBO (2008) and forecasts from CBO (2009).

In Figure 4.1, we see that the curves for OECD net and gross debt are fairly parallel. A closer look reveals that net debt has been around 70 percent of the gross figure for the whole period. The higher debt level for the forecast years 2009–2011, shows that while the net debt remains at around 70 percent of gross debt, the difference has increased from less than 20 to close to 30 percentage points. We also note that while the CBO measure of net debt differs from OECD measures, the differences are quite small, reflecting small levels of debt in state and local government. Since the net debt is the one most relevant for our notion of sustainability and since CBO produces biannual long-run forecasts of the US fiscal balances, we will use the CBO measure for the analysis in this section.

In January 2008, just before the full consequences of the financial crisis for the macroeconomic developments became apparent, the CBO forecasted that the fiscal deficit would continue to be on a decreasing trend. After three years of declining deficits, CBO forecasted a small reduction in deficits to around 1.5 percent of GDP for 2008–2011, a smaller deficit for 2012 and surpluses thereafter. Thus, the pre-crisis forecast implied substantially falling debt-to-GDP ratios over the coming decade. That meant that the trend towards increasing debt was broken. This is shown in Figure 4.2 as the blue solid

Figure 4.2

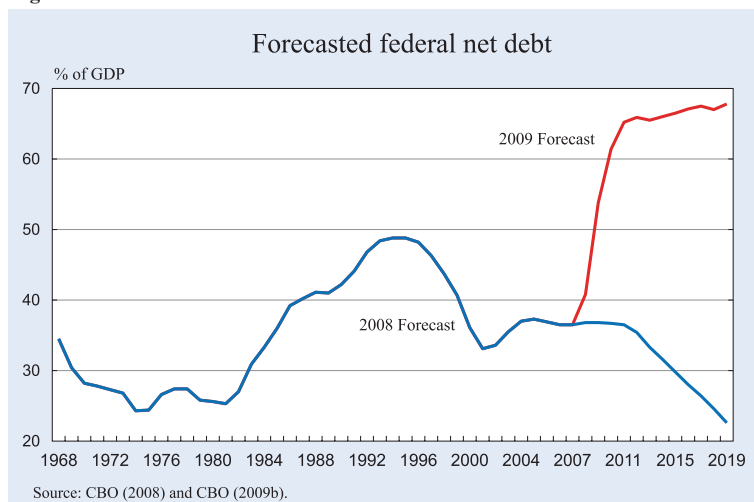
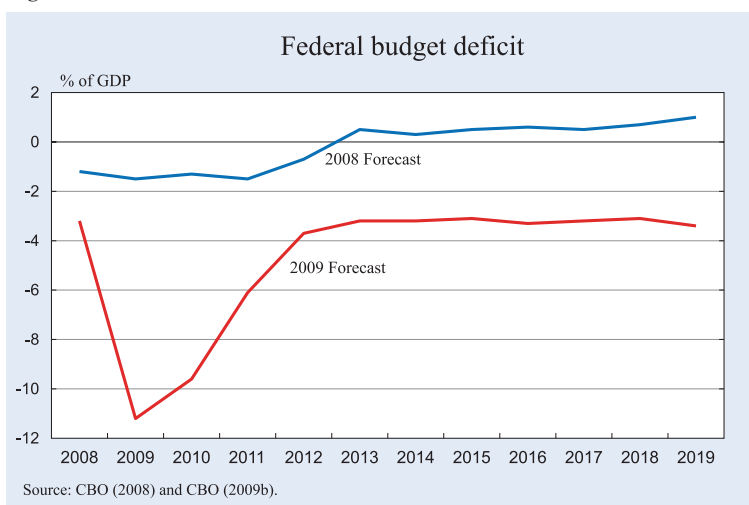


Figure 4.3



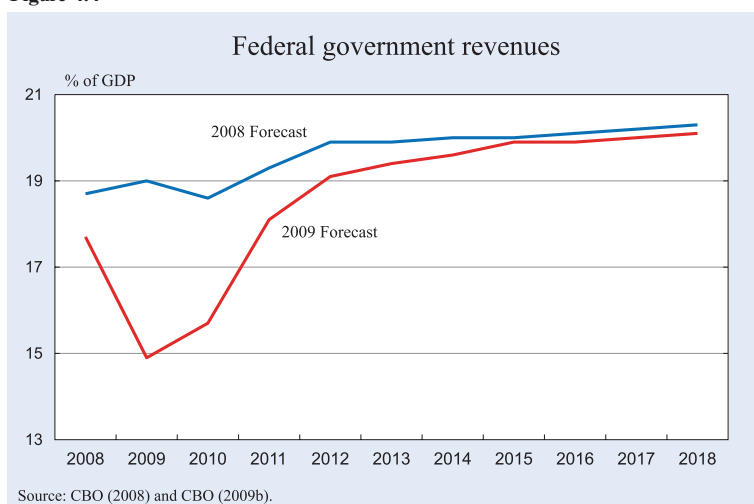
line, where data from 2008 are the forecasts done in January 2008.

The CBO forecasts changed dramatically during the macro-financial crisis. In August 2009, the forecast was that the debt of the US government would increase at a high speed. The increasing trend in the debt as a share of GDP during the 1980s seems to be back and perhaps even stronger than before, as indicated by the red dashed line.

CBO's federal deficit forecasts calculated in January 2009 and August 2009 are shown in Figure 4.3. The largest change in the forecast is for the year 2009. In January 2008, the forecast was a deficit of 1.5 percent of GDP. Half way into 2009, this forecast had changed to an unprecedented deficit of 11.2 percent. In fact, this is almost twice as large as the previous record deficit of 6.0 percent in 1983. Furthermore, the CBO forecast implies that the deficit remains above the previous record in 2010 and 2011.

Furthermore, while GDP growth was according to the 2008 CBO forecast projected to rebound substantially in 2012, the budget deficit is not expected to return to the previous track. The 2008 real GDP growth forecast was a moderate 2.9 percent for 2012 and 2.6 percent for 2013 and 2014. During this period, the 2008 forecast implied a turnaround in deficits, from negative in 2012 to

Figure 4.4



positive from 2013 onwards. The revised CBO growth forecasts implied a high 5.0 percent real GDP growth rate for 2012 and 4.5 and 3.0 percent growth for 2013 and 2014, respectively. Despite these optimistic growth forecasts, deficit-to-GDP ratios are projected to be close to 4 percentage points higher during this period than previously forecasted. Subsequently, there is even a tendency for the discrepancy between the two forecasts to increase.

The gigantic increase in the deficit for 2009 is due to a 4.1 percentage point reduction in revenues and a 5.7 percentage point increase in outlays. As seen in Figure 4.4, the difference between the two revenue forecasts is temporary, reflecting a projected rebound of tax bases. By 2011, the difference is 1.1 percentage points and falls to close to zero after that. The picture for outlays is quite different and depicted in Figure 4.5. Even at the end of the forecast period, i.e., in 2018, total outlays as percentage of GDP are in the 2009 forecast are close to 4 percentage points higher than in the 2008 forecast. Most of the increases in outlays are projected to fade away over time. For example, the Troubled Asset Relief Program (TARP) and costs associated with the support to Fannie Mae and Freddie Mac add a full 3 percent of GDP to the projected deficit for 2009. The American Recovery and Reinvestment Act also adds substantial amounts to the federal deficit. This comprehensive

fiscal stimulus act contains tax cuts to individuals and firms as well as increased spending on infrastructure, education and transfers such as more generous unemployment benefits. The CBO estimated that the bill increases the deficits by 1.3 percent of GDP for the fiscal year 2009, which ended on 30 September 2009. The budgetary effects peak during the fiscal year 2010 at 2.8 percent of GDP and then fall to below 1 percent of GDP the following year.

The large debt build-up during the crisis means increasing interest payments in the long run. In the 2009 forecast, interest payments are nearly three times as high as in the 2008 forecast, i.e., 3.3 percent rather than 1.2 percent of GDP.

As we noted in the introductory section, sustainability requires that the outstanding government debt is balanced by future primary surpluses. Before the 2009 crisis, government debt was in the order of 35 percent of GDP. For this debt ratio to remain stable, future primary surpluses needed to average a few 10ths of a percent of GDP. In Figure 4.6, we depict the primary surplus forecast before and after the crisis. Before the crisis the forecasts implied the primary surplus should stabilise at around 2 percent of GDP. This clearly exceeded what was necessary to keep the debt ratio constant but was, as noted above, far from sufficient to compensate for the projected long-term increases in

Figure 4.5

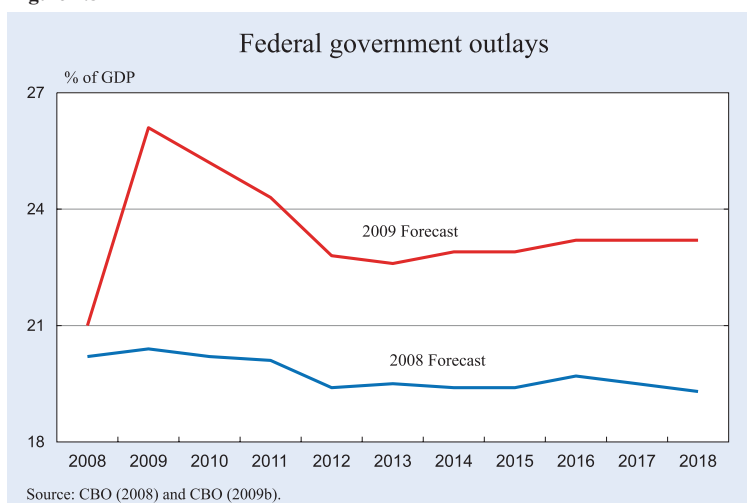
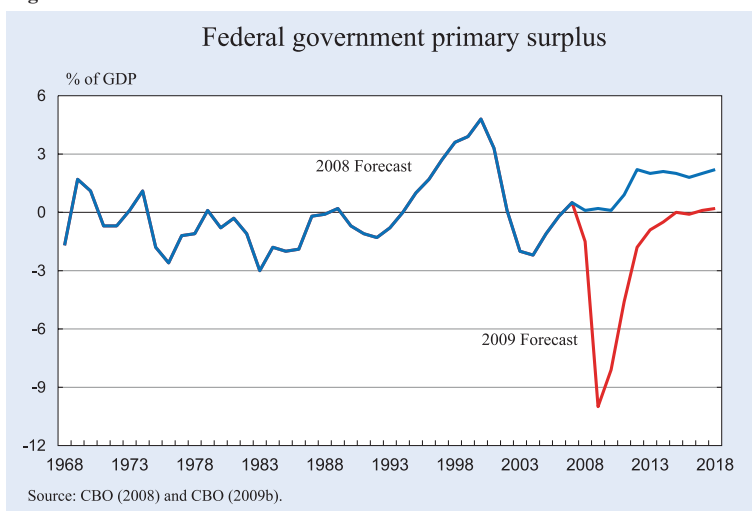


Figure 4.6



the costs of Medicare and Medicaid after the depicted forecast period.

The 2009 crisis has changed the picture quite dramatically. The debt build-up due to the crisis is around 50 percent of GDP, which will require additional future primary surpluses in the order of a quarter to a third of a percent of GDP. Instead, the latest forecast implies primary surpluses around 2 percentage points of GDP lower than the pre-crisis forecast. Clearly, if there were doubts about fiscal sustainability before the crisis, these doubts have strengthened substantially. There now seems to be no other way for the US than to immediately reconsider its fiscal policies. This must be done sooner or later, but on grounds of intergenerational equity and efficiency, sooner is better than later.

### 3. US current account

For some time, the US current account has been at the centre of policy discussions about the so called global imbalances. A key feature of these imbalances is the large current account deficit in the US, financed by surpluses in swiftly developing Asian countries, notably China, and in oil exporting countries. The sustainability of the current account deficit of the US has been questioned. Furthermore, the large demand for liquid assets from surplus countries has led to low interest rates in a time of high output growth rates and, in particular, optimistic expectations about future growth.

Although it is clear that a balanced current account at all times should not be a policy target, a large cur-

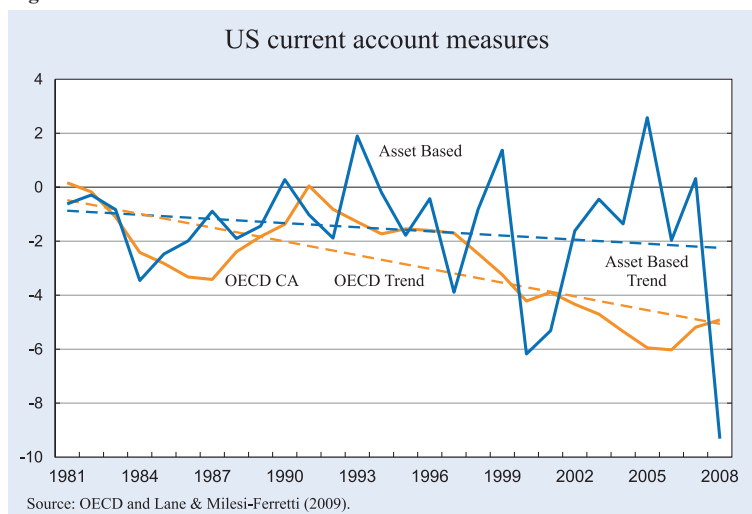
rent account deficit is worrisome. If it is unsustainable, it must eventually be corrected, and there is ample empirical evidence that such corrections often are done in the form of a “sudden stop”, where creditors abruptly halt the financing of a deficit. If such a sudden stop were to happen to the US, this would obviously have dramatic consequences for the global economy. Even if the US current account deficit was not directly responsible for the crisis, it continues to be a worry. However, it is important to note that there

are substantial discrepancies in different measures of the US current account. As we will see, these measures differ substantially in how alarming a picture they paint. By definition, a country's current account deficit is equal to the change in its net foreign liabilities. Measuring the current account by summing flows of income should yield the same result as measuring the change in the values of assets and liabilities. However, since income generated by revaluations in assets and liabilities are not necessarily recorded accurately, there are large discrepancies between the measures.<sup>5</sup>

Figure 4.7 shows two measures of the US current account from 1981 to 2008. The solid line with squares is the OECD measure, calculated from transactions data. The solid line without squares is instead measured as the yearly change in the net asset position of the US. The dotted lines are linear regression trends. As we see, there are substantial differences between the two curves. The transaction-based measure is consistently negative, except for a small surplus in 1981 and 1991. There is also a strong negative trend such that the current account worsens by 1.7 percentage points per decade. The valuation based measure is instead dominated by large swings, reflecting large revaluations of the asset positions of the US. The trend in the latter measure is barely negative at  $-0.5$  percentage points per decade. The average deficit over the whole period differs substantially – it is 2.8 percent of GDP for the transaction-based measure and only 1.6 percent for the valuation based. The difference is large

<sup>5</sup> See Gourinchas and Rey (2007a,b), Curcuro et al. (2008) and Hausman and Sturzenegger (2007).

Figure 4.7



also for the last decade, where the valuation-based measure is at a deficit of 2.2 percent and the transaction based at 4.8 percent. Also including 2009 will reduce this difference but only by about 1 percentage point.

Looking at the two curves, it is clear that the discrepancies between the two current account measures have increased quite dramatically over time. To understand this, we need to consider the fact that behind the trend-wise deterioration of the US net asset position, there are much larger changes in gross positions. Since 1986, when the net US foreign debt was approximately zero, net foreign debt has increased to 24 percent of GDP in 2008. However, gross assets have increased from 33 percent in 1986 to 139 percent in 2008 and gross debt from 33 to 164 percent of GDP during the same period. Thus, the ratio of debt to assets has only increased from unity to 1.17. Under-reporting of income generated by the increasing large gross foreign asset position yields an increasing divergence between the two measures. Since revaluations of foreign assets and liabilities are more volatile than export and import, the volatility of a valuation-based measure increases relative to the OECD measure as gross positions increase.

As we have seen, both measures of the current account show a downward trend in the current account. Clearly, the continuation of these trends is not consistent with sustainability. However, in exact parallel to the case of fiscal deficits, sustainability does not necessarily rule out a stable deficit. Suppose that the US current account deficit stabilised at some level. In such a scenario, the US net

foreign debt ratio might continue to increase, but not indefinitely. The reason is that nominal GDP growth tends to reduce debt as a fraction of GDP. When GDP grows, the debt can grow at the same speed without increasing the debt-to-GDP ratio. Since a growing debt is equivalent to a current account deficit, the latter is consistent with a constant debt ratio. Applying the calculations in Box 4.1, we find that this constant debt ratio is given by the current account deficit divided by the nominal growth rate of GDP.

Again assuming a 5 percent growth rate of US nominal GDP, a current account deficit of say 3 percent would lead to the foreign debt stabilising at  $\frac{3}{5} = 60$  percent of GDP, i.e. approximately a doubling of the current debt. A debt of 60 percent of GDP is large but not large enough to be obviously impossible to sustain. Again in parallel to the case of fiscal deficits, a constant debt ratio needs to be balanced by a positive trade balance in the same way government debt must be financed by a positive primary surplus. In other words, part of the revenue generated from abroad must be used to pay the percentage difference between the interest rate and GDP growth times the deficit and cannot be used for consuming imports. Given that the interest rate on US foreign debt remains only marginally above the growth rate of GDP, sustainability in itself requires only quite small increases in the trade balance to stabilise this higher foreign debt level.

So far, we have implicitly assumed that the return on assets and liabilities is equal. However, the US has consistently earned a higher return on its foreign assets than what it pays on its foreign debt. Gourinchas and Rey (2007a), for instance, report that over the post-Bretton Woods period, the average real return on US foreign assets has been as high 6.8 percent while the real interest rate paid on liabilities has been 3.5 percent. While there is some debate on the magnitude of the US return privilege (Curcucu et al. 2008), there is little doubt that net inflow of asset income has been historically positive. To the extent that this return privilege remains, a

more highly leveraged portfolio generates more income to the US and even a portfolio where liabilities are larger than assets can generate a positive income that can be used to finance a negative trade balance.

US net nominal capital income from abroad is  $r_a A - r_l L$ , where  $r_a$  and  $r_l$  are the nominal rates of return on assets and liabilities, respectively. As noted by Obstfeld and Taylor (2005), there is a tipping point, given by  $r_a/r_l$ , such that only if the ratio  $L/A$  is larger than the tipping point, net capital income is negative. Given the historical real capital returns and adding an inflation rate of 2 percent, the tipping point is 1.6, i.e., substantially above the current value, indicating that if historical rates are maintained, the US still *makes money* on its foreign asset portfolio.

Suppose that the real rate of return paid on US foreign debt remains at 3.5 percent and that the inflation rate is 2 percent. Suppose also that the current account stabilizes at 3 percent. Then, if the US had no foreign assets or had no return privilege, the trade balance must be positive at a value given by one third of a percent of GDP if the nominal GDP growth rate is 5 percent. With current assets of 139 percent of GDP and a return privilege of 3.3 percent, this generates excess revenues of 4.5 percent of GDP, i.e., much larger than the trade balance required without the return privilege. If the return privileges were to disappear, the US would therefore need to make very substantial adjustments, in particular reduce consumption very dramatically. Such a change would most likely require large dollar depreciation.

Recently, several authors have analyzed the reasons for the return privilege. Gourinchas and Rey (2007a) decompose the return difference into a return effect and a composition effect. The latter comes from borrowing in one type of assets and investing in another, for example borrowing in fixed income short maturity instruments and investing in stocks. The return effect instead arises to the extent that the US manages to get higher returns on assets than on liabilities within each asset class.

It is well known that maturity conversion is an important part of US foreign investment strategy – Gourinchas and Rey call the US the “venture capitalist” of the world. By investing in foreign equity and borrowing in short maturity bonds, the expect-

ed return on assets is higher than the cost of borrowing. Quite surprisingly, however, Gourinchas and Rey (2007a) find that the return privileges are mostly accounted for by the return effect. Of the three plus percentage point return privilege in the post-Bretton Woods period, only about a quarter can be accounted for by the composition effect. Doubt is cast on this result, however, by Curcuru et al. (2008), who argue that the US earns little excess return within asset classes. As yet, this issue is unresolved.

It seems reasonable that the more developed financial markets in the US allow its citizens to take on more risk. Thus, the US is in a better position to take advantage of the equity premium. To the extent the return premium is due to the equity premium, it seems reasonably safe to assume that it will remain. Less, however, is known about return differences within similar assets. In a recent paper, Hassan (2008), shows that returns on similar assets denominated in different currencies do vary systematically. Assets denominated in currencies of large OECD countries have paid substantially lower returns over the period 1980–2007. The estimates are stark – increasing the size of a country from zero to 10 percent of world GDP reduces the rate of return by over 2 percent. The result appears quite robust and holds for bonds of different maturities as well as for stocks. Hassan also provides a theoretical explanation for his findings. A shock to the productivity in a country affects its real exchange rate. Since a large country has a larger impact on the world, its exchange rate is more negatively correlated with world consumption of tradables. Therefore, assets denominated in the currencies of large countries provide a better insurance against fluctuations in tradables consumption and yields a lower expected return.

There is a systematic currency bias in the US foreign portfolio – assets are more often denominated in foreign currency than liabilities. Therefore, Hassan’s results point to a fundamental factor indicating that the return privilege of the US may remain, also if it is not due to maturity conversion. But clearly, much caution is warranted regarding this prediction. The surprisingly strong appreciation of the dollar in autumn 2008, when the crisis took a sharp negative turn, and the dollar behaviour afterwards, have also focused attention on the hedging properties of different currencies and assets against “disaster” risk. According to a leading opinion among market participants, also men-



tioned by Fed chairman Ben Bernanke in a public speech in November 2009, the US currency strengthens whenever markets' assessment of global systemic risk increases. Specifically, this opinion seemingly contrasts different regimes driving global risk factors, whereas fear of disasters would motivate a flight to quality into the largest economic and military power of the world. This observation points in the same direction as the argument of Hassan (2008) – the US enjoys a return privilege because of the currency composition of its assets and liabilities – although, again, the quantitative relevance is unclear.

#### 4. Concluding discussion

The medium-run forecasts of government debt before the crisis were consistent with sustainability, showing a primary surplus for the coming decade. In the longer run, however, there is no doubt that very large adjustments are necessary and will be undertaken, voluntarily or by the force of creditors. In particular the cost of Medicare, Medicaid and Social Security is forecasted to grow substantially, mostly due to a larger share of elderly. This is shown in Figure 4.8.

The worrisome factors behind the longer run sustainability have certainly not disappeared during the current economic crisis. The difference between before and after the crisis is instead that now also the medium-run forecasts point towards non-sustainability. We are also worried that the discrepancy between what US citizens' expectations of what the government should provide and how much tax they

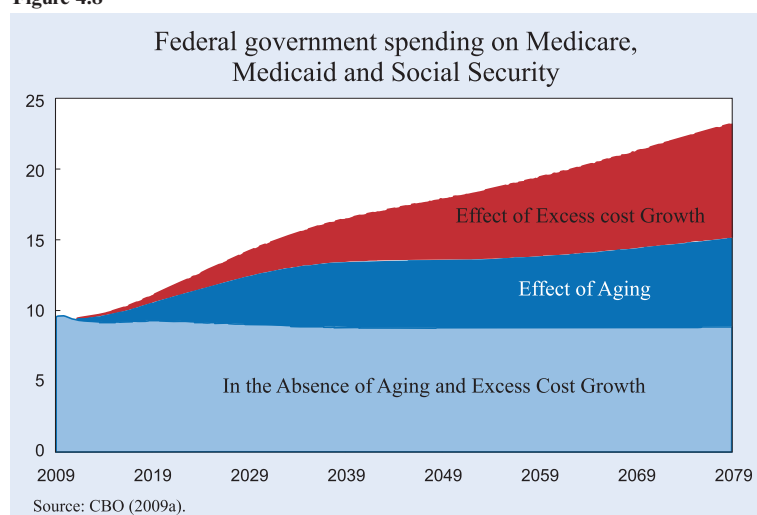
are willing to pay has widened during the crisis. Although increased taxes and spending cuts should not be undertaken before the economy is well on its way out of the crisis, we urge the US government as well as fellow economists to help prepare US citizens to accept substantial changes. A serious discussion about the introduction of a federal value added tax and increased personal income taxes must begin immediately.

We also believe that the US government should systematically produce indicators of its long-run fiscal viability and the consequences for intergenerational redistribution of current policies. Such indicators should be based on forecasts of spending and revenues given current laws and long-term projections of growth and demographic change. Sustainability indicators are already produced for the EU by the European Commission but would seem to be also useful for the US. An important purpose of a systematic reporting of sustainability indicators is to affect the public debate. Hopefully this can lead to an increased awareness that spending programmes must be financed. Then, the government's inter-temporal budget constraint may be satisfied in a process with a deliberate consideration of the consequences for efficiency and intergenerational equity of different policies. The alternative is that creditors will eventually force a change in policy in which these considerations are likely to be absent.

Regarding the current account deficit, we are less worried by the actual deficit and its long run trends than by the US's vulnerability to its foreign return privileges. Given that these remain, they yield a sufficient income to finance a large trade deficit. Were

they, however, to disappear, quite dramatic adjustments would be required, likely including a large depreciation of the dollar. It is difficult to make forecasts for the return privilege. On the one hand, it appears unlikely that financial markets in China and other emerging market economies will develop quickly. On the other hand, the restructuring of the financial sector in the US made necessary by the current crisis may reduce its productivity advantage and thus its ability to generate excess returns on the world capital markets.

Figure 4.8



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