Rebalancing in the Dark

Bill Martin

Centre for Business Research
University of Cambridge

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OUTLINE

Will the British economy successfully rebalance over the medium term? I shall make three observations.

- First, as a result of the banking crisis and credit crunch, policy makers are working in the dark. The known unknowns, let alone the unknown unknowns, mean that policy makers have to think about a very wide range of future economic scenarios, none of which can be confidently ruled in or ruled out.

- Second, the medium-term projections of the Office for Budget Responsibility lie, in my opinion, towards the optimistic end of this wide range of uncertainty. The OBR depicts an economy returning by the middle of the decade to almost complete internal and external balance: an economy almost wholly rebalanced. This is a logical possibility and one that policy makers must wish for but I find as plausible a medium-term scenario in which the economy becomes ensnared in a low growth trap or a scenario of faster recovery that hides a latent balance of payments problem.

- Third, I shall argue that policy makers need a robust strategy that would work tolerably under different states of the world while encouraging a shift of resources from the non-traded sector to the internationally exposed parts of the economy. But to say that such a strategy is required is not to suggest that an effective one exists.

First, the question of uncertainty: how to measure it and convey it in a digestible form. The OBR's approach is to qualify its central view by saying that things are "even more uncertain than usual"[1] and to introduce fan charts, which puts fiscal policy and monetary policy on a similar presentational footing.

This new approach could be regarded as an improvement on what went before, but there are obvious weaknesses. The fan charts are based on forecast errors drawn from a period that until late-2007 was *not* disfigured by a Western banking crisis. Of course, the Treasury is well aware of the limitations. It gave a succinct critique of fan charts in the 2008 Pre-Budget Report.[2]

HOW MUCH UNCERTAINTY?

To gauge the uncertainty we face, it is instructive to recall the scale of forecasting error made during the recession and why forecasters got it wrong, to consider the role that may have been played by the credit crunch and to review the many attempts to divine clues from past business cycle patterns. I draw the conclusion that things are indeed "even more uncertain than usual", as the OBR puts it, only in spades.

[1] OBR's June 2010 Pre-Budget Forecast, paragraph 3.2.
[2] 2008 Pre-Budget Report, Box A3.

RECESSION FORECAST ERRORS

Everyone knows that the recession was not forecast, but it is salutary to note the scale of error that occurred *even when forecasters had clear sight of banking system distress*. This chart compares the outturn *level* of UK GDP in 2009 with that implied by growth forecasts made in late-2007, that is after the Northern Rock run, and in late-2008, that is in full knowledge of the post-Lehman global crisis.

The roughly two-year ahead "Northern Rock" forecasts are some 10% above outturn while the roughly one-year ahead "Lehman" forecasts are 5% above outturn. These are massive, rare-event errors that mainly arose from two related failures, the first the failure to forecast the synchronous collapse of world trade, the second the failure to forecast the collapse of every major component of private sector domestic spending.[3]

BEAN'S WEALTH CALCULATION

It is unfortunate that economists failed to predict the recession but rather more unfortunate that they cannot adequately explain it after the event. Conventional economic models place a lot of weight on wealth effects. But as Charlie Bean forcibly pointed out in his 2009 Schumpeter Lecture[4] the wealth losses associated with the banking crisis and the related impact on consumption can account for only a small part of the output loss in the advanced economies. His conclusion: "we cannot come near to explaining the 'Great Contraction' in terms of wealth effects". He is similarly dismissive of the explanatory power of financial accelerators. Bean, like others, notes the depressing impact on spending of the increase in risk premiums and loss of confidence during the worst moments of the banking crisis. But financial market risk premiums have diminished and household and business confidence in the UK has recovered to levels last seen in early-2008, yet national output is still 4½% lower.

CREDIT CRUNCH?

This leads us naturally to blame something else for the depth of the recession. The most likely candidate is a "credit crunch", a leftward shift of banks' credit supply curve. There is evidence that shocks to banks' capital causes them to retrench and the flow of bank credit to households and non-bank businesses has indeed collapsed. Up to the crisis, lending to non-banks net of repayments had been running at over 10% of GDP. It is now close to zero. The inadequate flow of finance to small and medium sized enterprises is especially worrying, as Adam Posen has pointed out. There is also a whiff of an unpleasant feedback of the paradox of thrift kind. Individual banks that restrict credit produce a depressed macro outcome that none of them individually would wish or expect but which perversely provokes further lending caution. However, it remains difficult to disentangle the impact on credit flows of falling credit demand from the impact of reduced credit availability.

[3] Official data revisions explain a small part of the forecast error.

[4] "The Great Moderation, the Great Panic and the Great Contraction, Schumpeter Lecture, Annual Congress of the European Economic Association, Barcelona, 25 August 2009.

RECESSION PUZZLE OF 2009

The table in this slide shows one way to gauge the possible effect of the credit crunch on activity. It is a process of elimination. The table shows my model estimates of the impact of various shocks in 2008 and 2009 – to exports, wealth, confidence - and the offsetting impact of discretionary fiscal policy measures. The combined impact of these identified shocks and policy actions is then compared with what actually happened. The difference between what happened and what the model can account for provides a measure of ignorance, or what I have called "the recession puzzle of 2009". It is tempting to attribute this puzzle to the impact of bank credit rationing.

The table makes the comparison in terms of an estimate of the gap between GDP and its trend, the latter based on a purely mechanical projection of trend GDP growth of 2½% a year from the end of 2007, when the gap is assumed to be zero. The top row in the table shows the gap between GDP and its trend as a per cent of the trend using the latest official data; the second row shows the somewhat smaller output shortfalls based on the data available when the simulations were performed.

On this arithmetic, the output shortfall in 2008 was about 2%, a figure almost exactly explained by the model. The shortfall comes largely from wealth shocks arising from the fall in house and stock market prices.

In 2009, however, the story is different. The output shortfall rises to about 9%, whereas the model predicts 5%. The model correctly predicts that 2009 should have been more depressed than 2008 because of the collapse in exports and the shocks to wealth and confidence. But the model's account is materially shy of the actual output shortfall. The unexplained gap in 2009 is close to 4%, about ten times the normal error of the model.

Having eliminated other plausible explanations of the recession, it is tempting to take this unexplained gap as a measure of the impact of the credit crunch. But there are valid objections to this line of thinking. Bean makes the important observation that bank credit flows fell in both 2008 and 2009, yet it is only the outcomes in 2009 that we struggle to explain. Why should the slowdown in credit have had such little macro effect in 2008 but such a dramatic effect in 2009?

My conjectural answer is that households and firms were probably able to rely on their cushions of liquid assets in 2008, but, once these were depleted, the continued contraction of credit forced households and firms radically to scale back, or at least postpone, their expenditure. With a time lag, the credit crunch led to a substantial amount of *forced* as well as precautionary saving. Forced saving is registered in the spectacular jump in the private sector's financial surplus, which shows the excess of private disposable income over private spending. From roughly zero in 2007, the financial surplus rose to 3% of GDP in 2008 and to 10% of GDP in 2009, about nine times the post-war norm. Private spending was perhaps 12% below its trend level.

My tentative conclusion is that the credit crunch probably played a large role in depressing UK private spending. I suspect the same may be true of some major overseas economies, including the US, an impact that would have contributed to the 10% fall in UK exports last year.

The credit crunch, then, may help to explain why the recession was so deep, but it is cold comfort now that we have the task of forecasting without the benefit of models that reliably integrate banks' credit creation with the behaviour of households and firms. The search for new models that work empirically is still at the laboratory stage.

BANKING CRISIS "LESSONS" – TWO CAMPS

The forecasting problem has motivated the lively industry in business cycle studies, which aim to see if past banking crises can give us a clue about the future. I shall not spend time describing these studies except to stress that there is a very clear divide.

The majority view, heavily influenced by Reinhart and Rogoff's massive works, envisages permanent damage to the level of activity. The minority view says that recovery will be strong. Put starkly, the first camp can see GDP returning to a previous rate of growth but at a lower level of activity. In time series analysis speak, if you like to use such terminology, camp one sees GDP as "difference stationary". Camp two, by contrast, is "trend stationary": it can envisage GDP growth so vigorous that the old trend level of activity is regained.

So which is right: difference stationary or trend stationary? No one knows. Open-minded policy makers are just confused, albeit at a higher level.

RUMSFELD UNCERTAINTY

My conclusion about forecast uncertainty is that it is deep and not fan chartable: we have little idea about the probability distribution of forecast errors. The credit crunch may have had a major impact on private expenditure, here and abroad, but no one really knows. Nor is anyone in a good position to forecast the speed and scale of banking system recovery, here and abroad, nor therefore the speed and scale of the broader economic recovery.

The result is that policy makers are left in the unenviable position of having to plot a course of action that would be tolerable under a range of sharply contrasting future economic conditions of seemingly equal prior plausibility.

TWO MEDIUM-TERM SCENARIOS

In an attempt to put flesh on this thought, I developed in my April study two medium-term scenarios for the UK, one depicting a fast recovery, the other a slow one. *I firmly resisted the temptation* to *adjudicate as to which was the more probable, and will continue to so.*[5] For this seminar, I have updated the scenarios for the impact of the June Budget measures and the OBR forecast.

It is worth saying that these scenarios are not an attempt to depict the most extreme outcomes imaginable. What they show, in a way that fan charts cannot, is how

[5] Rebalancing the British economy: a strategic assessment, Centre for Business Research, University of Cambridge, April 2010.

medium-term outcomes could be affected by transparent changes to key driving assumptions. It is a way to convey uncertainty in digestible form.

In brief, the fast recovery scenario assumes fast export growth, a strong response to competitiveness gains arising from sterling's fall since 2007, rising house and stock market prices and a diminished impact from the credit crunch.

The slow recovery scenario, by contrast, assumes a more limited export revival and competitiveness response, probably reflecting supply weaknesses, weak housing and stock markets and a persistent depressing impact from the credit crunch.

Much of the detail is in my April study, but some words are necessary to explain why these scenarios differ from the OBR's. This will take us on a fun excursion into the intricacies of macro forecasting but bear with me because there is a point.

SCENARIO ANALYSIS – THREE STEPS

I construct my scenarios in three steps. First, I align my model with the OBR projections; second, I impose alternative assumptions, and third I use the model to generate internally consistent scenarios.

The important first step means that there exists a baseline projection which I have no need to show you since it replicates the OBR forecast for all key variables of interest, such as nominal and real GDP, the expenditure components, the level of tax receipts and government spending, financial sector balances, interest rates and so on.

The main reason for step one is to take full advantage of the collective wisdom of the Treasury's tax and public spending experts. Although they may be wrong, they have a clear comparative advantage. Having imported their collective wisdom, I can use the model to simulate variations around the OBR fiscal outlook, relying on the model's estimates of the automatic fiscal stabilisers. These estimates are not far short of the Treasury's own ready reckoner.

There is one other benefit that comes from this alignment process: it sometimes brings to the surface underlying official judgements that may not be visible to the naked eye. For example, it was clear last year that the Treasury's judgement about future tax revenues was very cautious - excessively so as it turns out. I take the OBR's assessment of tax buoyancy as a given, but there are two other judgements that I find worrisome. The first concerns the related topics of productivity, real wages and unemployment. The second concerns import penetration.

OBR PRODUCTIVITY PROJECTION

On the question of productivity, consider the following crude arithmetic. By 2015, the OBR's projection for GDP is some 9% below a pre-crisis trend growing mechanically at 2½% a year; so none of the shortfall in GDP that occurred in the recession is made good. Yet the unemployment rate falls to 6% by 2015, not far above its pre-crisis level. How can this be? How can such a large shortfall in output be squared with such a limited rise in unemployment?

The main arithmetic explanation is that the projected shortfall in employment against trend is nowhere as large as the shortfall in output against trend. As a result, there is a permanent shortfall against the pre-crisis trend in productivity. In fact, GDP per worker grows at 1¾% a year in the OBR forecast, so the recession shortfall against a pre-crisis trend growing mechanically at 2% a year gets a little larger.[6]

There is a further point, which brings in the behaviour of real wages. A slump in the level of productivity might normally be expected to push up labour's share in GDP. But in the OBR projections, the downward productivity shock against trend is accompanied by a downward adjustment in real wages, so much so that labour's share in GDP continues to fall.

All this is quite logical and there are indeed good grounds for the OBR's assessment. Real wage flexibility during the downturn meant that fewer jobs were lost than expected, so that unemployment rose by less than forecast, even by labour market experts. However, real wage flexibility is probably only part of the story. There is also a question over business behaviour and firms' willingness to hoard labour.

One could look at the US case. Although some blame higher minimum wages for the increase in youth unemployment, the US labour market is typically regarded as far more wage flexible than comparable European labour markets. Downward real wage flexibility might have been expected to encourage labour hoarding in the US, but labour hoarding was notable by its absence. Last year, US productivity rose even while output fell and real product wages stagnated.

Perhaps US businesses are naturally more aggressive, but I would not rule out the possibility that capital market pressures emerge forcing British businesses to catch up. Productivity catch-up could lead to a shakeout, or at least a less job-rich recovery. Real wages could then rise faster than the OBR assumes but with the unemployed outsiders exercising little influence on the pay of the employed insiders.

I have adopted what I regard as a more neutral position than the OBR's. The recession rise in labour hoarding is taken as read but growth in output per worker in the period to 2015 is raised, granted similar GDP growth, by ¼ percentage point a year, taking productivity growth closer to the post-war norm. At OBR levels of output, this small change adds arithmetically 1¼ percentage point to the unemployment rate in 2015.

IMPORT ELASTICITY I

The other underlying assumption that I find challenging concerns imports, where I believe the OBR judgement is too optimistic. After 2010, the OBR's projections show imports growing below or close to the growth of private total final expenditure, the sum of exports and private domestic spending. On average, the ratio of import growth to private TFE growth each year – a crudely measured import elasticity – is about 0.8 after 2010. A one-percentage point rise in private TFE growth comes with a 0.8 percentage point rise in import growth. This seems rather low.

[6] Projected productivity growth in terms of non-oil gross value added per worker (approximately inferred from the OBR's Chart 1.12) is slightly higher, but remains below the post-war average.

It is true that economy-wide total final expenditure, which includes government spending, grows less quickly than private TFE, so the elasticity worked out with the economy-wide measure as the denominator is higher. But I doubt whether falling government spending will have much of an influence on imports. From what one can tell from very dated input-output tables, government spending has a low import content.[7]

A glance at Britain's post-war record shows that we infrequently observe import elasticities as low as 0.8. In annual data, elasticities below one have been observed on only a dozen occasions since 1949 and the comparatively low rate of import growth in those years is not obviously the result of competitiveness gains rather than of things like import controls and strikes.

IMPORT ELASTICITY II

Nor do we normally observe the *persistently* low elasticities depicted in the OBR forecast after 2010. Simple averages of annual elasticities are shown in this histogram for overlapping 5-year periods since 1949. There have been, in fact, only three such periods in which the import elasticity was less than 1, and those periods were back in the late-1950s and early-1960s.

HMT & OBR FORECASTS FOR 2010

Another piece of evidence comes from recent revisions to official forecasts for 2010. Since the Pre-Budget Report last December, there has been very little change in the forecast for GDP growth for 2010, but a material increase in forecast import growth and in the implied import elasticity. The elasticity has risen nearly four-fold. The data outturns may be telling us the official judgement on imports is too optimistic.

REBALANCING ASSUMED

I must also raise the suspicion that the low rate of import penetration projected in the OBR forecast after 2010 is a carry over from a basic assumption that explicitly underlay the former Treasury projections. Keen readers of the December Pre-Budget Report would have found in Annex A, paragraph 42, page 146, the statement that the Treasury forecast *assumed* the economy would rebalance in an orderly fashion, aided by sterling's depreciation. A similar statement appears in the March Budget document.[8] Granted that assumption, it is perhaps not surprising that the Treasury projections show the economy gradually returning to internal and external balance. I have not found a similar statement by the OBR, but great minds often converge.

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[7] The same import-output information can be used to produce a weighted average growth of total final expenditure, where the weights reflect import content of the major expenditure components. The import elasticity calculated from this measure of spending growth averages 1.0 in the OBR projection after 2010. This also appears low by historic standards. Such calculations are in any case compromised by the age of the input-output tables and their assumption of linearity.

[8] These statements are rather more graphic expressions of the Treasury's long standing "growth cycle" approach to forecasting, one that anchors the medium-term outlook on the Treasury's projection of the trend level of output to which the economy is assumed eventually to revert. It would, perhaps, have aided public understanding had the Treasury consistently referred to its medium-term projections not as forecasts but as "planning assumptions", useful for the purposes of tax policy and public expenditure control.

I do not *assume* rebalancing and I have adopted a somewhat less sanguine assumption about import penetration, but *not* a pessimistic one. The implied import elasticity between 2011 and 2015 in the fast recovery scenario is 1.2; in the slow recovery scenario it is 1.0. Both are well below the historic mean but above the OBR's 0.8.

SCENARIO ANALYIS – THREE STEPS

Other reasons for differences between my scenarios and the OBR's projections arise from the imposition of alternative driving assumptions. The assumptions about asset prices and the impact of the credit crunch can be briefly described as "supportive" in the fast recovery scenario and "depressing" in the slow recovery scenario. But I should say a little more about exports and the response to competitiveness gains.

The OBR projects average export growth of 5½% a year over the six years to 2015, an expansion which would be *insufficient* to take UK exports back to a level consistent with previous trends. There may be good reason for such caution, but a number of studies of the world trade collapse, notably the book edited by Richard Baldwin[9], make a reasonable case for assuming that world trade will rebound to its pre-crisis path. In the light of this argument, UK exports are assumed to return fully to their pre-crisis trend in my fast recovery scenario and to within 95% of it in the slow recovery scenario. In addition, there will be some effect coming from the competitiveness gains, assuming they are sustained. For the fast recovery scenario, I have used a trade response that lies towards the upper end of such estimates; in the slow recovery scenario, the response is halved. Most of this competitiveness impact is allocated to imports, in line with OBR reasoning, but what remains is allocated to exports.

The bottom line is that the fast recovery scenario has exports growing at 7½% a year on average, a rate almost unprecedented in the post-war era. The only occasion when export growth exceeded 7½% a year over six years was in the period of synchronous global overexpansion that ended in 1973. The slow growth scenario has exports growing at 6% a year. Both of these assumptions exceed the OBE projection.

We are nearly at the end of this excursion into the mechanics of macro forecasting. The final step in the construction of my scenarios is to feed these assumptions through the model. For scenario analysis, the main virtue of the model lays in its exact and detailed accounting of income and expenditures flows and related stocks of financial wealth; the accounting is indeed rather more important than the behavioural relationships. It makes sure there are no black holes.

The time has come for a slide show giving the main features of the scenarios over the period to 2015. But the show comes with an important proviso. No weight should be attached to the year-to-year movements of the variables shown; all that matters is the broad picture and what we learn from it.

[9] *The Great Trade Collapse: Causes, Consequences and Prospects*, Centre for Economic Policy Research, VoxEU.org Publication, November 2009.

SCENARIOS – GDP GROWTH

This slide shows GDP growth rates for the two scenarios and compares them with the latest medium-term consensus and the OBR's projections. In contrast to the previous Treasury forecast, the OBR is close to consensus, while the fast recovery is somewhat above both. Average growth is 2¾% a year. It is easy to envisage even faster near-term growth under this scenario. In my study, I argued that the private sector adjusted to wealth shocks during the recession much more abruptly than would normally be the case - which may mean that private saving falls more rapidly, with private spending surprising on the upside. But upward surprises to private spending would carry medium-term risks, which I shall come to later.

The slow recovery scenario, by contrast, is very depressed - average growth of only ¾% a year. The implication is that the output shortfall measured against a mechanical 2½% growth trend gets wider. By 2015, the shortfall doubles to 18%, more than 10 percentage points above the fast recovery scenario.

But in the circumstances envisaged I doubt whether it would be right to think of an unbending growth in the economy's productive potential. Even though the primary cause of the output shortfall is a deficiency of demand, it is likely that there would be damaging consequences for aggregate supply, through, for example, less investment, the break up of organisations, a loss of intangible capital and perhaps less innovation. The lasting, and possibly irreversible, damage that demand deficient exerts on supply is the message that comes from Christopher Dow's great work on major UK recessions.[10] The recent banking crisis studies can be said to carry a similar message.

Some, including the Treasury and OBR, argue that the banking crisis has had a directly damaging impact on aggregate supply, and I understand the reasoning. But it is not altogether clear why the contraction of an activity that extracts large economic rents should be regarded as wholly damaging to supply. Nor, as David Miles has cogently argued, is it obvious that the burden on banks as a result of tougher regulatory requirements would have a damaging effect that outweighed the benefits of a more stable banking system.[11] I find more convincing a story of endogenous supply, in which potential output is ultimately undermined by a prolonged period of demand deficiency: a reversal of Say's Law.

SCENARIOS – UNEMPLOYMENT

Not surprisingly, projected unemployment continues to rise under slow recovery reaching 11% by 2015. The unemployment rate falls towards 6% under fast recovery - close to the OBR projection though with a higher level of activity. The implied rate of productivity in terms of GDP per worker is about 2% a year in the fast recovery scenario but less than 1% a year in the slow recovery scenario. Both assume that the labour hoarded during recession is not shaken out.

I am now going to turn to sectoral financial balances, starting with the private sector.

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[10] *Major Recessions: Britain and the World, 1920-1995*. Oxford University Press, Oxford, 1998.
[11] Monetary Policy and Financial Stability, speech to Bristol Business Forum, July 2010.

SCENARIOS – PRIVATE FINANCIAL SURPLUS

Under fast recovery, the private sector surplus falls from its unnaturally high level last year, reaching zero by 2015, just a little below the post-war norm of 1% of GDP. But under slow recovery, the financial surplus remains abnormally elevated, at over 10% of GDP, and it is on this outcome that I want to focus.

The underlying story is of protracted private sector balance sheet repair, including the repair of banks' balance sheet. Asset price deflation and an enduring credit crunch are the driving assumptions. In these circumstances, the desire to reduce excessive debts leads the private sector to cut spending relative to income, raising the private sector financial surplus, an action that in turn deflates the economy. This mechanism was a primary driver of the recession and it persists in this depiction of the recovery.

PRIVATE SURPLUS – SLOW RECOVERY

The scenario implies a shift of regime. Prior to the crisis, the private financial surplus had a tendency to mean revert, and not to stay at very high or very levels for long. In the slow recovery scenario, the private financial surplus does not mean revert. Is this plausible? The answer must be yes. One has only to look at the Japanese case to find an example of a shift to an abnormally high and persistent private surplus during Japan's "lost decade" – which must now count as the longest decade on record. Last year, Japan's private sector surplus was 10% of GDP.

SCENARIOS – BUDGET DEFICIT

The budget deficit is the main counterpart to the private financial surplus. Under fast recovery, the budget deficit disappears by 2015, a sharper rate of consolidation than envisaged in the OBR projection. But under slow recovery, the budget deficit is still over 7% of GDP in 2015 and it comes despite a discretionary tightening that reduces the structural deficit on OBR estimates by over 8 percentage points relative to GDP.

This outcome amounts to a major fiscal policy failure and it arises because of incompatible saving targets. Both the public and private sectors are simultaneously engaged in conflicting debt reduction strategies. In the same way that incompatible income targets of capitalists and workers can cause systemic inflation problems – a problem sometimes referred to as "the battle of the mark-ups" - so incompatible targets of the private sector and the state to reduce debt can cause systemic demand deflation problems - what might be called "the battle of the savers". In the scenario, the public sector loses the first round: the deflation of demand causes the budget deficit to overshoot through the operation of automatic stabilisers. But the stabilisers can be overridden. Were the government to do so at a time of private deleveraging, the result would be a further reduction in activity and a downward spiral.

It is worth noting that the conditions depicted under slow recovery are very different from those that operated in the second half of the 1990s, a period which is often cited to give reassurance about the impact of tight fiscal policy. In my opinion, this reassurance is based on a misreading of history. In the second half of the 1990s, the economy grew rapidly notwithstanding public expenditure restraint. But this was also a period of stock market exuberance: a massive bubble formed in America, a large

one formed here, and the British housing market was recovering from a deep trough. These developments were a major support for private spending. There was a record downswing in the private sector financial surplus, which turned into a 4% of GDP deficit by the year 2000. The conditions that operated in the second half of the 1990s could hardly be more different from those envisaged in the slow recovery scenario.

SCENARIOS – GOVERNMENT DEBT

This slide shows the cumulative effect of the budget deficit projections for the outstanding stock of government debt in relation to GDP. Under the fast recovery scenario, the debt ratio by 2015 is 65% and falling, below the OBR projection.

Again the notable feature of the slow recovery scenario is that despite its efforts the government fails to prevent an escalation of its outstanding debt in relation to GDP. By 2015, the debt ratio is close to 100% and rising. This is a paradox of deleveraging. The state's attempt to deleverage alongside the private sector's attempt to deleverage deflates the economy, and causes a government that passively accepts the impact of automatic stabilisers to run a much larger cumulative deficit than it planned.

PRIVATE FINANCIAL WEALTH & PUBLIC DEBT

The question then arises whether such a large debt would be financeable - to which the short answer is that it should be as long as the private sector remains confident that the government will not renege. The logic is straightforward. The private sector's extra saving which it undertakes to improve its balance sheet must be held in financial form. The private sector's financial wealth represents claims on the state and on non-residents; that is to say, the wealth largely comprises government bills and bonds and overseas assets. Most of the counterpart to private financial wealth takes the form of government debt. As the slide shows, rising government debt and rising private financial wealth are two sides of the same coin: the private sector saving creates a counterpart flow demand for extra bonds. In Japan, this mechanism appears to work well. Ten-year Japanese bonds yield about 1% while the debt ratio exceeds 100%.

However, there is an obvious downside. The burden of many studies is that perceived sovereign default risk is inversely related to the rate of economic growth. A nation with a chronically weak economy, impaired institutions and civil unrest may decide that default is the better part of fiscal austerity. In this case, the escalation in government debt may give rise to a market hiatus, a "capital stop" and a collapse in the exchange rate. So despite the highly depressed state that this scenario depicts, the unpleasant implication is that it might also come with very high inflation. Supply potential is undermined by persistent demand deficiency and currency debasement removes the price level anchor, reigniting a wage-price spiral Cagan-style.

SCENARIOS – BALANCE OF PAYMENTS

Finally, I come to the balance of payments, which apparently poses no difficulty under either scenario. Under fast recovery, the current account is in modest deficit in 2015, marginally higher than the OBR projection. Under slow recovery, the balance of payments goes into substantial surplus, around 3% of GDP in 2015.

However, these outcomes hide a problem. In neither scenario does the economy achieve internal and external balance. Unemployment is high, and in the slow recovery scenario very high. One can therefore usefully ask what would happen were the recovery of private demand to prove far more robust, sufficient say to reduce unemployment to its pre-crisis level.

"FULL-EMPLOYMENT" FINANCIAL BALANCES

This slide shows such a simulation. GDP growth over the period to 2015 now runs at 3½% a year, sufficient to get the unemployment rate down to 5%. Note that this level of unemployment would still imply some output shortfall – of about 3½% - measured against a pre-crisis trend growing at 2½% a year. It is also likely that there would continue to exist many discouraged unemployed who do not get counted as such. These points explain the qualifying quotes around the term "full employment".

The two scenarios reflect different assumptions about the international trade performance of the economy. The strong trade performance assumes export growth of 7½% a year and substantial import substitution – the assumptions used in the fast recovery scenario. The moderate trade performance assumes 6% a year export growth and less import substitution – the assumptions used in the slow recovery scenario.

As imports rise on the back of higher private spending, the balance of payments in both scenarios moves into deficit: by 2015, the deficit lies between 3½% and 7% of GDP. According to many studies, this scale of deficit would put the economy at risk of a capital stop. Note also that the private sector goes into massive deficit, a sign of internal imbalance. As both scenarios assume strong export performance, these outcomes are by no means the worst that could be imagined.

The results have a bearing on a point I made earlier, about the scope for near-term private spending surprises on the upside. I said that such a recovery would carry medium-term risks, and it is apparent from the fast recovery scenario what they are. Recall that in this scenario the private sector financial balance falls to zero by 2015. It follows that any near-term addition to the level of private spending over and above that traced in this scenario that is not later reversed must, as a matter of arithmetic, put the private sector into financial deficit and undermine the balance of payments.

The simulations suggest that were there a surprisingly strong domestic expansion sufficient to restore some semblance of full employment, the result could be an unsustainably large balance of payments deficit. One could say that the "full-employment" current account deficit is too big or simply that the economy would struggle in the medium term of regain internal and external balance simultaneously. These are two ways of expressing the same thought.

In my study, I argue that this latent balance of payments problem is part of an historic tendency for the British economy to suck in more imports than it exports, a tendency that may have been partly disguised over several decades first by the boom in oil and second by the boom in finance. Finance is now a more uncertain prospect while the North Sea is a diminishing resource. Ken Coutts and Bob Rowthorn presented a

careful and disturbing account of the resulting long-term adjustment problem in a recent paper.[12]

SCENARIO LESSONS

To summarise, the OBR projects an economy that almost completely rebalances by the middle of the decade. This is a logical and possible outcome, but in several respects may prove too optimistic. The projected level of unemployment is sensitive to an assumption of persistent labour hoarding, accommodated by low real wages. And the prospects for the balance of payments and level of activity are flattered by an aggressive assumption about import penetration.

The scenarios I have constructed make rather modest alterations to both these underlying OBR assumptions but also assume much faster export growth. Even so, the fast recovery scenario, which is closest to the OBR projection, disguises a latent balance of payments problem. The slow recovery scenario, which assumes a continued credit crunch and asset price deflation, gives the worst of all worlds: stagnation of demand, the probable impairment of supply, the rising possibility of a capital stop, an exchange rate crisis and escalating inflation.

POLICY CHALLENGES

This leads us to some thoughts on policy. The first challenge that policy makers face is to avoid the slow recovery scenario, and certainly to avoid polices that make it more likely to happen. Some reasonably fear that the planned fiscal contraction creates precisely this impediment to expansion, and it clearly raises such risks. It was, perhaps, a cruel twist of fate that the new coalition government was formed during the panic of a sovereign debt crisis in some smaller European economies. One wonders if the same fiscal decisions would have been taken in less fraught circumstances. But, in present company, I feel bound to take fiscal policy as read. That leaves us with monetary policy as a demand stabiliser. The question is whether it is up to the job.

Difficulties would arise if inflation persistently overshoots or if demand softens. So far, the Bank has been willing to look through the inflation overshoot in the belief that inflation would fall back in the medium term and that it was more important to support demand and encourage an endogenous recovery of supply. I think this is the correct judgement, but a further escalation of inflation could alter the Bank's perception of the balance of risk.

A downward shock to demand would pose a severe test. Base rates cannot go lower and an extension of quantitative easing may not be enough. Moreover, persistently and unnaturally low interest rates have insidious side effects: they threaten the core profitability of some financial institutions but help others and provide an incentive for savers and perhaps banks to seek higher yields in return for sometimes unappreciated higher levels of risk. There is a danger of asset price bubbles and increased systemic risk coexisting with depressed aggregate demand.[13]

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[12] "Prospects for the UK Balance of Payments", Civitas: Institute for the Study of Civil Society, March 2010.

[13] A danger usefully highlighted in the 80th Annual Report of the Bank for International Settlements, June 2010.

In opposite circumstances, those in which there was sudden and undesired surge in demand, monetary policy should prove more effective. Indeed, at current levels of gearing, households' reaction to higher interest rates might be pronounced.

The other challenge is to promote a recovery that raises the chances of securing medium-term internal and external balance. It is now common ground that this means encouraging an expansion of exports relative to imports, though perhaps somewhat more contentious is the view that the internationally traded sector may have to become even more price and cost competitive than it is now, implying, perhaps, a need for further currency depreciation. Higher than expected inflation is a sign that the economy is struggling to absorb the competitiveness gains of the last two years. For that and other reasons, a further large fall in sterling now could easily prove unhelpful, although I believe it may well be necessary over the medium term.

Supportive supply side policies that encourage a shift of resources from the non-traded to traded sector are also desirable, if we could only devise them. It is certainly not axiomatic that a reserve army of former civil servants and bankers will find profitable re-employment in manufacturing and international services.

There is finally one major threat to recovery that needs highlighting. A re-rating of the UK by international asset managers or the re-emergence of a speculative carry trade if UK interest rates rise could lead to a substantial appreciation of sterling. Currency appreciation now would severely undermine Britain's chances of successful medium-term rebalancing and, in my opinion, should be stoutly resisted at a time of underemployment by currency intervention and, in extremis, the reintroduction of temporary capital controls.

The need to resort to controls would be unfortunate but I note that even the International Monetary Fund has recently come to endorse the use of temporary capital controls by developing countries tackling speculative inflows.[14] Moreover, capital controls may well be required to give bite to the future macroprudential policies of the new Financial Policy Committee. Despite the distortions, the use of temporary capital controls may be a price worth paying to achieve economic balance.

[14] Capital Inflows: The Role of Controls, IMF Staff Position Note, February 2010.