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433rd Meeting

106th Year

The Honorable Mark Carney
Governor, Bank of England

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Questioners: Jane Hartley B CEO of The Observatory Group and Former Vice-chair of The Economic Club of New York

Jerry Speyer B Former Trustee and Chairman and Co-CEO of Tishman Speyer

Roger Ferguson: Good afternoon. Good afternoon and welcome. Welcome to the 433rd meeting of the Economic Club of New York. I=m Roger Ferguson, chairman of the club, which is now in its 106th year as the nation=s leading nonpartisan forum for economic policy speeches.

Throughout the long history of the Economic Club of New York, we=ve had more than 1,000 guest speakers appear before us, establishing a strong tradition of excellence which we continue today. I would like to begin by recognizing the 205 members of the Centennial Society who have contributed their support to the club to ensure its continuing financial stability. Thanks to all of you for helping to ensure that the club can continue to fulfill its mission well into its second century. And I would also like to take a moment to welcome the students who are with us today from Columbia and NYU Business Schools, Yeshiva University, Western Connecticut State University, and West Point. Their attendance is made possible by our members. Today we are pleased to continue our tradition of hearing from the Governor of the Bank of England in early December of each year. This year we welcome Mark Carney, the Canadian, who became the Governor of the Bank of England in July, and already the British economy is showing signs of a turnaround. Mark Carney also serves as chair of the Financial Stability Board and as the First Vice Chair of the European Systematic Risk Board, and he=s a member of the Group of Thirty. The Governor graduated from Harvard and received his master=s degree and doctorate in Economics from Oxford University. He is the former Governor of the Bank of Canada and before that he had a 13-year career at Goldman Sachs in London, Tokyo, New York, and Toronto. Governor Carney, the floor is yours.

The Honorable Mark Carney

Thank you. Thank you very much, Roger. And thank you Bill Dudley for asking me to do this, arranging for me to do this. Hopefully this tradition of having a new governor of the Bank of England every year in December will stop with this one, at least for a few years. I want to start, obviously I appreciate all of you taking your time during a period, during the festive season. It=s always a pleasure to be in New York during this time of year. It=s a time where in this city everything seems possible. And unfortunately though, recently appearances have deceived for some years. The hopes and dreams of the holiday season, I=m getting poetic, Roger, don=t worry, it gets into some economics later on, but the hopes and dreams of the holiday season have gone unfulfilled as the bright lights of December have given way to the grimmer realities of January.

Because it=s around this time of year, every year, that policymakers, analysts, economists make their predictions, take stock and make their predictions. And taking stock for four of the last five years has meant recognizing that the past year has been disappointing but predicting that the next year will be better. And this year is no different. Whether it=s the IMF, the Bank of England, or private forecasters of advanced economy and global growth, everyone is saying last year was disappointing but there will be faster growth in the advanced and global economies in 2014. And so the question obviously is whether those hopes will again be dashed once the new year dawns.

That=s the short term. More profoundly, that string of disappointments, as that string of disappoints has lengthened, some are raising deeper questions. And it=s been suggested that there=s a maligned spirit, some spectre of Christmases past, that haunts our future. In particular, no less an authority than Larry Summers has raised the prospect of secular stagnation, that secular stagnation could be the root cause of both past excess and current weakness.

And so today what I want to try to do is explore a bit those deeper questions and what they mean for policy. But before I raise those challenges of the pessimist, if I may, I=ll keep with recent practice by focusing on the case for optimism.

And as Roger alluded, the news from the UK is positive. Inflation has fallen, from more than 5 percent in 2011 to 2.2 percent now. Jobs are being created at a rate of 60,000 per month, all full-time, all in the private sector. And 60,000 a month in the UK is about equivalent to 300,000 non-farm payroll here. And growth in the UK B for the moment B is the strongest in the advanced world. So with that, I=ll stop and take questions. But it has to be admitted that this recovery B for the moment it=s the strongest in the advanced world B this recovery is relatively recent. It started in earnest in the second quarter of this year and its timing and pace caught most unawares. And certainly, the level and the degree of cumulative economic surprises in the UK dwarfs those that have been seen elsewhere in the advanced world.

Now with the wisdom of hindsight, we can see three main drivers of that recovery. The first, obviously a reduction in the extreme uncertainty that prevailed for a number of years. Secondly, significant progress in repairing the core of the British financial system, and I can give you a number of stats on that, but just to summarize them, risk-weighted capital ratios doubled in the course of the last three years. And thirdly, a marked improvement in household balance sheets in the UK with debt to income ratios falling by about 30 percentage points.

So together, improved access to finance and raised expectations of future prospects led to a reduction in precautionary savings by households, a modest recovery in consumer spending, a revival in the housing market and housing investment, and an increase in business confidence in the UK to its highest level in 15 years.

I think if you take the British experience together with what happened in the US when the recovery began here, they underscore that a recovery isn=t possible without transparent and meaningful re-capitalization of the banking system. That=s obvious, but it hasn't=t happened everywhere in the advanced world. And secondly, that households need to make progress on de-levering before they have the confidence to consume again.

And so the question, as I said at the outset, is whether such progress is sufficient for durable sustained and balanced recoveries over the medium term.

And the pessimists would argue that it isn=t. Their case starts from the observation that advanced economy growth rates remain below pre-crisis levels, despite the scale of the fall after

Lehman and the years of emergency monetary stimulus. More fundamentally, they point to the pre-crisis period when loose financial conditions didn't=t generate a boom in output and associated inflation. And so they ask whether stagnation could be the new normal?

So I want to divide the explanations behind that question into the two constituent explanations, effectively whether on the demand side this is the result of a persistent liquidity trap which makes it difficult for resources to be fully utilized, or whether on the supply side there=s been a persistent deterioration in supply side growth such that full utilization of resources is consistent with slower growth.

So I=ll start with the liquidity trap, and as everyone, certainly everyone on the dais and everyone in this room knows this, it occurs when short-term nominal interest rates hits the zero lower bound, and typically the equilibrium real interest rate is negative, creating a persistent inability to match aggregate demand and supply.

Now before proceeding, I should make clear what I mean by the equilibrium real interest rate, also called the natural interest rate, and I=ll use Roger Ferguson=s definition. I couldn't=t improve on it, so I will use it. Roger, when he was vice-chair, made a speech on this, I think, back in 2004, he probably made a few speeches on this given the time, but back in 2004, and defined it as the real policy rate that, if allowed to prevail for several years, would place economic activity at its potential and keep inflation low and stable.

Now for small open economies, like the United Kingdom, that equilibrium real rate is determined at the global level by the balance of the supply of savings and the demand for investment. In the run-up to the crisis, that balance shifted decisively as what Ben Bernanke has christened a Asavings glut@ from emerging economies developed. And the flipside was low demand for advanced economy exports and relatively low domestic demand in emerging economies. And only very low global real interest rates could spur sufficient domestic demand in advanced economies to maintain activity at its potential level.

Now the problem of course was that the expansion of domestic demand in advanced economies largely took the form, what we saw in retrospect, was unsustainable consumption rather than business investment. And worse was to follow: the ensuing financial crisis pushed the equilibrium real interest rate down further and, with nominal interest rates stuck at zero and inflation low, monetary policy was unable to push actual real interest rates to a level low enough to maintain full employment, a situation that persists today.

Now the danger is that this situation becomes unstable as weak demand and uncertainty cause companies to hold back on investment and households to postpone spending. And with the balance of savings and investment therefore further deteriorating, the equilibrium real interest rate falls even further. At the same time, wages and prices are forced down, pushing up actual real interest rates and a deflationary spiral results.

And that=s not the only danger. Attempts to reach a very low or negative equilibrium real interest rate B both through conventional reductions in rates, down to zero, and unconventional asset purchases B can risk generating unbalanced, unsustainable demand.

In particular, my predecessor at the Bank of England, Mervyn King, and my predecessor last December, in fact he spoke of this last December, emphasized that by encouraging spending to be brought forward from the future and debt to be accumulated in the present, a greater shortage of demand tomorrow will develop unless the income of those who have taken on those debts picks up. And if it doesn't=t, monetary policy will have to in effect double down in order to sustain demand. I don=t think Mervyn used double down. That wasn't=t a quote. I use double down, but it=s the same concept that as you pull forward you create a bigger hole in the future. And you have a situation effectively of compounding stimulus which could promote financial vulnerabilities through indiscriminate search for yield, a compression of risk premia to unsustainable levels or via extrapolative expectations of future asset prices. Perceptions, if they develop, of a central bank put B where markets interpret all bad news as good news because bad news will be met by even more central bank stimulus B those perceptions can reinforce these risks. And when the inevitable correction finally occurs, the shortfall in demand and the scale of the liquidity trap would be insurmountable in this scenario.

So that=s the theory. That=s the problem. Let=s move from that to the current situation and look at the extent to which that sketch resembles the situation in the United Kingdom.

Well, first it=s clear as the monetary policy stance of the MPC, the Committee of the Bank of England that sets monetary policy, as that reflects we do judge that the equilibrium real interest rate has been and continues to be negative. Despite those low real interest rates, resources in the UK are far from fully employed. There=s still 850,000 people still out of work relative to before the crisis. And GDP is about 20 percent below where it would have been if it had followed its pre-crisis path.

Now as bad as those figures are, the scale of the mismatch between aggregate supply and demand hasn't=t been large enough to generate a deflationary spiral. In fact despite low nominal wage growth, rising import prices and weak productivity, something I=ll come back to, weak productivity in the UK have meant that the UK=s problem has been that inflation has been too high and the challenge has been to get inflation back to target from above. Now in this regard there has been welcome progress. Headline inflation has fallen back much sooner than we had expected, and core inflation measures are now running slightly below our 2 percent target.

So not necessarily the issue with the liquidity trap in the UK on the order of magnitude described by the sharp pessimist case with respect to inflation, but what about the risks of unbalanced growth? And in this regard, the situation is more delicate. Despite admirable progress, British households have reduced aggregate debt levels substantially, but they are still high. They are about 140 percent of incomes. And in addition, housing activity is picking up and price growth appears to be gaining momentum. Moreover, the UK current account deficit is at record levels.

Now these developments merit vigilance but not panic. The housing recovery could reflect higher future income expectations prompted by the nascent recovery and by better credit conditions. And although the current account position underscores the need for the recovery to shift over time towards investment and exports, it would be unreasonable to expect that to have happened already. Demand from the UK=s major trading partners, particularly the euro zone, remains weak and recovery in that demand appears some way off. And recoveries themselves are seldom led by investment. Ultimately, a sustained recovery in the United Kingdom will require a more robust and balanced recovery globally.

So in summary, the UK is in a situation where the equilibrium real interest rate has been negative, but where monetary policy has been gaining traction. There is early evidence that the liquidity trap will be escaped over time. And that=s not to suggest for a moment that warnings are not without merit, or that interest rates can return to normal soon, or that risk to financial stability arising from the emergency stance of monetary policy are not real, or finally that the escape itself would bring the freedom to grow at historic rates.

Now it=s in that last respect, this growing at historic rates, that the second story for a secular stagnation, the idea of persistent weak supply growth, is most relevant so I=ll turn to that. In many advanced economies, persistently disappointing output growth, despite that, unemployment rates have remained surprisingly low. And if you look at simple Okun relationships, the current British unemployment rate should be about 14 percent given where output has gone instead of the current level of 7.6 percent. In the US it would be around 10 percent versus the 7 percent figure released on Friday.

Now these discrepancies actually reinforce the case for secular stagnation and worries that the weak potential supply growth will constrain the pace of the recovery. Possible explanations for such weakness range from demographics to a slowing rate of technological progress.

Now I=m in the camp that thinks it=s unlikely that communicating in 140 characters represents the end of human progress B as useful as that discipline is I should say. Nor do I think central banks should always and everywhere take supply as exogenous which is the norm, or has been the norm prior to the crisis. Central banks can affect people=s decisions about how much to work and firms= decisions about how much to invest. And when the outlook is particularly uncertain, as it is in the wake of a major financial crisis, this influence itself could affect, in the near term, potential supply. Monetary policymakers must consider the extent to which their decisions affect, not just depend, upon the path of output.

Now in the US this question has been the subject of much recent debate. A recent Fed paper argues that potential supply growth is likely to respond to demand as the economy recovers, for example through additional capital deepening, as well as behaviors in the labor market.

The rise in the rate of unemployment here has been tempered by falls in the rate of labor force participation, as many of you know, and a slowdown in productivity growth. It is quite possible, as there is a recovery in demand, that those discouraged from work will begin to return to the labor force. And that=s more likely to happen the more quickly the demand recovers. And this dynamic suggests there=s scope for a stronger recovery in which falls in unemployment are much more limited than usual. So the Okun relationship doesn't=t hold going forward, or it pulls, I should say the economy moves more towards the Okun relationship over time.

Now potential growth in the UK could also be pro-cyclical but for different reasons. In Britain, the employment rate has fallen only a third as much as in the US. So actually a lot more people have remained in work. The flipside of that strength has been weak, exceptionally weak productivity growth. And so the question that we're facing is whether productivity growth will pick up now that demand is picking up? Now the fundamentals are promising. The labor market is flexible. There=s continued openness of this economy and there=s credible macro policy. And it is, in fact, hard to think of reasons why there would have been a persistent deterioration in the rate of potential growth in Britain.

And this point, this hypothesis holds particularly now that the UK financial system is beginning to function more effectively. Until recently, its weakness limited the reallocation of capital and labor from less to more productive activities. Indeed, whereas half of all the productivity growth before the crisis came through that channel, that channel of reallocation, reallocation appears to have made no contribution to productivity growth since the collapse of Lehman Brothers. And my point is that now that should begin to change.

And there=s other reasons to think that growth itself should bring a supply side improvement. As the economy recovers, investment should pick up and part-time workers should shift into more productive full-time work. There=s quite a high degree of part-time work in the UK at the moment. With a sharp fall in real wages during the recession, employees effectively priced themselves into low-productivity work at a time of weak demand. And to the extent that this allows skills to be retained and has reduced the cost of replacing particularly skilled workers as the recovery takes hold, the recovery could generate greater supply capacity and real wage growth as it proceeds.

Now it would be unreasonable to expect these positive outcomes to materialize immediately. Weak growth may have meant that companies have missed out on the productivity advances that they otherwise would have made through learning by doing. And skills have atrophied through underemployment rather than through unemployment. The recovery will therefore need to be sustained for a period before productivity B and ultimately real wage gains B can resume in earnest. And that=s the picture that, in our view, is borne out in the latest UK data.

So in summary, while the UK experience doesn't=t rule out the possibility that supply growth has slowed, this thesis is only now beginning to be tested. And the nature of the slowdown in the UK, particularly in the labor market, suggests that supply will likely increase alongside demand for some time.

So let me shift, so those are the two explanations, I want to speak for a few minutes on the policy implications and then conclude.

So the risks to supply and the risks associated with the liquidity trap imply that central banks need to deploy a wide range of policies and deploy them in a coordinated fashion. The most obvious implication is that monetary policy should respond aggressively. To prevent the liquidity trap from becoming a coffin, central banks have set monetary policy at emergency levels by reducing short-term interest rates to their lowest feasible levels, undertaking large-scale asset purchases, and pursuing targeted interventions to ease funding and credit conditions. The possibility that potential supply will itself depend on the speed of the recovery reinforces this policy bias.

And forward guidance is integral to this response. Forward guidance reduces uncertainty by providing reassurance that monetary policy won=t be tightened prematurely before the recovery is sufficiently entrenched to sustain higher rates. This helps give households and businesses the confidence to spend and invest. And by setting the unemployment rate as the threshold, the guidance helps us, at central banks, test the endogeneity of supply.

Now what of unbalanced growth? The Bank of England is alive to the risks of extended monetary policy stimulus, and given its responsibilities for macro-prudential policy, it can act in a timely fashion to mitigate them. The Bank demonstrated this flexibility recently with a package of measures targeted at the housing market, and it has outlined a broad range of additional tools that could be deployed if further action were required.

The synergies of combining the monetary and macro-prudential authorities in one institution could be considerable. By sharing analysis and assigning a hierarchy of responsibilities between them, the Bank=s Monetary Policy Committee and its financial equivalent, the Financial Policy Committee, are ensuring that measures are timely, proportionate, and targeted. I=ll give you one example, the Bank introduced a few years ago the Funding for Lending scheme, and it introduced it originally for monetary policy purposes. Two weeks ago that scheme was refocused away from household lending, away from mortgages, to lending to small business, to business particularly small and medium-sized businesses, and that was done for financial stability reasons. Similarly, what we have done with both committees is make it absolutely clear that monetary policy is the last line of defense against financial stability risks, thereby establishing clear lines of responsibility and accountability.

And this coordination between monetary and macro-prudential authorities is particularly important if either of the secular stagnation stories is relevant. By addressing risks to financial stability, the Bank=s FPC, Financial Policy Committee helps ensure that monetary policy can remain as stimulative as necessary for as long as necessary to achieve its objectives. In doing so, it reduces the risk of a deepening liquidity trap caused by compounding debt-fueled consumption And at the same time it helps lay bare more clearly the underlying growth potential of the economy.

Now the third aspect of the policy response is better financial regulation and supervision. In both the US and the UK, the repair of the financial system was a prerequisite for the recovery. Indeed, one of the reasons behind a persistently negative equilibrium real interest rate has been the restricted supply of credit from a damaged banking system. Going forward, financial reforms will help guard against excessive pro-cyclicalities in the financial system that could emerge in a Alow for long@ environment.

But reform, financial reform, is about much more than just fixing failings in advanced economies. It=s also one of the keys to re-balancing the global economy. The global savings glut will not disappear in the absence of further financial liberalization in China. That will only proceed, in my view, if there is a transparent, resilient global financial system worth joining, and will only be completed by further internationalization of the renminbi. And these realities are key reasons why the Bank of England is so engaged in the work of the Financial Stability Board and has moved to support London as a hub for renminbi clearing.

So let me conclude. For the first time in a long time it seems reasonable to expect that the hopes and dreams of the holiday season will be fulfilled. I=m going to get literary again, okay, so don=t worry.

The Ghost of Christmas Present is a cheerful spirit. As uncertainty diminishes, credit conditions improve and balance sheet repair progresses, monetary policy is gaining traction. The strength of the UK recovery and the fall in its unemployment rate suggest that the equilibrium real interest rate is now gradually moving back towards zero.

However, as good as this is, the Ghost of Christmas Past shouldn't=t be forgotten. A recovery may be gaining pace but our economies are a long way from normal. Leverage is still high and weak demand for advanced economy exports will persist for some time.

The Ghost of Christmas Yet to Come suggests that it=s extremely unlikely that equilibrium real interest rates, or equilibrium interest rates will return to historic normal levels any time soon. This prospect puts a premium on both macro-prudential policies and financial reforms to manage the associated risks without abandoning the need to keep interest rates in line with their equilibrium levels.

And so while it=s unsurprising that the ideas behind secular stagnation are being revived, in my view it would be a mistake to rush to more extreme macroeconomic responses. There is a long history of pessimism in economics, from Malthus to Hansen to Gordon. Such worries have proven misplaced in the past and skepticism is warranted now. I wouldn't=t forget that the US economy is now 13 times larger than it was when Hansen first formulated his ideas.

Similar performance must again be possible. Central banks are playing a catalytic role to help deliver it, but their contribution, and we recognize that our contribution will ultimately be limited. The most important drivers of long term prosperity will be measures taken by others to increase the growth of supply, particularly those that reinforce an open, global economy. And when they are performed, such good deeds will truly merit the goodwill of all men and women. Thank you very much.

QUESTION AND ANSWER PERIOD

ROGER FERGUSON: So Governor Carney, thank you for that seasonally-adjusted speech delivered with a twinkle in his eye. I=d now like to introduce the two members who will conduct our question and answer session. Jane Hartley, who is the CEO of The Observatory Group and a former vice-chair of this club, and also Jerry Speyer who is a former trustee and chairman and co-CEO of Tishman Speyer. If you in the audience have any questions, you can email them to: questions@econclubny.org. That=s questions@econclubny.org. And our president, Jan Hopkins, will read them. So Jane, you have the first question.

JANE HARTLEY: Thank you Roger. Governor Carney, thank you so much for your remarks and for all of your years of public service, both in Canada and now in the UK. My first question, house prices in the UK have been increasing at a faster rate than many would like. How concerned are you that this development poses a risk to the MPC=s goals of controlling inflation and maintaining financial stability? What other steps could the Bank take to deal with this situation in addition to the changes to the Funding for Lending scheme announced last month?

THE HONORABLE MARK CARNEY: Well, a fair question. I would say we're concerned about potential developments in the housing market, and that is a prospective concern as opposed to an actual concern, by which I mean that if you look at housing activity in the UK, it is still running at about three-quarters of historic levels so whether that=s housing starts which are extremely low relative to what they need to be or transactions, actual sales, or even mortgage applications. And at present, underwriting standards are substantially transformed. And I=ll give you a simple stat. Sixty percent of mortgages prior to the crisis were at 90 percent plus loan to value. At present the flow is 15 percent of new mortgages. So there=s been a big shift and the banks are better capitalized and all those sorts of things. But there=s a history of things shifting in the UK and the housing market moving from sort of stall speed to warp speed and underwriting standards slipping. And so we want to avoid that. So what we=ve done in addition to the Funding for Lending that you referenced and I referenced is to introduce stricter underwriting standards which come into play in April. We're going to add to that an ability to vary the qualifying interest rate for households so that=s a new macro-prudential tool. Our stress tests of the UK banks, we're behind the US here, but our stress tests of UK banks will focus, not exclusively but primarily on the housing market as we use those to set capital. And we have a position, we are in a position where we can make recommendations on loan to value caps, loan to income caps, other aspects of underwriting standards, we are in a position where we can raise capital requirements against specific sectors such as housing if need be and we=ve laid all of that out. So we have an ability to act. What we think we have done and what we=ve tried to do across a range of authorities, including the government, with these measures we announced two weeks ago, is to act early, and act in a proportionate way so we don=t have to act in a bigger way later. And it=s a very clear analog to monetary policy.

JANE HARTLEY: Thank you.

JERRY SPEYER: Mr. Governor, what, as a very well educated, well experienced person both in the private markets and in the public markets, as well as working for government, surprised you most in your new job? And how did you deal with it?

THE HONORABLE MARK CARNEY: That question, actually surprised me the most. I didn't=t see that one coming. It means you=re going to get an honest answer because I don=t have a canned one lined up. What surprised me the most? I would say that the, I guess the intensity of the, this is going to sound like jargon, I=m sorry, the intensity of the inter-linkages between the various policy functions. In other words, we just, to Jane=s question, I was talking about coordination between the monetary authority, the macro-prudential authority, establishing the hierarchy, and that=s something that required the committees to sit down, share analysis, you know decide who is going to do what, and then act. But all of those actions involved other authorities as well. So there=s additional coordination with the micro-prudential regulator, the bank supervisor effectively, which is also housed in the Bank of England. And there are a variety of examples of that, that have come up in the course of the last four or five months. And it=s partly occasioned by a new system, but it=s very much reinforced by the extraordinary circumstances we all find ourselves in where there is extreme stimulus, a financial system that is being restructured but emerging from that restructuring with some momentum, and there needing to be some, in our view, some fine-tuned calibration. So that=s a bit of a rambling answer but that=s the best you=re going to get. But the point I guess is that that=s what surprised me and what has been encouraging is that there has been, at least in my judgment, an ability to, for all those different parts of the Bank, and even a little more broadly outside the Bank, to move in a coherent and coordinated fashion which gives some additional grounds to be positive about the durability of the recovery.

JERRY SPEYER: Thank you.

JANE HARTLEY: One of your stated goals of the threshold policy guidance that you announced in August was to help avoid the risk that market interest rates rise prematurely as the recovery gains traction. This is a concern that is shared by other central banks around the world including in the United States. You mentioned forward guidance in your speech. Apart from lowering the unemployment rate threshold, are there other changes in guidance that could be considered in order to prevent market interest rates from rising too quickly?

THE HONORABLE MARK CARNEY: Well, in geological time we just put in forward guidance, so it=s too early to think of different changes, or changes to it. Let me recap, though, just briefly, where things are with it. We put, as you know, Jane, we put it in place in August. Since then, and if you go on the web and look at a copy of the speech, there is a chart of cumulative economic surprises in the UK, three and a half standard deviations since May, relative historic positive...the biggest, the best cumulative run of data period, and something that as I said in the speech dwarfs the experience elsewhere. And so it was put in place in that environment. Historic relationships for monetary policy, the relationship between monetary policy and, for example, purchasing manager indices and other indicators of forward demand, would suggest that rates would have been increased already in the UK which would have been exactly what we were trying to guard against which would have been, in our view, a premature withdrawal of monetary stimulus. And so guidance has been effective, in our view, in holding down shorter term rates. And if you look at term structure volatility, a variety of other measures, you=ll see that, you know, out to a reasonable horizon where reasonable people can disagree about the time at which the threshold would be achieved, the volatility has been very low as one would expect. So we think it=s been effective. And I have to say our surveys of businesses or meeting with businesses in the UK, people get the guidance, they understand it, and they=re acting accordingly. And the last sort of contextual point I=ll make is that the short-term interest rate is much more important in the UK than it is here. Seventy percent of mortgages are floating rate in the UK. Fifty percent of business borrowing is floating rate. And another 30 percent of business borrowing is re-priced within a year. So effectively, and both of those rates, whether it=s the mortgage or the business rate is set off bank rate which we control. And providing even to a horizon where reasonable people can disagree, that certainty about bank rate really does, in our view, make a difference. So we don=t sit here and think we need to reinforce it, except by repetition and making sure that, you know, in our surveys we see about 75 percent of businesses understand absolutely what it is, so maybe we should repeat and repeat and repeat and try to move that towards 100 percent. I think we will, what inevitably, and I=ll finish with this, inevitably what we will do, and our responsibility is to continue as members of the Monetary Policy Committee to talk about the economy, talk about the labor market, talk about supply as I was today, and give a sense of how much progress has been made. So embedded in that speech is this idea that there could be some endogeneity to productivity growth and potential supply. What we need is to make judgments as things move over time on how much of that we're seeing because that will help markets and firms and households understand better where policy might go.

JERRY SPEYER: Mr. Governor, hopefully no surprise this time. There=s obviously a divide in every country from an economic point of view. In the United Kingdom it appears that one of the biggest divides seems to be between the city of London and the rest of the isles. And the question is how much of an issue do you feel this is for the economy going forward? And are there any reasonable ways to deal with that, that aren't=t just the obvious?

THE HONORABLE MARK CARNEY: Jerry, what=s the obvious? Because I=ll take the obvious if there=s...

JERRY SPEYER: Major government financing.

THE HONORABLE MARK CARNEY: Oh, I see, okay. Okay, yes, okay, we=ll have to stay away from that then. Look, London is, I mean there=s many strengths in London. London is much more than the city, but obviously, the city and the financial district is what=s, over which we have the most influence. And it bears repeating that if you look at the UK financial sector, about a third of the jobs are in London. The other two-thirds are spread across the country. And it=s higher for value added but it=s not exclusive value added.. So there are direct spillovers across the broader economy. I mean I think what we need to do, and this is quite, as you would expect, a central-bankery answer, but we have to make policy for the country as a whole. And we have to recognize that actually, and I=ll take the microcosm of some of the property measures that we=ve taken, they affect incentives and ability and underwriting standards and the dynamics for properties for which people actually take out a mortgage. If you buy your, you know, Knightsbridge house for cash, the Bank of England is not going to affect you. So there=s certain dynamics in London as there are in Manhattan that are part of a global property environment that, you know, reflects global fortunes as opposed to domestic fortunes. And that=s, obviously that=s just the way it is. So we will set policy for the country as a whole and be alive to make sure that within that context, within a context of financial and price stability, and this is the central banker aspect of the answer, that within that context that relative prices between London and the rest of the country will gradually move activity as they have more broadly across the UK. And there is some evidence of that, but it needs to be reinforced, and I=ll finish with this. I mean obviously there are infrastructure aspects, there=s educational aspects, a variety of things that need to be there to reinforce those natural economic forces, support those natural economic forces.

ROGER FERGUSON: There=s a question from the audience.

JAN HOPKINS: This was actually on the same topic. What do the current regulatory climates in the US and the UK have on prospects for financial services industries in London and New York?

THE HONORABLE MARK CARNEY: Well, I think, let me, I=ll speak to London as opposed to here. The mayor can speak to here, he=s going to be here next week, so he can speak to many things. He can speak to that. In terms of London, what we=ve tried to do is, and I=m trying to do, is build on the measures that Mervyn King and colleagues put in place over the course of the last five years which is to ensure the core of the banking system is well capitalized. That=s clear. They=ve raised now $140 billion sterling of capital in the last three or four years and we're finishing the job in the next few quarters. So we need banks that are strong at the core. We are spending a lot of time on financial market infrastructure and the plumbing of markets to make sure that we don=t just have resilient banks, but we have resilient markets. And that=s being supplemented, and don=t worry I won=t drone on about it, that=s being supplemented by some fairly substantial changes to the way the Bank of England provides liquidity to markets because we're believers that collateral is going to be increasingly important to the functioning of derivative markets, funding markets for banks, and as a consequence the ability to discount collateral, to exchange collateral, low liquidity for higher liquidity collateral, is important and a central bank has a core role. So were, kind of behind the scenes, going to be there to support collateral markets in a way that=s substantially different. So resilient institutions, resilient markets, obviously, and Secretary Lu spoke of this the other day, finishing the job on Atoo big to fail@ which is going to be the big focus, so that the failure obviously of an individual firm isn=t going to affect either the resiliency of those markets or fellow institutions. We're spending a lot of time on all this. Why are we doing it? Our view is our contribution, our view, and I should have started with this, is first and foremost that it is to London=s advantage, the UK=s advantage, and I would say the global economy=s advantage, that London as an open, flexible, resilient financial center persists. And so our job is to provide the measures that increase resiliency. It=s the job of the conduct regulator and other authorities to address issues of integrity. And unfortunately we have seen in New York and London, elsewhere, issues of integrity. Those should be addressed. And then it=s the private sector=s job to innovate within that context. And I=m a firm believer, and I=ve tried to make this point in the speech, that if London doesn't=t succeed as a global financial center, the ability to re-balance the global economy and the risks around issues such as the liquidity trap or secular stagnation will actually be that more poignant. And so we view this as absolutely paramount, not just for the sector but for these broader issues.

ROGER FERGUSON: Thank you very much, Mark. Thank you Jane and Jerry for a stimulating Q&A session. As the Governor has already done, I would like to remind you that our next meeting is December 18 when Mayor Bloomberg will speak just before the end of his term. It should be a fascinating discussion as well. So now please enjoy your lunch and thank you again for coming today. Thank you very much.