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Low for long or turning point?

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Foreword

The 16th BIS Annual Conference took place in Lucerne, Switzerland, on 23 June 2017. The event brought together a distinguished group of central bank Governors, leading academics and former public officials to exchange views on the topic "Low for long or turning point?". The papers presented at the conference and the discussants' comments are released as *BIS Working Papers*.

BIS Papers no 98 contains the opening address by Jaime Caruana (Former General Manager, BIS) and remarks by Alan Blinder (Princeton University) and Philip Lowe (Reserve Bank of Australia).

Programme

Thursday 22 June 2017

18:00	Welcome dinner

Friday 23 June 2017

09:00–09:15	**Opening remarks**	**Jaime Caruana**, Bank for International Settlements
09:15–10:40	**Session 1:**	**The global interest rate environment**
	Chair:	**Thomas Jordan**, Swiss National Bank
	Author:	**Richard H Clarida**, Columbia University
	Discussants:	**Narayana Kocherlakota**, University of Rochester
		Lucrezia Reichlin, London Business School
10:40–11:10	**Coffee break**	
11:10–12:30	**Session 2:**	**Low interest rates and changes in financial intermediation**
	Chair:	**Elvira Nabiullina**, Central Bank of the Russian Federation
	Author:	**Luigi Zingales**, University of Chicago Booth School of Business
	Discussants:	**Viral V Acharya**, Reserve Bank of India
		Isabel Schnabel, University of Bonn
12:30–14:00	**Buffet lunch**	
14:00–15:20	**Session 3:**	**Why are interest rates so low?**
	Chair:	**Stephen S. Poloz**, Bank of Canada
	Author:	**Ricardo Caballero**, Massachusetts Institute of Technology
	Discussants:	**Mohamed El-Erian**, Allianz
		David Laidler, University of Western Ontario

15:20–15:50	**Coffee break**		
	Session 4:	**Inside money and monetary policy**	
	Chair:	**Ilan Goldfajn**, Central Bank of Brazil	
	Author:	**Monika Piazzesi**, Stanford University	
	Discussants:	**Markus Brunnermeier**, Princeton University	
		Sukhdave Singh, Bank Negara Malaysia	
17:10–18:20	**Wrap-up panel:**	**Monetary policy and financial stability in a low interest rate environment: challenges ahead**	
	Chair:	**Jens Weidmann**, Chairman of the BIS Board	
	Panellists:	**Alan Blinder**, Princeton University	
		Philip Lowe, Reserve Bank of Australia	
19:15–22:00	**Conference dinner**		

Saturday 24 June 2017

10:00 Buses depart for Basel (AGM weekend)

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Opening remarks

Jaime Caruana[1]

Introduction

Good morning to all of you. It is a pleasure to welcome you to the 16th BIS Annual Conference. This year's conference explores the causes of the persistently low interest rates that have prevailed over the past decade, their economic and financial implications, and the challenges they raise.

From a historical perspective, the protracted period of low nominal interest rates that we are currently experiencing is unprecedented. Since 1870, nominal rates in the core advanced economies have never been so low for so long, not even in the wake of the Great Depression of the 1930s. And the picture is not very different for interest rates measured in real or inflation-adjusted terms. Since mid-2016, we have seen signs of a reversal in some jurisdictions, but conditions remain quite varied. A significant share of government bonds still trades at negative yields.

Persistently low interest rates have potentially important implications for the monetary transmission mechanism, as well as market functioning and the bank lending channel. We have already made some progress in understanding these aspects, but our knowledge is still far from satisfactory. Many open questions remain.

This year's conference tries to shed light on some of the key issues. To set the scene, let me highlight four main questions, which we will use to organise our discussion today.

The first question relates to the global nature of the low rate environment. Interest rates have been persistently low in core advanced economies at the epicentre of the Great Financial Crisis, but also in many EMEs and other advanced economies that were less affected by the crisis. This reflects the presence of a significant commonality in interest rate dynamics globally, or a strong global common factor in interest rates. At the same time, global interest rates, or expectations of their dynamics, have had a major impact on exchange rates over the past couple of years.

We will take up this question in the first session of the conference, where we will discuss the implications of a global common factor in equilibrium interest rates for monetary policy and for exchange rates. The BIS has in the past often pointed to the need for enhanced policy cooperation in order to better internalise monetary policy spillovers. So I'm looking forward to Richard Clarida's valuable insights on this important issue.

The second question pertains to the implications of persistently low rates for financial intermediation. Prolonged monetary accommodation may undermine bank profitability. This is because lower short-term interest rates and a flatter yield curve squeeze net interest income, as they respectively sap banks' margins and returns from

[1] Former General Manager, Bank for International Settlements.

maturity transformation. And this is not fully offset by the beneficial effect of lower interest rates on loan loss provisions, through lower debt service costs and default probabilities. At the same time, a low interest rate environment can cause strains on insurance companies and pension funds and a "search for yield" that could foster the build-up of financial imbalances.

Session 2 will address a specific aspect of this question. It will explore the dynamics of non-performing loans in a low interest rate environment and will try to separate the effects of a deterioration in the economic cycle from changes in banks' lending policy. Using a detailed data set comprising information at the bank-firm level for Italy, Luigi Zingales will shed some light on the main mechanisms at work.

The third question is why interest rates are persistently low. One set of explanations stresses the role of saving-investment imbalances. One example is the so-called global saving glut hypothesis, whereby high global saving has driven down risk-free interest rates globally. Another, closely related one, is the "shortage of safe assets" hypothesis, which highlights the role of risk premia. Yet another is the secular stagnation hypothesis, which posits that a chronic shortfall in aggregate demand has driven down equilibrium interest rates. A different type of explanation, proposed by the BIS among others, is that there has been an asymmetric response to the financial cycle over the past decades. Aggressive and persistent easing in the bust and no leaning during the boom have contributed to reducing interest rates over time. Persistent resource misallocations and debt overhangs after balance sheet recessions further weigh on growth and make it harder to raise rates.

After lunch, the third session of the conference will explore the structural factors behind persistent low interest rates. Ricardo Caballero will explain how the low rate environment is linked to other macro-financial developments over the past decades, and what role optimism and speculation play.

The fourth question is the link between low rates, unconventional monetary policy and financial stability. There is broad agreement that ultra-accommodative monetary policy in the wake of the Great Financial Crisis contributed importantly to stabilising the financial system and restoring financial market functioning. But as the low rates have persisted and central bank balance sheets have grown, there have also been concerns that new risks to financial stability might arise. In the last session, Monika Piazzesi will elaborate on how monetary policy works in an environment with abundant reserves and interest on reserves.

We will cap the day with a broader discussion of all these issues in the wrap-up panel. The objective is to explore more generally the link between monetary policy and financial stability in a low interest rate environment. The panel is chaired by Jens Weidmann, with Phillip Lowe and Alan Blinder leading off the discussion.

Closing

This is just a short summary of the questions that arise in a low interest rate environment. We believe that top-quality research is more important than ever, as the challenges we face are so unfamiliar. We have made much progress, but more needs to be done. So let me thank all of you for taking time to join us here today. Many thanks, in particular, to the session chairs and the speakers for agreeing to lead off the discussions. I wish you a fruitful day – with thought-provoking debates both during and between the sessions.

Monetary and financial stability in a low interest rate environment: challenges ahead

Alan S Blinder[2]

I want to make just three points in my ten minutes. (1) Path dependence: history matters. (2) The zero lower bound is no longer a theoretical curiosity; we have learned some things from experience. (3) There may be a better way to skin this cat.

History matters

The adoption of inflation targeting in general, and the 2% inflation target in particular, was largely a product of the 1990s – with the Federal Reserve trundling along much later. The main inflation problem, it was believed then, was getting inflation *down* –not *up*. Among the key considerations in choosing 2% was striking a balance between the deadweight losses from higher average inflation and the potential costs of encountering what we then thought of as the zero lower bound (ZLB) on nominal interest rates.[3] The thinking then was that, with a 2% *real* short rate and hence a 4% *nominal* short rate, encounters with the ZLB would be rare indeed.[4]

Well, that was then and this is now. Suppose we had had better foresight back then, and accurately foresaw a world with lower real rates and recessions far deeper than the Great Moderation experience had led us to expect. Would we then have judged bumping up against the ZLB to be much more probable?[5] I think so. Would the consensus still have settled on 2% measured inflation? Maybe not.

But that was then and this is now. Central banks have since devoted much educational effort, and staked a great deal of their credibility, on the 2% inflation target – and especially on its role as *the* nominal anchor for inflation expectations. To pull up the anchor now could risk a severe loss of credibility – raising questions, for example, about when the target might be changed again. So it is hardly surprising that few central bankers are keen to raise their inflation targets, as my co-authors and I verified in a recent survey of central bank governors.[6] I don't think they are wrong about this, or just being stubborn.

[2] Princeton University.

[3] I do not mean to imply that these were the *only* considerations. For example, there were well known upward biases in widely used price indices.

[4] D Reifschneider and J Williams, "Three lessons for monetary policy in a low-inflation era", *Journal of Money, Credit and Banking*, vol 32, no 4, November 2000, pp 936–66.

[5] M Kiley and J Roberts, "Monetary policy in a low interest rate world", *Brookings Papers on Economic Activity*, vol. 48, no 1, Spring 2017, pp 317–96.

[6] A Blinder, M Ehrmann, J de Haan and D Jansen, "What will monetary policy look like after the crisis?", ECB, *Research Bulletin*, no 39, October 2017.

The second mistake we may have made back in the 1990s was opting for *inflation* targeting over long-run *price-level* targeting. Once again, the reasoning seemed sound at the time – and I was as guilty as anyone. After all, under price-level targeting, a burst of supply-shock inflation would require the central bank to engineer a recession to bring inflation down *below* 2% for a while – enough to get the price level back on track – rather than just letting inflationary bygones be bygones. That sounded like a bad idea at the time. It still does.

But we didn't give enough weight to the opposite side of the coin: the danger of a prolonged (as in the United States and the euro zone) or pronounced (as in Japan) period of inflation below 2%. With *credible* (that's the key word here) price-level targeting in place, each shortfall of inflation below 2% would have raised medium-term inflation expectations further, pushing real rates deeply negative.

We understand this now. But once again, changing regimes would be hard. Maybe not as hard, however, as raising the inflation target to 4%. Central banks could explain, for example, that they were sticking with a 2% inflation target but interpreting it as applying over a long period of time, rather than year by year. In consequence, periods of inflation below 2% would henceforth be balanced by periods of inflation above 2%. I think people could understand that, and would not see it as a retreat from 2%. At any rate, it's worth thinking about.

We've learned a few things

The most obvious new thing we've learned, I guess, is that zero is *not* the lower bound – not on nominal short rates, and apparently not even on long rates. Due to the cost and inconvenience of moving and storing currency, investors will apparently accept negative nominal interest rates on safe assets such as Treasury debt instruments.[7] So economists now routinely speak of the "effective lower bound" (ELB) rather than the "zero lower bound" (ZLB).

Where is the ELB? How deeply negative central banks can go depends on many factors – including, of course, how long asset holders expect rates to remain negative. We need to learn a lot more about that. But what we've learned already, I think, is that negative interest rates are neither as *helpful* as their proponents once hoped nor as *dangerous* as many opponents feared.

On the one hand, pushing the central bank's deposit rate into negative territory does not appear to provide supercharged stimulus, nor even to get banks to shun excess reserves. It's certainly no panacea. (Did anyone ever claim it was?) On the other hand, however, the reckless borrowing and speculative excesses that some critics feared from super-low lending rates do not appear to have materialised. Of course, these critics continue to predict imminent disaster, just as they predicted surging inflation that never came.

The Blinder et al (2017) survey of central bankers found attitudes toward negative rates split. Only 22% of central bank governors believe that negative rates should remain in central banks' toolkits while 25% think they should be discontinued. The

7 In *The curse of cash*, Princeton, 2016, Ken Rogoff argues for making currency even more cumbersome by abolishing large-denomination dollar bills.

majority, 53%, deems it too early to judge. Academic economists are far more favourably disposed toward negative rates – by a 55%-to-31% margin – and far more willing to make a judgment now. Only 15% say it is too early to judge.

A better way out?

Let me finish by going back to basics. The essential problem for monetary policymakers is that, with inflation very low (say, 2% or less) and the real short rate also very low (say, 1% or even zero), the equilibrium nominal short rate is very low (say, 3% or less). Since fighting even a garden-variety recession, not to mention a near-depression, typically requires more than 300 basis points of rate cuts by the central bank, the effective lower bound may present a binding constraint on monetary stimulus too often.

What to do? One idea is to take advantage of the normal upward slope of the yield curve and target an interest rate with maturity longer than overnight – maybe much longer, as the Bank of Japan is doing now with the 10-year bond. Such a policy has two (closely related) virtues.

First, it gives the central bank more latitude to inject stimulus in a deep recession. Even once the overnight rate has reached its ELB, the 10-year rate can be pushed further down.

Second, economists have long believed that cutting the overnight bank rate is unimportant *per se* but works its magic by (among other things) reducing longer-term rates – via the term structure of interest rates and expectations of future short rates. But the expectations theory of the term structure with rational expectations is the second-worst theory in all of macroeconomics – topped only by uncovered interest parity. It seems a weak reed to stand on. So why not act on the long rate *directly*, by buying long-term bonds – which is the objective of most QE anyway – or even by *pegging* some long rate?

Most central bankers have a reflexively negative attitude toward pegging any interest rate longer than overnight, probably because they lose control over the size of their balance sheet. That's presumably why almost all QE to date has taken the form of fixing a *quantity* of bonds to purchase and then letting the market determine the *price*. Maybe reversing this sequence when necessary – fixing the *price* and letting the market determine the *quantity* – would provide more reliable stimulus in a pinch.

The Bank of Japan is, of course, trying this right now. Their experiment is still in its early days, but – so far – the policy seems to have *succeeded* in pushing down long rates but *failed* to boost expected inflation.[8] As a matter of arithmetic, that means it has lowered real long rates – which, I think most of us would agree, is the fundamental way in which monetary policy gives aggregate demand a shot in the arm. The BoJ's experiment is well worth watching.

8 Bank of Japan, *Comprehensive Assessment: Developments in Economic Activity and Prices as well as Policy Effects since the Introduction of Quantitative and Qualitative Monetary Easing (QQE),* September 2016.

Panel remarks

Philip Lowe[9]

I first attended the BIS's annual conference 16 years ago when I was on the staff of the BIS. It is a pleasure to be participating again, in a different capacity. Sixteen years ago we were discussing how to secure financial stability in a low inflation world. This issue is still relevant, although it is now how do we secure financial stability in a low inflation, low interest rate world.

I have been asked to speak about the challenges ahead.

There are a number of obvious challenges.

High on the list would be the normalisation of interest rates and central bank balance sheets. It has been almost a decade now that interest rates have been at very low levels and since central banks first embarked on balance sheet expansion. Investors have gotten used to this state of affairs – many have come to think of it as normal. So it could come as quite a shock to investors if the removal of the monetary stimulus were to take place in a number of economies simultaneously. This would be especially so if it were occurring in the context of higher inflation. So managing the withdrawal of some of the monetary stimulus is one of the challenges that lie ahead.

Another challenge that we have talked a lot about today is identifying r*, the neutral real interest rate. How do we estimate it and what determines it? And is stimulatory monetary policy contributing to the decline in r*? These are important analytical questions, but precise answers are likely to remain elusive. From a very practical level, though, we can learn a lot from analysing the variables that are much more easily measurable – market interest rates, output, inflation and unemployment.

Rather than talk more about these two challenges, I would like to focus on three broader challenges/issues that arise from the intersection of monetary policy and financial stability in a low interest rate world.

The central bank's mandate and its public communication

Prior to the financial crisis the mandate question was not particularly interesting. In many quarters, the answer was obvious. The mandate should be price stability. Inflation targeting became the norm. Some frameworks were quite rigid, others were more flexible.

Indeed, for a while, the fashion was to make price stability the sole goal of the central bank. Having a single goal was seen as a virtue. The argument was that monetary policy could best contribute to maximising social welfare if it focused solely on achieving the inflation target.

It is easy to understand why we ended up in this position. Given the high-inflation experience of the 1970s and 1980s, there was a lot to be gained from convincing the

9 Reserve Bank of Australia.

public that those days were behind us and that central banks were very focused on achieving their inflation targets.

Today, though, the issue is not high inflation but, rather, inflation being a bit too low. Furthermore, over the past few decades it has been financial events, not inflation, that have done more harm to social welfare.

So an obvious question is whether a singular focus on a short-run inflation goal is the welfare-maximising approach. My sense is that it is not. Under certain circumstances, this approach can give insufficient weight to medium-term risks, including those generated from the financial side. The public want central banks to do more than just deliver a specific rate of inflation. They want central banks to deliver stability – price stability, economic stability and financial stability. This is the core of central banking.

So I see considerable benefit in central banks having broader monetary policy mandates built around the dual concepts of both monetary and financial stability.

Perhaps I can illustrate with an example I am familiar with – the case of Australia.

The mandate for the Reserve Bank of Australia was written in 1959 and has been unchanged since. It sets out three broad goals for monetary policy:

(i) Stability of the currency (ie price stability).

(ii) Full employment.

(iii) Economic prosperity and welfare of the Australian people.

Over recent decades, these types of mandate became unfashionable around the world. But I see this broad mandate as an asset, not as a liability. One reason for this is that it has made public communication easier, particularly around financial stability issues.

Over recent times, inflation in Australia has been a bit below the medium-term target range (½ to ¾ percentage points below) and the unemployment rate has been above most estimates of full employment (approximately ½ to 1 percentage point above). Given this, an argument could have been made for further monetary stimulus – it might have helped achieve our first two goals more quickly. Indeed, this is what a strict inflation targeting approach would suggest.

One question we have asked ourselves is whether such an approach would best serve the welfare of the people (our third objective). We have also publicly asked the rhetorical question: would social welfare be improved by cutting interest rates further to get inflation up more quickly than forecast if it meant more borrowing by the private sector and even higher asset prices, particularly housing prices? While not all in the community would answer this question the same way, a fairly broad cross section would accept that the answer is no. They see the benefits of a quicker pickup in inflation outweighed by the increased medium-term risks.

Interestingly, it has even been suggested that further monetary stimulus – which some versions of inflation targeting would suggest – could have weakened support for the inflation-targeting regime. Some making this argument saw further stimulus to be contrary to aggregate welfare. Underlying this is the public's desire not only for low and stable inflation, but also for economic and financial stability.

The general point is that there is a benefit in a broad mandate. It allows us to keep sight of the bigger picture and can help keep public support for the monetary policy framework. If one comes from the perspective that it is important to assign single instruments to single targets, you might find this all a bit unsatisfactory. And there are clearly dangers in broad mandates. But, ultimately, the central bank's job is to promote social welfare. Delivering low and stable rates of inflation is core to this. But this need not preclude giving weight to medium-term risks, including financial stability risks, in the setting of monetary policy.

The implications of a flatter Phillips curve for monetary policy and financial stability

There is currently a debate as to whether the Phillips curve is flatter than it used to be. The jury is still out on this debate, but a reasonable hypothesis is that it is flatter. Inflation and wage outcomes have surprised on the downside in many countries, despite upside surprises on employment growth. It may be that the lags are just a bit longer than normal, but the commonality of experience across countries suggests something might have changed.

One possibility is that many workers (and firms) feel that there are more competitors out there. And when we feel that there are more competitors, we are less inclined to put our prices up. This competition is coming from globalisation and from technology. Inevitably, more competition means less pricing power.

A related development is that many workers in advanced economies feel that the world is less secure – less secure economically and less secure politically. When the environment is less secure, we place a greater premium on security. This greater premium makes us less inclined to take a risk by putting our prices, or people's wages, up.

To the extent that these ideas have validity, it is likely, at least for a time, to be harder to generate inflation than it once was. This doesn't mean that inflation can't be generated, but rather that, for a while, the advanced economies might be less inflation prone than they once were.

If this is the case, it poses some potential challenges for monetary policy and financial stability, especially given our starting point is one in which inflation is below target. A strict inflation targeting framework would suggest more monetary stimulus for longer. During this conference we have heard this prescription a number of times: if inflation is below target, central banks just need to work harder to get inflation back to target.

Under a broader mandate for monetary policy, the answer is not so clear. If the Phillips curve is flatter, then the main effect of more monetary stimulus for longer might not be more inflation (at least for a while). Instead it might be more borrowing and higher asset prices. In an economy with low interest rates and low rates of unemployment, many people will find it attractive to borrow money to buy assets.

So the combination of a flattening of the Phillips curve and inflation below target creates a challenging situation. Do central banks keep stimulating to get inflation up if it generates more medium-term financial risk? Or do they accept a slower return of inflation to target? Again, it is a question of maximising social welfare.

The relationship between monetary policy and macroprudential policy

In today's low interest rate environment it has become common to use macroprudential policies in an effort to constrain more risky forms of borrowing. But there is a tension that can emerge here. One of the ways in which low interest rates stimulate economic activity (and thus, higher inflation) is by lowering the cost of borrowing and pushing up asset prices. At the same time, the extra borrowing and higher asset prices can, in some circumstances, add to risk in the financial system and private sector balance sheets. So there can be a trade-off of sorts: increased borrowing today helps support the economy now, but it can create medium-term risks.

Macroprudential policy can improve this trade-off. It can do this by limiting the more risky forms of borrowing. Various countries, including Australia, have taken steps in this direction. In our case, the various measures have focused on interest-only lending and on lending to investors in residential property. Most countries that have implemented these types of measure have, to date, reported positive results.

In thinking about the challenges ahead in this area, I would highlight two.

The first is the potential for these types of measure to create distortions in the financial system. If people want to lend and others want to borrow, they often eventually find one another. Additional regulation makes it more likely that they will meet one another outside the formally regulated sector. Not surprisingly, in some countries, we are seeing some financial innovation.

The second is that monetary policy and prudential policy both affect either the price or the availability of credit. This means that there needs to be effective cooperation and communication between the central bank and financial regulators. It is important that we ensure this happens.

If, as discussed above, the Phillips curve is flatter than it once was, these issues take on an extra degree of relevance. This is because a flatter Phillips curve means lower policy interest rates for longer, which, in turn, means that the cost of borrowing is lower for longer. The risks from this need to be managed carefully.

Thank you.

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