New Ideas for Central Banks: The Audacity of Pessimism Lecture at the Frankfurt School of Finance and Management, 12 October 2023

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In 2004, Barrack Obama gave a famous speech in which he talked about the audacity of hope: "hope in the face of difficulty, hope in the face of uncertainty, the audacity of hope". Unfortunately, in the two decades since, the reality is better described by the view of Hegel almost two centuries ago that, "what experience and history teaches us is that people and governments have never learned anything from history".

Two challenges facing central banks today illustrate Hegel's point. First, if you print enough money, experience and history tell that you will get inflation; yet during the global pandemic central banks ignored rapid increases in broad money created by quantitative easing (QE) in the mistaken belief that inflation would not rise. Second, bank runs occur from time to time; yet despite the bewilderingly complex regulations introduced after the global financial crisis of some 15 years ago, earlier this year we saw bank runs bring down several institutions in the United States.

In his *General Theory*, John Maynard Keynes wrote that "it is ideas, not vested interests, which are dangerous for good or evil". I want this evening to suggest we learn from history and change the ideas that have driven recent central bank policy. In so doing, we may be able to turn the inevitable pessimism of Hegel's observation into some positive recommendations for central banks.

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Despite the significant expansion in the role of central banks since the financial crisis, it remains the case that two responsibilities are more important than all the others: first, setting monetary policy to achieve and maintain price stability; second, acting as a lender of last resort to maintain financial stability. I like to think of these two roles as ensuring that the economy has access to the right amount of money in both good times and bad. And in respect of both roles, there is much to be done.

In the advanced economies central banks failed to prevent a surge in inflation that has brought back memories of the 1970s. Central banks now face a dilemma – do they continue to tighten monetary policy to bring inflation back to their 2% target, or do they stop tightening because the current monetary contraction will reduce inflationary pressure? Resolving that dilemma will be the main challenge in the management of the global economy in the remainder of 2023 and into 2024.

From the early 1990s until 2020, inflation in the major western economies averaged close to 2%. But after thirty years of low and stable inflation, central banks lost control of inflation during the pandemic. CPI inflation in Germany is now 4.5%, having peaked a year ago at 8.8%. In the US inflation is now 3.7%, having peaked at 9.1% in July last year. And in Britain inflation reached 11.1% last year and is now 6.7%. And although inflation has fallen quite sharply across the G-7 economies during 2023, inflation did rise to its highest level for several decades. What went so badly wrong?

Part of the answer is the sharp rise in food and energy prices following the Russian invasion of Ukraine. But that is not the whole story. Excluding food and energy prices, core CPI inflation in Germany and the US is today between 4 and 5%, and in the UK is just above 6%. Central banks were slow to realise that the rise in inflation was more than a "transitory" deviation from target.

We are all familiar with Milton Friedman's dictum that inflation is always and everywhere a monetary phenomenon. Monetarism became discredited for three main reasons. First, the relationship between monetary aggregates and nominal incomes proved nonstationary. This told us less about the role of money and more about structural shifts in banking and the financial system. Second, Friedman and other American monetarists focused on the monetary base rather than broader monetary aggregates which could not be controlled directly by the central bank. But as has been demonstrated by QE, base money is relevant to the determination of aggregate nominal incomes only insofar as it affects broader measures of money. Third, and somewhat bizarrely for a discipline that purports to be a science, as universities moved to the liberal left, so ideas associated with the Chicago boys of Milton Friedman appeared increasingly distasteful. As a result, academic research turned its back on decades of monetary theory and decided to develop a theory of inflation without any reference to money at all. The attraction of writing down such models overwhelmed the question of whether they made any sense.

Inflation is a nominal variable. Any coherent theory of inflation must be related to nominal variables. But the new models contained no theory of the nominal side of the economy – no banks, no money, no financial sector. The challenge of how to close the model and determine the price level in the medium term was solved by the assumption that inflation was determined by expectations and that expectations were determined by the official inflation target. In other words, the model assumed that inflation in the medium term would always return to the official inflation target of 2%. Milton Friedman's dictum had been replaced by the new dictum that inflation was always and everywhere a transitory phenomenon.

But a satisfactory theory of inflation cannot take the form "inflation will remain low because we say it will"; it must explain how changes in policy – whether via QE or changes in interest rates – affect the economy.

For a long while, central banks were successful in keeping inflation close to the target and so nothing disabused them of the strong assumption they were making – until the pandemic came along. Following a sharp reduction in potential supply – the consequence of the measures taken to prevent the spread of Covid – central banks decided to expand demand by a substantial programme of money printing through quantitative easing. QE is an expansion of the money supply, although most central banks are reluctant to describe it as such. Unlike its use after the banking crisis a decade or so ago, aimed at preventing a fall in broad money resulting from a contraction of commercial bank balance sheets, this time QE created a substantial monetary overhang. Growth rates of broad money accelerated rapidly, in the case of the United States to the highest levels since the end of the Second World War, at an annual rate of over 26% in the first half of 2021. In the UK broad money growth peaked at over 15% and in the euro area at almost 13%. Aggregate money demand exceeded aggregate supply valued at the current price level (augmented by the inflation target).

The case for substantial monetary expansion in March 2020 was framed as a response to "dysfunctional markets." But the monetary injection was not withdrawn once financial markets were operating normally. Further QE in 2020 and 2021, on top of the substantial fiscal stimulus provided by governments, was unnecessary. The actions taken to deal with the pandemic reduced the supply of goods and services. Central banks increased the supply of money. This produced the time-honoured recipe for inflation – too much money chasing too few goods.

I am not suggesting that policymakers respond in an automatic fashion to changes in the growth rates of monetary aggregates. But I do think it would have been sensible to ask in 2020 and 2021: if broad money is growing at 25%, or even 15%, a year, what is going on here? In the past decade, central banks have abandoned reporting on and monitoring the broad monetary aggregates. Back in 2001, influenced by discussions with Otmar Issing at the newly created European Central Bank (ECB), I gave a speech entitled "No money, no inflation" expressing my belief that "the absence of money in the standard models which economists use will cause problems in future". Those problems came home to roost in the pandemic.

What should central banks do to avoid mistakes in the future? I have two suggestions. First, they should report regularly on the evolution of the broad monetary aggregates in their bulletins and reports. Broad money is a useful check on the plausibility of the narrative that is used to make policy decisions. This is the "two pillar" approach to monetary policy developed by Otmar Issing at the start of the European Central Bank. As Otmar later wrote:

"Monetary targeting was excluded as an option. However, rejecting monetary targeting as a strategy for the ECB did of course not imply neglecting the overwhelming evidence for the long-run relation between money and prices and the undeniable fact that monetary policy has somewhat to do with money ... any deviation of M3 growth would not trigger a mechanistic monetary policy reaction but would prompt further analysis to identify the reasons behind such developments. Money is therefore a kind of "natural" anchor for the longerterm orientation of monetary policy". And Otmar went on to pose the question: "Can one really expect that models without an explicit, well developed financial sector can explain an economic world in which financial markets play an everincreasing role? And, how could a central bank which conducts a monetary

² King (2002).

³ Issing (2006).

policy in which these financial markets are essential for the transmission mechanism rely on such models?"⁴

How could they indeed? But sadly, they did.

My second suggestion concerns central bank forecasts. At present, forecasts are made using models which assume that inflation will always come back to 2% because that is the target. In my view, it would be sensible to publish additional forecasts based on the assumption that inflation expectations follow a path that returns to the target over a much longer horizon, or perhaps not at all. That would at least reveal how sensitive are the short-run dynamics of inflation to the assumption about the longer-term anchor of inflation. Simulations of this kind should be a regular feature of staff analysis presented to policy committees. And extreme movements in broad money would be a natural motivation for alternative assumptions.

After the policy mistakes of 2020 and 2021, 2022 was a year when central banks corrected their errors. They raised interest rates and stopped printing money through QE. But that does not mean that they can forget about money. Broad money is now declining in absolute terms in the euro area, the UK and especially in the US. Relying on a model which ignores money, and other variables relating to the banking and financial sector, can lead to errors both on the upside and downside when forecasting inflation and economic growth.

Let me now turn to the other major responsibility of central banks – acting as a lender of last resort to deal with bank runs. Despite the adoption of thousands of pages of complex regulations since the financial crisis, we have not stopped bank runs, as we saw earlier this year with the failure of Silicon Valley Bank and some other small institutions in the US. One feature of recent crises stands

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⁴ Issing (2006).

out – the absence of a clear *ex ante* framework for the provision of central bank liquidity to an institution suffering from a bank run.

Banks are inherently fragile – they transform short-term and safe funding into long-term and risky lending. The speed at which those short-term liabilities can run means that banks can be here one day and gone the next. They are vulnerable to any loss of confidence, whether justified by the underlying reality or not. Moreover, a bank run can occur not only from uninsured depositors but from the failure to roll over short-run wholesale financing. That was demonstrated in the financial crisis in 2008.

Most of the time, however, the maturity and risk transformation of banking reduces the cost of capital to finance real investment. Can we retain the benefits of banking while reducing or even eliminating its costs? Yes – provided that we put in place an *ex ante* framework governing the provision of central bank liquidity, the only reliable source of liquidity in a crisis.

A commitment to provide liquidity cannot be open-ended. That would be to underwrite excessive risks taken by banks. The solution is an *ex ante* framework in which banks are prohibited from issuing more runnable liabilities than the central bank is willing to lend against the collateral which the bank can offer. The willingness to fight a fire by the provision of liquidity must be tempered by measures to limit the size of the fire. The terms on which a central bank is willing to provide liquidity against a wide range of collateral need to be designed carefully and spelled-out in advance.

The traditional lender of last resort role of central banks ("lend freely against good collateral at a penalty rate") became outdated when commercial bank assets began to comprise "bad" collateral that could not be valued in the short time scale required to counter a run, as was evident most vividly in the failure of Lehman Brothers in 2008. What can replace it?

The basic principle is that banks should always have a contingent credit line from the central bank to cover runnable liabilities. Each bank would decide how much of its assets it would pre-position at the central bank. For each type of asset, the central bank would calculate the "haircut" it would apply when deciding how much cash it would lend against that asset. Adding up over all assets that had been pre-positioned, it would then be clear how much money the bank would be entitled to borrow from the central bank – with no questions asked. That figure would be the ceiling on the amount of runnable liabilities a bank could issue.

In effect, the central bank would be rather like a pawnbroker, lending against almost any collateral but with haircuts calculated to avoid the risk of losses to the taxpayer. Haircuts would remain fixed for a lengthy period, and on risky assets would, therefore, be conservative. Banks would be free to decide on the composition of their assets and liabilities, allowing specialisation and variety. Crucially, no run could bring down a bank because there would always be cash available to cover its runnable liabilities.

The Pawnbroker For All Seasons (PFAS), as I have described it, is not a pipedream. Several central banks have been expanding their use of prepositioned collateral. Moreover, the expansion of QE has led automatically to a substantial increase in the deposits of commercial banks at the central bank, adding to their assets against which central banks are willing to lend. Such has been the scale of QE that if the PFAS scheme were introduced today it would require little change to the funding of most large banks and hence to their provision of credit. A gradual process of quantitative tightening would provide a natural transition to the long-run scheme.

Most existing prudential capital and liquidity regulation, and deposit insurance, could be replaced by this one simple rule. The basic principle behind the scheme is to ensure that banks will always have access to sufficient cash from

the central bank to meet the demands of depositors and others with claims on very short-term debt. Interestingly, the new Bank Term Funding Program offered by the Federal Reserve in the wake of the failure of Silicon Valley Bank provides for lending against the par rather than the market value of government bonds used as collateral – a retrospective setting of haircuts. It would be better to incorporate such an approach into an explicitly *ex ante* framework which would leave no room for ambiguity about the availability of central bank liquidity to support short-term runnable liabilities. Such a framework would likely have limited the speed at which Silicon Valley Bank expanded its deposits. And Credit Suisse's travel on a self-inflicted path of multiple scandals might have been caught earlier by a central bank more willing to impose a haircut on some of the dubious assets than was the regulator in dealing with bad behaviour.

The PFAS scheme would eliminate bank runs. It would impose a constraint on the degree of maturity transformation in the banking system, but little more than imposed by current regulation. And it would enable much of the existing structure of complex prudential regulation to be abolished.

There is one further, and more general, question that governments and central banks must answer: which institutions should have access to liquidity from central banks? Commercial banks certainly qualify – their deposit liabilities form the bulk (90-95%) of the stock of broad money. Any doubt about the safety of money would leave the economy exposed to violent movements in the means of payment resulting in sharp contractions in output and inflation. But society may worry also about the safety of insurance companies, pension funds and other financial intermediaries. Such bodies must either be prohibited from maturity transformation or given access to central bank liquidity. Answering this question will be a major challenge for central banks over the next decade.

A central bank is not a general purpose vehicle for pursuing the public good. That is the role of government. Central banks are defined by their two main functions – to achieve price stability and maintain stability of the financial system. Anything else is an unnecessary distraction.

Central bank policy – whether monetary policy or banking regulation – must be set in the world and not in the latest academic model. Most of the recent failures of policy have reflected the mistaken view that policy can be set in the model. Instead, key insights from models need to be combined with an attempt to understand what is going on in the world. Asking the question "what is going on here?" may seem trivial, but it isn't. It is the essence of coping with the need to make decisions in a world of radical uncertainty. In my view, the main challenge for policymakers is to recognise that the forces driving the economy are always changing, or, to use the technical phrase, the world is nonstationary. We need robust and resilient policy frameworks that work in a wide variety of circumstances.

John Maynard Keynes famously wrote that "Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist". But not all defunct economists should be forgotten. David Hume taught us that money matters and Walter Bagehot that bank runs are costly. There are dangers in becoming the slaves of living economists. The most valuable lessons often stem from failures. We need the audacity of pessimism. Pessimism in the face of difficulty, pessimism in the face of uncertainty. The audacity of pessimism to find new ideas for central banks in the future.

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