# Jan F Qvigstad: On learning from history – truths and eternal truths

Speech by Mr Jan F Qvigstad, Deputy Governor of Norges Bank (Central Bank of Norway), at the Norwegian Academy of Science and Letters, Oslo, 13 November 2012.

*The text below may differ from the actual presentation. This speech does not contain assessments of the economic situation or current interest rate setting.*

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## Introduction

All scientific and scholarly disciplines have a particular, and not immutable, set of truths. Mathematics and theology are possible exceptions, though for different reasons. As the late Professor Knut Sydsæter underscored when assisting me with this speech; in mathematics new results are proved on the basis of fundamental axioms and become new truths. Theology also relies on truths, even eternal truths. Even if logical proofs of God's existence have long been an important pursuit, it is safe to say that the truths in theology today stem from faith.

The discipline of economics can readily be formulated in the language of mathematics, and economic models are usually tested empirically before gaining acceptance. Conflicts arise when theories that appear to be patently true are unsupported by empirical evidence, or when contradictory theories find support at the same time. In other words, we economists are in a borderland between faith and the strict proofs of mathematics.

The notion of learning from history cannot easily be explored without invoking the American physicist Thomas Kuhn. This year is the 50th anniversary of the publication of his groundbreaking work, *The Structure of Scientific Revolutions*.[1] According to Kuhn, disciplines progress within an established set of truths – a paradigm. Observations irreconcilable with the paradigm are tolerated as inexplicable. Eventually, however, the number of inexplicable observations can become so overwhelming that the paradigm breaks down. New truths have to be established – a paradigm shift occurs.

Such shifts can be painful. The old paradigm will usually be defended by those whose training lies in a more distant past, often persons in positions of leadership in academia and government bureaucracy.

Long before Kuhn, Henrik Ibsen touched upon the same idea in *An Enemy of the People*. Dr. Stockman talks about the few who attain the new truths, unlike the compact majority that have yet to embrace them.

Social scientists, like economists, face some peculiar problems when attempting to learn from history. First, we do not have a laboratory in which we can perform experiments. Second, economic policy is part of the reality we observe. The outcome of a particular measure will depend both on shifting economic conditions and on economic agents' expectations of the effect of that measure. It goes without saying that in a situation like that, drawing useful lessons from history can be a challenge.[2]

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[1] Thomas Kuhn (1962), *The Structure of Scientific Revolutions*. University of Chicago Press.

[2] Here the natural sciences may be more stringent, and in some cases it may be easier to set up experiments that can refute the theory. For example, Einstein's theory of relativity was considerably strengthened, and

Scientific truths provide a common basis for further research and development, but they can be a scourge if they are not challenged. The recognition of economic correlations lays the groundwork for good economic policy, resulting in a better life for more people. The outcome can be disastrous if the established truths lay the foundation for bad economic policies. Economics as a discipline has in the past hundred years undergone several prominent paradigm shifts, with widespread impacts and implications.

### What have we learned from 1930 to the present day?

More than five years have passed since the turbulence in financial markets began. Today's situation resembles the one Governor Nicolai Rygg described in his annual address in 1933: *"The figures for world output are truly disheartening. A recent estimate of the number of unemployed is an appalling 30 million."* Except for the phrasing and style, that speech could be cut and pasted from that address in 1933 to describe the situation today. The queues of the unemployed that we used to see in 1930s-vintage black-and-white photographs we are now seeing on television in living colour. Youth unemployment in southern Europe is especially high. The Red Cross is setting up food banks in Spain. The middle class is being hit by higher taxes, lower pensions and unemployment. Political scientists tell us that this is a recipe for social and political unrest.[3]

In May 1945, the work began to rebuild our country after the Second World War. At that time, Friedrich Georg Nissen was the highest-ranking official in the Ministry of Finance. Nissen trained in the law, and the photograph of him in Einar Lie's book on the history of the Ministry of Finance shows a man formally dressed in a three-piece suit. He believed that the central government budget should be balanced each year. Fiscal policy was conducted based on this principle, which leading politicians also agreed with.[4] Tax revenue was to be spent, but not a penny more.

Broadly speaking, the prevailing paradigm up until the Great Depression of the 1930s – both in economic policy and in economic theory – was that the authorities' role should be limited to keeping domestic order and ensuring a stable and predictable regulatory and operating framework. Prices adjust automatically to supply and demand, and the general view was that

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Newton's theory shown to be insufficient, during the solar eclipse of 1919. Scientists were then able to observe that the light from distant stars was bent by the Sun's gravity, just as Einstein had predicted. Many scientists once believed that the Earth looks the way it does, with mountains and valleys, because the Earth was originally a red-hot mass that gradually shrivelled as it cooled. We know what an orange looks like after a long drying process or what clay looks like after being exposed to the air for a time. What was a smooth surface becomes wrinkled. It was 100 years ago this year that the German meteorologist Alfred Wegener proposed an alternative theory of *continental drift*. He used heuristic arguments based on studies of *coastlines*. Brazil has a coastline that is an apparent perfect fit with the Gulf of Guinea on the west coast of Africa. Even so, the theory was not accepted until it was given a proper theoretical foundation and empirical grounding. The breakthrough came 50 years ago, when the American geologist Harry Hess proposed his theory of *sea-floor spreading*, and by the end of the 1960s the theory of *plate tectonics* became established science. The Centre for Advanced Study, which is located here in the Academy, recently hosted a research group that is at the very international forefront of this field. Headed by Professor Trond Helge Torsvik, this group worked to incorporate the theory of plate tectonics into a broader theory of mantle dynamics as an explanatory model for movements in the Earth's crust. The aim is to understand the development of the Earth over several hundred million years. This is truly an ambitious example of learning from history. The Centre for Earth Evolution and Dynamics at the University of Oslo was just awarded the status of Centre of Excellence in research.

[3] Descriptions of the causes of the financial crisis that began in1929 bear a striking resemblance to today's headlines: a massive and unregulated shadow banking system, global imbalances and substantial income inequality (see John Kenneth Galbraith (1997): *The Great Crash*, 1929, Houghton Mifflin).

[4] "*More than anyone else*", Einar Lie writes, "*he adhered to the fiscal policy convictions that he brought along to the postwar Ministry of Finance, which bore the stamp of his experience from a time without sufficiently stringent regulation of government finances*". Lie, E. and C. Venneslan (2010) *Over evne*. Finansdepartementet 1965–1992 [Beyond our power], Pax forlag

markets were self-correcting. Following the Depression, a new truth emerged, with John Maynard Keynes and Norway's own Ragnar Frisch at the forefront: prices and wages do not adjust that quickly – nor can we expect that markets will automatically ensure full employment. Hence, government should play a more active role in economic policy.

At the Ministry of Finance, Nissen kept to the traditional view. But the political leadership, and eventually the younger economists who started at the Ministry, had other plans.[5] The economy was to be managed. Keynes' idea that the budget should be used actively to manage demand and output over an economic cycle was to them an obvious truth. In a Kuhnian sense, the older civil servants had to go for the new thinking to gain ground. The legal experts at the Ministry had to give way to the young economists.

The new regulatory regime was enthusiastically implemented after the war, and crowned with success. The contrast between the blight of the interwar years and the postwar boom was stunning.

The ambition was not only to keep unemployment low. Which industry sectors should be allowed to invest? What type of dwellings should we build? Who should be able to buy a car and have a telephone installed? In the 1950s and 1960s, these were questions in respect of which the central government had firm views.

Keynes, regulation and planning were predominant truths in the former government building for several decades. Yet neither did these truths remain eternal. In the 1970s, deficits ballooned when the government used countercyclical policies to "build a bridge" over the global downturn. But it was a bridge to nowhere. Inflation took off and government finances were strained to breaking point. The policy of micro-managing the economy had gone too far. Wage and price controls at the end of the 1970s, the last gasp of the postwar paradigm, did little to help. Norway was close to being placed under IMF administration.

In fact, it was not possible to steer the economy towards permanent prosperity. The old doctrines collapsed.[6] New ideas for managing the economy took shape because the old system no longer functioned. Underlying the new truths was the notion that economic policy needed to operate through the proper market incentives and that economic policy must be sustainable and predictable. At the Ministry of Finance, the new ideas took hold primarily because a younger generation was taking over, just as when Nissen was pushed aside. Political micro-management lost considerable traction.

Through the 1990s and up to the mid-2000s, economic growth was high and both inflation and unemployment low in much of the world. Cyclical fluctuations were moderate. The new truths appeared to be working well. This period is known as the Great Moderation. But underneath the positive developments, imbalances were building up both within and across countries.

As we have all experienced, it is easy to ignore the bill as long as the food keeps coming and the conversation keeps flowing. Countries and governments can live with deficits for a while, but sooner or later the bill has to be paid.

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[5] Einar Lie provides a detailed account of the break between classical and the new, more Keynesian thinking at the Ministry of Finance in the book *Norsk økonomisk politikk etter 1905* [Norwegian economic policy after 1905], Pax forlag, 2012.

[6] Hermod Skånland (2004): *Doktriner og økonomisk styring: et tilbakeblikk* [Doctrines and economic management in retrospect], Norges Bank's *Occasional Papers* No. 36, Oslo.

Budget deficits and high sovereign debt levels meant that the authorities had little slack when the financial crisis hit in autumn 2008.[7] Countries rapidly embarked on an unavoidable path of fiscal austerity at the very time that demand was falling and unemployment rising.

Unsound fiscal policies have particularly severe consequences when they coincide with a financial crisis. Capital markets were unable to manage the large pool of savings from emerging market economies in Asia. Safe yields had fallen and the search for returns provided fertile ground for creativity in financial markets. Governments worldwide allowed the banking system to grow in the belief that regulations were sufficiently stringent, that a large banking sector is a benefit and that banks' self-interest would prevent them from taking excessive risk.

The regulations, which in the 1980s were regarded as overly rigid, had been introduced during the crisis of the early 1930s as a still-vivid memory. The well-known Glass-Steagall Act had been passed in 1933 precisely to prevent financial sector excesses. Banks that took deposits from the public were subjected to strict rules concerning the amount of risk they could take. Deposits were guaranteed by deposit insurance, and banks could draw on central bank liquidity if necessary. Investment banks whose customers were professional investors had a freer hand, but no safety net.[8]

Banking gradually became a growth industry in many countries. Strict regulations in one country prompt banks to flee to another. The result was the dilution or elimination of many regulations that attempted to rein in the imagination of the financial sector. The rationale behind the Glass-Steagall Act was discarded. This trend was universal. Unfettered financial markets were apparently a success. Mortgage-backed securities enabled more Americans to become homeowners, and a bullish stock market was good for pension funds – as long as it lasted.[9]

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7 Debt levels among European countries were, on the whole, excessive in 2008, though this varied substantially from country to country. For example, Ireland and Spain had moderate sovereign debt, but both countries have later incurred additional obligations owing to the problems in their banking sectors. By 2008, the government debt of Italy and Greece had already exceeded 100 percent of GDP.

8 In the US, under the Glass-Steagall Act, which was passed in 1933, banks were no longer allowed to engage in retail banking (deposits, lending and payment services) while also engaging in more risky investment banking activities. When the act was formally repealed in 1999, it had long been the subject of intense discussion in the academic literature. See, for example, George Benston (1989), *The Separation of Commercial from Investment banking: The Glass-Steagall Act Revisited and Reconsidered*, Kluwer Academic Press, Randall S. Kroszner and Raghuram G. Rajan (1994), "Is the Glass-Steagall Act Justified? A Study of the U.S. Experience with Universal Banking before 1933", *American Economic Review,* Vol. 84, pp. 810–32, Eugene N. White (1986), "Before the Glass-Steagall Act: An Analysis of the Investment Banking Activities of National Banks", Explorations in *Economic History*, Vol. 23, pp. 33–55, and Charles W. Calomiris (2003), *U.S. Bank Deregulation in Historical Perspective*, Cambridge University Press. Marc Flandreau (2011), "New Deal Financial Acts and the Business of Foreign Debt Underwriting: Autopsy of a Regime Change" shows how the Glass-Steagall Act and other New Deal legislation conferred greater power on policymakers at the expense of international bankers and discusses some consequences for financial markets. Flandreau's article can be downloaded from Norges Bank's website: http://www.norges-bank.no/Upload/82434/EN/FLANDREU%20 Paper.pdf.

In this area, there are few, if any, ultimate truths, and the pendulum appears to be swinging back again. In the US, the UK and the euro area, reintroducing some sort of separation between retail and investment banking is now being discussed (cf. the Volker Rule (US), the Vickers Commission (UK) and the Liikanen Plan (EU). Andrew Haldane at the Bank of England has recently discussed this issue in his speech, "On being the right size", where he also outlines proposals for future banking sector regulation (see http://www.bankofengland.co.uk/publications/Pages/speeches/2012/615.aspx). CEO Sandy Weill of Citigroup, the largest US bank before the crisis, said in July 2012 that repealing this act had contributed more than any other factor to the financial crisis. See also the article, "Roosevelt's lessons for President Obama" by Marc Flandreau (2012), in The Global Journal (http://theglobaljournal.net/article/view/770/), where the author discusses historical perspectives on New Deal policies in the 1930s.

9 For decades, a number of policies have been implemented in a large number of countries, including Norway, to support home ownership. In *Fault Lines* (2010), Raghuram Rajan describes US housing market policies.

Big banks can easily give rise to big ideas about the importance of a country. But the financial crisis showed that big banks above all give rise to a political headache and a massive bill for taxpayers. Banks that are so large that they can undermine the entire financial system cannot easily be allowed to fail.[10]

The Basel Committee on Banking Supervision seeks to ensure that different countries operate on a level playing field. While this is a good thing, the result was often compromise whereby the country with the weakest regulations set the standard. One must also recognise that the new rules introduced in the 1980s did not take into account banks' ability and creativity in terms of circumventing these rules. Rules intended to mitigate the risk of financial instability actually encouraged banks to take on ever more risk.

What do economists do when regulations do not work? Well, paradoxically, what we do is argue that we need to regulate more and better. There is now a version III of the Basel rules, which have grown from 37 to 616 pages.[11] Andy Haldane, Executive Director of Financial Stability at the Bank of England estimates that, all together, the rules – once they are fully incorporated in national legislation in Europe – will number 30,000 pages.[12] Is this really the way to go? Has the pendulum swung too far?[13] Are we facing a new paradigm shift?

### In spite of lessons learned: back to square one

The philosopher Henrik Syse has reminded me of this very phenomenon. Truths we took to be eternal often prove to bear the stamp of their time. We then find new truths and throw out the old ones. Following the policy failures in the 1970s, many economists believed that Keynes and his disciples were wrong, and "Keynesian" almost became a term of abuse, referring to irresponsible government spending. But to draw such a conclusion is to go to

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[10] Experience shows that governments routinely bail out banks on the verge of failing. Of course, this sort of implicit government guarantee makes lending to these banks safer, and their borrowing costs fall. The difference between the rate they actually pay and what they would have had to pay without the implicit government guarantee amounts to a subsidy. Andrew Haldane at the Bank of England notes in his speech, "On being the right size" that if we look at some of the world's largest banks, this subsidy amounted in the period between 2002 and 2007 to around half of post-tax profits. When the financial crisis erupted, this implicit subsidy became explicit and was equal to more than post-tax profits. By comparison, the value of the subsidy exceeds the amount spent globally each year on development assistance (see http://www.bankofengland.co.uk/publications/Pages/speeches/2012/615.aspx. However, this subsidy does not go to the needy. Figures for the US show that CEOs of the largest investment banks earned 500 times the median US household income in 2007, a ratio that has increased fivefold since 1989. Andrew Haldane discussed this recently in a speech "A leaf being turned" (see http://www.bankofengland.co.uk/publications/Pages/speeches/2012/616.aspx).

[11] Nevertheless, Basel II gives banks ample leeway to determine their own capital requirements. In 2007, the Swiss bank UBS held USD 50 billion in US CDOs, but the bank believed that these were risk-free, since the paper had the highest rating from the rating agencies and the bank had also purchased credit default insurance. Thus, the bank did not have sufficient capital reserves to cover any losses on this portfolio (Gillian Tett (2009): *Fool's Gold*).

[12] Andrew Haldane (2012): "The dog and the Frisbee", speech at the Federal Reserve Bank of Kansas City's 36th symposium 'The Changing Policy Landscape', Jackson Hole, Wyoming (see Bank of England website).

[13] Swings of the pendulum are a frequently used metaphor in studies of financial crises. See, for example, Michael D. Bordo (2003), "Market Discipline and Financial Crisis Policy: a Historical Perspective", in *Market Discipline in Banking: Theory and Evidence. Research in Financial Services: Private and Public Policy*, Volume 15, 157–182, Edited by George G. Kaufman, Elsevier Publishers. According to Bordo, the pendulum swings between measures to *prevent crises, manage crises and resolve crises*. Erik F. Gerding (2006), "The Next Epidemic: Bubbles and the Growth and Decay of Securities Regulation", *Connecticut Law Review*, shows how economic upswings are often periods of deregulation and overoptimism in securities markets, while the downturns that follow are marked by austerity and calls for stricter regulation. Moreover, regulations become less effective as time passes, and market participants forget the previous crisis. Gerding provides examples of such cyclical pendulum movements going as far back as the 1600s.

extremes. Keynesian policy is often appropriate in a contractionary period, but it also involves saving in times of growth – a component that had been widely forgotten.[14]

The economists Carmen Reinhart and Kenneth Rogoff have summarised the experience of financial crises all over the world over the past 800 years. They show that history repeats itself. The "truth" most often proclaimed in boom periods just before the bubble bursts is the belief that *"this time is different*", which is also the ironic title of the book.

Although history never repeats itself exactly, some key features recur: one recurring feature is that boom periods are confused with an increase in the economy's growth capacity. Good times are mistakenly interpreted as perfectly normal.[15]

When times are good, it is difficult to gain acceptance for setting aside funds. There are always unsolved tasks in a society, and these tasks attract attention. In the 1930s, Ragnar Frisch understood that it is difficult for politicians to recognise good times at the time. He believed that it was the task of economists to ascertain the cyclical situation.[16]

When the crisis arrived in 2007, government finances were in disorder. Deficits and debt rose to such high levels that it was difficult for many countries to borrow money. When credibility is lost and lenders draw the line, Keynesian policy has reached its limit. These countries now have no other choice than to cut welfare schemes and public spending. The political fury we are now witnessing in Athens, Madrid and Rome is being directed at today's political leaders. Perhaps their rage should be directed at those who were in positions of responsibility in the good times, instead of at those who are now left with the washing-up.

We have furthered our understanding of economics over the many decades since Keynes, Frisch and others laid the basis of modern economics after the 1930s crisis. Theories have become more advanced, and methods and calculations far more complex. We have reams of regulations.

Perhaps one lesson to be learnt from history is that the simplest method can sometimes be the best, as Andy Haldane has argued. Friedrich Georg Nissen's rule that budgets should always balance was not particularly sophisticated, but if his ideas had been followed before the crisis, many countries would now be better off.

However, the principles behind Nissen's ideas were not completely unfamiliar when European politicians drew up the Maastricht Treaty at the beginning of the 1990s. The Treaty contained simple rules for economic policy: budget deficits should be below three percent and government debt below 60 percent of GDP.

The rules sparked debate, and academics the world over – including in Norway – ridiculed them as far-fetched and hopelessly rigid. And as so often before, the rules soon sank into oblivion, particularly after the major EU countries Germany and France had pushed them aside.

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[14] Georg F. Nissen was not alone in focusing on the fiscal balance. Nicolai Rygg wrote the following in 1948: *"There is a tenet that is not difficult to endorse: in times of slow economic growth, when the private sector relaxes, central and local government should support the economy, initiate projects to sustain activity and to prevent a rise in unemployment. But the other side of this coin is also important: in years when economic conditions are favourable, when the private sector is at full speed, the government should hold back and put aside reserves to boost its financial strength so that it can provide support when the economy needs it."* Nicolai Rygg (1948), "I økonomisk stormvær" [In stormy economic weather], festschrift for Joh. H. Andresen, also published as an annex to the periodical Statsøkonomisk tidsskrift nr. 3/4 1948, p. 23. In this article, Rygg highlights his assertion that government budgets must balance over the business cycle.

[15] Governments consistently overestimate growth in their forecasts (Frankel 2011). But this is difficult; in summer 2008, the average OECD country overestimated the budget situation in 2007 – the year prior to the forecast – in an amount equivalent to 2 percent of GDP (National Budget 2013).

[16] In his 1933 pamphlet "Saving and Circulation Regulation", Frisch proposed the establishment of an advisory committee on the business cycle, composed of economics experts.

In retrospect, we can acknowledge that simple rules of thumb can often be useful. For my own part, many years' experience of economic policy have led me to notice the prevalence of the figure 4.[17] A current account deficit exceeding 4 percent of GDP is often a harbinger of future problems. Spain is a case in point: government finances were fairly healthy, but deficits were building up in the private sector. Inflation of more than 4 percent is usually a sign of economic instability. If unemployment in a country is persistently above 4 percent, there is probably something wrong both with the functioning of the labour market and with the level of political ambition. And the financial crisis has shown that total banking sector lending in the most heavily indebted countries has often been more than 4 times GDP.[18] In this situation, any rescue packages would be too expensive for taxpayers – Ireland and Iceland are two examples.

This is a familiar element in our everyday lives. Speed limits are an example of such a rule. Calculating the optimal speed for a specific car on a specific road is extremely complicated. It would require considerable knowledge of both mechanics and physics. Speed limits help us. Of course, it might be optimal to drive faster or slower than the speed limit, but the rule is simple to understand and easy to enforce. This simple rule helps to shape our behavioural patterns to ensure efficiency and safety in the traffic system.

Simple rules can also make it easier to resist the temptation to postpone problems. Economists call this the *time inconsistency* problem. Odysseus solved his time inconsistency problem by having himself tied to the mast and instructing his crew to plug their ears with wax and ignore him when he would later ask them to steer the ship towards the song of the Sirens. That was an easy rule for the crew to follow.

But rules can be too simple.[19] They must be used only as points of reference, not as excuses for doing nothing. Economic policy rules should be common knowledge. An independent body should be established to tell us when we are "speeding", and procedures must be in place to implement measures to solve the problem.[20] The new "Fiscal Compact" in the euro

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[17] See Berg, Qvigstad and Vonen (2011) Two essays on the magic number 4 , Staff Memo 2/2011, Norges Bank, and Llewellyn and Qvigstad (2012) The "Rule of Four", The Business Economist, Vol 43, No. 1.

[18] The financial sector faces risk involving probabilities of various outcomes that we can forecast fairly accurately. But it also faces genuine uncertainty, where probabilities are also unknown. We do not know all the possible outcomes of bank behavior or the real probabilities. Such uncertainty is more effectively managed using simple and robust rules, rather than rules that are as complex as the systems they are meant to regulate.

[19] The psychologist and Economics Nobel laureate Daniel Kahneman touches on this theme in his book, *Thinking, Fast and Slow (*Allen Lane, 2011) (see e.g. page 98). Kahneman points out that the application of heuristics – simple decision-making rules often used to find answers to difficult questions – may produce answers that are imprecise or wrong. The use of heuristics may be regarded as a way of substituting complex questions with simple ones. While simple rules produce answers quickly, these answers may not be a proper response to the question we want to know the answer to. An analogy to this is substituting the fundamental question, "Am I driving safely?" with "Am I obeying the speed limit?"

[20] Most countries have balanced budgets as a long-term strategy. However, the long-term intention of a balanced budget is often abandoned in practice. This is another example of the time inconsistency problem. Today, many European countries are forced to pursue fiscal austerity, even if their current economic situation makes such a policy undesirable. The most rational option would be if governments were able to approve credible tightening measures that cut spending and raised taxes in the medium term, but that had negligible short-term austerity effects. Pension reform would be such a measure. The problem is that investors, who will be lending money to governments in the meantime, have little confidence that governments will actually follow through on their plans. History shows that they have good reason for this lack of confidence. Thus, the OECD and the IMF are recommending measures intended to deal with the time inconsistency problem and bolster confidence that long-term plans will actually be implemented. Independent fiscal policy boards that monitor government budgetary policy and that speak up if plans are not followed is one such measure. These boards will also make recommendations for realistic economic forecasting, so that projections of future tax revenues are credible. The idea is that greater credibility reduces borrowing costs and thus the need for cuts. The UK has basically followed up these recommendations by establishing the Office for Budget Responsibility (see http://www.hm-treasury.gov.uk/data_obr_index.htm). In the Eurosystem, there is now a tendency to give the

area is a tightening of the Maastricht Treaty, precisely to prevent the simple rules from being broken.

We should be less concerned about what is completely right and correct according to the prevailing truths, and more concerned about avoiding major mistakes, irrespective of what the truth might be.[21] And this is the line of thinking behind our inflation target for monetary policy and the fiscal rule for oil revenue spending.

We must be humble and constantly search for new knowledge. But as I have shown, there is a tendency for this humility to vary with the business cycle. Marc Flandreau and Mike Bordo tell me that during upturns, the colossal blunders of yesterday are forgotten by politicians, journalists and central bank governors, but not by economic historians. And right now, their profession is enjoying its golden age.[22]

Simple economic rules can perhaps prevent countries from getting into difficulties, but once the rules have been broken and the crisis is a fact, the solution is anything other than simple.

Real problems must be solved by real measures. That takes time and is painful, as we are witnessing in Europe today. Much of the adjustment in real terms is still to come, and there is still some way to go before we will be able to say that the global economy is on safe ground.

The full consequences of inadequate regulation of financial institutions became visible only *after* the crisis was a fact. However, macroeconomic imbalances were widely recognised beforehand. In the mid-2000s, Federal Reserve Chairman Alan Greenspan raised the key rate to reduce the US savings deficit. But long-term interest rates were kept low by the Asian savings surplus that found its haven in the US. International organisations such as the IMF and the OECD pointed out what needed to be done, but the solution required measures to be implemented by a number of countries with differing interests and finding a good solution for the global community proved to be too difficult.[23]

The global community is nonetheless sometimes able to make decisions that benefit all countries. I witnessed this myself in Washington at the IMF's meeting in October 2008 following the Lehman Brothers collapse. The alternative then was a black hole. In that kind of situation, it is easier to reach agreement.

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Commission the role of monitoring member states' implementation of their own plans. Other countries, such as Denmark and Sweden, have fiscal policy boards, but in many cases they have taken on duties beyond those strictly related to remedying the time inconsistency problem. They also comment on how fiscal policy ought to be formulated. This quickly encroaches on what is properly the domain of politics, rather than helping the political system to be consistent in implementing its own plans. A more detailed discussion of fiscal policy boards, with a focus on the board in Sweden, is found in Matsen, Natvik and Torvik (*Samfunnsøkonomen* no. 2, 2010).

21 The financial crisis has also reminded us of weaknesses in models and methods used in analyses behind the economic policies pursued. We must with humility acknowledge that we understand less about the functioning of the economy than we would have liked. Mervyn King, the Governor of the Bank of England, recently voiced this view in a speech, "Twenty years of inflation targeting", which he gave on 9 October 2012 at the London School of Economics (see http://www.bankofengland.co.uk/publications/Pages/speeches/2012/606.aspx). Similar reflections have also recently been expressed in an interview with Andrew Haldane, the Executive Director for Financial Stability at the Bank of England, under the title "Our models are no longer working properly" (see http://economicsintelligence.com/2012/10/24/bank-of-englands-haldane-on-the-crisis-of-economics-our-models-are-no-longer-working-properly/).

22 In his article, "Time on the Cross: How and Why Not to Choose Between Economics and History" in Pat Hudson (2001), *Living Economic and Social History*, Glasgow: Economic History Society, pp. 81–85, Marc Flandreau gives a personal and colourful account of how he inadvertently and unwittingly and in the spirit of "having it both ways" became an economic historian, because he refused to choose between economics and history.

23 Various observers have pointed out a number of factors that help to explain the financial crisis: Low key rates in all major countries over several years in the early 2000s, conflicts of interest in important financial institutions such as credit rating agencies and considerable economic differences are just a few of them.

In many ways, central banks are the response the authorities could apply when crises arose. Central banks were established to exercise control over the monetary system, enabling states to issue banknotes people could trust and providing banks with a bank for their own deposits and from which they could, in the last resort, borrow from in times of crisis.

Confidence in the monetary unit is the mainstay of our financial system. The following may serve as an illustration: It costs 50 øre to produce a banknote. For every 100-krone banknote Norges Bank issues, we apparently create wealth of NOK 99.50 – out of thin air. But people still sleep soundly in their beds – including those with money under their mattresses – because we are confident that the money can be exchanged for real goods.

It is, of course, tempting to take advantage of this confidence. History is full of kings and governments who have attempted to do just that. In 1716, the Scottish economist John Law established a bank that soon assumed the role as the first central bank of France. John Law saw the possibility of printing banknotes to finance promising development projects in the New World. Excessive confidence in the potential for profits fuelled both the printing presses and equity prices in Paris. The bubble burst and John Law fled to Italy.[24] Today, the

[24] Government debt in France had reached enormous proportions after the Spanish War of Succession (1702–1713). After the death of Louis XIV in 1715, John Law persuaded the French authorities to convert government debt into equity capital in the Compagnie d'Occident, also known as the Mississippi Company. The company was awarded exclusive rights to develop the French territories in North America and a number of trade privileges. Banque Générale was taken over by the state, given the name Banque Royale, and later merged with Mississippi Company. John Law was appointed Contrôleur Général des Finances and now controlled in practice France's finances and all trade between France and countries outside Europe. Banque Royale was given unlimited rights to issue banknotes (livres tournois). This was the first time paper money had been issued in France. The banknotes were made legal tender and the bank was given the right to collect taxes. An increasing number of stocks in the Mississippi Company were issued against government debt or paper notes issued by the Banque Royale. This led to a speculative bubble and new rounds of share issues. The value of the shares rose twentyfold in the course of 1719 and the number of millionaires rose sharply. When some investors sought to sell their shares in exchange for gold early in 1720s to secure their gains, the party came to an end. The bank attempted to persuade investors to accept banknotes instead, but this led to a sharp increase in the money supply. Inflation surged and in January 1720 it had exceeded 20 percent per month. In late spring 1720, the bubble burst. People lost all confidence in banknotes. Coins resumed their status as means of payment, and to the extent that bank-like institutions were established in France in the next 150 years banks were designated using other names such as "caisse", "credit", "sociétè" or "comptoir". John Law was sacked and allegedly fled the country disguised as a woman. At about the same time a similar project in England led to the South Sea Bubble. Under an agreement between England and Spain in 1713, the South Sea Company was awarded a contract for delivering slaves to the Spanish territories in America. The South Sea Bubble also burst in 1720. In contrast to the Mississippi bubble, however, the South Sea Bubble involved extensive insider trading and fraud, and a reaction new and stricter financial regulation was introduced in England through the Bubble Act and Sir John Barnard's Act. There is a large body of literature dealing with these speculative bubbles in France and England in the early years of paper money, see for example Larry Neal (1990, 2011), *"The rise of Financial Capitalism. International Capital Markets in the Age of Reason*", Cambridge University Press and *"I Am Not The Master of Events. The Speculations of John Law and Lord Londonderry in the Mississippi and South Sea Bubbles",* Yale University Press, Charles P. Kindleberger (1984), *"A Financial History of Western Europe",* Erik F. Gerding (2006), "The next epidemic: Bubbles and the Growth and Decay of Securities Regulation", *Connecticut Law Review*, and John E. Sandrock (2007), "John Law's Banque Royale and the Mississippi bubble". For further details regarding South Sea Bubble, see Norges Bank's website, article by Helen Paul (2011), "Limiting the witch hunt: Recovering from the South Sea Bubble", http://www.norges-bank.no/Upload/82434/EN/PAUL%20Paper.pdf

Many decades were to pass before France reintroduced paper money. This was in connection with the French Revolution, which, paradoxically, also ended in disaster. The Revolution in 1789 led to substantial expenditures that needed to be financed. The *Assemblée Nationale* had reduced taxes, and instead issued large quantities of banknotes backed by confiscated church lands. These notes were called *assignats*, since each note was assigned to a specific property holding, which the bearer could subsequently take possession of. John Law originally had the same plan when in 1705 he proposed introducing land-backed paper money, but when Law was given the opportunity in 1715 to introduce paper money in France, the banknotes were collateralised by government debt and stock in the Mississippi Company. Meanwhile, French *assignats* were issued in such great quantities that the result in a few short years was hyperinflation that culminated in 1795. It would take years to restore confidence in paper money and banks in France. Sweden had a similar experience with paper money following an economic collapse in the 1750s. For that reason, Sveriges

European Central Bank and the central banks in the UK and the US are using money they have produced themselves to purchase government bonds and other securities. They are taking advantage of the confidence the central bank enjoys to buy time to enable European countries to tackle the underlying problems.

## Some lessons

Tonight's theme is "Learning from history". And in this title lies a question, in both the positive and normative senses. The answer to the question of whether we actually learn from history would probably have to be "yes and no". Sometimes we learn, sometimes we do not. Economic crises seem to be a necessary precondition for learning. And this may still be the case. We have some capacity to learn from our own mistakes – particularly if they are traumatic enough – but limited capacity to learn from other people's mistakes. This is something we recognise from raising children. To the frustration of their parents, children seem to be more interested in having their own experiences than listening to parents' advice, however good it might be.

The answer to the normative question "should we learn from history?" is obviously "yes".

And which lessons should we learn?

Allow me to venture to select three lessons on the basis of what I have said so far.

First: *the simplest solution is often the best*. Simple rules, whether for fiscal policy or banking regulation, will often prevent the worst errors. And when the yellow warning light starts flashing, action must be taken.

Second: *confidence is essential,* also for economic policy. Confidence is easily eroded and difficult – and costly – to restore. Confidence must be earned. The resolution of today's crisis will also follow a smoother path if there is confidence in institutions – banks, central banks and governments. Borrowing costs will then decrease more quickly, the need for government cuts will diminish accordingly, and the good times will return sooner.

Third: *we have no magic wand*. If a country has real economic problems, real adjustments must be made to solve them.[25] Central banks cannot solve the problems, but what they can do is lend money when there is none available elsewhere, giving countries more time to implement necessary reforms. Deficits must be reduced.

Unrestrained printing of money has led to problems on many occasions through history. If printing money is not followed up by action – in euro area countries, in the UK and in the US – Mario Draghi, Mervyn King and Ben Bernanke run the risk of being recorded in history in the same chapter as the Scotsman John Law.

The full title of my speech today is "Learning from history: truths and eternal truths". I have ventured to outline three lessons that are hopefully are universally valid. But we can never be sure. I mentioned Ibsen's "Enemy of the People". Allow me to conclude with Doctor Stockmann's comments:

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Riksbank's was not permitted to print banknotes when it was founded. In Norway, Jørgen Thormølen issued banknotes in September 1695. His venture lasted a year! See Anders Bjarne Fossen (1978), *Jørgen Thormølen. Forretningsmann, storreder, finansgeni* [Jørgen Thormølen. Businessman, shipping magnate, financial genius]. Eirnar Blaauw A.S, Bergen.

[25] In Act I of Part II of Goethe's *Faust*, published in 1832, the Emperor is in financial difficulties. Mephistopheles convinces him to print paper money backed by gold that has yet to be mined to boost economic activity. This works for a while, until soaring inflation destroys the economy. Jens Weidmann, the President of the Bundesbank, spoke of the dangers posed by overly unrestricted monetary policy, based on *Faust*, during the festival "Goethe und das Geld" in Frankfurt in September 2012: http://www.bundesbank.de/Redaktion/EN/Reden/2012/2012_09_20_weidmann_money_creaktion_and_responsibility.html

*Yes, believe me or not, as you like; but truths are by no means as long-lived as Methuselah – as some folk imagine. A normally constituted truth lives, let us say, as a rule seventeen or eighteen, or at most twenty years –seldom longer*.[26]

Ibsen's play has been long-lived. It is still performed all over the world, 130 years after it was written. Not because the Norway of the 1880s never loses its appeal, nor because Doctor Stockmann found eternal truths. It is because the play raises questions of a more enduring nature. Perhaps we have to recognise that the closest we can get to eternal truths is, precisely, eternal questions?

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[26] The quotation continues: *But truths as aged as that are always worn frightfully thin, and nevertheless it is only then that the majority recognises them and recommends them to the community as wholesome moral nourishment. There is no great nutritive value in that sort of fare, I can assure you; and, as a doctor, I ought to know. These "majority truths" are like last year's cured meat – like rancid, tainted ham; and they are the origin of the moral scurvy that is rampant in our communities.*