Jan F Qvigstad: On institutions – fundamentals of confidence and trust

Speech by Mr Jan F Qvigstad, Deputy Governor of Norges Bank (Central Bank of Norway), at the Norwegian Academy of Science and Letters, Oslo, 12 November 2013.

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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Institutions

The concept *institution* has many meanings. For example, there is an important distinction between its meaning as an abstract concept and as a concrete one. The *judicial system* in Norway is an institution in an abstract sense, while *the Supreme Court* is concrete. *The Norwegian Opera & Ballet* is a concrete cultural institution within our more abstract cultural heritage. In my own field, the monetary system is abstract whereas *Norges Bank* is concrete.

I would like to speak about the role institutions can play in the economic advancement of a nation and use the central bank as an example.[1] My co-speakers will view the issue from different perspectives and the ensuing debate will bring forth yet further aspects.[2]

Good institutions provide sound frameworks that increase confidence and promote economic progress. This is so in relation to minor, everyday situations as well as to major life choices. At the fishmonger's, the *Norwegian Metrology Service* ensures that you pay for the actual weight of your cod fillet. When you buy a home, clarity about ownership and encumbrances is ensured by the land register.[3] The *Norwegian Industrial Property Office* grants patents so that entrepreneurs can make profits on their innovations. In the absence of such institutions, each of us would have had to spend more time on taking precautions and fewer investments would have been profitable.[4]

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[1] Among the many who have shed light on the role of institutions from this perspective is Douglass C. North, a 1993 Nobel laureate in economics together with Robert W. Vogel. In his work, he refers to institutions as: "Institutions are the rules of the game of a society and in consequence provide the framework of incentives that shape economic, political, and social organization. Institutions are composed of formal rules (laws, constitutions, rules), informal constraints (conventions, codes of conduct, norms of behaviour), and the effectiveness of their enforcement. Enforcement is carried out by third parties (law enforcement, social ostracism), by second parties (retaliation), or by the first party (self-imposed codes of conduct). Institutions affect economic performance by determining, together with technology employed, the transaction and transformation (production) costs that make up the total costs of production." See North, Douglass (1997) in Drobak, J. N. (Ed.): *Prologue of Frontiers of the New Institutional Economics*, p. 6.

[2] Economists use a basic and powerful theoretical construct to demonstrate that, at the most fundamental level, production takes place through the use of labour, capital and raw materials as well as through technological progress. Lying behind it – and often having a profound effect on it – is how firms and the society in which the firms operate are organised. And organisation is about institutions in the broad sense – everything from society's moral norms to how production is organised in each firm.

[3] Hernando de Soto in *The Mystery of Capital* (2000) argues that a lack of proper land registration in poor countries makes it impossible for the poor to obtain credit. As a result, a large proportion of the population is in effect barred from establishing a business.

[4] The Arab sociologist and diplomat Ibn Khaldûn analysed the relationship between institutions and economic progress. He published his major work *The Muqaddimah* in 1377. The book was published in Norwegian this year on the initiative of Nils Holme, the former director of the Norwegian Defence Research Establishment (FFI). In 1759, in his work Theory of Moral Sentiments, Adam Smith wrote that institutions are the framework

However, in and of themselves, institutions are insufficient to ensure progress – the key is whether they are strong or weak.[5] This is also the starting point for Daron Acemoglu and James Robinson's book *Why Nations Fail*.[6] They introduced the concepts *inclusive* and *extractive* institutions.[7]

- Inclusive institutions do not forget why they exist: they remember that their purpose is to serve the people, as the term "public servant" aptly illustrates. A well functioning constitutional state makes cooperation and transactions simpler and cheaper.
- Extractive institutions, on the other hand, are found in countries where rulers govern without notable opposition, where the judicial system is not fair, and where rights are not equal for all.

The authors refer to several examples where people groups with identical backgrounds and access to the same natural resources have developed differently because of institutional differences.[8]

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for progress. Good institutions promote confidence and thereby efficiency in society. The Norwegian American Thorstein Veblen, 115 years ago, described institutions as the building blocks of economic development (see *The Theory of the Leisure Class: An Economic Study of Institutions*). In newer Norwegian research, Halvor Mehlum, Kalle Moene and Ragnar Torvik have documented that institutions determine whether a country will manage to utilise discovered resources (see "Institutions and the Resource Curse", *The Economic Journal* 116, pp. 1–20).

5 The young and already internationally renowned economist Jeffrey Sachs called on the then Secretary General of the OECD, Jean-Claude Paye, immediately after the collapse of the former Soviet Union. Sachs claimed that all that was needed to get the economy moving was to liberate Russia's animal spirits. Paye demurred, saying that he thought that institutions would matter too. Sachs countered, saying "But you are French, and so you think that institutions are more important than they really are." To which Paye replied "And you are young, and take your institutions too much for granted." And then he added, almost as an afterthought, "If you do not have good, strong institutions, all you will get will be the mafia." E-mail correspondence from John Llewellyn, former colleague of Paye's, dated 3 November 2013.

6 Acemoglu, D. and J. Robinson (2012): *Why Nations Fail: The Origins of Power, Prosperity and Poverty*, Crown Publishers, New York.

7 Acemoglu and Robinson are not alone in attempting to capture institutional differences using concept pairs. In a historically based social analysis, North, Weingast and Wallis use the distinction between natural state and open access societies as reference for stage of development. The former was a strongly hierarchical society with tightly woven personal bonds with a clear social order. Collaborating elites had a monopoly on violence and dictated the allocation of resources. In an open- access society, on the other hand, the state holds power but there are institutional constraints. Political leadership has support from relatively broad economic and social groups, with more impersonal relationships and hence stronger competition and mobility. The authors argue that the transition between development stages to what they refer to as "the second social revolution", a somewhat broader concept than the Industrial Revolution that gives weight to, inter alia, the Enlightenment and Modernity, started over 200 years ago, and that it is still underway. In many countries, society has benefited from technological progress but is still captive of the old stage of development of personal power relationships. They point to a clear concurrence between the open-access society and economic prosperity. North Douglass C., Wallis, John Joseph and Weingast, Barry R. (2009) *"Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History",* Cambridge University Press.

8 Nation-building is a difficult task if there is no trust in as vital an institution as the police.

Johs Andenæs spent the spring semester of 1971 as a visiting fellow at Oxford, taking along his son Ulf, who was my schoolmate. That year, Leszek Kołakowski, one of the past century's most famous philosophers, was also a visiting fellow at Oxford, and Johs Andenæs and Kołakowski became friends.

Although Kołakowski had been one of Marxism's prominent post-war thinkers, by 1971 he had completely lost faith in the ideals of his youth. His relationship with the same Communist authorities that he had served as an ideologist earlier in his life was becoming increasingly difficult. When the end of Kołakowski's visiting appointment neared, Johs Andenæs was told privately that Kołakowski was debating whether to defect and remain at Oxford. Kołakowski was particularly repelled by a fellow Pole who was also a guest professor and whose loyalty to the regime he believed was sheer opportunism. To Johs Andenæs, Kołakowski spoke of his countryman thus: "He is a criminal. He cooperates with the police!" As a professor of criminal law, Johs

This leads to a key question: what are the principles that underlie those institutions that actually fulfil their role and effectively serve society?

A relevant starting point – as we are now approaching the bicentenary of the Norwegian Constitution – is 1814. This was the time when key nation-building institutions were founded, such as the Storting (Norwegian parliament), the Supreme Court, the University of Oslo and Norges Bank. By the mid-1800s, civil society was also developing rapidly, as illustrated by the surge in the number of associations. The historian Jan Eivind Myhre has described this development in his book on Norway's history from 1814 to 1905. He relates, for example, that 60 clubs and associations were established in Løten, Hedmark county, between 1850 and 1898.[9] These ranged from shooting clubs, cycling clubs, choirs and agricultural associations to local political, missionary and workers' associations. An array of common arenas boosts trust between people in a society. Trust in strangers helps oil the machinery. If you are able to trust the other party to the contract, you do not have to hedge against all possible outcomes.[10] The wheels of business turn faster and more smoothly.

The 1800s were characterised by upheaval and a change in the pace of economic development. In the *old society*, safety lay in close-knit networks and small institutions: the family, relatives and neighbours. Once the pace of development picked up, however, these networks and institutions were no longer sufficient. New ones were needed.

Local savings banks are a good example. Specialisation, a market focus and new tools demanded more financial muscle than the old, family-based networks could mobilise. The solution was for villages to join forces to create savings banks, an institution rooted in the local community but reaching beyond the old networks. Løten savings bank opened in 1855.

A good public school system is a prime example of an inclusive institution. In May this year, I had the pleasure of visiting Stavanger Cathedral School. The head teacher, Turid Myhra, showed a portrait of one of her predecessors, Johannes Steen; schoolmaster, statesman and nation-builder.[11]

Steen was notably a key driving force behind what was to become an important milestone in the construction of Norway's collective identity: the adoption of the Primary School Act in

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Andenæs found this to be an interesting statement. Kołakowski, for his part, did not return to Poland when his visiting fellowship ended soon afterward, but defected and became a leading critic of Marxist theory and practice and one of the intellectual fathers of Solidarity and the fall of Communism.

9 Myhre, Jan Eivind (2012): "Norsk historie 1814–1905: Å byggje ein stat og skape ein nasjon" [Norwegian history 1814–1905: Building a state and creating a nation].

10 The level of trust in a society is influenced by many conditions. It may be that the recent years' large migration flows are eroding the trust that has prevailed in Norway earlier. However, immigrants have in fact adopted surprisingly rapidly the level of confidence in their new home country. See also Dag Wollebæk (2013): Truer innvandringen tilliten? [Does immigration undermine trust?], Article in Aftenposten. Alexander Cappelen and Bertil Tungodden at the Norwegian School of Economics are also working on these issues (see e.g. http://paraplyen.nhh.no/paraplyen/arkiv/2012/juni/tillitstesten/). See also Algan and Cahuc (2010): "Inherited Trust and Growth", *American Economic Review* 100 (5), pp. 2060–92, who document a strong causal relationship between trust and economic prosperity.

11 Johannes Steen (1827–1906) was born in Christiania (now Oslo). After completing a higher degree in philology at the University of Christiania in 1848, Steen held a number of positions in the school system and was for many years the headmaster of the Stavanger Latin School. Steen was also a member of the Storting and prime minister. Both as an educationist and as a politician, Steen made key contributions to the creation of the Norwegian comprehensive school. Source: *Store Norske Leksikon*, http://nbl.snl.no/Johannes_Steen/utdypning.

Internationally, the Society of Jesus is known as the founder of the modern school system, with a curriculum tailored to the child's age and previous knowledge and schooling characterised by systematic progression. These pedagogical principles evolved gradually through the second half of the 1500s, culminating in 1598 with Ratio Studiorum, the official plan for Jesuit education (see O'Malley, J. W. (1993): *The First Jesuits*, Harvard University Press, Cambridge, Massachusetts).

1889. The result was a comprehensive school system that strengthened our collective identity.[12]

For Norwegians, it is easy to take inclusive institutions for granted. Throughout human history, however, it is extractive institutions that have been the norm. There were attempts to achieve a balance of power in regimes as disparate as ancient Rome, China and Venice. But they remained attempts. The inclusive institutions were replaced by nepotism and abuse of power.

The economists Acemoglu and Robinson point to the Glorious Revolution as a turning point in history.[13] The British Parliament permanently curtailed the power of the Crown. The UK did not become a democracy in the modern sense overnight, but checks and balances were introduced. The development of written laws and a judicial system featuring independent courts started. Patent laws were adopted and limited companies saw the light of day. The Bank of England, which was established in 1694, was controlled by the Crown's creditors. This limited the Crown's scope for printing money freely. Acemoglu and Robinson maintain that the Glorious Revolution paved the way for the Industrial Revolution.[14]

The monetary system

A man who makes pins on his own can make between one and 20 pins a day. However, if the work is distributed among several workers such that one produces the wire, another straightens it, someone else cuts it to size, yet another sharpens it, and so on, ten men can produce 48,000 pins per day.

This is Adam Smith's famous example, taken from *The Wealth of Nations*, of how the division of labour is important for productivity and economic prosperity.[15] In Smith's example, all the operations take place within a single factory. But in a more complex society, one firm's output is another firm's input. An important prerequisite for such division of labour is that there are institutions that facilitate simple trading of what is produced.

The monetary system is an institution that simplifies trade in goods and thereby promotes the division of labour, productivity and economic prosperity. We must bear in mind that money and the monetary system are not a goal per se. Money is like oil in the machinery.

Nevertheless, of all the systems existing within a state, the monetary system is among the more mystical when examined closely.

Historically, the King issued money, initially in the form of coins. His stamp turned the coins into a means of payment, and his power underpinned the monopoly on the issue of coins. Many kings managed their coinage. One example is Henry VII, the father of the modern English coinage system, whom historians have identified as an early proponent of healthy money.[16] His son, Henry VIII, was not as successful. From school, we best remember him for

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[12] Compulsory military service is also often quoted as a common area in which people from different backgrounds met on an equal footing, and often formed closer bonds. Accordingly, the Norwegian Armed Forces have not only helped to protect the country, but also developed Norway's social capital, at least that of half the population (see also Langeland, N. R.: "Møtet med krigens ånd" [Meeting the spirit of warfare], *Morgenbladet*, 1 November 2013).

[13] Hermann, Richard (1992): Med Skjebnen I hånden [With Destiny in Their Hands], Cappelen, Oslo.

[14] Not everyone agrees on this view of the *Glorious Revolution*. See, for example, Sussman, N. and Y. Yafeh (2004): "Constitutions and Commitments: Evidence on the Relation between Institutions and the Cost of Capital", CEPR Discussion Paper 4404.

[15] Smith, Adam (1776): *An Inquiry into the Nature and Causes of the Wealth of Nations*, Book I: Division of Labour.

[16] Sinclair, David (2001), The Pound. A Biography. *The Story of the Currency That Ruled the World,* London: Arrow Books 2001 pp. 141–2.

his high turnover of wives. To coin collectors, on the other hand, he is associated with theGreat Debasement, whereby the silver content of one coin after another was diluted.[17] Neither the turnover among his wives nor the debasement of the coinage was conducive to building confidence.

The King could solve a short-term financing problem by issuing debased coins and more notes. However, with ever more coins and notes chasing the same goods, the long-term consequence was rising prices. Economists refer to this as an inflation tax.[18]

What happens when the powers that be unleash inflation?

- First, confidence in money as a *store of value* disappears. An extreme example is the 1923 hyperinflation in Germany, when absolutely everything, including perishable food products, provided better security than money.[19]
- Second, money disappears as an *accounting unit*. Goods became the new standard. During the Napoleonic Wars, inflation was also very high in Norway, and the local history of the islands of Karlsøy and Helgøy shows that accounts were kept in silver or goods such as cod liver oil, Pollock and flour rather than speciedalers.
- Finally, money ceases to function as a *means of exchange*. After the Second World War, German industrial workers were paid in the businesses' own products. Cigarettes and nylons functioned as a general means of payment.[20]

I mentioned that the monetary system seems to be shrouded in a veil of mystique. Initially it was not. A coin's value was equal to its weight in silver. In our day, the promise of precious metal has been replaced by the central bank's promise of price stability. Underpinning this promise is an institution, that is to say a bureau of statistics, which can measure general price developments, generally by means of a consumer price index. The statistics bureau must be independent of the political authorities, unlike in Argentina recently where the director was replaced because the government did not like the price figures.[21] Or unlike the

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[17] Between 1526 and 1542 the silver content of the circulation coin groat was reduced by 23.2 percent while the coin retained its nominal value of four pence. The King's gross seigniorage increased from 2.1 to 20.1 percent. Glassman, Debra and Redish, Angela (1988) "Currency depreciation in early modern England and France", *Explorations in Economic History*, Vol. 25, Issue 1, pp. 75–97.

[18] Normally, it is Parliament's responsibility to appropriate money and the Crown's prerogative to spend it. When taxation occurs through inflation, this rule is broken.

[19] One of the classic accounts of hyperinflation is provided by Fergusson, Adam, *When Money dies. The nightmare of the Weimar Hyper-Inflation*, London: William Kimber & Co.

[20] Owing to a lack of reliable means of payment, the recovery of production capacity and commerce in Germany after the war came to a standstill. On Sunday, 20 June 1948, under the direction of Ludwig Erhard, a large-scale currency reform was carried out in the western zones of occupation. The introduction of the Deutschmark was followed by measures to deregulate the economy and dismantle price controls. Virtually overnight, goods were available in the shops again. In the wake of these reforms, the Bank deutscher Länder, the precursor of the Bundesbank, was founded. The launch of the Deutschmark was an institutional prerequisite for the beginning of the postwar German Wirtschaftswunder. The successful reform bolstered the reputation of the monetary policy authorities and provided fertile soil for the trust the Bundesbank has enjoyed as a defender of stable money up to the present day.

[21] The events in Argentina in 2007 led to the initiation of a research project at the MIT Sloan School of Management to collect price data from retailers on a daily basis using scraping technology. The project, currently referred to as the *Billion Prices Project* (see http://bpp.mit.edu/) is primarily associated with the MIT researchers Alberto Cavallo and Roberto Rigobon. The project started on a very small scale where in 2007. Cavallo used the technology to collect price data from supermarkets across Argentina, and he showed that inflation in Argentina was between twice and three times as high reported in the official figures.

Today, the project is being continued under the direction of the private company PriceStats, which provides data collection and processing services. The *Billion Prices Project* currently involves the collection of price information from more than 70 countries and daily inflation series are published for over 20 of them. Fortunately, Argentina proved to be the only country where price indices using the new scraping technology situation in Norway in the 1950s, when the government subsidised some goods in the index to avoid automatic wage increases.[22]

The monetary system has also become more intricate along another dimension. Today, cash accounts for only 5 percent of the money supply. Payments are primarily made using deposit money, which involves electronic signals created by the banks themselves, via cards, mobile phones or online payments.[23] Millions of transactions between individuals, companies and banks take place every day. These payments are settled at Norges Bank four times daily by transferring money between banks' accounts in Norges Bank. Norges Bank does not regulate the issuance of deposit money directly. By setting the interest rate on banks' sight deposits with Norges Bank and by securing settlements between the banks, the central bank is nevertheless the fundament of a vast and complex payment system.[24]

The central bank/Norges Bank

History has shown that monarchs are not always to be trusted to safeguard the monetary system.[25] An institutional solution is to delegate the task of issuing money to a central bank and shield it from the authorities' temptation to focus on short-term interests.[26]

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were systematically on a much higher level than the official inflation figures. Thus, it appears that in today's open societies, it is difficult to conceal true developments. Incidentally, Argentine inflation figures from PriceStats continue to show much higher inflation than the official figures (see http://www.pricestats.com/argentina-series). From February 2012, *The Economist* has replaced the official inflation figures for Argentina in its statistical tables with inflation figures compiled by PriceStats.

22 Index manipulation is a demanding enterprise that often resulted in perverse economic incentives, sometimes with entertaining results. After 1945, a stabilisation strategy was one of the cornerstones of the Government's economic policy, and prices were to be kept stable as a way of navigating through the economic cycle. In July 1948, the Ministry of Trade received an offer to purchase a consignment of part-skim Danish Gouda cheese, a food item that was included in the cost-of-living index. Despite the bargain offer, the import price would have been higher than the selling price, so that subsidies would be necessary to avoid impacting the index. The end of the story was that a consignment of full-fat Gouda was imported, an item that was far more expensive, but that was not included in the index. Lie, Einar(1995): *Ambisjon og Tradisjon. Finansdepartementet 1945–1965* [Ambition and Tradition]. The Ministry of Finance 1945–1965], Oslo: Universitetsforlaget, p. 121.

A few years ago, the news website TV 2 Nettavisen revealed that the large grocery chains adjusted the prices of goods they knew were included in price tests conducted by the media in order to come out favourably in the tests. For example, the price of hand soap in a pump dispenser is lower than the equivalent quantity in a refill package: http://www.nettavisen.no/okonomi/privat/article373382.ece.

23 According to the economist Stephen Quinn, secure central bank money triggered a spate of financial sector innovations. The central bank could offer notes with little risk regarding liquidity and public acceptance. On the other hand, notes were costly to use – an example is the considerable interest payments forgone when large amounts are held in cash. With the monetary system firmly anchored, private participants could offer more cost-effective payment solutions: deposit accounts, giro transfers, clearing and cheques. This system rested on confidence in central bank money. (Quinn, Stephen F., and William Roberds. 2005. "The Big Problem of Large Bills, the Bank of Amsterdam and the Origins of Central Banking." *Federal Reserve Bank of Atlanta Working Paper* 2005–16).

24 Large-value payments between banks are settled continuously in Norges Bank. See also Lerbak, Marie N. (2013): "Om pengemengden" [On the money supply], *Norges Bank Staff Memo no. 14.*

25 A characteristic of money as a means of payment is its anonymous nature. Before the use of money became common among ordinary people, payments usually took place in connection with commercial transactions, whether for goods or services, via networks from which it might be difficult to extricate oneself. The farmer was usually indebted to a town merchant, which resulted in dependency and an obligation to deliver a portion of his produce. Labourers might receive partial payment for their efforts in kind, or at large mills, in scrip that could only be used for purchases in the company store. The monetisation of the economy, based on secure monetary values, severed many of these ties of dependency. With money in their pockets, accepted as legal tender everywhere, the farmer or labourer was able to choose. This is also freedom. Nor did the party receiving payment, e.g. the town merchants to know more about the customer than that he had money in his pocket and could pay for the goods. Eitrheim, Ø. and L.F. Øksendal (forthcoming): *On secure monetary values and freedom.*

In Norway, the aim of shielding the monetary system from the government was already embodied in the Constitution of Norway adopted on 17 May 1814. The drafters of the constitution formulated the following in Article 75(c): "It devolves upon the Storting ... to supervise the monetary affairs of the Realm".

This provision strongly censured the Danish King's monetary policy during wartime. In future, representatives appointed by citizens, not the Crown, were to have final responsibility for the monetary system.[27] The King's scope for taxation by means of inflation was curtailed.

The Storting, which was supposed to meet every third year, was not equipped to assume day-to-day responsibility for the monetary system. "Someone" had to do this on behalf of the Storting. That "someone" became Norges Bank, which was established in 1814. The Storting realised that the objectives of monetary policy could be best achieved if the monetary system was shielded from the arbitrary intervention of the monarchy. The distance between the seat of government in Oslo and the central bank in Trondheim was a perhaps deliberate twelve day journey.[28]

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[26] A central bank requires mechanisms that ensure confidence. Kydland and Prescott demonstrated that policymakers who tried to pursue an optimal plan for economic policy may have a strong incentive to deviate from the same plan at a later point in time. This will be the case, even in the absence of news that would warrant a change in the plan (see Kydland F.E. and E.C. Prescott (1977), "Rules Rather Than Discretion: The Inconsistency of Optimal Plans", *Journal of Political Economy*, Vol. 85, No. 3, pp. 473–491).

The expression "tying oneself to the mast" encapsulates in a simple way how the central bank can avoid the dilemma that Kydland and Prescott describe. The traditional task of the central bank was to issue notes and coins and ensure a well-functioning payment system. But the payment system is only well-functioning when the public has confidence in the value of money. Thus, the primary duty of central banks is to ensure that the value of money is stable. The value of money relies on the confidence of the public that a responsible policy is being pursued. If a central bank is to keep its promise and deliver stable money, it is important that the political authorities stand behind it. Otherwise the central bank will be unable to keep its promise.

Throughout history, central banks have tried various mechanisms for tying themselves to the mast. Being accountable for their promises in the form reporting and follow-up is one mechanism that ensures that the bank is tied to the mast. Relinquishing the opportunity to break a promise makes that promise more credible. These are matters I touched on in my speech "On the topic of keeping promises" in 2008. Keeping a promise is difficult, because reneging on a promise will often be the tempting or rational choice in the short-term. The legal scholar and economist Michael Woodford has pointed out that in order to keep your word it is not enough to make a promise today and keep your word tomorrow. When making interest rate forecasts, we must also take into consideration the promises made yesterday. Only then can we fully use expectations to stabilise the economy optimally. This is referred to as monetary policy from a timeless perspective (Michael Woodford, 2003: Interest and Prices, Princeton University Press). Today there is general consensus that price stability is [not only] the best contribution that monetary policy can make to economic stability over time, [but perhaps also the only promise the central bank can actually deliver].

In the long term, a stable value of money is the only promise that the central bank has the means to deliver. This promise was previously kept by regulating the supply of money issued. Today, the interest rate is the instrument. The central bank does not manage real wages, the labour supply, employment or the level of unemployment in the long run. But, if price-stability is firmly anchored, the central bank can help to reduce short-term economic fluctuations. While central bank independence promotes price stability, researchers do not find a discernible connection between central bank independence and real economic variables such as GDP growth or unemployment (see Alesina, A. and L.H. Summers (1993), "Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence", *Journal of Money, Credit and Banking*, Vol. 25, No. 2., pp. 151–162).

[27] The principle whereby the new state would have its own monetary system, separate from Sweden, was written into the November Constitution in the same year. Here the word "bank" is also used for the first time. In keeping with the emerging liberal thinking of the time, keeping the value of money secure was considered essential, a prerequisite for the liberty of the citizenry.

[28] This journey time is for transport with a military escort. A post rider was able to make the journey considerably faster. Only after confidence in the new institution had been established – several generations later – was the Bank moved to Kristiania. Incidentally, the desire to compensate for the loss of the Bank was one of the reasons that Trondhjem was chosen as the location for another institution, the Norwegian Institute of Technology.

At irregular intervals during the past 200 years, Norges Bank has faced *defining moments* – crossroads – that have defined the bank as an institution. At such defining moments, the central bank becomes what it is, both in its own awareness and in that of the general public. These are situations where it sometimes became bigger than itself or took on too much responsibility, or inversely became smaller than itself and did not fulfil its role. As is so often the case, it is only in retrospect that we can fully identify the defining moments and assess the wisdom of the choices made.

Norges Bank faced its first defining moment early on. When it was first established, the Bank was unknown to the public at large. The new paper money, speciedaler notes, was linked by law to a specific amount of silver.[29] Despite the fact that the silver tax had secured Norges Bank a considerable silver reserve, the authorities were afraid to permit free silver redemption. The fear was that the silver fund would be emptied quickly. The notes in circulation with the promise of silver redemption far exceeded the silver value of the silver forks and silver plates that had been collected.

Confidence in the new notes waned, and in 1822 the Storting adopted a long-term strategy whereby the redemption rate in silver for the speciedaler would gradually be increased. The aim – the right to full silver redemption, i.e. that the same amount of silver would be paid out as stated on the face of the note – was first achieved 20 years later. I will call this period the "long promise". The fulfilment of this long promise strengthened and consolidated the Bank's reputation. Perhaps the strongest proof of increased confidence in the central bank was the domination of trade by notes following the introduction of free silver redemption.[30]

The remainder of the 19th century until the First World War became the heyday of safe money. Inflation was stable throughout, and the Bank kept its promise to redeem its own notes, first in silver and, from 1874, in gold.

Towards the end of the 1800s, optimism gained the upper hand in Norway. Increased exports and strong growth in manufacturing culminated in a wave of speculation in securities and property. In particular, the capital experienced a surge in economic growth and population, which resulted in the construction of large parts of the city as we know it today. The bubble burst in 1899. Under the leadership of the pharmacist.[31] Karl Bomhoff, Norges Bank acted resolutely.[32] For the first time, the Bank acted directly as a lender of last resort for banks to avert a banking crisis. Norges Bank provided liquidity to troubled banks, thereby helping to ensure the orderly winding-up of the speculative banks that had sprung up.

Bomhoff's decision in 1899 was a defining moment for Norges Bank, which has since played an important role in dealing with a number of crises as bankers' bank.

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[29] This was not the first time Norwegian authorities established a silver standard. In accordance with the regulation of King Haakon V of 1314, silver was to have a standard of purity of 13 ½ lødig, which is equivalent to .844 silver according to the modern method for calculating fineness (Halén, Widar (2009): "Arvesølvet og Peter Wessel Zapffes sølvgave" [The family silver and Peter Wessel Zapffe's gift of silver]. Lecture at the Norwegian Academy of Science and Letters.

[30] The speciedaler became legal tender shortly after Norges Bank was established.

[31] Adam Posen, a former member of the Bank of England Monetary Policy Committee, compares central banks to pharmacists: "[W]ith a limited medicine cabinet, and restricted by law from exceeding certain bounds, both must make sense of scrawled prescriptions from differing specialists, decide what side effects to take into account, and then ultimately dispense the proper dosage of medicine to their customers, all without knowing or controlling everything else the patient is consuming." See Foreign Affairs: http://www.foreignaffairs.com/articles/139465/adam-s-posen/the-myth-of-the-omnipotent-central-banker.

[32] Karl Bomhoff was appointed as the first Governor of Norges Bank in 1893. When Norges Bank's head office was moved to Oslo, Bomhoff also moved to the head office, where there was more extensive expertise than earlier. This facilitated Norges Bank's role as bankers' bank. The theme of my speech is institutions. It might seem paradoxical to refer to physical persons, such as Bomhoff, and not decision-making bodies. However, there is a connection between "what is a central bank" and "who is the central banker".

After the First World War, inflation and large-scale imports of goods caused a loss of confidence in the krone, which dropped considerably in value. When Nicolai Rygg became Governor of Norges Bank in 1920, he started work on putting the monetary system in order. In his view, the central bank was obliged to bring the gold value of the krone back to its pre-war level – referred to as *par policy*.[33] However, this ambitious aim entailed years of strong deflation and blight before the gold value was achieved in 1928.

For 90 years, historians have discussed par policy. My contribution will have to be a present-time analysis with the inherent scope and limitations.[34] Was this a good policy? There is no doubt that the motives were good. Rygg considered that Norges Bank had a moral obligation to keep its word, as it had done a century earlier, but was also of the view that this was rational in the longer term. There is also no doubt that Rygg adhered to the rules of the game. Par policy had the support of the political authorities. Nevertheless, an action must also be assessed by the outcome. The central bank was blinded by the old gold content as a guideline for monetary policy and implemented a policy that inflicted large-scale real economic costs on the country. Many countries had suspended the gold standard during the war, but no other country pursued such an ambitious par policy in the 1920s.[35] Norges Bank was deaf to growing contemporary criticism and sustained a substantial reputational loss.[36] As a consequence, the Bank's ability to fulfil its role in society was weakened for decades to come.

The par policy failure was an important reason behind the post-war opposition to allowing the central bank to make monetary policy decisions independently.[37]

A prominent feature of the post-war period was the conviction that the economy could be micromanaged by coordinating instruments drawn up by the government. At the time, few people considered this state of affairs as problematic. Although inflation was higher than before, unemployment was low and growth strong. This approach was in line with the dominant philosophy abroad, although the Norwegian variant was probably taken a step further than in most other countries.

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[33] Also the other Scandinavian countries and the UK embarked upon a similar policy to reintroduce gold convertibility. However, there was a crucial difference. While the Swedish krona had depreciated marginally and sterling by only ten percent, the Norwegian krone had depreciated by 50 percent in terms of gold. In other words, a substantially tighter policy was necessary compared with Sweden and the UK. It is also an open question whether returning the krone to gold parity after such a steep depreciation actually was in keeping with the orthodox understanding of the gold standard. During the great British debate on the gold peg after the Napoleonic Wars, even David Ricardo, the gold standard's most ardent defender, warned against returning to earlier parity values after a sharp depreciation. Friedman, Milton og Schwartz, Anna Jacobson (1963), *A Monetary History of the United States of America, 1867–1960*, National Bureau of Economic Research, p. 82.

[34] Since the past is our laboratory and the source from which we draw lessons, it is more fruitful to try to understand the past on its own terms than to sit in judgement over it. Anything else would make history as a serious branch of study into a meaningless exercise, reducing it to a running, constantly changing contemporary commentary on what has been.

[35] In the opinion piece "Mytedannelsen om paripolitikken" [Myth-making and par policy], published in Aftenposten on 30 May 1998, Hermod Skånland wrote: "...The Bank's newly appointed governor, Nicolai Rygg, was just as convinced as anyone else, both here in Norway and internationally, that pre-war conditions in the monetary system needed to be restored. (Skånland then shows that economic growth in Norway under par policy was actually stronger than in neighbouring countries.). Against this background, it may be difficult to understand that par policy has endured as the great destructive blunder of the 1920s, with Nicolai Rygg as the man responsible for the hard times. (..) This had to do with the fact that the flexibility that could be obtained through monetary policy was more to the liking of leading economists in the 1930s and on up to the present day, than the stability and the long-termism that may result when one imposes constraints on oneself of the type Nicolai Rygg represented."

[36] The Bank ***must*** on occasion be deaf to contemporary criticism in order to safeguard long-term considerations. But there will be a trade-off: which short-term costs are we willing to bear to keep our long-term promises.

[37] http://www.norges-bank.no/Upload/67282/Artikkel_Gjedrem_180408.pdf.

The then Governor of Norges Bank Erik Brofoss had both time and energy to concentrate on matters that interested him but which differed from the traditional interests of a central bank. Brofoss was, for example, keen to solve the housing shortage problem following the war. He had visited England and been inspired by the New Towns.[38] He asked the Bank's lawyers to draft a Norwegian statutory bill based on the British act of 1946.

Norges Bank Governor Knut Getz Wold was even clearer about the Bank's reduced role in monetary policy. In a speech in 1972, he stated the following:

> *"Cartels and price agreements play an increasing role in the setting of prices. The social partners exercise decisive influence over wage developments. Agricultural prices are set in negotiations between the agricultural organisations and the state (...) In these circumstances, it is almost meaningless to talk about the central bank's special responsibility for inflation."*[39]

The diminished role of the institution, which persisted well into the 1980s, must be seen in the light of mixed experiences with par policy, ambitious aims of micromanaging the economy, and the conviction that lower unemployment could be achieved by accepting higher inflation.[40] At the same time, major imbalances were building up in the economy. Fiscal policy, in conjunction with credit regulation and tight political control of business investment gradually undermined the monetary system as an institution. Later in the 1970s, these problems came to the surface. Growth declined, inflation surged and unemployment rose sharply. I should add that these problems were not confined to Norway. In 1971 the Bretton Woods system collapsed. Two year later the first oil price shock occurred.

At the beginning of the 1980s, the problems in the Norwegian economy had reached a pinnacle. In May 1986, the Brundtland government decided to devalue the Norwegian krone by 10 percent. As was usual on such occasions, it was said that this would be the "last time". Less usual was that it actually was the last time. Gro Harlem Brundtland, Gunnar Berge and Bjørn Skogstad Aamo had come to a decision. Devaluation policy was consigned to the past. Price stability, defined as low and stable inflation in line with that of trading partners, was established as an anchor for economic policy.[41] To implement this policy, both the monetary system and Norges Bank had to be re-established as independent institutions.

Whether government gave or Norges Bank repossessed control over the policy instruments, especially the key policy rate, is subject for debate. But the result was that Norges Bank in fact gained independence in interest rate setting to achieve the government-defined policy objectives. Inflation fell from double-digit figures around 1980 to 2–3 percent a decade later.

During the banking crisis around 1990, Norges Bank played a key role, which Bomhoff had paved the way for 90 years earlier, as a provider of liquidity to troubled banks.

During the 1990s, the intellectual basis for modern monetary policy was laid in Norges Bank. The transition from exchange rate targeting to inflation targeting, with an explicit price

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38 In a letter to Norway's ambassador in London dated 1963, for example, he wrote:

"As you may have seen from the Norwegian newspapers, I have in several lectures proposed that we should consider building entirely new towns as part of solving the problems of the districts." Discussions with Viking Medstad on 3 January and 24 October 2013.

39 http://www.nhh.no/Files/Filer/Om%20NHH/lehmkuhlforelesning/lehmkuhl_1972.pdf.

40 Berg, Thomas N. (2011): "Mellom politikk og marked" [Between policy and market], Norges Bank Staff Memo no 19, Norges Bank. http://www.norges-bank.no/Upload/Publikasjoner/Staff%20Memo/2011/StaffMemo1911.pdf , p. 62.

41 In autumn 1987, Gro Harlem Brundtland and Gunnar Berge had to defend Norges Bank's independence in interest rate setting to fellow party members, members of the Storting and the central committee during what was called the "interest rate uproar". Rossavik, F. (2007): Stikk i strid. Ein biografi om Einar Førde [At variance. A biography of Einar Førde]. Spartacus, Oslo.

stability objective, occurred gradually, and was formally introduced in March 2001. A new order was established. Norges Bank was again responsible for the monetary system. The institution was reconstituted.

The defining moments in both the initial and latter period of Norges Bank's 200-year evolution were thus quite long. I called the period 1822 to1842 the "long promise". The period 1986 to 2001 can be described as the "long return".

But we must not allow complacency to set in.

The world economy is still marked by the financial crisis that took hold in 2008. This is the first major crisis to hit the West's monetary system since the gold standard was abandoned in 1971.[42] In addressing the crisis, many central banks have deployed unconventional instruments. Both the Federal Reserve and the Bank of England have lent substantial amounts of money and implemented non-traditional measures. Central bank governors might feel that they have recently faced many defining moments in a short time span. Many might say that they have drawn on the institutions' accumulated confidence. Only time will tell whether these defining moments have truly secured the monetary system and central bank independence.

Conclusion

Public institutions are the product of their tasks and history. The monetary system was shaken when Norges Bank solely focused on bringing the krone's value back to par. We might say that the institution lost sight of broader social responsibilities. But the monetary system also suffered in the following period when the authorities took control and lost sight of the central bank. The conclusion with regard to the monetary system is that it must be both steered and guarded. The political authorities must define the objectives and the central bank must be the devoted guardian of the monetary system. The central bank must deliver price predictability, a robust payment system and a stable financial system.

It is in its performance of this responsibility that the central bank contributes to realising the mandate issued by the Storting – to supervise the monetary system.

Inspired by the former Governor of the Bank of England, Mervyn King, I will summarise my experiences in a few simple principles, which if followed, would enable institutions to fulfil their role in society and serve its citizens:[43]

1. It must know its social responsibility and restrict itself to the pursuit of the defined objectives and not be distracted by extraneous concerns – it must keep its promises.
2. It must use its instruments and expertise[44] to achieve the objectives – it must make good decisions.

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42 Philip Coggan (2012): Paper Promises: *Debt, Money and the New World Order*, Penguin, London.

43 Many attempt to measure whether institutions are fulfilling their societal role, which is a difficult exercise. As a nation, Norway scores high. Individual institutions are also measured. If any of us has preconceived notions, at least mine bear out. The institutions I thought would be at the bottom of such lists are at the bottom, and vice versa – those I thought would be at the top are at the top. But this is not a static situation. Movement is possible – in both directions.

44 The expertise must of the highest standard. A central bank's competence does not always translate well into performance. There are two reasons, in particular, for this state of affairs: First, the Bank is a monopoly and there is no domestic benchmark. Second, it has a potentially very generous budget, since it prints its own money.

Even though Norges Bank ranks high in terms of reputation and confidence, it may quickly slip into a state of complacency and then mediocrity. It is only the Bank itself that can establish the mechanisms that will prevent such a development.

3. Leaders must be aware that the institution will be held accountable – it must practice transparency as a principle.

4. Leaders must utilise institutional memory and staff experience – they must learn from history and manage their wealth – their cultural heritage.

These principles also summarise the six speeches I have given at the Academy of Science and Letters: a good institution keeps promises, makes good decisions, practices transparency as a governance principle, and learns from its own history and manages its cultural heritage.

And the threads are gathered here. Today's speech seeks to encompass all the themes in one frame. The lessons learned from Norges Bank's first 200 years and the criteria I just cited are useful both in Norges Bank's daily work and in making longer-term assessments. I would argue that these general principles apply to other institutions too, whether legal, cultural or educational. Decisions that are made in these institutions determine whether a country's citizens can live a life of freedom and prosperity.

The first measure is transparency. The Bank must expose itself to criticism by publishing the analyses behind its decisions. It must also be open about budgets and expenditure.

The second measure is an international anchor. The Bank must be part of the international network of central banks and academic communities to compare itself with others, not only with itself. Erik Brofoss was perhaps a governor who was most concerned with issues other than central banking tasks. But it was he who laid the foundation for the "long recovery"- perhaps without realising the extent to which his pioneering efforts would bear forth. Brofoss believed that the young economists at the Bank had to go out into the world and learn. When these young economists returned home, they had learned that another world was possible. They had received key inspiration about the proper business of a central bank and the proper conduct of monetary and credit policy. Today, the Bank has a Research Unit. The research is useful but it is a drop in the ocean compared with the research taking place in the wider world. But the Research Unit is important for ensuring that we are vigilant. It is the Bank's bridge to the academic world inside and outside Norway. Internationally recognised scholars visit the Bank on a weekly basis to relate the latest news from the research front and challenge our perceptions and ways of thinking. The actual presence of in-house researchers with specialist expertise in central banking sharpens the minds of other Bank staff. The Research Unit ensures that as an institution the Bank does not isolate itself and become inward-looking and self-satisfied.

The third measure is to ensure that the Bank's governing bodies and Bank staff work together as a team. Most of the literature on "making good decisions" focuses on the composition of the governing board (external vs. internal and governance by experts vs. general governance expertise) and work structure (collegial committees vs. individualistic committees). Just as important is how the governing board manages to make the most of staff expertise.

If an institution like the central bank slowly slips into mediocrity, it will not be discovered until it is too late.