The No-Gold Central Banks

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Received: March 21, 2022	Accepted: May 31, 2022	Online Published: July 27, 2022
doi:10.5539/res.v14n3p43	URL: https://doi.org/10.5539/res.v14n3p43	

Abstract

This article examines the central banks of three countries with no membership of the eurozone or the us-dollar zone: the 'Bank of England', the 'Norges Bank' and the 'Bank of Canada / Banque du Canada.' It uses a descriptive, factual analysis including a short history, their structure and administrative bodies, and some key financial figures. While there are a number of similarities between the three banks e.g. on the level of administration, they differ considerably with respect to external controls and financial solidity. The 'Norges Bank' and the 'Bank of Canada / Banque du Canada' have sold all of their gold reserves, while the 'Bank of England' only holds a small amount compared to the size of its other assets. Hence, the no-gold banks.

Keywords: central banks, gold reserves, Bank of Canada, Bank of England, Norges Bank

JEL codes: E31, E43, E50, E52, E58

1. Literature Overview

Since the start of the age of fiat money some fifty years ago, the role of central banks has become increasingly decisive not only in the field of macroeconomics but also in enabling and steering social developments (Andersen et al., 2021; Schnabel, 2021). Fiat money can be produced in unlimited quantities with no legal limitations whatsoever, possibly resulting in running inflation. Moreover, to fight the financial crisis of 2008 and the economic and financial consequences of the covid-19 pandemic, central banks have deployed new unconventional tools such as the purchase of all kind of financial assets with the objective of lowering interest rates and boosting economic growth. These major developments have resulted in a massive flow of literature. But these publications discuss the result of the new monetary policies, they do not refer to the structure and organisation of central banks, nor do they compare structure and organisation of different central banks. Literature in this field is limited. One can find monographies with regard to one or two central bank such as 'A History of Central Banking in Great Britain and the United States' (Wood, 2005) or more generalizing studies such as 'The Changing Face of Central Banking (Siklos, 2002) or 'The Evolution of Central Banking: Theory and History' (Ugolini, 2017). However, research comparing the actual structure and organization of central banks is scarce. What can be found is again focused on monetary policy issues (e.g. 'A Comparative Analysis of Developments in Central Bank Balance Sheet Composition,' Pattipeilohy, 2016) or limited to certain aspects of central bank activities (e.g. 'A Comparative Study of global Central Bank Independence and Transparency: Lessons learned from the Crisis', Clarida, 2012). This caused us to rely for the largest part on original sources, such as the articles of association and yearly reports of the three central banks.

2. Introduction

This article examines the central banks of Canada, Norway and the United Kingdom. None of these countries belongs to the European Union (EU). Nevertheless, all three have links with the EU. Canada has a trade agreement (CETA) with the EU, which is also the case for the United Kingdom following the Christmas Agreement of 2020 between the UK and the EU (Trade and Cooperation, Agreement, 2021). Norway is a member of the European Free Trade Association (EFTA) and is in consequence the country closest to the EU, with access to the largest internal market by dint of its membership of the European Economic Area (EEA). The three countries have yet closer connections to Western Europe through their membership of the military alliance known as NATO (North Atlantic Treaty Organization).

The three countries are not comparable in terms of geographical area and population. Norway (385,170 km) has a population of 5.4 million, whereas Canada (9,984,671 km) has 37.7 million and the United Kingdom (242,495 km) 67.8 million. In global terms none of the three has a particularly large population: when we look at the world ranking of countries by population, we see that the UK comes in at number 21, Canada at number 39 and Norway far behind at

number 119 (UN, figures 2022). The United Kingdom though has a GDP of 3,124 billion dollars, the world's fifth highest. Canada follows in ninth position with a GDP of 1,883 billion dollars. Norway stands at number 31 with a GDP of 444,000 million dollars.(IMF, figures 2021). Canada belongs to the 'Commonwealth of Nations' and has a special relationship with the United Kingdom. After Brexit, Canada signed a free trade agreement with the United Kingdom, whereas Norway also has a free trade agreement with the UK via its membership of EFTA. EFTA has a long-standing free trade agreement with Canada.

The currencies of the three countries are by contrast internationally significant. The pound sterling is the world's fourth largest reserve currency coming after the US dollar, the euro and the yen. The Canadian dollar (CAD) takes the sixth place after the Australian dollar. After the CAD follows the 'Swiss franc', the 'renminbi', the 'Hong Kong dollar', the 'Kiwi dollar', the 'Swedish krona', the 'Korean won' and the 'Singapore dollar' at place 13. The Norwegian krone takes the 14th place. It should also be pointed out that both the UK and Canada are members of the G7, a group of the world's largest industrialized countries. The pound sterling is also one of the five currencies (US dollar, euro, renminbi and the yen) in the basket of currencies that determines the value of the IMF's special drawing rights (SDRs).

This article takes a closer look at the 'Bank of Canada / Banque du Canada', the 'Norges Bank' and the 'Bank of England.' For each of them we consider:

a short history

the composition and structure of their administrative bodies

the gold reserves

the profit and loss account

the other reserves

the balance sheet.

This article examines the differences and similarities between these three central banks. Given the fact that very few publications exist concerning the management and the budgets of central banks (see 1. Literature Overview), this paper is primarily based on the yearly reports and accounts of the three banks. Regarding the short historical background, we relied on well-known historical standard works. In this context, the authors underline that much more academic research is needed to improve the understanding of the functioning and management of central banks.

3. A Short History

This section gives a short overview of the history of the three central banks. We consider them in alphabetical order: Canada, Norway and the United Kingdom. When we refer in the following pages to the Bank of Canada / Banque du Canada, we use the English name or the abbreviation 'BoC'.

3.1 Canada

This historical overview is based on the book of William Stewart Wallace and the BoC's website (Curtiss, 1948 and Bank of Canada, 2022).

For many years the Canadian financial system was based on the pound sterling. As a result of the *Treaty of Paris* (1783) and the recognition of the independence of the United States of America, Canada, which had remained loyal to the British crown, had to adapt itself to its southern trading partner. In 1822 the British authorities granted a charter allowing the establishment of a sort of Canadian central bank called the 'Banque de Montr éal / Bank of Montreal.' The shares of the bank were privately held and the bank was authorized for a number of financial activities, such as issuing money, granting mortgage loans on real property, trading in gold and silver, receiving deposits and negotiating bills of exchange. This was the situation in 'Lower Canada' (present-day Quebec and some of the more northerly territories), where a number of private banks had already been established, although without having any of the tasks of a central bank.

The 'Bank of Upper Canada' was established in 'Upper Canada' (present-day Southern Ontario and parts of Northern Ontario) in 1821. A quarter of the share capital was in public ownership. The sub-optimal management of the other banks in the territory meant that it acquired a monopoly on banking in the region. This bank too issued money in its territory. The creation of the Canadian confederation (Dominion of Canada) in 1867 and the greater independence granted in 1931 (Statute of Westminster) did not change this. The British authorities preferred to have only a limited number of banks because, in their opinion, the Canadian economy was not particularly complicated.

The Canadian central bank known as the 'Bank of Canada' was established in 1934 by the Bank of Canada Act. It was created in response to the economic depression of the nineteen-thirties. The new bank started operations in March 1935. Its mission comprised principally the determination of monetary policy, the issue of bank notes and the creation of a healthy financial system. The need for the creation of a central bank had been determined by a report on the banking

system requested by Prime Minister R.B. Bennett, who served as the head of a conservative government in the years 1930-35. Hitherto there had been little enthusiasm for a central bank in a country with a largely agrarian economy, a relatively small population and a network of note-issuing private banks. The effects of the global economic crisis were, however, so profound that the Canadian authorities were forced to intervene in the banking system. It was the liberal government of Prime Minister Mackenzie King that nationalized the 'Bank of Canada' in 1938 by buying out all the private shareholders. From then on the share capital of 100,000 shares was entirely in the hands of the government. The shares had a par value of CAD 50, so that the nominal capital came to CAD 5,000,000. Initially private banks with note-issuing powers continued to exist, although that situation came to an end in 1944, when the national bank acquired a monopoly on the issue of Canadian dollar bank notes. After the Second World War Canada's central bank became an important facilitator in the Canadian government's efforts to encourage economic growth and employment while ensuring low interest rates. During this period Canada saw itself transformed from a largely agrarian economy into an industrial one.

3.2 Norway

Norwegian coins serving as currency have existed since roughly 1000 CE. (Norges Bank, 2022) The striking of coins was a royal monopoly and is associated with the zenith of the Viking period. After the decline of the Vikings, Norwegian coins disappeared. Over all these centuries Norway was independent (900 -1397), a part of the Kalmar union with Denmark and Sweden till 1521, a province of Denmark till 1814, a part of Sweden in a personal union between 1814-1905 and again an independent monarchy from 1905 onwards. After the decline of the Vikings, Norwegian coins disappeared but started to return in about 1628. In 1695 the first Norwegian bank notes made their appearance. King Christian V granted the necessary authorization to a merchant from the Hanseatic port of Bergen. The 'Courantenbanken' was established in 1736 and was the first bank in Danish-Norwegian territory. This private bank was allowed to issue notes and it lent money to the government as well. The limited oversight of the activities of the bank and the lack of rules regarding the money supply meant, however, that the bank eventually got into difficulties, which led to its nationalization in 1773. In an effort to reboot the financial system, the Danish government then established a new bank called the *Den Danske og Norske Speciebank*. This was a state bank that was allowed to issue money and finance the state by floating loans. In 1799 this bank was replaced by the *Rigsbanken*. The ceding of Norway to Sweden led to the establishment of the *Norges Bank* in June 1816. A separate Norwegian monetary system came into being within the Union with Sweden.

Raising sufficient capital for the Norges Bank proved to be difficult. A compulsory tax on silver was imposed in order to raise enough capital to finance the newly created bank. Norway's own monetary system was largely a coin system based on silver. In 1874, Norway's parliament introduced the gold standard. The *Money Law* of 17 April 1875 supressed the existing names for Norwegian currency and adopted the current name, *Krone*, which in turn was divided into 100 øre. This reform of the monetary system was a consequence of Sweden and Norway joining Denmark in a Scandinavian currency union. The currency union used three separate currencies having the same value and divisions while the same gold reserves backing all three currencies. All three were legal tender in the three countries. This Scandinavian currency union remained in effect until 1914, when it was abandoned as a result of the unfolding of the First World War. The gold standard too was dropped in the summer of 1914. In the meantime, Norway had become an independent country. The Norges Bank continued to function as a central bank, with its legal status being confirmed in a new banking law adopted in April 1892.

The end of the First World War brought a period of economic turmoil marked by high inflation and monetary instability. The Norwegian Krone returned briefly to the gold standard on two separate occasions, the first between 1916 and 1920 and the second between 1928 and 1931. In 1933 the NOK (Norwegian Krone) was pegged to the pound sterling, but in 1939 this peg was dropped in favour of the US dollar. During the Second World War and particularly during the residence of the Norwegian government in exile in London, a return was made to the sterling peg.

Ever since its establishment in 1816 the Norges Bank had private shareholders. Further to the Norwegian law of 8 July 1949 all the private shares were bought up and the bank became a national bank entirely in state ownership. In this respect Norway's socialist government of the time was clearly inspired by the Labour government in the UK. In 1962 the Royal Norwegian Mint (*Den Kongelige Mynt*) came under the control of the Norges Bank. The new law of 24 May 1985 on the central bank came into effect on 9 September 1985.

As a result the Norges Bank acquired the status of autonomous public body within the administration of the state.

When the *European Economic and Monetary Union* started, a number of changes occurred regarding the policy and administration of the 'Norges Bank':

- In 1990 the NOK was pegged to the Ecu (European Currency Unit) but this peg was abandoned in December 1992;

- In 1997 the Norges Bank became involved in the administration of Norway's sovereign fund. The gas and oil
 resources discovered in Norwegian waters meant that it became an exceptionally wealthy fund. The so called
 'oil fund' was established in 1990 under the name 'Statens Pensjonsfonds Utland' (Government Pension Fund
 Global). This fund is financed by a significant part of the oil and gas revenues. The aim of the fund is twofold:
 it is a reserve fund (comprising investment) and a proper pension fund;
- In 2000 the mint was spun off from the central bank and became a separate activity. Shortly afterwards, in 2003, "Den Kongelige Mynt " was sold to a private Norwegian company and partly to the mint of the Republic of Finland.

Norway is a member of EFTA and, as such, is part of the European Economic Area.

3.3 The United Kingdom

The Bank of England (BoE) is the central bank of the United Kingdom. The bank was established on 27 June 1694 (Bank of England, 2022, Roberts & Kynaston, 1995 and Wood, 2005). This bank is the second oldest in history after the 'Sveriges Riksbank' created in 1668. The reason for its establishment is related to the government's need to finance the Royal Navy. The ongoing war with France had cost a lot of money and King William III was short of 1.2 million pounds. The traditional methods, such as a special tax or the confiscation of goods/moneys were out of the question because of political considerations and the fact that they had been used too frequently in the recent past. Fortunately a group of wealthy merchants offered the King a loan for this amount, allowing the government to modernize the fleet. In return the merchants sought an annual interest of 8%. To make the arrangements and work out the details of the loan, it was proposed to establish a bank that would have the right to issue banknotes covered by the state's debts. The loan was in fact never repaid by the state, but on the other hand the Royal Navy went on to become the dominant naval force in the world.

The Bank of England started operations on 1 August 1694, on the territory of present England and Wales (Scotland was till 1707 independent) as a privately owned bank whose main shareholders were the leading bankers and merchants of the country. The bank had the right to mint coinage, issue banknotes, grant loans and manage savings deposits. These shareholders selected a governor and an assistant among them. The two attended to the daily administration of the 'Bank of England'. In addition there was the *Court of Directors*, an administrative body made up of the 24 leading shareholders. The Governor and the Deputy Governor were appointed for a period of one year. They could be reappointed, but if they were not, they joined the Court of Directors. The first banknotes issued in 1725, were backed by the gold reserves.

During the revolutionary period of the French '*Directoire*' there was a French military landing in Wales. The attempted invasion was quickly defeated, but the populace turned en masse to the Bank of England to redeem their paper money for gold. As a result there was a huge fall in the Bank of England's gold reserves and the government was forced to intervene. The 1797 *Bank Restriction Act* put an end to the ability to redeem banknotes for gold. This measure remained in effect until 1821. The bank subsequently weathered various crises. There was for example the liquidity crisis that arose after the repeal of the Bank Restriction Act. Salvation came in the person of Nathan Mayer Rothschild, a member of one of the most powerful and wealthiest banking families, who made new gold available to the reserves.

The 1844 Bank Charter Act extended the powers of the Bank of England by institutionalizing *bullionism*. The effect of the law was to make it more difficult for other banks to issue their own banknotes. This measure, which was introduced by Robert Peel's conservative government, gave the Bank of England more control over the money supply, despite the law being watered down for Scotland's banks in 1845.

The 1866 financial panic arose from a suspension of payments by *Overend, Gurney & Co.* Ultimately, the government gave the Bank of England the right to issue more money than its gold reserve, thus enabling the 'Bank of England' to support the other banks and restore calm to the financial market. This was the first time in history that the Bank of England intervened in support of other banks.

One of the consequences of the First World War (1914-18) was that the convertibility of bank notes in gold was no longer possible. To finance the war the Bank of England had bought up government bonds. After the First World War the monetary and financial problems by no means diminished, which without a doubt had much to do with the non-payment by Germany of its war reparations. Ultimately this led to the gold standard being abandoned in 1931.

The 1946 Bank of England Act passed by the post-war Attlee government nationalized the Bank of England. All 17,000 private shareholders were bought out. From then on it was the government who appointed the members of the Court of Directors. Nowadays the Bank of England is one of the eight banks in the United Kingdom allowed to issue banknotes. The BoE has the monopoly on the issue of notes in England and Wales. Seven other commercial banks in Scotland and Northern Ireland are allowed to issue banknotes although this activity is regulated by the Bank of England.

4. Administration

The second part of this paper looks at the administrative arrangements for each of the three central banks. We pay particular attention to the respective powers and composition of their various organs. Our sources are the applicable laws, the relevant annual reports (see references) and the websites of the three central banks.

4.1 The Bank of Canada

The 'Bank of Canada' has three administrative bodies: the Governor, the Board of Directors (BoD) and the Governing Council. Each is considered below (Bank of Canada, 2021 and Bank of Canada act, RSC, 1985, CoB- 2).

4.1.1 The Governor

The Governor is the head of the BoC and is appointed for a renewable period of seven years. Since the fifth Governor, who resigned in 1987, all these persons have served only one term or even less. Candidates for Governor are proposed to the Federal Governor-the Board of Directors. The proposal must then be confirmed by the Governor-in-Council. The Governor-General, who represents the head of state, does not intervene in the appointment. Candidates must have the Canadian nationality and have a knowledge of financial markets, the economy and international finance.

The term in office of seven years is longer than the term in office of the government, which is four years, thereby increasing the independence of the BoC. The present Governor (named on 1 May 2020) is Tiff Macklem (born 1961). He is the tenth Governor of the BoC (Trudeau, liberal government) He was born in Montr ál and took a doctorate at the University of Western Ontario. He joined the bank in 1984 and was since the end of 2003 the federal deputy Minister of Finance (during the Chr átien-Martin liberal government). He was designated deputy governor in December 2004. In the period 2007-2010 Macklem was again deputy Minister of Finance (Harper conservative government) and went back to the bank. But on May 1st, 2014 he became dean of the University of Toronto. The Senior Deputy Governor is appointed in the same way as the Governor of the Bank of Canada.

4.1.2 The Board of Directors

The Board is composed of the Governor, the Senior Deputy Governor, twelve external directors and the Deputy Minister of Finance. The latter person, who is also a member of the Canadian government, is the representative of the Canadian government in the Bank of Canada. It is worth pointing out that the Deputy Minister of Finance does not have the right to vote in the Board of Directors. The twelve external directors are drawn from all ten of Canada's provinces. Generally speaking, each province is represented by a single external director, whereas the two most populous provinces, Ontario and Quebec, are represented by two directors each. The twelve external members are appointed by the government for a period of three years.

The main tasks of the Board of Directors include the oversight of the administration of the bank, the assessment of the non-monetary policy of the central bank, the approval of the budget, the annual accounts and the annual report. As representatives of the provinces in the Board, the external directors are also expected to keep the bank informed of the financial and economic situation in their provinces. The Board does not evaluate the monetary policy of the bank. As already mentioned, it is the Board of Directors which proposes the Governor and the Senior Deputy Governor to the government for appointment.

4.1.3 The Governing Council

This Council consists of the Governor, the Senior Deputy Governor and the four Deputy Governors. It is this six-person board that is responsible for determining monetary policy, maintaining a healthy financial climate for the Canadian economy and defining the strategic policy of the Canadian central bank. In effect, it is the Governing Council that conducts the daily administration of the bank and in particular watches over the exchange rate of the Canadian dollar, interest rates and inflation.

4.1.4 Constitution and Audit

The Bank of Canada was established as a private bank in 1934. In 1938 the government bought out the private shareholders and the bank passed into public ownership as a Crown Corporation. Since then it is the Minister of Finance who holds the shares of the central bank. The constitution of the bank as a Crown Corporation is unique and was drafted especially for the bank. Its special constitution gives the BoC a significant degree of independence. The Deputy Minister of Finance is the intermediary between the bank and the government. Should the government disagree with the policy of the bank, the Minister of Finance may send the bank a written instruction to change it. The Canadian government has to this day never used this option.

The internal audit of the bank is carried out by the bank itself. The external audit by contrast is carried out by two firms of accountants appointed by the government further to a proposal of the Minister of Finance.

4.2 Norges Bank

The bodies of the Norwegian national bank are the Executive Board, the Supervisory Council and the Monetary Committee (Norges Bank, 2021a-2021b-2021c and Norges Bank Act of 21 June 2019).

4.2.1 The Executive Board (EB)

The Executive Board or EB of Norway's Central Bank is responsible for the management and policy of the Norges Bank, with the exception of all those matters that fall under the purview of the Monetary Committee (see below). The EB is also responsible for the Norges Bank's administration of part of Norway's sovereign fund (the Government Pension Fund Global - see above).

The Executive Board is made up of the Governor, the two Deputy Governors, six external members and two members drawn from the personnel of the bank. These latter persons only attend the meetings when there are administrative items on the agenda. The Governor and the two Deputy Governors are appointed by the government for a renewable period of six years. This period exceeds the four-year legislature of the Norwegian parliament and thus ensures a high degree of independence. The six external members are appointed by the Norwegian government, with three being appointed for four years and three for two years. The appointees are persons who have been trained in economics or the law and who have a knowledge of the financial world, monetary policy and/or public finance.

The former governor since 2011 of the 'Norges bank' was Oystein Olsen (born 1952, Jens Stoltenberg, labour government). Olsen studied economics at the Oslo university and retired on March 1, 2022. The acting Governor is Ida Wolden Bache, an internal person of the bank with a PhD in Economics from the university of Oslo. She will stay as acting CEO until Jens Stoltenberg, born 1959 and former Prime Minister and present NATO Secretary-General, will take over, in principle after the summer of 2022. It is not clear if the Ukraine war will have an impact on this time schedule. Stoltenberg studied economics at the Oslo university and is a member of a historical labour political family. After the 2021 elections the new Norwegian government (Labour and Senterpartiet) with PM Store announced the succession at the top of the Norges bank. It's the first time in history that a former NATO Secretary-General will move to the leading position in a central bank.

The EB has four subcommittees. Their task is to analyse the business on the agenda prior to meetings of the EB. The first is the Audit Committee, which is made up of three of the six external members. This committee coordinates the administration of the internal audit of the bank and maintains contact with the bank's external auditors. The second is the Remuneration Committee, which is responsible for the pay and remuneration policies for Norges Bank personnel. This committee is made up of three external members of the EB and one of the two representatives of the Bank's personnel. The third committee is the Ownership Committee. It is made up of three members of the EB and a Deputy Governor takes the chair. This Committee is responsible for the Bank's investments and the sovereign wealth fund. Finally there is a Risk and Investment committee which is composed in the same way as the previous committee. All matters relating to the risks and strategic investments of the Bank are discussed here. The Executive Board is responsible for drafting the annual report.

4.2.2 The Supervisory Council (SC)

The Supervisory Council (SC) is made up of 15 members of the *Storting*, the Norwegian parliament (Norges Bank, 2021b) They are appointed by the *Storting* in proportion to the relative size of each parliamentary party. The appointment is for a period of four years, renewable on two occasions, which means that the longest anybody can sit on the Council is 12 years. Just as in Denmark and Sweden all members of the Supervisory Council are elected members of the *Storting*. The Supervisory Council is headed by a Chairman and Deputy Chairman. Traditionally both posts are held by appointees of the two largest parties in the *Storting*.

The primary task of the Supervisory Council is the oversight of the EB, in particular to ensure compliance with regulations. The Supervisory Council appoints the external auditors and approves the annual accounts and the budget. Every year the Supervisory Council submits a report on its activities to the *Storting*. The Supervisory Council represents the political control over the Norske Bank by the elected representatives of the people.

4.2.3 The Monetary Policy and Financial Stability Committee (MPFSC)

The members of the Monetary Policy and Financial Stability Committee (MPFSC) are appointed by the King in Council. (Norges Bank, 2021c). The committee came into being further to the *New Central Bank Law* of 2019. The Committee has been in operation since 2020. It has five members, the Governor, two Deputy Governors and two external members from the Executive Board. The task of the Committee is described as follows: *"The Committee is Norges Bank's executive and advisory authority in monetary policy, including the use of instruments to reach monetary policy objectives. Its aim is to contribute to promoting financial stability by providing advice and using the instruments at its disposal"*. As is apparent from the 2020 annual report, the Committee has had to concentrate chiefly on the impact of

the COVID pandemic on Norway's financial system and the monetary consequences of same.

4.3 The Bank of England

The Bank of England is headed by the Court of Directors, whose work is supported by various committees. (Bank of England, 2021 and Bank of England act of June 1998).

4.3.1 The Court of Directors

The Court of Directors is both the administrative body of the Bank of England and the Executive Board of the central bank. Its powers are defined by the 1998 Bank of England Act. They include monetary policy, the maintenance of a healthy financial climate, the achievement of targets, the drafting and approval of the bank's budget, the annual accounts and the annual report. The Court has five *Executive Members:* the Governor and the four Deputy Governors. Each of the Deputy Governors has his own field of responsibility: monetary policy, financial stability, banking and prudential oversight.

The present Governor since 2020 is Andrew Bailey (born 1959, Conservative government with PM Johnson). He was the chief cashier of the bank (2004-2011) and became a deputy governor in 2013 (Conservative government with PM Cameron). In the period 2016-2020 he was the Chief Executive of the Financial Conduct Authority (Conservative government with PM May). He is a graduate of Queens' college and has a PhD in history from Cambridge university.

In 1997 supervision of the banking sector was transferred to the Financial Services Authority (FSA) further to a decision of the Labour government then in power. The government was dissatisfied with the supervision of the Bank of England, particularly the failure of well-known banks such as Barings in 1995 and the Bank of Credit and Commerce in 1991. Following the banking crisis of 2009, it was a Conservative government that was dissatisfied with the prudential supervision of the FSA, prompted by the failure of Northern Rock and the implosion of the Royal Bank of Scotland. As a result prudential supervision of the bank sector was returned to the Bank of England in 2011 and a separate Financial Conduct Authority was established in 2013 (see footnote 24 below).

The five "executive" members of the Court of Directors are appointed by the British government. Governors are appointed for a renewable period of eight years and the four Deputy Governors for a renewable period of five years. The five full-time members of the Court are joined by a maximum of nine *non-executive* members. The non-executive members are appointed by the government for a renewable term of four years. The Chancellor of the Exchequer (the UK equivalent of the Minister of Finance and the political head of HM Treasury) has the authority to appoint persons in this group to be the Chairman or the Deputy Chairman of the Court of Directors. The non-executive members nominate one of their members who is not the Chairman or the Deputy Chairman to be the Senior Independent Director. The plenary Court of Directors is required to meet at least seven times a year. The effective daily administration of the bank is carried out by the Governor and the Deputy Governors.

4.3.2 Court Committees

The work of the Court of Directors is supported by several committees, which do the preparatory work. There are in fact two kind of committees, one whose members are all members of the Court of Directors and the other which has external members as well. The Court Committees include the Audit Committee (membership restricted to non-executive directors), the Remuneration Committee and the Nominations Committee. The latter committee is chaired by the Governor of the Bank. All the other committees are chaired by a non-executive director.

Apart from these, there are three committees made up of external members and the Governors. The non-executive directors in the Court of Directors do not serve on these committees.

The first committee is the Monetary Policy Committee (MPC) which is chaired by the Governor. It was established in 1997 in response to financial problems which were encountered at the time. Three of the Deputy Governors sit on this committee as well, but not the Deputy Governor for Prudential Regulation. The other members include the Chief Economist of the Bank and four external members appointed for their relevant knowledge by the Chancellor. The external members are appointed for a renewable term of three years. A representative of the Treasury sits in on the meetings but has no voting rights. This committee is required to meet at least eight times a year. The Monetary Policy Committee is responsible for determining the official discount rate of the Bank of England. This rate is of key importance for ensuring price stability and controlling inflation in the United Kingdom. However, it is not the Bank of England but one of the leading members of the government – the chancellor of the Exchequer – who sets the inflation target. To this effect, each year the Chancellor sends a letter to the Governor (chapter 12.1. of the Bank Act of 1998). The actual inflation target is 2% (Sunak, 2021). Should inflation diverge by more than 1% from the inflation target rate, the committee must send a letter to the Chancellor stating the reasons for the divergence and suggesting policy proposals aimed to make the realisation of the desired target rate possible. Because of the jump in the inflation rate in November 2021, the Bank's Governor - as chairman of the monetary policy committee - sent such a letter to the

chancellor of the Exchequer (Bailey, 2021)

The second committee is the *Financial Policy Committee* (FPC). This committee was established in 2013 as part of the effort to improve financial stability after the banking crisis of the previous decade. The main task of the Financial Policy Committee is to monitor the British economy. This committee has assumed some of the tasks of the former FSA (see above). The Financial Policy Committee is chaired by the Governor of the Bank of England. All four Deputy Governors sit on the committee as well as the Executive Director of the Financial Stability, Strategy and Risk Directorate. A further five external members join these six. The external members are appointed by the Chancellor for a renewable term of three years and are expected to have a good knowledge of financial services. There are two other persons who are members of this committee, one is the Chief Executive of the Financial Conduct Authority (FCA), whereas the other and thirteenth member is the representative of the Chancellor, albeit without voting rights. This FCA exists since 2013 as a government agency, that regulates the financial sector and in particular is responsible for the regulation of financial institutions offering financial products to the general public. It may impose the standards that such products must comply with and may also prohibit products of being sold. The current Governor of the Bank was a former head of the FCA. Finally, there is the Prudential Regulation Committee responsible for ensuring that firms it regulates are properly managing their capital and liquidity positions. It is constituted along similar lines as the FPC.

5. Some Figures

The third part of this article looks at a number of financial aspects, such as the gold reserves, the size of the balance sheet, reserves and capital.

5.1 Gold

Canada suspended its gold reserve in 2016. In 2000 the Bank of Canada still held a gold reserve of 36.8 tons, representing 1% of its total reserves. By 2015 the reserve had fallen to 1.7 tons representing 0.1 % of total reserves. The reasons advanced by the BoC for selling its gold reserve included the fact that gold does not yield any interest, the costs of storage, Canada no longer maintains a gold reserve standard policy, and the fluctuations in the price of gold. (Hillnotes, 2016). The Bank of Canada does though store the gold of other countries, including part of the gold reserves of Belgium and the Netherlands.

Norway also no longer maintains a gold reserve. Norway suspended its gold reserve in 2004, when it sold it last stock of gold, 33.5 metric tons. It retained 3.5 tons of gold so that it could strike new golden coins.

The Bank of England holds a reserve of 310 tons of gold, representing the world's 17th largest gold reserve. The Bank of England also stores gold belonging to 30 other central banks. This is a consequence of both the First and Second World War as well as the idea that the gold is safer on an island with a long-established parliamentary democracy. The total stock comes to 400,000 bars of gold, with a value of about 200,000 million pound sterling or 236,000 million euros. All in all the stocks represent roughly 5,600 tons of gold. In this context it is also worth remembering that London is home to the world's largest gold market. (BoE, website 2022).

5.2 Capital/Equity

The capital of the three central banks is entirely state-owned. The amounts are as follows:

- Bank of Canada: CAD 5 million (3,491,000 euros),
- Norges Bank: unspecified with no division into capital and reserves, because the Norges bank law of 2019 does not define the capital of the bank,
- Bank of England: GBP 14,533,000 (17.0 million euros).

The most striking element here are the arrangements regarding the capital of the Norwegian central bank. That the British central bank has a greater capital than the Canadian one seems reasonable in view of the difference in GDP and economic power. Even so, this level of capitalization seems low when compared for e.g. to the capital of Belgium's central bank of 10 million euros.

The net equity of these central banks is defined as the sum of capital, statutory reserves, other reserves and retained earnings. The 2021 Annual Report of the Bank of Canada sets the equity of the Bank at CAD 608 million (EUR 425 million). Of this amount, CAD 5 million is the share capital. Art. 27 of the Bank of Canada Act sets out the rules governing the reserve fund. The limit on the statutory reserve is set at five times the paid-up capital, so that it currently stands at CAD 25 million. Article 27 also provides for a special reserve, which currently stands at CAD 100 million. This reserve may, nonetheless, not exceed CAD 400 million. Finally the Bank of Canada has an investment revaluation reserve, which amounted to CAD 435 million at the end of 2021, down from CAD 448 million at the end of 2020. As a result total equity came to CAD 608 million (EUR 425 million), an increase of CAD 30 million compared to 2020.

Concerning Norway total equity of the bank at the end of 2021 stood at NOK 288,704 million (EUR 28,790 million). The Norges Bank realised a profit over the year 2021 of NOK 23,100 million (EUR 2.3 million), whereof NOK 11,100 million (EUR 1,100 million) was transferred to the Norwegian treasury, NOK 4,000 less than the previous year.

The 2020/21 Bank of England annual report covering the period from 1 March 2020 to 28 February 2021 records a total equity of GBP 5,800 million (EUR 6,800 million). This is about the same as that for the previous financial year of 2019/20. This sum represents the capital, the reserves and the retained earnings of GBP 3,200 million.

5.3 Balance Sheet

In the following section, the balance sheet totals of the three central banks and the ratio of equity to balance sheet total are the studied items.

The balance sheet total of the Bank of Canada was CAD 499,365 million (EUR 349,556 million) at the end 2021. This is a decrease of CAD 48,5 million (33.9 million euro). It is mainly caused by the item 'securities purchased under resale agreements.' The ratio between the bank's equity of CAD 608 million and the total of its balance sheet is at the end of 2021 0.12 % compared to 0.11% at the end of the previous year. The minting of the Canadian dollar is not a task of the BoC. Indeed, Canada's coinage is minted by the 'Royal Canadian Mint / Monnaie Royale Canadienne.' The mint is a crown corporation and mints coinage for about 30 other countries (i.a. Spain and Israel). The profit was 13 million CAD of which 3,7 million was paid to the treasury. (Royal Canadian Mint, 2021). The Mint's financial year corresponds to the British financial year, because of the close cooperation with the UK Royal Mint.

The balance sheet total of the Norwegian central bank at the end of 2021 stood at NOK 13,172,013 million (EUR 1,313,645), roughly 1,500,000 million NOK more than at the end of 2020. However, NOK 12,340,085 million of that amount is related to Norway's sovereign fund, the GPFG which we already have referred to (supra, point 3.2.). As a result no less than 93.7% of the balance sheet of the Norges Bank is accounted for by the sovereign fund. In just one year the book value of the GPFG rose by over NOK 1,400,000 million. Should the GPFG not be included, the balance total is only NOK 831,900 million (EUR 82,970 million). When the equity is compared to the balance sheet total (NOK 289,000 million against NOK 13.170.000 million) a ratio of 1 to 45.6 emerges. When, though, the GPFG is left out of the equation, the ratio becomes 2.9. This last figure is by far one of the best liabilities/equity ratios of larger central banks. Therefore, the immense size of the sovereign fund leads to a distorted image of the Norwegian central bank.

The balance sheet total of the Bank of England was GBP 939,500 million (EUR 1,105,000 million at the close of the 2020/21 financial year, which is an increase of GPB 350,000 million over the previous financial year (2019/20). The monetary policy of the Bank of England in response to the pandemic ('quantitative easing') is the primary cause of this ballooning of the balance sheet. Comparing the equity of the Bank of England (GBP 5,800 million) to the balance sheet total results in a ratio of 1:161. In other words, the equity of the BoE represented 0.6% of the balance sheet total at the end of the 2020/21 financial year. This may be compared to the nearly 1% of the previous financial year. The Royal Mint is independent of the Bank of England and is a limited company owned by H.M. Treasury. The profit was GBP 12,4 million over the fiscal year 2020:21 (Royal Mint, 2021). There exists a close cooperation with the Canadian Mint.

5.4 Profit and Loss

Profit and loss of the three central banks is published in their latest annual reports (see references). The Bank of Canada defines profit as the amount remaining after all appropriations to the reserve funds. In 2021 profits came to CAD 2,780 million (EUR 1,945 million). This amount was transferred to the Canadian treasury (in 2020 the amount was CAD 1,700 million), indicative of a rise of profits despite the impact of the COVID epidemic in 2020 and 2021. The Bank of Canada holds a large number of bonds and treasury paper issued by the Canadian government. For the Bank this is reason enough to claim that its balance sheet is not exposed to significant risks. The yield on Canadian government paper continues to be the main source of the bank's revenues.

Over 2021 the Norges Bank showed a profit of NOK 23,100 million (EUR 2,300 million) or NOK 5,800 million less than in 2020. Losses on bonds together with lower management fees generated by the administration of the GPFG were the main reasons for the decline in profit. The government makes a proposal to the Norges Bank on the appropriation of the profit (see Section 3-11-2 of the Central Bank Law). In 2021 an amount of NOK 11,100 million (EUR 1,100 million) was paid to Norway's treasury, which was NOK 4,000 million less than for the previous year. The Norges Bank is nonetheless required to pay tax on its financial operations outside Norway. In 2021 this yielded NOK 24.9 million to Norway's treasury.

The Bank of England paid no dividend to the British treasury for the 2020/21 financial year compared to the GBP 45 million paid in 2019/20. Tax on the profit determined by the profit and loss account was however paid. For 2020/21 the profit came to GBP 72 million which yielded a tax in favour of HM Treasury of GBP 15 million, which may be

compared to the GBP 11 million in tax paid on profits of GBP 128 million for the 2019/20 financial year.

5.5 Personnel

There are significant differences between the number of workers employed by each of the banks. The Bank of England has 4,437 employees but it should be borne in mind that the bank has been responsible for the oversight of the banking industry since 2011, when the Financial Service Authority was discontinued.

The Bank of Canada has 1,780 employees. The sheer size of the country imposes the need to operate several regional offices. The bank is not tasked with the oversight of the banking and insurance industry. This job is the responsibility of the Office of the Superintendent of Financial Institutions (OSF).

The 'Norges Bank' has 925 employees, whose tasks also include the administration of the sovereign fund. Prudential oversight and the oversight of the banking industry is, however, the task of the *Finanstilsynet* (Financial Supervisory Authority).

When the number of employees of each bank is plotted against the population of the country concerned, the situation is as follows:

- Canada: 1,780 employees for a population of 37.7 million = 1 employee per 21,180,
- Norway: 925 employees for a population of 5.4 million = 1 employee per 5,838,
- UK: 4,437 employees for a population of 67.8 million = 1 employee per 15,280.

This comparison shows the relatively high ratio of employees to inhabitants in Norway. Canada accounts for the lowest ratio. Even so, when comparing these numbers, it is worth remembering the tasks of the respective banks and the area of the countries concerned.

6. Comparison and Conclusions

The three central banks all have their own particular history, which is evident from the differences in their administration and balance sheet management. Canada started with a modern central bank only relatively recently (1934). The *Norges Bank* has existed since 1816 when Norway was in a union with Sweden. True autonomy only came with Norway's independence in 1905. We may compare this to the Bank of England, which originated in 1694, truly the Old Lady of Threadneedle Street.

All three countries pursue an independent monetary policy while retaining links with supranational organizations such as the European Economic Area (Norway), EFTA (Norway), the G7 (Canada and the UK). The Bank of England manages the pound sterling, one of the world's leading five currencies, together with the US dollar, the euro, the yen and the renminbi. The Bank of England does not have a monopoly on the issue of banknotes in two parts of the United Kingdom, namely Scotland and Northern Ireland.

All three banks are publicly owned. The position of the Royal Mint of Canada is noteworthy as it produces coinage for countries all over the world. Britain's Royal Mint is now smaller than the Royal Canadian Mint. Norway by contrast has entirely disposed of all its mint activities.

The management committee/executive board of the three central banks differs with respect to composition and the term of appointment. The powers of the body are for the most part fairly similar. In all cases appointments are made by the government. The term in all countries is at least as long as the parliamentary term, which is four years for Canada and Norway and five years for the United Kingdom. This is an element that favours central bankers independence. A government has democratic legitimacy as the result of its majority in parliament. This is an argument in favour of the appointment of board members by the government. After all, what is the alternative? The same goes with respect to the appointment of the members in the managing committee. The next table gives an overview of the term in office and the number of top managers.

	Bank of Canada	Norges Bank	Bank of England
Governor	1	1	1
Term	7 Y	6 Y	8 Y
Deputy Governor	1	2	4
Term	7 Y	6 Y	5 Y
Other Governors	4	6	-

Table I. Number of top managers and term in office

Note should also be taken of the importance of the various committees in these central banks, such as the Monetary Policy

Committee and the Financial Policy Committee of the Bank of England and the Monetary Policy and Financial Stability Committee of the Norges Bank.

In Canada and Norway the executive body is joined by other persons, six in Canada and, when personnel business is under discussion, by eight persons in Norway. In the United Kingdom there are nine 'non-executive' members who join the Court of Directors. These persons are appointed by the government for a period of four years (less than the parliamentary term). In the case of the Bank of England the functions of an administrative board and managing committee are not entirely separate.

The plenary General Meeting of the Bank of Canada has twelve members in addition to the Governor and the Senior Deputy Governor. The twelve originate from the ten provinces, with the two most populous provinces (Qu dbec and Ontario) being represented by two members each. This highlights the confederal/federal structure of Canada. Nonetheless it is the federal government who appoints these persons. Another striking aspect is the direct presence of the government in this body, in the person of the Deputy Minister of Finance.

The board of Norway's central bank, like that of Denmark's and Sweden's (Matthijs & Scholliers, 2022), is made up of members of the *Storting* or parliament. The board members are chosen to reflect the composition of the *Storting*. The ruling principle here is that Parliament, as representative of the people, has oversight of the central bank. This principle is not recognized as such in Canada or the United Kingdom.

Concerning the financial statements, the Bank of England is the only central bank here considered to have a gold reserve, albeit with 310 tons a relative small one given the size of the country and the total assets of the bank. On the other hand, the Bank of England is an important depositary for the gold of other central banks: its vaults hold more than 5,600 tons of gold. The two other banks divested themselves of their gold reserves some time ago.

The next table concerns the capital, the equity and the balance sheet total of these banks.

	Bank of Canada	Norges Bank	Bank of England
Capital	3.5	not specified	17
Equity	425	28,790	6,800
Balance Sheet Total	350,700	82,970	
		(without GPFG)	1,105,000
		1,314,000	
		(with GPFG)	

Table II. Capital, Equity and balance sheet total (in millions of euros)

Regarding the Norges Bank one must take into account the huge value of the sovereign fund that is part of the balance sheet of the bank.

A key question is whether the current value of the equity of a central bank is at all meaningful now that balance sheet totals have become so large. The Bank of England in particular must be capable of managing and securing the monetary volume and weight of the City of London in the event of a financial crisis. Also, it should be remembered that prior to Brexit the BoE was only part of the ESCB and not a member of the Eurosystem. In terms of total equity over total liabilities the Norwegian central bank has the soundest coverage in the event of a monetary storm. Nonetheless, the market prices of oil and gas are a major factor affecting the value of Norway's sovereign fund. Commodity and agricultural prices are also very important to Canada's prosperity.

The Bank of Canada and the Norges Bank transferred respectively 1,945 million euros and 1,100 million euros to their national treasuries for the 2021 financial year. The Bank of England transferred only a small profit to the Treasury in 2019 and nothing at all in 2020.

The three central banks have their own historically acquired identities. The Bank of Canada and the 'Norges Bank' are fully responsible for their own monetary policy, as their sovereign power over monetary matters is entirely in their hands. This is not the case with the Bank of England. Though it enjoys operational freedom on implementing its price stability objective, it receives a clear instruction from the Chancellor of the Exchequer concerning the inflation target.

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