



BANK OF ENGLAND

# Staff Working Paper No. 604

## Accounting in central banks

David Bholat and Robin Darbyshire

May 2016

Staff Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate. Any views expressed are solely those of the author(s) and so cannot be taken to represent those of the Bank of England or to state Bank of England policy. This paper should therefore not be reported as representing the views of the Bank of England or members of the Monetary Policy Committee, Financial Policy Committee or Prudential Regulation Authority Board.



BANK OF ENGLAND

## Staff Working Paper No. 604

### Accounting in central banks

David Bholat<sup>(1)</sup> and Robin Darbyshire<sup>(2)</sup>

#### Abstract

This paper examines the important but not often discussed issue of accounting in central banks. It highlights the distinguishing factors that make the financial statements of central banks unique relative to those produced by other bodies. We begin by explaining why central banks produce financial statements. We then discuss a variety of specific topics in central bank accounting. In terms of balance sheet items, we discuss banknotes, shareholders' equity, gold, foreign exchange and financial instruments. Our discussion of the income statement then centres on profit recognition and distribution.

**Key words:** Central bank accounting, central bank balance sheet, seigniorage, central bank capital.

**JEL classification:** E58, G20, H83, M40, M41, M48.

---

(1) Bank of England. Email: [david.bholat@bankofengland.co.uk](mailto:david.bholat@bankofengland.co.uk)

(2) RV Darbyshire. Email: [robin.darbyshire@blueyonder.co.uk](mailto:robin.darbyshire@blueyonder.co.uk)

The views expressed in this paper are those of the authors, and not necessarily those of the Bank of England or its committees. We are grateful to Ralph Coates, Charles Goodhart, Ken Sullivan, Ian Ingram, Peter Sinclair, John Nugée and Rhiannon Sowerbutts for their feedback on this paper, and to Angelina Carvalho and Alice Owen for editorial assistance. This paper will appear in a forthcoming volume *Research Handbook on Central Banking*, edited by Rosa Lastra and Peter Conti-Brown.

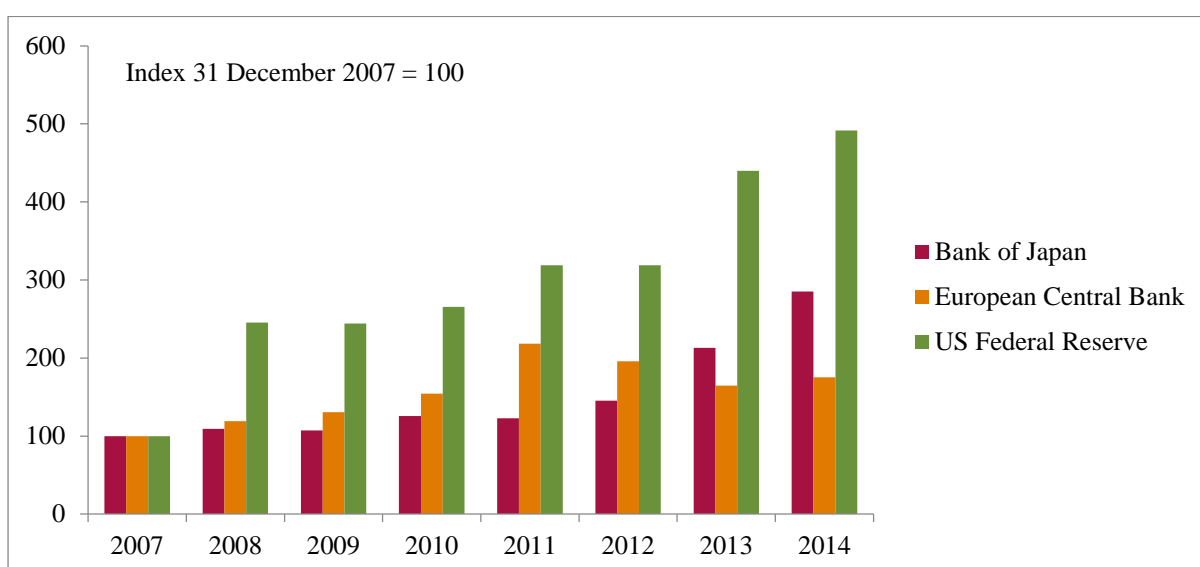
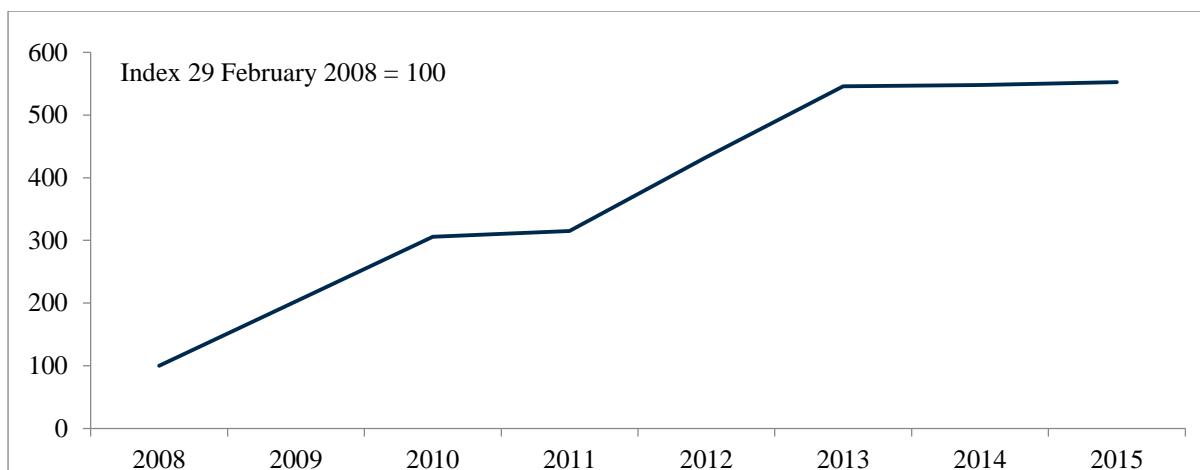
Information on the Bank's working paper series can be found at  
[www.bankofengland.co.uk/research/Pages/workingpapers/default.aspx](http://www.bankofengland.co.uk/research/Pages/workingpapers/default.aspx)

Publications Team, Bank of England, Threadneedle Street, London, EC2R 8AH  
Telephone +44 (0)20 7601 4030 Fax +44 (0)20 7601 3298 email [publications@bankofengland.co.uk](mailto:publications@bankofengland.co.uk)

## Introduction

Accounting is sometimes seen as boring by non-accountants. However, there are at least six reasons why the accounts of central banks should interest everyone.

- (i) **Central bank accounts are an important part of accountability and transparency.** Central banks are responsible for a significant amount of public funds and play a significant role in the economy. However, in many jurisdictions, they are not subject to the same level of scrutiny as other public bodies in order to protect their independence. So the accounts of central banks are an important medium through which central banks are open and accountable to the public.
- (ii) **Central bank financial statements are important because they reflect major policy interventions.** For example, in response to the financial crisis, central banks in Japan, the US, the UK and the Eurozone expanded their balance sheets by issuing new liabilities (new money) to purchase assets (Rule 2015).
- (iii) **Central bank accounting is different from the accounting applicable to other firms.** This reflects the unique role played by central banks. As an example, for every other individual and firm in the economy, central bank notes and deposits are classified as assets on their balance sheets. For central banks, these are classified as liabilities.



**Figure 1: Growth in the size of central banks' balance sheets.** The Bank of England (top), and the Bank of Japan, European Central Bank and US Federal Reserve (bottom). Bank of England accounts are charted separately because they have a different financial calendar year from these other central banks. Source: Annual accounts published by these central banks.

- (iv) **Central bank accounting has distributive consequences.** For example, how central banks record their financial results affects the surplus available for distribution to external shareholders, most often the government.
- (v) **Central bank accounting is diverse.** It varies from country to country because there are no global standards.

- (vi) **Central bank accounts can create or undermine credibility.** If the financial strength of a central bank, as registered in its financial statements, weakens, there may be a crisis of confidence in the central bank that can impact the whole of the economy.

## Overview

Given the importance of central bank accounting for the reasons outlined above, this paper seeks to shed light on it. Specifically, it examines the distinguishing factors that make the financial statements of central banks unique, from both an accounting perspective and in terms of their larger economic significance. Our commentary is informed by our practical experience working in and with central banks. The issues we present are well-known in central bank accounting circles but are not much discussed outside of them.

We have pitched this paper at a high level of analytical abstraction. In other words, we draw out pertinent accounting issues facing central banks in general, rather than discuss in-depth the accounts of specific central banks. This could be considered an unwise tack to take given that there is no international financial reporting framework for central banks, meaning that the ways they go about their accounting is manifold. However, while the solutions adopted vary across central banks, many of the accounting issues are common. If the accounting issues we discuss have any tilt, it is towards those facing central banks in the developing, rather than the developed world, simply because these central banks are more numerous. For example, while some of the most prominent central banks globally, such as the Bank of England and Bank of Canada, do not hold the foreign exchange reserves of their countries on their balance sheets, many other central banks do. So we discuss the impact of exchange rate movements on balance sheets and income statements extensively.

Our paper is structured as follows. The first section gives reasons why central banks produce financial statements. We then discuss a variety of issues in central bank accounting. We divide these issues between the balance sheet and income statement.<sup>1</sup> With respect to the balance sheet, we discuss (1) banknotes and (2) shareholders' equity on the liabilities side, and (3) gold, (4) foreign currency, and (5) financial instruments on the assets side. These five areas are the most challenging in central bank accounting. For many of the other items on a central bank balance sheet, such as fixed assets and pension liabilities, accounting treatments are similar to the accounting for these items by other entities, or are of limited relevance to policy operations. Our discussion of the income statement then centres on the major and all-encompassing issue of profit recognition and distribution.

### **Why do central banks produce financial statements?**

The production of financial statements by commercial enterprises and other organisations is today an accepted part of their normal accountability to shareholders and other stakeholders. It follows that similar considerations apply to central banks. Central banks may also feel the need to show leadership to banks in their jurisdiction on how to produce high-quality financial statements. And the production of financial statements, even when the central bank is fully owned by the government, may signal or assist the central bank's independence (Sullivan and Horáková 2014).<sup>2</sup>

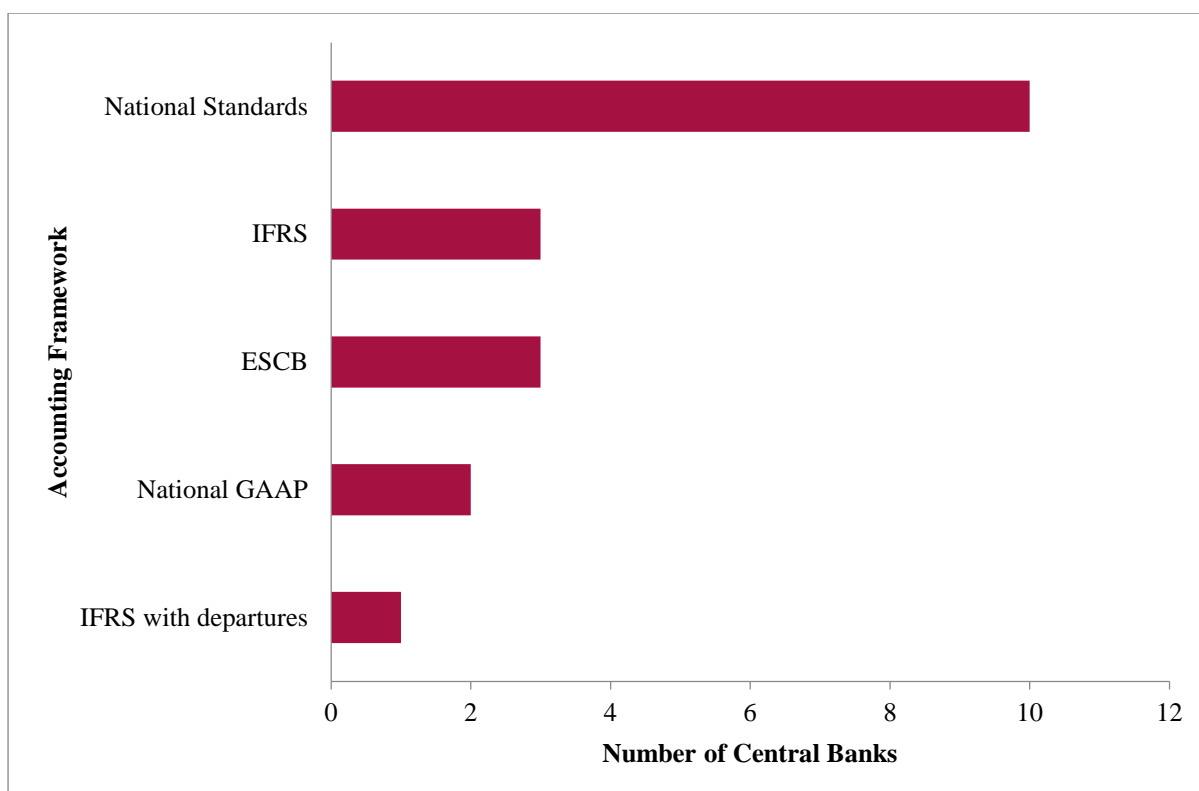
---

<sup>1</sup> In reality, the division is artificial as the issues we discuss affect both. This is because flows recorded in the income statement appear as differences in balance sheet positions between the start and end of each reporting period.

<sup>2</sup> However, when a government produces a 'whole of government accounts,' the central bank is typically included if owned by the government.

While there are good reasons for central banks to produce their own independent financial statements, they have to consider the potential policy implications of the information they disclose. For example, a central bank's financial strength, as revealed in its financial statements, can affect its credibility and ability to perform some operations (Bindseil, Manzanares and Weller 2004). Indeed certain accounting procedures could run contrary to policy aims. For example, disclosing a provision against a particular asset could trigger further loss in the value of the asset. Or the disclosure of emergency liquidity assistance to a particular firm could cause the failure of that firm.

In sum, central banks have to balance openness and accountability with limits on disclosures and the adoption of special accounting frameworks. That said, most central banks now publish fairly comprehensive financial statements. Many have also adopted recognised accounting regimes. The most common is IFRS but it is by no means universal (KPMG 2012). For example, the European System of Central Banks (ESCB) developed its own accounting framework, which predated IFRS. This framework is adopted by the European Central Bank (ECB) and all central banks within the Eurozone, as well as ESCB central banks, and indeed some others outside the EU. The ESCB accounting framework deals with a number of items not fully addressed in IFRS, such as gold and what is meant by a realised foreign exchange gain.



**Figure 2: Accounting frameworks adopted by select central banks.**

Source: Annual Reports by central banks on their websites. The 19 jurisdictions represented above include the European Union (ESCB); France (ESCB); Italy (ESCB); the United States (National GAAP); the United Kingdom (IFRS); Canada (IFRS); Brazil (IFRS); South Africa (IFRS with departures); Germany (National GAAP); Japan (National standards); Australia (National standards); India (National standards); Russia (National standards); South Korea (National standards); Saudi Arabia (National standards); Mexico (National standards); Turkey (National standards); Argentina (National standards); and Indonesia (National standards).

### Balance sheet

A central bank is, at its core, a bank, so many of the accounting issues are similar to those facing other banks. However, certain central banking functions mean they hold some items on their balance sheets in such magnitudes, and for such specific purposes, that their financial reporting requires variation on general accounting themes. These items include currency in circulation, gold and foreign exchange.



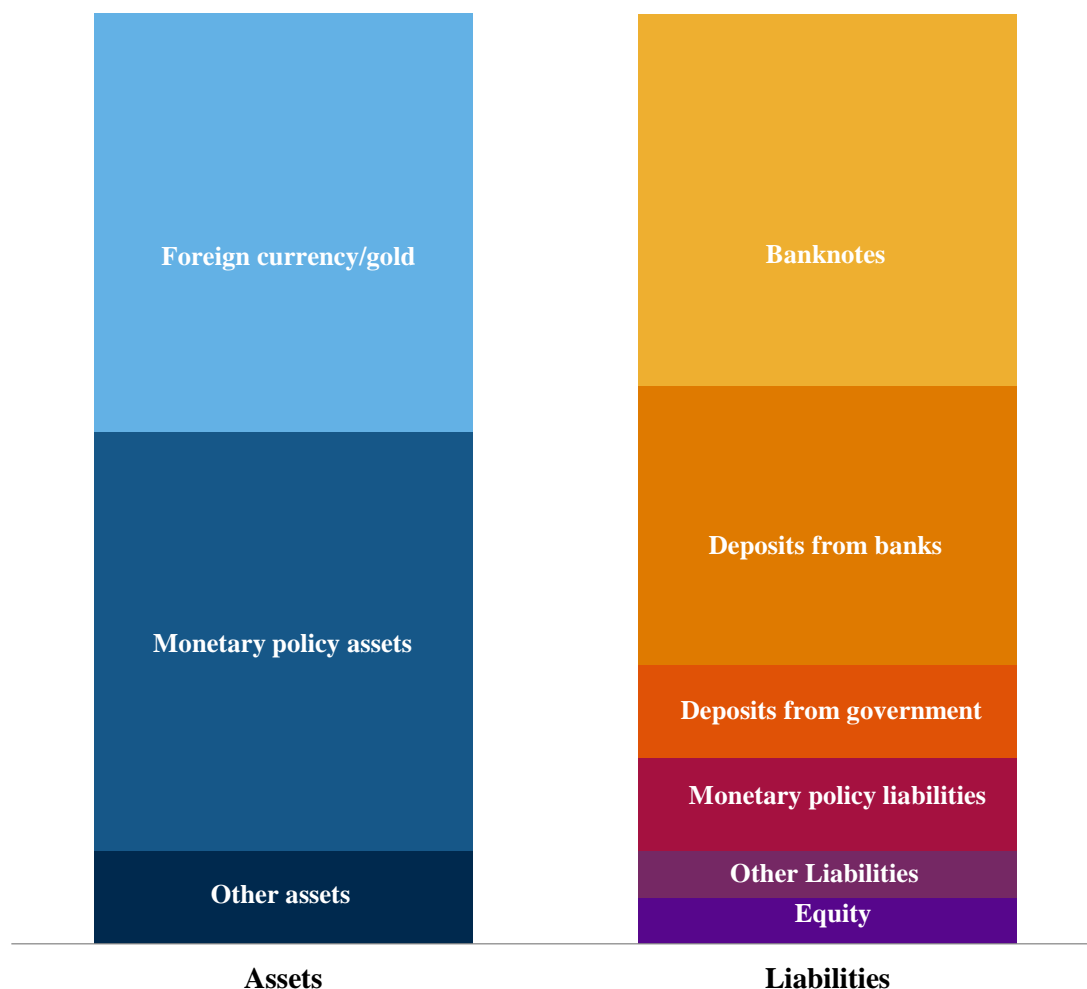


Figure 3: A hypothetical central bank balance sheet.

## Liabilities

### *Banknotes*

Domestic banknotes are an important asset for banks, businesses and households. But for central banks, domestic banknotes are not an asset.<sup>3</sup> They are a liability to the holders of the notes. Since the recognition of banknotes as liabilities is largely confined to central banks,<sup>4</sup> there are no international accounting rules for how to do this. Therefore, central banks have developed their own. Typically, banknotes *in circulation* are recorded as a liability on the balance sheet. Notes are in circulation when they are outside the control of the central bank.

<sup>3</sup> Unissued banknotes may be recorded as an asset (an inventory item) at their production cost. However, many of the larger central banks do not do this on grounds of materiality.

<sup>4</sup> In the UK, some commercial banks still issue their own banknotes.

By contrast, stocks of notes inside the central bank are not in circulation. Some central banks vary this general treatment at the margins by recognising notes in their tills as an asset, but the value and volume of these are typically negligible.

Technically, banknotes are a liability whose redemption must be honoured on demand. Redemption happens every day. Although the specifics vary from country to country, the general operation is the same. Banks often withdraw notes in the morning, exchanging them for reduced claims on the central bank.<sup>5</sup> At the end of the day, the banks may return any surplus notes to the central bank in exchange for a top-up of their account balances.

Although individual banknotes have a relatively short life, the circulation as a whole has a permanent nature.<sup>6</sup> In fact, while there is seasonal variation in the value of banknotes in circulation, there is generally an increase across time, in line with the growth of national income. These facts have led some scholars to suggest that banknotes could be treated as a component of central bank capital. Such an accounting treatment would look through the legal form of banknotes as demand liabilities to the economic reality of their permanent circulation (Archer and Moser-Boehm 2013: 34). However, banknotes are not available to absorb losses, which is one of the purposes of capital. Also, the level of banknotes in circulation is not determined by central banks, whilst other components of capital are typically.

---

<sup>5</sup> The notes may not be returned physically to the central bank. Banks may hold the notes in their vaults on behalf of the central bank. Book entries are made by the banks and the central bank to reflect changes in ownership.

<sup>6</sup> Most countries keep a series of notes in circulation for a number of years and periodically change or update the design. Old series are withdrawn from circulation but may remain valid, or may cease to be valid, after a period.

## Assets

### *Gold*

Many central banks hold gold as part of their foreign reserves or, historically, as backing for the banknote circulation. This means that central banks often have much more gold than other types of firms. While gold ordinarily is priced in ounces, the quantity central banks sometimes hold can be measured in tons. Since gold is not widely held as an asset by other entities, there is little standard accounting for it. IFRS mentions gold only to state that it is a commodity and not a financial instrument. As a consequence, central banks have adopted a range of policies to account for gold holdings. Many commonly distinguish between monetary gold, which qualifies as part of foreign reserves,<sup>7</sup> and non-monetary gold. While some central banks value monetary gold at cost, others value it at market prices. Non-monetary gold is most commonly valued at cost, or the lower of cost and net realisable value.<sup>8</sup>

Revaluing gold at its market price raises the broader issue of how to treat unrealised revaluation gains and losses. While there is broad agreement among central bank accountants that unrealised valuation gains should not be distributable because they do not represent actual extra resources, there are different accounting approaches to achieving this.<sup>9</sup> Some central banks take the revaluation directly to a revaluation reserve/account, which may or may not be part of central bank equity. Others take the revaluation through the income

---

<sup>7</sup> This is gold with purity of 99.99%.

<sup>8</sup> A further nuance in gold accounting is the price to use. The quoted market price for gold presupposes it takes the form of London Good Delivery (LGD). This is both a purity criterion and prescribes the form of the bars. Strictly speaking, the price of gold in other forms should reflect deductions for getting it into LGD form, as well as transport costs to one of the main gold trading cities. However, in practice, few central banks deduct these transaction costs ex-ante, and instead recognise them as expenses when they arise.

<sup>9</sup> The treatment of unrealised losses is less clear-cut. They could be treated in the same way as gains, with any deficit (after offsetting against previously recognised gains) held on the balance sheet. Or they could be treated as a reduction in distributable income.

statement and then to reserves. Still others only remove the revaluation effects when computing the distributable profit.

### *Foreign currency reserves*

Many central banks carry their country's foreign currency reserves on their balance sheets. Consequently, they are exposed to exchange rate movements. The effects of these movements can be rather counter-intuitive. A central bank that hits its inflation target and generally achieves its policy goals may see its currency appreciate accordingly.<sup>10</sup> However, this may result in an exchange rate loss for a central bank with large holdings of foreign reserves. Conversely, a central bank in a country suffering serious inflation, and economic and financial system instability, may see its currency depreciate. Counterintuitively, this results in a financial gain for the central bank. This phenomenon is sometimes described as an example of 'good losses and bad profits.'

This is an area where applying IFRS mechanistically may be ill-suited to central banking. IFRS requires exchange rate gains and losses to be taken through the income statement. This is appropriate for commercial entities, where the exchange rate position is a management decision and the consequences in terms of reported income are part of the performance on which management can be judged. This is not the case for central banks. They do not manage the exchange rate for their own financial benefit and do not usually trade currencies for profit. Yet inclusion of exchange rate gains and losses in the income statement makes them eligible for distribution, potentially reducing the real net assets of the central bank by the magnitude of the unrealised 'book' entry gain.

---

<sup>10</sup> Of course, the strength or weakness of a currency is not exclusively determined by central banks.

How to define and measure *realised* gains and losses on foreign exchange is also an issue. In practice, three basic approaches are adopted:

(i) All transactions involving foreign currency (e.g. transactions in assets and liabilities denominated in a currency other than the domestic currency) can generate a realised gain or loss. So, for example, sale of a security denominated in a foreign currency for cash can result in a currency gain or loss, due to movements in the exchange rate since the security was purchased, even when no change occurs in the overall currency position;

(ii) a gain or loss arises only when there is a net reduction in the holding of a particular currency (i.e. some currency has been sold). This involves central banks regarding each currency as a portfolio invested in various assets. Transactions within the portfolio do not give rise to any currency gain or loss, unless the total currency position declines. This is the approach adopted by the Eurosystem.

(iii) A realised gain or loss only arises when a currency is sold for the domestic currency and is not reinvested in another currency. This may be the most prudent approach, as there is an actual net increase in domestic currency assets.

The treatment of revaluation deficits is also an issue. If the deficit is anticipated to be short-lived, then it may be appropriate to maintain the deficit as a negative balance on (a deduction from) reserves. However, an arguably more prudent approach would be to deduct the deficit from profit and reduce the amount available for distribution.<sup>11</sup> This is an area where some central bank laws specify the accounting treatment. Before the widespread adoption of IFRS, it was quite common to see the negative balance i.e. accumulated revaluation losses, shown

---

<sup>11</sup> If this results in an overall loss, this would reduce reserves. If the reserves are insufficient, then there would be negative equity. This is not an immediate financial issue for a central bank but could cause credibility issues.

on the asset side. Indeed, for some central banks which have had long-term revaluation losses, the deficit was a major ‘asset.’

The treatment is not just an accounting issue as it bears on distributable profits. Any distribution to central bank shareholders almost always will be in the domestic currency. However, a significant part of the income of a central bank could be denominated in foreign currency. Thus the distribution in itself changes the currency composition of the central bank balance sheet and could increase the domestic money stock. Whilst in larger markets the effect may not be material, in smaller countries it could be.<sup>12</sup>

### *Financial instruments and their valuation*

Central banks hold many of the same financial instruments as commercial banks and undertake similar transactions, albeit for different reasons. They therefore encounter many of the same accounting issues, including the issue of whether to adopt a cost-based method of accounting or to use fair value.<sup>13</sup> This decision is mostly relevant to securities holdings, as loans and advances (including repos) typically will be held at cost, though the bright line dividing trading assets from assets held to maturity has been blurred in recent years by securitisation.

---

<sup>12</sup> Hence method (iii) above, which requires the foreign currency to be sold for domestic currency before the gain is recognised, is probably the most sensible for smaller countries.

<sup>13</sup> Under a cost-based method, the financial instrument is recorded at cost and the difference between this and its nominal or redemption value is amortised over the life of the instrument. Amortisation is added to, or deducted from, the original cost, and the resulting amount is shown on the balance sheet. Under fair value accounting, financial instruments are regularly revalued to their fair values (basically the price at which they could be sold on the market). The gains and losses resulting from the revaluation may be included in income, or taken to a balance sheet account depending on the approach adopted.

In general, there are three key reasons central banks may be wary of fair value accounting, in addition to the problem of unrealised gains already mentioned. First, fair value accounting tends to increase balance sheet volatility. Second, central banks have the ability to influence the market price by their operations. Finally, the valuation of assets by central banks may have market impact. If a central bank reduces or impairs the value of an asset, it may be interpreted by some close readers of financial accounts as the central bank endorsing the weakness of the institution issuing the asset. This could run contrary to policy aims.

### *Intangibles*

A striking trend in advanced economies in recent decades is that the market capitalisation of firms has grown to be several multiples of their ‘book’ or accounting value. One explanation for this is that firms’ balance sheets do not recognise all their assets, especially intangibles such as brand value. While accounting regimes account for intangibles when acquired from other firms (via goodwill), they are usually not recognised if they are organically generated (Higson 2012).

This general observation has particular salience for central banks. In many respects, the most important ‘asset’ central banks have is their ‘brand’/reputation. In an era of fiat money unbacked by gold, confidence in the currency at least partly reflects confidence in the central bank issuing it. Indeed recent policy interventions in the UK such as forward guidance have been premised on central banking reputation. However, the central bank ‘brand’ is not recognised in balance sheets as an asset. Nor are other valuable intangible assets such as the data central banks own, or their research capability. As a result, from an economic

perspective, their balance sheets are incomplete and their equity (assets in excess of liabilities) is likely understated.

## **Equity**

Any firm's book equity consists of funds contributed by equity investors in the past, plus the ongoing, undistributed surplus the firm has accumulated over time. This statement applies to central banks as well. Besides the initial capital paid up to get a firm started, firms can and do raise additional equity from investors by issuing new shares. Many firms do so through rights issues, offering new shares to existing shareholders. However, most central banks are owned by government. This fact constrains their ability to raise capital via a rights issue because this inevitably would have fiscal impact. In addition, it could have an unintended macroeconomic effect, as the stock of money would fall. Also, at the time when a central bank needs recapitalising as a result of losses, the government may not be in a position to provide it.

To further complicate matters, a government-owned central bank is not usually in a position to engage in an open market issue of new equity because a central bank's aim is to maximise the common good, not shareholder value. Financial investors are unlikely to bear risks and losses from policy operations which they cannot influence and where the entity does not profit maximise. And even if a government-owned central bank could issue shares to private investors, concerns could be raised about potential external influence in how the central bank



operates.<sup>14</sup> Given these limitations, a key question is whether, and, if so, how, central banks can raise external equity.

This question is timely. As a result of recent policy interventions, many central banks today are highly leveraged and are exposed to greater credit risk because they are lending against a wider array of collateral. Thus there is a growing academic literature that discusses the optimum level of equity financing for central banks (Perera, Ralston and Wickramanayake 2013; Adler, Castro and Tovar 2012; Stella 2009; Buitier 2008; Klüh and Stella 2008; for earlier reflections see Fry 1993; Ize 2005; Bindseil, Manzanares and Weller 2004). According to this literature, too little central bank capital exposes it to balance sheet insolvency and lost credibility. Yet too much has an opportunity cost if there are higher returns available to shareholders elsewhere in the economy (Milton and Sinclair 2008: 6). Getting the quantum of central bank capital just right is challenging.

In theory, central banks can operate with zero or negative capital.<sup>15</sup> For example, the central banks of Chile, the Czech Republic, Israel and Mexico have all pursued their policy objectives despite at times operating with negative equity (Archer and Moser-Boehm 2013: 71). However, the ability of central banks to operate in technical insolvency applies only to operations in the domestic currency. In foreign currencies, central banks need to satisfy their counterparts that they can meet their obligations. Also, insofar as members of the public believe capital matters to the ability of a central bank to conduct policy operations, then

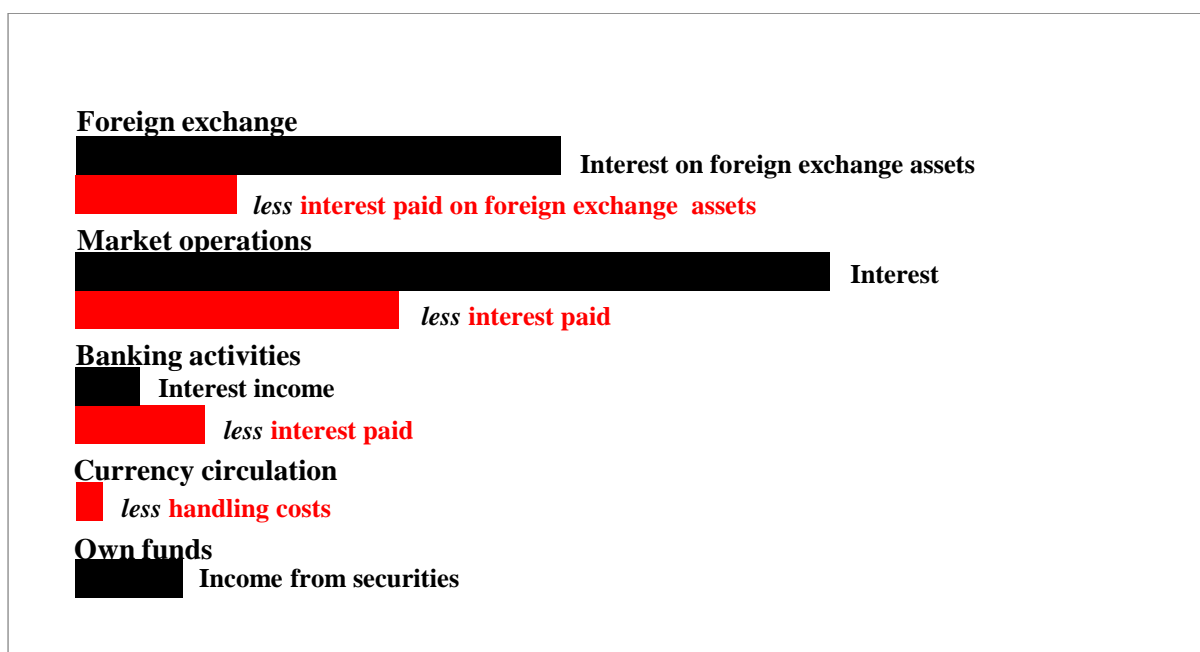
---

<sup>14</sup> Some central banks do have external private shareholders. However, these holdings are typically few, and largely predate the assumption by the central bank of its modern duties. Under IFRS, these private shareholdings probably would be regarded as liabilities since they receive a fixed dividend.

<sup>15</sup> Capital includes statutory capital, statutory reserves, specific reserves and undistributed profits. It typically excludes revaluation reserves.

technical insolvency may not inspire confidence in a central bank’s ability to carry out these functions, even if it still could.

### Income statement



**Figure 4: Hypothetical central bank income statement split by function.** Items in black are income. Items in red are expenses.

A central bank’s income statement is dominated by income and expenses arising from policy operations. These are principally interest income and expenses on the assets and liabilities used in policy operations, and on foreign reserves, together with effects from the revaluation of the foreign currency position. Out of this net income, a central bank must fund its costs, and pay shareholders (ordinarily the government).

At least in theory, a central bank could monetise its expenditures, consuming real resources by printing additional banknotes and/or creating new central bank reserves.<sup>16</sup> However, there are real limits to any central bank’s ability to do this. A central bank behaving in this way

<sup>16</sup> This possibility is sometimes referred to as ‘financing from the vault.’

over a long period of time and at sufficient scale could cause the exchange value of its currency to fall, reducing its purchasing power of foreign real resources. And domestically, at some point, its banknotes and reserves could cease to function as money, because price inflation would likely encourage people to find other monetary substitutes (Stella 2011).

### *Income*

Like most banks, a central bank's income will come mainly from earned interest. However, there is also scope for central banks to generate income through charges for such activities as government banking, supervision, foreign exchange transactions, and payment transactions on behalf of customers. Also, banknotes are an interest-free form of funding that central banks can invest in interest-bearing assets. The income arising from issuing notes is commonly called seigniorage. Seigniorage arises not from the notes themselves but from the assets financed by the note circulation. The Bank of England exceptionally separates out the seigniorage via a separate accounting entity, the Issue Department<sup>17</sup>, and all income from the Issue Department is paid over to the UK Treasury on a regular basis.<sup>18</sup> Most central banks do not separate out their balance sheets in this way. Instead, seigniorage is apportioned out of total income.<sup>19</sup>

We underscore that seigniorage is income actually earned on the assets matching the note circulation. The definition of seigniorage as the difference between the face value of notes

---

<sup>17</sup> The separation of the Issue Department is contained in the Bank of England Charter Act 1844. This Act gave the Bank of England the exclusive right to issue notes in England and Wales. It required the Bank to identify the assets backing the note issue separately from its other activities. It was a form of 'ring-fencing.'

<sup>18</sup> The historical justification for distributing seigniorage to the state is that, before modern times, the monopoly on money-making belonged to government (Desan 2015).

<sup>19</sup> The concept of seigniorage is sometimes extended to include income generated from other policy related liabilities such as banks' required reserves. Within the Eurosystem, monetary income fits this description. It is shared between the member central banks according to a formula based on relative sizes of national economies and populations.

and their production costs is not used by central banks. This definition ignores the fact that the note is a liability of the central bank. Also, the formulation sometimes used in economic models—taking the note circulation value and multiplying by an interest rate—is only an approximation.

### *Expenses*

Central banks are financially leveraged, meaning they fund most of their assets with debt rather than equity. They are also typically operationally leveraged, meaning that a large proportion of total operating costs are fixed and invariant in the medium term.<sup>20</sup> As for most firms, the biggest operational costs for central banks are typically the salaries and pensions paid to employees. Yet staff costs for central banks are likely to show a different pattern from most firms in the economy. During economic downturns when revenues fall, so often do the payrolls of private sector firms. By contrast, during downturns, central banks often hire additional staff to handle crisis exigencies. In brief, while most firms' variable costs are pro-cyclical, those of central banks are likely to be counter-cyclical.

Another way central banks differ from other entities is how they make spending decisions. In most firms, spending is determined according to expectations of future revenue, using discounted cash flow or other similar capital budgeting methods. However, in central banks, analytical areas often receive the lion's share of funding, even though they often generate no revenue. This is because such analysis is vital to the policymaking process. Hence if central banks disclosed the profitability of different operating segments, as is becoming common in the published accounts of other bodies, this could give a misleading portrayal of the relative

---

<sup>20</sup> However, operational costs are small relative to policy income and expenditure for larger central banks.

value of different parts of the central bank to the achievement of the organisation's primary goals.

### *Impairments and provisions*

Like other banks, central banks have to consider impairment issues. Impairment arises when the amount expected to be repaid falls below the contracted value carried on balance sheets. When this happens, provisions are made.<sup>21</sup> Such provisions are taken as an accounting deduction from the income statement in the period in which impairments arise and reduce the carrying value of the assets. This accounting deduction amounts to the difference between the money borrowers from banks have agreed to repay, and banks' most current estimate of the amount they will actually receive (Bholat et al. 2016). Some central banks also create large provisions (as a deduction before arriving at profit) for general risks such as foreign exchange and interest rate losses. Such 'rainy day' provisions, which are recorded as liabilities in the balance sheet, are not allowed under IFRS. Central banks using IFRS have to create reserves out of profits for such risks.

### *Profit recognition and distribution*

Unlike other companies, where the distribution of after-tax income is at the discretion of company directors subject to few restrictions imposed by law, the profit distribution of central banks may be enshrined in statute, and call for a substantial portion of profits to be

---

<sup>21</sup> Under an incurred loss approach, provisions can be made only when a loss manifests. Under an expected loss approach, provisions can be made in anticipation of probable losses not yet realised.

paid out to the government.<sup>22</sup> While having profit distribution arrangements prescribed in law negates the need for ongoing negotiation with government, it may limit the central bank's ability to undertake unusual or novel activities and operations (Ize 2006).<sup>23</sup> As a consequence, expenditure, including policy-related expenditure, may be tightly managed in order to protect profits. So while profitability is not the main purpose of central banks, it can still matter.

Income recognition policy will have a direct impact on the amount available for distribution. This is not just an accounting issue. It has real economic implications. Central bank distributions automatically increase the domestic money stock, and provide revenue for shareholders such as government to potentially spend. It is therefore important that distributed profits represent real income and not just unrealised 'book' profits such as those, for example, which result from the periodic upward revaluation of property, plant and equipment. A related issue is that accruals may be included in profit and distributed before the cash has been received. For example, interest may be accrued on government securities. Yet these may be paid back to the government as a distribution before the government actually has paid the interest. This creates additional funds for governments in the short term.

Central banks address these challenges in various ways. Most consider distribution effects when choosing their accounting policies. When possible, there will be arrangements to calculate the distributable profit as a separate figure from the accounting profit, typically excluding unrealised gains. This may be incorporated in law or by contractual agreement.

---

<sup>22</sup> For example, the Central Bank of Ireland can only retain a maximum of 20% of any surplus, regardless of its equity position, and the Bank of Japan may only retain 5% of surplus according to law (Archer and Moser-Boehm 2013: 37).

<sup>23</sup> Central banks are often exempt from corporate income tax because a significant portion of their profits already go to government as a dividend. Given that, corporate income tax is superfluous.

## Conclusion

This paper has surveyed key features of central bank financial statements which distinguish them from those produced by other bodies. We also have pointed out the unique context in which central banks produce those statements and how that may influence their nature and presentation. In sum, some of the ways central bank accounts differ from those of other banks are as follows.

- i) **Profit is not a measure of policy performance.** Central banks do not set interest rates or conduct policy transactions for their own financial benefit. Indeed, they may have to undertake operations that result in financial loss. For example, if a central bank raises rates to dampen an overheating economy, this could cause the value of the debt they hold to fall under fair value accounting. However, central banks still do pay attention to their income statements to ensure their financial credibility.
- ii) **Liquidity has a different meaning for central banks than it does for other banks.** A central bank usually creates its own domestic currency so liquidity is rarely an issue, although this statement does not apply to foreign currency operations, where a central bank is in the same position as other banks.
- iii) **The meaning of capital adequacy for central banks also differs.** Central banks can, and some central banks do, operate with negative equity. Other banks in this position would be insolvent and out of business without some form of assistance.

## References

Adler, G., Castro, P. and Tovar, C.E. 2012. Does central bank capital matter for monetary policy? *IMF Working Paper* 12/60, February.

Archer, D. and Moser-Boehm, P. 2013. Central bank finances. *BIS Papers* 71, April.

Bholat, D., Lastra, R., Markose, S., Miglionico, A. and Sen, K. 2016. Nonperforming loans: regulatory and accounting treatments of assets. *Bank of England Staff Working Paper* 594, April.

Bindseil, U., Manzanares, A. and Weller, B. 2004. The role of central bank capital revisited. *ECB Working Paper* 392, September.

Buiter, W. 2008. Can central banks go broke? *CEPR Policy Insight* 24, May.

Desan, C. 2015. *Making money: coin, currency, and the coming of capitalism*. Oxford: Oxford University Press.

Fry, M. 1993. The fiscal abuse of central banks. *IMF Working Paper* 93/58, July.

Higson, C. 2012. *Financial statements: economic analysis and interpretation*. Cambridge: Rivington Publishing.

Ize, A. 2005. Capitalising central banks: a net worth approach. *IMF Staff Papers* 52(2).

Ize, A. 2006. Spending seigniorage: do central banks have a governance problem? *IMF Working Paper* 06/58, March.

Klüh, U. and Stella, P. 2008. Central bank financial strength and policy performance: an econometric evaluation. *IMF Working Paper* 08/176, July.

KPMG. 2012. Current trends in central bank financial reporting practices. October.



Milton, S. and Sinclair, P., eds. 2011. *The capital needs of central banks*. London: Routledge.

Perera, A., Ralston, D. and Wickramanayake, J. 2013. Central bank financial strength and inflation: is there a robust link? *Journal of Financial Stability* 9(3): 399-414.

Rule, G. 2015. Understanding the central bank balance sheet. *Centre for Central Banking Studies Handbook* 32.

Stella, P. 2009. The Federal Reserve System balance sheet: what happened and why it matters. *IMF Working Paper* 09/120, May.

Stella, P. 2011. Central bank financial strength and macroeconomic policy performance. In Milton, S. and Sinclair, P., eds. 2011. *The capital needs of central banks*. London: Routledge. pp. 47-68.

Sullivan, K. and Horáková, M. 2014. *Financial independence and accountability for central banks*. London: Central Banking Publications.