

Research Article

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Money for the Issuer: Liability or Equity?

<https://doi.org/10.1515/econ-2021-0004>

received December 06, 2020; accepted August 04, 2021

Abstract: This study analyzes the nature of money through the lens of the international principles of accounting and lays the foundations of what it calls the accounting view of money (AVM). Using international accounting principles, the AVM argues that the fiat monies issued by the state (typically, cash, banknotes, and central bank money) are not debt and that in fractional reserve regimes, only a share of commercial bank money can be regarded as debt. The AVM argues, instead, that state monies and the non-debt share of commercial bank money are net wealth of their holders and net worth (equity) of their issuers and determines how the seigniorage associated with money issuance should be accounted for correctly in the financial statements of the issuing institutions. The AVM points to the correct way to account for the various forms of money in the financial statements of the issuing institutions, clarifies what the different accounting treatments imply for a correct understanding of the concept of money, and evaluates the related economic and economic policy implications.

Keywords: accounting, central bank money and capital, commercial banks, deposits, debt, equity, payment settlements, seigniorage

1 Introduction

This study reevaluates the nature of money through the lens of the international principles and standards of accounting and lays the foundations of what it labels as the Accounting View of Money (AVM), following our earlier preliminary contribution to the topic (Bossone, Costa,

Cuccia, & Valenza, 2018). The AVM considers the various forms that money may take, starting from coins (the oldest type of money), to banknotes and commercial bank demand deposits, and can be extended to new forms of money such as electronic money and digital currencies (CPMI, 2015). Coins still to date circulate as legal tender in national jurisdictions worldwide. In many jurisdictions, they are treated as debt liabilities of the issuing states and are reported as a component of public debt under national accounting statistics (ESA, 2010). Similarly, banknotes issued by central banks and by extension central bank reserves are accounted for as debt owed by the issuing central banks to those holding banknotes and reserves, respectively, and this will equally hold in the future for central bank digital currencies. Demand deposits issued by commercial banks to their clients are considered *a fortiori* as debt liabilities of the issuing banks and represent the counterparts to the value held by depositors on the demand deposit accounts open with those banks. Thus, they are claims of the clients on their deposit banks.

Although the law says that money is “debt,” a correct application of the existing accounting principles raises serious doubts about such conception of money nowadays. Debt involves obligations to transfer economic resources from borrowers to lenders (IASB, 2018). Yet, one should wonder: Which obligations derive today for the state from the public holding coins? Or which obligations derive for the central bank from financial institutions holding banknotes or reserves? And in the case of commercial bank deposits, how does their nature of debt obligations relate to the circumstance that a large share of such deposits is never going to be redeemed for cash or other settlement instruments under most circumstances? Moreover, are not nondebt money liabilities a source of income for their issuers (also known as “seigniorage”), which originates from the power to issue money at a cost that is lower than the attendant revenue? If so, how should issuing institutions account for these sources of income in their financial statements? Are current accounting practices satisfactory in this respect?

Proceeding separately for the monies issued by the state, on the one hand, and those issued by commercial banks, on the other hand, the AVM points to the correct way to account for them in the financial statements of the

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issuing institutions, clarifies what the different accounting treatments imply for a correct understanding of the concept of money, and evaluates the related economic and economic policy implications.

More broadly, the AVM aims to resolve the apparent inconsistency between the *formal* rules of reporting money liabilities in the financial statements of the issuing institutions and the economic *substance* of the money liabilities to be reported in the statements. The main motivation of AVM lies on defining the correct representations of money in accounting terms and on drawing the implications that the correct representations of money would bring to bear for economic analysis – noting that “incorrect” are all representations of economic phenomena that are no longer consistent with the economic context as it has evolved over time and which therefore do no longer reflect the substance of the economic phenomena as they have changed with the evolution of the underlying context.

This study will make several references to “selling” and “leasing” (or “lending”) money. In a general sense, and for purposes of analogy with the sale of goods, money is “sold” whenever it is exchanged for other forms of value (e.g., goods, services, real or financial assets, or other currencies) and its ownership changes hands, either permanently or temporarily.¹ While the distinction will be maintained throughout the study, between money “sale” and “lease” (or “lending”), a “sale” of money is involved when the money is issued against deposit claims in exchange for funds, securities, or credit claims transactions.²

¹ The sale of money or of any other form of value involves an “exchange transaction” as an operation where one party sells to (or purchases from) another party some value in exchange for some other form of value. We quote in this regard IPSAS no. 9, which defines “exchange transactions” as «Transactions in which one entity receives assets, or services, or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of cash, goods, services or use of assets). The International Public Sector Accounting Standards (IPSAS) are the accounting standards for public bodies and are derived from the IFRS used for the private sector. The case of repurchase agreements, for instance, points to how a lending operation can be structured, both legally and economically, as a temporary sale of money with an obligation from the seller to repurchase the money at a future date. In any case, the strict legal terminology is not so relevant in accounting: as the general principle of “Prevalence of substance over form” holds, whenever an exchange bears the substance of a sale, it is a sale.

² Money leasing or lending transactions can be conceptualized as “sale” transactions, for instance, when depositors lend funds to banks or when banks lend deposit claims to borrowers. In these cases, too, the ownership of the funds loaned does change hands

In point of methodology, while accounting practices vary across countries, and in particular across central banks (Archer & Moser-Boehm, 2013), this study takes the new *Conceptual Framework for Financial Reporting* (henceforth, the Conceptual Framework) as a main reference, which underpins the *International Financial Reporting Standards* (IFRS). The IFRS reflects the state of the art, internationally recognized accounting doctrine and can thus well serve as guiding principles, especially on such general accounting issues as financial liabilities. While central banks and government agencies are neither required nor expected to observe the IFRS, reference to them is justified on the basis that the purpose of keeping correct accounting records is, and should be, the same for both institutions that pursue private profits and those that are responsible for protecting public interests.

The study is organized as follows. Section 2 reviews the literature on the practices currently in use to account for money in the balance sheet and financial statement positions of money issuers; the section also reviews the literature on seigniorage (including that on commercial banks). Section 3 describes the AVM, shows how different types of money should be understood according to the new approach, and identifies the sources of seigniorage deriving from the power to issue money; the section also points to how the types of money being discussed should be treated based on the relevant international accounting principles. With specific reference to commercial banks, the section shows the nature of *hybrid* institutions (part creators of money, and part pure financial intermediaries) and similarly shows the *hybrid* nature of their deposit liabilities as financial instruments. Section 4 concludes this study.

like in all sale/purchase transactions until transactions of opposite sign take place and offset the effects of the previous transactions – such as when funds depositor withdraw cash or request their banks to make payments from their accounts or when borrowers repay their debts. When a bank lends money, the operation can be broken into the following ones: (i) the bank sells new deposit claims by crediting the account of the borrower with the loan amount; (ii) the borrower sells deposit claims back to the bank in exchange for funds, whenever she has to make payments to agents holding accounts with other banks; (iii) the borrower resells the funds to the bank when her debt is due, in exchange for the extinction of her debt obligations. For an application of the money “sale” concept to today’s digital currencies and the related legal underpinnings, see Bossone (2021a).

2 Review of the Literature

Until recently, the accounting literature on money liabilities has been rather scant, as shown by the survey on financial accounting practices by Beatty and Liao (2014). The reason for this lack of interest by the community of scholars has historical roots: originally, money liabilities were plain debt liabilities and were allocated as such in the financial statements of the issuing institutions: there was no point in further investigating their nature; inertia has done the rest. This vision is, for instance, reflected in Mehrling's (2012) hierarchy of money, and even more explicitly in the theory of state money, originated by Knapp (1905) and resurrected in recent years (see Wray, 1998), which view all monies as debt and consider that the acceptance of state money in payment of taxes makes state money a government liability. This vision is rejected by the AVM and other more recent contributions, as discussed in Section 3. In fact, research has been produced lately, which is "refreshing" the subject and is possibly preparing the ground for some new interesting developments.

On the accounting of central bank money, a relevant contribution is the work by Archer and Moser-Boehm (2013), where the narrow concept of equity capital is replaced with the broader one of "positive comprehensive net worth," which in addition to conventional shareholder equity includes the stock of banknotes outstanding and the present value of future seigniorage income. In particular, as regards banknotes, the authors argue that they "...act more like equity capital than debt obligations. As they bear no interest and are perpetual in character, they provide a stable funding base for income generation. To the extent that net income can be retained when needed, a large share of banknote liabilities provides a base for rebuilding equity if it has been depleted by a negative shock" (pp. 33–34). Archer and Moser-Boehm, however, do not dig further into this line of enquiry and do not extend the sources of income beyond banknote, as this study does.

Reis (2019) considers banknotes not to be a liability of the central bank, but a durable good that the central bank produces and sells and argues that central bank money could be considered as part of the public debt, but this would then require including their attendant seigniorage as a source of funds. This is not inconsistent with the AVM.

In line with the AVM, Zellweger-Gutknecht (2019) questions whether central bank money can be characterized as a form of (quasi) equity since it no longer obliges the central bank to exchange it for an asset other than

central bank money, but unlike the AVM, their answer relates the nature of money with the time profile of its creation: while money created permanently (at the full discretion of the central bank) over the course of outright transactions can no longer be considered as debt and should be instead regarded as a form of equity, money created through temporary operations (say, liquidity repo or swap transactions) is still closer to classical debt than equity since it subjects the central bank to an obligation to execute reverse transactions later. This conclusion differs from the AVM, as discussed in Section 3, which shows that the time profile of money creation is not a determinant of the nature of money as equity.

Finally, and importantly, the views expressed by Kumhof et al. (2020) substantially converge with those of the AVM on state money, by the authors' own admission referring to our earlier work cited. They concur that central bank money cannot be characterized as a liability of the central bank since, in fiat money systems, the central bank is under no legal obligation to repay money holders in anything other than central bank money. However, they refrain from describing the latter as equity and consider it as a hybrid financial instrument called "social equity," out of concerns that its categorization as equity might raise conflicts between shareholders groups and other stakeholders. In fact, as discussed in Section 3, once both the distinction between equity and capital and the nature of money as a claim are clarified, it can be concluded the AVM's view of money as equity cannot give rise to any misunderstandings in terms of its associated rights and obligations.

For the record, Covick and Davis (1990) should be recognized as the first authors (to our knowledge, at least) who claimed against considering banknotes as state liabilities, noting that they should be accounted for as a source of revenues (seigniorage), with implications for the public debt to be considered.

The AVM relates to the debate on the ontology of money, hosted by the *Cambridge Journal of Economics* in a special issue dedicated to the topic.³ In this respect, it goes beyond the conventional bipartition of commodity-based versus credit-based money, which underlies that debate, in that it proposes neither a commodity nor a credit theory of money, but an "equity theory" of money (with specific qualifications for commercial bank money). As discussed in Section 3, the AVM emphasizes that those

³ See *Cambridge Journal of Economics, Special issue: Cambridge Social Ontology: Clarification, Development and Deployment*, 41(5), August 2017.

who receive money claims acquire generalized purchasing power on national wealth, while those entities that have the power to issue money claims by fiat generate for themselves a form of the gross income of equal nominal value, which must then be recorded as such. The AVM, thus, resembles Heinsohn and Steiger's (2013) conception of money as a nonphysical title to the property; yet, the resemblance ends here since for them money is never net worth to its issuer, whereas money as equity is the essence of the AVM.

Moreover, the relation of this study with the work by Bezemer (2016) must be acknowledged, in particular its emphasis on the need to involve an "accounting view" of the economy when rethinking money and banking, whereby the financial reciprocity between economic units (e.g., firms, banks, households or nations), which is reflected in balance sheets and accounting conventions, should be a central element for understanding the economic process. However, while Bezemer's work uses this view to defend the credit theory of money as the ultimate understanding of money, this study uses accounting principles to establish a new, alternative view of the contemporary forms of money.

The AVM view of money as equity also extends to a share of commercial bank money, as Section 3 illustrates. However, no relevant literature exists on the accounting treatment of commercial bank money (demand deposits) other than as commercial bank liabilities, and the issue is disregarded by the international accounting standards (the International Financial Reporting Standards (IFRS)), national accounting standards (the General Accepted Accounting Principles (GAAP)) and the existing national banking legislations.⁴ However, for the purpose of this study, the literature on hybrid financial instruments (i.e., instruments that are partly debt liabilities and partly equity capital) is highly relevant. According to PAAinE (2008), Schmidt (2013), and PWC (2017), the distinction between liabilities and equity as basic sources of funding for banks is no longer as neat and sharp as it used to be, calling into question the conventional definition of equity capital as the mere algebraic difference between assets and liabilities. For a company, in fact, equity capital is a source of funding much as debt liabilities are, with the difference that, unlike the latter, equity capital is not to be refunded to the company's owners unless and until the company enters into liquidation procedures.

The application of the AVM to commercial bank money builds on Costa (2009), which shows the historical process of gradual transformation of commercial bank money (demand deposits) from debt to equity, and on Bossone (2001), which shows how payment settlement rules affect such transformation. As discussed in Section 3, the case is made for deposits being a hybrid instrument, that is, partly debt and partly equity, based on stochastic considerations. The logic underpinning the recent pronouncement by the International Public Sector Accounting Standards Board – the international standards setting body for the public sector – on liabilities and probabilities thrust significant support to the AVM (IPSASB, 2020).

The tax accounting literature (Flinn, 1999), too, is relevant for the purpose of this study, as the distinction it introduces between capital gains and revenues allows to apply the accounting definition of hybrid financial instruments to commercial bank money liabilities in the context of the AVM.

Money as equity presupposes that seigniorage income accrues to money issuers. As regards state seigniorage, the literature is quite well known and extended (see Baltensperger & Jordan, 1997a; Burdekin, 2009; Haslag, 1998; and the recent comprehensive review by Bjerg, McCann, Macfarlane, Nielsen, & Ryan-Collins, 2017). This study introduces new components into the definition and measurement of seigniorage; it also distinguishes between primary and secondary seigniorage in a way that conceptually resembles the distinction adopted by Bjerg et al. (2017) between monetary and opportunity cost seigniorage but uses different definitions and measurements based on the application of correct accounting principles. As discussed later, this has significant financial and fiscal implications that need to be explored.

Concerning the seigniorage extracted by commercial banks, early references in the literature are Baltensperger and Jordan (1997b) and Bossone (2000, 2001). The topic has been quantitatively explored by Arby (2006), Cardoso (2003), Soldatos and Varelas (2015), and recently by Bjerg et al. (2017), Macfarlane, Ryan-Collins, Bjerg, Nielsen, and McCann (2017), Bossone et al. (2018) and Bossone (2021b).

3 The AVM

The AVM considers the various forms of fiat money that are today commonly used worldwide as legal tender or settlement instruments and the money issued by commercial banks as demand deposits and redefines their

⁴ For example, the "Debiti verso la clientela" in Italy, the "Opérations avec la clientèle" in France, and the "Customer accounts" in the United Kingdom, are all represented as debt liabilities in accordance with their respective national legislations.

nature based on the correct application of the relevant international financial accounting principles. It deals separately with state money, on the one hand, and commercial bank money, on the other hand.

3.1 State Money

Traditionally, and for a long time, sovereigns used to guarantee that the coins they issued contained specific amounts of precious metals. To the extent that no debase-ment of coinage would take place (e.g., via clipping or sweating), no accounting standards could be possibly conceived of that would consider full-bodied golden or silver coins as originating debt obligations for the issuing sovereigns. Later, however, banknotes gave holders the right to claim for their conversion into silver or gold (Costa, 2009) and, still later on, similar obligations fell on central banks as they would face claims from holders of their reserve liabilities (typically, commercial banks). Both banknotes and central banks' reserves, thus, originated true debt obligations that were legally binding on their issuers.

Today, convertibility has all but disappeared for all three types of money. Coins have lost most of their relevance and have largely been replaced with paper money and today, increasingly, by electronic money (which is convertible only in cash and bank deposits). The convertibility of banknotes was suspended almost everywhere before World War II and never re-enacted, implying abolishment in practice, and the abandonment of the gold-exchange standard (about half a century ago) marked the demise of "debt" banknotes even at the international level. Finally, the reserve deposits held by commercial banks and national treasuries at central banks are today delinked from obligations of conversion into commodities or third-party liabilities (except where the central bank adheres to fixed exchange rate arrangements, the economy is dollarized, or the country is under a currency board regime), and a liability that is not to be settled in anything but itself is not a liability. Any institutions holding central bank money may use it as a settlement asset but may ask nothing in exchange for it to the issuing central bank. They may request the central bank to convert it into cash, but cash, too, is issued by the central bank. Institutions holding central bank money do hold an economic resource that has value *erga omnes* vis-à-vis other economic agents, but not vis-à-vis the issuing central bank: they hold a generic asset, not a credit. If it is not credit for the holder, it is not debt for the issuer. In

conclusion, although all the aforementioned forms of money are still recorded as debt in public finance statistics and central bank financial statements, they are not debt in the sense of carrying obligations that imply creditor rights.⁵

Finally, the AVM rejects the notion that all money is debt and that debt obligations arise when money issuers promise to accept their own money for debt settlement from their borrowers. Debt is a current obligation of an agent to *transfer* (not to accept) an economic resource as a result of past events. As fiat money represents a claim on real resources, when it is returned to the state for tax payments, it constitutes a transfer of real resources from the economy to the state. The state accepts money much as any other agent in the economy does. The commitment of the state to extinguishing tax obligations as it receives claims on real resources at settlement is not debt, and to the extent that the state relieves itself from any obligation to redeem the money received into nothing but its liabilities, no debt-credit relationships are left standing between the state and the taxpayers.⁶ Other compelling arguments are offered by Kumhof et al. (2020), fully in line with the AVM, against the argument that state money is debt on the grounds that the state accepts it in payment of taxes.

3.1.1 Accounting Treatment

Importantly, the International Public Sector Accounting Standards Board has officially taken a position whereby (i) when there is a substantial engagement to give

⁵ In the EU, for instance, according to Eurostat, also the coins issued by central governments in the euro area are, by convention, treated as liabilities of the national central banks, which as a counterpart hold a notional claim on general government. See item 5.2.2. of the Classification of Financial Transactions, Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013.

⁶ To Mehrling's (2012) claim that, "From the point of view of the system as a whole, every liability is someone else's asset," (p. 6) we counterclaim that, on the other hand, it is not necessarily always the case that every asset is somebody else's liabilities, we respond with Buiter (2003) that, "Base money (...) does not have to be redeemed by the government – ever. It is the final means of settlement of government obligations vis-à-vis the private sector. It does not represent a claim on the issuer other than the same amount of itself." As shown by Costa (2009), with fiat money being irredeemable, no holder may ask the issuing entity to exchange it into anything else, and thus, the money ceases to be a liability and becomes a source of undistributed income, that is, net worth or equity (see further below). See also Reis (2019) and Kumhof et al. (2020).

something to the holder, there is a true debt; (ii) when the outflow of resources is only probable, there is a provision; (iii) when the outflow of resources is only possible, there is only a contingent liability; and (iv) when the outflow of resources is remote, there is no liability at all (IPSASB, 2020). Accordingly, this official pronouncement, too, supports the AVM in concluding that when money is irredeemable, it is not a liability of the issuing entity.

But, if irredeemable fiat money is not a liability, what is state money and how should it be accounted for (correctly) in financial reports?

When the state issues irredeemable fiat money (i.e., representation of value created *ex nihilo*) and sells in exchange for goods and services (by spending it) or in exchange for credit claims (when it lends it), the proceeds originate a form of income, specifically “revenue income,” which corresponds to the resources that fiat money allows the state to acquire. Notice that income may take the form of capital income or revenue income. The former does not relate to running a business, while the latter typically arises from running business activities (Maheswari, 2013).

Issuing state money thus generates seigniorage income to the issuing state. This holds *a fortiori* when state money is issued to outright finance government expenditures as its nature of income (in terms of resources acquired) is immediately evident. In any case, under current accounting practices, this income is (incorrectly) unreported in the income statement of the issuing entity. In the case of the central bank money, for instance, it is (incorrectly) reported under the central bank’s “liabilities.”

In fact, when money is issued by a public-sector entity, the income should accrue to the entity’s owners – the citizens, as ideal “shareholders” of the “res publica,”⁷ and when money is issued by a privately owned central bank, the income should accrue to the central bank’s private owners. If the income is not distributed to the owners, it should be recorded as retained earnings and would become equity, consistent with BIS’s Archer and Moser-Boehm (2013).

Issuing money is the same thing as producing and selling goods, as money bears value similarly to any goods. If money is sold (such as in exchange for goods or assets) or loaned (leased), it falls under IFRS 15 and 16, respectively. When money is sold against goods, services

or real or financial assets (such as, for instance, when the central bank “prints” reserves and sell them against securities, which are claims on real resources), the proceeds from such sales should be accounted for as revenue: the fair value of the goods, services, or assets received in exchange for money should be recognized as revenue (see IFRS 15, Section 66 *et ss.*).

Notice that the margin between such revenue and the cost of issuing (producing and distributing) money is called “primary” seigniorage. Primary seigniorage is the income (revenues minus costs) that the issuing entity receives from the fiat money used to purchase any form of value (goods, services, and financial and real assets), that is, the value of the real resources that money can buy minus its issuing cost (Chart 1).

Conversely, when money is leased (loaned), the money issuer is the same as a lessor in a finance lease (and the lessee receives all the risks and rewards associated with the money leased, see IFRS 16, Appendix A). In this case, the money leased is accounted for as credit (as it is correctly done in current practice), not as a liability (as it is incorrectly done in current practice), and the lessee should account the money leased as an asset (as it is correctly done in current practice, whereby it is recorded as cash), while the associated debt should be accounted for as a liability (as it is correctly done in current practice). The margin between the interest revenue and the costs of issuing the loan is what is called “secondary” seigniorage and should be recorded as revenue in the financial statements of the issuing institution; it is the interest income that the state receives on the money created and loaned out.

Notice that when fiat money is loaned, the income to the issuing entity combines both primary and secondary seigniorage, which both originate from the use of the value created by fiat to purchase real resources. From this standpoint, and in terms of accounting, the permanent or temporary time profile of the transaction is not relevant. Income is generated through a money creation transaction and can be undone through a transaction of opposite sign, which destroys the money previously created. Moreover, in accounting, the mutual offsetting of entries is not admitted because it affects the clarity of financial reports: when money is issued and leased, capital increases, and any increases in capital are equity, while the reverse holds when money is returned as loan repayments. Yet, the sequence of offsetting transactions does not alter the nature of money as equity. In addition, to the extent that a net positive stock of money issued as loans is outstanding, an equal positive stock of corresponding revenues (i.e., primary seigniorage) is also

⁷ Of our same view is Kumhof et al. (2020). Notice, that when the central bank is a private institution (as it sometimes happens even in modern times), the seigniorage from printing money and undistributed to the treasury increases the central bank shareholders’ net worth.

Once fiat money is created, it represents value that can be used to purchase any other forms of value (goods, services, financial and real assets). The central bank, for instance, can use it in repurchase agreements, which are legally defined as sales of money against assets (typically, but not exclusively, government bonds) with a commitment from the counterparty to repurchase the assets in exchange for money at some future date. (In fact, even when the central bank lends money to borrowers, it “sells” money and “buys”, in exchange, debt obligations from the borrowers.)

The critical aspect is that the value created by the central bank *ex nihilo* is exchanged by the central bank for real resources or promises to receive real resources. The value of the money created by the act of fiat and used to purchase (claims on) real resources is a source of income for the issuing central bank, from the accounting standpoint, and to the extent that this income is undistributed, it is equity in accounting terms.

When commodities are sold, the entries in a double-entry scheme are as follows:

By Receivables To Revenues

By Cost of sale To Commodities

where Receivables and Commodities are assets in the balance sheet and Revenues and Cost of sale are items of the income statement. Their difference accrues to equity as income (i.e., changes of equity).

When money is produced and allocated, it can be identically represented as:

By Securities To Revenues

By Cost of money production To Money

Here, the assets exchanged are Securities and Money (rather than Receivables and Commodities, as under commodities) and the Cost of sales and Revenues are the same: respectively, the decrease of equity needed for producing the good (either money or commodities) and the increase of equity obtained from its sale. All undistributed net revenues accrue to equity (i.e., changes of equity).

Chart 1: Primary seigniorage in accounting.

outstanding, which in accounting terms represent the equity of the money issuer.

Nowadays, only a fraction of secondary seigniorage (that on banknotes) is recorded in central bank financial statements, while primary seigniorage and secondary seigniorage on reserves are concealed – the former is recorded on the claims side of the balance sheet (among the liabilities) and the latter is mixed with other revenues and expenses of the income statement and not properly evidenced.

The current practice, thus, bears an evident inconsistency between the *correct* accounting rule adopted for the lessee and the *incorrect* one adopted for the lessor. Accumulated revenues in the form of primary and secondary seigniorage constitute equity for the issuing institution. The assimilation of money to equity requires moving beyond the distinction between equity and liabilities, as discussed in Section II. A correct application of the IFRS should recognize that money accepted as legal tender or as a settlement instrument is *not* a financial instrument for the holder and, therefore, it *cannot* be debt for the issuer. International Accounting Standard (IAS) 32 defines a “financial instrument” as “a contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity” and defines an “equity instrument” as “any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities” (par. 11). Under these

definitions, state money is neither “credit” for its holders nor “debt” (i.e., a liability) for its issuer (Box 1). It is instead the net wealth of the holders and the net worth (equity) of the issuer.

Box 1: Isn't money a financial sector's liability?

The economy's total net worth is in the balance sheets of real-sector agents. Money is their asset. Every financial asset is some counterparty's liability, and the only counterparty for real-sector agents as a consolidated sector is the financial sector (including the central bank). Isn't thus money a financial sector's liability?

No, it isn't.

Representing the economy in two consolidated entities, the real sector and the financial sector, respectively, yields the two following balance sheets:

Real Sector	
Assets	Claims
Physical goods (among which the money, as a product used for exchange purposes)	Liabilities = Debts toward the financial sector
Money	Equity = Difference between assets and liabilities (part of which is kept by the financial sector as shares)

Financial Sector	
Assets	Claims
Assets = Credits towards the real sector + Money + shares in the real sector equity	Liabilities = None
	Equity = Difference between assets and liabilities = Assets

Money is a “product” produced by the financial sector. Once “sold,” it accrues to financial sector equity and becomes good in the full possession of the real sector. Money produced and not yet sold would temporarily transit from the Assets side of the financial sector’s balance sheet, as it would be the case of coins produced by the treasury and not yet sold to the real sector; however, the real sector holds nothing to claim on the financial sector in exchange for money. In what sense is then money a credit for the real sector and a debt for the financial sector? It is only a good that the real sector uses within itself, and not for claiming anything from the financial sector. In conclusion, after consolidating the balance sheets across all sectors of the economy, money ends up on the Assets side of the consolidated balance sheet, while net revenues from money issuance end up on the Claims side of the balance sheet (thereby becoming net worth or equity): the financial sector owes no debt to the real sector.

Money accounted as issuer’s equity implies ownership rights. It is important to emphasize that these rights do not give money holders any possession entitlement over the entity issuing the money. Unlike the rights enshrined in shares, the equity that stands against money does not give money holders any residual claims on the net assets of the issuing entity, much as consumers buying goods from firms do not hold ownership rights on the selling firms. Money holders hold rights that are identical to those acquired by consumers purchasing goods from firms since selling goods that deliver utility to consumers is not conceptually dissimilar from selling an instrument, like money, which delivers to its acquirers a specific type of utility – that of settling financial obligations.⁸

The rights embedded in money holdings consist of claims on nominal shares of national wealth, which money holders may exercise at any time (Box 2). Those who receive these claims acquire generalized purchasing

⁸ However, the similarity between money and goods in providing utility to holders and consumers, respectively, does not eliminate money’s unique features of zero (or negligible) elasticity of production and zero (or negligible) elasticity of substitution (Davidson, 1972).

power on national wealth, while those issuing the claims get in exchange a form of the gross income of equal nominal value: This income corresponds to the real resources the issuers can buy with the claims issued.

Box 2: Money “claims:” what are they?

If, in an economy, people conventionally agree to sell products, services or assets to one another in exchange for an intrinsically valueless object called “money,” then, in force of that very same conventional agreement, people believe that such money gives their holders a “claim” that can be used to purchase products, services, or assets in exchange for it. Now, this claim is not enforced by law, and it does not bind anybody to engage unwillingly in the exchange process nor does it raise any liability upon any individual agent specifically. Rather, it gives money holders a generalized entitlement on the economy at large (and on all of its agents) to exchange their money holdings in transactions taking place at terms and conditions that are mutually and freely agreed upon between the transacting parties.

Saying that money is a “claim” on society’s wealth does not mean that people are forced to sell their values in exchange for money. It means only that people must accept money if they want to sell their values. The core issue here is one of “prevalence of substance over form,” which is typically encountered in the accounting practice. *Money is not a legal or formal right over something or somebody, but a substantial claim over a nominally equivalent share of society’s wealth, to be exercised under free will.*

Should people not understand money as such, they would not accept it in the exchange process and money would be worth nothing as a result.

Based on double-entry rules, money under the proposed AVM is equity on the Claims side of the balance sheet and cash on the Asset side. When the money created is “sold” or “leased,” the value received in exchange is recorded on the Assets side and replaces cash, while the Claims side remains unaltered. For the stakeholders of financial statements, it is relevant to receive two kinds of information: first, the evidence of the source of income as separate from the general revenues, and not to be confused with liabilities; second, since the money created (by fiat) is either “sold” or “leased,” there must be some distinct evidence of the income received, namely, net “revenue” from selling money (primary seigniorage) and the interest income from leasing it (secondary seigniorage).

This distinction is useful both to avoid confusion between the two different sources of income and different types of money: only the state can appropriate directly and spend the income from primary seigniorage through

coins issuance; all other issuing-money agents can only accumulate primary seigniorage into equity. Conversely, secondary seigniorage is already included in the Income Statement, and thus, there is appropriate evidence for it, although it is confused among several types of intermediation revenues.

3.1.2 Implications

Several critical financial and fiscal implications follow from the proposed approach, which all represent important new contributions of the AVM. First, income from seigniorage is systematically concealed and seigniorage is not recorded in the income statement (where it should naturally belong), while it is recorded on the balance sheet under debt liabilities, thus originating outright incorrect accounting records.

Second, primary seigniorage, that is, the income that derives from the money that is created *ex nihilo* and by fiat decisions and may be used to finance any exchange of value, should be distinguished from secondary seigniorage, which derives from the interest income received on the money that is issued and loaned. The state does not receive any secondary seigniorage from coins (they are not loaned), while central banks receive primary seigniorage from banknotes and reserve issuances (they typically account only for the former and not for the latter) and receive secondary seigniorage from reserve lending.

Third, central banks with the power to issue the national currency may “create” their own capital, and they can do so at any time they need to. In other words, to the extent that a central bank retains the power to issue money, it can never find itself in a position of having to request for recapitalization by the government.

Just by way of digression, the power to create one’s own capital is perhaps the most vivid example of what economists refer to as a “free lunch.” The free lunch from money issuance may be socially beneficial if the newly created purchasing power is employed to mobilize otherwise unutilized resources and to produce new output, or it may resolve only into higher prices with no net social benefits if no unused capacity is available. In this last case, however, the money issuer would still enjoy a free lunch in that it holds a claim on real resources that it would not hold, absent that power. Following money issuance, the whole “pie” of real resources would be smaller for each eater (due to the effect on prices), but a share of the pie would go to the one eater who has not contributed to its preparation: indeed, a free lunch for him, though at the expense of those who actually contributed to the

pie (in other words, a “zero sum game” in which the money issuer gets the positive term of the algebraic addition). One could add that the former situation (one where there is unused capacity) is Pareto improving, while the latter is not. Obviously, should the money creation power be abused and engender hyperinflation, even the money issuer would no longer be in a position to appropriate a positive share of the pie and the whole pie might actually shrink overall.

From the power to create its own capital, it follows that central bank independence may never be threatened by problems of undercapitalization and that the “optimality” of central bank capital can be defined only in relation to the monetary policy objectives that the central bank is mandated to pursue. That is why central bank capital matters: a structural tendency toward negative capital, for instance, which would require continuous “self-creation” of capital by the central bank, would be inconsistent – and therefore suboptimal – vis-à-vis a low inflation objective, while a structural tendency to a too high level of capital would be inconsistent – and therefore, again, suboptimal – vis-a-vis a full-employment objective (Archer & Moser-Boehm, 2013).

Fourth, the aforementioned implications identify with clarity who would be in a position to provide the ultimate backstop in a crisis situation. Discussions around the backstop function often entail a (rather paradoxical) circularity argument whereby when at stake is the risk of a government defaulting on its own debt obligations, the monetization of debt through money creation is usually considered – at least, in principle – as providing the last-resort remedy to avoid default: the central bank would be the backstop. On the other hand, when at stake is the risk of a central bank running into financial losses, the government is invoked as the last-resort provider of the extra capital needed to rebuild the central bank’s equity position: in this case, the backstop is the government. Yet, the two options cannot be true at the same: the true backstop can be only the entity that holds the power to issue the currency. Buiters (2008) argues that the taxpayer, through the state treasury, is the ultimate and only guarantor of central bank solvency. In fact, based on the aforementioned argument, Buiters’ assertion holds in the deeper and more general sense that the backstop function can only work if there are real resources available in the economy that can be extracted from their owners (through either explicit taxation or the implicit (inflation) tax inherent in money creation) for the purpose of financing the backstop. It should be noted, however, that even before getting to the point where real resources are physically exhausted, in actual circumstances, a confidence crisis in a country economy might be such that people would want to dump *both*

government debt and cash in exchange for foreign securities, thereby neutralizing the ultimate backstop role of the central bank. Under such circumstances, the backstop function (its financing) could be provided only by an external entity. The key conclusion, here, is that while financial capital is not a constraint on central banks (in the sense that central banks can always “produce” their own capital), they should never want to find themselves in situations where their capital position is inconsistent with their policy objectives and the need to protect their (internal and external) credibility.

Fifth, under the accounting practices currently adopted by national governments and central banks, seigniorage is largely underappreciated. It will be necessary to identify all sources of seigniorage and estimate it, as well as the share of seigniorage that is returned to its potential “owners” (its holders), and to assess its impact on economic activity, the economy’s incentive structure, and the distribution of national wealth across society. Moreover, for public finance purposes, the application of correct financial accounting principles would allow to increase the transparency of the fiscal budgets and central bank balance sheets by removing the incorrect practice of associating state money to “debt.”

Finally, an argument can be made whereby the government should be entitled to receiving back the (correctly estimated) seigniorage extracted by the central bank from the economy (after having made provisions for covering the central bank’s running and capital costs). This would in no way weaken the financial position of the central bank, which would always be able to operate the country’s monetary policy agenda based on its underlying objectives and with not the concern for its own level of equity. The use of seigniorage income by the government would be a fiscal policy decision that should be subject to the country’s political process, taking into consideration distributional and macroeconomic aspects, but having clear in mind the principle that seigniorage income ultimately originates from, and belongs to, the wealth of the country’s citizens.

3.2 Commercial Bank Money

After long being a tenet of post-Keynesian theories of money, even mainstream economics has recognized that commercial banks are not simple intermediaries of already existing money – they create their own money by issuing liabilities in the form of demand deposits (McLeay, Radia, & Thomas, 2014).⁹

⁹ For a recent review (and a new perspective) on bank money creation, see Bossone (2020).

In fact, in contemporary economies, the largest bulk of money is created by commercial banks (Ryan-Collins, Greenham, Werner, & Jackson, 2011).

Banks create money by lending or selling deposits against securities. When banks create money, they do not need to raise deposits to lend or sell deposits (Werner, 2014). Yet, they must avail themselves of the cash and reserves necessary to guarantee cash withdrawals from clients and to settle obligations emanating from client instructions to mobilize deposits to make payments or transfers.¹⁰

The relevant payment orders are only those between clients of different banks, since the settlement of payments between clients of the same bank (“on us” payments) does not require the use of reserves and takes place simply by debiting and crediting accounts held on the books of the same bank. For cash withdrawals and interbank payments, every bank must determine the optimal amount of cash and reserves needed to cover deposits. These reserves consist of (i) cash reserves and reserves deposited with the central bank; (ii) reserves from the settlement of incoming payments from other banks; (iii) borrowings from the interbank market; (iv) borrowings from the central bank; (v) immediate liquidation of unencumbered assets in the balance sheet; and (vi) new deposits of cash from old and new clients. The new noncash deposits from clients can consist of only deposits transferred from other banks, which fall under item (ii).

3.2.1 Accounting Treatment

Commercial bank money constitutes a *debt* liability for deposit issuing banks since these are under an obligation to convert deposits into cash on demand from their clients and to settle payments in central bank reserves at the time required by payment system settlement rules.

However, in a fractional reserve regime, banks hold only a fraction of reserves against their total deposit

¹⁰ Most contemporary payment settlement systems require that settlement takes place in central bank money. However, the principle of using safe assets for settlement is also adopted by those systems where central bank money is not available, and settlement can only happen in commercial bank money. Here, participating banks must first elect the money liability issued by one of them – typically, the one that is most highly reputed and financially solid and large – and then hold enough balances of such money for settlement purposes (CPSS, 2013).

liabilities. The amounts of reserves they actually use for settling interbank obligations are only a fraction of the total transactions settled. The more limited is the use of cash in the economy, and the larger the economies of scale in the use of reserves (as permitted by payment system rules and clients' nonsimultaneous mobilization of deposits), the lower is the volume of reserves that banks need to back up the issuance of new deposits.

Payment system rules affect the use of reserves via two channels: the settlement modality (i.e., netting or gross settlement) and the technology adopted. Modern technologies introduce elements of netting into gross settlement processes and increase the velocity of circulation of reserves, thereby allowing banks to economize on the use of reserves for any given volume and value of payments settled. In the hypothetical case of a fully consolidated banking system in a cashless economy where all agent accounts sit with only one bank, all payments and transfers would be "on us" for the bank. The bank would need no reserves for settling transactions and would be under no debt obligation to its clients, and it might create all the money that the economy would be willing to absorb, without any need for holding reserves. In such a case, the money would have the same power as legal money in settling all debts.

In real-world economies, however, there are multiple banks whose payment activities generate interbank settlement obligations. Yet, the fractional reserve regime and the economies of scale that are made possible both by payment system rules and by depositors' asynchronous mobilization of deposits reduce the volume of reserves needed by the banks to back their debts. Under increasing scale economies, banks can create more liabilities (by lending or selling deposits) with decreasing reserve margins for coverage. From both the aforementioned hypothetical case and this last observation follows that, all else equal, a more consolidated banking system affords individual banks lower coverage of their liabilities (and at lower cost) than a less concentrated system would.

More generally, absent (very extreme) adverse economic or market contingencies inducing depositors either to convert their deposit claims into cash or to transfer them across banks, the liabilities represented by deposits *only partly* constitute debt liabilities of the issuing bank, which require cash and reserve coverage.

By way of example, assume that debts are settled with reserves and banks create and issue deposit claims by lending them to clients at an interest. Under a fractional reserve regime, the outstanding stock of the deposits created by the banks is backed only partially (fractionally) with (costly) reserves (ever under most market stress circumstances).

In this case, the "unbacked" stock of deposits (i.e., the stock of interest-earning loaned deposits net of the stock of costly reserves), which banks can create at will (until they find borrowers willing to borrow at the given terms and conditions), is a *free resource* that banks have used to "buy" revenue earning assets (i.e., the interest earning credit claims). In the banks' balance sheet, these real claims are recorded on the assets side (until they are repaid) and the free resource created (as determined above) should be recorded as equity.

In other words, in fractional reserve regimes, the uncovered part of the banks' deposit liabilities are a free resource that did not exist before its creation and, once created, can be used to buy claims on real resources (say, loans generating capital and interest payments). This free resource is a source of income accruing to the deposit issuing banks. To the extent that this income is accumulated and undistributed, it is equivalent to *equity* and should be accounted accordingly. Demand deposits, therefore, consist of "debt deposits" and "equity deposits." This (admittedly controversial) proposition is further explained in Box 3.

Box 3: Commercial bank deposits as equity: Objections and responses

Commercial bank money cannot be equity: holding it does not grant its holders any residual claims on the issuing banks

The AVM adopts the distinction between "equity" and "capital," the latter being one component of the former. The other component is "retained earnings." The issuance of commercial bank money generates revenues for the issuing banks, exactly like the sale of goods does for a firm. Those who purchase deposits (depositors in exchange for funds and borrowers in exchange for credit claims) do not get residual claims on the issuing banks any more than buyers or leasers of goods do on the selling or leasing firms.

But selling goods and selling money are different things!

No, they are not. Money grants access to economic benefits much as any other consumer good does. Goods deliver utility from consumption; money delivers utility from its ability to settle transactions. For money sellers, money is a source of revenue, much as goods are for producing firms. For firms, revenue equals the money received in exchange for selling goods; for banks, revenue is the cash, reserves, or credit claims received in exchange for selling deposit claims.

Well, this may hold for state money; it doesn't hold for commercial bank money, though: the latter is always a liability for the issuing bank

Banks are liable to convert deposits into cash on demand and to cover them with central bank reserves for settlement purposes. Yet, due to scale economies in payment systems and depositors' asynchronous mobilization of deposits, banks operating in fractional reserve regimes need to back only a fraction of their deposit liabilities with cash or central bank reserves. The fraction of uncovered deposits is a source of revenue, which, once accumulated and

undistributed, becomes equity. The circumstances that partial coverage raises risk and that the share of uncovered deposits is uncertain *ex ante* do not change the fact that they are a source of revenue.

Yes, but this then involves the concept of probability

The conceptual framework (referred to in the text) states that the concept of probability is not a relevant factor for the determination of the nature of a liability. It becomes relevant to determine how a liability is to be reflected in the financial statements. The conceptual framework recognizes that when liabilities show a low probability of generating financial obligations, they may be recorded as “contingent liabilities” in the notes to the financial statements (not in the financial statements themselves) and may even go unrecorded if the probability is very low.

Why would a contingent liability ever become revenue?

Revenues, like all components of equity, are a residual between assets and liabilities. The purpose of equity is to ensure that the fundamental identity $\text{Asset} - \text{Liabilities} = \text{Equity}$ holds at all times. If a liability is written off, the resulting gap determines residually an addition to net worth (hence, it constitutes revenue). This conclusion is inescapable.

Yet: how is it possible that deposits are a source of revenue for the issuing bank and assets for their holders?

As discussed earlier, deposits are a *hybrid* instrument. *Ex ante*, they can be either a liability or equity. Fractional coverage ensures that, under most contingencies (including extreme economic and financial situations, as the global financial crisis has shown), a share of deposits will become equity, and the banking system won't find itself under an obligation to convert all outstanding deposits into cash or central bank reserves. Indeed, the institutional arrangements supporting the banking system (e.g., central banks acting as lenders of last resort, other liquidity provision mechanisms, and deposit insurance guarantee schemes) ensure that a fraction of outstanding deposits will – under most circumstances – feature the nature of equity.

Still puzzling: if a deposit is a credit for the depositor, should not it be a debt for the bank?

Demand deposits are never reported as credit or financial assets in the financial statements of their holders; they are reported instead as cash and equivalents on hand. The correct question, therefore, is: If they are not credit, why should they be debt? In fact, they are not; they entail for the issuing banks an obligation that is similar to debt. A demand deposit is a contract where the depositor swaps cash or funds with its bank against claims to access those cash and funds on demand. The bank commits to ensuring that such conversion is guaranteed at all times it is requested. As mentioned earlier, however, the share of claims that remain unconverted are a source of revenue for the bank and are thus part of its equity.

The double nature of deposits is *stochastic* in as much as, at the time of issuance, every deposit unit can be either a debt-deposit (if, with a certain probability the

issuing bank receives requests for cash conversion or interbank settlement) or an equity-deposit (with complementary probability). Faced with such stochastic double nature of its money, a commercial bank finds it convenient to provision the deposit unit issued with a level of reserves that equals only the expected value of the associated debt event (possibly augmented by some unexpected variation margin), rather than the full value of the deposit unit issued.

Here, “stochastic” refers to the fact that – *ex ante* – a bank creating one unit of deposit expects (probabilistically) that only some share of that unit will translate into debt, while the remaining share (still probabilistically) will not be subject to requests for conversion into cash or reserves. The share of debt-deposits (or equity-deposit, as its complement) is a stochastic variable that is influenced by behavioral and institutional factors (e.g., cash usage habits and payment system rules) as well as by contingent events. In times of market stress, the share of debt-deposit tends to increase, while it tends to be low when trust in the economy (and the banking system in particular) is strong. Policy and structural factors that strengthen such trust (e.g., the elasticity with which the central bank provides liquidity to the system when needed or a deposit insurance mechanism) increase the share of equity-deposits.

This argument is evident when applied to the whole banking system, but it holds also for each individual bank, albeit to different extents depending on the size of each bank for a given payment settlement system and cash usage and on its risk profile, where size refers to the volume and value of payment transactions that the bank intermediates relative to the total payment transactions in the system. From the discussion so far, it follows that, all else being equal, the stochastic share of debt-deposits for a small bank is greater than for a larger bank. *Vice versa*, the larger is the bank, the greater is the share of equity contained in its deposit liabilities.

In conclusion, while the conventional view holds that commercial bank money (demand deposits) is a liability (debt) of the issuing commercial banks, the AVM argues that, in a fractional reserve regime, commercial bank money is only partly a debt obligation of the issuing commercial bank, with the residual part constituting equity of the same commercial bank in the form of accumulated and undistributed income. As in the case of state money discussed earlier, however, such equity would correspond to the accumulated and undistributed income generated by deposits and should therefore not be confused with bank's capital with its attendant rights and obligations.

3.2.2 Consistency with International Accounting Standards

The stochastic double nature of commercial bank money is consistent with the definition of liability provided by the new Conceptual Framework under IASB (2018), whereby “*a liability is a present obligation of the entity to transfer an economic resource as a result of past events*” (Section 4.26, Conceptual Framework) and “*Financial reports represent economic phenomena in words and number. To be useful, financial information must not only represent relevant phenomena, but it must also represent the substance of the phenomena that it purports to represent. In many circumstances, the substance of an economic phenomenon and its legal form are the same. If they are not the same, providing information only about the legal form would not faithfully represent the economic phenomenon*” (Section 2.12, Conceptual Framework).

In light of these definitions, demand deposits are a *hybrid* instrument – partly debt and partly revenue. The debt part relates to the share of deposits that will (likely) be converted into banknotes on demand or into reserve for payment settlement purposes and reflects the “substance” of the obligation underlying the deposit contract. The revenue part, on the other hand, relates to the share of deposits that will (likely) never be converted into banknotes or reserves and reflects the mere “legal form” underlying the deposit contract. This share of deposits is a source of revenue. Once accumulated, this revenue becomes equity. It should be noted that equity-deposits are not necessarily inert deposits; they mostly comprise deposit flows that move across accounts held in the book of the same bank and deposit flows that offset each other before settlement, none of which require reserves.

Now, since there are no accounting standards governing hybrid revenue-liability instruments explicitly, IAS 32 applies (in force of the analogy stated in IAS 8) and provides that, in the context of a hybrid liability instrument, the debt component must be separated from the equity one.¹¹ From such separation follows that, once the debt component is identified, the residual left is the

¹¹ Specifically, IAS 8 (Section 10–11) requires that, “In the absence of an IFRS that specifically applies to a transaction, other event or condition...management shall refer to, and consider the applicability of, the following sources in descending order: (a) the requirements in IFRSs dealing with similar and related issues; and (b) the definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses in the Conceptual Framework.”

equity component.¹² In the case of deposits, the share of deposits that (most probably) will not translate into debt liabilities represent retained earnings (that is, equity capital).

The application of IAS 32 is a textbook case. It implies that the financial statements of the issuing bank should report among debts only the share of deposits that give origin to a substantial obligation to transfer economic resources, while the residual share should be reported in the income statement as revenue. Moreover, since the share of profits attributable to this revenue is undistributed, they add to the bank’s equity.

To support the validity of the approach here proposed, take IAS 37 (on risk provisioning, charges, and contingent liabilities).¹³ This standard considers as debt all commitments that fall under the Conceptual Framework’s definition of “liability,” that is, those that generate outflows of economic resources with a probability greater than 0.5. Below such threshold, the liability is a *contingent* liability and must be reported only in the notes to the financial statements. Take also the recent innovation by IPSASB (2020), referred to in Section 3.1., which is very consistent with the AVM. In this regard, it should be noted that although the scope of the IPSAS extends to the public sector, the important innovation of the IPSAS as regards the treatment of liabilities is also in principle relevant for private sector entities, and such that private sector accounting framework should not neglect. Much as we have expressed our belief that the IFRS can contribute new blood into public sector accounting rules and practices, we also believe that new public sector accounting rules and practices could as well be valid for private sector businesses when they refer to general principles (as in the case of liabilities).

The implication is inescapable: the existence of formal claims is not alone sufficient for a liability to be considered as debt; the essential requisite is the probable outflows of economic resources. The probability is not per se relevant; it

¹² See IAS 32, Sections 28 *et ss.* It is noteworthy that, in the case under the quoted standard, the hybrid instrument has the nature of “liabilities-capital,” not “liabilities-revenue;” however, both capital and retained earnings belong to equity. Briefly, equity can be shared into at least two major components: capital and other ownership’s contributions, on the one hand, and retained earnings on the other hand. IAS 32 provides regulation for splitting hybrid instruments between one part that is recognized as liabilities and one part that is recognized as equity. Based on the definitions of the Conceptual Framework, once the component recognizable as a liability is identified, the residual component is attributed to equity.

¹³ See IAS 37, Section 12–13, where the fundamental distinction is drawn between the adjective “probable” for the debt liabilities and the adjective “possible” for contingent liabilities to be reported in the notes to the financial statements.

is so only if it allows for a faithful representation of the transactions involved as the aim is to provide information that is useful to investors, lenders, and other creditors.¹⁴ In the case of commercial bank money, the share of deposits that are not debt liabilities must be regarded as revenue, and since such revenue is not reported in the income statement, it constitutes retained earnings (equity).

3.2.3 A Third Accounting Category Beyond Liabilities and Equity?

While, in principle, the distinction between liabilities and equity does not seem to admit any *tertius genus*, the AVM suggests the possibility of a new accounting subcategory within the equity category. Traditionally, equity consists of capital, capital reserves, and retained earnings; a more recent addition is “reserves deriving from other comprehensive income” (previously called “capital maintenance adjustments”). The arguments underpinning the AVM point to the need for a new class of “cash reserves,” which would reflect the equity share of money issuance. A new category of hybrid instruments would emerge as a result: not between securities and shares (like traditional hybrid instruments), but between securities and revenues. Once capitalized, such revenues would merge in the new cash reserves subcategory. The proposed accounting treatment of money features interesting analogies with the way insurance liabilities are treated according to international standards (Box 4).

Box 4: Commercial bank deposits as equity: Analogies with the insurance sector

According to the recently issued IFRS 17 (on insurance contracts), upon collection of premium payments or from the time a new policy contract is issued, and the cash or credit position of the insurer is equivalently adjusted on the asset side of its balance sheet, on the claim side only one part of the insurer’s liabilities becomes debt, reflecting the discounted value of its future expected obligations to customers, as adjusted for risks and other factors.

The remaining part, which will not be used to fund future fulfillment obligations to customers, is only temporarily treated as a liability. Subsequently, since it represents “deferred income,” it is recorded as revenue and distributed across future financial statements based on an amortization plan that is estimated taking into account the insurer’s provision of future services.

Why is the revenue distributed across a multi-year time horizon? Because it is linked to a series of future countervailing obligations and, therefore, it may not be “earned” all at once by the insurer. As the flow of future obligations mature, the revenue is recorded in the insurer’s financial statements; if it is not distributed, it is allocated to equity.

In the case of commercial bank money, since no residual obligations are left for the issuing bank to fulfill beyond the liquidity (i.e., central bank reserves) that the bank makes available to its depositors on a fractional basis, the nondebt share of the deposits held with it can be entirely recorded as revenue in the financial statements. Unlike the case of the insurer, such revenue is “earned” at once by the issuing bank and can thus be allocated to equity.

3.2.4 Implications

In fractional reserve regimes, commercial bank money – that is, demand deposit claims issued by commercial banks – has a double nature: it is partly a debt obligation and partly equity of the issuing commercial banks. This double nature originates from the power of banks to create a form of money that only partially features the nature of debt, as discussed earlier.

Some critical implications follow, which represent new contributions of the AMV in addition to those discussed earlier concerning state money. The first implication is that a relevant share of deposits that banks report in their financial statements as “debt toward clients” generate revenues that are analogous to the seigniorage rents extracted from the economy by the state or the central bank through the issuance of legal money (coins and banknotes) and central bank reserves, respectively. This, in turn, bears implications for the way banks’ capital is calculated. Critical for this calculation is the probability factor discussed earlier, which characterizes each bank individually, depending on its relative size, its role in the payment system, and its risk profile.

The objection to this is that the creation of demand deposits cannot serve as a source of income since, should a bank end up in insolvency, all deposits would be withdrawn (to the extent that they are covered with assets or guaranteed). In fact, international accounting standards such the IFRS are conceived for, and hold, under the hypothesis of going concern, not under the hypothesis of liquidation. Under liquidation, money becomes a liability to the holders, just as the equity shares of a firm become liabilities toward the shareholders for any residual value of the firm. This change of status, however, does not (and cannot) change the ways transactions are

¹⁴ See IASB (2018), Section 5.17.

represented in accounting terms, since substance must always prevail over form in normal conditions. However, as regards commercial bank money, under the AVM, only secondary seigniorage is appropriated and potentially distributable to shareholders, while primary seigniorage is a *sui generis* part of equity, not to be settled to holders (in which case it would be a liability) and not be distributed to shareholders, but to be kept invested in the bank.

The second implication is that commercial banks are hybrid institutions such as demand deposits are hybrid instruments. As issuers of debt-deposits (when they lend money), commercial banks are pure intermediaries. As issuers of equity-deposits, they are money creators. Due to the scale economies in the use of reserves, discussed earlier, smaller banks would tend to fall within the former category and larger banks in the latter. Notice that while the income earned on debt-deposits originates from intermediation, income on equity-deposits constitutes seigniorage.

Third, commercial bank seigniorage represents a structural element of acquisition of net real resources from the economy, and it is essentially a cost item for firms borrowing money to support production, with a rise in seigniorage potentially bearing implications that should deserve attention. Policy considerations could, for instance, be given to reducing seigniorage (say, by increasing banking sector competition or by limiting the average size of banks) or to transfer part of it back to the economy through the fiscal budget.

However, the merits of policy decisions in this area transcend the scope of this study. It should only be noted that the various tradeoffs involved in such decisions call for future research. For instance, if, on the one hand, a decision to tax commercial bank seigniorage would be justified on grounds that it represents a form of a private-sector rent, on the other hand, the same decision should recognize that part of seigniorage is a compensation of commercial banks providing society with an elastic mechanism of money issuance and a device to allocate money across the economy more efficiently than under a centralized mechanism. Issuing fiat money through a market decentralized money supply system (i.e., the commercial banking sector) affords much greater elasticity to an economy than a state centralized system based on commodity money. The greater elasticity translates into a more flexible and convenient accommodation of the money supply to its dispersed demand than if the money supply were determined by exogenous factors (e.g., the availability of the underlying real commodity) and were managed in a centralized fashion. A “normal” profit rate should therefore remunerate banks for the value they add to the economy by creating and allocating money as a public good, which the

public demands and is willing to hold for the services it delivers. Seigniorage as unearned income would thus consist of any profits associated with money creation, which would accrue to banks in excess of the “normal” level.

Fourth, as a share of deposits are true liabilities, liquid assets must be adequate to enable banks to withstand anticipated and unanticipated outflows of cash and reserves. In addition, the primary seigniorage that corresponds to equity-deposits should accrue to the bank’s equity and should not be distributed as dividends. Currently, a share of deposits are diverted to bank profits through fees and commissions and are therefore privatized by the bank shareholders through dividends, possibly in excess of “normal” profits and especially in the case of banks with large bases of equity-deposits. The privatization of such extra-profits detracts from the stable flow of resource investment that should go into the bank. Appropriate metrics should be developed to assess these extra-profits quantitatively, which go beyond the scope of this study.

Finally, the aforementioned arguments offer good reasons why the equity originated by seigniorage should be estimated and accounted for correctly, and why stakeholders (including the authorities) should be able to identify it. In addition, correct accounting rules and value estimates of seigniorage would provide reliable indicators of the strengths of the accruing banks and a measure of their true market power and systemic relevance. Our main point is about one of the fundamental qualitative characteristics that financial information should feature: Faithful Representation. The fact that issuing money increases the equity of the issuer has to be recognized and represented faithfully, irrespective of the use of the financial information.

4 Conclusion

Based on the correct application of international accounting principles, this study has argued that fiat monies issued by the state – typically in the form of cash, banknotes, and central bank reserves – are not debt. The study has also argued that, in a fractional reserve regime, only a share of commercial bank money can be regarded as debt. Proceeding separately for these broad types of money, the study has determined the correct way to account for the various forms of money in the financial statements of the issuing institutions, clarifying what the different accounting treatment implies for a correct understanding of money and then laying the foundations for what

was here labeled the AVM. Importantly, the AVM sheds new light into such issues as the nature of central bank capital, the nature of commercial bank money as a hybrid instrument (partly debt and partly equity), and the nature of commercial banks as hybrid institutions (partly pure financial intermediaries and partly money creators).

The study has aimed to resolve the apparent inconsistency between the formal rules of reporting money liabilities in the financial statements of the issuing institutions, on the one hand, and the economic substance of the money liabilities to be reported in the statements, on the other hand.

Acknowledgements: The authors wish to thank Ray Pfeiffer, Editor of “Accounting Horizons,” for his insightful suggestions, and the unknown referees for their very constructive criticisms. The usual caveat applies.

Conflict of interest: Authors state no conflict of interest.

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