Joint Thirty-Ninth Meeting of the
IMF Committee on Balance of Payments Statistics
and Twenty-First Meeting of the Advisory Expert
Group on National Accounts

Inter-secretariat
Working Group on
National Accounts

Washington, D.C.
October 18–20, 2022

BOPCOM—22/05.1
SNA/M4.22/15.1
For discussion

F.18 The Recording of Crypto Assets in Macroeconomic Statistics: Outcomes of the Government Finance Statistics Consultation

Prepared by the Financial and Payments Systems Task Team (FITT)

F.18 The Recording of Crypto Assets in Macroeconomic Statistics: Outcomes of the Government Finance Statistics Consultation[1]

1. **The outcomes of the consultation within the government finance statistics (GFS) community showed a slight preference for classifying crypto assets without a corresponding liability designed to act as a general medium of exchange (CAWLM) as nonfinancial assets,** although the responses were scarce (11 responses in total).[2] Forty five percent of respondents (five respondents) expressed preference for classifying CAWLM as nonfinancial assets, 27 percent (three respondents) for classifying as financial assets, and 18 percent (two respondents) did not express any preference. One respondent preferred the hybrid option, even though it was not presented as an option in the GN and in the GFS consultation questions.

2. **The slight majority of respondents with preference for classifying CAWLM as nonfinancial assets supported the proposal to treat them as produced nonfinancial assets** (three respondents). Two respondents supported the classification of CAWLM as non-produced nonfinancial assets. All the details of the responses are provided in the attached table. Although Eurostat-GFS's preference was for financial asset classification, the respondent also expressed some preference for treatment of CAWLM as a hybrid asset.

3. **Most respondents did not focus on the issue from the GFS perspective and did not provide GFS-specific arguments.** One respondent (UAE) raised the possibility of imposing taxes on the "crypto assets categories and subcategories" and suggested that GFS would need to consider how to record those taxes; another respondent (Eurostat-GFS) expressed concern on the potential impact of the classification on government net lending/net borrowing for governments transacting in crypto assets, under the scenario where CAWLM are classified as nonfinancial assets; and the latter (Eurostat-GFS) also raised the issue of government seizures of crypto assets and highlighted the need to consider how such seizures should be recorded in the government accounts.

[1] The consultation was conducted during July–September 2022 by posting the relevant papers on GFSAC webpage dedicated to the update of international statistical standards, and then all GFS contacts were requested to respond to the consultation.

[2] The respondents were Canada, Eurostat-GFS, Georgia, Japan, Korea, South Africa (two responses), Sweden, Switzerland, the United Arab Emirates (UAE), and the West Bank and Gaza. Annex I provides comprehensive information on the results of the consultation.

Annex I. Consultation within the GFS Community: Detailed Responses[3]

Respondent Organization	Respondent Name	Do you agree with the three options for CAWLM presented in the GN, as well as the described pros and cons? Are there any other pros and cons that should be considered from a GFS perspective, if so please specify?	What is your preference for the classification of CAWLM? Please explain the rationale for your preference.
Palestinian Central Bureau of Statistics	Ms. Haleema Saeed	No comment	No comment
Ministry of Finance, Georgia	Mr. Pridon Aslanikashvili	Unfortunately, there is no simple conventional way for the recording of all types of crypto assets in GFS or any other statistical system. Finding the proper way for the recording them there is need to go step by step across the GFS and SNA definitions. Today crypto asset can serve as a mean of exchange or store of value or both. Some of them have a counterpart liability and some of them no and this property should be taken into account. From the properties of crypto asset somebody can think that crypto asset is currency or money because sometimes it is used as a mean of exchange, store of value, and unit of account, which is properties of money. And because it looks like money someone could assume that it is financial asset, but unfortunately the issue is not so simple and needs further clarification. Economic history knows assets which is not money or financial asset but sometimes had used as a mean (or medium) of exchange, store of value and maybe as unit of account. Crypto	There is GFSM definitions of currency (GFSM 2014 para. 7.135) and deposits (GFSM 2014 para. 7.137). And there is GFSM definition of the financial assets (GFSM 2014 paras. 3.48 and 7.16). According to presented definitions it is clear that crypto asset is not currency and If there is no counterpart liability it is not deposits or any other type of financial asset. If crypto asset has counterpart liability it is financial asset and should be classified as an appropriate financial instrument according to the nature of the asset. If such crypto asset significantly defers from existed definitions of financial assets and liabilities it is recommended to create new item in financial assets and liabilities. **If crypto asset has no counterpart liability it is not financial asset regardless it is used as a mean of exchange or store of value**. **If such crypto asset is used only as a store of value it is very close to the**

[3] In the table bold font has been added to highlight those statements related directly to expressed preferences on the recording of CAWLM.

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		asset is new type of asset and it should be recorded according to its nature and economic characteristics into the existed classification or if it is necessary classification should be modified, creating new item(s) for it.	**definition of valuables and may be recorded there, but if it is used as a mean (or medium) of exchange, unfortunately there is no item in nonfinancial assets which exactly matches the properties of such crypto assets. Is seems that some modification of the classification of nonfinancial assets is necessary.** Additionally statisticians should take into account that acquisition (purchase) of financial asset is saving, while acquisition of nonfinancial assets is final use. Difference is that savings ultimately is transformed in investment expenditure (or current account surplus and investments in other economy) which has production capacity. While In the case of acquisition of valuables it is final use of resources which has no productive capacity. Accordingly acquisition of the crypto asset which has not counterpart liability or which is not financial asset it is final use of resources, which means that it is not saving and there is no further transformation in investments or production capacity. “Mining” or creation of crypto asset is production. Value created by production or final output is the market value of crypto asset at the moment of creation (and should not be recorded only production cost). If government is involved in the process of “mining” crypto asset created by government “mining” is revenue and it equals the market value of crypto asset at the moment of asset creation. Production

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			cost of crypto asset should be recorded as an expenses. Valuation change of existed crypto asset is the other economic flows – holding gains and losses. If the crypto asset is 'lost' for any other reason than valuation change it is other volume changes.
South African Reserve Bank (1)	Ms. Faranaaz Naidoo	Yes. There are none	**CAWLM and CAWLP are a form of a hybrid asset, a separate classification should be created.**
South African Reserve Bank (2)	Ms. Akhona Mgwele	- Yes, we agree. The underlying use case is that of a financial instrument, which is fundamentally most likely a financial asset. - For further consideration, it would be necessary to record CAWLM separately to clearly distinguish them from other types of financial assets. This may warrant to expand the definition of financial assets.	- **Preferred Option III: Financial Assets, because CAWLM do not fully meet the characteristics of nonfinancial assets.** - Crypto assets should be treated as a "Crypto commodities" which are Financial Assets similarly to the treatment of monetary gold which is currently the only financial asset for which no corresponding liability is recorded in the accounts (2008 SNA paragraph 11.8). - As financial asset, crypto commodity can act as a medium of exchange, thus facilitate economic transactions. - As financial asset it can be traded in an exchange market. - As financial asset, crypto commodity provides economic benefits by serving as a store of value. - While the SARB agrees that there is no central issuer whose liability the crypto assets are, the issuer is the decentralised blockchain, who will honour the 'rights' of the holder of the crypto assets if the relevant

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			conditions are met (ie the private key is produced).
Bank of Korea	Mr. Jinyong Kim	No comment	For the present, **Bank of Korea prefers CAWLM to be classified as Non-Produced Nonfinancial Assets** on the grounds as follows. (i) CAWLM lacks a corresponding liability, (ii) CAWLM can be released and then be brought into circulation through several mechanisms such as the ICO(initial coin offering) as well as the mining process, (iii) this option is expected to minimize any possible effects on Current Account. As the range of utilization and transaction behavior of CAWLM is rapidly changing, we also think the additional considerations on the CAWLM classification would be necessary while closely monitoring developments in the CAWLM ecosystem.
Cabinet Office, Government of Japan	Mr. Tatsuya Sekiguchi	- Yes - Currently the general government does not hold crypto assets in our country - Future recording in the GFS will depend on the availability of data	- Undecided - Conceptually, **treating CAWLM as produced non-financial assets, specifically a form of valuables**, is a possible option - though it would be extremely difficult in practice to measure the relevant flows and stocks comprehensively, due to source data constraints
Statistics Sweden	Mr. Michael Wolf	No, the first option (produced, non-financial) seems out of reach. Bitcoins (as the standard example) are not	Bitcoins are used as a medium of exchange and as a store of value, in speculation or for other reasons. As a

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		produced. They are given as payment to those who successfully verify transactions with Bitcoins. The "miners" produce an administrative service, but they do not produce Bitcoin. Valuables are normally thought of as being physical objects of special value (gold, jewelry and artwork) used for saving purposes in countries that lack stable financial markets or by persons who distrust financial instruments. The second option is open to three alternatives, contracts, leases or licenses. As we understand Bitcoins, they are legally owned, otherwise it would be hard to exchange them for goods or money. Leases and licenses are restricted in time and the use of the item under a lease or license arrangement goes back to the legal owner. This leaves us with only contract as an option. A contract in the SNA sense can be an asset if the right to use the underlying asset/resource can be transferred to a third party. In this case the original contract value of for example rented land differs from current rent payments on the market. In the case of Bitcoin there is no underlying asset/resource. Furthermore, there is no difference between the value of Bitcoin in the wallet or on the market. **The only recording option left is as a financial asset, and that is how Bitcoin actually are used.**	medium of exchange Bitcoin could eventually be regarded as a good used in barter transactions. To be a good in a barter transaction means that it is also possible to use the good as input or for consumption. As far as we understand Bitcoin has no non-financial use. If Bitcoin would be a contract the value would depend on the price change of an underlying asset/resource, but the value is in fact the exchange value of Bitcoin itself, in relation to other currencies. The problem with the missing liability is more of a technical issue. There are other financial instruments where the issuer does not need to buy back the asset at face value, notably shares. Still a liability is recorded in the accounts of the issuer regardless of the market value, if it represents the actual net worth of the corporation or not. The simple matter is that every crypto currency has been issued by someone. This entity should be regarded the unit having the liability. In the case of Bitcoin, the responsibility has been transferred to the Bitcoin Foundation. This is probably a unit in the NPISH sector. That the responsible units for Bitcoin and other crypto currencies are included in the NPISH sector is not very surprising regarding it is individuals and unincorporated enterprises that are over-represented among users. The issuers are in this

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			sense primarily serving the needs of households.
Federal Department of Finance, Switzerland	Mr. Lukas Wyss	We would like to add that an official use of the acronyms CAWLM and CAWLP beyond the consultation process should be avoided. We note that the suggested typology and/or terminology of crypto assets seems to differ from the one used in the FSB work, for example in the following report which distinguishes backed crypto assets, unbacked crypto assets and stablecoins. We would welcome exploring the potential for harmonizing typology on digital assets with FSB work so that data collection cost could be minimized. The Guidance note suggests to introduce a separate new class for crypto assets designed to act as medium of exchange which are not issued by a monetary authority. Introducing a separate new class seems rather premature considering their similarity and close relation to traditional currency or deposits. Instead, we would suggest to introduce a separate new subcategory under ‘currency and deposits’.	**Our preference is produced nonfinancial asset. It captures all sides of the issue very well and fits consistently into the current framework of the sequence of accounts.** At the moment (and into the foreseeable future) these CAWLM are still far from being widely used as a medium of exchange. Introducing an additional exception to the counterparty liability criterion simply to capture their potential use in financial transactions is therefore inappropriate from our point of view.
Statistics Canada	Mr. Philippe Samborski	Yes absolutely. Although the crypto market/sector in particular has been turned upside down over the past few years and is constantly evolving, the guidance note discusses in depth the economic substance of these assets and depending on the different classification options, the important considerations according to the current	First of all, it must be agreed that the current definitions and conventions of economic assets in macroeconomic statistics do not make it possible to decide definitely on the exact nature of these assets. In our view and as set out in the guidance note, they are hybrid assets that share the characteristics of a financial and nonfinancial asset. However, we do

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		conceptual framework of macroeconomic statistics. Not at this point [do we think there are any other pros and cons that should be considered from a GFS perspective].	not recommend the creation of a new asset class in the updated version of the manuals. **As things stand, we have a strong preference for classifying CALWLM as nonfinancial assets, and to a lesser extent a preference for non-produced assets.** Again, given the current conceptual framework, the final choice of classification for CALWLM is almost a philosophical question. But by adopting a more pragmatic approach, and by proceeding by elimination a little like a compiler would do for the choice of the best classification of a tax revenue, we would first eliminate the option of a financial asset. With the exception of monetary gold, we believe that the fundamental characteristics underlying the definition of a financial claim (the existence of a debtor-creditor relationships for all financial assets/liabilities) should be maintained in macroeconomic statistics. Furthermore, we are not comfortable with the creation of a new class of financial assets (a ninth), without symmetry moreover on the side of the liabilities. With respect to nonfinancial produced assets and always according to the current definitions, it seems to us that the only possible option would be valuables as CALWLM themselves are not used for purposes of production or primarily for consumption. If this were the preferred option, it would indeed be necessary to consider the creation of a new subcategory of valuables ("digital")

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			and reconsider the definition of them since CALWLM value is highly speculative (mainly driven by expectations that they may be used as a medium of exchange now or in the future) and the notion of store of value definitely questionable. However, it should also be considered that valuables are in principle produced assets, an important concept that is lacking in our opinion in the case of CALWLM. Moreover, although significant production activities (in SNA terms) can be observed in coins mining, validation services, etc. (and involving large amounts of fixed assets), we believe that those do not constitute the production of the asset itself. As such we greatly appreciated the analogy of treasure hunters in the guidance note (they do not produce the goods they could find e.g. miners do not produce coins). This brings us to the option of classifying CALWLM as non-produced nonfinancial assets, which is the most compelling to us despite the compilation challenges associated with that choice (such as the assignment of the initial ownership of new coins and the potential asymmetries across countries). CALWLN are akin intangible non-produced assets in the sense that they represent constructs of society although they do not share the same characteristics of contracts, leases, licenses, goodwill and marketing assets. CALWLN intrinsic value is zero per se, rather their value is derived entirely from the perception of their users/investors (which one is

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			more likely to dominate the others and become a credible alternative to other mediums of exchange ?, etc.), which is very similar to the value given to brands, trademarks, logos, etc. (goodwill and marketing assets). Also, the creation/appearance of CALWLN would be consistent with the treatment of discovery/growth/depletion of naturally occurring assets (also non-produced assets), through the use of OCVA. If this were the preferred option, it would be necessary to consider the creation of a new subcategory of intangibles and expand/modify the definition of these.
Ministry of Finance, United Arab Emirates	Mr. Ahmed Ali Al Abdouli	The three options for CAWLM as outlined in the Guidance Note are largely consistent with the definitions of produced and non-produced financial assets with the noted exception of the counterparty liability criterion that has already been documented. However, we note that there needs to be greater alignment between taxonomy used by the IMF (e.g. CAWLM) and prevalent industry standards in order to simplify data collection from industry sources such as Fis and fintech companies. Further, when describing the activities related to the creation of CAWLM, pre-mined coins (Creation of numbers of crypto coins before the main cryptocurrency is going to launch in the market) needs further elaboration, as these are neither mined, not received in exchange for validating transactions. Hence, from GFS perspective we need to highlight the possibility of imposing	

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		tax on the “crypto assets categories and subcategories” and generate the tax from the business sector. The need arise for new revenue subcategory regarding this reforming in the GFS. The typology as outlined in the current draft of the Guidance Note is reasonable and covers a wide array of Crypto Assets in line with Crypto Asset taxonomies and conventions followed by the BIS and FATF. However, consideration can be given to further classifications of some of the Crypto Assets under study, such as: • Various types of stable coins as covered under the EU Markets in Crypto-Assets (MiCA) regulation, which distinguishes between Asset-referenced tokens (that aim to maintain a stable value by "referencing several currencies that are legal tender, one or several commodities, one or several crypto-assets, or a basket of such assets.") and e-money tokens (that a stable value based on only one fiat currency that aims to function similar to electronic money) • The typology should distinguish Utility Tokens Debt as a separate class of Crypto Assets from Debt Security Crypto Assets as opposed to a sub-category, in line with the suggestion presented in Footnote 18. Moreover, the preferred classification is to record crypto assets with a corresponding liability as financial assets. • Debt security crypto assets should be recorded as debt securities,	

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		• Equity crypto assets as equity, • Derivative crypto assets as financial derivatives. • Considering payment tokens with a corresponding liability are negotiable instruments serving as an evidence of debt, so we consider them as a debt securities with new subcategory of the payment tokens with corresponding activities. • If the crypto assets with a corresponding liability issued by monetary authority, they classified as currency. If the issuer is a non-monetary authority its recorded as financial asset in with new category.	
Eurostat – GFS Directorate	Mr. Philippe De Rougemont	No, we think that some options are missing and we find that some of the options are not well argued or should be more elaborately discussed. 1/As an example, it seems essential to us that when discussing production one should also simultaneously mention the use side (as well as related classifications, like ISIC/CPC). 2/ As another example, section 2b seems debatable because it officially concerns the "activities" but then offers two options on produced assets and non-produced assets, which by itself belongs to section 2a, as a modality of the nonfinancial asset. Instead section 2b should be talking about whether there is production (and if yes, whether there is consumption or capital formation) or not.	**Our preference is to record a financial asset for the reason above (being concerned by the potential B.9 impact).** Furthermore we do not see any justification to regard the creation of crypto assets as an OCV, as there is mutual agreement, which favours the financial asset or the produced nonfinancial asset options. The financial option appears consistent with the monetary gold, already foreseen in the system. It is unfortunate that an hybrid asset solution seems to have been dropped, because it had some potential. Perhaps this option was erroneously presented as requiring a new account (annex 3 of the note) between the capital and the financial accounts,

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		3/ Furthermore, we do not see any justification or need to regard the creation of crypto assets as an OCV (in Option II and III); it seems that all the activities are performed under mutual agreement; an absence of OCV is in turn consistent with the financial assets option (contrary to what the note states in Option III) or the produced nonfinancial asset option. We suppose that only the nonproduced nonfinancial assets entails an OCV (as indeed proposed in the Option II). To us, the dilution entailed by mining is similar to dilution of shares through splitting, which is not a volume change (neither a transaction nor an other change in volume) in the SNA. This dilution is expected by the holder and is a remuneration for a service, similar to a mutual fund that would charge investors by formally regularly acquiring mutual fund shares from investors. This SNA rule on splitting of shares corresponds to distinguishing quantities from volumes, something very common in national accounts for GDP where quantities and volume (of goods) are two different concepts. 4/ The document seems to dismiss the parallel with the monetary gold and does not envisage (or even mention) to come back to the SNA 1968 of "financial gold", which was perhaps a better solution. The paper justification of monetary gold treatment is not fully convincing, minimizing the role of gold and silver in the gold standards, and also discounting the fact that use of	which is wrong and is particularly unappealing (and we oppose). We consider that such an additional account is fully unnecessary. It sufficed to say that a new asset class is created (say AH.1) where transactions can either be reported in the capital accounts (P.54, in case of mining) or in the financial accounts (F.13, in all other cases) – with no need of Other Change in Volume. The same approach could be used for financial gold.

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		gold by central banks in case of current account deficits is not interpreted as closing the deficit (by exporting gold) but only financing it (which by itself is a convention; but this is a widely agreed convention). 5/ Other comments are included as annotations to the documents. From a GFS point of view this topic is important because: 1. Transactions in crypto may impact the net lending/net borrowing, which in Europe is the official government deficit. We are thus very concerned that government could change their B.9 at will by merely transacting on crypto. Certainly, such transactions may not be common at this stage, and be risky. However, they may be hedged. This problem has similarities with the ETS (carbon rights) discussions (to record a nonfinancial asset or a financial asset). 2. By the same token, government transacting in gold would likely be classified in Europe in the financial accounts (using the monetary gold category). 3. These assets are also actually entering some government balance sheets, such as due to seizure as these crypto assets are frequently used in criminal activities. See for example below a link to an article about the seizure of 3.6 billion dollars' worth of the crypto-currency in the United States:	

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		https://www.justice.gov/opa/pr/two-arrested-alleged-conspiracy-launder-45-billion-stolen-cryptocurrency The paper might investigate how such seizures were recorded by the statistical departments that needed to deal with such phenomena.	