

Outcome of the Global Consultation on

DZ.10 Non-Fungible Tokens (NFTs) (CONSENTERS ONLY)

A total of 42 respondents contributed to this consultation, 34 of which consented to publishing of their verbatim responses which are provided below. However, the below tables reflect the answer of all 42 respondents.

Completely anonymous contributions are excluded.

Q1A. Do you agree with the proposed categorization of NFTs into: a. NFTs that convey no ownership rights and only allow for personal use of another asset. b. NFTs that convey limited ownership rights, beyond personal use for another asset or commodity. c. NFTs that convey full ownership rights for another asset or commodity

Q1A	Frequency
Yes	41
No	0
No response	1
Total	42

Australia (Australian Bureau of Statistics) (Australian Bureau of Statistics): Yes

Belgium (National Bank of Belgium) (National Bank of Belgium): Yes

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): Yes

Canada (Statistics Canada) (Statistics Canada): Yes

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): Yes

Finland (Statistics Finland) (Statistics Finland): Yes

France (NSI) (NSI): Yes

Germany (Federal Statistical Office) (Federal Statistical Office): Yes

Guinée (Institut National de la Statistique) (Institut National de la Statistique): Yes

Indonesia (Statistics Indonesia) (Statistics Indonesia): Yes

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): Yes

Israel (Israel's Central Bureau of Statistics) (Israel's Central Bureau of Statistics): Yes

Latvia (Central Statistical Bureau of Latvia) (Central Statistical Bureau of Latvia): Yes

Lebanon (bdl) (bdl): Yes

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): Yes

Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics Lithuania)): Yes

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): Yes

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): Yes

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): Yes

Norway (Statistics Norway, Division for National Accounts) (Statistics Norway, Division for National Accounts): Yes

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Yes

Qatar (Planning and Statistics Authority) (Planning and Statistics Authority): Yes

Romania (National Institute of Statistics / National Bank of Romania) (National Institute of Statistics / National Bank of Romania): Yes

Saudi Arabia (Saudi Central Bank) (Saudi Central Bank): Yes

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): Yes

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): Yes

South Korea (Bank of Korea) (Bank of Korea): Yes

Spain (NATIONAL STATISTICS OFFICE) (NATIONAL STATISTICS OFFICE): Yes

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): Yes

Thailand (Office of the national economic and social development council) (Office of the national economic and social development council): Yes

United Kingdom (UK Statistics Authority) (UK Statistics Authority): Yes

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): Yes

Vietnam (General Statistic Office) (General Statistic Office): Yes

Please elaborate

Canada (Statistics Canada) (Statistics Canada): NFTs that convey no ownership rights and only allow for personal use of another asset

23. NFTs that do not entail any ownership beyond personal use will not qualify as an asset, i.e., these NFTs confer only rights to use or display the asset. These rights are similar to those conferred upon those that purchase other products. For example, the purchase of a luxury handbag allows the owner to use and display the bag on a personal basis, as well as sell it to others for a profit, but not to make copies of the bag for sale to others. In some cases, the asset may have already been placed in the public domain, and so the token confers no special rights upon the owner. Though the NFT owner can resell the NFT, it may not be considered an asset; it would constitute second-hand trade in the same way that a person can resell clothes or books, etc. This type of NFT is therefore not considered an SNA asset because they are not used in production and/or they do not generally represent a reliable store of value. This will only change if the NFT becomes a valuable, which may happen if the NFT has enough exclusivity, authenticity, or other features to give it sufficient market value relative to similar assets without these features. But this is no different from any other (physical) consumer goods that may turn into valuables over time (e.g., stamps) for which a defined treatment already exists (SNA 12.16). In rare cases, some NFTs may meet the definition of a valuable at first sale, especially when they command a high price at auction, implying they may be purchased as a store of value.

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): To what extent limited, given that limited ownership might be recorded as some kind of asset?

Indonesia (Statistics Indonesia) (Statistics Indonesia): This categorization is useful for classifying the type of final use and the type of assets

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): This categorization is useful for classifying the type of final use and the type of assets.

Lebanon (bdl) (bdl): the classification of an NFT differs for different types of NFTs, since it depends on the ownership rights conveyed by these latter.

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): The classification of an NFT varies by type, as it is determined by the ownership rights conveyed by these latter. As a result, some NFTs may not meet the asset boundary.

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): In line with the 2008 SNA definition of an asset.

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): Please elaborate

We consider that categorizations a, b and c are consistent with the following arguments:

- When the author creates and registers the "original work", he does not transfer the rights to any other agent, so his work for whoever acquires it's exclusive for his personal consumption.
- The creator of a work may obtain royalties by permitting the licensing of his work, transferring certain limited ownership rights and; permitting the purchaser to transfer certain limited ownership rights in his work.
- Like any other property, the creator of a work may sell and assign all rights in his work to a buyer.

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Es un depósito de valor que representa un beneficio o una serie de beneficios obtenidos por el propietario económico al poseer o utilizar la entidad durante un período de tiempo.

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): The proposed categorization of NFTs based on the extent of ownership rights conveyed is consistent with the notion of economic ownership of an asset from which the economic owner can derive economic benefits under the SNA. Such a categorization would mean that it is possible to classify certain type of NFTs as assets.

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): Although there are many types of NFTs the above categories according to ownership rights will be sufficient. These are clear distinctions from an economic point of view.

United Kingdom (UK Statistics Authority) (UK Statistics Authority): The UK agrees with the definition but wishes to stress that measuring NFTs will be the challenge.

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): Agree that this is a useful way of conceptualizing NFTs, but do not agree that this categorization fully determines where NFTs should be classified in the economic accounts.

Q1B. Are you aware of any NFTs that may fall into another category?

Q1B	Frequency
Yes	3
No	39
No response	0
Total	42

Aruba (CBS) (CBS): No

Australia (Australian Bureau of Statistics) (Australian Bureau of Statistics): No

Belgium (National Bank of Belgium) (National Bank of Belgium): No

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): No

Canada (Statistics Canada) (Statistics Canada): No

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): No

Finland (Statistics Finland) (Statistics Finland): No

France (NSI) (NSI): No

Germany (Federal Statistical Office) (Federal Statistical Office): No

Guinée (Institut National de la Statistique) (Institut National de la Statistique): No

Indonesia (Statistics Indonesia) (Statistics Indonesia): No

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): No

Israel (Israel's Central Bureau of Statistics) (Israel's Central Bureau of Statistics): No

Latvia (Central Statistical Bureau of Latvia) (Central Statistical Bureau of Latvia): No

Lebanon (bdl) (bdl): No

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): No

Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics Lithuania)): No

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): No

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): No

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): Yes

Norway (Statistics Norway, Division for National Accounts) (Statistics Norway, Division for National Accounts): No

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): No

Qatar (Planning and Statistics Authority) (Planning and Statistics Authority): No

Romania (National Institute of Statistics / National Bank of Romania) (National Institute of Statistics / National Bank of Romania): No

Saudi Arabia (Saudi Central Bank) (Saudi Central Bank): Yes

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): No

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): No

South Korea (Bank of Korea) (Bank of Korea): No

Spain (NATIONAL STATISTICS OFFICE) (NATIONAL STATISTICS OFFICE): No

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): No

Thailand (Office of the national economic and social development council) (Office of the national economic and social development council): No

United Kingdom (UK Statistics Authority) (UK Statistics Authority): No

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): No

Vietnam (General Statistic Office) (General Statistic Office): Yes

Please elaborate

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): Based on the rights conferred upon their owner, all NFTs can be classified into one of three categories.

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): There could be NFT's on "services" outside the production boundary. A possible example is a NFT on not felling a tree sold by the owner of the tree or a NFT on conserving a specific area of rainforest by an environmental NPISH. The NFT allows you to say that you are the one that has saved the tree or a specific part of the rainforest, but you have no ownership rights and there are no produced services that can be consumed. We are not sure whether these kind of NFT's fall into any of the currently defined categories.

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): Limited knowledge on NFTs.

United Kingdom (UK Statistics Authority) (UK Statistics Authority): The UK recognises NFTs as a highly evolving and unregulated field, meaning this SNA chapter could become obsolete very quickly. On that note, there is a concept of a dynamic NFT (dNFT <https://chain.link/education-hub/what-is-dynamic-nft>) which is unclear how it would fit with the categorisation proposed in Question 1A.

Secondly, if cryptos and NFTs become illegal in more countries, how will this affect global testing and consultations? The UK wishes to stress that it is vital that this chapter captures the fast pace of the industry, and we question how a framework could quickly become outdated.

**Q2. a. NFTs that convey no ownership rights and only allow for personal use of another asset:
recorded as consumption**

	Frequency
Yes	39
No	2
No response	1
Total	42

Aruba (CBS) (CBS): Yes

Australia (Australian Bureau of Statistics) (Australian Bureau of Statistics): Yes

Belgium (National Bank of Belgium) (National Bank of Belgium): Yes

**Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of
Geography and Statistics): Yes**

Canada (Statistics Canada) (Statistics Canada): Yes

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): Yes

Finland (Statistics Finland) (Statistics Finland): Yes

France (NSI) (NSI): Yes

Germany (Federal Statistical Office) (Federal Statistical Office): Yes

Guinée (Institut National de la Statistique) (Institut National de la Statistique): Yes

Indonesia (Statistics Indonesia) (Statistics Indonesia): Yes

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): Yes

Israel (Israel's Central Bureau of Statistics) (Israel's Central Bureau of Statistics): Yes

Latvia (Central Statistical Bureau of Latvia) (Central Statistical Bureau of Latvia): Yes

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): Yes

**Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics
Lithuania)): Yes**

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): Yes

**Mexico (INEGI National Institute of Statistics and Geography) (INEGI National
Institute of Statistics and Geography): Yes**

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): Yes

Norway (Statistics Norway, Division for National Accounts) (Statistics Norway, Division for National Accounts): Yes

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Yes

Qatar (Planning and Statistics Authority) (Planning and Statistics Authority): Yes

Romania (National Institute of Statistics / National Bank of Romania) (National Institute of Statistics / National Bank of Romania): Yes

Saudi Arabia (Saudi Central Bank) (Saudi Central Bank): Yes

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): Yes

South Africa (South African Reserve Bank) (South African Reserve Bank): Yes

South Korea (Bank of Korea) (Bank of Korea): Yes

Spain (NATIONAL STATISTICS OFFICE) (NATIONAL STATISTICS OFFICE): Yes

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): Yes

Thailand (Office of the national economic and social development council) (Office of the national economic and social development council): Yes

United Kingdom (UK Statistics Authority) (UK Statistics Authority): Yes

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): No

Vietnam (General Statistic Office) (General Statistic Office): Yes

Please elaborate

Australia (Australian Bureau of Statistics) (Australian Bureau of Statistics): We agree with the recording of these NFTs as outlined in the guidance note, where that are recorded as consumption until the point where they may meet the definition of a valuable, and will then be best recorded as valuables assets.

Belgium (National Bank of Belgium) (National Bank of Belgium): As long as the NFT is not considered as a valuable (P.53)

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): It is possible that most Brazilian NFTs can be classified in this category at the moment.

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): In case of personal use, then the NFT would be classified as consumption. This would be a similar concept to the use of assets/commodities owned by other entity that are also recorded in off-balance sheets of the entity who uses such assets/commodity, and are eventually allocated to expenses over time.

Indonesia (Statistics Indonesia) (Statistics Indonesia): As these NFTs are not used in production, we agree that they are recorded as consumption

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): As these NFTs are not used in production, we agree that they are recorded as consumption.

Lebanon (bdl) (bdl): Yes, these NFTs do not entail any ownership beyond personal so they will not be classified as an asset, rather they confer only rights to use or display the asset. therefore, some of them may be recorded as consumption.

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): These NFTs do not entail any ownership beyond personal so they will not be classified as an asset, rather they confer only rights to use or display the asset. Therefore, some of them may be recorded as consumption.

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): When an author creates some "original work" for market or personal purposes, some kind of resources are used and value is generated in the economy, therefore, its value should be recorded in the national accounts as production and consumption or as GFCF.

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Las NFT que sólo conceden derechos de uso y exhibición personales pueden registrarse como consumo.

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): Agree with the recording as consumption since such NFTs only give owners access to personal use of another asset; that is, no economic benefits can be derived by putting the associated asset to productive use.

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): If no ownership rights and is used it should be recorded as consumption. There is no transfer of ownership. Only the right to use associated asset.

United Kingdom (UK Statistics Authority) (UK Statistics Authority): The UK sees paragraph 23 of the Guidance Note as vague, and in general, wishes to highlight that there is an overt focus on value, which seems misplaced as the value is so volatile, especially as NFTs can hold financial or sentimental value for consumers. The UK is concerned that the vague language in the Guidance Note does not adequately consider the impact on production or the challenge with measurements.

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): Some of these NFTs should be classified as final consumption, but some should be classified as valuables; see response to Q4.

Q2. b. NFTs that convey limited ownership rights, beyond personal use for another asset or commodity: recorded as assets (contracts, licenses, or leases) if the owner can derive economic benefits from these rights (e.g., some form of royalties);

	Frequency
Yes	38
No	3
No response	1
Total	42

Aruba (CBS) (CBS): No

Australia (Australian Bureau of Statistics) (Australian Bureau of Statistics): Yes

Belgium (National Bank of Belgium) (National Bank of Belgium): Yes

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): Yes

Canada (Statistics Canada) (Statistics Canada): Yes

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): Yes

Finland (Statistics Finland) (Statistics Finland): Yes

France (NSI) (NSI): Yes

Germany (Federal Statistical Office) (Federal Statistical Office): No

Guinée (Institut National de la Statistique) (Institut National de la Statistique): Yes

Indonesia (Statistics Indonesia) (Statistics Indonesia): Yes

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): Yes

Israel (Israel's Central Bureau of Statistics) (Israel's Central Bureau of Statistics): Yes

Latvia (Central Statistical Bureau of Latvia) (Central Statistical Bureau of Latvia): Yes

Lebanon (bdl) (bdl): Yes

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): Yes

Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics Lithuania)): Yes

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): Yes

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): Yes

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): Yes

Norway (Statistics Norway, Division for National Accounts) (Statistics Norway, Division for National Accounts): Yes

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Yes

Qatar (Planning and Statistics Authority) (Planning and Statistics Authority): Yes

Romania (National Institute of Statistics / National Bank of Romania) (National Institute of Statistics / National Bank of Romania): Yes

Saudi Arabia (Saudi Central Bank) (Saudi Central Bank): Yes

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): Yes

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): Yes

South Korea (Bank of Korea) (Bank of Korea): Yes

Spain (NATIONAL STATISTICS OFFICE) (NATIONAL STATISTICS OFFICE): Yes

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): Yes

Thailand (Office of the national economic and social development council) (Office of the national economic and social development council): Yes

United Kingdom (UK Statistics Authority) (UK Statistics Authority): Yes

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): No

Vietnam (General Statistic Office) (General Statistic Office): Yes

Please elaborate

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): This will probably be the most difficult category to be measured because of the difficulties in obtaining data and records.

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): With assumption that NTF is related to the assets with an average service life that would allow classification as fixed assets. The question arises, do we already record such assets in the national accounts?

Finland (Statistics Finland) (Statistics Finland): In principle yes but in practice it might be difficult to make distinction between the other two classes and this one.

Germany (Federal Statistical Office) (Federal Statistical Office): The recording of NFTs conveying limited commercial rights is problematic because of the uncertain legal status. As long as the protection of the conveyed rights is not settled and the associated (off-chain) asset can be altered and removed any time, NFTs should not be recorded as assets (see paragraph 25 in the GN).

Indonesia (Statistics Indonesia) (Statistics Indonesia): we agree with this proposal since that type of NFT complies as an asset
Furthermore, as the rights are exclusive, these NFTs should be recorded as contracts, leases, and licenses

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): We agree with this proposal since that type of NFTs comply as an asset. Furthermore, as the rights are exclusive, these NFTs should be recorded as contracts, leases, and licenses.

Lebanon (bdl) (bdl): Yes, since these NFTs convey some commercial or other rights beyond personal use for another asset and therefore should be recorded as a non-produced non-financial asset, distinct from the associated asset or product.

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): These NFTs convey some rights beyond personal use for another asset. Therefore they should be recorded as a non-produced non-financial asset, distinct from the associated asset or product.

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): When a buyer acquires an NFT he gets a "seal of authenticity" from the creator of the work, but the authorship does not change and no copyrights are transferred, that is, only what is allowed is that the buyer can do business with it, but since the rights remain with the original author, and it must receive some kind of benefit.

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Los NFT que transmiten derechos parciales sobre obras de arte o videoclips pueden ser un activo si el propietario puede obtener beneficios económicos de estos derechos (por ejemplo, algún tipo de regalías).

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): Agree, such NFTs fall within the asset boundary as defined within the SNA and are seen

most similar to contracts, leases and licenses because they record specific rights conveyed to the NFT owner.

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): This can be incorporated into the definition of a valuables as defined in 2008 SNA.

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): This proposal is highly theoretical. There might be data on the primary sales of NFT's but the recording of a contract needs a secondary user paying more than the first user which then can benefit. Such information is rarely available in other cases like the letting of dwellings so we do not think data will flourish in this case either.

United Kingdom (UK Statistics Authority) (UK Statistics Authority): The UK wishes to highlight the potential difficulty to obtain value data on ongoing lease/royalty payments, particularly if there is either peer-to-peer or decentralised exchange actions involved. The debate around licenses is based on the economic ownership rights.

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): Likely few of these NFTs should be in contracts, leases and licenses. Some should be recorded as fixed assets, and others should be recorded as valuables or final consumption; see response to Q4.

Q2. c. NFTs that convey full ownership rights for another asset or commodity: should not be separately recorded, assuming that the associated assets or products have already been counted.

	Frequency
Yes	40
No	0
No response	2
Total	42

Aruba (CBS) (CBS): Yes

Australia (Australian Bureau of Statistics) (Australian Bureau of Statistics): Yes

Belgium (National Bank of Belgium) (National Bank of Belgium): Yes

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): Yes

Canada (Statistics Canada) (Statistics Canada): Yes

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): Yes

Finland (Statistics Finland) (Statistics Finland): Yes

France (NSI) (NSI): Yes

Germany (Federal Statistical Office) (Federal Statistical Office): Yes

Guinée (Institut National de la Statistique) (Institut National de la Statistique): Yes

Indonesia (Statistics Indonesia) (Statistics Indonesia): Yes

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): Yes

Israel (Israel's Central Bureau of Statistics) (Israel's Central Bureau of Statistics): Yes

Latvia (Central Statistical Bureau of Latvia) (Central Statistical Bureau of Latvia): Yes

Lebanon (bdl) (bdl): Yes

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): Yes

Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics Lithuania)): Yes

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): Yes

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): Yes

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): Yes

Norway (Statistics Norway, Division for National Accounts) (Statistics Norway, Division for National Accounts): Yes

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Yes

Qatar (Planning and Statistics Authority) (Planning and Statistics Authority): Yes

Romania (National Institute of Statistics / National Bank of Romania) (National Institute of Statistics / National Bank of Romania): Yes

Saudi Arabia (Saudi Central Bank) (Saudi Central Bank): Yes

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): Yes

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): Yes

South Korea (Bank of Korea) (Bank of Korea): Yes

Spain (NATIONAL STATISTICS OFFICE) (NATIONAL STATISTICS OFFICE): Yes

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): Yes

Thailand (Office of the national economic and social development council) (Office of the national economic and social development council): Yes

United Kingdom (UK Statistics Authority) (UK Statistics Authority): Yes

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): Yes

Please elaborate

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): Given the available data sources, a separate recording might be difficult, therefore the assumption holds.

Indonesia (Statistics Indonesia) (Statistics Indonesia): we agree with this statement because it is very difficult to separate the records in practice

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): We agree with this statement because it is very difficult to separate the records in practice.

Lebanon (bdl) (bdl): Yes, since these NFTs are essentially inseparable from the asset and are simply a digital recording of ownership.

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): These NFTs are essentially inseparable from the associated asset that has already been counted and its purchases recorded.

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): We agree that these NFTs have already been recorded as consumption when the author created the original work; therefore, if the author completely transfers all rights to a buyer, these rights are not separated from the work (asset), therefore this transaction should not be recorded as consumption in the national accounts, as it would be double-counted.

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): Yes, however, we are in favor of avoiding the word 'assuming'. If 100% of associated assets or product should already have been counted, we prefer something like '..', because the associated assets or products should already have been counted. If you are from a conceptual point of view unsure if 100% should be already counted (are there really no exceptions?), we prefer something like '..', in the case that associated assets or products should already have been counted'.

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Es importante recordar la distinción entre el NFT y el bien asociado. Si el NFT es un mero registro de la propiedad del bien de valor (similar a la propiedad de una casa y la escritura de la casa), entonces el NFT no

debería contabilizarse como activo porque el activo asociado ya debería contabilizarse en los balances.

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): Agree. such NFTs merely act as digital recording of full ownership (akin to a house deed or event ticket as pointed out in the guidance note) of an associated asset or consumption of service. A separate recording is unnecessary, assuming that the associated assets or products already been counted, as this would result in double-counting.

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): If the associated asset was accounted for separately, it should not be recorded as an asset again. NFTs is just the mechanism to record the asset transfer.

United Kingdom (UK Statistics Authority) (UK Statistics Authority): The UK sees NFTs that meet these criteria as produced non-financial intangible assets in the class of artistic originals.

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): Agree that the digital ledger should not be recorded separately, except as intermediate consumption in the production of the associated asset/product. However, not clear whether the term “NFT” should apply only to the digital ledger; see response to Q4.

Q3. Are you currently undertaking or planning any work to measure and/or include NFTs in the current estimates of the accounts?

	Frequency
Yes, work is planned	5
No	37
No response	0
Total	42

Aruba (CBS) (CBS): No

Australia (Australian Bureau of Statistics) (Australian Bureau of Statistics): No

Belgium (National Bank of Belgium) (National Bank of Belgium): No

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): No

Canada (Statistics Canada) (Statistics Canada): No

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): No

Finland (Statistics Finland) (Statistics Finland): No

France (NSI) (NSI): No

Germany (Federal Statistical Office) (Federal Statistical Office): No

Guinée (Institut National de la Statistique) (Institut National de la Statistique): No

Indonesia (Statistics Indonesia) (Statistics Indonesia): Yes, work is planned

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): Yes, work is planned

Israel (Israel's Central Bureau of Statistics) (Israel's Central Bureau of Statistics): No

Latvia (Central Statistical Bureau of Latvia) (Central Statistical Bureau of Latvia): No

Lebanon (bdl) (bdl): No

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): No

Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics Lithuania)): No

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): No

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): Yes, work is planned

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): No

Norway (Statistics Norway, Division for National Accounts) (Statistics Norway, Division for National Accounts): No

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): No

Qatar (Planning and Statistics Authority) (Planning and Statistics Authority): No

Romania (National Institute of Statistics / National Bank of Romania) (National Institute of Statistics / National Bank of Romania): No

Saudi Arabia (Saudi Central Bank) (Saudi Central Bank): Yes, work is planned

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): No

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): No

South Korea (Bank of Korea) (Bank of Korea): No

Spain (NATIONAL STATISTICS OFFICE) (NATIONAL STATISTICS OFFICE): No

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): No

Thailand (Office of the national economic and social development council) (Office of the national economic and social development council): Yes, work is planned

United Kingdom (UK Statistics Authority) (UK Statistics Authority): No

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): No

Vietnam (General Statistic Office) (General Statistic Office): No

Please elaborate

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): First it will be necessary to measure Brazilian market size in respect to NFTs and to know which categories prevail. Besides, it will be necessary to talk to other government institutions about the subject. We are still prospecting existing studies and models as well as the existing data source. Finally, we are expecting to know more about other countries' experiences.

Canada (Statistics Canada) (Statistics Canada): Statistics Canada is currently working on examining capturing valuables on the balance sheet, but was not ready to investigate NFTs as part of this exercise.

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): Very interesting subject, but due to resources and current priorities, we are unable to proceed with inclusion or separation of NFTs.

Indonesia (Statistics Indonesia) (Statistics Indonesia): We still need to review the concepts/literature and learn about NFTs business processes so we can further identify the possible data sources.

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): We still need to review the concepts/literature and learn about NFT business processes. We are also going to identify possible data sources.

Lebanon (bdl) (bdl): out of our scope of work

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): Out of our scope of work.

Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics Lithuania)): Although interest in NFT has been growing in Lithuania in recent years, but overall engagement is still very low and those, who are interested, still lack awareness of what NFT are used for. That is why NFT measurement works would give negligible results. It is also a question of resources, methodology and data sources.

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): There are challenges and issues in understanding the classification and the best way to record and measure the NFTs.

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): There is a need to generate this type of information in a medium-term horizon, since it is subject to the availability of information sources such as censuses, surveys and administrative records, which at the moment do not observe this kind of assets and transactions.

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): Se tendría que evaluar los beneficios y costos de producir estas medidas frente a otras prioridades.

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics): Currently, there are resource constraints to undertake this work to measure NFTs.

South Africa (Soth African Reserve Bank) (Soth African Reserve Bank): We are not aware of NFTs being traded on any scale in the country and we do not have any sources of information.

Spain (NATIONAL STATISTICS OFFICE) (NATIONAL STATISTICS OFFICE): Currently we cannot develop this field of research on NFTs due to lack of personnel and resources in National Accounts Department.

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): The main problem with NFT's is the lack of data. This is an area that so far has not been explored and integrated in current surveys on household expenditures or administrative records. When payments of NFT's are made by the use of crypto currencies the possibility of capturing these transfers in economic records is low. There might also be some reluctance from owners of NFT to give full information of their ownership and purchase price of the NFT's.

United Kingdom (UK Statistics Authority) (UK Statistics Authority): The UK considers other issues to be of higher priority, but we recognise that this framework is needed to ensure we are best placed internationally to capture this emerging field.

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): We recognize the need to measure NFTs and intend to move in that direction, but we don't yet have any specific plans for doing so.

Q4. Do you have any other comments on this guidance note?

	Frequency
Yes	11
No	30
No response	1

Total	42
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Aruba (CBS) (CBS): No

Belgium (National Bank of Belgium) (National Bank of Belgium): No

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): No

Canada (Statistics Canada) (Statistics Canada): Yes

Croatia (Croatian Bureau of Statistics) (Croatian Bureau of Statistics): No

Finland (Statistics Finland) (Statistics Finland): No

France (NSI) (NSI): No

Germany (Federal Statistical Office) (Federal Statistical Office): Yes

Guinée (Institut National de la Statistique) (Institut National de la Statistique): No

Indonesia (Statistics Indonesia) (Statistics Indonesia): No

Indonesia (Badan Pusat Statistik) (Badan Pusat Statistik): No

Israel (Israel's Central Bureau of Statistics) (Israel's Central Bureau of Statistics): No

Latvia (Central Statistical Bureau of Latvia) (Central Statistical Bureau of Latvia): No

Lebanon (bdl) (bdl): No

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): No

Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics Lithuania)): Yes

Malaysia (Department of Statistics Malaysia) (Department of Statistics Malaysia): No

Mexico (INEGI National Institute of Statistics and Geography) (INEGI National Institute of Statistics and Geography): No

Nederland (Statistics Netherlands (also on behalf of the Dutch Central Bank)) (Statistics Netherlands (also on behalf of the Dutch Central Bank)): No

Norway (Statistics Norway, Division for National Accounts) (Statistics Norway, Division for National Accounts): Yes

Peru (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA) (INSTITUTO NACIONAL DE ESTADÍSTICAS E INFORMÁTICA): No

Qatar (Planning and Statistics Authority) (Planning and Statistics Authority): No

Romania (National Institute of Statistics / National Bank of Romania) (National Institute of Statistics / National Bank of Romania): No

Saudi Arabia (Saudi Central Bank) (Saudi Central Bank): No

Singapore (Singapore Department of Statistics) (Singapore Department of Statistics):
No

South Africa (South African Reserve Bank) (South African Reserve Bank): No

South Korea (Bank of Korea) (Bank of Korea): Yes

Spain (NATIONAL STATISTICS OFFICE) (NATIONAL STATISTICS OFFICE): No

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): Yes

Thailand (Office of the national economic and social development council) (Office of the national economic and social development council): No

United Kingdom (UK Statistics Authority) (UK Statistics Authority): No

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): Yes

Vietnam (General Statistic Office) (General Statistic Office): No

Please elaborate

Australia (Australian Bureau of Statistics) (Australian Bureau of Statistics): The only comment we have is that more and clearer examples of the three categories of NFTs would be helpful. There is still a lot of confusion around what NFTs are and subsequently how they should be recorded.

We also note that the difficulties in recording and the limited source data available, especially country details, would make it very difficult to include NFTs in the Australian accounts.

Brazil (Brazilian Institute of Geography and Statistics) (Brazilian Institute of Geography and Statistics): We are expecting to know and observe the international experience.

Canada (Statistics Canada) (Statistics Canada): Regarding the treatment of NFTs that convey no ownership rights and only allow for personal use of another asset: We just wanted to highlight that in the Canadian balance sheet we do delineate consumer durables (consumer goods with a service life that exceed 1 year) as part of household wealth. The SNA does mention that this can be shown as a memo item and for the Canadian experience, this inclusion is justified given the potential impact on household perceptions of wealth and how these perceptions may influence behaviour (i.e., future spending) As such, we would be

curious if NFTs (that convey no ownership rights) meet this service life threshold as they may still represent significant market value assets from a household perspective like consumer durables. However, would NFTs not classified as valuables be sufficiently different from consumer non-durables to treat any differently than just valuables, but with a lower value?

France (NSI) (NSI): This GN is very informative on a complex phenomena

Germany (Federal Statistical Office) (Federal Statistical Office): While we welcome guidance concerning the recording of crypto assets, we think that the inclusion of NFTs in the SNA might be premature. Commercial applications of NFT technology beyond digital art are still rare and unclear. The majority of NFT trade volume concerns digital art and, given proper rights can be established, should already be covered under “Contracts, leases and licenses”. Further guidance might be appropriate once more commercial applications of the underlying technology become apparent.

Lebanon (Central Bank of Lebanon) (Central Bank of Lebanon): None

Lithuania (State Data Agency (Statistics Lithuania)) (State Data Agency (Statistics Lithuania)): In the context of NFT growth, it would be useful to address the issues of NFT measurement methodology and to consider data sources.

Norway (Statistics Norway, Division for National Accounts) (Statistics Norway, Division for National Accounts): NFTs could turn out to be a relatively marginal, and short lived phenomenon. As such, it might not be necessary to accommodate in the SNA. However, it could be interesting to follow the development of NFTs, especially in countries where there is a large volume of NFTs.

South Korea (Bank of Korea) (Bank of Korea): As NFT-related technologies are developing very rapidly, discussions on classification of NFT in the national account need to continue in the future.

Sweden (Statistics Sweden, NSI) (Statistics Sweden, NSI): Regarding valuation in general and of NFT's in particular the concept of replacement cost is important. The replacement cost is the price that would make a producer sell another unit. Since NFT's are highly heterogenous and the market for a particular NFT's is thin, there rarely exists any market valuation nor will it be possible to create a general price index for NFT's. So, the possibility left is to look for changes in the production costs and it is precisely this which motivates the use of the replacement costs concept. The GN does not address the issue of prices and volumes.

United States (Bureau of Economic Analysis) (Bureau of Economic Analysis): Upon further reflection during the global consultation period, BEA has identified new concerns and offers modifications to the guidance proposed for the treatment of NFTs.

The guidance note is not clear about whether an NFT is viewed narrowly as representing

only an entry in a digital ledger that records information, or whether it can be viewed more broadly as encompassing the rights or other products it conveys. The GN addresses this implicitly throughout the discussion, but it is answered differently in different cases. It would be useful upfront to address the considerations that go into answering this question and to explain, if it is indeed the case, why we might want to answer the question one way for certain cases and differently for others.

Without clarification as to why “NFT” should be interpreted narrowly in some cases and broadly in others, we recommend that this term be used consistently throughout the GN. If it is used broadly throughout the GN then the discussion related to type 3 NFTs should avoid asserting that NFT is “simply a digital recording of ownership.” Rather it is both the full ownership of the associated asset and the digital record.

Under the broad view, the discussion in the GN for type 1 and type 2 NFTs is appropriately structured around the rights to use an asset or other product, and it correctly notes that these rights are not the same as the underlying asset. These rights may themselves constitute an asset that is distinct from the underlying asset, and the GN appropriately raises the question of whether these rights fall within the asset boundary. For type 2 NFTs, the GN suggests they constitute assets similar to contracts, leases and licenses. However, we think that the more typical classification might be to that of rights to use intellectual property, as discussed in SNA 10.100. Instead of being classified as a non-produced asset, they would usually be classified as a (produced) fixed asset. The example case of an NFT conveying some commercial rights to digital artwork (e.g., CryptoPunks) does not seem to fit the criteria for classification as any type of contract, lease, or license. Instead, this example NFT could be viewed as an arrangement that grants rights to an asset or product that is used in production. However, it is possible that another NFT could resemble one of the contract, leases and licenses categories if, e.g., oil and gas exploration leases or taxi licenses were sold via NFTs.

We do not necessarily agree that type 1 NFTs can only become a valuable over time (paragraph 23, 32); there are other valuables that do not take time to become valuables (e.g., precious metals, gemstones). When the initial sale of an NFT is in the millions of dollars, that seems to indicate it was purchased as a valuable. Note that SNA 12.1-16 is part of a section discussing how assets enter the balance sheet by means other than transactions, which is not the typical way assets enter the balance sheet. Also, on the topic of valuables, the BPM and SNA define valuables as “goods,” which appears to limit the scope of valuables to physical objects. The definition of valuables should then be expanded to include intangible assets like digital artwork. (We recommend the expansion of the definition of valuables regardless of whether NFTs are viewed narrowly or broadly.)

If NFTs are viewed as broadly encompassing the rights/products they convey, we suggest the classification recommendation could be slightly modified as follows:

- 1) NFTs that convey no ownership rights and only grant personal use and display rights
 - a) Many of these NFTs may be recorded as consumption
 - b) Over time, some of the NFTs initially recorded as consumption may gain more features of valuables and may transform into a valuable through methods already established in the SNA
 - c) If an NFT appears to be held as a store of value at first purchase, record the NFT, indistinguishably from the rights to use it conveys, as a valuable

- 2) NFTs that convey limited ownership rights, beyond personal use for another asset or commodity
 - a) If the rights primarily create monopoly profits that are used in production for more than a year, record the NFT, indistinguishably with the rights it conveys but distinctly from the associated asset or product, as investment in an intellectual property asset (see SNA 10.100)
 - b) If the rights are used in production for less than a year, record the NFT, indistinguishably with the rights it conveys but distinctly from the associated asset or product, as a service used in intermediate consumption
 - c) If the rights to an asset or product meet the definition of a contract, lease, or license, record the NFT, indistinguishably with the rights it conveys but distinctly from the associated asset or product, as a non-produced nonfinancial asset under contracts, leases, and licenses
 - d) If the rights are not used in production and do not meet the definition of a contract, lease, or license, record the NFT in the same manner as a type 1 NFT

- 3) NFTs that convey full ownership rights for another asset or commodity
 - a) Drop the language on “simply a digital recording of ownership,” but otherwise no change.

The rights conveyed by various NFTs may not be as clear as presented in the classification recommendations, as already expressed in the GN. We agree that some judgement may be required in classifying NFTs and their associated rights, assets, and products and that NFTs may be the only record of transactions that may not be captured by current data methods.

Alternatively, if NFTs are to be viewed narrowly throughout the GN as representing only the digital ledger and the information it records, then the minting of all NFTs could be classified as an intermediate input (i.e., intermediate consumption) into the associated final asset or product. This would be analogous to having an artist purchase a physical certificate of authenticity to package with the sale of her physical painting. In both cases, although the intermediate input can be conceptually distinguished from other inputs (particularly the associated asset or product), it becomes part of the complete package of the final product. The use of NFTs can then be interpreted as the use of a new information technology product to record ownership and transfer the associated assets and products. These associated assets and products do not need to be classified by the GN because they should have an

existing treatment in the SNA. Users access this IT product by paying transaction fees to mint and trade NFTs. But NFTs are still relevant for economic accountants to the extent that they record ownership and transfers of assets or products that may not be measured or captured by current data collection methods.

Separately from the narrow/broad question, we also recommend that the GN address how transaction fees associated with NFTs should be treated. These transaction fees could be payments/receipts for transaction verification services as in the fungible crypto assets guidance note, which in some cases might be treated as acquisition costs or transaction fees for an asset (see SNA 10.48-10.52 for the treatment of acquisition costs of fixed assets)—either the right-to use asset or the underlying asset itself, depending the NFT category (1, 2, or 3).