Economic Commission for Europe
Conference of European Statisticians

Group of Experts on National Accounts

Twenty-third session
Geneva, 23-25 April 2024

Item 2 (b) of the provisional agenda
Towards the 2025 System of National Accounts:
Measuring intangible assets and natural capital in 2025 System of National Accounts

Measuring intangible assets in the Spanish economy -
Marketing assets

Prepared by National Statistical Institute of Spain ¹

Summary

Growth and productivity analysis models based on production factors (labour and capital) require the incorporation of all existing forms of capital, both tangible and intangible, which underscores the interest in such estimations. Intangible assets are well identified in economic literature. An essential subset of intangible assets resides within marketing products, encompassing brand names, trademarks, logos and digital domains. While the recommendation to recognize marketing assets as produced assets was not agreed for inclusion in the sequence of economic accounts in the 2025 System of National Accounts, the countries with significant marketing assets are encouraged to compile extended accounts with marketing assets treated as produced assets in order to facilitate further research and analytical purposes.

National Statistical Institute of Spain has taken proactive strides in this respect. The ongoing research delves into exploring diverse sources and estimation methodologies to quantify the flows and stocks associated with these intangible assets. This initiative aims to develop implementation protocols that can effectively provide estimates of marketing assets. This paper presents the project's status, investigated sources and methods, initial preliminary results, and future lines of action.

¹ Prepared by Sixto Muriel, Juan Cervigón and Teresa Ortiz, National Statistical Institute (INE) of Spain.
I. Background – Theoretical and conceptual framework

1. Marketing assets are a relevant part of the globalized economy. Companies invest large amounts of money to communicate to their potential customers ideas or concepts associated with their products that make them more attractive to differentiate themselves from the competition and increase their profits, either through an increase in unit margins, an increase of sales volume or a combination of both. Large multinational groups compete in international markets by making significant investments in marketing assets to advertise their products, differentiate them from other competitors, incorporate intangible value for the consumer and increase sales margins.

2. To do this, companies plan medium and long-term marketing strategies, which involve significant investments. The marketing products that result from these collect the commercial value of a company or a name.

3. Companies also try to protect their commercial position by registering their trade names and logos to ensure that no one can use them and therefore exclusivity in obtaining the benefits derived from investments in marketing assets.

4. It is relevant to note that the time horizon of use of these marketing products clearly exceeds one year. Brands, logos, and web domains are used and provide marketing services to companies for long periods of time, although it is true that they require permanent reinforcement so that potential customers maintain their memory effectively.

5. Therefore, marketing products meet the normally accepted criteria to qualify them as assets themselves: in national accounts terms, it is true that (i) a productive unit must make the decision to undertake the expenditure to produce the asset; (ii) there is a clear owner of the asset with exclusive rights of use; (iii) the asset provides capital services in the production chain of goods or services (2008 SNA 10.8 and 10.9.a).

6. However, marketing assets present some difficulties in their effective accounting as produced assets. These difficulties take shape in three aspects: the valuation of the asset, the consumption of the asset in the production process (and therefore the duration of the asset) and the volume of the stock (price index). To overcome such difficulties is necessary a common guidance for countries to evaluate marketing assets.

II. Marketing assets in the national accounts system

7. No common guidance exists for measuring marketing assets. Perhaps for this reason, until now it has been decided not to count marketing assets as produced assets in the system of national accounts. For it to be possible to account for marketing assets, it is necessary to establish a reasonable system shared by countries, sustainable over time and commonly used by all economies with the aim of maintaining the comparability of data between countries and over time.

8. Both the System of National Accounts (SNA 2008)\(^2\) - and, therefore, the European System of National and Regional Accounts 2010 (ESA 2010)\(^3\) - and the current Balance of Payments and International Investment Position Manual (BPM6)\(^4\) coincide in classifying marketing assets as non-financial non-produced assets. For this reason, currently, investments in marketing assets made by companies are not counted in the capital account as gross fixed capital formation in the national accounts, but as intermediate consumption.

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\(^3\) https://www.boe.es/doue/2013/174/L00001-00727.pdf
9. Marketing assets are intangible assets. The 2008 SNA, unlike the 1993 SNA, also chooses not to define the category of intangible assets (SNA 10.67, A3.50 and A3.52.d)\(^5\).

10. Firstly, in the current standard, an asset is defined as “a store of value that generates a benefit or a series of benefits accruing to its economic owner from its possession or use during a period. It is a means that allows value to be transferred from one accounting period to another” (SNA 10.8).

11. Subsequently, assets are classified as financial and non-financial. Within non-financial assets, produced assets are those that have their origin as products of production processes included within the production boundary; and non-produced are those that have their origin in ways other than production (SNA 10.9).

12. In turn, non-financial assets produced are subdivided into (i) fixed assets, which are used repeatedly or continuously in production processes for more than one year, (ii) stocks of production intended for sale and (iii) valuable objects that are characterized more as a store of value than as productive capital (jewellery, works of art, precious stones and metals, etc.) (SNA 10.10).

13. The category of fixed assets includes all tangible assets (buildings, infrastructure, machinery, etc.), as well as the following intangible assets, referred to in the manual as intellectual property products (SNA 10.98):
   - Software and databases.
   - R&D.
   - Mining exploration and evaluation.
   - Original for recreation, literary or artistic.

14. The SNA 2008 does not recognize any other intangible assets as fixed assets.

15. On the other hand, non-produced non-financial assets are classified into three categories (SNA 10.14):
   - Natural resources.
   - Contracts, leases and licenses.
   - Goodwill and marketing assets.

16. In particular, marketing assets “consist of items such as brand names, mastheads, trademarks, logos, and domain names. A brand can be interpreted as far more than just a corporate name or logo. It is the overall impression a customer or potential customer gains from their experience with the company and its products.” SNA (10.198)

17. These assets are only recorded when a sale or purchase of a company or one of those assets takes place (SNA 10.17)\(^6\). That is, marketing assets are recorded in the system of accounts either when a company is purchased and sold, together with the goodwill, and for a value equal to the difference between the price paid and the value of the assets, less the

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\(^5\) 10.67 The SNA does not formally include a division between tangible and intangible assets in the classification.

A3.50 In relation to the classification of assets, the 2008 SNA, like its predecessor, differentiates non-financial assets and financial assets/liabilities at the first level of classification. In non-financial assets, it distinguishes between produced and non-produced assets. In the classification of produced and non-produced assets, there is no longer a distinction between tangible and intangible assets. In the 2008 SNA, non-produced assets are subdivided into three categories: natural resources; contracts, leases and licenses; and purchase and sale of goodwill and commercial assets.

A3.52.d The expression “intangible fixed assets” is modified by “intellectual property products”. The word “products” is included to specify that it does not include third-party rights that are non-produced assets in the SNA.

\(^6\) 10.17 Goodwill and marketing assets represent all or part of the net value of an institutional unit. It is only recorded when a unit is acquired in its entirety or when an identifiable marketing asset is sold to another unit.
company’s liabilities, or when a sale of one of these marketing products occurs, valued at the purchase and sale price of the asset. Although their accounting can be relatively complex, the registration of this type of operations does not affect, with the current standard, any aggregate of the current accounts. It is recorded directly in the accumulation accounts as non-produced assets. (SNA 12.33).

18. That is, in the case of the sale and purchase of a company, the joint value of the goodwill and the marketing assets are calculated as a residual that, in addition, fulfills the function of absorbing the difference between the paid value and the net value of the company. If the marketing asset is the subject of an isolated sale, identical accounting treatment is provided (SNA 12.35).

19. The moment of registration of these flows is the moment of sale (SNA 12.34).

20. The 2008 SNA does not recognize the existence of any other type of intangible assets such as product design assets, specific training, or business organization.

21. However, it is not difficult to theoretically justify that marketing assets (or even the rest of the intangible assets) are fixed produced assets in the national accounts framework.
   - They meet all the required characteristics to be a produced non-financial asset (SNA 10.8 and 10.9): it is a store of value, it generates benefits for its owner, and it is a product of a production process.
   - Additionally, the asset is used repeatedly in the production process.

22. In short, there seems to be no theoretical reason not to consider marketing assets as fixed assets. In fact, the 2008 SNA itself explicitly recognizes that the difficulty of economically valuing marketing assets is the main reason for not having considered them, until now, as produced assets (2008 SNA, A4.53).

23. That is the vision that has motivated the discussion on the statistical recording of marketing assets in the research agenda of the SNA and the BPM, within which framework, the Globalization Group of the Intersecretariat Working Group of National Accounts (ISWGNA)\(^7\) has prepared the document G.9 Payments for Unproduced Knowledge-Based Capital (Marketing Assets)\(^8\), which analyses the registration of marketing assets in national accounts systems and balance of payments statistics. This document concludes by recommending the registration of marketing assets as non-financial produced assets and analysing the practical viability of said accounting principle.

24. It is true, however, that the lack of a clear, consensual, and shared guide for the valuation of the marketing assets produced can cause different countries to use different criteria for valuation, which would blur the comparisons between economies. It could even happen that the same country modified its valuation method, which would make it difficult to analyse the evolution of this type of assets. To avoid this risk, it has been decided, until now, not to value the production of marketing assets. In this way, although the investment figures in intangibles are biased, the bias that occurs is systematic and is not subject to subjective valuation criteria.

25. Therefore, the development of a consensual, robust, and practical methodology is one of the necessary conditions to begin to consider marketing assets as produced assets. This is what this paper begin to address for the Spanish economy.

### III. Sources and methods

26. There are different types of economic operations associated with the production and use of marketing assets. To reflect all these flows in the system of accounts, it is necessary

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\(^7\) The ISWGNA is a working group on National Accounts created by the United Nations Statistical Commission (UNSC) in which the European Commission, the International Monetary Fund, the OECD, the United Nations and the World Bank participate. [https://unstats.un.org/unsd/nationalaccount/iswgna.asp](https://unstats.un.org/unsd/nationalaccount/iswgna.asp)

\(^8\) [https://unstats.un.org/unsd/nationalaccount/aeg/2022/M18/M18_10_G9.pdf](https://unstats.un.org/unsd/nationalaccount/aeg/2022/M18/M18_10_G9.pdf)
to define the corresponding criteria for classifying these assets and valuing these operations. In particular, if we effectively consider these types of products as produced assets:

1) The creation of a marketing asset, that is, expenses incurred by a company to create a marketing asset on its own will be recorded as own-account production (P.12), of the company. From the use perspective, it will be recorded also within the company’s gross fixed capital formation (P.51).

2) The purchase and sale of marketing assets, that is, the transfer of all rights and obligations of the asset from one unit to another in exchange for a price will be recorded as gross fixed capital formation (P.51) too (acquisitions/disposals of fixed assets).

27. This paper focuses on testing a method for providing estimates on the total output (and investment) of marketing assets, considering both the own-account production and the acquisition of marketing assets in the market. The work of Carol A. Corrado, Charles R. Hulten and Daniel E. Sichel (CHS 2005) has become a central reference and a conceptual framework for measuring intangibles, in general, that has been assumed by most subsequent studies.

28. This reference proposes the most widely used method for estimating investment in intangibles and, in particular, marketing assets. It is based on a valuation by sum of cost for the own account production/gross fixed capital formation (1) and the application of a capitalization factor (CF) to the total purchases of marketing products by market producers to obtain the value to be capitalized (2).

29. In this method, double-counting as investment of marketing production sold in the market should be avoided. To achieve this, not all the purchases of such products by producers primarily dedicated to production of this kind of products should be considered as investment (CF should be reduced in that branch of activity).

A. Own-account production

30. Generally, in specialized literature, all estimates of marketing expenditure by own account are obtained by summing costs, which is consistent with the method commonly used in national accounts to estimate other flows that are not exchanged in the market, like expenditure on own-account development of R&D or software. This is also the approach followed in this work.

31. From this perspective, the value of own-account production would be equal to the labour costs (compensation of employees) of personnel engaged in marketing production (CE), plus the current expenditure on inputs (intermediate consumption) used in such production (IC), plus the depreciation of the produced asset (consumption of fixed capital) (CFC) and plus other taxes less subsidies on production.9

32. Estimates on the first component (CE) are carried out by identifying, within each branch of activity, the number of workers involved in those activities, the wage cost of these occupations (in terms of compensation of employees, i.e., including wages, in cash and in kind, and employer social contributions) and the percentage of time they dedicate to these activities. At national level, two statistical sources, compiled by National Statistical Institute (INE) of Spain, are highly relevant for the development of such estimates:

• The Structure of Earnings Survey (Encuesta de Estructura Salarial, SES), which provides information on the wage cost of occupations at detailed level of the National Classification of Occupations (CNO 2011)10.

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9 One could argue for the inclusion of a profit margin. However, we have omitted the profit margin to maintain consistency with the methodologies referenced in the bibliography, as EUKLEMS & INTANProd. Anyway, should we opt for a 10% profit margin, we can allocate additional time to the production of marketing assets to 16.5% (=15%+1.5%) and to 55% (=50%+5%) for directors and technicians respectively.

10 National adaptation of the International Standard Classification of Occupations (ISCO-08).
• The Labour Force Survey (Encuesta de Población Activa, LFS), which provides information on the number of jobs per occupation and branch of activity, also at detailed level of the CNO 2011 and of the National Classification of Activities (CNAE 2009)\(^{11}\).

33. In a base scenario calculation, various three-digit CNO occupations are considered to account professionals involved in the production processes of marketing products/services:

- **Sales, Marketing and Development Managers** CNO 122\(^{12}\).
- **Sales, Marketing and Public Relations Professionals** (CNO 265 and CNO 264)\(^{13}\).
- Other occupations, which include: **Visual artists** (CNO 293\(^{14}\)), **Draughtspersons** (CNO 311\(^{15}\)), **Telecommunications and broadcasting technicians** (CNO 383\(^{16}\)) and **Printing trades workers** (CNO 762\(^{17}\)).

34. The percentage of their workday that these professionals dedicate to internal marketing development within the company are based on different business organization studies and consistent with the assumptions made in the methodological references\(^{18}\): in the base scenario, 15% in the case of CNO 122 , 50% in the case of CNO 265 and 264, and 5% in the case of the other occupations considered.

35. Thus, the procedure for estimating personnel expenditure would consist of:

- Multiplying the average wage costs in each branch of activity, as gathered by the SES survey, by the number of employees (categorized by their employment status: self-employed workers, employees, and a combination of both) in those occupation, as gathered by the LFS survey, and by the percentage of time dedicated to the aforementioned activities. The salary of self-employed workers has been equated with that of employed workers.

- Calibrating the result to the concept of compensation of employees in terms of national accounts by applying, in each branch of activity, a correction factor defined as the ratio between the compensation of employees for marketing and the total wage cost in each industry according to the available National Accounts data.

36. Additionally, the remaining cost components (intermediate consumption, depreciation and taxes) will be estimated assuming a proportional distribution of cost related to marketing activities similar to that of labour expenditure in each industry, based on the available national accounts figures for the reference year (2021).

B. **Marketing purchases**

37. The expenditure on marketing asset acquisitions can be identified in the available Supply and Use Tables of the National Accounts. Under SNA 2008, it corresponds to the intermediate consumption of advertising services and market research (CPA\(^{19}\) 73) in each branch of activity. The method for estimating such expenses would remain the same as that already employed in the current series of the national accounts.

38. These purchases will be multiplied by the CF in each industry. In the base scenario, the CF is set at 0.6, except in the case of the advertising services and market research industry, where a reduced CF is considered (0.3). This adjustment prevents double counting

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\(^{11}\) This is consistent with European Classification of Economic Activities (NACE Rev.2), that in turn follow the recommendations adopted by the United Nations Statistical Commission embodied in the current International Standard Industrial Classification (ISIC Rev.4).

\(^{12}\) ISCO 122.

\(^{13}\) ISCO 243.

\(^{14}\) ISCO 2651.

\(^{15}\) ISCO 3118.

\(^{16}\) ISCO 352.

\(^{17}\) ISCO 732.

\(^{18}\) EUKLEMS & INTANProd.

\(^{19}\) Classification of Products by Activity.
as investment of purchased marketing products that are subsequently resold in the market. “Capitalization factors do not vary across industries, except for the industry producing the corresponding asset, where capitalization factors are reduced to reflect estimates of the industry own use, i.e., subcontracting activity within the industry” (Bontadin 2023).

IV. Experimental data

A. Base scenario

The table below displays calculations that underpin the base scenario of marketing asset production and investment in the Spanish economy for the reference year 2021:

<table>
<thead>
<tr>
<th>Year 2021</th>
<th>Total expenses</th>
<th>Compensation of employees (million euros)</th>
<th>Marketing purchases (million euros)</th>
<th>Marketing assets wage cost (million euros)</th>
<th>National intermediate consumption (million euros)</th>
<th>Other taxes less subsidies on production (million euros)</th>
<th>Consumption of fixed capital</th>
<th>Other expenses, total (million euros)</th>
<th>Other capitalized marketing expenses (million euros)</th>
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B. Sensitivity analysis

40. Building upon this scenario, we have conducted a sensitivity analysis that encompasses a 'low scenario' and a 'high scenario,' incorporating more constrained and expansive hypotheses, respectively.

41. In the sensitivity analysis, the variables considered include the percentage of time attributed to 'Other occupations', the occupational status (limited to 'Employees' in the 'low scenario' and expanded to 'Total', including both employees and self-employed people in the 'base' and in the 'high' scenarios), and the capitalization factor (CF), with the following thresholds:

<table>
<thead>
<tr>
<th>SCENARIO DEFINITION</th>
<th>BASE</th>
<th>HIGH</th>
<th>LOW</th>
</tr>
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<tbody>
<tr>
<td>EOS-22 % time</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
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<tr>
<td>EOS-22 % time</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
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<tr>
<td>Other occupations</td>
<td>5%</td>
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<td>0%</td>
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<td>Other occupations</td>
<td>CNO 293 - 311 - 383 - 762</td>
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<tr>
<td>Occupational status</td>
<td>Total Employee</td>
<td>Total Employee</td>
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<tr>
<td>Capitalization factor</td>
<td>60%</td>
<td>70%</td>
<td>50%</td>
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</table>

42. In the 'Low scenario', 'Other occupations' are excluded, and only employed workers are taken into account. Moreover, the CF applied across all industries is 0.5, except for the advertising services and market research industry, where it remains at 0.3.
### Production/gross fixed capital formation on marketing assets

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic assets</th>
<th>Exports</th>
<th>Total</th>
<th>Domestic plus exports</th>
<th>Marketing sector</th>
<th>Non-marketing sector</th>
<th>Total</th>
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<tr>
<td>2022</td>
<td>2,254,510</td>
<td>872</td>
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<td>1,174</td>
<td>1,167</td>
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#### Notes
- The 'Other occupations' allocate 15% of the workforce to internal marketing development. Additionally, both self-employed and employed workers are assessed, with a CF of 0.7 applied across all industries, except for the advertising services and market research industry, where it remains at 0.3.

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#### Notes
- The 'Other occupations' allocate 15% of the workforce to internal marketing development. Additionally, both self-employed and employed workers are assessed, with a CF of 0.7 applied across all industries, except for the advertising services and market research industry, where it remains at 0.3.
IV. Conclusions and next steps

45. The need to keep the System of National Accounts relevant for its broad range of users is clearly shared by all the statistical community. Better reflecting in the ‘core’ national accounts the important elements related to globalisation, digitalisation and environmental sustainability that are recommended to be included in the updated version of the System of National Accounts goes in that direction.

46. In particular, the measurement of intangibles within the economy holds critical importance as it reflects the value of intellectual property, innovation, and brand equity that traditional metrics may overlook. As the global economy evolves, the role of intangible assets becomes increasingly pivotal in driving growth, competitiveness, and productivity. Recognizing and accurately valuing these assets can provide a more comprehensive understanding of a country's economic health and potential for future development. This underscores the need for evolving economic models and accounting frameworks that can capture the full spectrum of value creation in the modern economy. Thus, this is an emerging challenge for official statistics and the systems of national accounts that should not be disregarded.
47. However, the practical challenges involved in quantifying the value of intangible assets often pose a risk to international and temporal comparability. Estimates rely on various assumptions regarding associated flows and stocks, mirroring challenges faced with other intangible assets such as R&D and software. The sensitivity analysis conducted in this experimental study on marketing assets underscores this uncertainty. To address this, precise, standardized, and timely guidance is crucial for refining these estimates, both at the European and global levels, to ensure the comparability of national accounts data over time.

48. Meanwhile, INE-Spain will further explore sources and methodologies for measuring marketing assets through the following steps:

- Exploring a more accurate definition of marketing products within the scope of the advertising services and market research (CPA 73).
- Evaluating potential instances of double counting within marketing and R&D activities.
- Assessing the implications of incorporating a profit margin into the 'sum of cost' valuation of own-account marketing, along with other potential components of this valuation, in light of the suggested new SNA principles regarding the sum of costs.
- Replicating these calculations for additional reference years to analyze the robustness of resulting investment series in terms of volatility induced by primary sources.
- Estimating deflators and subsequent series in volume terms.
- Calculating balance positions and deriving consumption of fixed capital estimates, based on the Permanent Inventory Method generally adopted in the national accounts framework. This process will involve establishing new hypotheses regarding depreciation parameters particularly referred to marketing assets.
- Developing compilation strategies for integrating marketing estimates within non-market or financial activities accounts.
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