



Discussion paper

Investment in marketing assets in the Netherlands

Experimental estimates

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Summary

This paper presents experimental estimates of investment in marketing assets for the Netherlands, following the international guidance on measuring marketing assets. Although marketing assets are not recognized as produced assets in the core national accounts, SNA 2025 encourages countries to compile extended accounts to explore their measurement. The objective of this study is therefore to assess whether investment in marketing assets can be measured systematically and reliably using existing Dutch statistical sources.

The report develops a methodology that distinguishes between purchased and own-account marketing production. Purchased marketing services are estimated using supply and use data and are adjusted to identify the long-term, investment-related component of advertising and marketing expenditure. Own-account production is estimated from occupational employment and wage data using a competence-based approach, supplemented with assumptions on time use, investment shares and production costs. Appropriate price indices are applied to derive constant-price estimates.

The experimental estimates indicate that investment in marketing assets amounted to EUR 15.7 billion in 2024, representing 25.8 percent of total intangible investment and around 1.2–1.4 percent of GDP. Marketing assets therefore constitute a substantial component of the Dutch intangible capital stock, although their inclusion has only a modest effect on annual GDP growth because much of the expenditure is already recorded as intermediate consumption. The results also show that both purchased and own-account marketing investment have grown strongly in volume since 2013.

The paper concludes that measuring marketing assets is feasible using existing statistical infrastructure, but that the estimates should be regarded as experimental because they rely on several assumptions, particularly regarding time use, investment shares and price measurement. It recommends further empirical research, targeted business surveys and methodological refinements to improve the robustness of the estimates and to support the future integration of marketing assets into extended national accounts.

Keywords

Intangible capital; Gross fixed capital formation; National accounts; Extended accounts; Own-account production; Supply and use tables.

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1. Introduction

1.1 Marketing assets and the System of National Accounts

In the new guidelines for compiling macro-economic statistics, the System of National Accounts 2025 (SNA 2025) and the Balance of Payments and International Investment Position Manual, seventh edition (BPM7) marketing-related assets are classified as non-produced, non-financial assets. This means that these assets, such as brand names, customer relationships and reputation, become visible in official statistics only when a company acquires them, for example through a takeover. These values are often not recorded separately, but included in the broader category of “goodwill”. As a result, an important part of the economic value of marketing activities remains outside the scope of national accounts and balance of payments statistics. In the national accounts, this can lead to an understatement of both firm value and macroeconomic dynamics.

During the preparations for the 2008 SNA update, it was examined whether marketing assets should be treated as produced assets. At the time, that proposal was not adopted because of practical objections. In the run-up to the 2025 update, SNA and BPM7 again recommended recognizing marketing assets as produced assets, but in 2024 this suggestion was rejected by the United Nations Statistical Commission because of continuing concerns about the measurability of these assets.

Although the recommendation to classify marketing assets as produced assets was not approved, SNA 2025 does advise countries to compile so-called extended accounts or satellite accounts.¹ In these supplementary accounts, marketing assets can be recognized as produced non-financial assets. They are separate from the integrated SNA framework and provide room to develop new methods and procedures that could later be incorporated into the official SNA.

To support this, a task force consisting of statisticians from various countries and organizations prepared a handbook with guidelines for measuring marketing assets within the national accounts (ISWGNA, 2026). This study aligns with that effort by measuring investment in marketing assets in the Netherlands, as far as possible in line with the methods and recommendations in that handbook. A key question is whether investment in marketing assets can be measured reliably.

¹ The International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board (IASB), have recently initiated a review of IAS 38 Intangible Assets; see: <https://www.ifrs.org/projects/work-plan/intangible-assets/#current-stage>

1.2 Concepts and definitions

For a more extensive discussion of the conceptual and methodological frameworks, reference is made to the handbook. The most important frameworks for this final report are briefly explained below.

1.2.1 Definition of marketing assets

“The capitalized value of expenditures on advertising and promotional activities (whether purchased or produced on own account), to enhance the overall impression a customer or potential customer gains from their experience with the company and its products.”

The definition of marketing assets is based on SNA 2025² and includes not only capitalized expenditures for customers, but also for everyone with whom an organization seeks to communicate. Marketing assets are therefore attributed not only to businesses, but also to other institutional sectors such as the public sector. The core of the definition lies in advertising and promotional activities, which are elaborated further in Section 2.1. The current definition extends the one used in SNA 2008, where marketing assets fall under the category “goodwill and marketing assets”, and emphasizes the specific use of advertising expenditure to increase brand value, with a clear distinction between marketing assets and brand equity.

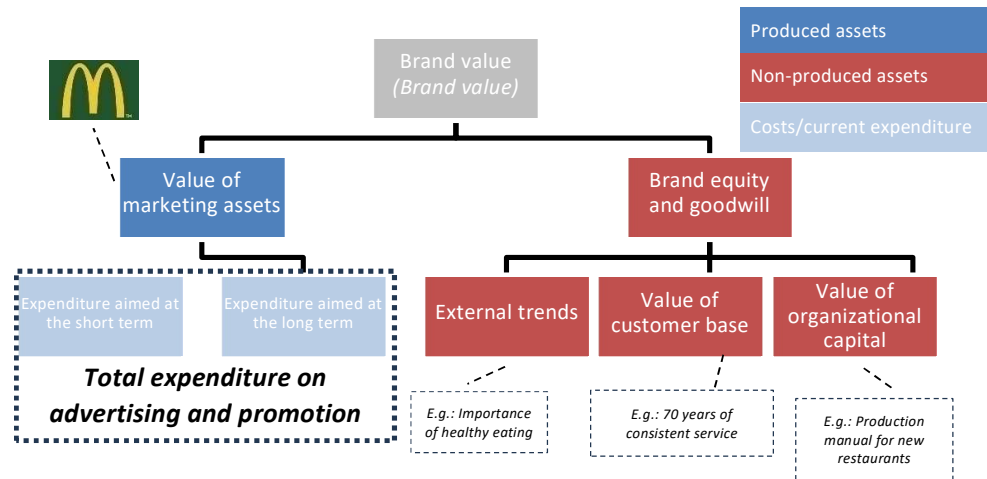
1.2.2 Distinction from brand equity and goodwill

In SNA 2025, marketing and goodwill are treated as non-produced assets, but for the compilation of extended accounts it is useful to distinguish the value of marketing assets (treated as produced assets) from the value of non-produced goodwill and brand equity. Goodwill can increase through both produced and non-produced activities, such as organizational processes, and can also be affected by external factors such as market trends or environmental concerns. Marketing assets, treated as produced assets, can contribute to brand value, leading to higher demand and profits, but their value remains separate from the total value of brand equity and goodwill (see Figure 1).

The value of a brand or organization may arise from expected future financial returns, based on factors such as company structure, distribution networks and customer perceptions. The value of marketing assets, however, is limited to the capitalization of expenditure on advertising and promotion. Although marketing assets can positively affect brand value, these assets and total brand equity and goodwill are considered separately.

² See the Glossary of terms and definitions in macroeconomic statistics in the 2025 System of National Accounts (2025 SNA): <https://www.un-ilibrary.org/content/books/9789211073225c047>

Figure 1 - Components of brand value, with McDonald's as an example



Source: Measuring Marketing Assets Compilation Guide (2026 – under development)

1.2.3 Distinction between short and long term

Long-term marketing focuses on building positive brand value without the expectation of an immediate customer response, and is often aimed at the brand as a whole rather than specific products. Sponsorships such as naming rights for a football stadium are an obvious example. These are the expenditures treated as investment in this report. Short-term marketing focuses on activating potential customers through explicit offers or calls to action. Examples include Black Friday advertising or a vacancy advertisement. These expenditures are classified as intermediate consumption because they do not generate long-lasting economic benefits.

In practice, however, the distinction is not always easy to make. A company that advertises only offers and promotions also builds long-term value in a certain sense, because it becomes known for its low-priced products. This is not explicitly considered in this study. The distinction is ultimately made based on the breakdown companies themselves use when drawing up their marketing budgets (see Section 3.3 for more details).

1.2.4 Distinction between short and long term

There is potential overlap between marketing assets and other intangible assets such as R&D and data. For data, a distinction is made between the production of data itself which is treated as an input, and the specific expenditures aimed at building brand value which are invested as marketing assets. As regards to R&D, market research is not treated as research and development because it is aimed at measuring existing trends and behaviour rather than developing new ideas or testing original hypotheses.

1.3 Structure of the report

This report is structured as follows. After explaining the main concepts used in this introductory section, the next section provides more background for example on the history of marketing assets and other studies that have measured marketing assets. Section 3 forms the core of this report and discusses the data sources and methods used. The results for the period 2013–2024 are discussed in Section 4, together with several pointers for future research.

2. Background

2.1 Marketing activities

Marketing activities, such as advertising and promotion, are essential for creating brand value and increasing product recognition. These activities include a wide range of actions, such as market research, strategy development, the creation of visual content, and the implementation of advertising campaigns. The aim of these activities is to attract attention to a company and its products and to create a positive impression among customers. Over time, this can lead to the emergence of marketing assets, such as a well-known brand logo or slogan, which can function as valuable assets and provide ongoing benefits.

Although advertising and promotion have played a role in markets for many years, the way these activities are carried out has changed substantially, particularly because of the growth of digital media. Online advertising now offers more opportunities to attract attention with a lower budget and with better possibilities for measuring success. Yet the process of advertising and promotion remains fundamentally the same, it is about making a company and its products visible and building an emotional connection with customers.

2.2 History of marketing and economic theory

The origins of marketing can be traced back to the earliest trading civilizations. In antiquity, producers and artisans already used identifying marks on goods—such as marks on pottery, weapons and trade goods—to guarantee origin and quality. At first these marks mainly served a functional role, but they also laid the basis for the idea of product identity. In the Middle Ages, this developed further through guild symbols: the use of fixed marks provided consumers with protection and helped producers maintain their reputation. As trade networks expanded, recognizability became an increasingly important way of creating trust (WIPO, 2013).

With the Industrial Revolution, marketing changed radically. Mass production generated major economies of scale, but also competition between previously unknown producers. Differentiation therefore became essential. Companies began investing systematically in names, logos, packaging, and advertising campaigns to convince consumers of the quality of their products. The brand shifted from being a purely identifying sign to a strategic instrument, a way to communicate a story, a reputation and an image. New media such as newspapers, and later radio, and television reinforced this evolution and made marketing an integral part of business strategy (WIPO, 2013).

The economic literature describes several ways in which marketing can create value. Brands can for example reduce consumers search costs, reduce information

asymmetry and help in assessing product quality. They can also make markets more efficient because firms have a strong incentive to maintain their reputation, for example by consistently delivering good-quality products. At the same time the societal value of marketing remains a matter of debate, some forms of advertising mainly shift market shares without increasing total welfare (Bronnenberg, Dubé, & Syverson, 2022).

2.3 Measuring marketing assets

In the business economics literature, growing attention emerged over the course of the twentieth century for the economic significance of difficult-to-observe non-physical resources that firms use to strengthen their market position such as brands, reputation, and customer relationships. This development received an important impulse from the framework of (Corrado, Hulten, & Sichel, 2005), in which expenditures on intangible activities, including marketing-related activities, are systematically treated as investment in intangible capital. This framework formed the basis for a growing empirical literature on intangible assets and their role in economic growth and productivity.

Later studies further substantiated these insights empirically. For example, (Bronnenberg, Dubé, & Syverson, 2022) show that long-term investment in brand building and marketing can lead to persistent patterns in brand preferences and competitive dynamics. Such patterns indicate that marketing expenditures are not exclusively short term in nature but can also contribute to the accumulation of intangible capital.

An international research programme subsequently arose from the Corrado, Hulten and Sichel framework. A consortium of researchers developed the INTAN-Invest database and associated methodology, which make it possible to produce harmonized and internationally comparable estimates of investment in intangible assets, including marketing assets. This initiative has recently been expanded further through the Global INTAN-Invest collaboration, involving among others Luiss and WIPO, bringing in more countries and more recent years (Bontadini, Corrado, Haskel, & Iommi, 2023). WIPO also publishes periodic overviews of these results, including in the report World Intangible Investment Highlights.

Applying this approach has led to various country studies in which, alongside international databases, more detailed national data sources and methods are used. Early examples include studies for the United Kingdom (Haskel & Marrano, 2007), the United States (Corrado, Hulten, & Sichel, 2005), and the Netherlands (van Rooijen-Horsten, van den Bergen, de Haan, Klinkers, & Tanriseven, 2008). Compared with the present study, the Dutch case study from 2008 generally placed stronger emphasis on advertising expenditure, especially in relation to publishing activities, while the public sector and in-house production of marketing activities was not included. Table 10 in the annex provides an overview of recent country studies compared with the approach used in the current study.

3. Sources and methods

This study assumes that the production of marketing assets can take place in two ways: through purchases from external parties, such as a marketing agency, or through own-account production by the firm itself. Purchases of marketing services are usually recorded in the use table as defined in the SNA, which shows which goods and services were used by a company or sector. Own-account production involves adding production to the supply tables, which is then fully allocated to investment in the use table. Both components therefore increase total investment and, by implication, GDP.

Investment in marketing assets by industry is then calculated as follows:

$$I_i = (Purchases_i + Own\ account\ production_i) * \beta_i$$

Where the subscript i denotes industry. The A*38 industry classification is used, with NACE codes 73–75 split into 73 (Advertising and market research) and 74–75 (Creative & veterinary services).³ To determine how much of purchases and production should be treated as investment, an investment share is used, denoted by β_i . This section discusses the sources and methods used to estimate these separate components (purchases, own-account production and the investment share).

3.1 Purchases

Purchases of marketing services are recorded in the national accounts as intermediate consumption and can be derived from the use table. This includes CPA (v.2.1) codes 73.1 (Advertising) and 73.2 (Market research and public opinion polling). CPA 73.1 covers services aimed at conceiving, planning and executing advertising campaigns. Examples include developing creative concepts, producing advertisements (online, print, radio, TV), managing media planning and buying, and supporting brands in their communication and promotion strategies. CPA 73.2 concerns services aimed at collecting, analysing and interpreting data on markets, target groups or public opinion. This includes, for example, surveys, interviews, data analysis, consumer behaviour research and polling, with the aim of providing insights for marketing, policy or strategic decision-making. Both categories are distinguished in the Dutch supply and use tables, with code 73.1 accounting for 91% of the total and therefore making up by far the largest share.

In addition to CPA 73, this study includes a limited extension with specific advertising products within CPA 58 (publishing products), insofar as these are distinguished as separate products in the Dutch supply and use tables. These are

³ See Chapter 23 of the ESA 2010 manual on classifications:
<https://ec.europa.eu/eurostat/esa2010/chapter/view/23/>

purchases explicitly relating to advertising space in newspapers and magazines (printed and online).⁴ These products do not represent editorial publishing output, but separate advertising services and are functionally equivalent to media buying within CPA 73. Including these codes prevents an understatement of marketing expenditure in industries that purchase advertising space directly from publishers.

Other CPA codes that potentially contain marketing-related services (such as public relations, design activities, IT services or web portals) are not included. In the Dutch supply and use tables, these product groups are not separately delineated as marketing services and contain only partly marketing-relevant activities. Including them would require a substantial degree of arbitrary allocation and would reduce the transparency and reproducibility of the delineation.

It is important to emphasize that no direct source is available for purchases of advertising services (CPA 73.1) and the separately distinguished advertising products within CPA 58 in the Structural Business Statistics (SBS), the main source for the Dutch supply and use tables. Instead, these purchases are derived mainly from the SBS variable “sales costs”, which also includes other cost items, among them trade services.⁵ This is, however, a well-known problem, since information on cost components is usually less detailed than information on turnover or production.

To determine the final value of the use of marketing services, an integration process is applied. In this process, production data (the supply table), which are generally considered more reliable and are specifically collected in the SBS, are given a higher weight. This gives a picture as accurate as possible of the amount of marketing services used in the Netherlands, even though the original source information is limited.

3.2 Own-account production

Own-account production of marketing assets is estimated based on the sum of costs, including a margin for gross operating surplus.

3.2.1 Determining occupations and time shares

The labour costs used in this study are derived from the wages of occupations involved in the creation of marketing assets. It is important that not only the occupations are identified, but also the time spent on marketing-related tasks. This time allocation is essential for producing a reliable estimate of the labour costs specifically related to marketing activities.

As Table 10 in the Annex shows, the selection of occupations and the time percentages differ considerably among international studies. Occupations directly

⁴ This concerns CPA codes 58.11.41, 58.11.42, 58.13.31, 58.13.32, 58.14.31 en 58.14.32

⁵ In several industries, particularly within transportation and storage, expenditure on advertising is collected separately, resulting in a cleaner measurement for those industries.

related to marketing, such as marketing and advertising managers and professionals (roughly ISCO-08 codes 122 and 243), are selected in all studies, with the latter often assigned a higher fraction. In addition, other occupations are sometimes included, such as visual artists (2651), draughtspersons (3118) or telecommunications, radio and television technicians (352), which are assigned a low fraction.

The identification of occupations and time distributions in this study is carried out using the so-called Competence-Relevant Occupation Methodology (CROM), as described in the handbook on measuring data as an asset (UNSD, 2024). This method is designed to provide a systematic and transparent approach to determining which occupations are relevant and how much time within those occupations is spent on activities relevant to the estimation of labour costs.

This study uses the ESCO dataset (European Skills, Competences, Qualifications and Occupations). This dataset contains an extensive classification of 10,715 competences across 3,039 different occupations. The ESCO dataset is an important source for linking occupations to competences and thereby gaining insight into the activities associated with each occupation.

The relevant occupations were selected based on a list of more than a hundred marketing-related competences (see Table 6 in the Annex). The ready-made ESCO list of “marketing and advertising” skills (code 0414) was not considered sufficient, as it is too limited and does not provide a complete representation of the competences relevant to marketing activities. For that reason, a specific list of marketing-related competences was compiled for this project. This list was developed using textual analysis with large language models and further refined based on the competences included for several relevant occupations, such as marketing manager (code 1221.3.2) and brand manager (code 2431.4).

Each occupation in the ESCO dataset includes a number of essential and optional competences. In calculating the time share spent on marketing-related tasks (and therefore also on building marketing assets), a weighting scheme is used: essential competences are given twice the weight of optional competences. The assumption is that essential competences play a larger role in the core activities of an occupation.

In addition, the so-called reuse level of competences within ESCO is taken into account. This characteristic indicates the extent to which a competence is specific to a particular occupation or instead generically applicable across multiple sectors. To prevent very generic competences from having a disproportionate influence on the calculated time share, an additional weighting is applied. Competences with the reuse level occupation-specific are fully counted (factor 1), for example ‘perform brand analysis’. Sector-specific competences are weighted by factor 0.75, for example ‘buy advertising space’. Cross-sector competences are weighted by factor 0.5, for example ‘analyse data about clients’. Transversal competences are not counted (factor 0); these are generally applicable skills such as communicating or organizing, which are not specific to marketing activities.

The final time shares by occupation are therefore based on a weighted ratio of marketing-related competences to the total number of relevant competences, considering both their importance (essential versus optional) and their degree of generic applicability. Applying these time shares throughout the time series implicitly assumes that the relative importance of marketing-related activities within occupations does not change substantially over time. A robustness check shows that the introduction of reuse weights has only a limited effect on the final results but methodologically contributes to a sharper delineation of marketing-specific activities.

These time shares by occupation are then aggregated to ISCO (2008) 4-digit codes in order to link them to the final source data. The aggregation is based on unweighted averages. This is necessary because each ISCO code can include multiple occupations, sometimes dozens, sometimes only one or a few. Using unweighted averages ensures that no extra weight is assigned to occupations that happen to contain more competences.

Based on the calculated time shares, four main occupations were selected, based on the importance of marketing-related competences. These occupations and time shares are:

- Advertising and public relations managers (ISCO 1222): 0.43
- Advertising and marketing professionals (ISCO 2431): 0.33
- Sales and marketing managers (ISCO 1221): 0.28
- Public relations professionals (ISCO 2432): 0.25

These four occupations are included in Table 7 in the Annex, which also contains the top 25 occupations. It is important to emphasize that the full list and time distributions were not adopted. This was done for practical reasons, such as the lack of sufficiently detailed information in the source data, and because some ISCO codes consist of only one or a few occupations and are therefore less representative. An example is ISCO code 4419 (Administrative assistants n.e.c.), which in the ESCO dataset consists of only one occupation: “advertising assistant”. Although it makes sense for this occupation to score highly on marketing-related activities, it is not representative of the entire ISCO code. Finally, the four selected occupations (and time percentages) are also the most logical choices based on the ISCO descriptions and task lists, and this also seems to align with our consultation with marketers in Dutch business practice (see PIM interview outcomes in the Annex). This is also in line with international practice (see Table 9 in the Annex).

Although the CROM method is transparent and systematic, it also has limitations. Competences are not the same as actual activities, and not all competences take up the same amount of time. In addition, in some occupations competences are explicitly specified, while in others they are considered implicitly present. This can lead to inaccuracies in estimating the time share spent on marketing activities. Even so, this transparent method is preferable to the arbitrary assignment of time shares. In the absence of hard source data, this currently seems to be the best that can be done.

3.2.1.1 Example calculation of the time share of marketing tasks: Business Developer

In the ESCO database, the following skills and competences are assigned to the occupation business developer (2431.5)⁶:

Skill/Competence	(1)	(2)	(3)	(4)	(5)	(6)
study sales levels of products		essential	2	cross-sector	0,75	1,5
expand store regional presence		essential	2	sector-specific	0,5	1
carry out sales analysis		essential	2	sector-specific	0,5	1
apply business acumen		essential	2	cross-sector	0,75	1,5
analyse business plans		essential	2	cross-sector	0,75	1,5
collaborate in the development of marketing strategies	x	essential	2	cross-sector	0,75	1,5
identify new business opportunities		essential	2	cross-sector	0,75	1,5
manage accounts		essential	2	cross-sector	0,75	1,5
liaise with managers		essential	2	cross-sector	0,75	1,5
analyse cultural trends	x	optional	1	cross-sector	0,75	0,75
strive for company growth		optional	1	cross-sector	0,75	0,75
brainstorm ideas		optional	1	cross-sector	0,75	0,75
use analytics for commercial purposes		optional	1	cross-sector	0,75	0,75
prospect new customers		optional	1	sector-specific	0,5	0,5
negotiate with stakeholders		optional	1	cross-sector	0,75	0,75
represent company in exhibitions		optional	1	sector-specific	0,5	0,5
perform customer management	x	optional	1	cross-sector	0,75	0,75
develop professional network		optional	1	cross-sector	0,75	0,75
negotiate settlements		optional	1	sector-specific	0,5	0,5
analyse data about clients	x	optional	1	cross-sector	0,75	0,75

Column (1) indicates whether the competence is relevant to marketing (see Annex 6.1), column (2) whether it is an essential or optional competence and the corresponding score in column (3). Columns (4) and (5) indicate the so-called reuse level of the competence and the corresponding score. Column (6) finally gives the result of multiplying columns (3) and (5).

The calculation of the time share for this occupation is then as follows:

$$\frac{(1 \times 2 \times 0,75) + (3 \times 1 \times 0,75)}{20} = 0,1875$$

⁶ See <http://data.europa.eu/esco/occupation/b76178c0-a03a-4793-b079-1e61e636c521>

where 20 is the sum of column (6) and the numerator in the formula is based on the rows with an 'x' in column (1)

This calculation is repeated for all 21 occupations in the ESCO dataset that fall under ISCO code 2431. The unweighted average of these 21 occupations then determines the total average time share for ISCO code 2431.

3.2.2 Calculation of labour costs

In a first step, total marketing labour costs mlc are calculated as:

$$\sum mlc = ((emp_i^o \times hours) \times \alpha^o) \times wage^o$$

Where mlc are calculated on the basis of the number of employed persons emp by occupation o and industry i , multiplied by the average number of hours worked by industry, multiplied by the time share α by occupation, multiplied by the hourly wage by occupation. The relevant occupations and time shares are given in the previous section (3.2.1). Industries are measured at the level of the A*38 classification.

The number of employed persons by occupation and industry comes from the microdata of the Dutch Labour Force Survey (Enquête Beroepsbevolking). This is a survey in which annually around 200 thousand Dutch households are interviewed about work, occupation and income. Despite a methodological break in 2020, a time series is available from 2013 onwards which provides the starting point of the time series in this study (see Section 4).

Table 1 provides an overview of the numbers aggregated over the three main industry groups in 2021. It shows that in that year around 200 thousand people worked in the four marketing-related occupations, most of them in commercial services. Of the four occupations, advertising and marketing professionals form by far the largest group, while public relations professionals are concentrated mainly in public services.

Table 1 - Marketing-related occupations by industry, 2021 (thousands)

	ISCO-08 description	Goods	Private services	Public services	Total
1221	Sales and marketing managers	12	34	2	48
1222	Advertising and public relations managers	0	4	0	4
2431	Advertising and marketing professionals	13	101	8	122
2432	Public relations professionals	0	15	24	39
	Total marketing occupations	25	154	34	213
	Total all occupations*	1.472	4.704	2.898	9.074

Note: Goods includes industries (NACE 2008) A–F, Private services G–N and R–S, and Public services O–Q. *Total comprises the employed labour force across industries A–S, thus excluding T, U and records without an industry.

Source: LFS microdata

To align with the national accounts (more specifically, the labour accounts), a correction factor was applied for each A*38 industry. This correction factor is based on the difference between the industry total in the LFS and that in the national accounts. This means that the LFS figures were generally scaled up by about 6 percent, although the size of the correction differs by industry.⁷ The difference between the number of employed persons according to the LFS and the labour accounts is due to differences in delineation and definitions.

To calculate the total number of hours worked, the (annual) average hours worked per employee by industry from the labour accounts is used. An attempt was made to refine the calculation using a breakdown by gender, for which an industry breakdown is available, but this had little effect on the result.

Wage data are not available by both industry and occupation, but only by occupation. Therefore, the median gross hourly wages of the three-digit occupations (in this case ISCO-08 codes 243 and 122) were used.⁸ These hourly wages are based on a combination of the LFS and payroll administration data. As with the hours, this also involves an assumption because the required detailed information (occupation by industry) is not available. The approach assumes that wages for a given occupation do not vary across industries, while for hours worked it is assumed that average hours per employee are the same within an industry because information by occupation is unavailable.

⁷ The industry with by far the largest discrepancy is the temporary employment services industry. In the national accounts, temporary agency workers are allocated to the temporary employment agencies, whereas in the Labour Force Survey (LFS) they are classified by the industry in which they effectively perform their work.

⁸ See Table 9 - Relevant occupation codes: ISCO-08 and SOC-20 in the annex for a description of ISCO codes.

The calculated totals by industry are then aligned with the labour cost concept used in the national accounts. Specifically, this concerns the addition of employers' social contributions (code D12), such as pension contributions, health insurance and disability insurance. The calculated total is scaled up using the ratio between wages and salaries (D11) and social contributions (D12) by industry. On average, this amounts to an uplift of about 30 percent.

As a check, a comparison was made between the share of calculated marketing-related labour costs and hours and total labour costs and hours by industry. Although there are differences by industry, these percentages do not diverge very much. Across all industries, the total calculated percentage is 0.7 percent of hours spent on marketing production, compared with a total calculated percentage of 0.9 percent of pay spent on marketing production.

3.2.3 Calculation of other costs

To arrive at total production for marketing-related activities, wages are grossed up with other costs and a margin for gross operating surplus. To make the estimate as realistic as possible, the ratio between wages and total output in the Advertising and market research industry (NACE 2008 code 73) was used. This ratio was calculated to be equal to 3. That is, for every euro of wages there are 3 euros of other costs and a profit markup. This ratio was applied to the calculated total marketing-related labour costs by industry from Section 3.2.2.

In the calculation of this ratio, labour costs are defined as wages and salaries of employees and employers' social contributions (D11 and D12), while output is adjusted in two places. First, the output of self-employed persons, i.e. households (sector code S14) and non-profit institutions serving households (S15), is removed from total output in SBI 73. This is because the D11 and D12 labour concept covers only employee compensation. In addition, the intermediate consumption of marketing services (CPA codes 73.1 and 73.2) is removed from output as well, because this consumption is already included in purchases (see Section 3.1).

3.3 Investment share

The calculated totals from sections 3.1 and 3.2 represent total marketing expenditure. However, as indicated in section 1.2.3, only part of this expenditure should be considered investment. In other words, a distinction must be made between expenditure aimed at the short term and expenditure aimed at the long term. Expenditure with a short-term character is classified as intermediate consumption, which means it is treated as a cost absorbed in the production process. Only expenditure aimed at long-term effects should be recorded as investment, with the SNA applying a threshold of use over a period of more than one year. This separation is implemented using an investment share.

In most studies, a standard share of 60 percent of total marketing expenditure is used to indicate the share aimed at the long term, i.e. investment (Corrado,

Hulten, & Sichel, 2005). This percentage is applied across the whole economy, although recent studies make an exception for the Advertising and market research industry, where a lower percentage (usually 30 percent) is often used (Corrado & Hao, 2014) (Muriel, Cervigón, & Ortiz, 2024). See Table 10 in the annex for an overview of recent studies.

Alternative approaches have also been proposed. For example, (Martin, 2019) classifies advertising channels according to whether they primarily contribute to long-term brand building or short-term sales activation. Using data from the World Advertising Research Centre (WARC), this approach suggests that approximately 60 percent of advertising expenditure should be capitalized, with a modest decline over time due to the increasing importance of digital advertising.

Although developed from a marketing rather than a national accounting perspective, the work of Binet and Field is frequently cited because it also distinguishes between long-term brand building and short-term sales activation. In their seminal study on marketing effectiveness, Binet and Field, use case-study data mainly from large companies and estimate that the optimal balance is roughly 60/40, although this differs by industry (Binet & Field, *The Long and the Short of It: Balancing Short and Long-Term Marketing Strategies*, 2013). In their more recent work, the authors indicate that this percentage is probably different today, around 75/25. This is because digital communication has made it much easier and cheaper to get products to consumers. As a result, competition on availability becomes less important and the emphasis shifts toward brand building, because a strong brand is now decisive for consumer preference (Binet & Field, *Effectiveness in Context: A Manual for Brand Building*, 2018).

The drawback of this 60/40 split is that it is a normative target share and therefore does not necessarily reflect actual practice. Relatively little is known about the actual distribution, although most companies do make this distinction when preparing their marketing budgets.⁹ Still, based on the available information, it seems reasonable to state that companies on average allocate less than 60 percent of their marketing budgets to expenditure aimed at the long term.

While the previous studies mainly discuss recommended or inferred long-term shares, the CMO Survey provides direct evidence on how companies actually allocate their marketing budgets. This is a biannual survey among Chief Marketing Officers (CMOs) in the United States.¹⁰ In the spring 2023 survey, which exceptionally was also conducted among CMOs in the United Kingdom, respondents reported that the share of the marketing budget used for long-term brand building was 40.1 and 43.9 percent in the US and the UK respectively. In the spring 2024 survey, this percentage was even lower, at 31.2 percent. These percentages align with our own consultation with marketers in the Netherlands (see Annex 6.4). The reason for the discrepancy between the higher target share and the lower actual share is that the success of promotions or specific offers is

⁹ The distinction between sales activation and brand building is often used to differentiate between expenditure aimed at short-term effects and expenditure aimed at long-term effects.

¹⁰ See cmosurvey.org/results/ for more information.

generally easier to measure. As a result, the share that should be spent on long-term brand building comes under pressure more quickly because of the lack of concrete measurable results (return on investment).¹¹

The estimates in this study use the percentages from the CMO Survey. More specifically, the percentages by industry from the unweighted average of the 2023 surveys for the US and the UK were applied to the A*38 industry classification distinguished in this study (see Annex 6.3). For industries where marketing expenditure from the use table (73.1 and 73.2, see section 3.1) is very small and/or where no clear link can be made with the categories distinguished in the CMO Survey, the overall percentage of 40 percent was used. For government (NACE 84), an expert estimate of 70 percent was applied. Government marketing campaigns (for example on social engagement, health, climate, etc.) are generally more focused on long-term impact or behavioural change.

It is important to emphasize that this study applies the same investment share to both purchased and own-account produced marketing assets. This is in line with the guidelines set out in the handbook. As Table 6.6 in the annex shows, there is no single agreed view on this. In other studies, it is assumed that the investment share is already incorporated in the time-share percentage assigned to the occupations concerned. Although it may conceptually be preferable to use different investment shares for purchased marketing assets and marketing assets produced on own account, this study deliberately opts for uniformity. This choice is partly pragmatic, since reliable occupation-specific investment shares are not available. However, using a single investment share by industry also makes interpretation more straightforward, because differences between occupations are driven by observed labour inputs, rather than by assumed differences in investment shares.

3.4 Investment in marketing by the Advertising and market research industry (NACE 73)

As shown in the list of investment shares in Table 8 - Investment shares in the annex, no percentage is applied to the Advertising and market research industry (NACE 73). This is because the method described in sections 3.1 and 3.2 is not suitable for this industry. After all, the activities of this industry are aimed at supplying marketing services to other businesses. Even the use of a lower investment share, as proposed in other studies, in our view still leads to unrealistic results. In 2021, expenditure on marketing services from the use table accounted for more than a quarter of total purchases in this industry, whereas the percentage for the whole economy was only 2 percent. In that same year, an estimated 14 percent of all advertising and marketing professionals (ISCO-08 code 2431) worked in this industry.

¹¹ See for example (Stengel, Lamberton, & Favaro, 2023).

However, it is unlikely that no accumulation of marketing assets takes place within this industry. Moreover, it is plausible that self-employed workers in this industry invest heavily in name recognition in order to win assignments. In this project, investment in marketing assets in this industry was therefore estimated using the average of investment in marketing assets relative to the (total) value added of business services (NACE M–N, excluding NACE 73). This percentage is estimated to be 2.6 percent, with 2 percent for the purchased component (Section 3.1) and 0.6 percent for own-account production (Section 3.2).

3.5 Deflators

So far, this section has discussed how nominal investment in marketing assets is estimated. To convert these nominal values into volumes, information is needed on price developments for marketing assets. For this purpose, use is made of the integrated prices of CPA 73 and the advertising products within CPA 58 in the supply and use tables, i.e. the prices after the process of balancing supply and use.¹² In the supply and use tables, the prices of the advertising products are based on the Consumer Price Index (CPI), and those of CPA 73 are based on the Services Producer Price Index (SPPI).

¹² As indicated in Section 103.1, this therefore concerns the total of 73.1 and 73.2.

4. Results and discussion

4.1 Marketing investments

The results indicate that marketing assets are a substantial but relatively stable component of intangible investment in the Netherlands.

In 2024, investment in marketing assets amounted to EUR 15.7 billion. Table 2 compares this with other investment flows in that year. Marketing assets account for 25.8 percent of total intangible assets. Investment is therefore lower than for other intangible assets such as software and databases and research and development. Even with the inclusion of marketing assets, total investment in intangible assets remains lower than investment in tangible assets, which is more than three times as large.

Table 2 - Investments in 2024, EUR million

Asset	Value (EUR million)
Total fixed assets	244.032
Total tangible assets	204.457
Dwellings	58.005
Buildings other than dwellings	30.586
Passenger cars	11.299
Other fixed assets	104.567
Total intangible assets	60.668
Research and development	19.530
Software and databases	24.651
Originals	808
Marketing assets	15.679

Note: Total capital goods and intangible assets include marketing assets.

The calculation of investment in marketing assets is set out in Table 3. For ease of interpretation, industries are grouped into industry, commercial services and public services. Goods comprise agriculture (NACE A) and industry/manufacturing (NACE B–F), public services comprise government, education and health care (NACE O, P, Q), and private services comprise the remaining (commercial) services (NACE G–N and S–U).

Table 3 - Process table marketing assets, 2021

Item	Unit	Goods	Private services	Public services	Total
PURCHASES*					
Purchases or intermediate consumption of advertising and marketing services	EUR million	1.751	17.624 (2.266)	1.372	20.747
Long-term (investment)	EUR million	721	6.099 (82)	822	7.643
Short-term (intermediate consumption)	EUR million	1.030	11.525 (2.184)	550	13.104
OWN-ACCOUNT PRODUCTION					
Workforce statistics					
Employed population (LFS)	thousand persons	1.472	4.704	2.898	9.074
Employed population (NA)	duizend mensen	1.551	5.339	2.769	9.659
Ratio NA/LFS	ratio	1,1	1,1	1,0	1,1
Hours worked per worker	hours	1.767,2	1.419,7	1.305,5	1.442,8
Labour costs advertising and marketing professionals (2431)					
Number	thousand persons	12,5	108,3	7,2	128,0
Gross hourly wage	EUR thousand, median	27,0	27,0	27,0	27,0
Time spent on marketing production	%	0,33	0,33	0,33	0,33
Labour costs	EUR million	191	1.443	88	1.722
Labour costs public relations specialists (2432)					
Number	thousand persons	0,0	15,6	22,5	38,1
Gross hourly wage	EUR thousand, median	27,0	27,0	27,0	27,0
Time spent on marketing production	%	0,25	0,25	0,25	0,25
Labour costs	EUR million	0	164	212	376
Labours costs sales and marketing managers (1221)					
Number	thousand persons	12,3	39,1	2,0	53,4
Gross hourly wage	EUR thousand, median	40,5	40,5	40,5	40,5
Time spent on marketing production	%	0,28	0,28	0,28	0,28
Labour costs	EUR million	245	632	28	904
Labour costs advertising and public relations managers (1222)					
Number	thousand persons	0,0	4,0	0,0	4,0
Gross hourly wage	EUR thousand, median	40,5	40,5	40,5	40,5
Time spent on marketing production	%	0,43	0,43	0,43	0,43
Labour costs	EUR million	0	102	0	102
Employer's social contributions correction					
Calculated marketing labour costs	EUR million	436	2.341	327	3.104
D11- Wages and salaries	EUR million	58.926	170.167	97.903	326.996
D12- Employers' social contributions	EUR million	17.295	45.311	33.174	95.780
Ratio (D11+D12)/D11	ratio	1,3	1,3	1,3	1,3
Calculated marketing labour costs including D12 correction	EUR million	562	2.951	440	3.953
Other costs correction					
Ratio output/total remuneration, SBI 73	ratio	3,0	3,0	3,0	3,0
Calculated other costs	EUR million	1.098	5.771	861	7.730
Totals*					
Total	EUR million	1.660	8.722 (1.063)	1.301	11.683
Long-term (investment)	EUR million	674	3.122 (36)	678	4.474
Short-term (intermediate consumption)	EUR million	986	5.600 (1.027)	623	7.209
TOTALS†					
Total	EUR million	1.395	9.340	1.500	12.235
Purchases	EUR million	721	6.181	822	7.725
Own-account production	EUR million	674	3.158	678	4.510

* De total purchases and own-account production is excluding the data of the industry advertising and market research (NACE 73), there a different calculation apples (see section 3.3). The values of this industry have been displayed in parentheses after the total values.

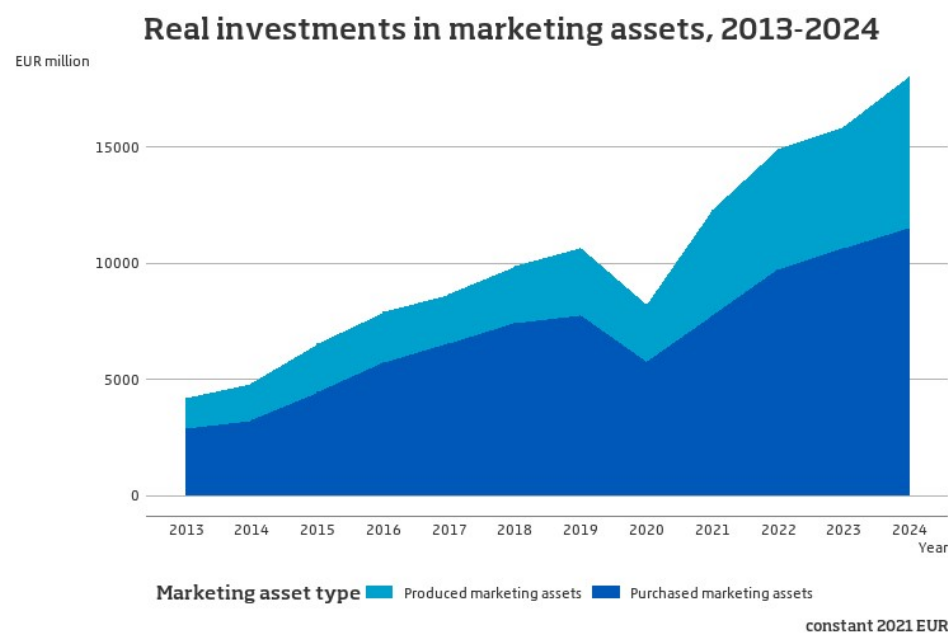
† These values are including the industry advertising and market research.

As described in section 3, marketing assets are split into purchased and own-account production of marketing assets. Purchased marketing assets are calculated separately based on purchases of advertising and marketing services (see section 3.1). Using the investment shares, these are split into long- and short-term expenditure. The long-term expenditure is treated as investment in marketing assets and, together with own-account production, forms total investment. In calculating own-account production, labour costs are first calculated by occupation according to the methods set out in Section 3.2.2. These calculated totals are then further adjusted for social contributions and other costs to arrive at total own-account production. Using investment shares (see Section 3.3), own-account production is then split into long-term production (marketing assets) and short-term production.

4.2 Macroeconomic impact

Figure 2 shows the volume development of marketing assets, split into own-account production of marketing assets and purchased marketing assets. Between 2013 and 2024, the volume of marketing assets more than tripled for both types of marketing assets.

Figure 2 - Real investments in marketing assets, 2013-2024 (millions of euros).



The results by industry are shown in Table 4. These data are last available at a detailed level for 2023. Because of a lack of source data at the time of publication, the 2024 figures were produced using extrapolations from earlier figures, and as a result not all industries in Table 4 are yet available for 2024. The table shows both the absolute amounts and the relative share in total investment. Relative produced marketing assets are largest in other services, culture, sports and

recreation, professional services and trade. Relative purchased marketing assets are largest in rental and other business services, professional services, trade, and accommodation and food services.

Table 4 – Investment in marketing assets by industry, 2023

Industry	Total investment incl. marketing assets, EUR million	Produced marketing assets, EUR million	Produced marketing assets (% of total industry investment)	Purchased marketing assets, EUR million	Purchased marketing assets (% of total industry investment)
Agriculture, forestry and fishing	5.640	0	0,0%	6	0,1%
Mining and quarrying	1.128	0	0,0%	5	0,5%
Manufacturing	20.928	401	1,9%	612	2,9%
Energy supply	11.676	60	0,5%	43	0,4%
Water and waste management	2.011	24	1,2%	6	0,3%
Construction	6.255	74	1,2%	140	2,2%
Trade	15.658	888	5,7%	1.729	11,0%
Transportation and storage	11.466	176	1,5%	151	1,3%
Accommodation and food service activities	2.131	77	3,6%	212	10,0%
Information and communication	21.799	821	3,8%	1.027	4,7%
Financial and insurance services	5.988	293	4,9%	303	5,1%
Real estate activities	67.601	14	0,0%	188	0,3%
Professional, scientific and technical activities	9.645	692	7,2%	1.179	12,2%
Administrative and support service activities	16.061	491	3,1%	2713	16,9%
Government	24.518	400	1,6%	645	2,6%
Education	9.283	146	1,6%	63	0,7%
Human health and social work activities	8.072	119	1,5%	232	2,9%
Arts, entertainment and recreation	2.240	207	9,2%	167	7,5%
Other service activities	1.791	201	11,2%	127	7,1%

Figure 3 - Share of assets in total investments, 2013-2014.

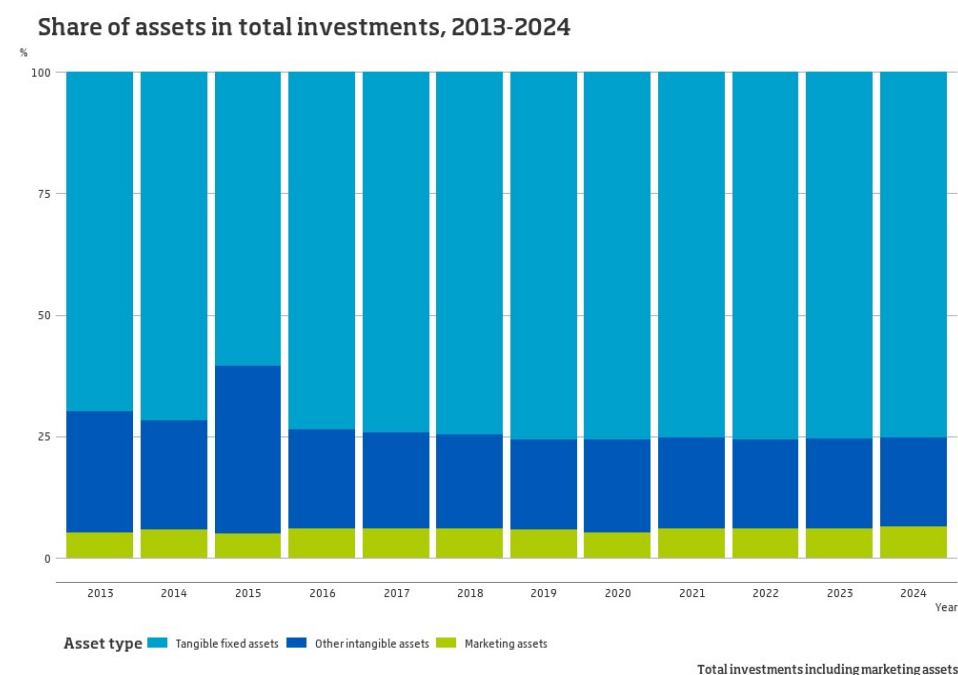
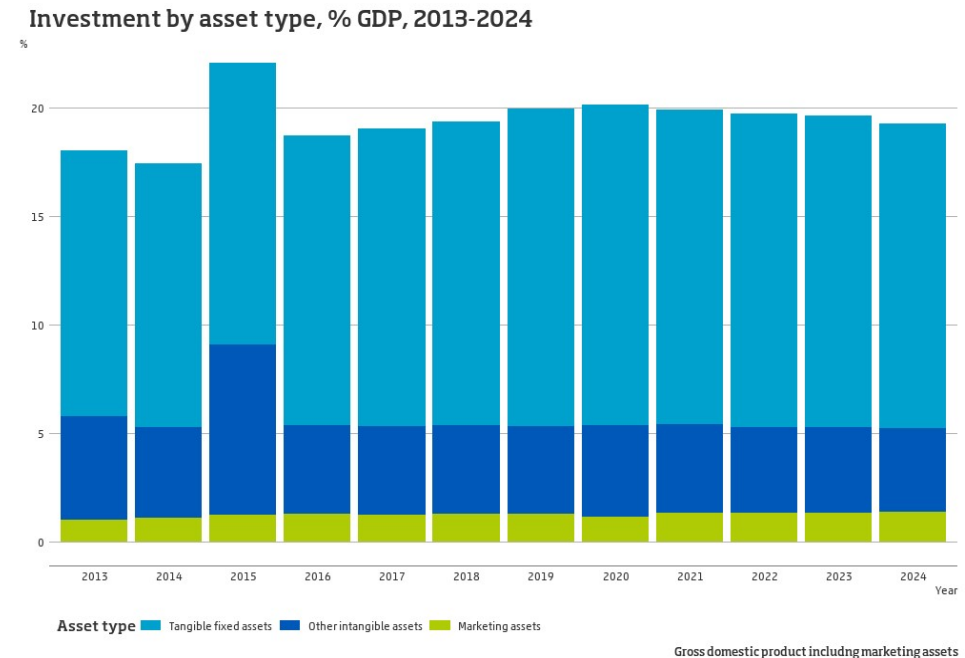


Figure 4 - Investment by asset type, % of GDP, 2013-2024.

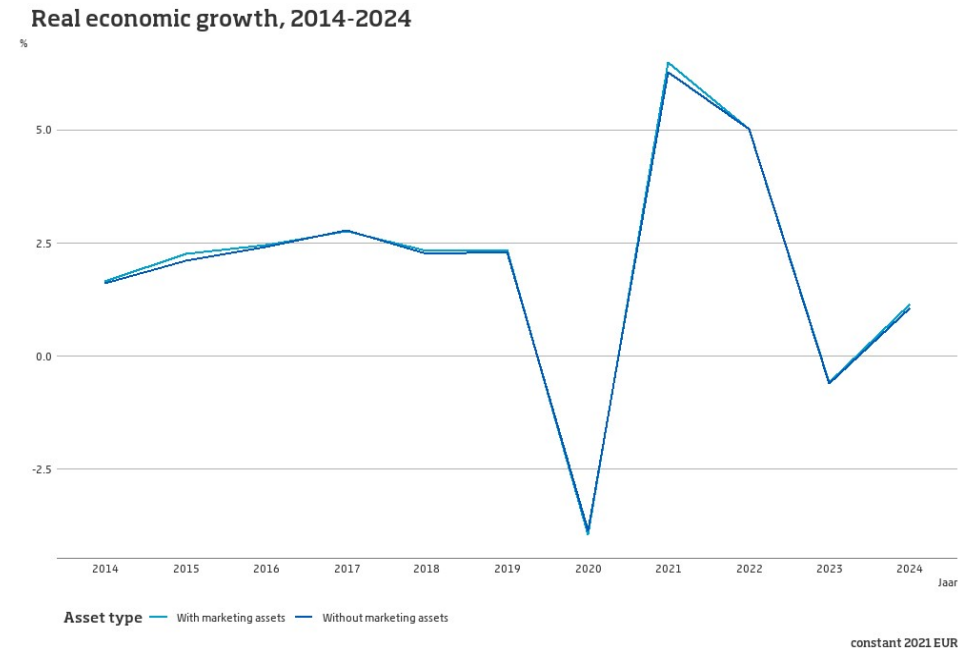


The share of marketing assets relative to other assets in total investment (including marketing assets) has remained constant over the years at between 5 and 6 percent, as shown in Figure 3. The same picture emerges when investment is expressed as a percentage of gross domestic product. Between 2013 and 2024, marketing assets account for between 1.2 and 1.4 percent of gross domestic product (see Figure 4). Also notable in both figures is the peak in investment in other intangible assets in 2015. This reflects an exceptional transaction in which a multinational enterprise acquired a large volume of intellectual property products, primarily R&D assets, resulting in a temporary increase in recorded investment in other intangible assets (CBS, 2018).

Including marketing assets has a limited impact on the volume development of economic growth, as shown in

Figure 5. In most years, including marketing assets affects economic growth by only a few hundredths to tenths of a percentage point. This is related to the fact that part of marketing expenditure (the purchased component) is already recorded as intermediate consumption in the traditional national accounts. The reclassification to investment primarily affects the level and composition of capital formation, and less the short-term growth dynamics. Although the effect on short-term GDP growth is modest, the estimates provide a more complete picture of investment and capital accumulation in the economy, thereby improving analyses of productivity, growth accounting and the role of intangible assets.

Figure 5 - Real economic growth, 2014-2024.



4.3 Sensitivity analysis

The literature offers different methods for determining time shares and investment shares, as shown in Annex 6.6. The results were compared with the assumptions used in (Bontadini, Corrado, Haskel, & Iommi, 2023). In that study, expert estimates are used for both time shares and investment shares. For time shares, it is assumed that managers and professionals spend 15 and 50 percent of their time, respectively, on producing marketing assets. It is further assumed that 60% of firms' advertising purchases constitute purchased marketing assets.¹³

The effect of these different assumptions on marketing assets in the Netherlands for 2021 is shown in Table 5. Using expert estimates for time shares increases marketing assets in the Netherlands by more than EUR 1 billion. Using expert estimates for investment shares has an even stronger effect. Under this assumption, marketing assets are EUR 5 billion higher than when using percentages based on the CMO. The method used in this study yields a lower amount of marketing assets than the alternative methods found in the literature.

In the EU KLEMS database, which is compiled based on (Bontadini, Corrado, Haskel, & Iommi, 2023), investment in marketing assets in the Netherlands in 2021 is estimated at EUR 21.8 billion.¹⁴ The difference from the EUR 17.4 billion in Table 3 is probably because no separate investment share is used for own-account

¹³ For SBI 73, a percentage of 30 per cent is applied.

¹⁴ See <https://euklems-intanprod-lee.luiss.it/>

production in this study. In other words, the time share that is used implicitly also contains an assumption relating to the investment share.

The sensitivity analysis shows that assumptions about time shares and investment shares have a substantial influence on the outcomes. The bandwidth for 2021 varies roughly between EUR 12 and 17 billion. This spread is driven mainly by uncertainty about the investment share (the long-term marketing share), and to a lesser extent by the estimation of labour costs and time shares. This underlines the importance of further empirical underpinning of the distinction between short-term and long-term marketing expenditure.

Table 5 - Total marketing assets (EUR million) in 2021 under different assumptions

Time share	Investment share	
	CMO	Expert estimate
ESCO	12.235	16.020
Expert estimate	13.442	17.416

4.4 Discussion and next steps

The aim of this study was to assess whether investment in marketing assets can be measured reliably, in accordance with the methods and recommendations in the handbook developed by the international task force. The results show that a systematic estimate of marketing assets is feasible in practice. The method used is consistent with approaches applied internationally to measure intangible assets, although in this case the empirical underpinning is based largely on indirect sources and assumptions. Compared with other intangible assets, such as software or R&D, the empirical basis for measuring marketing assets is currently less well developed, partly because no dedicated statistical surveys exist for this purpose.

The estimates presented in this paper focus on gross fixed capital formation (GFCF) in marketing assets and do not extend to the estimation of capital stocks or consumption of fixed capital (depreciation). While these elements are required for the full integration of marketing assets into the national accounts, they were considered beyond the scope of this study. Once annual investment estimates have been established, capital stocks and depreciation can be derived using the Perpetual Inventory Method (PIM), subject to assumptions regarding service lives and depreciation profiles. These assumptions are discussed in (ISWGNA, 2026). The present estimates therefore provide the essential first step towards a more comprehensive satellite account for marketing assets.

The purpose of this paper is not to assess the welfare implications of marketing expenditure, but to improve its statistical recording within the national accounts. Whether marketing activities increase overall welfare or primarily redistribute market shares remains an active topic of debate in the economic literature. From a national accounting perspective, however, the relevant question is whether these

expenditures generate future economic benefits for the investing unit and therefore satisfy the conceptual criteria for capital formation in an extended accounting framework.

Although the method used is in line with international guidelines for measuring intangible assets, the estimation of marketing assets inevitably involves several sources of uncertainty. These are discussed below:

1. The estimate of own-account production is based on time shares by occupation, derived from the CROM methodology and the ESCO competence classification. Competences, however, are not a direct observation of actual time use. Not all competences require the same amount of time, and some marketing-related activities are implicitly part of broader functions without being explicitly included in competence lists. This can lead to certain activities that in practice are part of marketing work, such as general analytical and reporting activities, are not always being recorded as separate marketing competences. As a result, such tasks may appear in the calculation in the total set of competences for an occupation (the denominator), but not in the list of selected marketing competences (the numerator). Recent surveys among marketing professionals suggest that such analytical and reporting activities make up a substantial part of marketers' work, indicating that competence-based approaches may yield a conservative estimate of marketing-related time use.¹⁵ Moreover, marketing-related activities are increasingly carried out by employees whose primary occupation lies outside traditional marketing functions, such as office managers, executive assistants or other staff involved in social media communication or event organization. Competence-based approaches may therefore omit part of these activities, suggesting that the estimates of own-account production may be conservative.
2. Wage data are available only at the three-digit occupational level and are not broken down by industry. This implicitly assumes that wage differences between sectors within the same occupational group are limited, which may not hold in practice.
3. The investment share is based on the CMO Survey (2023/2024), conducted in the United States and the United Kingdom. Although sectoral categories were linked to the Dutch A*38 classification, this remains an indirect approach. Due to differences in market structure, the degree of digitalization, or marketing strategies, the actual investment shares in the Netherlands may differ.
4. For the advertising and market research industry (NACE 73), an alternative approach was chosen, in which investment was estimated based on an average ratio relative to value added in related business services. This pragmatic solution prevents obvious overestimation but introduces additional uncertainty.
5. Volume estimates are based on existing price indices for CPA 73 and advertising products within CPA 58. These indices do not explicitly correct for quality changes, for example because of digitalization or the use of AI-based marketing tools. This applies to both the supply and the use of these services. As a result, measured volume growth may be somewhat over- or underestimated.

¹⁵ See <https://www.campaignasia.com/article/phd-marketers-spend-more-time-reporting-than-creating/a76g9dqzdb0s47wchph0ivr1hi>

Altogether, these limitations imply that the figures presented should be interpreted as experimental estimates within a satellite-account context, rather than as definitive statistics. Nevertheless, the estimates provide a consistent and transparent starting point for measuring marketing assets within an extended accounting framework.

Although this study shows that investment in marketing assets can be estimated in a systematic and reproducible way, the assumptions used with respect to time shares, investment shares, price developments, and the treatment of specific industries may not hold and therefore entail uncertainty. The recommendations below are aimed at further reducing these uncertainties and strengthening the empirical underpinning of the estimate, ordered by feasibility and added value.

- A periodic—preferably annual—survey of companies on the distribution of marketing budgets between short and long term could further improve the estimates. Such a survey has previously been applied successfully in the CMO Survey (2023 and 2024) and could possibly be integrated into existing surveys such as the Netherlands Business Cycle Survey (COEN).
- A further breakdown of the selling-costs variable in the Structural Business Statistics (SBS) would contribute to a complete and more consistent picture of companies' total expenditure on marketing activities.
- Additional research into the organization and scale of in-house marketing activities can help refine assumptions about occupations and time use. This requires qualitative research, for example through discussions with the business community, especially companies that are at the forefront in this area.
- In estimating own-account production, there is a methodological discrepancy between the use of time shares and wage ratios, particularly because wasted hours are included in one approach but not in the other. This study shows that this does not constitute a decisive obstacle, but it remains important to explicitly acknowledge this limitation when interpreting the results.
- The increasing use of AI-based tools for media planning and buying may lead firms to perform a larger share of their marketing activities themselves rather than outsourcing them fully to specialized agencies.¹⁶ At the same time, firms increasingly rely on freelancers and other external specialists for marketing activities. This further complicates the distinction between purchased and own-account production and may require additional attention in future refinements of the methodology. This increases the importance of an up-to-date delineation of relevant occupations when estimating own-account production. More generally, digitalization has gradually shifted part of the customer acquisition process from traditional sales activities towards marketing. This increasingly blurs the distinction between marketing, sales and communication functions, reinforcing the need to periodically reassess the occupational delineation used in the estimates. Recent Statistics Netherlands figures show that firms currently use AI applications most often for marketing or sales activities, suggesting that a growing part of these activities is being carried out directly within enterprises rather than through

¹⁶ See, for example, <https://videoweek.com/2025/08/18/more-us-ad-spend-comes-direct-from-brands-than-through-holdcos-as-ai-reshapes-media-planning-and-buying/>

external agencies.¹⁷ At the same time, major international advertising groups are also investing heavily in AI technology, among other things to automate and optimize creative processes, data-driven targeting and campaign management.¹⁸ This dual development—further internalization by advertisers on the one hand, and technological scaling-up within specialized agencies on the other—may shift the boundary between purchased and own-account produced marketing services. For estimating marketing assets, this increases the importance of periodically recalibrating the relevant occupations, time shares and production structures, as well as the price indices used, since AI can affect both the cost structure and the quality dimension of marketing output.

- Sebo and Dingerink (2023) point out that investment in marketing activities may contribute to the value of brand-related assets, such as brand names or reputation. In the SNA, these assets are treated as non-produced assets and therefore fall outside the production boundary, although transactions in them—for example in business takeovers—are recorded in the asset and sector accounts. The results of this study may help to improve understanding of the relationship between marketing investment and such transactions.

Finally, the estimates presented in this study should not be interpreted as measuring the total value of brands or all activities contributing to brand equity. Many activities that influence customer experience and long-term reputation, such as product quality, after-sales service or customer support, remain outside the scope of marketing assets as defined in this study. The estimates therefore represent investment in marketing assets as defined within the proposed accounting framework, rather than the full process of brand creation.

Overall, this study demonstrates that investment in marketing assets can be estimated in a transparent and reproducible manner using existing statistical sources. Although further refinement of the methodology is desirable, the results provide a practical basis for compiling experimental satellite accounts and contribute to the ongoing international development of the measurement of marketing assets.

¹⁷ <https://www.cbs.nl/nl-nl/nieuws/2025/50/bedrijven-gebruiken-ai-vaakst-voor-marketing-of-verkoop>

¹⁸ <https://fd.nl/financiele-markten/1580542/gevallen-reclamereus-wpp-klampt-zich-vast-aan-ai-hoop>

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Annexes

Table 6 - List of marketing skills, CROM method

adapt to change in marketing	develop footwear and leather goods marketing plans	manage the customer experience
advertise new book releases	develop inclusive communication material	manage the handling of promotional materials
advise on communication strategies	develop media strategy	manage visual communications
advise on market strategies	develop online community plan	market farm products
advise on public image	develop promotional tools	monitor customer behaviour
advise on public relations	develop public relations strategies	monitor customer service
analyse consumer buying trends	devise special promotions	monitor media industry research figures
analyse cultural trends	draft press releases	organise press conferences
analyse customer service surveys	draw conclusions from market research results	perform brand analysis
analyse data about clients	draw up marketing and sales plan	perform copywriting
analyse external factors of companies	educate public on fire safety	perform customer management
apply customer engagement strategy	educate public on road safety	perform customers' needs analysis
apply desktop publishing techniques	enhance website visibility	perform market research
apply social media marketing	establish communication with foreign cultures	perform market research in footwear
approve advertising campaign	establish relationship with the media	perform media outlets research
assist in developing marketing campaigns	evaluate advertising campaign	perform public relations
build a strategic marketing plan for destination management	evaluate marketing content	plan digital marketing
buy advertising space	examine advertisement layout	plan event marketing for promotional campaigns
carry out naming strategies	execute advertising for vehicles	plan marketing campaigns
collaborate in the development of marketing strategies	execute email marketing	plan marketing strategy
communicate with customer service department	execute marketing plan	plan new packaging designs
communicate with customers	help coordinate promotional activities	plan social media marketing campaigns
conduct mobile marketing	identify customer's needs	prepare exhibition marketing plan
conduct online competitive analysis	identify market niches	prepare market research reports
conduct search engine optimisation	identify potential markets for companies	prepare promotional materials on nutrition
content marketing strategy	identify stress points of customer interaction	promote company
contribute to public health campaigns	implement customer follow-up	provide advertisement samples
coordinate advertising campaigns	implement footwear marketing plan	research website users
coordinate marketing plan actions	implement marketing strategies	services marketing
create advertisements	integrate marketing strategies with the global strategy	set brand positioning
create annual marketing budget	lay out digital written content	set up advertising street furniture
create brand guidelines	lead the brand strategic planning process	study craft trends
create media plan	liaise with advertising agencies	supervise brand management
create media schedule	liaise with distribution channel managers	use CAD software
define brand identity	maintain customer service	use experience map
define measurable marketing objectives	manage brand assets	use theoretical marketing models
design brand's online communication plan	manage creative department	work with advertising professionals
design materials for multimedia campaigns	manage development of promotional material	write leaflets
design press kit for media	manage media services department	
develop communications strategies	manage online communications	

Table 7 - CROM results (top 25)

#	ISCO	Description	Number of underlying occupations	Total essential	Total optional	Marketing - essentieel	Marketing - optioneel	Time share
1	1222	Advertising and marketing professionals	3	61	97	29	36	43%
2	2431	Advertising and public relations managers	21	293	297	88	118	33%
3	1221	Sales and marketing managers	16	316	243	98	53	28%
4	2432	Public relations professionals	11	142	161	39	33	25%
5	4419	Administrative assistants n.e.c.	2	17	32	2	12	24%
6	3322	Newspaper and leaflet distributors and other street service occupations	3	46	59	5	19	19%
7	4229	Sales representatives, retail account managers and export managers	1	9	13	2	1	16%
8	1412	Shopkeepers	1	33	16	6	0	15%
9	2434	Web and multimedia developers	4	58	31	9	3	14%
10	4213	Research and development (R&D) managers	1	14	7	2	1	14%
11	1223	Demonstrators	12	188	162	26	16	13%
12	5221	Retail supervisors	1	23	12	3	1	12%
13	4221	Information and communications technology sales professionals	9	183	111	25	5	12%
14	4224	Industry sales representatives and account managers	3	42	38	5	4	11%
15	3324	Website development and administration associate professionals	41	630	54	74	1	11%
16	2433	Mixed crop and livestock farmers	13	258	67	29	8	11%
17	4225	Outbound call centre workers	1	22	10	3	0	11%
18	9621	Conference and event organisers	2	13	20	2	1	11%
19	9510	Restaurant managers	1	5	9	0	2	11%
20	1439	Business services agents n.e.c.	8	188	118	19	12	10%
21	5243	Managers of commercial and personal services n.e.c.	1	16	8	2	0	10%
22	5151	Health services managers	2	30	23	3	2	10%
23	1411	Hotel managers	3	57	50	6	3	9%
24	5249	Retail and wholesale trade managers	14	268	34	26	0	9%
25	3339	Travel attendants and stewards	8	106	76	5	13	8%

Table 8 - Investmet shares

Industry (A*38)	Investment share	CMO Survey category
A Agriculture, forestry and fishing	40%	Total
B Mining and quarrying	40%	Total
10-12 Food, beverages and tobacco industry	40%	Consumer Packaged Goods
13-15 Textiles, clothing and leather industry	40%	Consumer Packaged Goods
16-18 Wood, paper and printing industry	40%	Total
19 Petroleum industry	40%	Total
20 Chemical industry	40%	Consumer Packaged Goods
21 Pharmaceutical industry	40%	Total
22-23 Plastics and building materials industry	40%	Total
24-25 Basic metals and metal products industry	50%	Manufacturing
26 Electronics industry	50%	Manufacturing
27 Electrical equipment industry	50%	Manufacturing
28 Machinery industry	40%	Total
29-30 Transport equipment industry	40%	Total
31-33 Other manufacturing and repair	50%	Manufacturing
35 Energy utilities	40%	Total
E Water supply and waste management	40%	Total
F Construction	35%	Construction and Mining
G Trade	35%	Retail and Wholesale
H Transport and storage	60%	Transportation
I Accommodation and food services	55%	Consumer Services
58-60 Publishing, film, radio and television	35%	Communications Media
61 Telecommunications	35%	Communications Media
62-63 IT and information services	40%	Tech, Software, Platform
K Financial services	50%	Banking, Finance and Insurance
L Real estate activities	35%	Real Estate
69-71 Management and technical consultancy	40%	Professional Services
72 Research	40%	Professional Services
73 Advertising and market research	0%	Separate treatment
74-75 Creative & veterinary services	40%	Professional Services
N Rental and other business services	40%	Professional Services
O Public administration and government services	70%	Expert estimate
P Education	30%	Education
86 Health care	55%	Consumer services
87-88 Care and social work	55%	Consumer services
R Culture, sports and recreation	55%	Consumer services
S Other services	55%	Consumer services

PIM¹⁹ interview outcomes

Who within your organisation is primarily involved in purchasing marketing campaigns or arranging sponsorship agreements?

Number of responses: 5

- Marketing and communications specialists — 3 (60%)
- Sales managers — 0 (0%)
- Marketing managers — 3 (60%)
- Procurement department — 0 (0%)
- Executive management / senior leadership — 4 (80%)

How is your marketing budget allocated between brand building (long term) and sales activation (short term)?

Number of responses: 5

- 50% / 50%
- 70% brand building / 30% activation
- 40% brand building / 60% activation
- 40/60, moving towards greater brand building (60/40)
- Synergy. We currently take a 360-degree approach, whereas previously it was 20/80 in favour of activation

Who is primarily involved in creating marketing campaigns within your own organisation?

Number of responses: 5

- Internal marketing or communications specialists — 5 (100%)
- Designers or content creators — 3 (60%)
- Project managers — 1 (20%)
- External freelancers — 2 (40%)
- Specialist work is usually outsourced (such as film, audio, etc.) — 2 (40%)
- External marketing agency — 1 (20%)

Are the employees involved fully dedicated to marketing production, or do they combine this with other tasks?

Number of responses: 5

- They work exclusively on marketing production — 1 (20%)
- They combine this with other marketing-related tasks (such as strategy, coordination, etc.) — 4 (80%)
- They combine this with non-marketing tasks (such as administration, communication, etc.) — 1 (20%)

¹⁹ See <https://pimonline.nl/>

Table 9 - Relevant occupation codes: ISCO-08 and SOC-20

To be used with

Table 1.

ISCO-08

		Used in study
122	Sales, marketing and development managers	Global INTAN-Invest, Spain
1221	Sales and marketing managers	US, Netherlands
1222	Advertising and public relations managers	US, Netherlands
1223	Research and development (R&D) managers	(Implicit in 122 aggregate)
212	Mathematicians, actuaries and statisticians	US
243	Sales, marketing and public relations professionals	Global INTAN-Invest, Spain
2431	Advertising and marketing professionals	US, Netherlands
2432	Public relations professionals	US, Netherlands
2433	Industry sales representatives and account managers	(Implicit in 243 aggregate)
2434	Information and communications technology sales professionals	(Implicit in 243 aggregate)
2513	Web and multimedia developers	US
2651	Visual artists	Spain
2654	Directors and producers for film and theatre etc.	US
3118	Draughtspersons	Spain
3432	Interior designers and decorators	US
3435	Other artistic and cultural associate professionals	US
352	Telecommunications, radio and television technicians	Spain
732	Printing workers	Spain

SOC-20 (used in the UK study)

Code	Description
1132	Marketing, sales and advertising directors
1133	Public relations and communications directors
1255	Managers and directors in the creative industries
2142	Graphic and multimedia designers
2432	Marketing and commercial managers
2494	Advertising accounts managers and creative directors
3553	Merchandisers
3554	Marketing associate professionals
3556	Sales accounts and business development managers

Table 10 - Overview and comparison of recent country studies

	Spain	UK	US	Global Intan Invest	Netherlands
Purchases	IC of CPA 73	IC of CPA 73 combined with turnover data of NACE 73	'Advertising purchases' from NACE 73 and calculated 'marketing services' from NACE 62, 6311, 7021, 7022 and 7420	IC of CPA 73	IC of CPA 73 and parts of CPA 58
Investment share - purchases	60%, except 30% for NACE 73	60% (IC CPA 73) and 80% (turnover NACE 73)	60% (advertising purchases) and 95% (marketing services)	60%; lower for NACE 73	Varies by industry based on the CMO Survey (2023)
Own-account production: occupations (ISCO-08) & time share	122: 15% 243: 50% 2651: 3118; 3520; 7320: 5%	SOC20 codes, time factor / relevance factor* 1132: 20%/23% 1133: 20%/23% 1255: 20%/38% 2142: 20%/53% 2432: 55%/20% 2494: 30%/53% 3553: 70%/45% 3554: 70%/45% 3556: 55%/20%	1221, 1222, 2431, 2513, 25 (in part), 2120, 2654, 3432, 2432, 3435 – all 30% time share	1220: 15% 2430: 50%	1222: 43% 2431: 33% 1221: 28% 2432: 25%
Investment share - own-account production	No	Yes		No	Yes
Public sector included	Yes	No		Yes	Yes