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Sector paper: Publishing of directories and mailing lists Publishing of newspapers, journals and periodicals

Yann Leurs
Insee, France

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Introduction

This Sector Paper is an in-depth look at two classes of the Publishing activities division (ISIC 4.0 classification):

- 5812 Publishing of directories and mailing lists
- 5813 Publishing of newspapers, journals and periodicals

General considerations about Publishing activities as a whole (division 58) can be found in the 2014 Sector Paper of the Voorburg Group (VG), whose preliminary reading is highly recommended.

This paper summarizes the experience of Canada, Croatia, Spain and the United States for collecting turnover and price data for the two classes mentioned, as presented and discussed at the 34th VG meeting. This paper aims to highlight some of the challenges involved with identifying, collecting and monitoring output and price movements for these services. The paper will also outline areas where further discussion is needed before recommendations and best practices can be suggested.

Due to the weight of advertising in publishers turnover, the reading of the Sector Paper on advertisement (ISIC 731) is also recommended; the writing of a *Revisited* Sector Paper on Advertisement, introducing new issues discussed at the 34th VG meeting, is forecast.

1. Description and characteristics of the industry

1.1 Definition of the industry

Definition of service

According to the International Standard Industrial Classification of All Economic Activities (ISIC) Rev. 4, class 5812 "Publishing of directories and mailing lists" includes the publishing of lists of facts/information (databases) that are protected in their form, but not in their content. These lists can be published in printed or electronic form. This class includes:

- publishing of mailing lists
- publishing of telephone books
- publishing of other directories and compilations, such as case law, pharmaceutical compendia etc.

Class 5813 "Publishing of newspapers, journals and periodicals", according to ISIC Rev. 4, includes:

- publishing of newspapers, including advertising newspapers
- publishing of periodicals and other journals, including publishing of radio and television schedules.

Publishing can be done in print or electronic form, including on the internet.

Industry classifications

NACE (Statistical Classification of Economic Activities in the European Community) rev.2

NACE 58.12 is equivalent to ISIC 5812.

The ISIC class 5813 is separated in NACE into two codes, 58.13 for newspapers and 58.14 for journals and periodicals:

- NACE 58.13 comprises the publishing of newspapers appearing at least four times a week,
- NACE 58.14 comprises the publishing of periodicals and other journals, appearing less than four times a week.

NAICS (North American Industry Classification System)

The NAICS counterparts of NACE 58.12 to 58.14 are codes 511140, 511110 and 511120 respectively (see Appendix 1).

Product classifications

CPA (Statistical Classification of Products by Activity)

In the classification used in European countries (CPA 2015), the products of Publishing of directories and mailing lists (ISIC 5812) and Publishing of newspapers, journals and periodicals (ISIC 5813) are classified using the same first 4 digits than in NACE, with detailed categories as follows:

58.12: Publishing of directories and mailing lists

58.12.1: Directories and mailing lists printed or on physical media

58.12.2: On-line directories and mailing lists

58.12.3: Licensing services for the right to use directories and mailing lists

58.13: Publishing of newspapers

58.13.1: Printed newspapers

58.13.2: On-line newspapers

58.13.3: Advertising space in newspapers

58.13.31: Advertising space in newspapers, printed

58.13.32: Advertising space in newspapers, electronic

58.14: Publishing of journals and periodicals

58.14.1: Printed journals and periodicals

58.14.2: On-line journals and periodicals

58.14.3: Advertising space in journals and periodicals

58.14.4: Licensing services for journals and periodicals

CPC (Central Product Classification)

In CPC, products of publishing of directories, mailing lists, newspapers, journals and periodicals can be found under subclasses belonging to seven groups:

- 322 Books, in print

- 323 Newspapers and periodicals, daily, in print

- 324 Newspapers and periodicals, other than daily, in print

- 733 Licensing services for the right to use intellectual property and similar products

- 836 Advertising services and provision of advertising space or time

- 843 Online content

- 891 Publishing, printing and reproduction services.

The CPC subclasses linked to ISIC 5812 or 5813 are identified in the appendix 2. It is worth noting that many of these subclasses are non-exclusive to ISIC 5812 or 5813.

NAPCS (North American Product Classification System)

The links identified with the NAPCS broad product codes are non-exclusive to ISIC 5812/13 as well, and are shown in the appendix 2.

- Classification issues

The main classification issue appears to turn around the inclusion of online-only publishers in the industries under review. According to the ISIC note on the 5813 class ("Publishing can be done in print or electronic form, including on the Internet"), there seems to be no indication that online-only publishers should be excluded from this class. Indeed, in European countries where NACE 5813 and 5814 are used, online-only publishers are considered to be included in these industries.

It is in North American countries, where NAICS is used, that different approaches appear in the contributing countries (United States, Canada):

- United States consider online-only publishers as part of NAICS 519130 "Internet publishing and broadcasting and web search portals", which is not connected to ISIC 5813 in the correspondence tables, and therefore excluded in the measurement of the latter,

- Canada decided recently to migrate online-only publishers of newspapers, journals and periodicals in the same industries as their printed counterparts, because of major companies moving towards an online-only presence.

1.2 Market conditions and constraints

- Importance of the industry compared to the service industry and the whole economy

In most countries, the publishing industry of directories and mailing list represents a very small share of the whole economic activity (Canada: 0,21% of the GDP; in Croatia, there have been no active legal units registered under the class code 5812; in Spain, the evolution shows that not only the turnover is decreasing, but also its relative importance within the publishing sector). Some companies whose main activity may be in other divisions, such as ISIC 61 (Telecommunications), might still publish online telephone books, but not register their activity under the code 5812, not even as third or fourth activity.

At the opposite, ISIC 5813 is regularly one of the biggest turnover share in the 581 group, along with 5811 Book publishing. However, the absolute size of the 5813 industry (in terms of overall turnover) **also** tends to decrease substantially and has become a smaller proportion of the whole economy.

- Public regulations affecting the market situation

The main public regulations that firms must abide by in these industries involve copyrights, trademarks, and other intellectual property protections. Depending on the country, directory and mailing list publishers may also be seeing specific regulations because of privacy laws being passed or considered, or may face regulations regarding unsolicited email. Online publishers have also to conform to user data protection.

- Degree of concentration within the industry

The levels of industry concentration really depend on the sub-sector and the country. For ISIC 5813, a handful of publishing groups may concentrate most of the turnover in some countries, or overall concentration may be fairly low outside of a few major players.

However, what has been experienced in all countries is a process of consolidation because of various mergers, acquisitions, or divestitures. There has been a common decline in the number of establishments within these industries: smaller firms are being acquired by larger competitors and are sometimes converting to Internet-only subscriptions to reduce costs. The level of concentration in a country may be seen as the result of this significant re-organization process, still going on.

- Type of consumer of the services (B2B, B2C, B2X)

The disaggregation of the statistics by type of consumer is an issue especially for European countries submitted to the FRIBS regulation.

Regarding advertising space in journals and periodicals (printed and online), the sales are clearly targeted at business users, the weight of BtoC (classified ads) seems to be negligible.

For the revenue from sales of publication and subscriptions, publishing of directories is mainly B2B, whereas in publishing of newspapers and journals there is a significant percentage of B2C:

- General publications (general news, regional, sports, entertainment, art, etc.); and general interest periodicals (including general articles, pictures, fiction...) are mass-marketed in retail settings to the general public.

- At the opposite, professional periodicals containing news and information regarding manufacturing, trade, professional and scientific services, and other industries, are directed primarily toward persons engaged in these industries, so mostly B2B.

These are general considerations that may help when detailed breakdown is not available. Some countries manage to collect the revenue by type of end-users of publishing services, so they get more precise figures that can be used for disaggregation of the turnover or SPPI.

- Horizontal/vertical integration

For a text to arrive printed at the final reader, the joint action of three sectors is needed : the publishing industry, the printing industry and the commercial sector. These three sectors are closely related and in some cases the same group is able to perform all these activities. In countries where the publishing industry of newspapers, journals and periodicals is dominated by large corporate groups, they often have established subsidiaries that are specialized in a type of newspaper/magazine, or affiliates according to the type of dissemination (printed or online).

- Trends

Newspapers, journals and periodicals

The publishing part of the Internet industry entered its maturity phase by the end of the twentieth century, then, with the possibilities of digitization, the circulation rate of printed editions started to decrease.

Most print editions, such as newspapers, journals and periodicals, followed this downward trend more or less steeply, but did not fully develop their potential on the digital market, leading some publishers to bankruptcy. This trend is not completely over, as shown by the countries figures provided in their presentations. Indeed, in many countries, revenue from digital counterparts is still rather small: new revenue from digital publishing subscriptions is dim, and the growth of online advertising has not yet been sufficient to recover lost revenue from print advertising or physical subscriptions.

The situation varies among countries regarding online advertising revenue. Although advertisers spending on the internet is soaring in some countries, this growth does not fully benefit publishers. Online publishers have to compete with other online news providers, such as web portals.

Some exceptions are noticed, publishers who have been able to retain a higher proportion of their readership by writing niche content, or relying on branding to differentiate their content from that of others.

Recently, more newspaper and periodical publishers have elected to circulate a portion of their physical content for free, relying on advertisement for the budget needed.

Directories and mailing lists

The 5812 industry (directories and mailing lists publishing) is very small and is also declining, as internet search engines have replaced many of the original uses of directories, and advertisers can now place their marketing content on other websites.

- Product structure, primary / secondary products

Newspapers, journals and periodicals

Countries do not have the same possibilities to edit statistics at a fine product level, depending on the sources (tax data, census, structural business surveys) and the details available.

If the fine disaggregation proposed by the official classification used in the country is not accessible, two kinds of breakdown may sometimes be accessible:

- Breakdown 1: a) subscriptions and sales / b) advertising / c) Licensing of rights
- Breakdown 2: a) revenue from traditional formats / b) revenue generated online

Directories and mailing lists

One contributing country mentions the separation of advertising sales from subscriptions and content sales. Although all official classifications mention a detailed product structure, the low turnover in this industry does not generally justify efforts to disaggregate statistics by finer product codes.

1.3 Specific characteristics of the industry

- Nature of sales

Newspapers, journals and periodicals

Publishers largely continue to sell issues of their papers through newsstands and subscriptions, which had been the case for decades. In terms of printed publication, once a newspaper, or another publication is printed, the publisher may use a variety of channels to distribute it. Newspapers and magazines are typically sold in advance directly by the publisher to subscribers, and then distributed either through the postal system or by newspaper carriers. The distributors are remunerated by a commission. Depending on the local rules, publishers may be obliged to buy back unsold publications.

What has changed in this industry is the development of online editions. Instead of manufacturing a product and distributing it to a physical retailer (or directly to the customer via postal or delivery services), the producer can eliminate manufacturing costs and physical distribution costs, while at the same time inventories are no longer needed. Many intermediaries that were previously required, including manufacturers, distributors, retailers and delivery services, are no longer necessary. However, new intermediaries assume part of this role, such as IT companies.

Online editions and their coexistence with print has led to new ways for firms to sell their services. One technique that some newspapers have implemented on their web pages are paywalls. This allows potential customers to view a certain number of articles free of charge per month or just specific articles without having to pay for a subscription.

See also appendix 3 : Pay models across countries (newspapers and weeklies only).

Directories and mailing lists

The directory and mailing list publishing industry is similarly competing with digital alternatives. Information compiled in the publications of these firms has become comparatively available through various search engines and social media websites. As a result, firms providing these services are facing challenges to their revenues from sales of advertising space, as advertisers have been shifting to online alternatives that are in some cases free of charge to customers. Even though the major firms in this industry already have an Internet presence, online competition has forced access or subscription fees to drop, which puts a lot of pressure on existing business models as they are being pinched in more than one way.

- Development of new products/services in recent years or expected in the near future

New pricing schemes seem to be available for newspaper and periodical publishers: they are now able to take advantage of user data. These data can be used by implementing soft and hard paywalls, teaser rates or discounted rates to price discriminate. For example, in Canada publishers can request student emails (with an institution domain name) to offer lower subscription access to students.

These firms are also trying to use their branding to generate new revenue streams by giving readers the opportunity to buy access to experiences or events or to buy physical merchandise. For instance, some newspapers sell access to events featuring their journalists and their experts.

2. Turnover / output measurement

2.1 General framework

- Objectives of key users

National accountants use the turnover statistics to measure the industries value-added in national economies. Output data are made available to the public and may also be used by stakeholders (businesses, regulators), to monitor the growth of the industry, and, in some countries, by authorities to support policy decision-making. In Europe, data is regularly sent to Eurostat.

- National Accounts concepts, definition of output for this industry

Industry output is estimated based on operating revenues plus own-account capital formation. Value added is the value of output less the value of non-capital purchased goods and services that are consumed in the production process. It is worth noting that for these industries, unlike many services industries, transport and trade margins do exist (for the delivery of the physical goods, printed publications) and should be isolated from the output.

A large part of the publisher's income, hence of publishing production, is made up of the sale of advertising space. Sales of advertising space can occur in many different industries. Some of these industries in which advertising sales are considered primary revenue are numerous (newspapers and periodical publishing, radio broadcasting, television broadcasting, internet service providers, web search portals, etc.).

This raises an issue of the separation of turnover between the publishing and advertising industries. Indeed, the sales of advertising space (as perceived by the advertiser) are often shared between the publisher and an intermediary such as a media marketer. Only the net output (excluding the commission due to the media marketer, which provides an intermediary service linked to the advertising industry, ISIC 7310) should be taken into account in the measurement of the output of the 5812/13 industries.

2.2 Measurement issues

- Product structure, importance of product level details

As seen in 1.2, product level details can be based on the distinction between revenue from advertisement vs other revenue (sales, subscriptions, licensing) and/or the distinction between revenues from traditional formats vs. revenues generated online. However, such details on the characteristics of these industries are often not available from tax data, so they generally need to be collected in surveys to be available.

Additional variables collected by survey can also include sales breakdowns by type of newspaper or magazine, digital sales, circulation counts, channels of distribution, etc. For example, in Canada, newspapers are categorized into daily newspapers, general community newspapers, and specialized community newspapers. In the periodical industry, similar clarifications are requested to differentiate consumer periodicals from business-to-business, trade, and professional periodicals. Examples of such data include the proportion of sales that come from complimentary or online circulation. However, the characteristic data are more difficult to collect as concepts are not always measured or interpreted in a uniform manner by respondents, and are often not static.

Output estimates should also ideally include comprehensive measures of the value of intellectual property produced, the enduring value of the publishers products and copyrights. Data collected that could be sold, specifically user data and web traffic data. Although marginal, this may be a source of revenue (in a product approach, not included in the industries under review).

- Sampling design. Include any specific issues influencing the design in this industry and the sampling units necessary

As these industries are usually included into broader surveys on turnover of service industries, the sampling process does not seem to be particular for them. A stratification by activity and size is usually conducted with an eligibility threshold, under which units are not surveyed but estimated with administrative data. Certainty units (cutoff) and uncertainty units may coexist (ex: United States). The "size" of unit can be defined by employment figures or turnover, or (specifically in this industry) with circulation figures (case of newspapers and periodicals).

2.3 Description of methods for measurement

- Description of estimation procedure (if not census)

Based on the experience of the two countries that presented output measurement for ISIC 5812/13 at the VG meeting, both administrative and survey data are used in the process of calculation.

- In Canada, data collected by survey means (survey of service industries) are combined with information from other administrative data sources to produce official estimates for key financial variables and industry characteristics.

- The United States provide output data using surveys (quarterly services survey, annual service survey) and the quinquennial economic census. Administrative data usage, provided by other federal agencies, is limited to imputation models and analyst review of cases that may be missing key data items.

- Frequency of collection and for which purposes

The frequency of collection and publishing is very different between countries.

- In the United States, on an annual basis, BEA publishes statistics at the NAICS four-digit level, 5111 "Newspaper, Periodical, Book, and Directory Publishers". Every five years, BEA publishes a detailed benchmark table by six-digit NAICS. This table includes: 511110, Newspaper Publishers; 511120, Periodical Publishers; and 5111A0, Directory, Mailing List, and Other Publishers.

- In Canada, for budgetary reasons, the periodical publishers and newspaper publishers are surveyed every two years and database, directory, and specialty publishers on an annual basis. Year-to-year output estimates rely on imputed data during years where there is not full survey coverage.

3. Measurement of SPPI

3.1 General framework

- Objectives of key users

As for many other industries, SPPIs are used in national accounts as deflators to determine real outputs of these industries, or to deflate service production indices (ISP). Deflators can be a combination of SPPI and CPI, as the BtoC component is significant, especially for ISIC 5813.

In Europe, data is regularly sent to Eurostat.

The precise aggregation levels chosen as deflators vary widely from country to country. Some countries use the 2-digits aggregated SPPI (ISIC division 58) to deflate all publishing industries, or the 3-digits level (581) to deflate industries related to this group.

- For ISIC 5813, deflators tend to be calculated at NACE level in European countries (58.13 “Publishing of newspapers” and 58.14 “Publishing of journals and periodicals”), some countries having these SPPIs under current development (Spain).

- The United States have the most detailed deflators as they compute and publish 6 deflators for ISIC 5813 (511110P- Newspaper Publishers Primary Services; 5111106- Newspaper Subscription and Single Copy Sales; 511120P- Periodical Publishers Primary Services; 5111205- Periodicals, Subscriptions and Single Copy Sales; 51112051- Specialized Business and Professional Periodicals; 51112052- General and Consumer Periodicals, Subscriptions and Single Copy Sales).

3.2 Measurement issues

- Product structure in industry, importance of product level details

See also 2.2.

Some countries that are confronted with the unavailability of product level details in administrative data or turnover surveys are able to collect information on the breakdown of companies turnover as part of the SPPI survey. The collection of a yearly turnover by fine product can for instance be part of the survey of the first quarter of the year (ex: Spain).

- Type of SPPI described, sampling unit used – Industry/Product

In the contributing countries, the methodologies used for the compilation of SPPI are based on the product approach.

- Any data sources available (or used) for replacing surveys?

One country reported the use of an external source alternative to the survey: in Spain, prices of advertising in newspapers and magazines are obtained through a collaboration agreement with a company that carries out the exhaustive control of the advertising activity in the country and which is a benchmark for the entire advertising sector.

- Sampling design. Include any specific issues influencing the design in this industry and the sampling units necessary

As these industries are usually included into broader surveys on SPPIs, the sampling process does not seem to be particular for them. Samples are based on cut-off samplings and/or probability of selection proportionate to size, usually with a minimum threshold.

- Data sources for various weights

The individual transactions included in SPPIs are usually weighted by the producing firm's turnover for the product line. These weights can only come from economic census or turnover surveys if they provide sufficient sublevels details (ex: United States). Most often they come from a specific questionnaire in the initialization phase of the SPPI survey, or are asked once a year in the regular SPPI survey itself (Spain, Croatia). The last mentioned solution permits a yearly update of the elementary weights.

3.3 Description of pricing methods and criteria for choosing the method

- Definition of the service being priced

Companies of these industries sell two main products: published content (printed or online) and advertising space. By doing so, they have several revenue streams:

- revenue generated from the sale of content (mailing lists, individual copies of directories, newspapers and periodicals, as well as subscriptions, which can include online access and print copies),
- advertising revenue, which is generated from the sale of advertising space,
- some may also charge licensing fees for the use of their content.

- Price determining characteristics of the service

Price determining characteristics for the publishing industry differ depending on the types of services mentioned above.

Sale of content: single copy sales

Publishers typically sell print publications in bulk quantities to national distributors, wholesalers, or retailers which distribute the publications to newsstands. Price determinants include the name of the newspaper/periodical, the circulation, the format and characteristics of printing, such as colored/black and white. In a producer's price approach, the distribution channel is also determining even if it does not affect the retail price for the end user: each single-copy sale transaction represents a unique deal with a specific wholesaler or distributor.

Sale of content: subscriptions

Price determining characteristics for subscriptions to publications include the format (print, online, or bundled access), type of subscription (new or renewal), and the duration of the subscription. For periodicals, the number of issues included in the subscription can be price-determining. For newspapers, the frequency of delivery (daily, daily and Sunday, weekend only, Sunday only, 7 days...) can affect the price.

Directory and mailing list subscriptions have additional price determinants, including the amount of data provided, the number of users allowed to access, the size of the customer, and whether the fee is for single or ongoing usage of the data. For mailing lists, specifically, price may also be influenced by the number of records or leads purchased, the number of data elements per record, and the filters or criteria used to refine the mailing list.

Advertising: print

For advertising transactions in traditional print publications, the unit of measure typically refers to the name of the newspaper/journal/periodical; the format of the ad (number of columns or 1/6th fractions of a page, type of graphics, colors used); the sections of the paper in which it is inserted; the frequency with which the ad appears in publications.

Buyers may request guaranteed placement in a specific position within the print edition, digital edition, or publication's website. The exact placement of the advertisement, contingent upon the section of the publication in which the ad is placed, is also important.

The value of an advertising space is also defined taking account of the expected audience, usually based on circulation figures.

Online advertising

Online or digital advertising fees are charged depending on "audience" indicators, such as the number of ad views per view of the site where they appear. Three kinds of units are commonly used:

- Publishers may charge advertisers each time an online advertisement is clicked upon: this is known as cost per click, or CPC pricing.
- Publishers may charge clients based on the number of thousands of impressions (when an advertisement appears on a webpage) that are displayed for a particular advertisement: this is known as CPM (cost per thousand) pricing.
- In specific cases, the publisher is compensated only if an Internet user takes an action after viewing an ad, such as completing an online registration form or completing a purchase: this is known as CPA (cost per action) pricing.

For each unit, the price determining characteristics in online newspapers, journals and periodical services can be the following: the name of the newspaper/journal/periodical; the type of banner (half page, billboard, mega billboard, ticker, takeover...), pixel dimensions, the position on a page, the frequency with which the ad runs.

The type of advertisement, which can be classified into several main categories depending on the technology used, also determines the price:

- *Online display ads* (classic ads, non contextual),
- *Contextual advertising*: advertising that occurs when websites display text ads relevant to the content of the particular webpage viewed by a user. Advertisement companies propose innovations that are increasing the accuracy of contextualization, due to new tools and the use of user data,
- *Search ads*: internet advertisements that appear when an Internet user conducts an online search. These ads are typically a very small share of total ad turnover. Publishers are generally compensated for search advertising on a per click basis where the publisher is paid a set fee each time the ad is clicked upon.

- *Programmatic advertisement*: online ads in which the price charged is based on an auction or bidding process in real-time.

The need for intermediaries (IT companies, “ad networks”, web portals) also affects the price. The price per click or thousand impressions received by a publisher tends to be lower when the ad space is sold by an intermediary than when the publisher works directly with the advertiser.

Licensing fees

The compensation for content licensing fees can vary widely based on the agreements made between publishers and those to whom content is licensed.

- Price method chosen

The large range of services provided and the number of price factors being involved lead to various methods. Here are the main methods reported by the contributed countries, by broad type of service.

Sale of content: single copy sales

Direct use of repeated service

The respondent chooses several products from among the most representative (specific newspapers, magazines, directories that generate the largest turnover). Companies must specify the characteristics necessary for the product to be unequivocally identified for the price collection of successive quarters.

For printed publications, because the wholesaler or distributor sells the publication to newsstands or stores, the transaction price has to be a reflection of the producer’s price, so the net price retained by the publisher, which may not be the cover price. If the publisher is only able to provide prices based on gross figures, and if its distribution channels are not used to strong variations, the gross price may be an acceptable fallback but it has to be noted in the transaction description.

For mailing lists and directories, a content access fee may be charged for one-time access to content. For these transactions, an actual transaction price is collected.

Average price per unit: this is the net turnover for single copy sales of a homogeneous family of publications, divided by the number of the units sold.

Model pricing

Especially used for mailing lists: respondents either provide the details of a recently transacted mailing list or construct a realistic, hypothetical mailing list example. During repricing, the respondent reports the price that would be charged to construct the same mailing list.

Sale of content: subscriptions

Direct use of repeated service

The characteristics specified should also include the following criteria:

- Format (print only, online only, print and online bundled, access on specified types of devices (e.g. tablet only; smartphone only),
- Duration and frequency of subscription,
- New subscription or renewal. New subscriptions are often offered at rates lower than those for renewals.

For subscriptions, third party commissions may exist (especially for online subscriptions) and have to be subtracted as well.

Average price per unit

The turnover for recently transacted subscriptions of a selected duration and frequency is divided by the number of these units delivered. This number of units delivered is not necessarily the same as the number of subscriptions sold, because it can include free and/or promotional copies. Noting the buyer type is important because some buyers, such as universities, libraries and non-profit organizations, receive free or discounted price copies.

List prices

List prices should only be collected if no other pricing options are feasible. When possible, the average discount percentage should be collected and applied to the list price, in order to calculate an average price closer to reality. Ideally the calculation of the average discount should also include any transaction in which the subscription was offered free of charges.

Model pricing

One country only among contributors mentions this method. A recently billed transaction that is a good representation of the firm’s business is selected at initiation. The respondent will then estimate the price that would be charged in subsequent periods, if the same service were to be provided to a similar buyer.

Advertising: print

Average price per unit seems to be the most commonly used method for advertising prices. The average price should be isolated to a specific advertising offering based on non-equivocal characteristics. The Eurostat-OECD SPPI guide is very insistent on that: "If the unit value method is employed across different clients and advertisements the index may suffer from bias. Therefore, it is vital that the method should only be employed for fully homogeneous services."

The unit has to be clearly identified: full page, ½ page, per column inches, etc. Only if the unit is not easy to define, the average price for a group of ads with very similar characteristics (format, type, size) may be reported on a per ad basis.

As the pricing is heavily influenced by the audience, price series should ideally be corrected by circulation figures, or changes in circulation should be managed as quality adjustments.

Direct use of repeated service

An individual transaction is selected for collection, and in future months the respondent reports the actual price paid by similar customers purchasing the same ad under similar conditions. It is necessary to fix the following characteristics:

- Format (print, print and online bundled)
- Type of advertisement (display, classified, insert)
- Size of advertisement (e.g. full page, ½ page)
- Placement of advertisement (e.g. back cover, front page, main section, business section)

Contract price

The method consists in collecting the prices of some representative contracts with advertisers. This approach may be appropriate as long as new contracts are regularly introduced in the survey. The contract changes should be managed according to rules for product replacements. For publishers present both on traditional and online segments, contracts usually bundle the two areas.

List price / rate card price

Only one country among contributors uses this method as a fallback. A standard list price offered by the firm may be available for a specific type of advertising service. This list price may be referred to as a rate card price. The average discount percentage should be collected and applied to the list price to calculate an average price closer to reality. Discounts are really frequent for media space and can be the result of negotiations with advertisers or their representatives, or either a compensation ex post for underachieved audiences.

Online advertising

Average price per unit

The total turnover earned during the period is divided by the unit used for pricing: CPM, CPC or CPA. These units intrinsically contain an adjustment to achieved audience size. Again, very homogeneous categories of advertisement have to be constituted to ensure that this method does not lead to any sort of bias.

In most cases, publishers seem to be capable of reporting average prices for online ads also if the price charged is based on an auction or bidding process. The price taken into account must be diminished of all fees due to intermediaries involved in the programmatic chain: ad networks, supply side platforms...

Bid price

In the case when an average price data is unavailable for sponsored search listings or other types of advertising in which prices are determined by a bidding or auction-based process, the collected price may be the price per click that would be charged if a listing at a certain position was clicked upon for a specific keyword search conducted on the pricing date. For example, this may be the per click price for the 2nd listing position for the keyword "car" on the pricing date. The time of day (noon, 5 pm, etc.) should be specified as well if it is a price determining characteristic. This type of price is called the bid price.

Contract price

For publishers present both on traditional and online segments, contracts usually bundle the two areas.

Licensing fees

Only one of the contributing countries (United States) collects licensing fees relatives to these industries. The method used is the model pricing: most of the licensing services provided being highly customized or transacted infrequently, an estimated transaction price is collected instead of an actual transaction price.

- Description of index estimation procedure, including estimation of missing prices

Where weights are changed yearly, SPPI series can be calculated as Laspeyres chain-linked indices. Such an approach reduces bias inherent in the Laspeyre formula and also facilitates updates of samples of reporting units and services.

If no price report for an elementary price series has been received in a particular month, the change in the price of the associated transaction is usually imputed by averaging the price changes for other transactions within the same group of services for which price reports have been received. This method is especially appropriate to the following methods: direct use of prices for repeated services, or the unit value method. However, prices of contracts can be imputed by carrying forward.

- Quality adjustment methods and sources of data quality if not obtained directly from respondents

The accuracy with which the SPPI estimates price changes depends on the stability over time of the conditions initially established. This implies that the product selected for the sample should not change its technical and commercial characteristics. In the latter case, a quality adjustment is needed to estimate the price variation without taking into account the change in the characteristics of the service, i.e. to determine what part of the price difference between the new product chosen and the previous one is due to the differences between them. For instance, quality adjustment may be needed for subscription transactions if the number of issues delivered during a set time frame (such as one year) changes.

Average prices per unit are more subject to quality fluctuations than individual transactions. They should reflect market-driven price changes over time, rather than distortions driven by major changes to the buyer or product mix used to calculate the average. An example of such a distortion would be if the average per unit included a mix of full page and half page advertisements that ranged from being mostly made up of full page ads and mostly made up of half page ads (for which the per unit price is typically lower). In this case, a product replacement or a quality adjustment is needed.

Quality adjustment is also necessary for advertising transactions when there is a large change in circulation. Advertisers view a publication's circulation as an important factor when negotiating advertising rates. An increase in a circulation figure suggests that ads placed in the publication will be seen by a larger audience. However, if circulation declines, advertisers perceive a loss in the value of the advertisement since its potential reach has fallen.

Bundles of print and digital advertisements are developing, and can constitute a hurdle to quality adjustment as the information is aggregated. One country (United States) mentions the collection of that kind of bundle as a "print and online bundled offering" instead of separately itemizing the two forms of advertisement.

- Frequency of collection

In Croatia and Spain, prices are collected quarterly. In the United States, the collection of prices is on a monthly basis.

3.4 Evaluation of comparability of Price data with Output data

In some countries, the sample of companies used for turnover calculation and the sample of the SPPI survey are obtained from the same sample universe. For instance, in Spain, the Structural Business Survey (SBS) is used as sampling frame as the turnover information is necessary to do the cut-off sampling.

Ideally, other considerations that should be convergent between output and price measurements are the statistical unit (company, establishment, KAU), the way that classification issues are considered (especially those relative to online products), the activity vs. product approach, and the periodicity: countries that are calculating quarterly SPPIs and are using them for the deflation of monthly indices such as SPIs have to carry out estimations of missing months.

These recommendations are not particular to the publishing industries. But regarding the changes that occur rapidly for publishers (companies, products, shift from traditional to online-only presence), teams responsible for SPPIs and turnover have to work closely together to update their accurate knowledge of new trends and ensure consistency among SPPI and output measurement methods.

4. Evaluation of measurement

- Evaluation of methods (fitness for use)

For turnover measurement, contributing countries use a variable mix of administrative and survey data. Indeed, information from tax data alone seems not to be sufficient to disaggregate turnover at an appropriate

level (like revenue by class of customer, or isolation of the net revenue). For advertisement, the role played by third-party stakeholders and the share of the revenue they get should lead to the separation of the advertisement turnover between the relevant industries (publishing industries / advertising industry). These industries have to be collected and computed consistently.

Due to the diversity of formats and the emergence of new ones, both for publications and for advertisements, SPPI measurement requires even more details on products than turnover measurement. Countries involved in SPPI measurement usually collect the specific information they need to manage price variations, via a dedicated monthly or quarterly SPPI survey, some countries getting product-level weights as an addendum to this survey once a year.

Concerning price methods, the direct use of repeated services and the unit value method are mostly used for SPPI measurement. The former depends on the stability of the service over time, which is not guaranteed as the formats tend to change rapidly. The unit value method leads to less product substitutions, but on the downside, is submitted to fluctuations of the composition of the mix of services that cannot be completely avoided.

A reflection on changes in audience has to be conducted as they affect the value of the advertisement for the advertiser's point of view. Online advertisement series are mostly priced per click or per impression, which means they are already adjusted on audience. Regarding print advertisement, some countries choose to correct prices with circulation figures directly in the elementary price series. Otherwise, quality adjustments have to be done each time there is a perceptible change in the circulation.

- Lessons learned

Due to the pace of technological change and its impact on the competitive landscape in which these industries operate, continued efforts are required to review and update content to ensure it remains relevant. Changing industry trends in the pricing and organizational strategies used to adapt to the dynamic internet can make it difficult to design new survey questions in a timely and relevant manner, and in ensuring continuity in characteristic data. For instance in Canada, any new or significantly modified questions are tested for comprehension and readability to ensure that concepts are fully understood by respondents, and that the outputs produced are meaningful.

- Future challenges and ways to meet them (classification issues, product developments, relevance of statistical methods used, etc.)

Concerning classification issues, United States reported that the way that NAICS structures the publishing industries "is beginning to create a challenge. Currently, all publishers that only have an online presence are classified in a different industry than those publishers that have a print-only presence or a print and online presence. These issues lead to the question of whether publishing a newspaper, periodical or directory is primarily the same service regardless of the media used to deliver the content. Since these industries focus on the publishing and not the printing, whether or not the content is on paper or in digital format may not make a difference in the service being provided. The most important delineation may be the type of publication rather than the type of media it is delivered through. In the future, NAICS definitions may need to be revisited to address these issues and possibly follow more closely to ISIC by including online-only publishers in the same industry with those that only publish on paper and those that have a presence in both areas."

A minimum of details on products appears to be necessary to ensure consistency with the concepts that correspond to the objectives of users of statistics. The disaggregation of the statistics by type of consumer is one more issue, especially for European countries submitted to the FRIBS regulation.

All issues that can be described in the guidance for advertisement industries will be particularly relevant for publishing as well. Indeed, one can be sure that the shift from product sales to advertisement will accentuate, as the major players in this industry are being forced to contemplate how much content they provide free to the public (either online or printed) while still ensuring that revenue is generated for their services.

5. International progress

The progress report is established according to the review of countries carried out by the Voorburg Group bureau, based on 23 responding countries.

- Turnover / output

5812 Publishing of directories and mailing lists:

18 out of 23 countries collect industry-level turnover / output for ISIC 5812. 15 out of 18 countries publish the data: 4 at a monthly frequency, 3 quarterly and 8 annual. 3 countries out of 18 use census data only, the others carry out a sample survey, combined or not with census data. 2 countries only mention product-level details (Korea, United States).

5813 Publishing of newspapers, journals and periodicals:

18 out of 23 countries collect industry-level turnover / output for ISIC 5813. 15 out of 18 countries publish the data: 4 at a monthly frequency, 2 quarterly and 9 annual. 3 countries out of 18 use census data only, one uses census data and administrative data only, the others carry out a sample survey, combined or not with census / administrative data. Again, 2 countries only mention product-level details (Korea, United States).

- SPPI

5812 Publishing of directories and mailing lists:

Two countries only (out of 23 respondents) mention calculation and publishing of an SPPI index corresponding to the ISIC 4-digits level: the United States (monthly, since 1984) and France (quarterly, since 2008). Another country (Turkey) calculates such an index but does not publish it yet. 2 countries have division-based (2-digits: 58) or group-based (3 digits: 581) indices.

Only the United States mention product level indices for this industry (advertising sales and subscription, content and licensing sales).

Countries without calculation of a 5812 SPPI index do not mention current plans to have one.

5813 Publishing of newspapers, journals and periodicals:

12 out of 23 countries have an SPPI for the 5813 industry, 10 out of these 12 publish it (5 quarterly, 5 monthly). There are also 2 countries which compute 2 or 3-digits indices (58 or 581). Other countries do not mention current plans to calculate SPPI for this industry.

Every country which calculates both SPPI and turnover for the 5813 industry states that turnover and prices calculations are well aligned.

Countries which mention product-level indices are the following: Japan, Korea, Sweden, United States. Japan publishes the subseries: "monthly magazine publishing", "weekly magazine publishing". United States publish a series for advertising sales, another for content and licensing sales.

Appendix 1: overview of industry classifications

| ISIC rev. 4 | | NACE rev. 2 | | NAICS 2017 | |
|-------------|--|-------------|---|------------|---------------------------------------|
| Code | Title | Code | Title | Code | Title |
| 5812 | Publishing of directories and mailing lists | 58.12 | Publishing of directories and mailing lists | 511140 | Directory and mailing list publishers |
| 5813 | Publishing of newspapers, journals and periodicals | 58.13 | Publishing of newspapers | 511110 | Newspaper publishers |
| | | 58.14 | Publishing of journals and periodicals | 511120 | Periodical publishers |

Appendix 2: overview of product classifications

CPA (Statistical Classification of Products by Activity)

58.12: Publishing of directories and mailing lists

58.12.1: Directories and mailing lists printed or on physical media

58.12.2: On-line directories and mailing lists

58.12.3: Licensing services for the right to use directories and mailing lists

58.13: Publishing of newspapers

58.13.1: Printed newspapers

58.13.2: On-line newspapers

58.13.3: Advertising space in newspapers

58.13.31: Advertising space in newspapers, printed

58.13.32: Advertising space in newspapers, electronic

58.14: Publishing of journals and periodicals

58.14.1: Printed journals and periodicals

58.14.2: On-line journals and periodicals

58.14.3: Advertising space in journals and periodicals

58.14.4: Licensing services for journals and periodicals

CPC (Central Product Classification)

| CPA 2008 | | CPC ver 2.1 | |
|----------|---|-------------|---|
| Code | Title | Code | Title |
| 5812 | Publishing of directories and mailing lists | 32230 | Directories, in print |
| | | 73312 | Licensing services for the right to use databases |
| | | 83631 | Sale of advertising space in print media (except on commission) |
| | | 83639 | Sale of other advertising space or time (except on commission) |
| | | 84313 | On-line directories and mailing lists |
| | | 89110 | Publishing, on a fee or contract basis |
| 5813 | Publishing of newspapers | 32300 | Newspapers and periodicals, daily, in print |
| | | 32410 | General interest newspapers and periodicals, other than daily, in print |
| | | 32420 | Business, professional or academic newspapers and periodicals, other than daily, in print |
| | | 32490 | Other newspapers and periodicals, other than daily, in print |
| | | 73320 | Licensing services for the right to use entertainment, literary or artistic originals |
| | | 83631 | Sale of advertising space in print media (except on commission) |
| | | 83633 | Sale of Internet advertising space (except on commission) |
| | | 89110 | Publishing, on a fee or contract basis |
| 5814 | Publishing of journals and periodicals | 32300 | Newspapers and periodicals, daily, in print |
| | | 32410 | General interest newspapers and periodicals, other than daily, in print |
| | | 32420 | Business, professional or academic newspapers and periodicals, other than daily, in print |
| | | 32490 | Other newspapers and periodicals, other than daily, in print |
| | | 73320 | Licensing services for the right to use entertainment, literary or artistic originals |
| | | 83631 | Sale of advertising space in print media (except on commission) |
| | | 83633 | Sale of Internet advertising space (except on commission) |
| | | 89110 | Publishing, on a fee or contract basis |

NAPCS (North American Product Classification System)

| CPA 2008 | | NAPCS broad product | |
|----------|---|---------------------|--|
| Code | Title | Code | Title |
| 5812 | Publishing of directories and mailing lists | 7014505 | Directories |
| | | 7014515 | Databases and other collections of information |
| | | 7002525 | Library and archive services |
| | | 7012600 | Mailing lists |
| | | 7012275 | Advertising space in printed publications |
| | | 7012350 | Internet advertising |
| | | 7012400 | Advertising space in publications on electronic and other media, except online |
| | | 2052875 | Quick printing |
| | | 2052900 | Digital printing |
| | | 7009581 | Licensing of rights to use intellectual property protected by copyright |
| 5813 | Publishing of newspapers | 7001175 | General newspapers |
| | | 7001200 | Specialized newspapers |
| | | 7011125 | Local transportation and delivery of purchased or serviced items |
| | | 7012075 | Graphic design services, except advertising graphic design |
| | | 7012275 | Advertising space in printed publications |
| | | 7012350 | Internet advertising |
| | | 7012400 | Advertising space in publications on electronic and other media, except online |
| | | 2052875 | Quick printing |
| | | 2052900 | Digital printing |
| | | 7009581 | Licensing of rights to use intellectual property protected by copyright |
| 5814 | Publishing of journals and periodicals | 7001225 | Periodicals, general interest |
| | | 7001250 | Periodicals, business (including farming), professional and academic |
| | | 7001275 | Periodicals, not elsewhere classified |
| | | 7013050 | Public relations event management services |
| | | 7012275 | Advertising space in printed publications |
| | | 7012350 | Internet advertising |
| | | 7012400 | Advertising space in publications on electronic and other media, except online |
| | | 2052875 | Quick printing |
| | | 2052900 | Digital printing |
| | | 7009581 | Licensing of rights to use intellectual property protected by copyright |

Appendix 3 : Pay models across countries (newspapers and weeklies only)

| 2019 | Free access (%) | Freemium (%) | Metered paywall (%) | Hard paywall (%) | Average monthly price (€) | Netflix basic subscription price (€) | N |
|---------|-----------------|--------------|---------------------|------------------|---------------------------|--------------------------------------|-----|
| Finland | 13.40 | 46.70 | 40.00 | 0 | 16.14 | 7.99 | 15 |
| France | 4.76 | 61.90 | 33.40 | 0 | 15.11 | 7.99 | 21 |
| Germany | 42.86 | 47.62 | 9.52 | 0 | 14.51 | 7.99 | 21 |
| Italy | 50.00 | 30.00 | 20.00 | 0 | 14.45 | 7.99 | 20 |
| Poland | 19.04 | 57.14 | 14.28 | 9.52 | 9.05 | 7.49 | 21 |
| UK | 66.67 | 5.56 | 16.70 | 11.20 | 17.45 | 6.90 | 18 |
| US | 32.03 | 0 | 65.51 | 3.45 | 11.93 | 8.04 | 29 |
| Total | 32.68 | 35.56 | 30.34 | 3.45 | 14.09 | 7.77 | 145 |

Simon, F., Graves, L. 2019. Pay Models for Online News in the US and Europe: 2019 Update. Oxford: Reuters Institute for the Study of Journalism.