E-commerce and Data Capture Opportunities for Price Indexes

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Abstract: National Statistical Offices are constantly seeking ways to improve the cost effectiveness of their operations while reducing the burden on data suppliers. This paper describes some work currently being undertaken by the Australian Bureau of Statistics (ABS) to assess the opportunities for tapping into the infrastructure supporting B2B e-commerce for the purpose of obtaining data for use in constructing price indexes. The dominant system in use in Australia (if not globally) is described and the opportunities of particular interest to prices statisticians identified. Future areas for investigation at both the national and international level are outlined.

1. Introduction

In common with other National Statistical Offices (NSO's), the Australian Bureau of Statistics (ABS) is continually seeking to improve the cost effectiveness of data collection and processing while reducing the burden on data suppliers.

The ABS first investigated the possibility of using product bar-coding to assist in data collection for the Consumer Price Index (CPI) in the early 1990's. At that time the conclusion reached was that the use of bar-codes in the direct collection of data from retailers did not offer any gains over traditional price collection procedures. Although the option of obtaining aggregate scanner data[2] appeared to be a promising alternative, the data costs were prohibitive. In any event, it was discovered that the use of bar-codes for product identification was not as reliable as expected due to the imperfect adherence of producers to the "standards"[3].

Following these earlier setbacks, the ABS has been maintaining a watching brief on developments in this field and is now of the view that the technology and standards supporting e-commerce have matured to the point that a further detailed investigation is warranted. The current investigation is specifically targeted at assessing the opportunities for tapping into the infrastructure supporting business to business (B2B) e-commerce for the

[1] The views expressed in this paper are those of the authors and do not necessarily represent the position or policies of the Australian Bureau of Statistics (ABS).

[2] Derived from retailers bar-code based point of sale systems and collated by market research organisations.

[3] A number of instances of changes in the quality of products not being accompanied by a change in product number were observed.

purpose of obtaining data for use in constructing price indexes (consumer and producer price indexes and cross-country Purchasing Power Parities).

The key elements of the B2B e-commerce infrastructure that are of interest are:

- Standardised numbering systems for the identification of goods, services, shipments, assets and locations;
- Standardised data carriers (e.g. bar codes) capable of presenting the standard numbering systems in a machine readable format;
- E-messaging standards to transmit data between trading partners; and
- Standardised product classifications.

Although these components of the e-commerce infrastructure have been evolving independently since the late 19th century it has only been in very recent years that they have become sufficiently integrated to support a truly viable e-commerce ideology. While the prospects for adoption of this technology across all business sectors look promising, take-up has been greatest by businesses in the retail and grocery sectors and by their downstream providers.

This paper is in four parts. The first part (section 2) describes the development/evolution of the key elements of the infrastructure; the second (section 3) describes the EANnet system in use in Australia; the third (section 4) identifies specific opportunities for statistical agencies; and the last part (section 5) briefly outlines three future streams of work.

2. A potted history

2.1 Standard data carriers

The first articulation of what we might recognise as a data carrier system for consumer goods was put forward by Wallace Flint in a master's thesis in 1932[4]. Flint devised a scheme that would enhance the useability of punch cards in business processes. He describes a supermarket in which the consumer would perforate cards to mark selections and insert them into a reader at the checkout. This would then activate machinery to bring the purchases to them on a conveyor belt. Store managers would make a record of what was being purchased. At the time Flint's scheme was economically unfeasible, however it largely describes today's data carrier (bar code) systems.

In the late 1940's, Bernard Silver and Norman Woodland set about devising a method for automatically capturing product information at the checkout. Woodland had many ideas ranging from ink that was sensitive to ultraviolet light, drawing dots and dashes in the sand to simulate Morse Code, through to replacing the lines with concentric circles (which became known as "bulls eye code"). On 20 October 1949 Woodland and Silver filed a patent application for the "Classifying Apparatus and Method", describing their invention as "article classification…through the medium of identifying patterns"[5]. In 1962 the patent was sold to Philco and then finally to RCA in 1971.

[4] Bar Code Technology, http://accounting.utep.edu/tglandon/acct3320/bar_code_technology.doc
[5] Bar Codes, www.inventors.about.com/library/inventors/blbar_code.htm

Throughout the 1960's David Collins was developing the use of bar code technology to keep track of rail freight information[6]. He developed a group of orange and blue stripes made of reflective material, which could be arranged to represent the digits 0 through to 9.

Collins foresaw applications for automatic coding far beyond the railroads and in 1967 he presented the idea to his bosses. The company refused to fund further research so Collins quit the organisation and founded the Computer Identics Corporation[7].

Collins went on to develop "little black-and-white-line equivalents" that would be used for conveyor control and anything else that moves[8]. By 1969, laser beam technology had become available and affordable. Collins used this technology to replace bulkier devices. The device he developed was a success and Computer Identics flourished proving the potential for bar codes in industrial settings. General Motors, Michigan was the first company to utilise a true bar coding system.

In early 1971 RCA demonstrated the use of the "bulls eye bar code" system at a grocery industry meeting. Businesses could foresee the potential of such a system and, following a series of trade association meetings, numerous technology companies were approached to develop an inter industry product coding system and associated symbolism.

IBM immediately set up a business unit to develop such a system with Woodland, the inventor of the bar code, playing a prominent role on the project.

Woodland and a fellow employee George Laurer went on to develop the Universal Product Code (UPC) incorporating an eleven-digit numbering system with symbolism based on Woodlands original two-dimensional Morse code approach with thin lines replacing the dots and thick lines replacing the dashes[9].

IBM's UPC symbolism worked well as any extra ink flowed out the top or bottom of the 'bars' so no information was lost. RCA continued to push the bulls eye code, however, due to printing problems and scanning difficulties, the code proved to be less effective[10].

As computer systems have advanced, bar codes have become more prevalent in society. There are now other bar code symbolisms designed to meet the specific needs of particular applications or industries[11]. As a data carrier, the future of the original bar code lies in the amount of information required by the multitude of industries that are keeping track of their various business transactions. With advances in technology it is likely that the barcode will be replaced by another symbolism capable of carrying a much richer range of data which will in turn promote a rapid evolution in the broader infrastructure supporting B2B e-commerce.

2.2 Standard item numbering

With the adoption of the UPC as the industry standard in April 1973 the Uniform Code Council (UCC) was created to standardise the numbering system for all items that would be

[6] A Brief History of Bar Codes, http://www.geocities.com/SiliconValley/Campus/8351.htm
[7] History of Bar Codes, http://www.swlamall.com/WebTronics/barcodeHistory.htm
[8] Bar Codes Technology, http://www.geocities.com/SiliconValley/Campus/8351.htm
[9] History of Bar Codes, http://www.swlamall.com/WebTronics/barcodeHistory.htm
[10] A Brief History of Bar Codes, http://www.geocities.com/SiliconValley/Campus/8351.htm
[11] Tan Jin Soon, Singapore Article Numbering Council, *An Introduction to Bar Coding*

bar coded. On June 26, 1974, at Marsh Supermarket in Troy Ohio, the first item, a packet of Wrigley's chewing gum was scanned[12].

Other countries began developing modified versions of the UPC. The most successful being the European Article Numbering (EAN) system, developed by a council made up of 12 European countries in 1974 and administered by EAN International.

The system administered by EAN spread rapidly through European countries and then to their trading partners throughout the world. The advantages of a single global standard were quickly recognised and EAN International and the UCC formed a partnership. The agreed aim of the partnership is "to develop compatible standards that will increase business efficiency by providing a common global language for trade"[13].

In joint cooperation, they administer the EAN.UCC System through the management of and by providing standards for, the unique identification and communication of products, transport units, assets and locations. They aim to provide business tools that will optimise supply chain management for their members. Today EAN International and the UCC have Member Organisations (MOs) in 128 countries. Each MO administers the EAN.UCC numbering, bar coding and electronic messaging system locally. There are approximately 900,000 member organisations from a wide range of industries.

A GTIN (Global Trade Item Number) is used for the unique identification of trade items world wide within the EAN.UCC System. A GTIN has a 14 digit structure however its bar code may contain 13 digits (EAN-13), 12 digits (UPC-12) or 8 digits (EAN-8). The GTIN is defined as a 14 digit number to accommodate the different structures in use. EAN International administers the EAN numbers, while the UCC administers the allocation to organisations in North America (United States and Canada).

A major step towards facilitating global trade was the recent announcement by the UCC that all North American companies who presently scan the 12-digit UPC symbol need to be capable of scanning a 14-digit GTIN symbol by January 1, 2005[14].

2.3 E-messaging

The ability to exchange information electronically is central to the effective conduct of e-commerce. In the late 1960's and early 1970's various e-messaging formats began to emerge in different industries and countries. It became clear to the business world that if Electronic Data Interchange (EDI) was to meet the requirements of the international community then it was essential to develop an international standard for EDI.

Early in 1980 the United Kingdom presented to the United Nations Economic Commission for Europe (UN/ECE) a standard for electronic communication between trading partners, known as the Trade Data Interchange (TDI) Standard.

At the same time the UN/ECE recognised the need to coordinate the development of one international standard and organised an international working party. In 1986 this working party commenced the challenge of combining the increasing number of European and United

[12] History of Bar Codes, http://www.swlamall.com/WebTronics/barcodeHistory.htm
[13] EAN Australia, http://www.ean.com.au
[14] http://www.uc-council.org/2005sunrise on 08/02/03

States standards with those from the rest of the world. The following year the International Organisation for Standardization (ISO) was presented with and subsequently endorsed, the internationally accepted e-commerce syntax implementation and message design guidelines, which became known as UN/EDIFACT (United Nations Electronic Data Interchange for Administration, Commerce and Transport).

Today the UN/EDIFACT standard is still maintained and developed under the auspices of the United Nations by the Centre for the Facilitation of Procedures and Practices for Administration, Commerce and Transport (CEFACT). There are over 60 countries and numerous international organisations represented in the CEFACT, including EAN International and the UCC.

Industry support for the management of e-commerce across borders is imperative. The Global Commerce Initiative (GCI) is a global user group, created in 1999, to "improve the performance of the international supply chain for consumer goods through collaborative development and endorsement of recommended standards and key business processes"[15]. EAN International and the UCC are a part of this user group, supporting the GCI to better manage standards around the world.

2.4 Product classifications

While the use of unique product codes or GTINs, is sufficient to support bilateral e-commerce between established business partners, product codes themselves are not sufficient to facilitate e-commerce between potential new business partners. In order to locate potential suppliers, businesses require a means of searching for available products. For this purpose a product classification is required.

There would appear to be two 'standard' product classifications being used; the United Nations Standard Product and Services Code (UN/SPSC) and; the Universal Standard Products and Services Classification (UNSPSC). Although the authors have not been able to ascertain the extent of any material differences between these two classifications, plans are in place for unification[16].

However, it is unfortunately the case that neither is an international reference classification that has been approved by the United Nations Statistical Commission (UNSC) or other competent intergovernmental board (despite the impression gained from their titles). Nor are they derived classifications based on any reference classification.
They are cited as being open, non-proprietary, global standards for classifying products and services for use throughout the global market place. Users of the EANnet system in Australia classify products according to the UNSPSC.

2.5 Global data synchronisation

EAN International and the UCC, in conjunction with the Global Commerce Initiative (GCI), have been working to develop standards for the establishment of a Global Data Synchronisation Network (GDSN). The GDSN will enable the regional 'master data' synchronisation pools to be linked to provide a single global interconnected network. Master data, in this instance, refers to information that is specific to a particular item (e.g. product description, classification code, pricing, size, unique number).

[15] http://www.globalcommerceinitiative.org on 28/01/2003
[16] UNSPSC Unification Project, http://www.unspsc.org/

Data synchronisation is defined as being the continuous and automated exchange of master data between trading partners. Master data sharing between trading partners is both complex and fundamental to all supply chain processes. Integrity and timeliness of master data is critical to the flow of goods, services and information throughout the chain. Sharing data effectively and efficiently relies upon access to common data definitions, data accuracy and agreement on the process used to exchange the data.

The fundamental rationale for global data synchronisation is that it enables each part of the global supply chain to be notified immediately of any changes to the agreed-upon data. The system adds a layer of visibility, by linking the data pools via a Global Registry. The Global Registry is a global service for the registration and validation of items and provides global search capability.

Global Data Synchronisation allows continuous improvement in e-commerce supply chain management practices by providing international standards for item identification, data capture, electronic messaging and the process for data exchange.

Up until recently, development work on data pools has been mainly focused on regional or national requirements. For global data synchronisation to become a reality, data pool interconnection and interoperability is essential. In October 2002, EAN International and the UCC announced that they have agreed to endorse the GLOBAL registry™ service being delivered by UCCnet. The Global Commerce Initiative (GCI) also supports this initiative.

3. The EANnet system in Australia

EAN Australia has developed a national data synchronisation and product registry service called EANnet. Within the context of the Global Data Synchronisation Network, EANnet is best described as a national data pool. This service provides an infrastructure for organisations to exchange common information while at the same time keeping commercially sensitive information maintained and secure from competitors. Within the near future, EANnet will also link to the Global Registry.

Registration for use of the EANnet service is available to financial members of EAN Australia and EAN New Zealand. There are three levels of access available: Vendor/Supplier, Buyer/Retailer, and Search and Download Only.

3.1 Vendor/supplier access (Data Source)

This type of user provides a community of trading partners with master data and includes, but is not limited to, manufacturers, importers, distributors, and wholesalers or brokers who are responsible for the supply of goods and services to their trading partners. EANnet provides them with a tool to publish a central catalogue of master data including item, price and promotional information about their GTINs. There is also the option to automatically send out changes made to their EANnet catalogue to nominated trading partners.

Suppliers are effectively able to create multiple catalogue views, each tailored to a specific trading partner. This enables trading partner specific information, for example prices, to be securely published. Suppliers are then able to grant catalogue access to their trading partners. Once access is granted an EANnet trading partnership exists between the two parties. The

trading partner is then able to view the supplier's catalogue, including the commercially sensitive data such as purchaser specific prices and promotional information.

When a new supplier joins the network, the EANnet Client Services Team validate all data prior to it being loaded to EANnet to ensure adherence to standards such as correct use of GTIN, commodity classification, description, trading partner requirements etc. Once a supplier has been accredited, the supplier is responsible for the quality of all data maintained on EANnet and is able to add new products and update existing products when required.

3.2 Buyer/retailer (Data Recipient)

This type of user is authorised to view, use and download a set of master data, from EANnet, provided by a data source. For example: retailers, convenience stores, government departments, distributors, wholesalers, e-tailors, and electronic market places are typical data recipients. Users could also include organisations offering market research, data processing and information services.

EANnet provides buyers/retailers with the facility to browse a vendor's product catalogue. They can also opt to automatically receive updates of changes made to the supplier's catalogue. Data stored on the catalogue (such as GTIN, descriptions, photographs etc) can be downloaded or automatically "pushed" out to the buyers for incorporation in their internal systems (e.g. merchandising, stock management, or point of sale systems).

Buyer/retailers do not store any data on EANnet nor do they use EANnet to conduct commercial transactions.

3.3 Search and download only

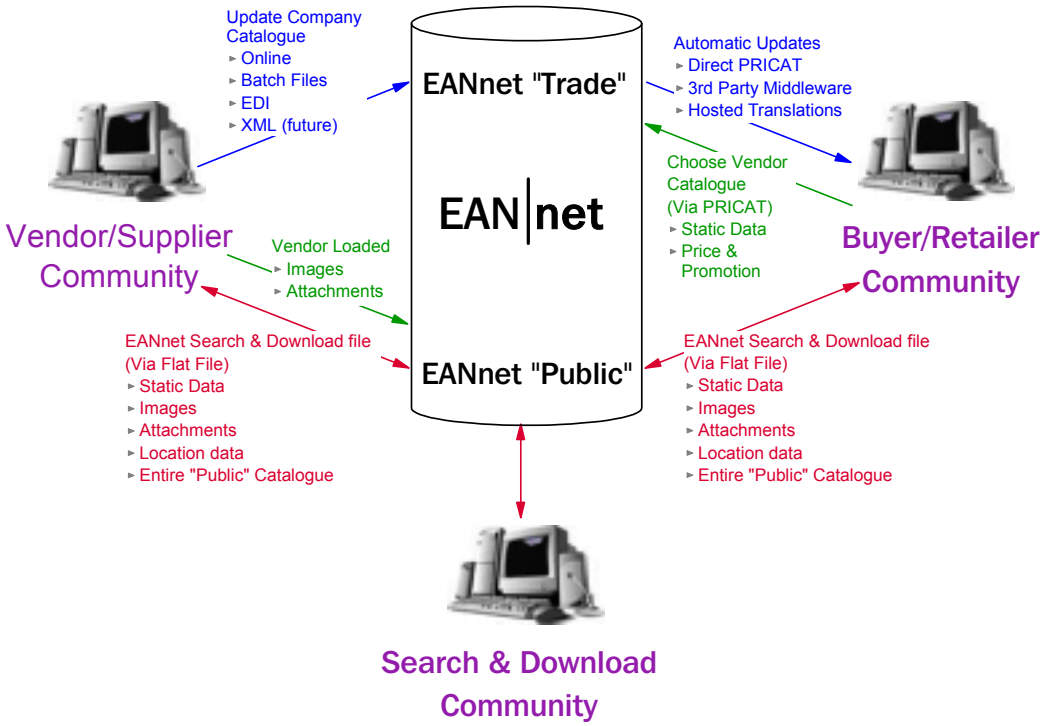
This type of user consists of organisations that are neither a vendor/supplier nor a buyer/retailer but have an interest in or a demand for publicly available information contained in EANnet. Commercially sensitive information such as pricing and promotional information is not available for viewing in this domain.

3.4 System architecture

The system can be thought of as operating in both a "push" mode and a "pull" mode. The push mode is invoked by suppliers populating and maintaining their master data (pushing data in) which in turn triggers pushing updated data out to trading partners. The pull mode is invoked by buyers/retailers and the search and download community undertaking catalogue trawling activities. The strength of the system currently lies with the push mode. As use of the service grows, particularly through data synchronisation, its usefulness as a repository from which users can pull data can be expected to increase.

The following diagram illustrates the relationships between the various user communities and the system. EANnet itself is Internet enabled which supports the relationships. EANnet also supports machine to machine exchange of master data using UN/EDIFACT messaging standards.

Diagram1: EANnet System Architecture (source EAN Australia)



The EANnet Registry Service currently contains information on approximately 380,000 fast moving consumer goods. However, coverage is growing rapidly as companies migrate.

3.5 Neutral and relationship dependent data

To protect commercially sensitive data, information contained within EANnet is classified as being either neutral or relationship dependent. There are in excess of 230 neutral and 70 relationship dependent fields.

Neutral data is generally shared between multiple trading partners and can he viewed in both the EANnet Data Synchronisation Service ("Trade" environment) and Product Registry Service ("Public" environment). Relationship dependent data is only available to nominated trading partners and can only be viewed in the EANnet Data Synchronisation Service ("Trade" environment). Some examples of neutral and relationship dependent data are provided in Table 1 below.

It is also worth noting that the catalogue supports parent-child relationships between GTINs. These relationships exist when a supplier produces different 'bundles' of the same product at different prices. For example, a single can of tomatoes will be assigned a unique GTIN and, if regularly supplied in packs of (say) 12 cans, the 12 can pack will also be assigned its own GTIN with the catalogue maintaining a link to its single can 'child'. This can be repeated if, for example, the 12 can packs are in turn regularly supplied in (say) 10 pack pallets. These child-parent relationships are only recognised if they are standard ordering units (produced as such with their own pricing schedules) and should not be confused with logistical units created when a customer simply orders multiple units of a particular GTIN[17].

[17] Though a separate system of bar codes exists to manage the creation and movement of these logistical units.

Table 1: Examples of neutral and relationship dependent data

Neutral data	Relationship dependent data
Product Identifiers	List Price
Product Classifications	Invoice Price
Dates	Temporary Price Reduction
Descriptions	Allowances
Packaging and Dimensions	Charges
Pallet Specifications	Promotional Pricing
Hazardous Information	
Taxes	
Pharmaceutical Information	
Free Text Fields	
Digital Product Images (low resolution)	
Scan Verification Reports	
Material Safety Data Sheets	

4. Opportunities for statistical agencies

The notion of a single electronic catalogue containing detailed descriptions of all goods traded in an economy with an attached commodity classification, together with information about the supplying businesses, is the stuff of statisticians' dreams. While it would be misleading to imply that this is what exists today, it would be equally naïve to dismiss the evolutionary potential particularly given the pressure being exerted by (at least) the large retail chains in insisting that all of their suppliers are part of this system.

The EAN.UCC System has the potential to change the way that Statistical agencies collect data for the compilation of Price Indexes. There are three main benefits that this system provides:

- an infrastructure that identifies items with an internationally unique and unambiguous number;
- the ability to group like items together using a standard product classification understood by and used by businesses;
- a way of communicating to businesses using EDI; and
- a way of obtaining price information automatically through the use of data synchronisation catalogues.

Although this paper is only concerned with the potential uses for compilers of price indexes, it is not difficult to envisage additional applications in the field of business statistics. The following sections look at how this system might be used in compiling price indexes by national statistical organisations if they were to become members of the search and download community or the buyer/retailer community.

4.1 Producer price indexes

In the short to medium term, the potential use of this system is most promising for the construction of producer price indexes (PPIs).

At the most basic level of EANnet access (search and download) the UNSPSC can be used to identify all the unique products and their suppliers for a specific commodity 'class' for use in sample design and maintenance. Although the catalogue does not contain aggregate sales data (nor indeed price data at this level of access), use of the UNSPSC by businesses provides a natural level of aggregation for businesses to provide such data directly to the statistical office. The adoption of the GTIN as an integral component of the product description for sampled items can then serve to remove any potential for ambiguity in the products for which prices are to be reported by businesses.

While the above application can serve to improve the effectiveness of sample design and maintenance operations and improve communications with data providers, it offers only marginal prospects for reducing the reporting burden on respondents.

Stepping up the level of EANnet access to buyer/retailer, offers more exciting prospects. With this level of access it should be possible to negotiate with suppliers to be granted access to their relationship dependent data (including the different catalogues furnished to different customers). Once these arrangements are negotiated, the statistical organisation could be notified of any changes to the catalogue (new goods, disappearing goods, changes in prices etc) utilising the inbuilt "push" technology at zero cost to the respondent. Direct collection of prices from the respondent would cease, while at the same time the timeliness and quality of reported price data would improve. The improvement in data quality would come about as the reliance on (normally) junior staff to interpret forms and source correct price information would be replaced by the contractually enforceable prices loaded to the catalogue.

Although this more sophisticated use of the catalogue by NSOs would require the development of additional processing systems, with the data coming from the central catalogue in a standard format for all respondents rather than from individual business systems, the benefits should outweigh the costs.

4.2 Consumer price index

The catalogue does not store any retailer specific data (items stocked or prices charged). Retailers either have data pushed out to them by the catalogue or they search the catalogue for information. As a consequence the catalogue does not offer the same prospects for automatic data collection for CPIs as it does for PPIs.

However, given that retailers are one of the key beneficiaries of the end-to-end business processes supported by the system as a whole, opportunities still exist to improve communications with retailers and to automate data capture.

Retailers are totally dependent on the GTINs to support their ordering, stock management and point of sale (POS) systems. They are loading an increasing number of catalogue data fields to their own systems (witness the move to displaying item pictures when items are scanned at POS). Their ability to source new items is also determined by the reliability of the product classification (UNSPSC) which is also incorporated in their own databases.

Adherence to the UN/EDIFACT standards should facilitate the development of software tools capable of polling retailers POS systems to report prices in respect of designated GTINs. The process of implementing such collection strategies in respect of retailers will simply be more involved (and costly) than for producers due to the more detailed individual agreements/processes involved.

In the short term, the use of the UNSPSC linked to GTINs by retailers is likely to assist in obtaining consistent, reasonably fine level sales data to assist in sample design. The incorporation of GTINs in the descriptions of items sampled should also remove ambiguity and assist in better co-ordinating item samples across the CPI and PPIs[18].

4.3 International Comparison Program

The most costly element of the International Comparison Program (ICP) is the construction of Purchasing Power Parities (PPPs). One of the most time consuming tasks in constructing PPPs is ensuring that identical products are being priced in different countries.

Global data synchronisation and the use of GTINs in PPP price collection activities can assist in a number of ways:

- if the items priced in different countries have identical GTINs, then the compilers of PPPs can be assured that the items are comparable;
- where identical GTINs are not able to be priced, the detailed descriptions contained in the catalogue can be used to ascertain whether the differences are material or not (e.g. the difference may simply be due to different power voltages in different countries);
- where the differences are judged to be material, the descriptions may assist in making quality adjustments;
- the commodity classification can be used to assist in selecting representative items; and
- the prices for items in some basic headings (producer prices) may be obtained directly from the catalogue.

5. Future projects

We believe that the potential for using this infrastructure for constructing our domestic price indexes is such that further more detailed feasibility testing is warranted. Our proposals in respect of the PPI and CPI are outlined briefly below.

We are also of the view that there are significant long term opportunities for the international statistical community which could be greatly facilitated if the commodity classification used by the business community was either a UNSC endorsed reference classification or a classification derived from a reference classification. Although this is a task beyond the capabilities of a single NSO it is also described below in the hope that it may be taken up by one of the international organisations such as the United Nations Statistics Division (UNSD).

[18] For at least some commodity classes better coordinated samples may assist in deriving measures of margins.

5.1 Project 1: To evaluate EANnet as a data source for PPIs.

The objective of this project is to assess the feasibility of obtaining price data for the PPIs directly from EANnet.

The first stage will be to evaluate the potential coverage currently offered by EANnet. This will involve:

- identifying any existing PPI respondents lodging master data to the system;
- comparing the number of items currently priced from these respondents with the number of items loaded to EANnet;
- matching the specific items currently priced with those on EANnet; and
- using the UNSPSC code for matched items to identify other potential items and/or suppliers of data.

The second stage will be to approach data suppliers to assess their willingness to supply data via EANnet.

If stages one and two deliver promising outcomes and it is assessed that the cost of access to EANnet can be achieved through savings on traditional data capture methods, a proposal will be put forward for the development of the required system tools.

5.2 Project 2: To evaluate the potential of the EAN.UCC system for CPIs

The objective of this project is to assess the feasibility of utilising the underlying EAN.UCC infrastructure to assist in obtaining data directly from retailers POS systems. This project will require much greater liaison with data suppliers than the PPI project, so it is not possible to be more specific about what will be required until some initial discussions take place. In any event, it is not proposed to commence this project until the PPI investigation is completed.

5.3 Project 3: Development of a derived standard product classification

The ultimate objective of this project would be to produce concordances between the UNSPSC and existing reference classifications such as the CPC and COICOP.

However, as the commercial requirements of the UNSPSC are likely to be such that the classification will be changing much more frequently than any of the reference classifications (at least at the lower levels of the hierarchy), the one-off development of a concordance by the statistical community may not have a long life. A far more effective long term solution is probably best accomplished by forming a strategic alliance with the custodians of the UNSPSC. This is something best undertaken by an international organisation.

Although statisticians can readily appreciate the potential gains to be derived from sharing a common commodity classification with the business community, the advantages will be less obvious to businesses. The current users of the UNSPSC will place a high value on the requirement that the classification be capable of being quickly updated. They will therefore be wary of any proposal, that in their view, would jeopardise this requirement. Establishing a role for the international statistical community in the maintenance of this classification will therefore not be a simple task.

Considering that the UNSPSC had its genesis in a classification developed under the auspices of the UNDP and Dunn and Bradstreet, it is the view of the authors that the UNSD is best placed to represent the international statistical community on this issue.

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