NAPCS Discussion Paper*

Accounting for Non-Market Products and Activities in NAPCS

Discussion Paper
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NAPCS Discussion Papers are provided to foster and facilitate professional exchange on matters related to the development and implementation of NAPCS.

A. Introduction

This document outlines some unsettled issues related to how products and activities of the non-market sectors of the economies of the three NAFTA counties will be accounted for in NAPCS. These issues fall into two separate areas. The first, and most important, issue deals with how to maintain both in-country and trilateral comparability in product statistics in the face of a dichotomy of delivery mechanisms -- market vs. non-market -- that exists for some important product areas. The second issue deals with whether intermediate activities of the non-market sector, particularly government agencies, that mimic products supplied by the market sector of the economy should be accounted for in NAPCS, and, if so, how? My musings on these subjects follows.

B. Background

In February of 1999, Canada, Mexico, and the United States launched a three country effort to develop a "demand-side/market-oriented" classification system for products, to be called the North American Product Classification system or NAPCS. Moreover, both the Canadian and American publications of April 1999, which announced the NAPCS initiative to the general public, used language similar or identical to the following statements:[1]

> The aim of the product classification process should be to identify, define, and classify the final products produced and transacted by the reporting units within each industry. The final products of reporting units in an industry are those that are created and transacted (sold or transferred) by the reporting units to economic entities outside of the individual reporting units.
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> To correctly define the product(s) of a service industry it is essential to specify exactly what the producer agrees to sell and what the customer agrees to buy. That is, a determination must be made of what is implicitly or explicitly "contracted for" when a transaction takes place. Further, it is important to distinguish between the output the industry produces and the activities carried out by the industry to produce the output.

The foregoing indicates that products from intermediate activities in the production process are explicitly excluded from NAPCS, and it implies that the focus of NAPCS is confined to three-country comparability in classifying and measuring the value of products transacted in the market place. In short, the final products provided by the non-market sector of the economy to consumers as well as the intermediate production of reporting units in both the market and non-market sectors were not included in NAPCS.

As the NAPCS work has proceeded, however, we have countered and, in the future, expect to encounter with increasing frequency situations that run contrary to both components of this proposition. First, in identifying industries that produce specific products in the trilateral product

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[1]See Announcement in Daily Bulletin, Statistics Canada, April _, 1999 and the Federal Register Notice of April 16, 1999.

list documentation, we have instances where government agencies are identified because, in carrying out their broader mandate, these institutions perform intermediate activities that mimic products supplied by the market sector of the economy in one or more of the three countries. For example, tax auditing is a market-supplied service in Mexico but it is only an intermediate activity performed by the government agencies charged with enforcing the tax statutes and collecting taxes in Canada and the U.S.

Second, as NAPCS expands in Phase II to cover education, health and social services, and arts, entertainment, and recreation, we will increasingly encounter situations under which products (goods and services) are supplied to the overall population of users under non-market circumstances, through non-profit private institutions and/or government agencies. Among these situations are the following:

- Products produced and supplied in the market sector of the economy within one or more countries may also be produced and supplied in the non-market sector. For example, education and health services are both supplied in significant amounts by government as well as private for-profit and non-profit establishments in the United States.
- Products produced and supplied only by the market sector of one country may be supplied only by the non-market sector in one or more of the other countries. For example, certain types of surveying and mapping activities that are provide by the market sector in the U.S. may only be supplied by government agencies in Canada and/or Mexico.
- The source of supply for certain product areas, e.g. social assistance services, is overwhelmingly dominated by establishments/institutions from the non-market sector in all three countries.

While each of these situations requires a guideline for whether and how they will be accounted for under NAPCS, the first two, for reasons outlined below, are really the most troublesome.

C. Market vs. Non-Market Products: the Comparability Problem

The essential economic condition that distinguishes the market from the non-market sector of the economy can be stated as follows. In the market segment of the economy, products are produced and transacted based on market-determined prices that generally reflect the costs of all factors of production, including the gross return to capital inputs which includes profits. In the non-market segment by contrast, products are not supplied at market-determined prices. Indeed, these producers often supply their products either free of charge or at prices that bear little relationship to the underlying production costs, because those costs are either fully or partially subsidized by taxes payers and/or donor contributions.

The fundamental problem created by this dichotomy is that it can seriously complicate the creation of product measures that are truly comparable in the NAPCS framework. Thus, while the products may be comparable from a definitional perspective, they are not at all comparable from a measurement perspective. Thus, any comparison between the value of, say, health services provided by the market sector and the nonmarket sectors is inherently non-comparable, both on a with-in country and cross-country basis. That being the case, we need to decide how we want to treat these seemingly comparable products under NAPCS. For example, should we

- treat market and non-market products as inherently non-comparable and, therefore, list and report statistics on them as different products, or
- should we account for the dichotomy in sources by first listing and reporting value statistics on the common product from both sources but then list and report the separate detail for market and non-market sources of the common product.

Regardless of which option we choose, however, we will need to establish criteria by which to measure the value of the common products supplied by the non-market sector.[2] Similarly, provided a common measurement algorithm is applied by all countries, we should be able to establish both definitional and measurement comparability for the third non-market situation noted in section B -- the comparable product is overwhelmingly produced by the non-market sector in all three countries.

Update: The consensus outcome of the discussion at the Steering Committee Meeting on:

How to account for market vs. nonomarket sources of products in NAPCS?

was to allow the subcommittees/working groups the option to identify this distinction in the product lists/ grouping structures created for industries where this distinction is prevalent or important.

D. Intermediate Government Activities and Market-Sector Products

As noted above, in performing their broader mandate, government agencies often perform intermediate activities that mimic products transacted by the market sector in one or more countries. The interest in identifying these activities in NAPCS results from two resources. First, these activities represent latent products for market sector establishments; i.e. activities which could be translated into actual products should government agencies decide to contract-out such activities to the private sector. As a result, there is widespread interest in knowing both the potential size of the market and the cost savings to be achieved should privatization occur.

Second, in NAICS United States, a distinction is made between classifying the administration of government programs and classifying the actual performance of activities (We believe that SCIAN and NAICS Canada make the same distinction). Administration is classified in Public Administration while the locations actually providing the service or product are classified in

[2] In the U.S. input-output accounts for example, the value of production (excluding retail sales) by non-profit establishments is measured as reported expenses plus an imputed estimate for capital consumption. The output of government enterprises (such as the Tennessee Value Authority, the Bonneville Power Authority, and government-run hospitals) is valued as the revenues reported by these enterprises, which may understate the fair-market value due to subsidies. Finally, the output of general government agencies is valued as the sum of reported labor and intermediate input expenses plus an imputation for economic depreciation on invested capital.

other sectors of NAICS. For example, the U.S. manual has specific cross references under NAICS 92412 for surveying and mapping performed by government establishments into the NAICS 5413 industry group. In other words, the field office of the U.S. Geographical Survey (USGS) would, in theory, be classified in 5413 rather than in Public Administration. Only the USGS headquarters administering the surveys would be classified in NAICS 92.

My recommendation on the treatment of these activities in NAPCS is as follows. First, until and unless all three countries actually implement the distinction between administrative and operating establishments of government agencies called for by NAICS, these activities should not be accounted for in NAPCS. This is because to do so directly violates the basic principle cited in section B that was adopted in regard to intermediate activities in NAPCS. In the meantime, I recommend that the each country pursue its own method, outside of NAPCS, for noting where these latent products are produced and for estimating their potential market value. Finally, once all three countries have implemented the NAICS convention for classifying the administrative and operating establishments of government agencies, the issue becomes a market vs. non-market products issue, which I discussed in the previous section.