

**COSTA RICA: SERVICES ON PHYSICAL INPUTS  
OWNED BY OTHERS**  
**Methodological and Practical Aspects**

**An update**

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# MANUFACTURING SERVICES ON PHYSICAL INPUTS OWNED BY OTHERS

## Methodological and Practical Aspects

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### ABSTRACT

Due to the fragmented production processes among countries, some companies received goods, without a change in the economic ownership, for transformation purposes. The Sixth Edition Balance of Payments Manual (BPM6) recommends to exclude those goods for processing, which ownership remain to non-residents, from the goods account and treat them as the value of an export of manufacturing services. This treatment has a deep impact on the value of trade flows, which are ultimately recorded in the balance of payments.

In Costa Rica, merchandise exported by manufacturing services firms account for about 23% of goods exports and 15% of goods imports. These exporting firms are import-intensive and due to transfer pricing; some top exporters show imports higher than exports. This processing firms belong mostly to the electronic industries.

The recent publication of a new set of national accounts statistics for Costa Rica, have been a transcendental improvement in the national statistics system. It takes into account the treatment recommended by the BPM6 about the recording for manufacturing services as one of the mayor changes. Therefore, Supply and Use Table and Balance of Payment subtract the exports and imports of commodities from the processing firms and instead records an export of a manufacturing service. Under this perspective, current account deficit remains in terms of GDP at about 5%, manufacturing services as a share of production drops from 3.3% to less than 1% and exports and imports become smaller by 15%.

Implement this recommendation required a joint effort of balance of payments and national accounts rebase project and called for some actions, so this paper examines Costa Rica experience about implement BPM6 for the manufacturing services on physical inputs owned by others.

**Keywords:** Manufacturing services, processing firms, fee for processing.

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## 1. BACKGROUND

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One of the features of globalization is manufacturing services that consist in develop different stages of the productive process in different countries, without transferring the ownership of the goods something better known as taking part into Global Value Chains (GVC's). In Costa Rica, merchandise exported by firms suppliers of manufacturing services represent about 23% of the exports of goods and 15% of the imports of goods but only 1% of national production.

Traditionally Costa Rica processing firm's financial statements report the revenue transformation services and not raw material costs. Therefore, under BPM5 and SNA93 perspective, national accounts and balance of payments compilers recorded gross exports and gross imports and had to adjust the production value to show the gross value of exported goods and intermediate consumption to settle raw material imports. BPM6 was welcome since it states to take away goods for processing which ownership remain to non-residents from goods account and to record the value of service accounts as an export of manufacturing services.

Given the results, Costa Rica, decided to follow the recommended treatment in BPM6 about to record the manufacturing services so supply use table and balance of payments wipe out exports and imports of commodities for processing firms and instead record an export of manufacturing service.

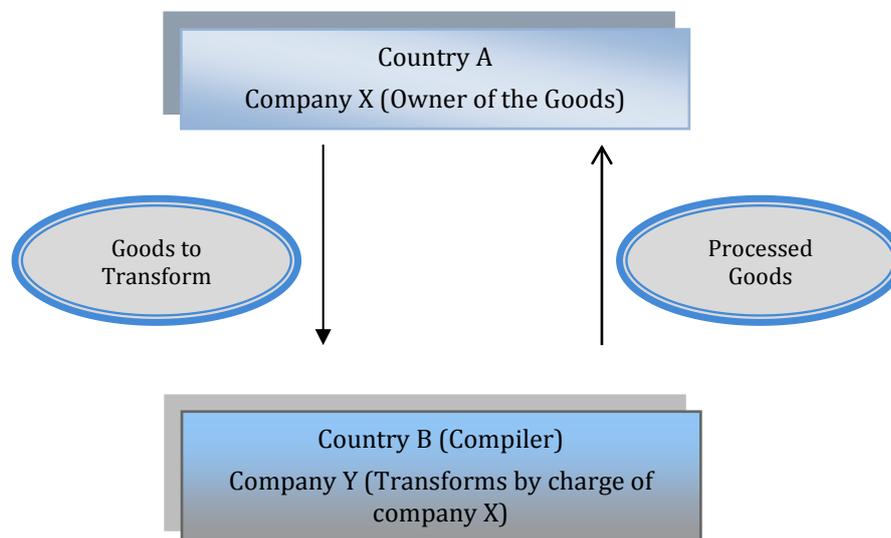
## 2. METHODOLOGICAL ASPECTS

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The manufacturing services on physical inputs owned by others include transformation, assembly, among others; performed by companies without assuming ownership of the property. The company that carries out the transformation (Company Y in Figure 1) does not get the economic ownership of merchandise and, therefore, the transaction or transactions recorded in the production accounts and current account of the balance of payments surges from the service provided to the owner of those goods.

The Fifth Edition of the Balance of Payments Manual (BPM5) recognized, as an exception to the principle of change in ownership, the registration of the gross value of goods sent by the owner to a non-resident for transformation. In practice, this registration method implies problems when there are transfer prices between related companies and temporary differences between the time of receipt the input and the return of the processed goods, which leads to an accumulation of inventories and, consequently, the recognition of a liability of the economy where the processing company to the economic owner of the goods (non -resident). In some cases, value inventories was significant, and interfere with the assessing of the results in such an important indicator for economic analysis as the current account.

Figure 1: Transformation Services on physical inputs owned by others



Source: Prepared by authors

According to the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6) of the International Monetary Fund (IMF), in paragraph 10.64, transformation services include transaction between the owner and transformer; specifically, the fee charged by the processor; which may include the cost of materials purchased by the processor. The transformation service records in the balance of payments proceeds if a resident of a certain economy works with a property belonging to a non-resident, and when the economic activity implies some degree of transformation of good.

BPM6 states that in practice value transformation services are not equal to the difference between the amount of goods sent for processing and the value of goods and processed. Among the causes of this situation include: earnings/holding losses, including operational expenses and measurement errors associated with the valuation in the transfer of property.

In addition, BPM6 suggest for the economy compilers where the gross value of goods sent abroad by processing firms is important, set in place more items with details on the supply and or delivery of goods for processing such as shows next table:

Table 1. **Goods for processing: Supplementary items**

<p>Importing country Transformation Service (own goods processed abroad):</p> <ul style="list-style-type: none"> <li>• Goods supplied for processing (goods sent).</li> <li>• Goods received after processing (returned goods).</li> </ul>
<p>Exporter Transformation Service (Real transformed belonging to third parties)</p> <ul style="list-style-type: none"> <li>• Goods received for processing (goods received).</li> <li>• Goods dispatched after processing (goods sent).</li> </ul>

Source: Department of Macroeconomic Statistics (DEM)

Due to methodological aspects according to BPM5 external trade flows associated with companies that perform manufacturing services must be reported in the current account as follows:

TABLE 2. **ACCOUNTING OF PROCESSING SERVICES IN BALANCE OF PAYMENTS ACCORDING TO BMP5**

Millions of dollars

	2012		2013		2014	
	Credits	Debits	Credits	Debits	Credits	Debits
Current account						
Goods	2508	2575	2721	2575	2042	1476
Financial account						
Other investment						
Commercial credits	659		776		688	
Currency and deposits		592		630		121

\* The data of the current account are actual Costa Rican figures

However, based on BPM6 the accounting in balance of payments would be:

TABLE 3. ACCOUNTING OF PROCESSING SERVICES IN THE BALANCE OF PAYMENTS ACCORDING TO BMP6

Millions of dollars

		2012		2013		2014		2015	
		Credits	Debits	Credits	Debits	Credits	Debits	Credits	Debits
Current account									
Services									
	Manufacturing Services on Physical Inputs Owned by Others	644		554		360		172	
		NAFA	NIL	NAFA	NIL	NAFA	NIL	NAFA	NIL
Financial account									
Other investment									
	Currency and deposits	644		554		360		172	

NAFA= Net Acquisition of Financial Assets

NIL= Net Incurrence of Liabilities

\* The data of the current account are of Costa Rica. For illustrative purposes, it is assumed that the service is paid in cash by the non-resident property owner.

The adoption of the recommended treatment in BPM6 to records the processing of goods on behalf of others has an impact on the level of trade flows, which are ultimately recorded in the balance of payments. The value of goods under this figure, must be deducted from the amount of imports and exports of goods reported by customs and instead there is a record of the value corresponding to the manufacturing service in the current account of the balance of payments. To carry out this recommendation involves important efforts in terms of data that will be mentioned in the next section.

### 3. SET INTO EFFECT

To implement the recommendation it required a joint effort of balance of payments and national accounts rebase project and mainly called for next actions:

1. Identifying the companies that perform manufacturing services. This activity required a fieldwork consisting of visiting all the companies in free zones, which altogether represent more than 85% of free zone exports to identify and enlist those of which carry out manufacturing services (Table 4). 21 companies were identified and a questionnaire was applied (Annex 1). Fieldwork corroborates if firms really do manufacturing services consistent with national accounts and balance of payments.
2. Company's data assessment. The review of financial information and foreign trade data of the companies identified as providers of manufacturing services shows the following aspects, despite the advantages and disadvantages of the practical implementation of the recommendation BPM6.
  - i. Inconsistencies between the value of imports and exports of goods, mainly due to transfer pricing, thus, for several years in some firms imports exceed exports, due to transfer prices.

- ii. In the accounting period the local processor does not use the entire raw material received on consignment, leading to unwanted changes in inventories.
  - iii. The financial statements report revenue transformation services so they do not report raw material costs.
  - iv. Some companies reported high net profits. This result is not usual for cost centers and affects the level of operating surplus.
3. Estimating the fee charged by firms. These companies have annual financial statements, mandatory to deliver to PROCOMER which the BCCR has access to. Data included reveals manufacturing service fees.
3. Exclude from imports and exports tariff items that are goods sent for processing. In Costa Rica, such as other countries, the main source of foreign trade statistics are customs declarations, which record the gross values of trade in goods. BCCR identified for each company those tariff headings for exclusion from the imports and exports because these correspond to trade flows without change of ownership and stay as imports that's the case corresponding to gross capital formation.

TABLE 4. PROCESSING SERVICES COMPANIES FOT THIRD PARTIES BY ECONOMIC ACTIVITY

Economic Activity	Number of Companies
Manufacture of Electronics equipment and Machinery	14
Manufacture of Clothing	2
Other Manufactured Industries	5
<b>Total</b>	<b>21</b>

Source: Department of Macroeconomic Statistics (DEM)

## 4. RESULTS

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As shown on table 5 since financial statements report the fee transformation services and not raw materials belonging to others, BPM5 guidelines forced national accounts and balance of payments compilers to adjust the production value to show the gross value of exported goods and intermediate consumption to settle raw material imports, even in some cases it was necessary adjust raw material inventories in order to not disrupt value added.

The recent publication of the new national accounts statistics for Costa Rica (reference year, 2012), have been a transcendental improvement in the national statistics system. One of the mayor changes is taken on the recommended treatment in BPM6 about the registration for manufacturing services. So, Supply and Use Table and Balance of Payment wipe out exports and imports of commodities for processing firms and instead records an export of a manufacturing service.

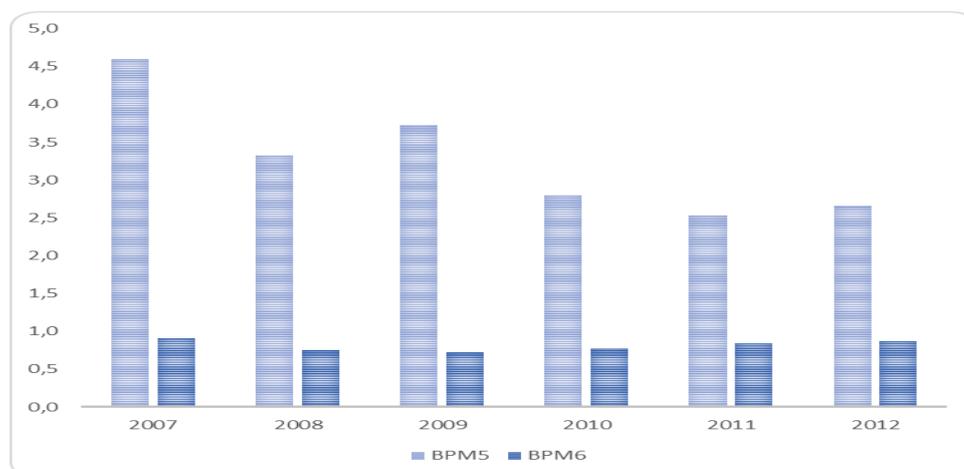
TABLE 5. PRODUCTION AND GENERATION OF INCOME ACCOUNT OF A MANUFACTURING SERVICE COMPANY UNDER BPM5 AND BPM6

	<b>BPM6.</b>	<b>BPM5</b>
<b>Production</b>	<b>800</b>	<b>2200</b>
Processing Fee	800	
Exports of goods	0	2200
<b>Intermediate Consumption</b>	<b>700</b>	<b>2100</b>
Used imported raw materials	0	1400
Imports of raw materials	0	2300
Inventory accumulation	0	900
Other Supplies	700	700
<b>Added Value</b>	<b>100</b>	<b>100</b>
Wages and salaries	20	20
<b>Net operating surplus</b>	<b>80</b>	<b>80</b>

Source: Department of Macroeconomic Statistics (DEM)

Table 5 shows as BPM6 solves the problem of estimate production linked to exports and its corresponding consumption of raw materials, changes in inventories and resulting financial transactions.<sup>1</sup> Given that under BPM6 production value corresponds to the processing fee. In Costa Rica manufacturing services, share of national production drops by an average 3.3% to less than 1% under BPM6.

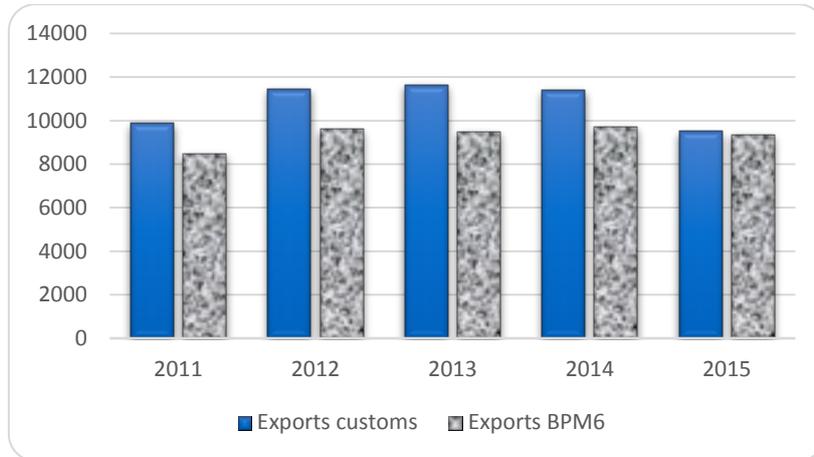
Figure 2. Costa Rica: Manufacturing services as a share of National Production



Source: Department of Macroeconomic Statistics (DEM).

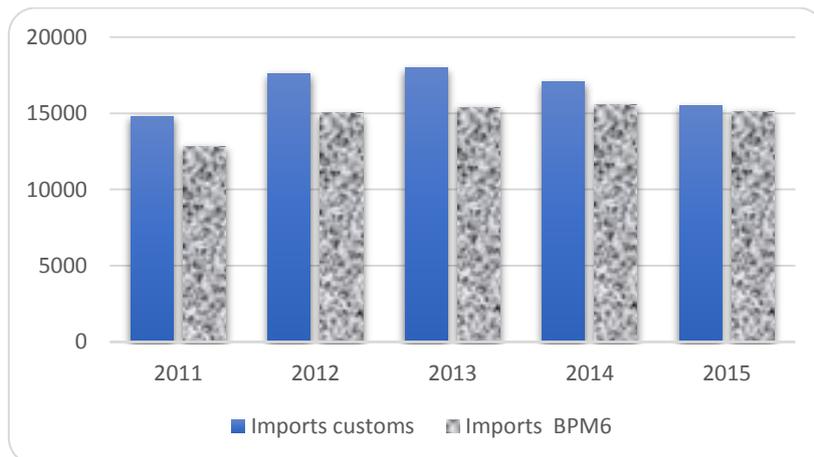
<sup>1</sup> Since the inventory accumulation is a liability which property is hold by nonresidents; it was necessary to estimate payments of dividends abroad in order to not affect current account balance and national disposable income.

**FIGURE 3. COSTA RICA EXPORTS: IMPACT OF GOODS FOR PROCESSING EXCLUSION**  
 IN MILLIONS OF DOLLARS



Source: Department of Macroeconomic Statistics (DEM).

**FIGURE 4. COSTA RICA IMPORTS: IMPACT OF GOODS FOR PROCESSING EXCLUSION**  
 IN MILLIONS OF DOLLARS



Source: Department of Macroeconomic Statistics (DEM).

Figures 3 and 4 show impact on trade flows resulting from excluding exports and imports for processing without change of ownership. Either, exports or imports decrease by 15%. It is important to note that in 2015 manufacturing services felt abruptly as some companies end up the manufacturing instead to go for research and development activities and accounting.

Current account as a share of GDP from adopting BPM6 recommendations are slightly lower than those obtained under BPM5. Indeed, the balance of the current and financial account in terms of GDP, is consistent with a country with a lack of domestic savings which requires financing from the rest of the world.

TABLE 6. CURRENT ACCOUNT, CAPITAL ACCOUNT AND NET DEBT IN TERMS OF GROSS DOMESTIC PRODUCT (GDP)

	2011	2012	2013	2014	2015
<b>Current account balance in terms of GDP</b>					
<b>BPM6</b>	-5.4%	-5.2%	-4.9%	-4.7%	-4.5%
<b>BPM5</b>	-5.5%	-5.3%	-5.0%	-4.9%	N.A.

Source: Macroeconomic Statistics Department (DEM)

TABLE 7. COSTA RICA: EXPORTS OF SPECIAL TRADE REGIMES AND TRANSFORMATION SERVICES

	2011	2012	2013	2014	2015
<b>Exports of Special Trade Regimes</b>	5,570	6,256	6,548	6,023	4,720
<b>Exports of Enterprises Linked with Manufacturing Services</b>	2,013	2,508	2,721	2,042	316
<b>Manufacturing Services on Physical Inputs Owned by Others</b>	562	644	554	360	172

Source: Macroeconomic Statistics Department (DEM).

## 5. DISCUSSION

In Costa Rica exports made by manufacturing services companies represents more than 23% of total exports, however in terms of value added within the GDP its impact is close to 1.0%. Before the publication of MBP6, companies already in their financial statement reported the entrance by the manufacturing service, therefore had to adjust in production and intermediate consumption to reflect the gross value of exports and imports. Given these facts, to post MBP6 and 2008 SNA figures was interesting for the country.

However, come out with the recommended treatment in BPM6 on registration for the processing of goods on behalf of others required a major effort in terms of identifying companies performing services of transformation as well as find out its tariff headings corresponding to movements of goods for which there is no transfer of ownership.

In the case of Costa Rica to carry out the measurement seems less complicated because manufacturing services production takes place within a group of few companies and the administrative records are available in the country report which states directly the rate charged by the processing.

Take into account the recommendation significantly reduces the amount of goods and services in the current account of the balance of payments, however allows it to isolate the effect of transfer pricing which even in some cases cause that some top exporters report imports higher than exports. The result of the current account deficit in terms of GDP remains at about 5%.

## 6. CONCLUSION

In conclusion, excluding exports and imports of the goods entering and leaving without change of ownership and report only the processing service is very demanding in terms of data and work field; in the case of Costa Rica is easier as it is a small country with relatively few companies. This action allows to address some issues regarding the external trade flows

like transfer prices. In general terms, there are more advantages than disadvantages therefore it is more suitable to carry out this approach.

## ACRONYMS

BCCR	Costa Rica Central Bank
BPM6	Sixth Edition Balance of Payments Manual
BPM5	Fifth Edition Balance of Payments Manual
SNA 2008	System of National Accounts 2008
PROCOMER	Foreign Trade Promoter

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