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### **Transfer prices in national and international accounts: A proof of concept**

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**The ideas expressed in this paper are those of the authors and do not necessarily represent the view of the Central Bank of Costa Rica.**

# Transfer prices in Costa Rica: A proof of concept

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## ABSTRACT

Globalization has spread multinational enterprises (MNEs) throughout the world, leading to thriving international transactions among affiliated firms. MNEs could be shifting benefits from a high-tax to a low-tax jurisdictions by booking exchanged products between affiliated enterprises, not at market prices but at transfer prices. Transfer pricing do not necessarily reflect the “true” value of transactions, which raises concerns not only to tax administrations but also in national accounts compilers, because it might induce distortions in the main economic indicators.

In Costa Rica, MNEs operating in Free Zones (FZs) are exempt from taxes, and they usually operate as cost centers, recording production at transfer prices that are lower than corresponding market prices. Given this, the national accounts (NAs) area in the BCCR have been undertaking corrections to value those transactions at market rather than transfer prices. In this paper we present the experience of Costa Rica in addressing the impact and treatment of transfer prices in national and international accounts in two of its major export industries, namely medical devices and business management consulting, which together represent 23% of total exports. Medical devices industry is analyzed by comparing the accounting information of each company with customs records, while services industries are analyzed by comparing the company’s surpluses to those of similar ones.

This paper shows how transfer prices corrections affect export, production, and the operating surplus in the above mentioned activities; and depending on the mechanism used as counterpart, how it might affect other accounts, such as: income distribution, financial account, balance sheets, and the international investment position (IIP).

**Keywords: Transfer prices, Globalization, National accounts, Balance of Payments, BCCR, Costa Rica.**

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## Acronyms

<b>BCCR</b>	Central Bank of Costa Rica
<b>BoP</b>	Balance of Payments
<b>BPM6</b>	Balance of Payments and International Investment Position Manual
<b>DIAs</b>	Direct Investment Assets
<b>DILs</b>	Direct Investment Liabilities
<b>FDI</b>	Foreign Direct Investment
<b>FZs</b>	Free Zones
<b>GDP</b>	Gross Domestic Product
<b>GNI</b>	Gross National Income
<b>IIP</b>	International Investment Position
<b>ISIC</b>	International Standard industrial classification
<b>MNEs</b>	Multinational Enterprises
<b>NA</b>	National Accounts
<b>NFZs</b>	Non Free Zones
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>SNA</b>	System of National Accounts
<b>SUT</b>	Supply and Use Table
<b>TPCs</b>	Transfer Price Corrections

## 1. Background

Globalization has spread MNEs throughout the world which also entails thriving international transactions among affiliated firms within MNEs. In this context, affiliated firms can charge products to another one using transfer prices. With regard to the topic of the transfer prices, the General Controller's office of Costa Rica in the book "The Tributary Costa Rican System", indicates:

*These prices, called transfer prices, can be used to transfer profits to places where taxes are lower, regardless of where the benefits were generated. Besides transfer pricing, corporations use credits between subsidiaries and brand values and patents to transfer surpluses from one tax jurisdiction to another. To resort to these mechanisms it is not necessary to be a large company, it is sufficient to create related companies abroad and use the transfer prices to transfer resources from one site to another. In this way, international trade, which plays an increasingly important role in the world, opens global opportunities for tax evasion and avoidance and poses a gigantic challenge to governments and tax administrations (page 32).*

In national accounts transfer prices affect the value of the production and income generated within the borders of the country. This introduces difficulties to determine the national disposable income and the real financing needs of a given nation. Transfer prices distorts one-to-one GDP and other macroeconomic aggregates. Compiling the national accounts in volume terms using weights based on prices of the previous year (chain linked), requires aligning transfer prices with market prices to avoid even more distortions.

Transfer prices also affect international accounts. The BPM6 complements the indicators of the Balance of Payments and the IIP with the account of the other changes in financial assets and liabilities; which constitute the international accounts that serve as support for the construction of statistics and the analysis of the external situation of a country.

The international accounts of a country includes (Table 1):



**Table 1: International accounts**

Indicator		Details	
1. International Investment Position (IIP)		Shows the value, at a given time, of the financial assets and liabilities of the residents of an economy versus non-residents.	Stocks
2. Balance of Payments (BoP)		Groups the economic transactions between residents and non-residents during a certain period.	Flows
3. Account of Other Changes in Financial Assets and Liabilities (AOCFAL)		This includes changes that reconcile the BoP and the IIP corresponding to a specific period. It allows detailing the variations caused by economic phenomena other than transactions between residents and non-residents: price, exchange rate and volume.	Flows

Source: prepared by the authors from BPM6.

In Costa Rica companies operating in FZs are exempt from income taxes, but usually operate as cost centers, therefore they record production at transfer prices that are lower than the market prices. For example, this is the case of the main exporting economic activities (medical devices and business management consulting). Given this, corrections are made in the national and international accounts for transfer prices.

## 2. Guidelines on the Treatment of Transfer Prices

Knowing the guidelines on transfer prices for tax administrations allows the BCCR to determine if they suit the concepts of NAs. This section presents a brief review of the “Arm’s Length Principle”, which is the international transfer pricing standard OECD member countries should use for tax purposes of MNEs and tax administrations. According to this principle, the transactions between related companies must be valued as if they would be between non-associated ones.

### 2.1 Arm’s Length Principle

This principle, according to the OECD Transfer Pricing Guidelines, sets the following in case transfer prices does not reflect market forces:

*The tax liabilities of the associated enterprises and the tax revenues of the host countries could be distorted. Therefore, OECD member countries have agreed that for tax purposes*

*the profits of associated enterprises may be adjusted as necessary to correct any such distortions and thereby ensure that the arm's length principle is satisfied (see § 1.3).*

To apply the arm's length principle, it is necessary to make a comparative analysis between the transactions made by associated and non-associated enterprises. Sometimes it may be difficult to apply the arm's length principle, because associated enterprises may be engaged in transactions that independent ones do not undertake.

### **2.1.1 Comparability analysis**

The analysis can be based on different approaches such as:

**A. Characteristics of property or services:** Differences in market value are explained by physical characteristics, quality, availability, reliability, volume of supply, characteristics of the operation and the type of asset and the benefits derived from its use.

**B. Functional Analysis:** Takes into account the organizational structure of the companies, economically significant activities, risks assumed and the assets used. This function influences the allocation of risks between the parties and therefore the arm's length transactions.

**C. Contractual terms:** The conditions laid down in contractual clauses determine the way in which each involved party will share the responsibilities, risks and results of an operation.

**D. Economic circumstances:** Take into account the geographic location; the size of the markets; the extent of competition in the markets; and the relative competitive positions of the buyers and sellers.

**E. Business strategies:** This factor comprises aspects, such as innovation, the development of new products, and the degree of diversification.

**F. Internal and external comparables:** It is convenient to compare the operating profit that the analyzed party has earned compared to unrelated transactions; or external comparable.

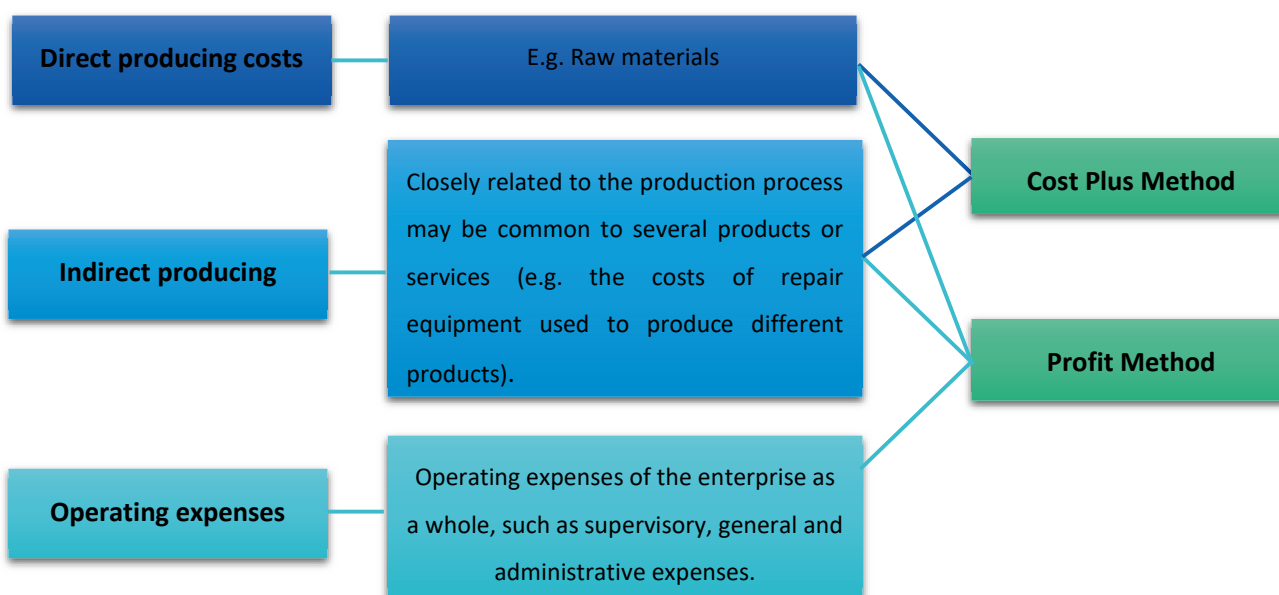
## **3. Methods on Transfer Prices Treatment**

Availability of information determines the comparability analysis and the treatment of transfer prices used for the analysis such as Cost Plus Method and Transactional Net Margin Method among others. The differences between the characteristics of the goods and services provided can affect

the price of products, but these differences are less likely to affect the profit margin or the gross mark up on costs.

This section presents different transfer pricing methods for which it is important to clarify some concepts related to costs. The costs of a company can be divided into different types such as direct and indirect producing cost, and operating expenses (illustration 1).

**Illustration 1: Types of costs**



Source: based on OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, 2017.

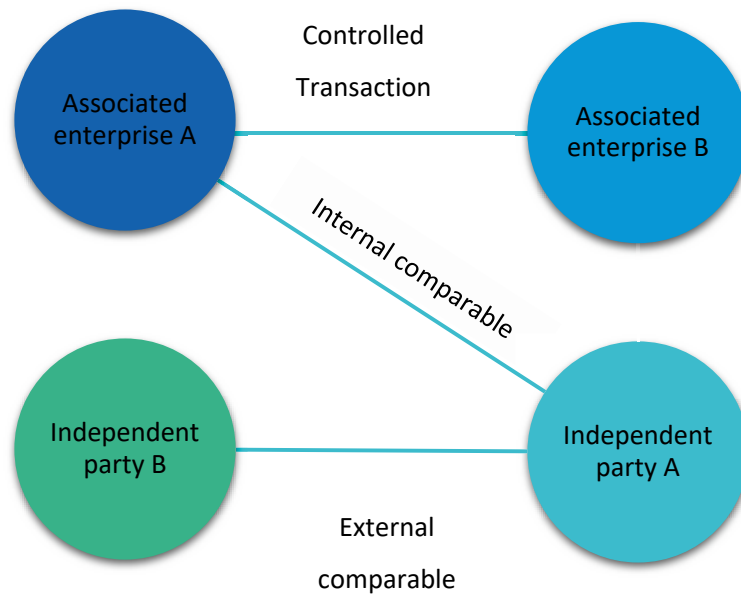
### 3.1 Traditional Transaction Methods

#### 3.1.1 Comparable Uncontrolled Priced Method

This method is based on the comparison of the prices of products transferred or borrowed in a controlled transaction to the price charged on products transferred or borrowed in a comparable uncontrolled transaction (internal and external comparable), in comparable circumstances (illustration 2). For this analysis one can use comparable goods and services

sold by two independent companies or sold by the company under study to independent or external entities.

**Illustration 2: Internal and External comparables**

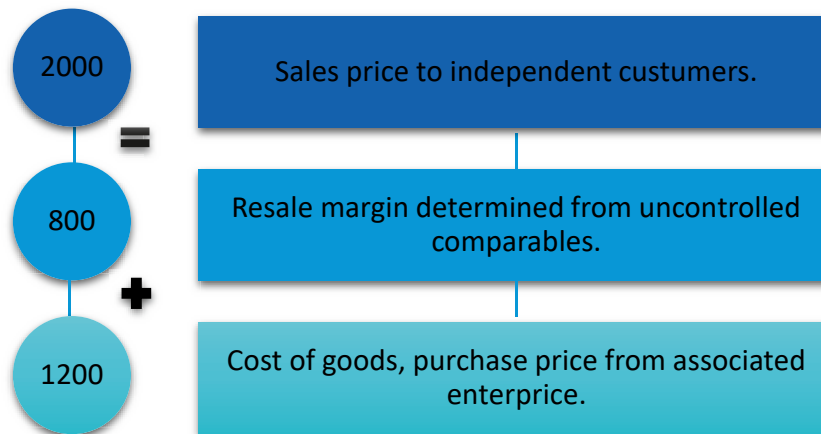


Source: based on OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, 2017.

### ***3.1.2 Resale Price Method***

This method is mainly used in wholesale trade and retail, and consists of applying the gross margin that the reselling company under analysis, in a comparable uncontrolled transaction, would have obtained through similar products under similar conditions. For example, as shown in illustration 3, a distributor sells a product to his clients for USD 2,000 which he bought from its related party. If the resale margin is USD 800 (in a comparable uncontrolled transaction) so the cost of the product is USD 1,200.

### Illustration 3: Resale Price Method



Source: based on OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, 2017.

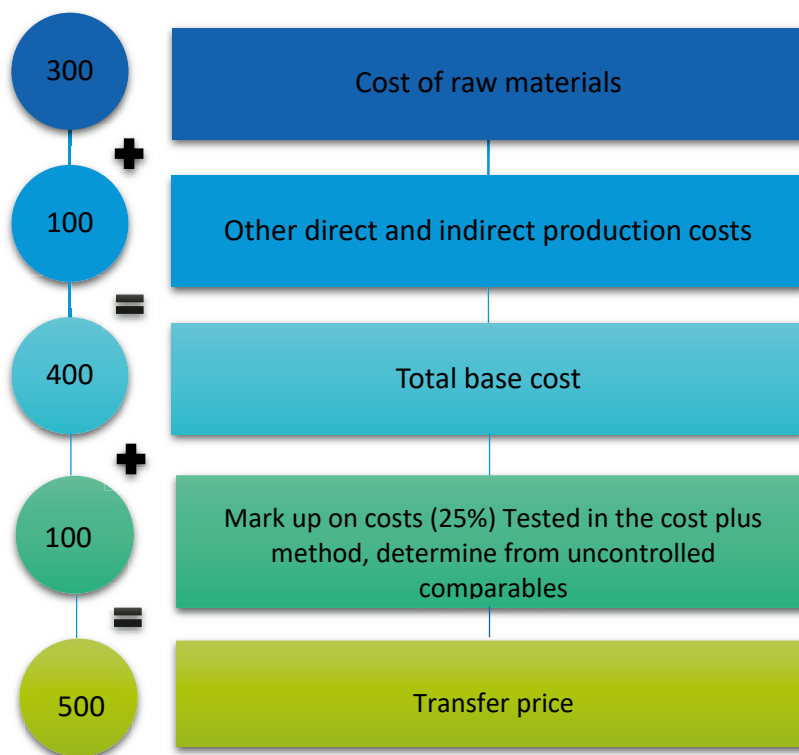
When applying this treatment for transfer prices, attention must be paid to certain conditions such as: if the reseller has transformed the product into a more complex one and those assets used and the risks assumed in the production process.

#### *3.1.3 Cost Plus Method*

In general, the cost plus method uses the direct and indirect costs to calculate the margins, while the transactional net margin method, as we explain above, uses the operating expenses with both direct and indirect costs.

Through cost accounting it can be established that the total of direct and indirect costs of goods X is USD 400, if a markup of 25% is added on production costs, the arm's length price is USD 500 (illustration 4).

**Illustration 4: Cost Plus Method**



Source: prepared by the authors based on OECD Transfer Pricing Methods, Centre for Tax Policy and Administration, 2010.

The three methods previously presented are the traditional ones for determining the arm's length price and are based on the operations. Other methods such as *the transactional net margin method* and *the transactional profit split method* are based on the results of the processes.

## 3.2 Transactional Profit Methods

### 3.2.1 Transactional Net Margin Method

This method determines the arm's length price using a net profit indicator. It consists of attributing to the operation under analysis the net margin that this or a third party would have obtained in identical or similar transactions carried out with or between independent parties. The net margin will be calculated on sales, costs, assets or the variable that is most appropriate, depending on the characteristics of the operations.

Costs and revenues that are not related to the operation, such as interest and income taxes, should be excluded because they cause deviations that significantly affect the comparability with the uncontrolled transactions. It is not reliable to apply this method when the enterprises perform different economic activities that are not comparable on an aggregate basis, unless there is financial data that allows disaggregation by type of activity.

### *3.2.2 Transactional Profit Split Method*

With this method the arm's length price is determined by establishing the level of profit or combined profit of the controlled transactions, and then assigning it to the parties in the proportion that would have been consigned with or between independent parties according to their participation in the operations. When the related operations are closely linked, or the parties make unique and valuable contributions, this may be the most appropriate method. While this method can be easily applied, in practice in many cases it may be difficult for the tax administration to determine the joint results of the related operations due to difficulties accessing information of the foreign affiliates.

## **4. Addressing Transfer Prices in National Accounts**

If the principle of arm's length is difficult to apply to businesses and tax offices, it is even more for NA. It can be difficult to find a comparable transaction in the market, and even harder for NAs offices in developing countries due to the smaller size of both their economies and the number of independent enterprises operating in their markets. According to the 2008 SNA:

*The exchange of goods between affiliated enterprises may often be one that does not occur between independent parties (for example, specialized components that are usable only when incorporated in a finished product). Similarly, the exchange of services, such as management services and technical know-how, may have no near equivalents in the types of transactions in services that usually take place between independent parties. Thus, for transactions between affiliated parties, the determination of values comparable to market values may be difficult, and compilers may have no choice other than to accept valuations based on explicit costs incurred in production or any other values assigned by the enterprise compilers may have no choice other than to accept valuations based on explicit costs incurred in production or any others values assigned by the enterprises (See § 3.133).*

The previous paragraph illustrates the experience of Costa Rica. The companies in the main export industries, namely medical devices (very specialized products) and business management consulting, usually value their production basically at cost<sup>2</sup>. These industries represent 23% of the country's exports; therefore, mismeasuring their value can significantly bias the values of NA and BoP. The 2008 SNA also refers to the following:

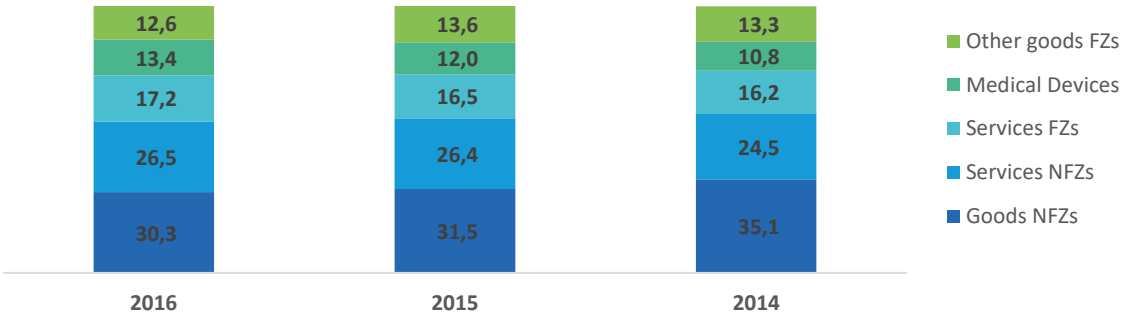
*Replacing book values (transfer prices) with market-value equivalents is desirable in principle, when the distortions are large and when availability of data (such as corrections by customs or tax officials or from partner economies) makes it feasible to do so. Selection of the best market-value equivalents to replace book values is an exercise calling for cautious and informed judgment (See § 3.132)*

In the next section we present the process followed at Macroeconomic Statistics Department of the Central Bank of Costa Rica to address the issue of transfer prices in the medical device industry and the activities related to business management consulting.

#### 4.1 Medical Device Industry

The medical device industry<sup>3</sup> in Costa Rica is one of the most important in terms of share of exports, for example 13.4% of total exports in the 2016 (Figure 1).

**Figure 1.**  
**Composition of Costa Rican Exports (percent)**



Source: based on national accounts data.

<sup>2</sup> These industries are in FZs and are not required to present financial statements to the national tax office.

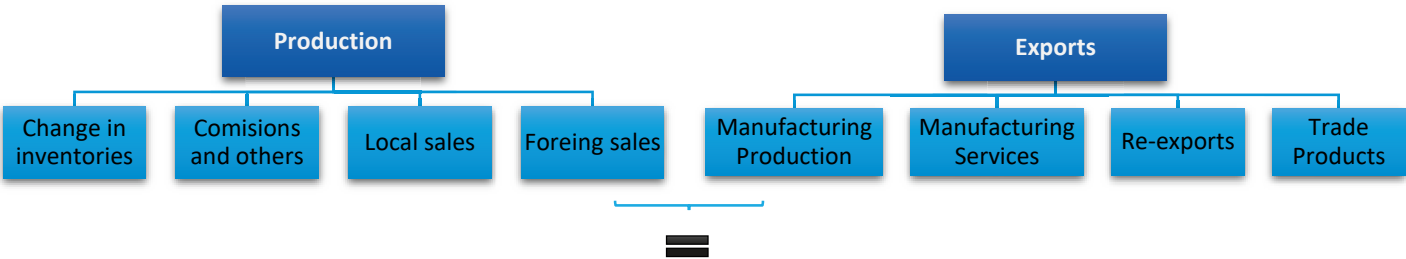
<sup>3</sup> It covers around 31 companies classified in ISIC 3250 that sell their production mainly to affiliated parties.



The estimated total for foreign direct investment for this economic activity is USD 283.53 million, about 23.9% is from the Netherlands. The main products manufactured are: syringes, catheters, cannulas and other devices. FZ companies manufactured 98.7% of the medical device production of Costa Rica.

In this industry almost all production is exported, therefore both values should be almost equal as demonstrated in illustration 5. However, transfer pricing is the main reason these, two values are different. In some cases the transfer prices are higher than market prices, but most transfer prices are lower than observed market prices. According to accountants of the companies, they use market prices to book their sales in the financial statements and transfer prices to value customs declarations<sup>4</sup>. Production valued at market value and customs exports valued at transfer prices create an imbalance in the SUT.

**Illustration 5: Production and export in medical device products**



Source: prepared by the authors.

To balance the SUT, it is clear that exports need to align with market prices, but first it is necessary to assess the differences company by company. The production value from the financial statements needs to replace the exports values as reported to customs in the NA and BOP. In the case of small differences there is a need to detect errors either in financial statements or customs. For those cases where differences are significant, we visited the company’s financial department in order to reconcile the figures.

During 2014 and 2015 the correction reached 5% in medical devices exports and according to preliminary data for 2017 exports will increase by 10%.

<sup>4</sup> Companies under FZs must present to the Foreign Trade Promotion Agency an Annual Report of Operations, which is used by the national accounts compilers as a data source. Export data comes from Customs Department, Ministry of Finance of Costa Rica.

To illustrate, table 2 shows the price correction and its one-to-one effect on value added and exports. This change effects the external balance of goods and services and other accounts; we will discuss later.

**Table 2: Medical Device Industry**

Percentage of change	2017/2016
Medical Devices export with TPCs	22.7%
Medical Devices export without TPCs	12.0%
Valued added with TPCs	52.0%
Valued added without TPCs	19.4%

TPCs: Transfer Price Correction (Included in NAs).  
Source: own calculations with data from the BCCR.

In 2014, the Macroeconomics Statistics Department of the BCCR undertook the first transfer price correction in the medical device activity, corrections also have been applied to other products such as:

- 1.1 Electronic components and circuit boards, computers and peripheral equipment.
- 1.2 Optical and photographic instruments, magnetic and optical supports.
- 1.3 Motors, generators, power transformers; electric energy distribution and control apparatus.
- 1.4 Cells, batteries, storage batteries, cables and cabling devices.

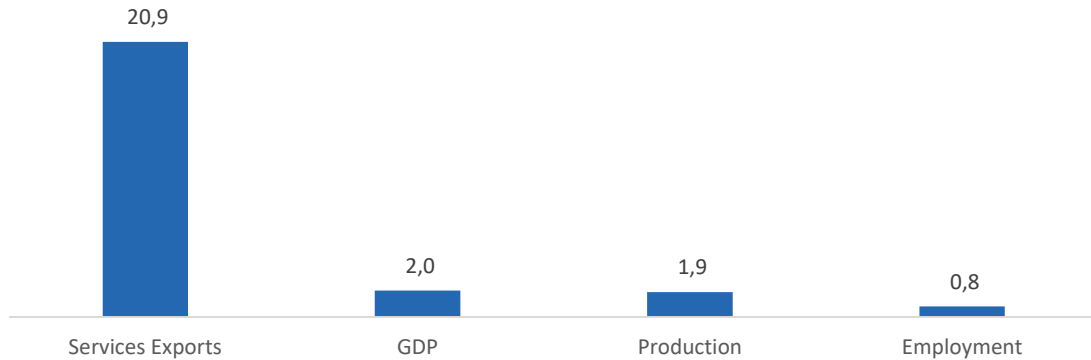
## 4.2 Business Management Consulting

Export services activities have increased their share in the economic structure of Costa Rica (Figure 2). Contrary to medical devices, firms in business management consulting usually book their sales in financial statements at transfer prices in which case it is necessary to apply some guidance related to valuation in NAs at market prices<sup>5</sup>.

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<sup>5</sup> Business management consulting includes those companies that carry out main office activities (ISIC 7010) and management in consulting activities (ISIC 7020).

**Figure 2**  
**Business management consulting: share in some indicators, 2016 (percent)**

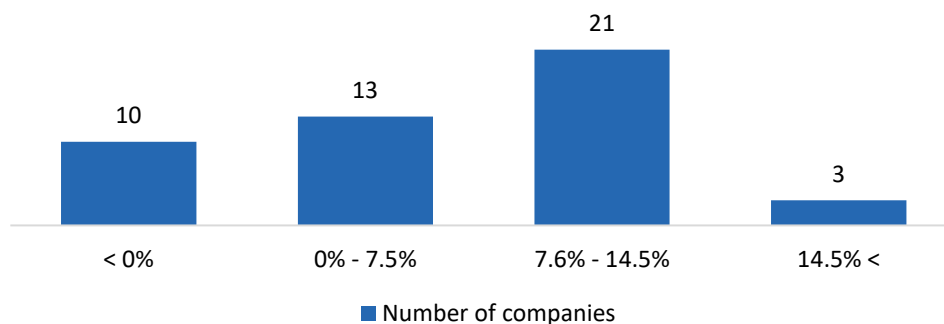


Source: based on national accounts data.

Most of these firms are located in FZs and their capital comes from the United States of America (37.6%) and the Netherlands (34.2%).

This is a very heterogeneous activity of outsourcing and offshoring work. There is limited information about prices and net benefits of companies that operate independently in this kind of services, making it difficult for a comparative analysis. Nevertheless, looking into the cost plus method and transactional net margin method the transfer pricing revision takes into account the operating surplus of the competitors in the same industry.

**Figure 3**  
**Frecuency Anaysis: Ratio of operating surplus to production, 2016**



Source: based on national accounts data.

Figure 3 shows most of the companies have a ratio of the operating surplus to production between 7.5% to 14.5%. For those companies running surpluses under the average, an adjustment is made in their production upwards in order to obtain the average surplus of the economic activity. Then, the whole sequence of accounts are revised to assess the impact of the adjustment.

In 2016, compared to the original values, the price correction of transfer prices increased the production value by 2.3%, the operating surplus by 23% and the value added to output ratio passed from 10% to 12%.

It is important to mention that this comparability analysis includes only FZ companies in FZs, so if all companies in FZs record their production at cost, the corrected value would be inferior to market prices. Nevertheless, this may explain why even after the upward corrections; the surplus continues to be lower than NFZs. Also, in the main export services in FZs the ratio of operating surplus to output is lower than NFZs as well the average productivity tends to be lower as shown in Table 3.

**Table 3: Productivity and operating surplus, export services activities, 2016**

Economic Activity	Export services	Average productivity per employee (millions colones)		% Operating surplus, net / Output	
		FZs	NFZs	FZs	NFZs
AE104	Information, programming and computing consulting activities	28.71	58.08	7.4%	40.3%
AE112	Activities related to consulting in financial management, human resources, marketing, main offices, and related	52.32	35.89	8.1%	15.6%
AE123	Administrative and office support activities, and other business support activities	16.81	18.43	7.0%	12.3%

Source: based on national accounts data.

In addition, as a result of the transfer prices correction, there are important changes in the productivity per employee, as seen in table 4, the average productivity per employee increased 11.1%.

**Table 4: Business management consulting activities: Impact on productivity of transfer price corrections, 2016.**

	Before correction	After correction
Production (millions of USD)	1,590.47	1,744.47
Number of Employees	18,165	18,165
Average productivity per employee (millions of USD)	0.09	0.10

Source: based on national accounts data.

## 5. Discussion about consequences in the sequence of institutional accounts

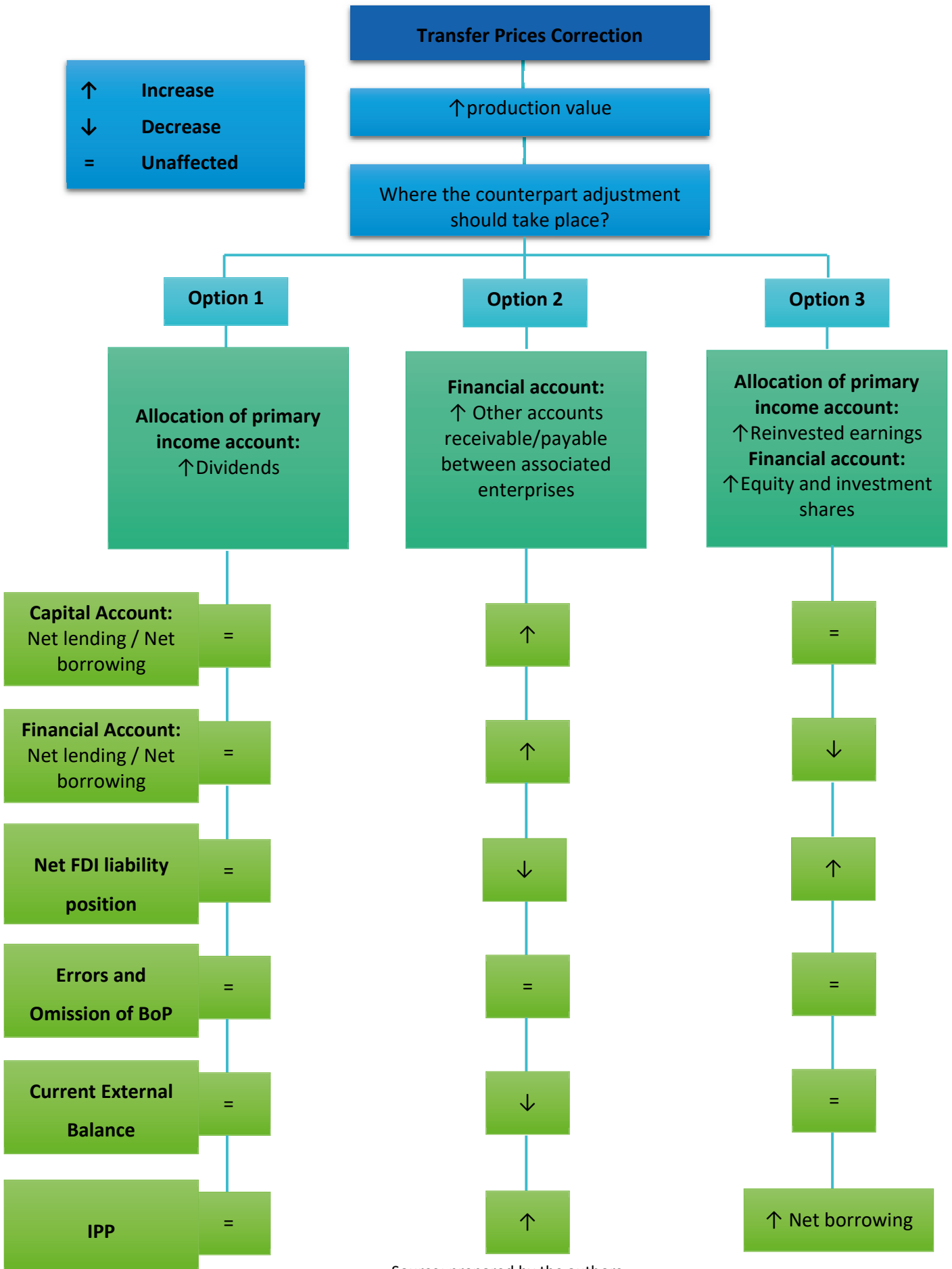
TPCs aim to align the production valuation with market prices affecting the GDP one-to-one and other accounts. In this section we discuss how corrections in transfer prices may impact the sequence of NA and the different options for dealing with that. According to 2008 SNA:

*Prices may be under-or-over-invoiced, in which case an assessment of a market-equivalent price needs to be made. Although correction should be made when actual exchange values do not represent market prices, this may not be practical in many cases. Adjusting the actual exchange values to reflect market prices will have consequences in other accounts. Therefore, when such corrections are made, corresponding corrections in other accounts should also be made, for example, if prices of goods are adjusted, income account or financial account transactions or both should also be adjusted (see § 3.131)*

The BPM6 guide (see § 11.25) recommends that the compiler should make adjustments to the transaction prices in the balance of payments and the IIP, when it identifies significant distortions as a result of transaction prices values among direct investment companies with respect to the normal values present in transactions between unrelated companies. In these cases, adjustments must be made to account for transactions according to market prices and, thus, avoid distortions in accounting records (flows and stocks). This task is not trivial and constitutes one of the major challenges of globalization.

The TPCs affects national and international accounts, at first exports and production and then other accounts. Illustration 6, shows the effects of transfer prices in the main macroeconomic aggregates considering three different options (Tables 5 to 7).

Illustration 6: TPC effect in the sequence of NAs



Source: prepared by the authors.

According to preliminary 2017 data, the TPCs for the medical device industry and business management consulting represents 1.3% of GDP.

**Table 5: Impact of using option 1 for TPCs on the sequence of integrated economic accounts, 2017 (size of the adjustment on each transaction) <sup>1</sup>**

Uses/Changes in Assets		Resources/ Changes in liabilities and net worth	
Rest of the world	Total Economy	Total Economy	Rest of the world
<b>Transactions and balancing items</b>			
4.05%			
<b>Production account</b>			
		0.81%	
	1.30%		
493.08%			
<b>Generation of income account</b>			
		1.30%	
	3.83%		
<b>Allocation of primary income account</b>			
		3.83%	
	4.50%		26.91%
	-		
<b>Secondary distribution of income account</b>			
<b>Use of disposable income account</b>			
-			
<b>Capital account</b>			
-			
<b>Financial account</b>			
	-32.92%		
		-25.25%	

<sup>1</sup> Ratio of adjustment.

Source: prepared by the authors based on national accounts data.

For the option 1, the correction value in the export and output is offset by the property income paid to the rest of the world from our economy. The counter part of the dividend payment is shown in the financial account as a cash outflow and as a decrease in other accounts receivable/payable (Table 5).



The ratio of the adjustment over the external balance of goods and services is 493%, and in the case of the property income paid to the rest of the world represents 26.9%.

**Table 6: Impact of using option 2 for TPCs on the sequence of integrated economic accounts, 2017 (size of the adjustment on each transaction)**

Uses/Changes in Assets		Resources/ Changes in liabilities and net worth	
Rest of the world	Total Economy	Total Economy	Rest of the world
-	-	-	-
<b>Transactions and balancing items</b>			
4.05%			
<b>Production account</b>			
		0.81%	
493.08%	1.30%		
<b>Generation of income account</b>			
		1.30%	
	3.83%		
<b>Allocation of primary income account</b>			
		3.83%	
	1.36%		
<b>Secondary distribution of income account</b>			
		1.36%	
	1.34%		
<b>Use of disposable income account</b>			
		1.34%	
	8.49%		
-42,15%			
<b>Capital account</b>			
		8.49%	
			-42.15%
		12.83%	-44.34%
-44.34%	-44.34%		
<b>Financial account</b>			
		-47.88%	-47.88%
	29.97%		85.45%

Source: prepared by the authors based on national accounts data.

TPCs in the option 2 (Table 6) affects all of the current account, for 2016 Costa Rica had a negative external balance of goods and services and a positive current external balance, so the increase in exports value made the balance on goods and services even more negative and decreased the

positive current external balance (from a rest of the world perspective). Also, in 2016 the net lending/net borrowing was negative for the total economy. This correction implies an increase in other receivable/payable accounts in the financial account that has positive repercussions on net lending/net borrowing by making it less negative. Option 2 also affects the allocation of primary income account, the secondary distribution of the income account and the use of the disposable income account, making it the only option that affects the current external balance.

From the point of view of the BoP the TPCs must increase the net acquisition of financial assets, increasing the DIAs and decreasing the FDI, because the outward foreign direct investment became bigger<sup>6</sup>. Also the corrections made the IIP less negative, meaning that TPCs had a positive impact in IIP.

As well, in option 3 (Table 7) the TPCs must increase the DILs, increasing the FDI. Also the corrections increased the net borrowing, meaning that TPCs had a positive impact on the IIP.

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<sup>6</sup> OECD Benchmark Definition of Foreign Direct Investment, Fourth edition, 2008.

**Table 7: Impact of using option 3 for TPCs on the sequence of integrated economic accounts, 2017 (size of the adjustment on each transaction)**

Uses/Changes in Assets		Resources/ Changes in liabilities and net worth	
Rest of the world	Total Economy	Total Economy	Rest of the world
<b><u>Transactions and balancing items</u></b>			
4.05%			
<b><u>Production account</u></b>			
		0.81%	
	1.30%		
493.08%			
<b><u>Generation of income account</u></b>			
		1.30%	
	3.83%		
<b><u>Allocation of primary income account</u></b>			
		3.83%	
	4.50%		26.91%
	-		
<b><u>Secondary distribution of income account</u></b>			
			-
	-		
<b><u>Use of disposable income account</u></b>			
			-
	-		
<b><u>Capital account</u></b>			
			-
			-
			-
	-		
<b><u>Financial account</u></b>			
		47.88%	
	-37.77%		

Source: prepared by the authors based on national accounts data.

The current external balance remains unchanged in both option 1 and option 3, the differences between them is the type of property income made in each one, depending on this, the counterparty in the financial account have different impacts on the net lending/net borrowing. The negative value of equity and investment fund shares made the net lending/net borrowing of the financial account even more negative while in option 1 it does not change (Table 5).

It is important to mention that some tests for the business management industry were carried out using option 3, but it was concluded that it is not appropriate to use it because it affects many accounts (Table 6). For all the three options the BoP errors and omission remained unchanged.

We are considering the use of option 1 for the medical devices industry given the substantial upward correction in the 2017; however, even this option does not follow the accounting practices of the most important companies in the industry. This due to:

- a. It won't impact directly on FDI;
- b. Most likely the account "other accounts receivable" won't be reduced in the coming years; and
- c. Net saving, gross national income (GNI) and net wealth remain unchanged because a correction in transfer prices will be recorded as an increase in dividends paid to the rest of the world.

For the above reasons and based on the information available so far, we recommend using option 1 for both industries analyzed.

The net lending/net borrowing of the economy does not vary using option 1 which makes sense, although TPCs are income generated by the economy, the owners of the capital that generated it are non-residents. This large surplus must be recorded in distribution income accounts as a dividend paid to the rest of the world; therefore it should not reflect an increase in GNI nor an increase in net lending/net borrowing of the rest of the world or an increase in the net worth of the economy.

Even more, SNA 2008 proposed that:

*Retained earnings of a corporation or quasi-corporation are equal to the distributable income less the dividends payable or withdrawal of income from the corporation or quasi-corporation respectively. If the foreign direct investment enterprise is wholly owned by a single foreign direct investor (for example, a branch of a foreign enterprise), the whole of the retained earnings is deemed to be remitted to that investor and then reinvested, in which case the saving of the enterprise must be zero ( see §. 7.139)*

Given this suggestion, if the correction in dividends paid is not made then net savings rises and for those companies 100% foreign owned the correction of reinvested profits must be made in such a way that the net saving is zero. Given this, if the dividends paid are not corrected it implies that, automatically it would affect the reinvested profits and we would have option 3, which we consider "invasive."

## 6. Conclusions, Remarks and Challenges Ahead

Using transfer prices is a common practice within multinational branches. In the case of Costa Rica, this practice affects two of the major export activities, namely: medical devices and business management consulting services. These account for 23% of total exports. This fact impacts on labor productivity and other macroeconomic aggregates. To overcome these distortions, some data adjustments have been introduced in order to align transfer prices used by MNE's with actual market prices. These adjustments affect different parts of the institutional accounts sequence. Depending on the decision made, the TPC corrections can affect the indicators of both the national and international accounts; like net savings, the current account or FDI. Clearly more in-depth guidance should be provided to help countries in addressing transfer prices in macroeconomic statistics. It is necessary figure out not only which is the best procedure to align transfer prices to market prices, but also the impact on the rest of the accounts sequence.

It can be difficult to find comparable prices to make a proper adjustment, especially for specific goods and services that are difficult to find within the same economy, therefore there is a need for a data base with market prices for products that are exchanged globally between affiliated companies.

Medical devices companies show in their financial statements high values on royalties which serves as hindrance to better understanding transfer prices; therefore further research is needed to analyze the nature and policies of royalties within this industry for a broader analysis.

Due to the growth of research and development services in recent years, there is some evidence about the use of transfer prices as well, therefore further research is also needed in this industry.

No doubt, the price indexes of these economic activities exports must incorporate transfer prices concerns.

It is necessary to define guidelines to avoid problems of asymmetries in foreign trade data.

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