



# Use of sources of International Trade in Services in the System of National Accounts

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## The System of National Accounts and the Rest of the World

- The System of National Accounts presents the flows of goods and services registered in the table of Integrated Economic Accounts, which are obtained from the Supply and Use Tables
- The full table of Integrated Economic Accounts shows the share of institutional sectors in the generation, appropriation, use and distribution of national income and the accumulation of non-financial assets. It also highlights the relations between the national economy and the rest of the world.
- An approach of the various uses of the international flows of the current account (goods, services, income and transfers) in the System of National Accounts will be presented, with special emphasis on international trade in services.

## Source of data for international services

### Balance of Payments – Central Bank of Brazil

- Metodology: Balance of Payments Manual, 5<sup>a</sup> edition, 1993 (IMF)
- Timeliness: monthly.
- Figures in U.S.\$. The conversion into Reais is done using the average monthly sale and purchase of U.S. dollars
- BOP is used to fill out the data of international trade in services both in the quarterly and annual National Accounts
- Some items of the Balance of Payments are sent in a quarterly basis for the Coordination of National Accounts in a more disaggregated level to enable the correspondence to the classifications of National Accounts
- Annual NA considers the data review and adjustments of the Balance of Payments. However, variation in current values are not significant, keeping the coherence between annual and quarterly NA.

## Use of BP in the National Accounts

- Methodology: System of National Accounts - SNA, 1993 (ONU)
- The Brazilian System of National Accounts, has a list of about 300 products at the most disaggregated level, where 1/5 of them are services. The products and activities follow the National Classification of Economic Activities - CNAE.
- The Balance of Payments items are correlated to the NA list of products and services
- National Accounts: 3 major classes of Activities - Agriculture, Industry and Services. The amount calculated for imports and exports of goods and services may differ from that recorded in the Trade Balance and Services Account of BOP, due to conceptual reasons, adjustments and estimates.
- Either SNA or BPM present a conciliation between the Rest of the World Account and the international accounts of the BOP

# The use of BP in the National Accounts

## ➤ Travel

Travel is the most difficult item to be registered in the National Accounts System, because it not refers to a specific product or service; instead there is a basket of goods and services consumed by non-residents in the domestic economy (and vice versa). The difficulty lies in the distribution of the weighted values. Since 2005, the values are distributed according to their participation in the total net revenue of the activities surveyed by the Annual Survey of Services (PAS), taken as typically touristic services.

The Supply and Use Table presented in the SNA, includes an adjustment line for 'direct purchases abroad by residents and domestic purchases by nonresidents' - linked to the item 'Travel' of the BOP.

# Supply and Use Table

Use of products	Total supply at purchasers' prices					Intermediate consumption of industries (by ISIC categories)										
	(1)	(2)	Taxes on products		(5)	Market										
			(3)	(4)		(A)	(B-E)	(F)	(G-I)	(J)	(K)	(L)	(M-N)	(P-Q)	R-T and U	(16)
					(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Products (by CPC section)																
Total uses																
Agriculture, forestry and fishery products (0)	128					2	71	0	3	1	2	1	2	0	0	82
Ores and minerals; electricity, gas and water (1)	263					3	190	1	6	3	2	1	2	0	0	208
Manufacturing (2-4)	2 161					27	675	63	44	16	16	9	19	4	5	878
Construction (5)	261					1	9	5	3	1	1	1	1	0	0	22
Trade, accommodation, food & beverages; transport services (6)	216					3	65	3	25	4	4	2	4	0	0	110
Finance and insurance (7 less 72-73)	159					1	36	5	18	1	3	3	7	1	1	76
Real estate services; and rental and leasing services (72-73)	195					1	15	1	8	2	5	2	4	0	1	39
Business and production services (8)	272					2	70	12	15	10	18	9	19	7	9	171
Community and social services (92-93)	275					0	1	0	0	0		0	1	0	0	2
Other services (94-99)	95					1	1	0	1	1	1	0	1	0	0	6
Public administration (91)	168					0	0	0	0	0	0	0	0	0	0	0
Direct purchases abroad by residents	43															0
Domestic purchases by non-residents	0															0
Total	4 236					41	1 133	90	123	39	52	28	60	12	16	1 594

# The use of BOP in the National Accounts

## ➤ Other itens

Data from the Services Account of the Balance of Payments are more aggregated than the breakdown of services listed in the National Accounts. Some general items that have a relevant value, need to be carefully examined, so they can be associated to one or more services of National Accounts.

Items such as other supplies, Government goods and services n.i.e, transfers not specified, etc. have a specific treatment and the identification of the components comprised in such itens is done through the BOP Metadata.

## Other sources of foreign trade

### ➤ **Nonmonetary transactions**

#### ITAIPU

In the Brazilian National Accounts, in addition to the items recorded in the Trade Balance and the Balance of Payments, are also recorded imports of electricity from Binational Power Station *Itaipu* (trade balance) and interest income (income account) owing to the debts that Paraguay has with Brazil for the construction of the power station (nonmonetary transactions).

### ➤ **Annual Survey of Services - PAS**




PAS records exports of services identified by the core activity (CNAE) of the surveyed enterprise

This data is used to compare exports values of services recorded in the Balance of Payments in a more aggregated level



## Source PAS (Annual Survey of Services) - IBGE

- Variables: percentual of net operating income on domestic market and abroad (export of goods and services), of main services exported by the enterprises surveyed by PAS
- Questionnaire: Variable 38
- The identification of exported services follows the National Classification of Economic Activities (CNAE 1.0)

07	ORIGEM DA RECEITA LÍQUIDA NO ANO (Registrada no Código 028)	CÓD	PERCENTUAL
	Mercado interno .....	036	 %
	Mercado externo		
	Exportação de mercadorias .....	037	 %
	Exportação de serviços (1) .....	038	 %
	<b>Total</b> .....		100%
<small>(1) Considerar as transações entre empresas sediadas no país e empresas sediadas no exterior ou clientes residentes no exterior, inclusive embaixadas. Exemplos: exportação de <i>softwares</i>, serviços de consultoria, chamadas internacionais geradas no exterior - inclusive <i>roaming</i> internacional, fretes contratados no exterior, manutenção de aeronaves de empresas aéreas estrangeiras, fornecimento de refeições para empresas aéreas estrangeiras (<i>catering</i>), serviços prestados em embarcações estrangeiras, contratação de pacotes turísticos obtidos no exterior, etc.</small>			

# PAS - Supplement

- Audiovisual Services, Engineering, Architecture and Technical Advisory Specialist, Information Technology, Telecommunication, Air Transport, Water Transport, Rail, Metro and Road Transport

05		EXPORTAÇÃO DE SERVIÇOS	
Caso a empresa tenha realizado exportações de serviços em 2007, relacione os principais países de destino das exportações e o respectivo percentual sobre o total das exportações de serviços:			
Receita de exportação de serviços ..... 32			<input type="text"/> ,00
Principais países de destino das exportações de serviços			
Uso do IBGE 33 - <input type="text"/> 34 - <input type="text"/> 35 - <input type="text"/> 36 - <input type="text"/> 37 - <input type="text"/> 38 - Outros países:	Discriminar os países ..... ..... ..... ..... .....	CÓD 39 40 41 42 43 44 45	Percentual sobre as exportações de serviços <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 100%
Total .....			

## Balance at basic price and consumer price (domestic x imported)

- Imports of goods and services are registered at basic prices (supply), but from the demand approach, goods and services are bought at consumer prices (i.e. including margins and taxes)
- Different types of taxes are charged on imports of services, depending on the nature of the service
- Imported goods and services are classified according to their use category. The classification of goods follows the Broad Economic Category (BEC), while services follow the same classification used on the Supply and Use Table (intermediate consumption or final consumption)
- 2007 GDP: there was an attempt to calculate the consumer's price of goods and services starting from basic prices, i.e. adding margins and taxes according to each case. The balance between supply and demand using the NA software can be done by the origin of the supply – domestic or imported – to reach the total supply.
- Problem: classification of services by use category

BOU en valor año de base - Nuevo

Archivo Datos Herramientas Lista de correo ?

067004002 Transporte aéreo de passageiros Ninguna cad Nacional + Import ano2007 No hay unidad de c

	Precio base completado	Márgenes transporte	Márgenes comercio	Impuestos netos	IVA no deducible	Precio comprador
TOTAL RECURSOS	19483			1133		20616
TOTAL DE LOS USOS	19483			1133		20616
Prod. merc. princ.	13314					
Prod. no merc. princ.						
Prod. merc. secund.						
Prod. no merc. Secd.						
IMPORT. CAF	6169					
IMPUESTO/import.						
Marqen de transporte						
Marqen de comercio						
IMPUESTO/export.						
IMPUESTO/producto				1133		
Subsidios sobre productos						
IVA no deducible						
Consumo intermedio	10146			527		10673
Consumo final comprado	7541			606		8147
GCF PNM Hogares						
GCF PNM Gobierno						
GCF PNM ISFL						
FBCF						
VE en curso						
VE term.						
VE mercad.						
VE mat. 1as						
EXPORT	1796					1796

## Balance at purchaser's price– current year

- The balance between supply and demand in the SNA is done at current prices and constant prices, based on the figures (structure) of the base year (reference year)
- The annual data is provided by surveys and other sources (administrative data)
- Constant values are obtained through volume indices, or by deflation if only prices indices are available.

### Price indices of imports/exports goods and services

- Goods: Methodology. Price indices are calculated using Paasche formula
- Volume indices are obtained implicitly

### Services

## Price indices of international trade in services

- Current methodology: in order to obtain the constant value of  $M/X$  of services, the current value of all types of services is divided by the variation of the exchange rate ( $t/t-1$ ). It provides a proxy of a price index
- This methodology is weak, since it is based only in the exchange rate variation. That means that it is likely to be adjusted on the supply and demand balance sheets, due to exchange rates monthly variations, pointing out a greater or smaller index.
- Current values are not subject to changes - they are based on external source (BOP). By contrast, constant values have greater flexibility to adjustments - each case is analyzed separately, according to the monthly exchange rate behavior.
  
- Main problem: lack of a good deflator for international services

There are several recommendations that will be tested in the next base year

BOU en valor año corriente - Nuevo

Archivo Datos Herramientas Presentación Lista de correo ?

067004002 Transporte aéreo de passageiros Ninguna cad Nacional + Import ano2007 No hay unidad de ca

	PrecioN-1 AñoN-1	Indice de volumen	PrecioN-1 AñoN	Indice de precio	PrecioN AñoN	Indice de valor
RECURSOS:Precio comprador	20271	1,125	22797	0,904	20616	1,017
USOS:Precio comprador	20271	1,125	22797	0,904	20616	1,017
Prod. merc. princ.	*14150	1,113	15746	0,846	13314	0,941
Prod. no merc. princ.						
Prod. merc. secund.						
Prod. no merc. Secd.						
IMPORT. CAF	5245	1,155	6060	1,018	6169	1,176
IMPUESTO/import.						
Margen de transporte						
Margen de comercio						
IMPUESTO/export.						
IMPUESTO/producto	876	1,131	991	1,143	1133	1,293
Subsidios sobre productos						
IVA no deducible						
CI precio comprador	10930	1,093	11951	0,893	10673	0,976
GCF PM precio comprador	7659	1,128	8640	10,943	8147	1,064
GCF PNM Hogares precio comprador						
GCF PNM Gobierno precio comprador						
GCF PNM ISFL precio comprador						
FBCF precio comprador						
VE en curso precio comprador						
VE term.precio comprador						
VE mercad.precio comprador						
VE mat. 1as precio comprador						
EXPORT precio comprador	1682	1,312	2206	0,814	1796	1,068

## The Rest of the World Account

- The Rest of the World Account, a component of Integrated Economic Accounts, records the transactions of all institutional units of the economy and the flows of production, income, wealth and international investment position.
  
- Balance of Payments: records of services, income, current transfers and capital transfers, financial flows and international investment position.
  
- National Accounts: current, capital, financial and revaluation accounts
  
- The Rest of the World is a mirror account. It shows the transactions between national units (residents) and outsiders (non-residents). It demonstrates the relationship between domestic institutional sectors and the rest of the world: same balance with opposite signs.



## The Rest of the World Account - Integrated Economic Accounts

- Balance of goods and services - internacional flows of goods and services
- Primary income account - net balance of goods and services, net property income (wages, interest and dividends)
- Secondary income account: it includes the net current transfers
- Net Lending /Net Borrowing - balance from the difference of foreign savings and net capital transfers. Net lending, is defined as the difference between changes in net worth due to saving and capital transfers and net acquisitions of non-financial assets (acquisitions less disposals of nonfinancial assets, less consumption of fixed capital). If the amount is negative it represents net borrowing.
- Financial Account: the financial account is the final account in the full sequence of accounts that records transactions between institutional units. It explains how net lending or net borrowing is affected by means of changes in holdings of financial assets and liabilities.

Contas econômicas integradas - 2006



Contas	Total	Conta do resto do mundo	Total da economia	Códigos	Operações e saldos	Conta do resto do mundo	Total da economia	Contas	
<b>Usos</b>									
<b>Contas correntes (1000 000 R\$)</b>									
1. Produção/ conta externa de bens e serviços	271679			P.7	Importação de bens e serviços	271680	271680	1. Produção/ conta externa de bens e serviços	
	340 457	340 457		P.6	Exportação de bens e serviços		340 457		
	4 121766			P.1	Produção		4 121766		
	3 454 531			P.11	Produção mercantil		3 454 531		
	667 235			P.12	Produção não-mercantil		667 235		
	2 087 032		2 087 032	P.2	Consumo intermediário		2 087 032		
	335 063			D.21+D.31	Impostos, líquidos de subsídios, sobre produtos		335 063		
	2 369 797		2 369 797	<b>B.1</b>	<b>Valor adicionado bruto/Produto interno bruto (1)</b>		2 369 797		
	(-) 68 777	(-) 68 777		<b>B.11</b>	<b>Saldo externo de bens e serviços</b>	(-) 68 777	(-) 68 777		2.1.1. Geração da renda
	2.1.1. Geração da renda	970 255	864	969 391	D.1	Remuneração dos empregados	475		970 255
771802		864	770 938	D.11	Ordenados e salários	475	771802		
825 311			825 311	<b>B.2</b>	<b>Excedente operacional bruto</b>		825 311		
212 919			212 919	<b>B.3</b>	<b>Rendimento misto bruto (rendimento de autônomos)</b>		212 919		
2.1.2. Alocação da renda primária	1507 294	14 470	1492 824	D.4	Rendas de propriedade	73 445	1507 294	2.2. Distribuição secundária da renda	
	1259 670	12 381	1247 289	D.41	Juros	35 755	1259 670		
	185 184	2 089	183 095	D.42	Dividendos e retiradas	37 690	185 184		
	42 193		42 193	D.43	Lucros reinvestidos de investimento direto estrangeiro		42 193		
	20 247		20 247	D.44	Rendimento de propriedade atribuído a detentores de apólices de		20 247		
	2 311 211		2 311 211	D.45	Renda da terra		2 311 211		
2.2. Distribuição secundária da renda	220 899		220 899	<b>B.5</b>	<b>Saldo das rendas primárias brutas/Renda nacional</b>		220 899	2.3. Redistribuição	
	286 105	10 541	275 564	D.5	Impostos correntes sobre a renda, patrimônio, etc.		286 105		
	9 058		9 058	D.7	Outras transferências correntes	1 175	9 058		
	9 058		9 058	D.71	Prêmios líquidos de seguros não-vida		9 058		
	175 768		175 768	D.72	Indenizações de seguros não-vida		175 768		
	451	187	264	D.73	Transferências correntes entre administrações públicas		451		
	77 211	10 354	66 857	D.74	Cooperação Internacional	264	77 211		
	14 559		14 559	D.75	Transferências correntes diversas	911	14 559		
	1663		1663	D.76	Relação do Governo com o Banco Central		1663		
	12 896		12 896	D.761	Compensação pela produção do Banco Central		12 896		
2 320 577		2 320 577	D.762	Resultado do Banco Central		2 320 577			
2.3. Redistribuição	203 185		203 185	<b>B.6</b>	<b>Renda disponível bruta</b>		203 185	2.4. Uso da renda	
	2 320 577		2 320 577	D.63	Transferências sociais em espécie		2 320 577		
2.4. Uso da renda	1903 679		1903 679	<b>B.7</b>	<b>Renda disponível bruta ajustada</b>		1903 679	3.1. Capital	
	1903 679		1903 679	<b>B.6</b>	<b>Renda disponível bruta</b>		1903 679		
	40 716		40 716	P.4	Consumo final efetivo		40 716		
	416 898		416 898	P.3	Despesa de consumo final		416 898		
	(-) 19 557	(-) 19 557		D.8	Ajustamento pela variação das participações líquidas das famílias		(-) 19 557		
3.1. Capital				<b>B.8</b>	<b>Poupança bruta</b>		416 898	3.1. Capital	
				<b>B.12</b>	<b>Saldo externo corrente</b>	(-) 19 557	(-) 19 557		
	389 328		389 328	P.51	Formação bruta de capital fixo		389 328		
	8 012		8 012	P.52	Variação de estoques		8 012		
				K.2	Aquisições líquidas de cessões de ativos não-financeiros não-				
				D.9	Transferências de capital a receber	465	22 356		
				D.9	Transferências de capital a pagar	(-) 2 356	(-) 22 356		
		(-) 21448	21449	<b>B.9</b>	<b>Capacidade (+) / Necessidade(-) líquida de</b>				
				<b>B.10.1</b>	<b>Variações do patrimônio líquido resultantes de</b>	(-) 21448	397 341		
	<b>Variações de ativos</b>								
<b>Contas de acumulação (1000 000 R\$)</b>									

Fonte: IBGE, Diretoria de Pesquisas, Coordenação de Contas Nacionais.

## Supply and Use Table

- The Supply and Use Table identifies the sources (supply - domestic or imports) and the consume (uses) of the goods and services, as well as, the components of the value added by the economic activities.
- Imports are recorded CIF, that is, they include cost, insurance and freight at the point of entry into the importing economy. It means that an adjustment have to be done to take out these services (freight and insurance) that have already been recorded on the BOP.
- CIF/FOB Adjustment: there is an adjustment line on the Supply and Use Table to turn imports of goods that are recorded CIF into a FOB value (free on board) to avoid the double entry of freight and insurance.

## Tabela de recursos e usos - 2007 - valores correntes

### I - Tabela de recursos de bens e serviços

Valores correntes em 1000 000 R\$

Descrição do produto	Oferta de bens e serviços		Produção das atividades	Total da economia	Importação		
	Oferta total a preço de consumidor	Oferta total a preço básico	Total do produto		Ajuste CIF/FOB	Importação de bens	Importação de serviços
Agropecuária	257 074	216 199	209 797		0	6 402	0
Indústria extrativa	175 521	165 967	129 226		0	36 741	0
Indústria de transformação	2 386 264	1 778 467	1 566 428		0	212 039	0
Produção e distribuição de eletricidade e gás, água, esgoto e limpeza	191 631	156 208	153 267		0	2 941	0
Construção civil	211 998	205 782	205 529		0	0	253
Comércio	13 460	392 659	390 844		0	0	1815
Transporte, armazenagem e correio	201 650	230 756	224 161		(-) 11 462	0	18 057
Serviços de informação	209 953	177 390	171 688		0	0	5 702
Intermediação financeira, seguros e previdência complementar e serviços relacionados	281 855	266 392	263 923		(-) 279	0	2 748
Atividades imobiliárias e aluguéis	250 722	248 830	234 935		0	0	13 895
Outros serviços	612 359	580 351	553 920		0	0	26 431
Administração, saúde e educação públicas e seguridade social	525 022	525 022	525 022		0	0	0
Ajuste CIF/FOB					11 741	(-) 11 741	0
<b>Total</b>	<b>5 317 509</b>	<b>4 944 023</b>	<b>4 628 740</b>		<b>0</b>	<b>246 382</b>	<b>68 901</b>

Fonte: IBGE, Diretoria de Pesquisas, Coordenação de Contas Nacionais.

## Input-Output Table

- An input-output table is derived from a use table where either the columns representing industries in the two left-most quadrants are replaced by products or where the products in the two topmost quadrants are replaced by industries
- This matrix shows the amount of goods and services that each economic activity need to consume (intermediate consumption) to conclude their production
- 2007: IOT of imported goods and services by economic activity (intermediate consumption)
- Products (HS-NCM) are classified by their use category (BEC). Services are classified according to their use in the SUT (no use category clasification for services available).
- To identify what activities are consuming these services in their production process, the IOT have also followed the SUT structure.

## New base year 2010

- 6<sup>a</sup> Edition of Balance of Payments (more detailed items)
- Alternative analysis tools:

Siscoserv (Integrated system of international trade in services)

In addition to the items of the Balance of Payments, the development of Siscoserv (Ministry of Development, Industry and Foreign Trade) will be an important source of statistics on international trade in services, since it presents a much more disaggregated level of information, which is essential for reading the data to the System of National Accounts (about 60 types of services)

PAS

The Supplement of PAS comprises exports of major groups of services such as transport, information, real state, etc and the top five importer countries of Brazilian services. There will have a review of this survey to allow a better usage of this information by the main users of statistics on trade in services, including the National Accounts Department.

# New Base Year 2010

## Price and volume indices of international trade in services and other recommendations

### ➤ System of National Accounts 2008

<http://unstats.un.org/unsd/nationalaccount/sna2008.asp>

### ➤ Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6)

<http://www.imf.org/external/pubs/ft/bop/2007/bopman6.htm>

### ➤ Manual for the Export and Import Price Indices

<http://www.imf.org/external/np/sta/tegeipi/index.htm>

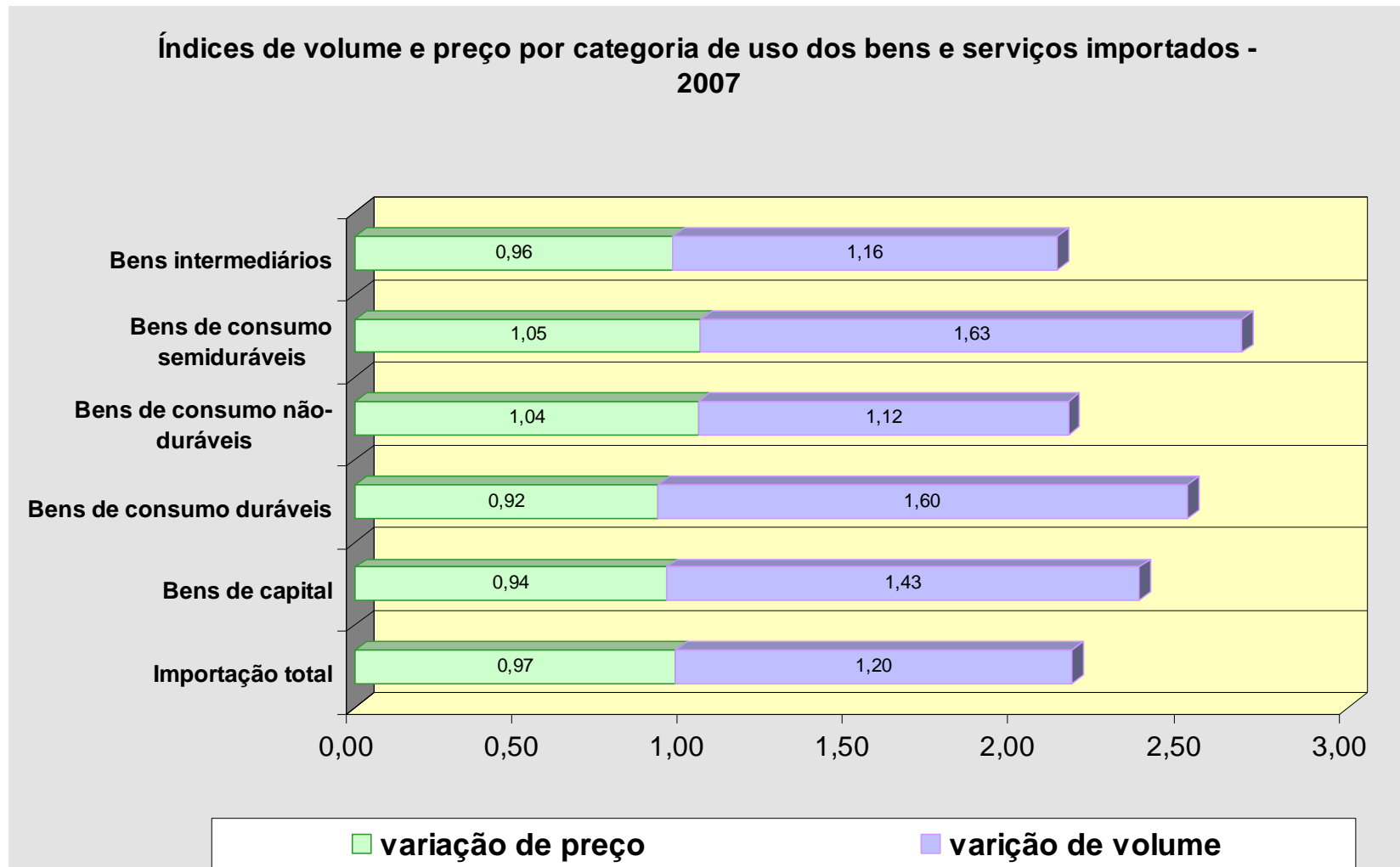
### ➤ Eurostat Manual of Supply, Use and Input-Output Tables

[http://epp.eurostat.ec.europa.eu/portal/page/portal/product\\_details/publication?p\\_product\\_code=KS-RA-07-013](http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-RA-07-013)

### ➤ Methodological Guide For Developing Producer Price Indices For Services

<http://www.oecd.org/dataoecd/44/40/36274111.pdf>

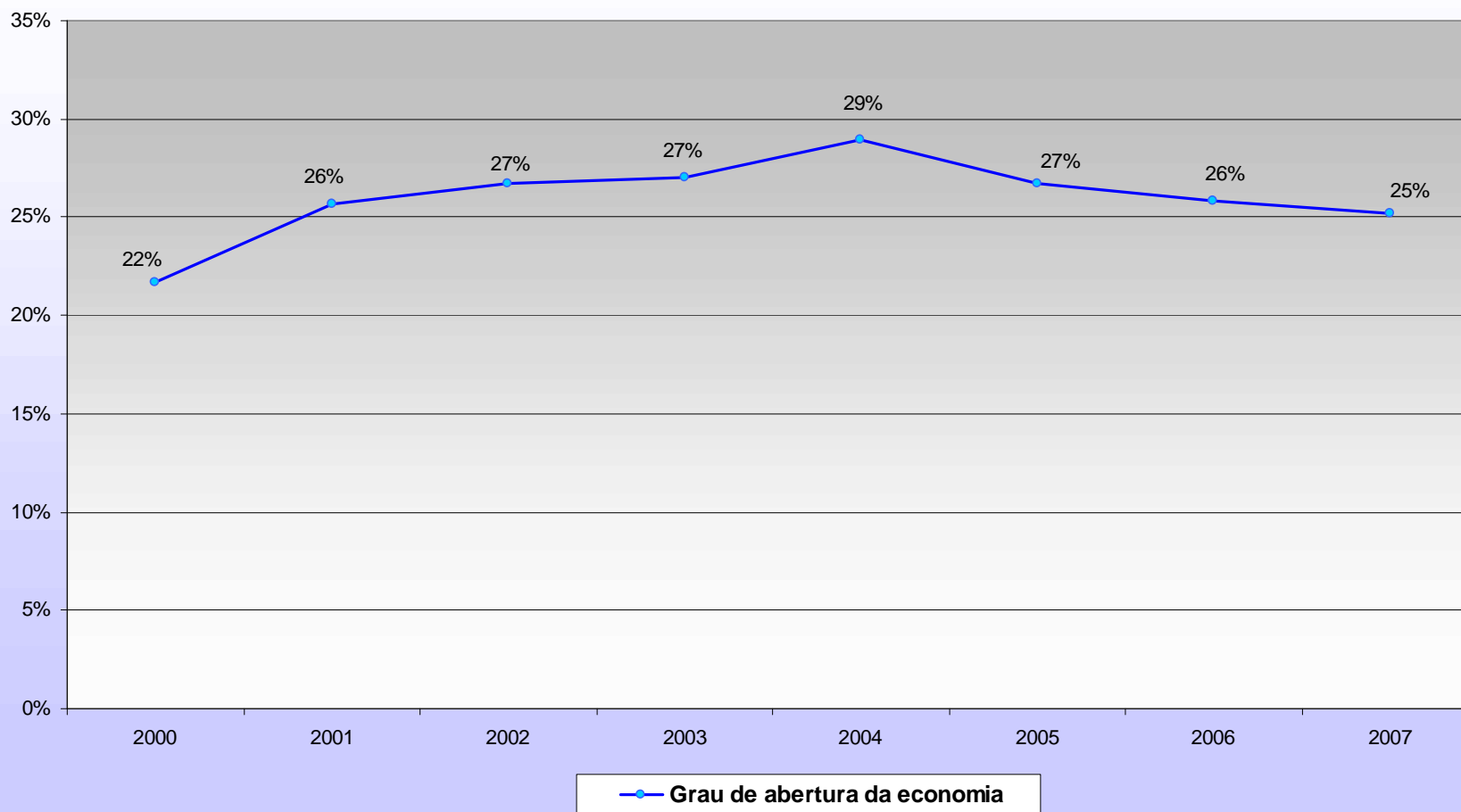
- Price and volume indices of imports by use category - 2007





# International economic openness (X+M/PIB)

Grau de abertura da economia 2000-2007



# Net lending/ net borrowing ROW

Resultados das Contas Econômicas Integradas - Resto do Mundo 2000-2007

