

# Measuring trade in services

## Concepts and definitions

Training Workshop on Trade in Services  
Negotiations for AU-CFTA Negotiators  
Nairobi, Kenya

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# Agenda

- 1. Trade in services statistics and negotiations**
- 2. International guidelines on measuring trade in services by mode of supply**
  - Balance of Payments
  - Foreign Affiliates Statistics (FATS)
  - Statistics on the international supply of services by mode
- 3. WTO Integrated Trade Intelligence Portal (ITIP)**

# Trade in services statistics in the WTO

## Why statistics are needed



**negotiation  
strategies**



**market access**



**specific  
commitments**



**comparisons**



**quantify  
benefits**



**dispute  
settlement**

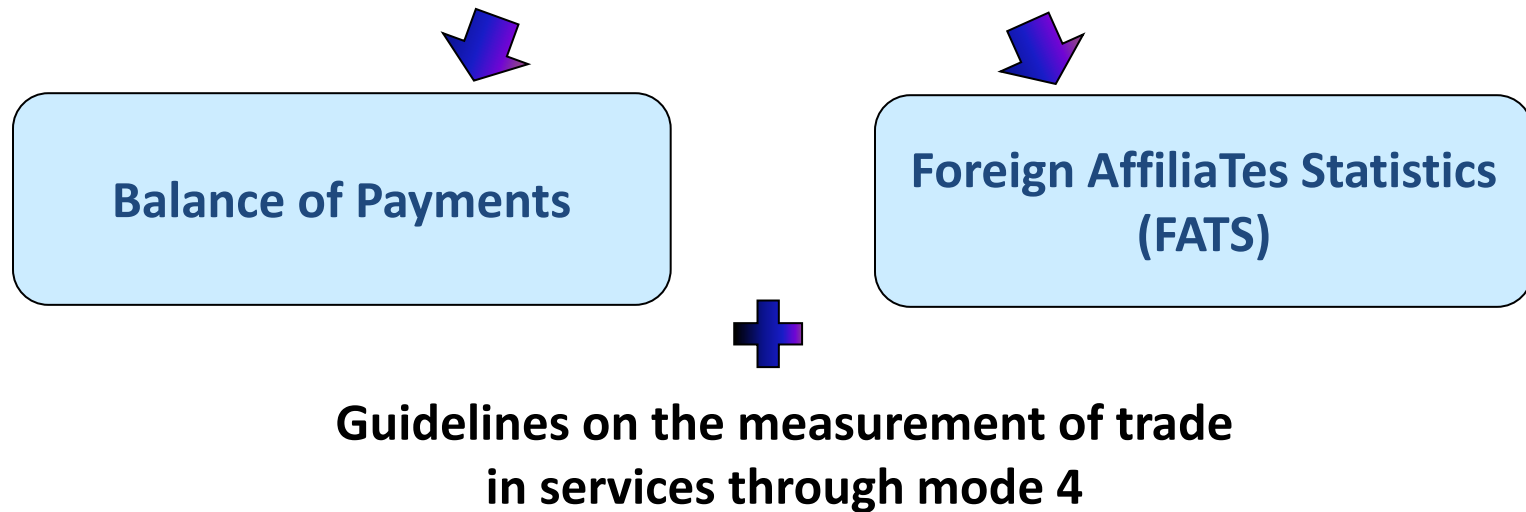
# What do we need to measure?

### The value of international trade in services (+ some additional indicators)

- By service sector
- By mode of supply
  - Mode 1: cross-border supply
  - Mode 2: consumption abroad
  - Mode 3: commercial presence
  - Mode 4: presence of natural persons
- By trading partner
- By relationship between the parties

**Ideally!**

## Guidelines and recommendations on the measurement of international trade in services by modes of supply

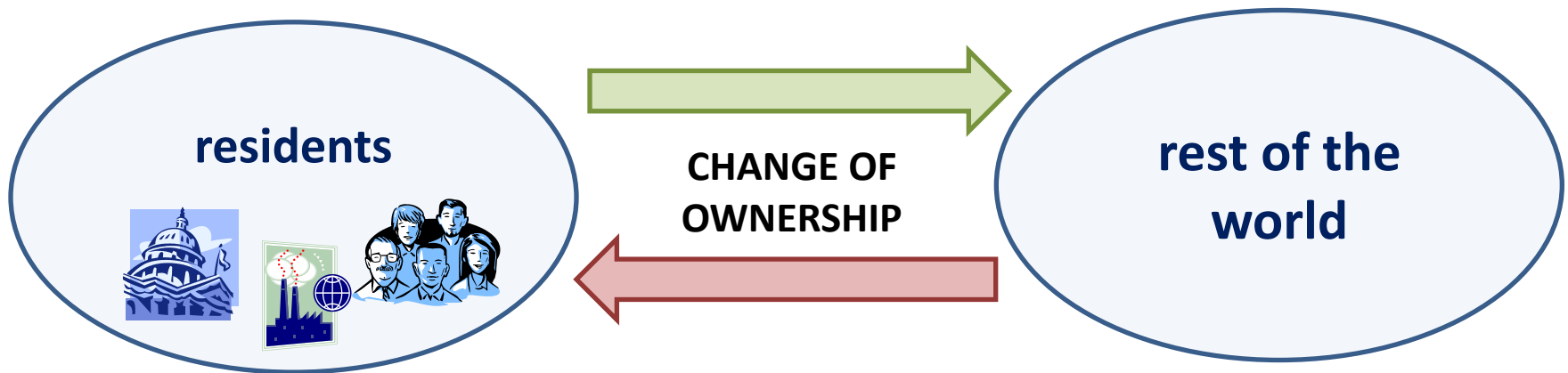


[http://unstats.un.org/unsd/publication/Seriesm/seriesM\\_86Rev1e.pdf](http://unstats.un.org/unsd/publication/Seriesm/seriesM_86Rev1e.pdf)

# BALANCE OF PAYMENTS

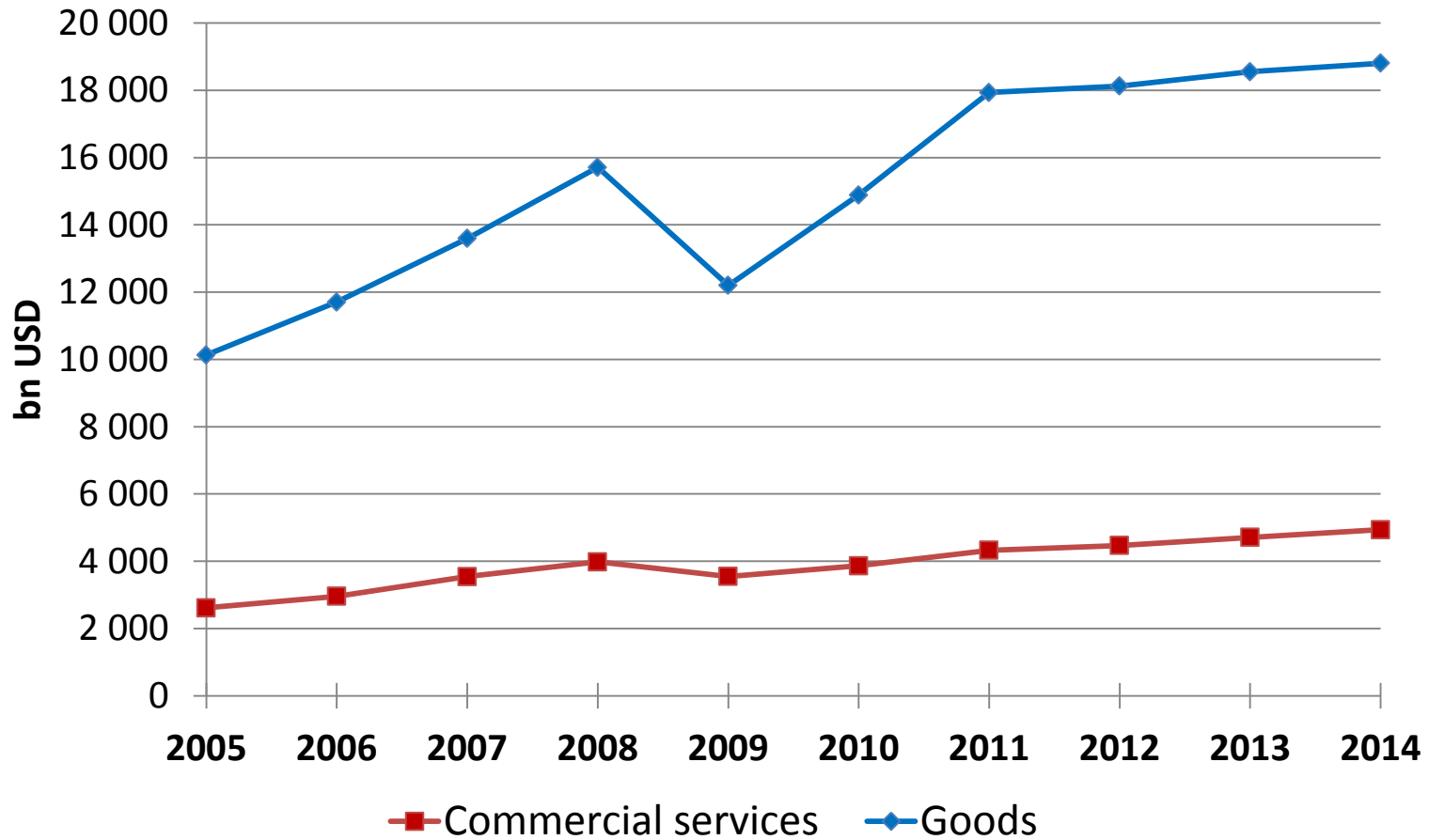
# Balance of Payments (BoP) Statistical framework

**the BoP summarizes the transactions between residents and non-residents of an economy**



# Balance of Payments (BoP)

## World trade in BoP terms, 2005-2014



Source: WTO Secretariat



## Balance of Payments (BoP)

# IMF BoP Manual 6th edition (BPM6)

### **New BoP manual takes into account revisions in the System of National Accounts (SNA 2008)**

- reclassification of some goods and services items
  - strict application of the change of ownership criterion
- better estimation methodologies
- new information needs
  - outsourcing
  - e-commerce



## Balance of Payments (BoP)

# BPM5 vs BPM6: orientation guide

- Many economies still compile their BoP data according to BPM5
- The new recommendations are implemented gradually



### Problems of comparability and aggregation

- There is a correspondence table between BPM6 and BPM5 (approximate conversion)
- WTO publishes 2 datasets:
  - BPM5 format: 1980-2013
  - BPM6 format: 2005-onwards

# Balance of Payments (BoP)

## Services account (BPM6)

### Total services

1. manufacturing services on physical inputs owned by others
2. maintenance and repair services n.i.e.
3. transport
4. travel



**Goods-related services  
(new with BPM6)!**

## Balance of Payments (BoP)

# Services account (BPM6) – cont'd

### Other services

5. construction
6. insurance and pension services
7. financial services
8. charges for the use of intellectual property n.i.e.
9. telecommunication, computer and information services
10. other business services
11. personal, cultural and recreational services
12. government goods and services n.i.e.

# Balance of Payments (BoP)

## # African reporters by BoP item, 2012

	EXPORTS	IMPORTS
Total services	49	49
Manufacturing services	7	4
Maintenance services	10	16
Transport	45	46
Travel	44	46
Construction	23	35
Insurance and pension services	38	45
Financial services	34	36
Charges for the use of intellectual property nie	22	33
Telecommunications, computer and information services	43	42
Telecommunications	37	35
Computer services	19	23
Other business services	40	42
Personal, cultural and recreational services	27	30
Audiovisual and related services	14	14
Government goods and services nie	40	44

## Balance of Payments (BoP)

# Extended BoP services classification

- Product classification
- Consistent with BPM6 items, but more detailed
- Correspondence between EBOPS, GATS services components W/120 and CPC
  - in the manual (CPC 1)
  - online (CPC 2 provisional)

<http://unstats.un.org/unsd/tradeserv/tfsits/msits2010/ebops2cpc.htm>

# FOREIGN AFFILIATES STATISTICS (FATS)

## Introduction

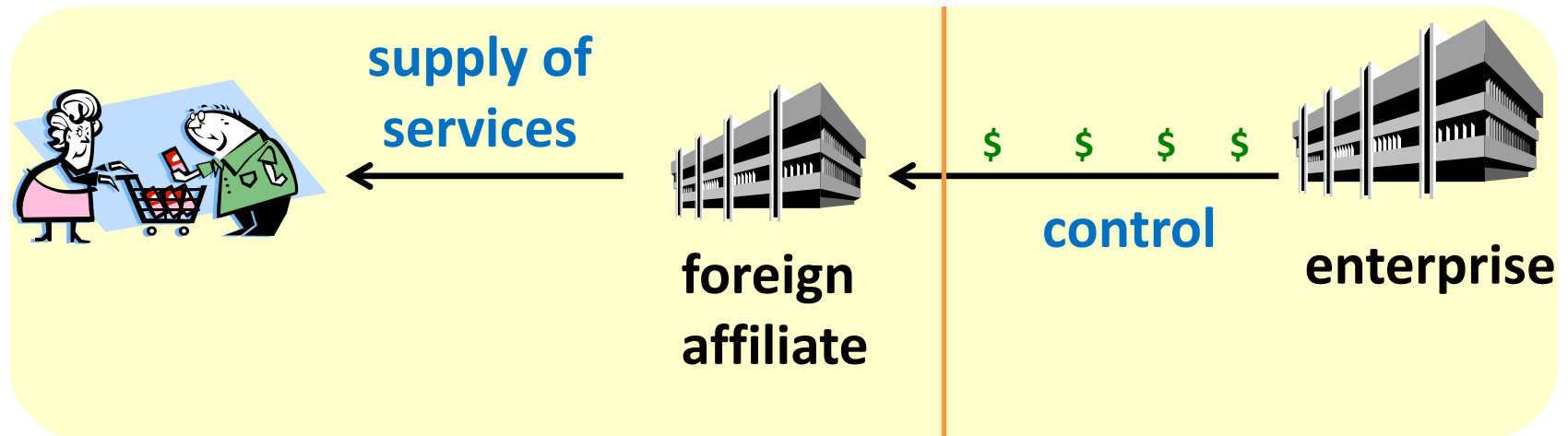
- Why do we need FATS?
  - measuring mode 3 (commercial presence)
  - understanding globalization
- What do FATS measure?
  - different indicators of the activity of controlled foreign affiliates
  - focus on services



## Summary of the statistical framework

**ECONOMY A**

**ECONOMY B**



**INWARD FATS**

resident enterprises of  
the reporting country  
controlled by foreign  
investors

**OUTWARD FATS**

enterprises controlled by  
domestic investors and  
located abroad

## FATS

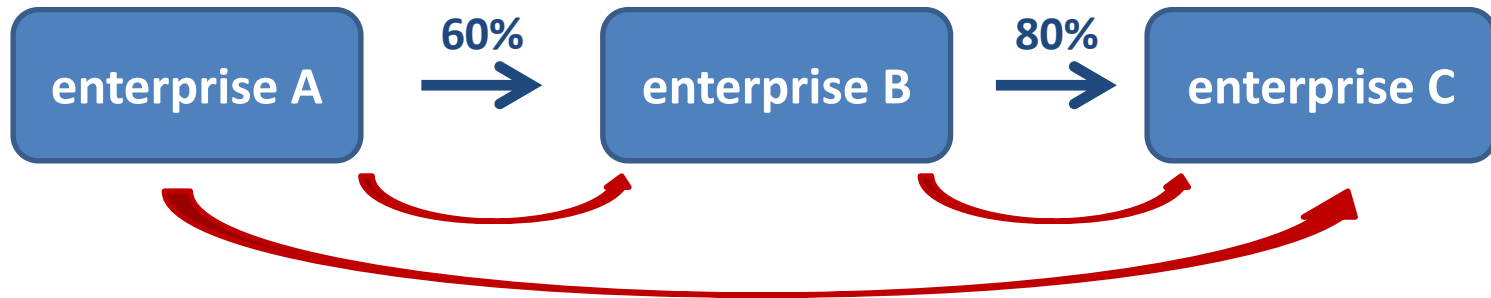
# What is “control”

Definition of control in the GATS:

*power to name a majority of its directors or otherwise to legally direct the actions of the affiliate*

Statistical criterion:

*majority ownership (control of more than 50 per cent) of the voting power at each stage of the chain of ownership*

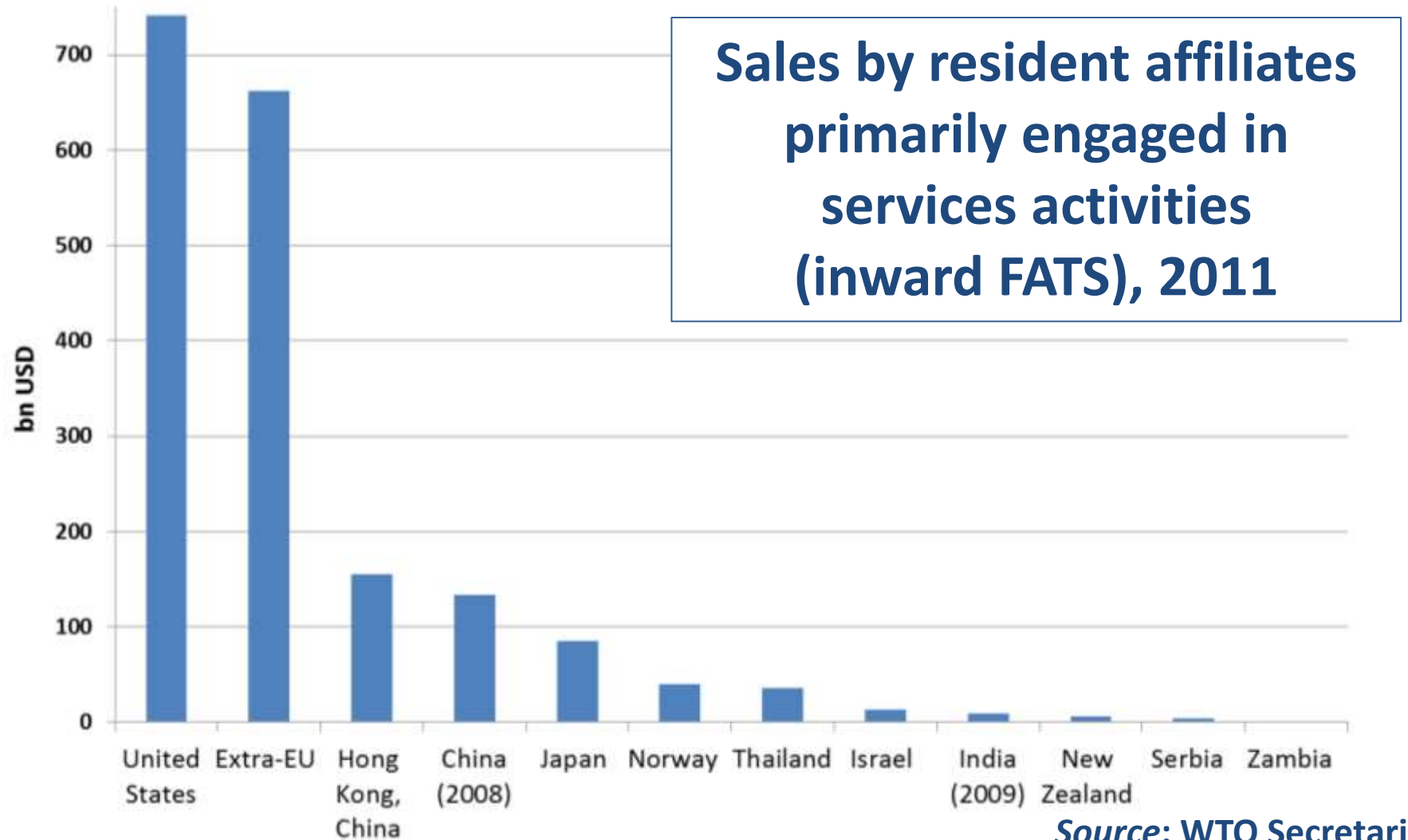


## Economic variables

- Basic variables:
  - Turnover/production
  - Employment
  - Number of enterprises
  - Value added
  - Exports and imports of goods and services
- Additional variables:
  - Assets
  - Compensation of employees
  - Net worth
  - Net operating surplus
  - Gross fixed capital formation
  - ...

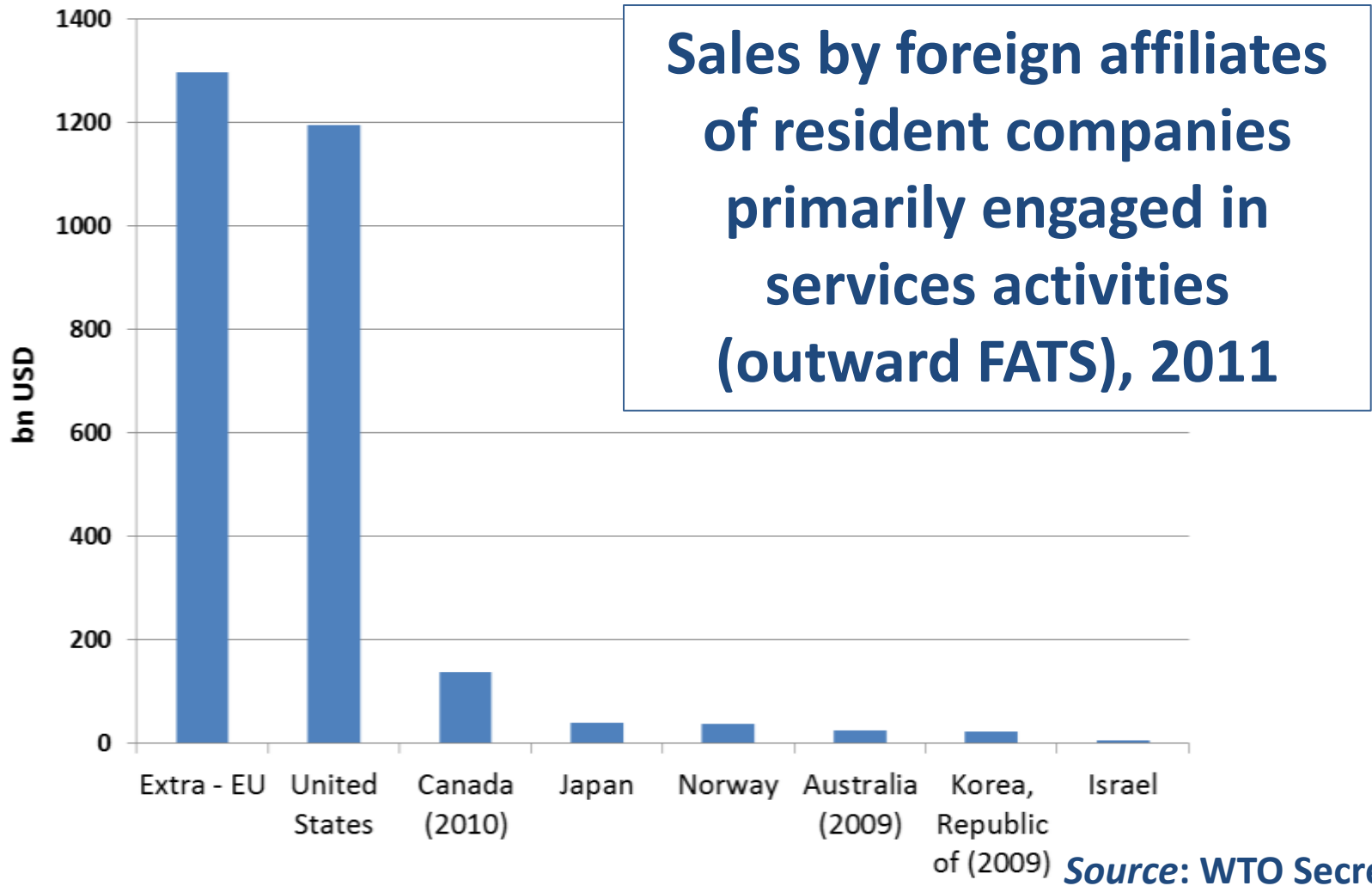
# FATS

## Supply of services through mode 3



Source: WTO Secretariat

# Supply of services through mode 3



Source: WTO Secretariat

# Activity breakdown

- Breakdown by activity: IFCA, Rev.1  
(ISIC, Rev.4 Categories for Foreign Affiliates in services -International Standard Industrial Classification of All Economic Activities)
  - covers all activities (goods and services)
  - more detail on services
  - approximate measure (classification by main activity)
- Correspondence between IFCA and EBOPS (limited)
  - comparison with BoP data should be carried out with caution
- Long-term objective: product breakdown (sales, exports and imports)

# FATS

## Inward FATS of Zambia

### Inward Foreign Affiliates by Recipient Sector (USD million), 2012

	AGRICULTURE	MINING & QUARRING	MANUFACTURING	SERVICES
<b>Sales</b>	150.3	6,189.0	2,987.1	1,207.7
<b>Employment</b> (units)	3,647	31,406	12,148	8,367
of which: management	18	940	600	1,363
<b>Total exports of goods</b>	60.2	4,576.7	2,249.8	536.1
of which: exports of goods to foreign affiliates	8.9	1,220.6	289.4	-
<b>Total exports of services</b>	-	-	0.1	22.9
of which: export of services to foreign affiliates	-	-	0.1	0.2
Research and Development Expenditures	1.0	22.3	0.0	0.0
Net Operating Surplus	-0.7	543.5	324.5	224.1
<b>Value-added and more!</b>	141.0	2,825.0	764.0	399.9
	...	...	...	...

**Source: Bank of Zambia**

# Foreign affiliates vs domestic firms: HK

Number, employment and value added of majority-owned foreign affiliates in Hong Kong, 2012 (financing and insurance, real estate, professional and business services sector)

	<b>Majority owned enterprises</b>	<b>% of total economy</b>
No. of establishments	2400	4.5%
Employment (thousands)	298	41.9%
Value added (HK\$ bn)	301.9	54.7%

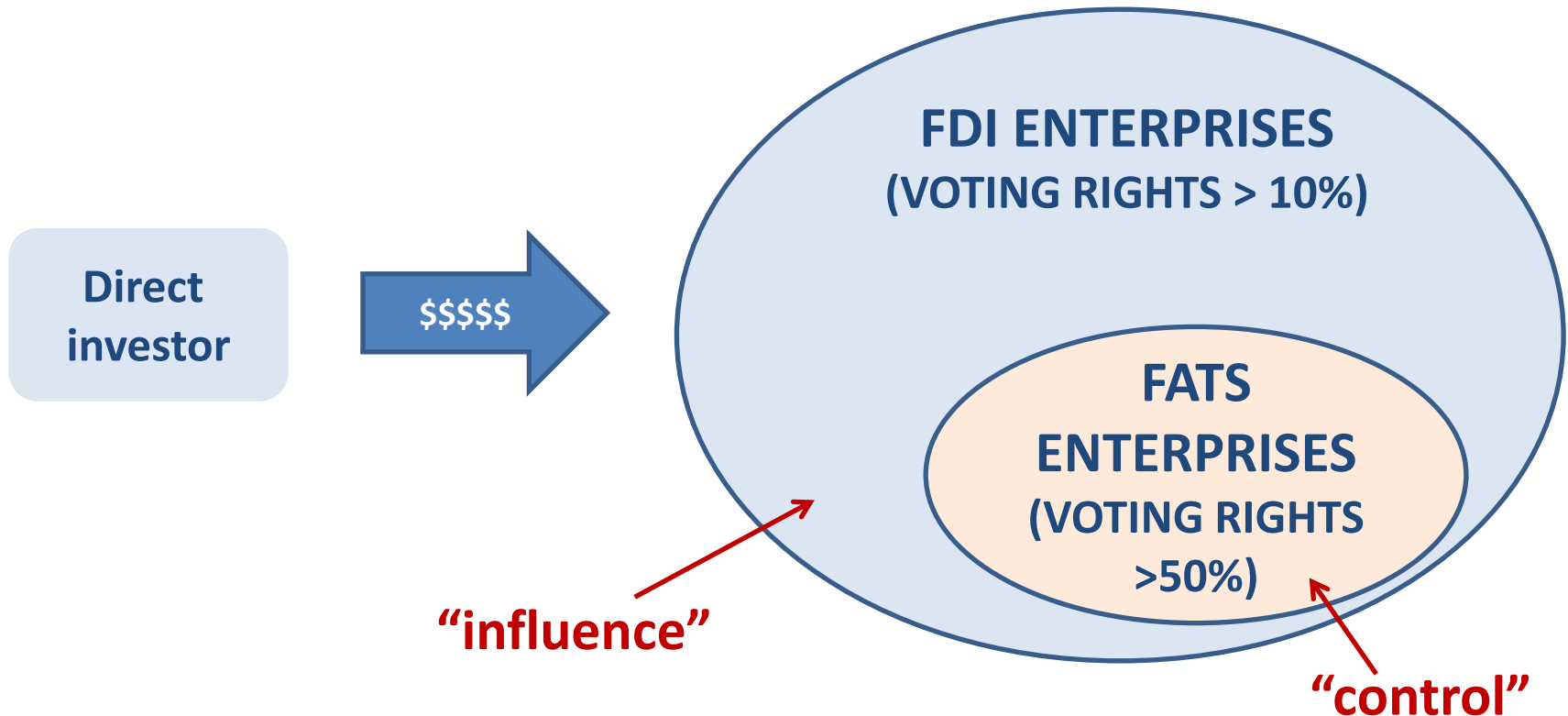
*Source: Census and Statistics Department, Hong Kong (China)*



## FATS vs FDI

# Enterprises covered

**FDI: reflects the objective of a resident investor to establish a lasting interest in a foreign company**



# Variables measured

- **FDI:** (international) transactions between investors and direct investment enterprises => BoP
  - FDI stocks and flows
  - investment income
- **FATS:** activities of the foreign affiliates
  - turnover/production, employment..

**FDI and FATS contain COMPLEMENTARY information**

# STATISTICS ON THE INTERNATIONAL SUPPLY OF SERVICES BY MODE

## Mode 4

# GATS definition of “natural person”

**individual temporarily present in the territory of an economy other than his own to provide a commercial service**

- contractual service suppliers
  - self-employed
  - employees of a foreign service supplier
- intra-corporate transferees
- foreign employees directly recruited by foreign established companies
- people on business trips (to establish contractual relationships for a service contract, to set up commercial presence...)

## Mode 4

# GATS: information needs

1. **VALUE** of the service supplied



2. **NUMBER** of natural persons

## Mode 4

# Statistical treatment

	VALUE	NUMBER
<b>Contractual service providers</b> <ul style="list-style-type: none"><li>- self-employed</li><li>- employees of a foreign service supplier</li></ul>	<b>YES</b>	<b>YES</b>
intra-corporate transferees	<b>NO</b>	<b>YES</b>
foreign employees directly recruited by foreign established companies	<b>NO</b>	<b>YES</b>
people on business trips	<b>NO</b>	<b>YES</b>

## Mode 4

# Labor mobility vs mode 4



**Remittances and compensation of employees  
are NOT measures of mode 4**

### Balance of Payments

Goods and services account  
Service components

Trade in services

Primary income account  
Compensation of employees

Labor mobility

Secondary income account  
Personal transfers (remittances)

# Value of trade in services by mode

## Ad hoc surveys: India

### Software exports by mode

	2009-10	2010-11	2011-12	2012-13	2013-14
Mode 1					
(cross-border supply)	64.6	67.4	69.0	74.7	69.0
Mode 2					
(consumption abroad)	0.0	0.1	0.5	1.6	0.1
Mode 3					
(commercial presence)	17.6	14.8	15.4	9.4	13.7
Mode 4					
(presence of natural person)	17.8	17.7	15.1	14.3	17.1

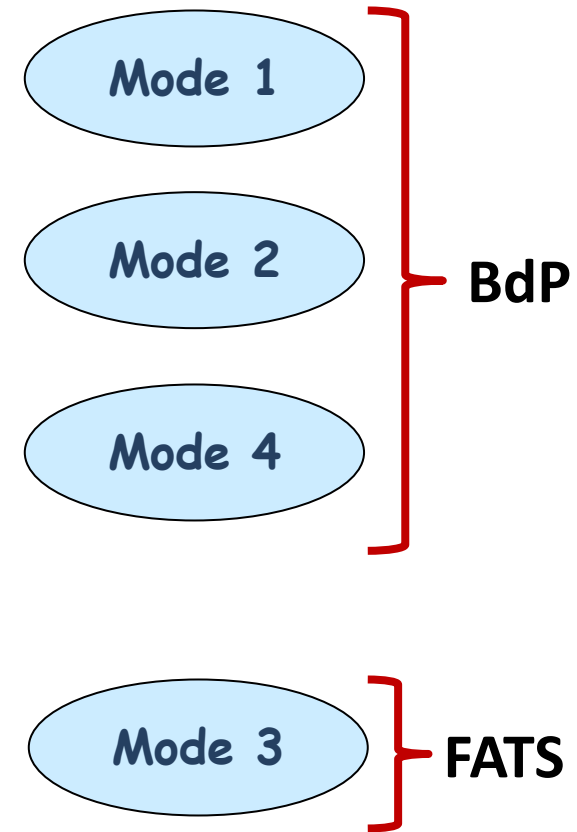
Source: Reserve Bank of India



# Value of trade in services by mode

## Simplified allocation

- Existing statistics are not broken down by mode of supply
- A simplified attribution is recommended (as a starting point) by predominant mode
- This approach provides a **reasonable approximation**, not a precise measure



## Value of trade in services by mode

# Simplified allocation – in more detail

### **MODE 1**

Transport  
Telecommunications  
Information services  
Financial services  
...

### **MODE 2**

Travel (only the services acquired)  
Manufacturing services on  
physical inputs  
owned by others  
Maintenance and repair  
services n.i.e  
...

### **MODE 4**

Services incidental to mining,  
oil and gas extraction  
...

# INTEGRATED TRADE INTELLIGENCE PORTAL (I-TIP)

# Comprehensive information on services



## Welcome to SERVICES SERVICES SERVICIOS

I-TIP Services is a joint initiative of the World Trade Organization and the World Bank. It is a set of linked databases that provides information on Members' commitments under the WTO's General Agreement on Trade in Services (GATS), services commitments in regional trade agreements (RTA), applied measures in services, and services statistics.

GATS

The module on GATS contains information on the Members' market access commitments and exemptions to the obligation of most-favoured-nation (MFN). [More...](#)

RTA Commitments

The RTA module allows to access and search for information on Members' commitments in regional trade agreements notified under Article V of the GATS. Currently, the database covers a good proportion of services RTAs ([see list attached](#)). [More...](#)

Applied Regimes

The Applied Regimes module provides information on applied measures affecting access to markets and conditions of operation by foreign service suppliers. [More...](#)

Reports

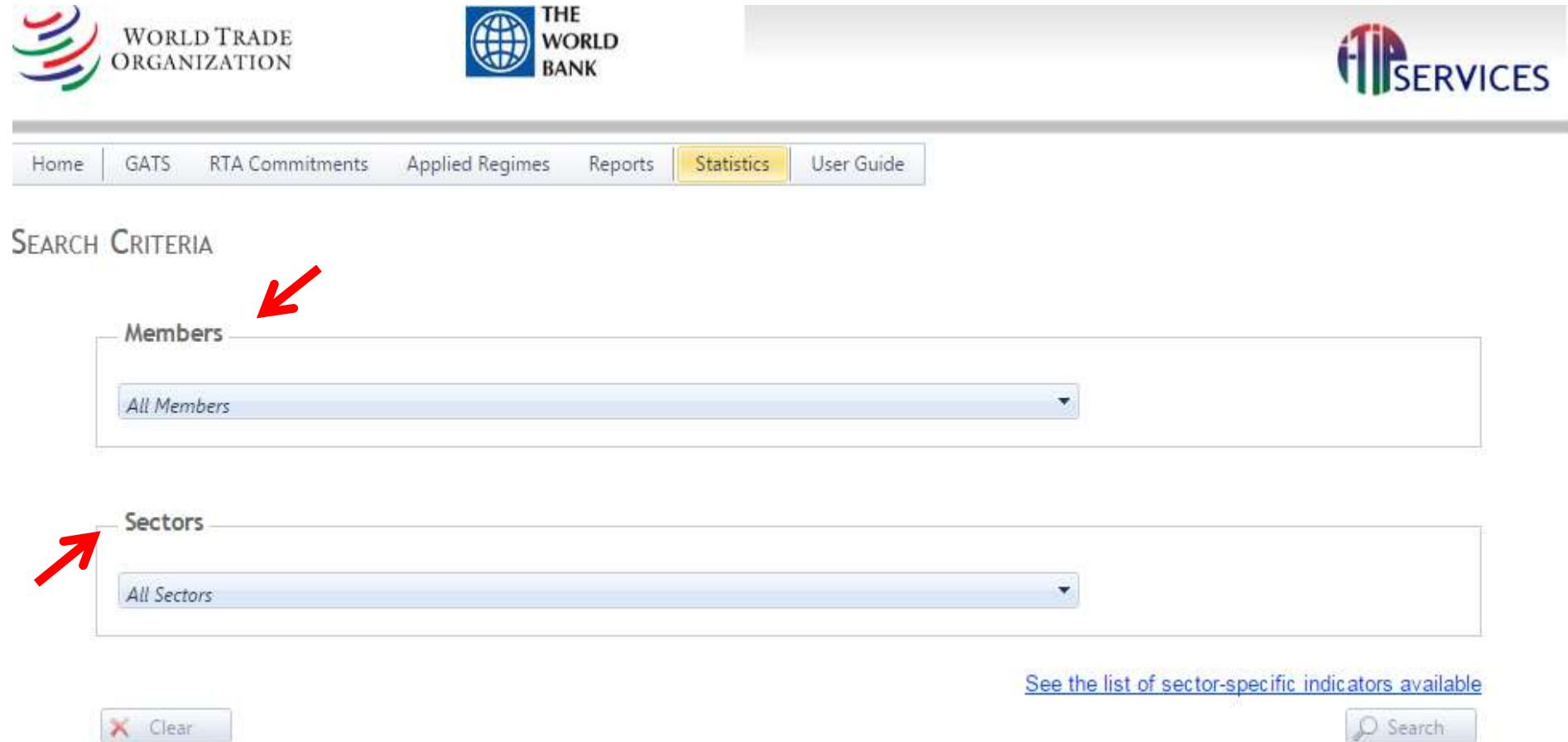
This module provides summary reports in relation to specific commitments and MFN exemptions under the GATS, commitments in RTAs, and changes in applied policies.

 Statistics

The Services Statistics module accompanies the GATS, RTA and Applied regimes modules by providing relevant trade in services and related statistics. [More...](#)

# ITIP services – statistics module

## 1. selection of members and sectors



The screenshot shows the ITIP Services Statistics module interface. At the top, there are logos for the World Trade Organization, The World Bank, and ITIP Services. Below the logos is a navigation menu with options: Home, GATS, RTA Commitments, Applied Regimes, Reports, Statistics (highlighted), and User Guide. The main content area is titled "SEARCH CRITERIA" and contains two dropdown menus. The first dropdown menu is labeled "Members" and has a red arrow pointing to it; it currently displays "All Members". The second dropdown menu is labeled "Sectors" and also has a red arrow pointing to it; it currently displays "All Sectors". At the bottom left, there is a "Clear" button with a red 'X' icon. At the bottom right, there is a "Search" button with a magnifying glass icon. A link is present at the bottom right: [See the list of sector-specific indicators available](#).

# ITIP services – statistics module

## 2. BoP statistics

Member: **Uganda**

W/120 sector: **1 BUSINESS SERVICES**

[STATISTICS DATABASE](#)

[Services profile](#)

[Trade profile](#)

Export results: [Charts \(PDF\)](#)

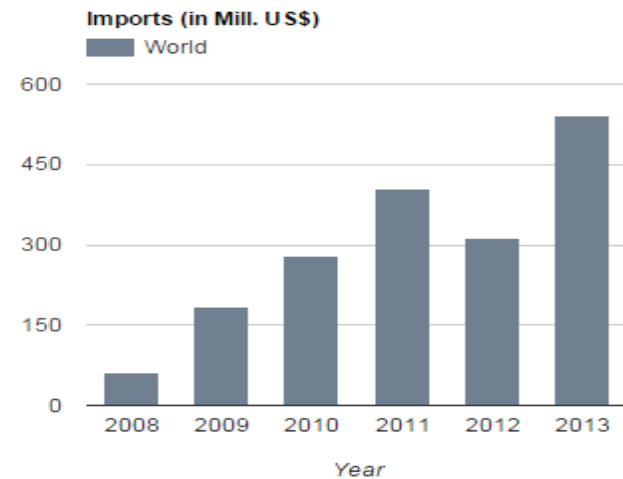
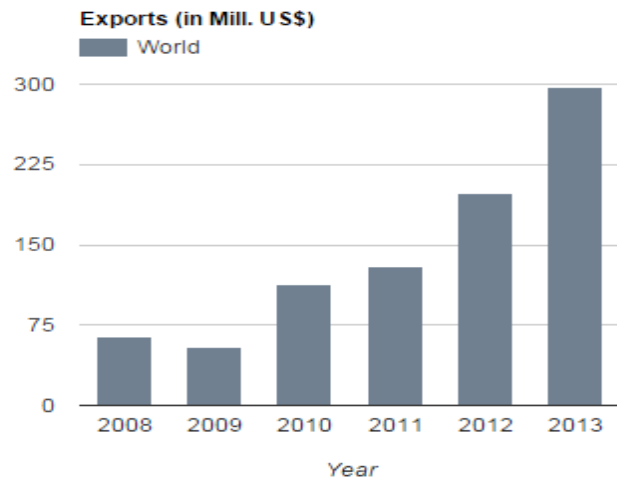
[Tables \(Excel\)](#)

▼ Hide import/export

▼ Hide chart

Chart type: **Column Chart**  Stacked

Trade statistics: **Other business services** ⓘ



Partner	Value (Mil.US\$)			% in total services - 2013	% in world - 2013	Average growth			
	2011	2012	2013			2005 - 2013	2012	2013	
<b>Exports</b> ⓘ									
Other business services ⓘ									
World	129.85	197.48	297.29	13.7	100.0	39	52	51	ⓘ
Computer services ⓘ									
World	45.66	56.64	77.39	3.6	100.0	11	24	37	ⓘ

# ITIP services – statistics module

## 3. FATS

Members: **Zambia**  
 Sectors: **2 - COMMUNICATION SERVICES**

[Modify Search](#)

### STATISTICS

Member: **Zambia**

[Statistics database](#)

[Services profile](#)

[Trade profile](#)

W/120 sector: **2 COMMUNICATION SERVICES**

Export results: [Charts \(PDF\)](#)

[Tables \(Excel\)](#)

▶ Show import/export

▼ Hide Foreign Affiliates Statistics (FATS)

Indicator	Value			% in total services - 2012	Average growth			
	2010	2011	2012		2005 - 2012	2011	2012	
<b>Information and Communication</b> ⓘ								
<b>FATS inward</b>								
Sales / Turnover (Mil. US\$) ⓘ	...	602	500	41.4	...	...	-17	
No. of employees ⓘ	...	1 155	1 202	14.4	...	...	4	

# ITIP services – statistics module

## 4. FDI

### STATISTICS

Member: **Morocco**

[Statistics database](#)

[Services profile](#)

[Trade profile](#)

W/120 sector: **1 BUSINESS SERVICES**

Export results: [Charts \(PDF\)](#)

[Tables \(Excel\)](#)

- ▶ Show import/export
  - ▼ Hide Foreign Affiliates Statistics (FATS)
- No FATS data to display
- ▼ Hide other indicators
  - ▼ Hide Foreign Direct Investment (FDI)

Indicator	Value (Mil.US\$)			% in total services - 2011	Average growth		
	2009	2010	2011		2005 - 2011	2010	2011
<b>Real estate, renting and business activities</b> ⓘ							
<b>FDI outward</b>							
Position ⓘ	358	...	...	ⓘ 24.7	ⓘ 50	...	...
Financial transactions ⓘ	18	...	...	...	...	...	...
<b>FDI inward</b>							
Position ⓘ	5 842	6 336	...	ⓘ 22.8	ⓘ 26	8	...
Financial transactions ⓘ	619	...	...	...	ⓘ 25	...	...



# ITIP services – statistics module

## 5. Value added and employment

Members: Botswana  
Sectors: All Sectors

[Modify Search](#)

### STATISTICS

Member: **Botswana**

[Statistics database](#)

[Services profile](#)

[Trade profile](#)

W/120 sector: **3 CONSTRUCTION AND RELATED ENGINEERING SE**

Export results: [Charts \(PDF\)](#)

[Tables \(Excel\)](#)

- ▶ Show import/export
  - ▼ Hide Foreign Affiliates Statistics (FATS)

No FATS data to display

- ▼ Hide other indicators
  - ▶ Show Foreign Direct Investment (FDI)
  - ▼ Hide value added & employment

Indicator	Value			% in total services - 2012	Average growth			
	2010	2011	2012		2005 - 2012	2011	2012	
<b>Construction</b> ⓘ								
Value added (mill. US\$)	744	914	981	...	11	23	7	ⓘ
Employment (thousands)	37	...	...	...	...	...	...	

# ITIP services – statistics module

## 6. Quantitative indicators

### STATISTICS

[Statistics database](#)

Member: **Nigeria**

[Services profile](#)
[Trade profile](#)

W/120 sector: **11 TRANSPORT SERVICES**

Export results: [Charts \(PDF\)](#)

[Tables \(Excel\)](#)

▶ Show import/export

▼ Hide Foreign Affiliates Statistics (FATS)

No FATS data to display

▼ Hide other indicators

▼ Hide Foreign Direct Investment (FDI)

No FDI data to display

▶ Show value added & employment

▼ Hide sector specific indicators

Indicator	Value			Average growth		
	2012	2013	2014	2005 - 2014	2013	2014
Maritime registered merchant fleet (number of ships) <a href="#">i</a>	373	374	...	...	0	...
Maritime registered merchant fleet ('000 DWT) <a href="#">i</a>	3 695	3 600	...	<a href="#">i</a> 23	-3	...
Maritime owned merchant fleet: total (number of ships) <a href="#">i</a>	...	...	241	...	...	...
Maritime owned merchant fleet: total ('000 DWT) <a href="#">i</a>	...	...	5	...	...	...
Container port throughput ('000 TEUs) <a href="#">i</a>	111	...	...	...	...	...
Liner shipping connectivity index <a href="#">i</a>	21.8	21.4	22.9	7	-2	7
Passengers by air (mill. P-Km) <a href="#">i</a>	3 596	2 478	...	...	-31	...
Intl. passengers - By air (mill. P-km) <a href="#">i</a>	1 736	940	...	...	-46	...

# Where to find more information

[https://www.wto.org/english/res\\_e/statis\\_e/statis\\_e.htm](https://www.wto.org/english/res_e/statis_e/statis_e.htm)

contact: [statistics@WTO.org](mailto:statistics@WTO.org)

<http://i-tip.wto.org/services/>

contact: [i-tip\\_services@wto.org](mailto:i-tip_services@wto.org)