USER GUIDE

TRADE COMPETITIVENESS MAP

Benchmarking national and sectoral trade performance

TRADE PERFORMANCE HS

Trade and Market Intelligence Section

Division of Market Development

International Trade Centre

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NOTES AND DISCLAIMER

This reference material provides a collection and comprehensive explanations of trade indicators featured in the ITC's Trade Competitiveness Map developed by the Trade and Market Intelligence Section - TMI. This document was prepared by Mr. Kerfalla CONTE, which stemmed from collective efforts among various TMI's team members under the overarching guidance of Mr. Mondher MIMOUNI, the section's Chief.

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Please note that the trade statistics in Trade Competitiveness Map undergo annual updates. These updates may generate varying figures or trends from what is seen in this User Guide; however, the principles and applications of Trade Competitiveness indicators remain the same. Comments and suggestions for amelioration are welcome. Please contact the Trade and Market Intelligence Section at email: marketanalysis@intracen.org

CHAPTER 1 – INTRODUCTION

1.1 Overview

In the past few years, the concept of competitiveness has appeared to be a new "pillar" in economic development. Competitiveness captures the awareness of both the limitations and challenges posed by global competition, at a time when effective government action is constrained by budgetary constraints and the private sector faces significant barriers to competing in domestic and international markets.

Strategic market research is used to gauge the effectiveness of national and sectoral/industrial performance and identify priority products and markets for trade development, both in the public and the business sectors. It is an indispensable part of trade promotion and development. At the national level, governments need to monitor trade performance to provide adequate trade policy support. Trade support institutions (TSIs) must set priorities in terms of sectors, partner countries and methods in order to most efficiently utilize limited resources. Firms need to scan the world market for product and market diversification opportunities. However, undertaking strategic market research is not a simple task:

- **How do you assess sectoral trade performance?**
- **How do you identify priority products for export promotion?**
  How do your export products rank in terms of international demand?
- **What is the composition of your import portfolio?**
  What are the alternative sources of supply for your imports?
- **In what markets do you have a significant trade potential?**
- **What are your major export and import product groups? How have they evolved?**
- **How reliable are your country's trade statistics? What are the special characteristics in the way a country reports its trade statistics that you should know?**

Once you try to answer these questions through the tool we are about to present to you, there is the possibility of going one step further for complementary information: for example, you could analyse yourself, through the results obtained, the impacts of trade barriers (tariffs and non-tariffs measures) and trade agreements on the direction of a country's trade, using for instance the Market Access Map or other Market Analysis Tools[1] at your disposal at the International Trade Centre (ITC) Website. This, however, will not be the subject of the following user guide which will take you through an in-depth explanatory presentation of the Trade Competitiveness Map.

1.2 Why use Trade Competitiveness Map

The International Trade Centre UNCTAD/WTO (ITC) has developed from the previous Country Market Analysis Profiles (Country Map) the new Trade Competitiveness Map in order to answer these and related questions with the explicit objective of facilitating strategic market research, monitoring national trade performance and, designing and prioritizing the trade development programs of both the business sector and trade support institutions.

Trade Competitiveness Map addresses strategic market research from a country perspective and is available on ITC's Internet Web site http://www.intracen.org or via https://tradecompetitivenessmap.intracen.org. This Map includes a country's Trade Performance Index, National Export Performance and National Import Profile, Trade Statistics and the Reliability of Trade Statistics.

Although the business community remains an indispensable source for such information, it does not always have readily available or unbiased answers. Some private consultancy firms gather large amounts of market research information, which is available for a substantial fee. There is much information available in the public domain as well if you know where to find it. However, the information and tools

[1] The International Trade Centre has developed five web portals: Trade Map, Market Access Map, Investment Map, Standards Map and Trade Competitiveness Map (which can be directly accessed to through the ITC website) to enhance the transparency of global trade and market access and to help users in their market analyses.

offered by ITC's Trade Competitiveness Map are unique in terms of their coverage, methodological approach, and accessibility.

1.3 Product Nomenclature and Data Sources

1.3.1. Product Nomenclature

Trade Performance HS is based on the Harmonized System (HS) 1996 edition (data is arranged in four-digit level).

The Harmonized System, instead, is an international nomenclature for the classification of products published by the World Customs Organization (http://www.wcoomd.org). It allows participating countries to classify traded goods on a common basis for customs purposes. At the international level, the Harmonized System (HS) for classifying goods is a six-digit code system. The HS comprises approximately 5,300 article/product descriptions that appear as headings and subheadings, arranged in 99 chapters, grouped in 21 sections. The six digits can be broken down into three parts. The first two digits (HS-2) identify the chapter the goods are classified in, e.g., 09 = Coffee, Tea, Maté and Spices. The next two digits (HS-4) identify groupings within that chapter, e.g., 09.02 = Tea, whether flavoured. The next two digits (HS-6) are even more specific, e.g., 09.02.10 Green tea (not fermented) ... Up to the HS-6-digit level, all countries classify products in the same way (a few exceptions exist where some countries apply old versions of the HS).

Beyond the six-digit level, the classification becomes national. Countries are free to introduce national distinctions for tariffs by adding more digits to make the HS classification of products even more specific. This greater level of specificity is referred to as the national tariff line level. For example, Canada adds another two digits to its exports and imports to classify them in greater depth and the code 09023010 is the code for black tea, packaged as tea bags**.**

1.3.2. Sources of information

Different sources of information are contained in Trade Competitiveness Map. First, Trade Competitiveness Map is based on the world's largest database of trade

statistics, COMTRADE, maintained by the United Nations Statistics Division (UNSD) - http://unstats.un.org/unsd/comtrade. COMTRADE covers more than 90% of world trade or around 160 countries. Competitiveness Trade Map can present data for an even larger number of countries and territories (around 180) by using both reported and mirror statistics.

Reported data and mirrors statistics

Annual data is available not only for countries that report their own trade data, but also for the primarily low-income countries that do not report national trade statistics to COMTRADE.

When a country's export data is not available, this study uses mirror statistics, i.e., amounts reported by the importing rather than exporting country. This approach has the advantage of covering the numerous non-reporting countries. At the same time, mirror statistics have some shortcomings which need to be considered. Firstly, contrary to international convention, these export data are expressed in C.I.F. terms, i.e., cost, insurance and freight are included. As a rule, C.I.F. values tend to be about 10% higher than the free-on-board (F.O.B) values normally used for exports. Secondly, mirror statistics only capture those exports of non-reporting countries that are imports of the reporting countries. As a result, a major share of trade among developing countries is excluded.

1.4 Access to the tool

Thanks to financial contributions from World Bank and ITC's Global Trust Fund, ITC has been able to provide free access to its market analysis tools to users in developing countries.

ITC is delighted to be able to respond to the growing demand for online access to its trade intelligence tools.

Users in developing countries and economies in transition, can register to ITC market analysis online tools through a common registration portal at https://mas-admintools.intracen.org/accounts/Registration.aspx

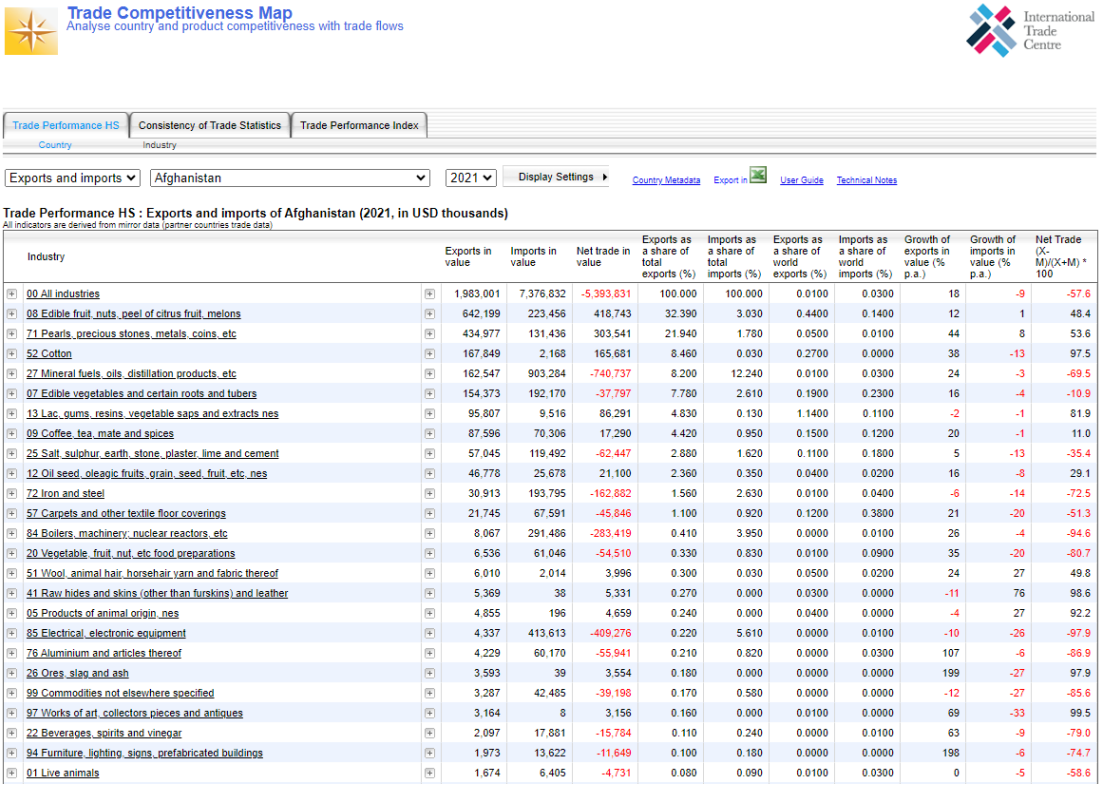
For users in developed countries, the tools are available on a subscription basis. You may want to first register online for a one-week free trial to familiarise yourself with the tools. Please visit our web page for more information on subscription option and fees at https://mas-admintools.intracen.org/Accounts/OptionsFees.aspx

CHAPTER 2 – HOW TO USE

2.1 How to enter the database

By typing the URL address https://tradecompetitivenessmap.intracen.org into your Internet Address bar, you will access to the homepage. Hereinafter the screen shots will always be of the generic English version of the tool.

FIGURE 1. TRADE COMPETITIVENESS MAP HOMEPAGE



Industry	Exports in value	Imports in value	Net trade in value	Exports as a share of total exports (%)	Imports as a share of total imports (%)	Exports as a share of world exports (%)	Imports as a share of world imports (%)	Growth of exports in value (% p.a.)	Growth of imports in value (% p.a.)	Net Trade (X-M)/(X+M) * 100
00 All industries	1,983,001	7,376,832	-5,393,831	100.000	100.000	0.0100	0.0300	18	-9	-57.6
08 Edible fruit, nuts, peel of citrus fruit, melons	642,199	223,456	418,743	32.390	3.030	0.4400	0.1400	12	1	48.4
71 Pearls, precious stones, metals, coins, etc	434,977	131,436	303,541	21.940	1.780	0.0500	0.0100	44	8	53.6
52 Cotton	167,849	2,168	165,681	8.460	0.030	0.2700	0.0000	38	-13	97.5
27 Mineral fuels, oils, distillation products, etc	162,547	903,284	-740,737	8.200	12.240	0.0100	0.0300	24	-3	-69.5
07 Edible vegetables and certain roots and tubers	154,373	192,170	-37,797	7.780	2.610	0.1900	0.2300	16	-4	-10.9
13 Lac; gums, resins, vegetable saps and extracts nes	95,807	9,516	86,291	4.830	0.130	1.1400	0.1100	-2	-1	81.9
09 Coffee, tea, mate and spices	87,596	70,306	17,290	4.420	0.950	0.1500	0.1200	20	-1	11.0
25 Salt; sulphur; earth, stone; plaster, lime and cement	57,045	119,492	-62,447	2.880	1.620	0.1100	0.1800	5	-13	-35.4
12 Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	46,778	25,678	21,100	2.360	0.350	0.0400	0.0200	16	-8	29.1
72 Iron and steel	30,913	193,795	-162,882	1.560	2.630	0.0100	0.0400	-6	-14	-72.5
57 Carpets and other textile floor coverings	21,745	67,591	-45,846	1.100	0.920	0.1200	0.3800	21	-20	-51.3
84 Boilers, machinery; nuclear reactors, etc	8,067	291,486	-283,419	0.410	3.950	0.0000	0.0100	26	-4	-94.6
20 Vegetable, fruit, nut, etc food preparations	6,536	61,046	-54,510	0.330	0.830	0.0100	0.0900	35	-20	-80.7
51 Wool, animal hair, horsehair yarn and fabric thereof	6,010	2,014	3,996	0.300	0.030	0.0500	0.0200	24	27	49.8
41 Raw hides and skins (other than furskins) and leather	5,369	38	5,331	0.270	0.000	0.0300	0.0000	-11	76	98.6
05 Products of animal origin, nes	4,855	196	4,659	0.240	0.000	0.0400	0.0000	-4	27	92.2
85 Electrical, electronic equipment	4,337	413,613	-409,276	0.220	5.610	0.0000	0.0100	-10	-26	-97.9
76 Aluminium and articles thereof	4,229	60,170	-55,941	0.210	0.820	0.0000	0.0300	107	-6	-86.9
26 Ores, slag and ash	3,593	39	3,554	0.180	0.000	0.0000	0.0000	199	-27	97.9
99 Commodities not elsewhere specified	3,287	42,485	-39,198	0.170	0.580	0.0000	0.0000	-12	-27	-85.6
97 Works of art, collectors pieces and antiques	3,164	8	3,156	0.160	0.000	0.0100	0.0000	69	-33	99.5
22 Beverages, spirits and vinegar	2,097	17,881	-15,784	0.110	0.240	0.0000	0.0100	63	-9	-79.0
94 Furniture, lighting, signs, prefabricated buildings	1,973	13,622	-11,649	0.100	0.180	0.0000	0.0000	198	-6	-74.7
01 Live animals	1,674	6,405	-4,731	0.080	0.090	0.0100	0.0300	0	-5	-58.6

2.2 Country Profile

This guide will explain the functioning of the Trade Performance application, from the export point of view. In order to have additional information on the other modules of Trade Competitiveness Map, please consult the respective downloadable User Guide.

CHAPTER 3 – EXPORT PERFORMANCE

3.1 Purpose

Participation in international trade has become one of the key factors in the growth of firms and the prosperity of countries. This is true not only in the case of major trading nations, but also, and perhaps more so, with respect to developing countries and economies in transition.

Yet, information on the export portfolios of many developing countries remains incomplete, and it is often difficult for policy makers in developing countries to assess product groups that have a comparative advantage in their own countries.

To assist with overcoming this challenge, the objective of the National Export Performance is to provide an overview of the export performance of developing countries and economies in transition in terms of the product composition of their exports, the dynamics of international demand, and growth patterns of their leading export products. This service should be of particular interest to the numerous low income countries that do not report any foreign trade data of their own.

This application sheds light on the following questions:

- **What are the leading export products of each country? How concentrated or diversified is each country's export portfolio in terms of products?**

- **What are the products in which the country under review has performed better than other countries and increased its international market share? Which export products are falling behind?**

- **To what extent are the leading export products positioned in growing or declining markets?**

3.2 Concept

The National Export Performance (like National Import Profile) is based on the COMTRADE database of the United Nations Statistical Division, which together account for more than 90% of world trade. Through the use of mirror statistics for countries that do not report their own trade data, the National Export Performance is able to include data for around all member countries of the United Nations. It is presented in charts and tables that show a country's national trade performance in terms of its leading export products at a very disaggregated level.

3.3 TP HS Main Menu

Figure 1 shows the interface of TP HS module. It is composed of three drop-down menus that allow you to select the variable (exports, imports, or both), the Country/Industry, the year you wish to analyse, and the "options" links (graph editor, technical notes, export data function). Figure 2 on the other hand shows the TP HS selection menu page.

FIGURE 2. TP HS SELECTION MENU

Before starting, the user must choose what type of analysis he wants to conduct. The application gives the possibility of analysing and comparing at the same time one specific industry for all countries (Industry mode) or all industries of one single country (Country mode). To choose the mode, the user simply must click on the relative button as shown in the figure below.

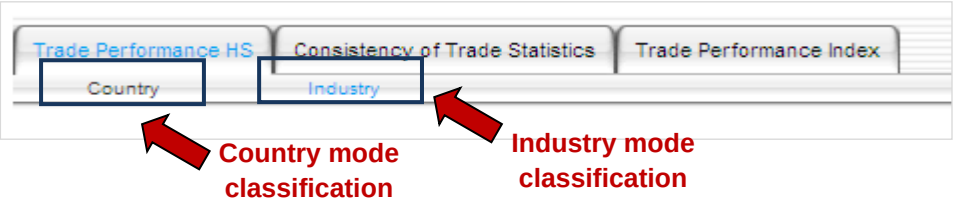
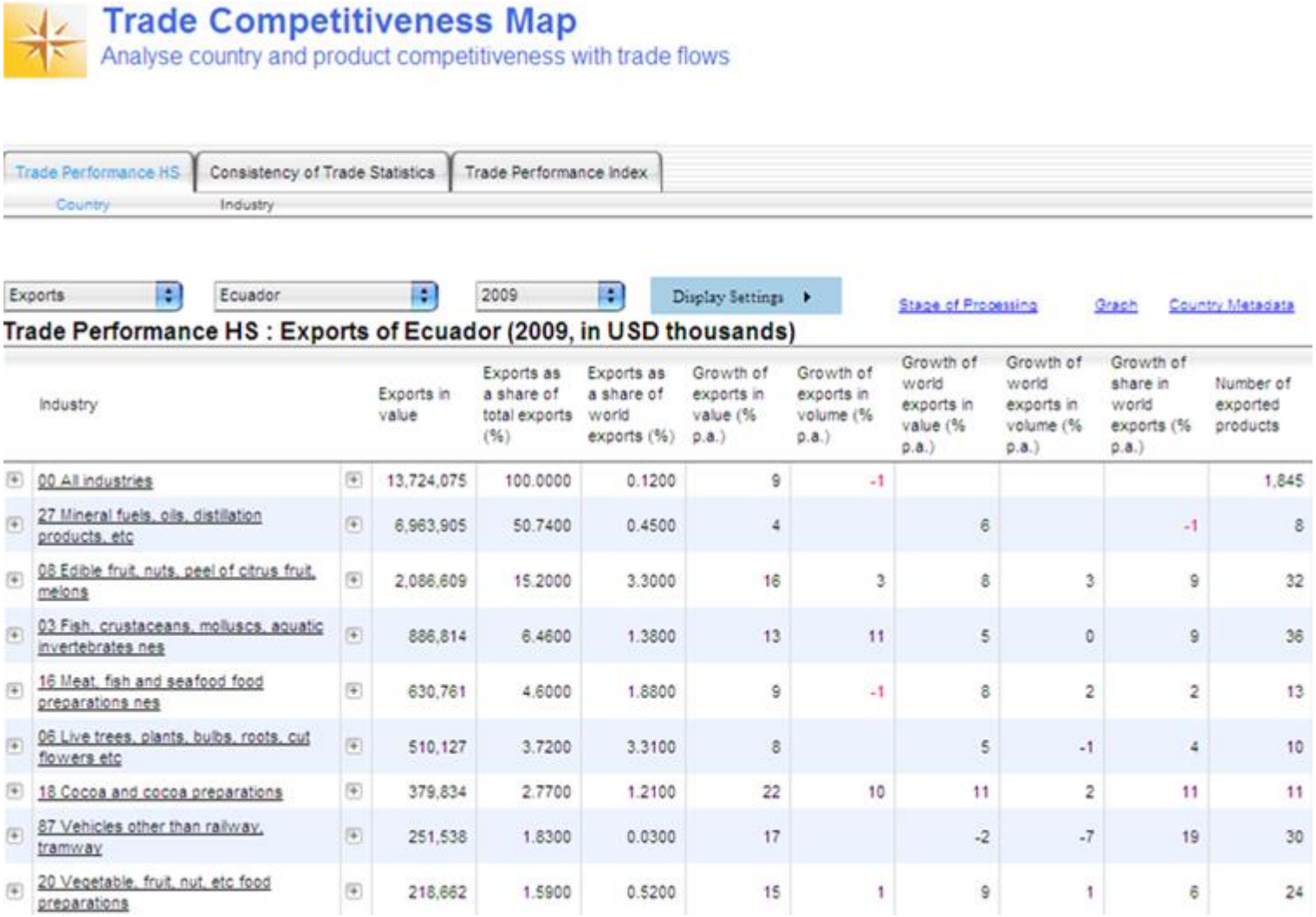


FIGURE 3. TP HS HOMEPAGE



Trade Competitiveness Map

Analyse country and product competitiveness with trade flows

Trade Performance HS | Consistency of Trade Statistics | Trade Performance Index

Country | Industry

Exports | Ecuador | 2009 | Display Settings | Stage of Processing | Graph | Country Metadata

Trade Performance HS : Exports of Ecuador (2009, in USD thousands)

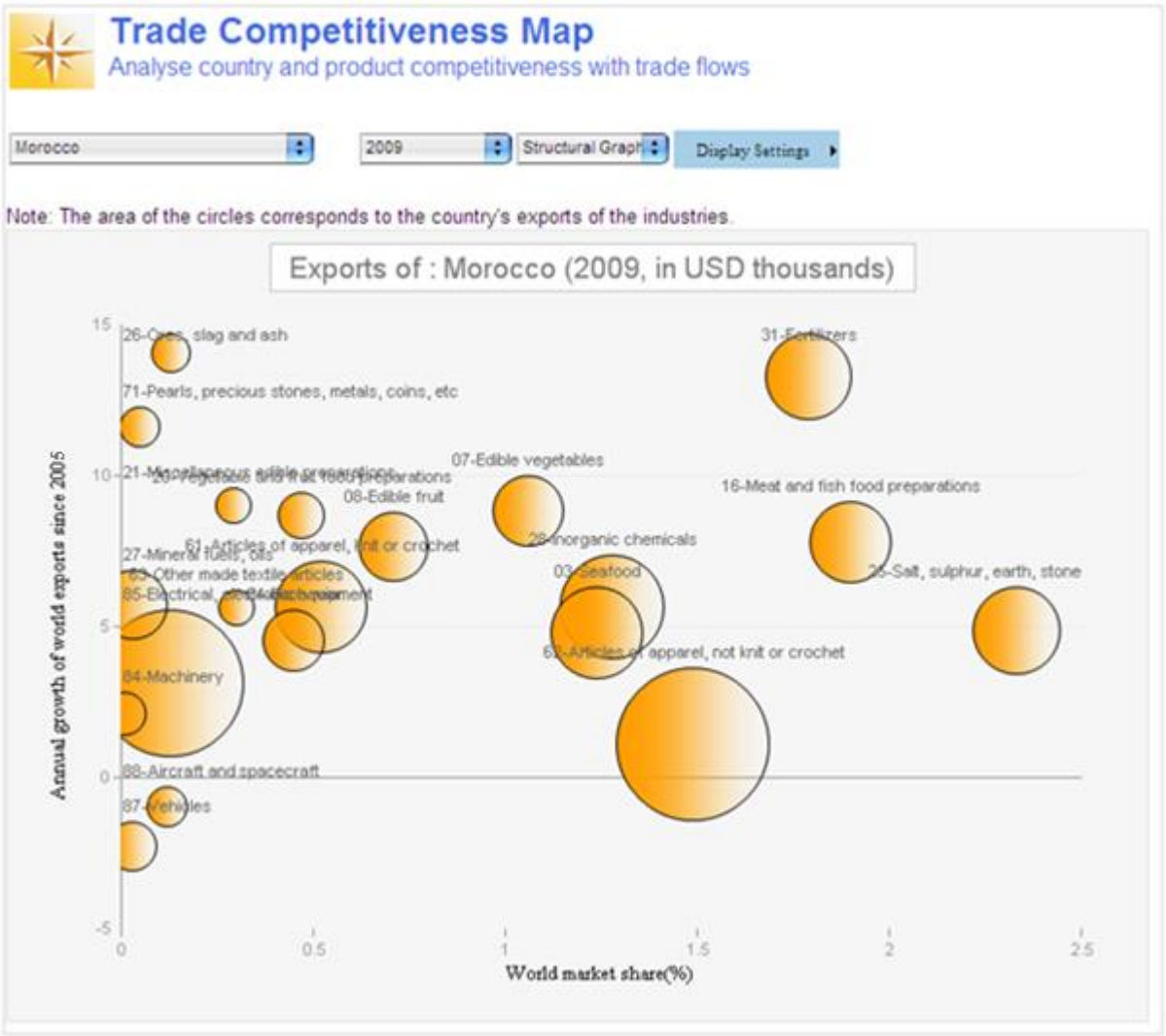
Industry	Exports in value	Exports as a share of total exports (%)	Exports as a share of world exports (%)	Growth of exports in value (% p.a.)	Growth of exports in volume (% p.a.)	Growth of world exports in value (% p.a.)	Growth of world exports in volume (% p.a.)	Growth of share in world exports (% p.a.)	Number of exported products
00 All industries	13,724,075	100.0000	0.1200	9	-1				1,845
27 Mineral fuels, oils, distillation products, etc	6,963,905	50.7400	0.4500	4		6		-1	8
08 Edible fruit, nuts, peel of citrus fruit, melons	2,086,609	15.2000	3.3000	16	3	8	3	9	32
03 Fish, crustaceans, molluscs, aquatic invertebrates nes	886,814	6.4600	1.3800	13	11	5	0	9	36
16 Meat, fish and seafood food preparations nes	630,761	4.6000	1.8800	9	-1	8	2	2	13
06 Live trees, plants, bulbs, roots, cut flowers etc	510,127	3.7200	3.3100	8		5	-1	4	10
18 Cocoa and cocoa preparations	379,834	2.7700	1.2100	22	10	11	2	11	11
87 Vehicles other than railway, tramway	251,538	1.8300	0.0300	17		-2	-7	19	30
20 Vegetable, fruit, nut, etc food preparations	218,662	1.5900	0.5200	15	1	9	1	6	24

3.4 Graphic Analysis

With the TP HS module, the user can proceed with a graphical analysis in order to capture a clear picture of the country's – or - industry's situation he wishes to examine.

Creating graphs is very simple; just click on the "Graph" button at the right of the main drop-down menus. This will open the graph editor.

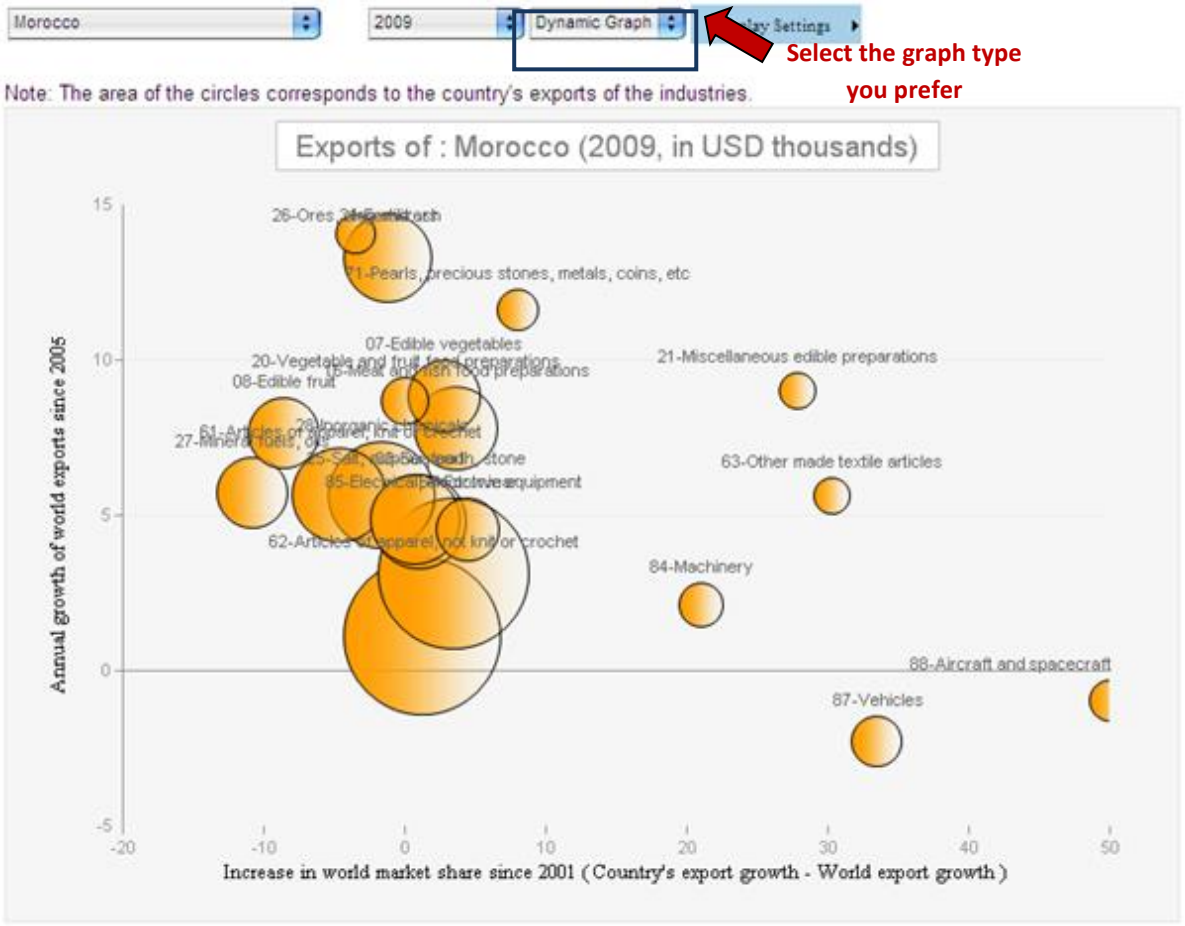
FIGURE 4. EXAMPLE - MOROCCO



3.4.1. How to display Dynamic Charts

After creating a chart, the user can switch from Structural to Dynamic graphs just by selecting the option in the relative menu, as shown in Figure 5 below.

FIGURE 5. DYNAMIC CHART EXAMPLE



3.4.2. How to read the charts

- **DYNAMIC PERSPECTIVE CHART**

This chart presents the performance of the 20 leading export product groups of the country under review. The chart shows the export value of the product group under review (size of the bubbles), and it compares national increase in world market share (horizontal axis) to the growth of international demand (vertical axis). The chart also indicates the average nominal growth of world imports over the same period (horizontal reference line). Moreover, the vertical line (i.e., the line of constant world

market share) divides the chart into two parts: exports of product groups to the right of this line of the country under review have grown faster than world imports and thereby increased their share in the world market. Conversely, product groups to the left of the vertical line have seen a decrease in their world market share.

The vertical and the horizontal reference lines are of particular interest from a trade development perspective since they divide the chart into four quadrants with different characteristics. For ease of reference, each of these quadrants has been given a name.

This "matrix" or "quadrant" approach is inspired by firms' portfolio models widely used in marketing, such as the Boston Matrix model. In this application, these models are applied to Nations instead of firms. The interpretation of the results is of course significantly different at the country level from the firm level, but the basic intuition remains the same.

Champions - winners in growth markets (*upper right quadrant*)
These are the export products for which the country under review has performed very well. They comprise in products which are growing faster than world trade in general, and for which the country has been able to outperform world market growth and has increased its share in world imports. Exporters of these products have proven their international competitiveness over recent years. Trade promotion efforts for these products are less risky, as there are national success stories which can serve as reference points. Promotional efforts should aim at broadening the supply capacity.

Underachievers - losers in growth markets (*upper left quadrant)*
These products represent challenges for trade promotion efforts in the country under review. While international demand has been growing at above-average rates, the country has been falling behind. Its exports have either declined or grown less dynamically than world trade. As a result, the country under review has been losing international market share. In general, the bottleneck is not international demand, but supply factors. For these products, it is essential to identify and remove the specific bottlenecks which impede a more dynamic expansion of exports.

Losers in declining markets *(lower left quadrant)*

The export prospects for these products tend to be bleak. World imports of the product concerned have been stagnating or have declined, and the market share of the country under review has gone down. Trade promotion efforts for product groups in this category face an up-hill task. They need to adopt an integrated approach to consider bottlenecks both on the supply and on the demand side.

Achievers in adversity - winners in declining markets *(lower right quadrant)*

Products in this quadrant are characterized by growing shares of the country's exporters in world import markets which are declining or growing below average. From a trade promotion perspective, niche marketing strategies are required to isolate the positive trade performance from the overall decline in these markets.

The charts also provide an overview of the concentration of exports: the appearance of one or a few comparatively large circles shows that exports are highly concentrated.

This classification of the export portfolios into four groups can be a useful preliminary analytical step. For concrete policy applications and product-specific trade promotion strategies and measures, the decision-making process is more complex. The approach needs to be refined and additional product-specific information has to be considered as well.

Notes

It should be noted that the criterion for distinguishing growing and declining products is the average nominal growth rate of total world imports in the last five-year period. Hence, if total world imports' is at around 4% annually, products whose world imports have grown below this rate (e.g., at 1% annually) are classified as declining products, as their share in world trade is declining.

For some countries for which data is not complete, the chart is not available.

Growth rates are calculated as least-square trends. In the charts, annual growth rates of world market share above 50% have been cut off and set at 50% and annual growth rates of world market share below -20% have been cut off and set at -20%.

- **STRUCTURAL PERSPECTIVE CHART**

This chart is to some extent like the dynamic perspective chart. The size of the bubble for example is also proportional to the country's export turnover. The key difference is in the horizontal axis, specified here as the country's world market share for the corresponding product group. The vertical axis is also different, since we plot here the average growth of world imports in real terms (i.e., volume terms) over the last five-year period. The structural chart is closer to the original Boston Matrix model, also known as the growth-share model.

This chart is "structural" in nature because market shares do not vary much over time and world imports expressed in volume terms are, unlike those expressed in nominal (i.e., value terms), not affected by fluctuations in prices and exchange rates. As a result, the overall picture does not change much from one year to the next. The dynamic perspective chart, by contrast, reflects the most recent changes in market shares. The two charts are therefore complementary.

Bubbles to the right of the vertical axis represent those products in which the country is specialised. That is, those products in which the country has, according to Balassa, a comparative advantage (see notes on the Revealed Comparative Advantage – RCA – Balassa Specialisation Index).

Stars – specialisation in high growth sectors *(upper right quadrant)*
Products located in this quadrant are those that are growing faster than world trade in real terms. They are also products in which the country is specialised and has captured relatively high world market share. Exporters of these products have proven their international competitiveness over recent years. Trade promotion efforts for these products are less risky as there are national success stories that can serve

as reference points. Promotional efforts should aim to consolidate or expand the country's market share.

Emerging Products – low market share in high growth sectors *(upper left quadrant)*

These products present challenges for a country's trade promotion efforts. While international demand has been growing at above average rates, the country is a relatively minor player with a relatively low market share. This may be because the country has only recently started developing exports in these products or it may be because the country is specialised in niches within the product group in question. For these products, the country needs to identify strategies to increase its market share in these high growth sectors, i.e., analyse supply-side bottlenecks and opportunities for horizontal diversification.

Snails – low market share in low growth sectors *(lower left quadrant)*

Export prospects for these products tend to be bleak as world imports have been stagnating or declining and the country has a low market share in these products. Trade promotion efforts for these products face an up-hill battle. Strategies for these products need to take into consideration bottlenecks on both the supply and demand side.

Traditional Products – specialisation in low growth sectors *(lower right quadrant)*

Products in this quadrant are those in which the country is has a high market share (i.e., is specialised) but where world demand is declining or growing at below the world average rate. Trade promotion efforts need to focus on niche marketing strategies to identify and increase the country's specialisation in the best performing products within an overall declining product group.

Notes

In the charts, very high world market shares (above to three times the country's overall world market share) have been cut off and set at three times the country's overall world market share.

- **Example**

Figure 6 shows an example of the Dynamic Chart of Republic of Korea. It shows the export value of the products under review (size of the bubbles), and it compares the national export change in world market share (horizontal axis) to the growth of international demand (vertical axis). Moreover, the vertical line (i.e., the line of constant world market share) divides the chart into two parts. Exports of products to the right of this line have grown faster than world imports and thereby increased their share in the world market. Conversely, products to the left of the vertical line have seen erosion of their world market share. The chart also provides an overview of the concentration of exports. The appearance of one or a few comparatively large circles shows that exports are highly concentrated.

We can start with the analysis of upper right quadrant. In this quadrant there are Champions Industries. These are the export industries for which Republic of Korea has performed very well, such as Minerals fuels, oils. These industries' products are particularly dynamic, which are growing faster than world trade in general and for which Republic of Korea has outperformed world market growth and increased its share in world imports. Exporters of these industries' products have proven their international competitiveness. Trade promotion efforts for these products are less risky, as there are national success stories, which can serve as reference points. Promotional efforts should aim at broadening the supply capacity.

In the lower right quadrant instead lie "winners in declining markets". Industries in this quadrant are characterized by growing shares of Korean exporters in world import markets, which are declining or growing at a below average rate, such as Vehicles. From a trade promotion perspective, niche-marketing strategies are required to encourage this positive trade performance despite the overall decline in these markets.

Figure 7 shows an example of the Structural Chart of Republic of Korea. There are some similarities with the Dynamic chart: for example, the size of the bubble is also proportional to the country's export turnover. The key difference is that the horizontal axis is specified here as the country's world market share for the corresponding

product group. The vertical axis instead is specified as the average growth of world imports in real terms (i.e., volume terms) over the last five-year period.

This chart is "structural" in nature because market shares do not vary much over time and world imports expressed in volume terms are not affected by fluctuations in prices and exchange rates. As a result, the overall picture does not change much from one year to the next.

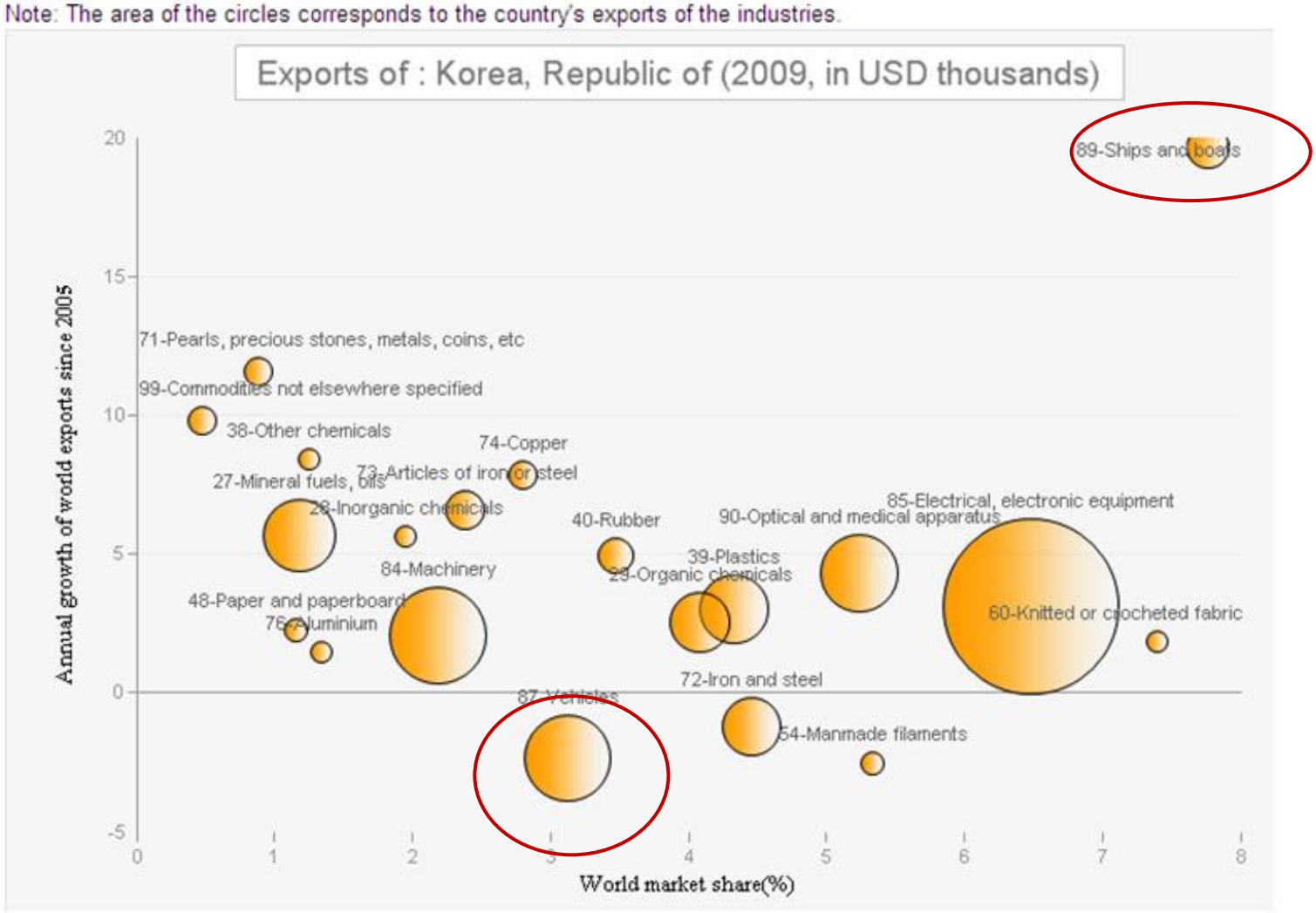
Bubbles to the right of the vertical axis represent those products in which the country is specialised. That is, those products in which the country has, according to Balassa, a comparative advantage (see notes on the Revealed Comparative Advantage – RCA – Balassa Specialisation Index).

We can start with the analysis of the upper right quadrant. In this quadrant there are *Stars* Industries. Industries located in this quadrant are those that are growing faster than world trade in real terms. They are also industries in which the country is specialised and has captured relatively high world market share. Exporters of these industries have proven their international competitiveness over recent years. Trade promotion efforts for these industries products are less risky as there are national success stories that can serve as reference points. Promotional efforts should aim to consolidate or expand the country's market share.

In the lower right quadrant, we can find the *traditional industries.* Industries in this quadrant are those in which the country has a high market share (i.e., is specialised) but where world demand is declining or growing at below the world average rate. Trade promotion efforts need to focus on niche marketing strategies to identify and increase the country's specialisation in the best performing industries products within an overall declining product group.

FIGURE 6. EXAMPLE - DYNAMIC CHART FOR REPUBLIC OF KOREA

FIGURE 7. EXAMPLE - STRUCTURAL CHART FOR REPUBLIC OF KOREA



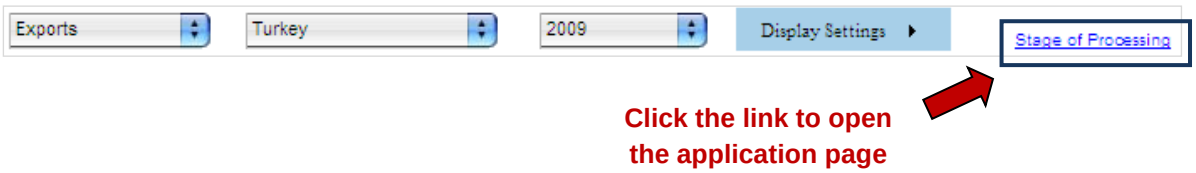
3.5 Stage of processing

The "Stage of processing" function of TP HS module allows the user to analyse exports composition of the country under review and the dimension of national value-added chain. This is possible due to the decomposition of each industry's exports according to the macroeconomic destination sector (primary, intermediates, capital equipment and consumer goods).

Moreover, it shows the percentage of high-tech products exported within a specific industry, giving the user a simple picture of its maturity degree.

Furthermore, the "Stage of processing" function is very useful to identify, for example, potential intra-industry and inter-industry trade.

In order to access this function, the user simply has to click on the link at the right of the main drop-down menu.



- **Analysis Example**

Tables 1, 2 and 3 show an example of "Stage of Processing" pages of Republic of Moldova, Turkey, and Togo. It shows some industries' exports values decomposed in the different macro-categories: a) Primary; b) Intermediates; c) Capital; d) Consumer goods. Clearly, the sum of these categories (a+b+c+d) will give the value of an industry's total exports.

We can start with the analysis of the second column, the "Percentage share of high-tech products". It is obvious that the only industry that has a positive value in this column is "Electrical, electronic equipment", due to its macro-sector.

Comparing different countries' values, we immediately notice that Togo has the most specialized industry in high-tech products, even if the supply market is much smaller than the one in Turkey.

The other columns show the decomposition of exports in the four main categories. It is easy to see that the exports of a given industry may have different destinations depending on the "State of development" of the country under review. For example, industries such as "Articles of iron or steel" and "Raw hides and skins (other than furskins) and leather" show the different exports destination for a developing African/European country and for a "mature economy" country.

In these industries, the share of primary sector increases if the economy is less developed (Togo), while the share of intermediates and capital increases if the economy is more mature (Turkey).
The higher the value of intermediates and capital's share, the more probable intra-industry trade is, and the more developed the national value-added chain will be.

Table 1. Example - Moldova

INDUSTRY	EXPORTS IN VALUE	SHARE OF HIGH-TECH PRODUCTS (%)	SHARE OF PRIMARY (%)	SHARE OF INTERMEDIATES (%)	SHARE OF CAPITAL (EQUIPMENT) (%)	SHARE OF CONSUMER GOODS (%)
			(A)	(B)	(C)	(D)
62 - Articles of apparel, accessories, not knit or crochet	127,345	0	0	0	0	100
08 - Edible fruit, nuts, peel of citrus fruit, melons	125,428	0	100	0	0	0
85 - Electrical, electronic equipment	107,060	3.2	0.1	90.1	9.5	0.3
73 - Articles of iron or steel	13,548	0	0	61.2	38	0.9
41 - Raw hides and skins (other than furskins) and leather	6,657	0	27.4	72.6	0	0

Table 2. Example - Turkey

INDUSTRY	EXPORTS IN VALUE	SHARE OF HIGH-TECH PRODUCTS (%)	SHARE OF PRIMARY (%)	SHARE OF INTERMEDIATES (%)	SHARE OF CAPITAL (EQUIPMENT) (%)	SHARE OF CONSUMER GOODS (%)
			(A)	(B)	(C)	(D)
62 - Articles of apparel, accessories, not knit or crochet	4,295,207	0	0	0	0	100
08 - Edible fruit, nuts, peel of citrus fruit, melons	3,001,818	0	100	0	0	0
85 - Electrical, electronic equipment	6,650,125	7	0	26.8	37.7	35.5
73 - Articles of iron or steel	4,550,894	0	0	76.4	14.2	9.5
41 - Raw hides and skins (other than furskins) and leather	93,529	0	6.4	93.6	0	0

Table 3. Example - Togo

INDUSTRY	EXPORTS IN VALUE	SHARE OF HIGH-TECH PRODUCTS (%)	SHARE OF PRIMARY (%)	SHARE OF INTERMEDIATES (%)	SHARE OF CAPITAL (EQUIPMENT) (%)	SHARE OF CONSUMER GOODS (%)
			(A)	(B)	(C)	(D)
62 - Articles of apparel, accessories, not knit or crochet	88	0	0	0	0	100
08 - Edible fruit, nuts, peel of citrus fruit, melons	2,071	0	100	0	0	0
85 - Electrical, electronic equipment	2,558	72.8	1.6	0.5	95.5	2.5
73 - Articles of iron or steel	18	0	0	94.4	0	5.6
41 - Raw hides and skins (other than furskins) and leather	31	0	100	0	0	0

CHAPTER 4 – TRADE PERFORMANCE INDICATORS

How do you identify priority products for export promotion?

How do your export products rank in terms of international demand?

4.1 Methodology

The Trade Performance module is a sectoral benchmarking tool of export performance and competitiveness with a unique coverage of countries, products, and country specific indicators, both static and dynamic. The application is based on a series of macroeconomic indicators that illustrate a country's performance in a specific industry's exports.

With this tool, a user can gain insight into some of the causes of a country's export performance, as well as measure that performance against other countries. In particular, it brings out gains and losses in world market share and sheds light on the factors causing these changes. It also monitors the evolution of export diversification and concentration in products and markets. Overall, it provides a systematic overview of a country's export performance and its comparative and competitive advantages within a given sector.

For each industry, the TP HS provides for all exporting countries some indicators of the trade position in the last year and some indicators of the change in export performance, capturing major trends over the recent past (last five-year period).

Monetary indicators can be expressed in different currencies. The user must simply click on the "Display Setting" button next to the main drop-down menus. The results are expressed by default in US Dollars, but Euro, Yen, GB Pound, and CH Francs are also available.

Moreover, the user can change the unit of measure switching from thousands to millions or billions, simply by clicking on the "Display Setting" button.

4.2 Description of indicators

This section examines the rationale of each indicator entering in the application. All indicators are calculated for each industry at the product level. Original data used in the computation is at the 4-digit level of the HS nomenclature (1996 edition), corresponding to more than 5,000 products as a whole.

In order to sort the values from highest to lowest and vice-versa, the user has to click on the name of the Index in the table of results.

- **EXPORTS IN VALUE**

This index shows industry's export values (by default in USD). The value of a country's exports for the selected industry indicates the importance of the industry. For non-reporting countries, this is calculated as the sum of imports from that country by all reporting countries. Exports are given in FOB terms (free on board) if the country is a direct reporter to the United Nations' COMTRADE database, otherwise in CIF terms (cost, insurance, freight) as mirror statistics (based on the partners' declarations of imports) are used.

Higher values of this index indicate greater importance of the sector under review in the national export portfolio.

- *Country perspective*

With Country perspective, this indicator will display active industries' exports for the selected country, thus allowing the user to compare their different export performance.

Example: The table below shows some exporting industries of Tunisia in a given year.

INDUSTRY	EXPORTS VALUE (thousand US$)
85 - Electrical, electronic equipment	2,718,405
15 - Animal, vegetable fats and oils, cleavage products, etc	551,162
72 - Iron and steel	103,821

The table shows that the industry "*Electrical, electronic equipment*" is more export-oriented than "*Iron and steel*".

- *Industry perspective*

With Industry perspective, this indicator will display active countries' exports for a selected industry, allowing the user to compare their different export-performance.

Example: The table below shows some exporting countries for the industry "Cereals" in a given year.

COUNTRY	EXPORT IN VALUE (thousand US$)
World	73,687,404
Australia	4,420,163
Brazil	1,635,289
Bulgaria	488,584
Senegal	50,019

We notice that the Cereal industry in Australia is much more important and export-oriented than its competitor in Senegal.

- **EXPORTS AS A SHARE OF TOTAL EXPORTS (%)**

This index refers to the share of an industry's exports in relation to a country's total exports; hence it shows the importance of this industry in the national export portfolio.

- *Country perspective*

With Country perspective, this indicator will display, for the selected country, active industries' exports as percentage shares of total exports. The index thus shows the composition of a country's export portfolio.

Example: The table below shows the shares of some exporting industries for Malaysia in a given year.

INDUSTRY	EXPORTS AS A SHARE OF TOTAL EXPORTS (%)
85 - Electrical, electronic equipment	28.51
84 - Boilers, machinery; nuclear reactors, etc	16.92
27 - Mineral fuels, oils, distillation products, etc	14.79
15 - Animal,vegetable fats and oils, cleavage products, etc	7.62

The table shows that the Malaysian export portfolio is quite concentrated since the sum of the top-four industries' shares adds up to almost 70% of total industries.

- *Industry perspective*

With Industry perspective, this indicator will display, for a selected industry, active countries' exports as percentage shares of a country's total exports. This index therefore tells us in which countries the industry in exam has future export potential based on its importance in the national export portfolio.

Example: The table below shows exports as a share of total exports of certain exporting countries for the industry "Sugars and sugar confectionery" in a given year.

COUNTRY	EXPORTS AS A SHARE OF TOTAL EXPORTS (%)
Fiji	25.57
Brazil	5.6
Thailand	1.32
Ukraine	0.44

We can see that for Fiji, this industry is much more important in terms of share of exports than for Ukraine. We could therefore expect high potential for the Fiji Islands' industry due to its strategic relevance in its economy.

- **EXPORTS AS A SHARE OF WORLD EXPORTS (%)**

This index shows, for a specific industry, the percentage share of exports of the selected country in total world exports. The world market share indicates how

important a specific national industry is in terms of global export for the industry under review.

The more a country exports in a particular industry, the higher its world market share is. This indicator thus favours the biggest exporters. It introduces at the same time a bias towards large countries, as large countries tend to export more in absolute terms than smaller countries.

- *Country perspective*

With Country perspective, this indicator will display, for a selected country and for each active industry, exports as percentage shares of total world industry's exports. Hence, this index shows, for each industry, the country's contribution to world exports and indicates its importance on a particular group of products' world supply.
Example: The table below shows world shares of some exporting industries for Poland each year.

INDUSTRY	EXPORT AS A SHARE OF WORLD EXPORTS (%)
94 - Furniture, lighting, signs, prefabricated buildings	4.48
74 - Copper and articles thereof	2.17
02 - Meat and edible meat offal	1.86
57 - Carpets and other textile floor coverings	0.63

The table shows that Polish contribution to world supply is bigger for the industry "Furniture, lighting, signs, prefabricated buildings" than for "Carpets and other textile floor coverings".

- *Industry perspective*

With Industry perspective, this indicator will display, for a selected industry, all countries' exports as percentage shares of total world industry's exports. The index thus shows the composition of industry world supply in terms of country.
Example: The table below shows world shares of some exporting countries for the "Ceramic products" industry in a given year. It is easy to see that China's ceramic production is much more important than that of South Africa in terms of world supply.

COUNTRY	EXPORTS AS A SHARE OF WORLD EXPORTS (%)
China	25.93
Belgium	2.06
South Africa	0.20

- **GROWTH OF EXPORTS IN VALUE (% P.A.)**

This index, based on the least squares method, shows the average annual percentage growth of export values over the most recent 5-year period. For non-reporting countries, it is calculated on the basis of mirror statistics. The growth rate is only displayed if the corresponding partner countries have consistently reported trade data to COMTRADE over the last five years.

Industry with rapid export growth in value terms suggest that the country is competitive on the world markets, while stagnant or declining growth rates indicate the reverse. Everything else equal, fast growing exports, even in small absolute numbers, point at product groups for which the country has a particular export potential.

- *Country perspective*

With Country perspective, this indicator will display active industries' exports growth for a selected country allowing the user to easily compare their different results. The index hence shows, for each industry, general export trend indicating which industry has export potential.

Example: The table below shows growth of exports of some exporting industries for Senegal in a given period.

INDUSTRY	GROWTH OF EXPORTS IN VALUE (% P.A.)
53 - Vegetable textile fibres nes, paper yarn, woven fabric	205
71 - Pearls, precious stones, metals, coins, etc	143
93 - Arms and ammunition, parts and accessories thereof	-50

It is easy to see that in Senegal, the "Vegetable textile fibres nes, paper yarn, woven fabric" industry, registering a very high expansion with a growth (in value) of its

export of 205%, has much more future export and economic potential than, for example, the "Arms and ammunition, parts and accessories thereof" industry.

- *Industry perspective*

With Industry perspective, this indicator will display active countries' exports growth for a selected industry, allowing the user to easily compare countries' different trends. Hence, this index shows which country has future export potential.

Example: The table below shows growth of exports of some exporting countries for the "Optical, photo, technical, medical, etc apparatus" industry in a given period.

COUNTRY	EXPORTS IN VALUE (thousand US$)	GROWTH OF EXPORTS IN VALUE (% P.A.)
East Timor	969	292
Romania	462,464	32
Japan	31,894,827	-3

The table shows that for the industry under review the trend of East Timor's exports is much more positive than that of Japan. However, for an appropriate analysis to be conducted, the user should also consider the values of exports to avoid misleading conclusions. For example, having considered exports in value, we can argue that for the industry under review, Romania has a better export potential than East Timor.

- **GROWTH OF EXPORTS IN VOLUME (% P.A.)**

This index, based on the least squares method, shows the average annual percentage growth of export quantities over the most recent 5-year period. For non-reporting countries, it is not calculated, due to problems of aggregation and possible unreliable data.

As explained for the previous index, industries with rapid export growth in value terms suggest that the country is competitive on the world markets, while stagnant or declining growth rates indicate the reverse.

The two "Growth of exports" indices are not linked since it is possible that an industry could increase exports in volume and, at the same time, decrease exports in value because of the price dynamic.

- *Country perspective*

With Country perspective, this indicator will display active industries' exports growth (in volume) for a selected country, allowing the user to easily compare their different results.

Example: The table below shows growth of exports of some exporting industries for Canada in a given period.

INDUSTRY	GROWTH OF EXPORTS IN VALUE (% P.A.)	GROWTH OF EXPORTS IN VOLUME (% P.A.)
90 - Optical, photo, technical, medical, etc apparatus	3	-3
22 - Beverages, spirits and vinegar	-4	0
32 - Tanning, dyeing extracts, tannins, derivs, pigments etc	-7	-10

The table shows a very negative trend of "Tanning, dyeing extracts, tannins, derives, pigments etc" industry aggravated by another negative trend for exports in value. On the other hand, the negative trend for the "Optical, photo, technical, medical, etc apparatus" industry experiences a positive trend of exports in value. In order to avoid misleading conclusions, the user has to consider both indexes at the same time.

- *Industry perspective*

With Industry perspective, this indicator will display active countries' exports growth (in volume) for a selected industry, allowing the user to easily compare countries' different trends.

Example: The table below shows growth of exports of some exporting countries for the "Mineral fuels, oils, distillation products" industry in a given period.

COUNTRY	GROWTH OF EXPORTS IN VALUE (% P.A.)	GROWTH OF EXPORTS IN VOLUME (% P.A.)
Qatar	31	10
Angola	18	2
Russian Federation	6	2
Poland	-5	-8

Poland experiences a negative trend for exports in volume, aggravated by a negative trend for exports in value. Conversely, the positive trend for Angola is reinforced by the positive trend of exports in value. Therefore, to avoid misleading conclusions, the user should consider both indexes at the same time.

- **GROWTH OF WORLD EXPORTS IN VALUE (% P.A.)**

This index, based on the least-squares fit method, shows the average annual percentage growth of world exports of the industry under review in the last five years. Positive export growth in value terms suggests that the industry in exam has a particular global export potential.

- *Country perspective*

This indicator is calculated only for the country mode, and it will display, for each active industry, the growth of total world's industry exports allowing the user to compare easily their different global export performance. Hence this index helps to identify which industry has future export potential in the global market.

Example: table below shows growth of world exports of some exporting industries in a given period.

INDUSTRY	GROWTH OF WORLD EXPORTS IN VALUE (% P.A.)
89 - Ships, boats and other floating structures	20
30 - Pharmaceutical products	13
52 - Cotton	-3
53 - Vegetable textile fibres nes, paper yarn, woven fabric	-8

It is easy to see a very positive global trend for "Ships, boats and other floating structures" industry's export and a negative global trend for the "Cotton" one.

- **GROWTH OF WORLD EXPORTS IN VOLUME (% P.A.)**

This index shows the average annual percentage growth of volumes of world exports of the industry under review, in the last five years, based on the least-squares fit. Positive export growth in volume terms suggests that the industry in exam is active and dynamic.

- *Country perspective*

This indicator is calculated only for the country mode and will display, for each active industry, the growth of total world's industry exports (in volume). It allows the user to compare different industries' global export performance in volume terms.

Example: The table below shows growth of world exports in volume of some exporting industries in a given period.

INDUSTRY	GROWTH OF WORLD EXPORTS IN VALUE (% P.A.)	GROWTH OF WORLD EXPORTS IN VOLUME (% P.A.)
12 - Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	18	5
23 - Residues, wastes of food industry, animal fodder	15	1
28 - Inorganic chemicals, precious metal compound, isotopes	6	-3
41 - Raw hides and skins (other than furskins) and leather	-7	-6

We can see a positive global trend for the "Oil seed, oleagic fruits, grain, seed, fruit, etc, nes" industry's export in volume, reinforced by a very positive trend also in exports in value. Conversely, the negative trend of "Inorganic chemicals, precious metal compound, isotopes" industry's export in volume is not worrying because of the positive trend for exports in value. Hence, to avoid misleading conclusions, the user should consider both indexes at the same time.

- **GROWTH OF SHARE IN WORLD EXPORTS (% P.A.)**

Firstly, this index allows the user to assess an industry's competitiveness progress on the world market.

Secondly, change in world market shares over time can also indicate long term comparative advantage.

- *Country perspective*

With Country perspective, this indicator will display, for a selected country and for its active industries, the growth of shares in world exports in the last five-year period. Hence, this index shows if a country's industries are earning world market share. On the other hand, if the user is interested in discovering a country's industries' competitiveness progress on the world market, he has to analyse this indicator with industry perspective.

Example: The table below shows this indicator for some Italian exporting industries in a given period.

INDUSTRY	GROWTH OF SHARE IN WORLD EXPORTS (% P.A.)
14 - Vegetable plaiting materials, vegetable products nes	12
28 - Inorganic chemicals, precious metal compound, isotopes	6
02 - Meat and edible meat offal	-1
40 - Rubber and articles thereof	-5

From the table above, we can see a positive trend for the "Vegetable plaiting materials, vegetable products nes" industry and a loss of share in world exports for the "Rubber and articles thereof" industry.

- *Industry perspective*

With Industry perspective, this indicator will display, for a selected industry, the growth of countries' shares in world exports in the last five-year period. This index therefore helps the user to assess national industry's competitiveness progress on the world market.

To avoid misleading conclusions, the user should consider world's value as a benchmarking point. In order to show, for example, that an industry is doing well, flaunting a 3% growth rate in exports can be fairly confusing when world markets are growing at double the pace. In this case, the country is not gaining ground in international markets, but rather losing ground.

Example: The table below shows some exporting countries' value of this indicator for the "Pharmaceutical products" industry in a given period.

COUNTRY	GROWTH OF SHARE IN WORLD EXPORTS (% P.A.)
Bulgaria	32
Ethiopia	17
World	9
Switzerland	3
Mexico	-13

The table clearly indicates that although Switzerland has achieved a 3% growth rate, its industry is losing competitiveness since the world market grows at a 9% rate.

- **NUMBER OF EXPORTED PRODUCTS**

This index simply shows how many products within an industry are exported by the country under review. It indicates the product's variety and the size of the industry, demonstrating its importance in the national export portfolio.

- *Country perspective*

With Country perspective, this indicator will display, for a selected country, how many products are exported by each active industry in the last year. With this viewpoint, it is possible to compare a single country's industries in order to have a clear and uncomplicated picture of the export portfolio's differentiation.

Example: The table below shows some exporting industries' value of this indicator for Argentina.

INDUSTRY	NUMBER OF EXPORTED PRODUCTS
85 - Electrical, electronic equipment	215
11 - Milling products, malt, starches, inulin, wheat gluten	22
60 - Knitted or crocheted fabric	11
50 - Silk	3

We can easily see that in Argentina, the "Silk" industry is much less developed than the "Electrical, electronic equipment" one in terms of supply's variety.

- *Industry perspective*

With Industry perspective, this indicator will display, for a selected industry, how many products are exported by each active country in the last year, allowing the user to compare their supply's variety and differentiation. Consequently, this index shows a single national industry's degree of development on the world market.

Example: The table below shows some exporting countries' value of this indicator for "Articles of iron or steel" industry.

COUNTRY	NUMBER OF EXPORTED PRODUCTS
Japan	121
Iran (Islamic Republic of)	78
Haiti	6

We can see from the table above that the Japanese industry is much more developed and differentiated than the one of Haiti.

- **SHARE OF TOP 3 EXPORTED PRODUCTS (%)**

This index simply shows the share of the three most exported products within an industry. It gives a clear picture of products' importance and differentiation: high values of this index indicate little differentiation and variety of products' supply, hence high supply concentration (the country/industry exports a limited variety of products).

- *Country perspective*

With Country perspective, this indicator will display, for a selected country and for each active industry, the share of top 3 exported products. Hence, this index gives a clear picture of the supply's concentration.

Example: The table below shows some exporting industries' value of this indicator for Egypt.

INDUSTRY	SHARE OF TOP 3 EXPORTED PRODUCTS (%)
81 - Other base metals, cermets, articles thereof	100.0
90 - Optical, photo, technical, medical, etc apparatus	49.0
84 - Boilers, machinery; nuclear reactors, etc	24.6

From the table above we can see that in Egypt, the supply structure of the "Other base metals, cermets, articles thereof" industry is much more concentrated than the industry of "Boilers, machinery; nuclear reactors, etc".

- *Industry perspective*

With Industry perspective, this indicator will display, for a selected industry and for each active country, the share of top 3 exported products, allowing the user to compare the different degrees of supply's concentration.

Example: The table below shows some exporting countries' value of this indicator for "Meat, fish and seafood food preparations nes" industry.

COUNTRY	SHARE OF TOP 3 EXPORT MARKETS (%)
Uganda	100.0
Panama	70.2
Malaysia	46.2
Belgium	34.1

We can see that for the industry under review, Belgium's supply is much less concentrated than that of Uganda.

- **NUMBER OF EXPORT MARKETS**

- *Country perspective*

This indicator simply shows, for each active exporting industry, the number of markets to which the country under review exports. High values of this index, indicating that the country exports to many market-destinations (and therefore has several trading partners), tells us about its importance in world supply and in the national export portfolio.

Example: The table below shows some exporting industries' value of this index for France.

INDUSTRY	NUMBER OF EXPORT MARKETS
39 - Plastics and articles thereof	89
22 - Beverages, spirits and vinegar	180
17 - Sugars and sugar confectionery	141

- **SHARE OF TOP 3 EXPORT MARKETS (%)**

- *Country perspective*

This index simply shows, for the country under review, the share of top three export markets of each active industry. It gives a clear picture of destination markets' diversification, with high values indicating high supply's concentration and the great importance of top 3 export markets for the country in analysis.

Example: The table below shows some exporting industries' value of this indicator for Burkina Faso.

INDUSTRY	SHARE OF TOP 3 EXPORT MARKETS (%)
25 - Salt, sulphur, earth, stone, plaster, lime and cement	100.0
42 - Articles of leather, animal gut, harness, travel goods	79.2
12 - Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	53.7

We can easily see that for "Salt, sulphur, earth, stone, plaster, lime and cement", the industry's top 3 export markets are much more important than in the case of "Oil seed, oleagic fruits, grain, seed, fruit, etc, nes".

- *Industry perspective*

This index simply shows, for the industry selected, the share of the top three export markets for each active exporting country. With this perspective, the user can easily compare countries' different results in terms of destination markets' diversification.

Example: The table below shows some exporting countries' value of this indicator for "Exports of live animals".

COUNTRY	SHARE OF TOP 3 EXPORT MARKETS (%)
Malawi	100.0
Uruguay	84.7
Denmark	58.8
Pakistan	43.5

We can see that Malawi basically exports only to top 3 export markets, while Pakistan's destination markets are quite diversified, protecting it from unexpected changes in demand, among other reasons, of top 3 export markets.

- **NET TRADE**

This index shows the balance of trade for a specific industry. A positive value shows that the country exports more than it imports (it has a surplus), while a deficit occurs when a country imports more than it exports (the country is a net importing country).

For non-reporting countries, mirror estimates are used, and net exports should be considered as indicative only. For most of the low-income countries, negative values may indicate that the export goods (such as technology or machinery) are not produced locally but are imported from abroad and re-exported to the country of origin or other countries.

- *Country perspective*

With Country perspective, this indicator will display, for a selected country, the balance of trade of each active industry allowing the user to easily compare their different results. Therefore, this index gives a clear picture of the economy composition of the country under review.

Example: The table below shows some exporting industries' value of this indicator for Vietnam.

INDUSTRY	NET TRADE
64 - Footwear, gaiters and the like, parts thereof	5,452,597
26 - Ores, slag and ash	196,637
36 - Explosives, pyrotechnics, matches, pyrophorics, etc	-3,741
60 - Knitted or crocheted fabric	-1,018,376

The table shows that the "Footwear, gaiters and the like, parts thereof" industry contributes positively to the trade balance while that contribution is negative for "Knitted or crocheted fabric".

- *Industry perspective*

With Industry perspective, this indicator will display, for a selected industry, the balance of trade of each active country, allowing the user to compare their different results. Therefore, for the industry under review, this index gives a clear picture of a country's role on the world market, and its classification as net exporter or importer.

Example: The table below shows some exporting countries' value of this indicator for the "Furniture, lighting, signs, prefabricated buildings" industry.

COUNTRY	NET TRADE
Italy	9,329,618
Lithuania	770,430
Sierra Leone	-1,229
United Arab Emirates	-1,650,066

In the example, the table shows that for the industry under review, Italy is a net exporter while the United Arab Emirates are net importers.

- **SPECIALISATION (Balassa Index / RCA Index)**

This index, known by the description "Revealed comparative advantage" (RCA), tries to identify product groups where the targeted country has an obvious advantage in international competition. This is of special importance to promote trade of products that are more likely to be competitive. However, for trade analysis, it is more appropriate to consider RCA simply as an Index of Specialisation (IS).

Stated simply, the revealed comparative advantage of a specific country in the trade of a given industry's products is measured by the industry's share in the country's exports relative to its share in world trade. If it takes a value of less than 1, this implies that the country is not specialized in exporting the product (the share of that product in the country under review's exports is less than the corresponding world share). Similarly, if the index exceeds 1, this implies that the country is specialized in exporting the item.

In general practice, RCA indices should only be used in product categories where trade is not distorted by export incentives and trade barriers, because they are likely to obscure whether a country has a real comparative advantage or disadvantage in these goods.

- *Country perspective*

With Country perspective, this indicator will display, for a selected country, the Balassa index of each active industry, allowing the user to understand easily in which economic sectors the country under review is specialised.

Example: The table below shows some exporting industries' value of this indicator for Peru.

INDUSTRY	SPECIALISATION (Balassa Index / RCA Index)
80 - Tin and articles thereof	52.3
51 - Wool, animal hair, horsehair yarn and fabric thereof	4.3
82 - Tools, implements, cutlery, etc of base metal	0.1

The table shows that the "Tin and articles thereof" industry is strongly specialised in export.

- *Industry perspective*

With Industry perspective, this indicator will display, for a selected industry, the Balassa index of each active country, allowing the user to understand easily which of them is specialised in export as well as the degree of specialization.

Example: The table below shows some exporting countries' value of this indicator for "Fertilizers" industry.

COUNTRY	SPECIALISATION (Balassa Index / RCA Index)
Jordan	37.5
Uzbekistan	3.9
United States of America	1.2
Côte d'Ivoire	0.0

We can see that, for the industry in analysis, Jordan, Uzbekistan, and the United States of America are specialised in export, which is not the case with Côte d'Ivoire. Moreover, Jordan is much more specialised than Uzbekistan.

- **SPECIALISATION (Lafay Index)**

This index tries to reveal comparative advantage by comparing, in USD thousands, the balance of trade of a country for a selected industry with a theoretical balance corresponding to the absence of specialisation. Since it considers both exports and imports, it is therefore more suitable for a country with intra-industry trade.

In order to eliminate business cycle effects induced by a state of imbalance of the global balance, and in order to highlight only the particular situation of one product and/or partner compared to another, the theoretical balance is calculated in a manner to reflect a balanced situation. It consists of sharing out the global balance between the different products and/or partners in proportion to their respective weight in total trade of the country.

This indicator is extremely useful in identifying strong and weak points (positive and negative values of the index) of a specific country and comparing them with its competitor.

- *Country perspective*

With Country perspective, this indicator will display, for a selected country, the Lafay index of each active industry, allowing the user to easily understand in which economic sectors the country under review has comparative advantage on the world market.

Example: The table below shows some exporting industries' value of this indicator for Nicaragua.

INDUSTRY	SPECIALISATION (Lafay Index)
09 - Coffee, tea, mate and spices	7
07 - Edible vegetables and certain roots and tubers	2
84 - Boilers, machinery; nuclear reactors, etc	-2
85 - Electrical, electronic equipment	-3

We can see that the "Coffee, tea, mate and spices" industry has a comparative advantage while "Electrical, electronic equipment" industry has a comparative disadvantage on the world market.

- *Industry perspective*

With Industry perspective, this indicator will display, for a selected industry, the Lafay index of each active country, allowing the user to easily understand which country has a comparative advantage on the world market.

Example: Values of this indicator for the "Exports of dairy products, eggs, honey, edible animal product nes" industry of some exporting countries are shown in the table below.

COUNTRY	SPECIALISATION (LAFAY INDEX)
New Zealand	10
Kenya	0
Algeria	-1

The table shows that, for the industry in exam, New Zealand has a comparative advantage on the world market.

Comparing Balassa and Lafay Index: What users should take into consideration.

In order to avoid deceptive and misleading conclusions, the user should analyse simultaneously the two specialisation's indices: both are complementary and jointly allow grasping the real dimension of trade competitiveness.

The Balassa index shows the degree of competitive advantage (specialization) of exports of a single national industry, thus allowing the user to evaluate the performances of different countries, while the Lafay index shows whether the country under review has competitive advantage over its competitors in that industry's trade (it considers exports and imports at the same time).

A positive value of the Balassa index indicates that the country is specialized in the selected industry's exports but does not necessarily mean that this sector contributes positively to the national trade balance. In fact, if the Lafay index is negative at the same time, the specialization of the industry is not enough to make the country competitive on world markets, and its contribution in terms of net trade will be negative.

Example: The table below presents the values of the Balassa and Lafay indeces for some Czech Republic's industries.

INDUSTRY	NET TRADE	SPECIALISATION (BALASSA INDEX)	SPECIALISATION (LAFAY INDEX)
87 - Vehicles other than railway, tramway	10,966,856	2.6	5.0
39 - Plastics and articles thereof	-1,359,163	1.0	-1.0
72 - Iron and steel	-851,477	1.2	-1.0
40 - Rubber and articles thereof	762,722	2.3	0.0

We can see that, despite a degree of specialization higher than the global average (Balassa index >1), the "Iron and steel" industry is not competitive on the world market (Lafay index <0) and it contributes negatively to the trade balance (Net trade <0).