

Prof. Dimitar Hadjinikolov

www.hadjinikolov.pro



Multifactorial Theories of International Trade

- 1. Intellectual Property and TRIPs**
- 2. Porter's Diamond and International trade**
- 3. Global Competitiveness Index**
- 4. Global Competitiveness Report**
- 5. OECD and International Trade**

1. Intellectual Property and TRIPs

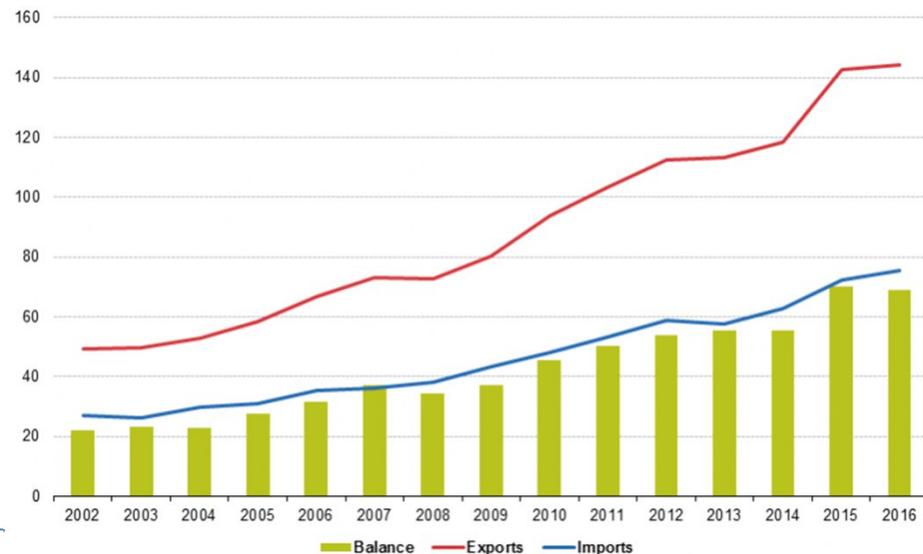
A) Importance

Example: medicines

companies that research and produce new medicines operate under an overwhelmingly tough business model: studies have found that for every 5,000 to 10,000 experimental medicines considered, typically only *one* will gain approval - and this is after 10 to 15 years of R&D costing an average of **\$1.2 billion**.

Thus, a few successes must make up for thousands of failures. As the end of the day, only two out of every 10 medicines will completely regain the money spent on their development. Without patent protection, investing in the discovery of new medicines is all risk and no potential payoff. A billion dollar investment with no hope of return is a risk that we cannot expect even the most altruistic to make.

EU-28 export, imports and trade balance in medicinal and pharmaceutical products, 2002-2016 (EUR billion)



B) TRIPs

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs)

Sets down **minimum standards** for many forms of intellectual property (IP) regulation as applied to nationals of other WTO Members

Property rights protected under the TRIPs regulations are:

- **copyright**, covering content producers including performers, producers of sound recordings and broadcasting organizations. ©
- **Copyright terms must extend at least 50 years, unless based on the life of the author.**
- **Copyright must be granted automatically, and not based upon any “formality”, such as registration.**
- **Computer programs must be regarded as "literary works" under copyright law and receive the same terms of protection.**
- **National exceptions are constrained by the Bern three-step test**



The three-step test was first enacted in the 1967 revision of the Berne Convention. It provides:

*"It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works [a] in certain **special cases**, provided that [b] such reproduction **does not conflict with a normal exploitation of the work** and [c] does not **unreasonably prejudice the legitimate interests of the author.**"*

- **geographical indications**, including appellations of origin;

EU quality logos:



**Protected Designation of Origin
PDO**



**Traditional Speciality
Guaranteed - TSG**



**Protected Geographical
Indication – PGI**

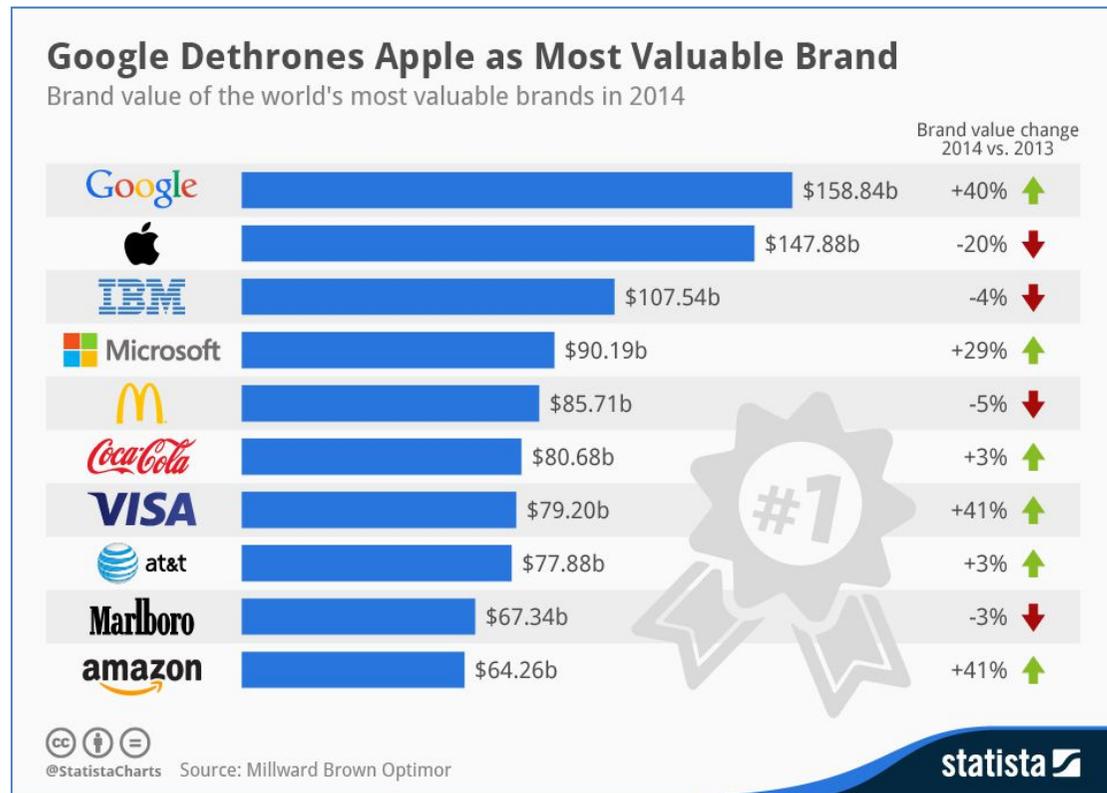
http://ec.europa.eu/agriculture/quality/schemes/index_en.htm

1. TRIPs

- industrial designs;
- integrated circuit layout-designs;
- patents, new plant varieties;

Patents must be enforceable for at least 20 years.

- trademarks;
- trade dress – it is a legal term of art that generally refers to characteristics of the visual appearance of a product or its packaging (or even the design of a building) that signify the source of the product to consumers;
- commercial confidential information.



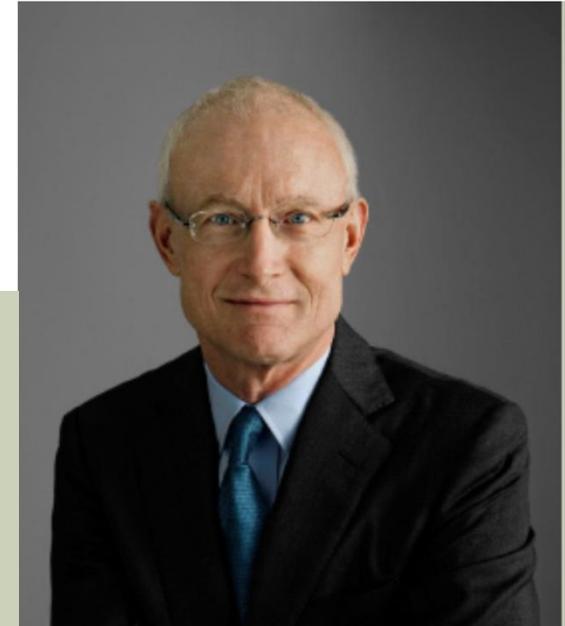
2. Porter's Diamond and international trade

- Michael Porter describes four keys to a nation's competitive advantage in relation to other countries

- Factor Endowments
- Demand conditions
- Related and supporting industries
- Firm Strategy, Structure and Rivalry

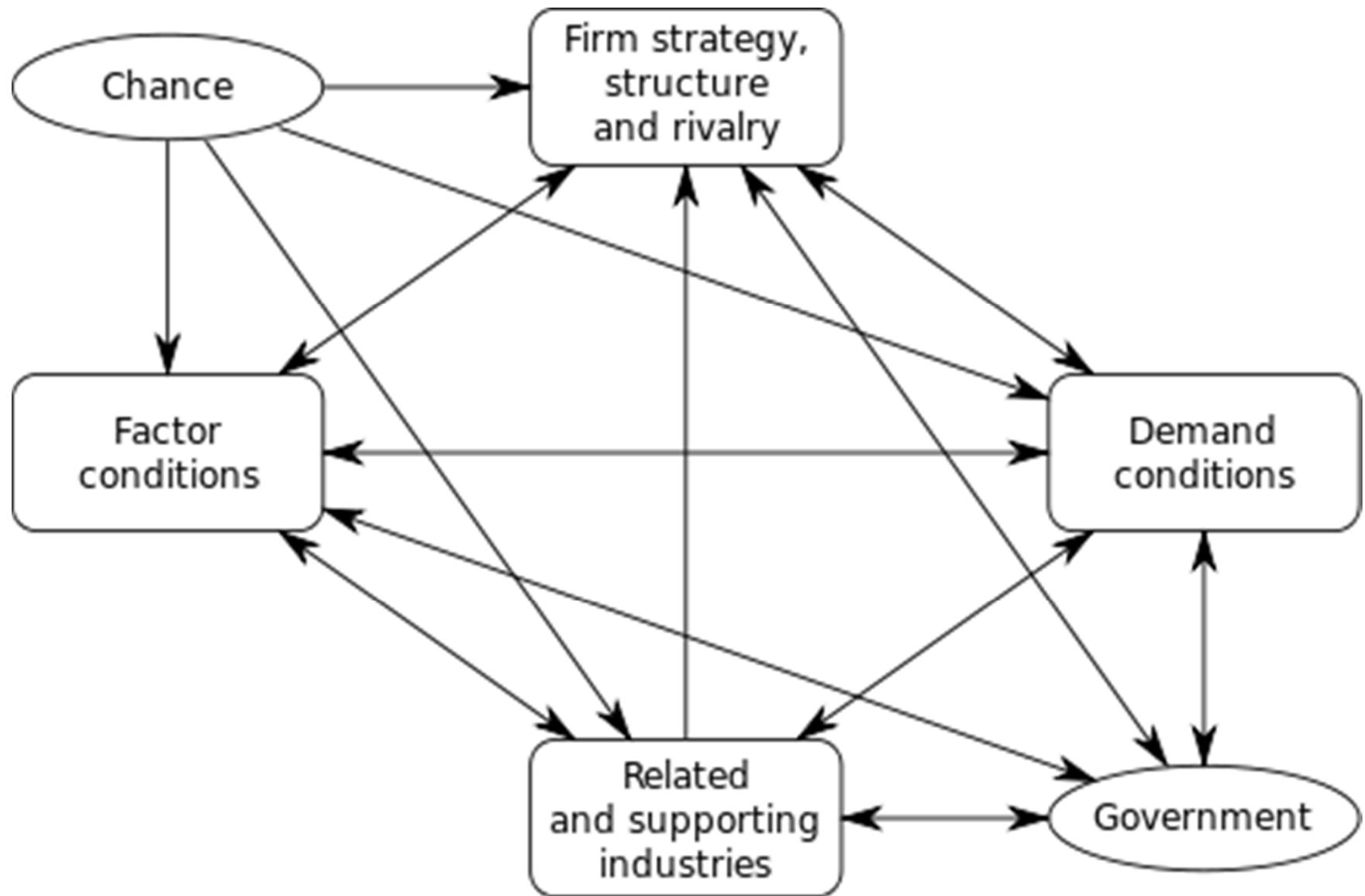
This theory is referred to as "Porter's Diamond"

- BASIC FACTORS - Natural resources, climate, location and demographics
- ADVANCE FACTORS - Communication Infrastructure, skilled labour, Research facilities and so on



**Michael Porter, born 1947
"The Competitive Advantage of Nations"
(1990).**

The book is based on studies of ten nations and argues that a key to national wealth and advantage was the productivity of firms and workers collectively, and that the national and regional environment supports that productivity.



Factor conditions - human resources, physical resources, knowledge resources, capital resources and infrastructure.

Specific resources can be created to compensate for factor disadvantages.

Demand conditions in the home market can help companies create a competitive advantage, when sophisticated home market buyers pressure firms to innovate faster and to create more advanced products than those of competitors.

Related and supporting industries can produce inputs that are important for innovation and internationalization. These industries provide cost-effective inputs, but they also participate in the upgrading process, thus stimulating other companies in the chain to innovate.

Firm strategy, structure and rivalry.

The way in which companies are created, set goals and are managed is important for success. But the presence of intense rivalry in the home base is also important; it creates pressure to innovate in order to upgrade competitiveness.

Government.

It can influence the supply conditions of key production factors, demand conditions in the home market, and competition between firms.

Government interventions can occur at local, regional, national or supranational level.¹

Chance events are occurrences that are outside of control of a firm. They are important because they create discontinuities in which some gain competitive positions and some lose.

- Porter defines a dynamic process of four stages of national competitive development: **factor-driven, investment-driven, innovation-driven** and **wealth-driven**
- The first three involve “successive upgrading of a nation’s competitive advantages and will normally be associated with progressively rising economic prosperity”
- The fourth stage “is one of drift and ultimately decline”

- Some examples of factor conditions:
 - Highly skilled workforce
 - Linguistic abilities of workforce
 - Rich amount of raw materials
 - Workforce shortage

| Driver of Development | Source of competitive advantage | Examples |
|-----------------------|---|--|
| Factor Condition | <ul style="list-style-type: none"> •Basic factors of production i.e., Natural Resources, Geographic Locations, Unskilled Labour | CANADA, AUSTRALIA, SINGAPORE, SOUTH KOREA before 1980 |
| Investment | <ul style="list-style-type: none"> •Investment in Capital equipment. •Transfer of technology. •Presence of national consensus in favour of investment over consumption | JAPAN during 1960's SOUTH KOREA during 1980's |
| Innovation | All four determinants of national advantage interact to drive the creation of new technology | JAPAN since late 1970's ITALY since early 1970's |
| Wealth | Emphasis on managing existing wealth Competitive Advantage | UK during post war period USA Switzerland since 1980 |

COMPETITIVE ADVANTAGES OF SOME COUNTRIES

DENMARK

agricultural machinery
 building maintenance services
 consultancy engineering
 dairy products
 food additives
 furniture
 industrial enzymes
 pharmaceuticals
 specialty electronics
 telecommunications
 waste treatment

ITALY

ceramic tiles
 dance club and theater equipment
 domestic appliances
 engineering/construction
 factory automation equipment
 footwear
 packaging and filling equipment
 ski boots

KOREA

apparel
 automobiles
 construction
 footwear
 pianos
 semiconductors
 shipbuilding
 steel
 travel goods
 video and audio recording tape
 wigs

GERMANY

automobiles
 chemicals
 cutlery
 eyeglass frames
 harvesting/threshing combines
 optical instruments
 packaging, bottling equipment
 pens and pencils
 printing presses
 rubber, plastic working machinery

COMPETITIVE ADVANTAGES OF SOME COUNTRIES

SINGAPORE

- airlines
- apparel
- beverages
- ship repair
- trading

SWITZERLAND

- banking
- chocolate
- confectionery
- dyestuffs
- fire protection equipment
- freight forwarding
- hearing aids
- heating controls
- insurance
- marine engines
- paper product manufacture
- pharmaceuticals
- surveying equipment
- textile machinery
- trading
- watches

SWEDEN

- car carriers
- communication products for handicapped people
- environmental control equipment
- heavy trucks
- mining equipment
- teller-operated cash dispensers
- newsprint
- refrigerated shipping
- rock drills
- semihard wood flooring

JAPAN

- air-conditioning
- machinery
- home audio equipment
- car audio
- carbon fibers
- continuous synthetic weaves
- facsimile
- forklift trucks
- microwave and satellite communications equipment
- musical instruments
- optical elements and instruments
- robotics
- semiconductors
- sewing machines
- shipbuilding
- tires for trucks and buses

UNITED STATES

- advertising
- agricultural chemicals
- commercial aircraft*
- commercial refrigeration and air-conditioning
- computer software
- construction equipment
- detergents
- engineering/construction
- motion pictures
- patient monitoring equipment
- syringes
- waste management services

Criticism

- Porter's theory does not explain economic cycle and economic crisis.
- It is too static, therefore does not explain some of the big changes in the global economy, for example the rapid economic growth of China and some other South-Asian countries.
- Porter's theory is difficult to be used for forecasting the processes in the global economy. For example, Porter predicted that Singapore will remain a factor-driven economy, but in fact it is now one of the most famous innovation-driven economies.
- It is too subjective, based more on experts' opinions, not on statistical driven models.
- It is too eclectic. It is a mix of microeconomic and macroeconomic ideas.
- **Nevertheless, it is a very important instrument in the decision-making process.**

3. Global Competitiveness Index and Global Competitiveness Report

The twelve pillars of competitiveness

- 1. Institutions;**
- 2. Infrastructure;**
- 3. Macroeconomic environment**

The government cannot provide services efficiently if it has to make high-interest payments on its past debts. Running fiscal deficits limits the government's future ability to react to business cycles. Firms cannot operate efficiently when inflation rates are out of hand. In sum, the economy cannot grow in a sustainable manner unless the macro environment is stable.

- 4. Health and primary education;**
- 5. Higher education and training;**

The twelve pillars of competitiveness



6. Goods market efficiency

Healthy market competition, both domestic and foreign, is important in driving market efficiency, and thus business productivity, by ensuring that the most efficient firms, producing goods demanded by the market, are those that thrive.

7. Labor market efficiency

Labor markets must have the flexibility to shift workers from one economic activity to another rapidly and at low cost.

8. Financial market development

Business investment is critical to productivity. Therefore economies require sophisticated financial markets that can make capital available for private-sector investment from such sources as loans from a sound banking sector, well-regulated securities exchanges, venture capital, and other financial products.

9. Technological readiness

The technological readiness pillar measures the agility with which an economy adopts existing technologies to enhance the productivity of its industries, with specific emphasis on its capacity to fully leverage information and communication technologies (ICTs) in daily activities.

10. Market size

11. Business sophistication

The quality of a country's business networks and supporting industries, as measured by the quantity and quality of local suppliers and the extent of their interaction, is important for a variety of reasons. When companies and suppliers from a particular sector are interconnected in geographically proximate groups, called *clusters*, efficiency is heightened, greater opportunities for innovation in processes and products are created, and barriers to entry for new firms are reduced.

12. Innovation

Basic requirements – pillars 1,2,3,4

Efficiency enhancers – pillars 5,6,7,8,9,10

Innovation and sophistication factors – pillars 11,12

Table 1: Subindex weights and income thresholds for stages of development

| | STAGE OF DEVELOPMENT | | | | |
|--|---------------------------|---------------------------------------|-------------------------------|---------------------------------------|-------------------------------|
| | Stage 1: Factor-driven | Transition from stage 1 to stage 2 | Stage 2: Efficiency-driven | Transition from stage 2 to stage 3 | Stage 3: Innovation-driven |
| GDP per capita (US\$) thresholds* | <2,000 | 2,000–2,999 | 3,000–8,999 | 9,000–17,000 | >17,000 |
| Weight for basic requirements | 60% | 40–60% | 40% | 20–40% | 20% |
| Weight for efficiency enhancers | 35% | 35–50% | 50% | 50% | 50% |
| Weight for innovation and sophistication factors | 5% | 5–10% | 10% | 10–30% | 30% |

* For economies with a high dependency on mineral resources, GDP per capita is not the sole criterion for the determination of the stage of development. See text for details.

Table 2: Classification by each stage of development

| Stage 1: Factor-driven (35 economies) | Transition from stage 1 to stage 2 (17 economies) | Stage 2: Efficiency-driven (30 economies) | Transition from stage 2 to stage 3 (19 economies) | Stage 3: Innovation-driven (37 economies) |
|---|---|---|---|---|
| Bangladesh | Algeria | Albania | Argentina | Australia |
| Benin | Azerbaijan | Armenia | Barbados | Austria |
| Burundi | Bhutan | Bosnia and Herzegovina | Chile | Bahrain |
| Cambodia | Bolivia | Brazil | Costa Rica | Belgium |
| Cameroon | Botswana | Bulgaria | Croatia | Canada |
| Chad | Brunei Darussalam | Cape Verde | Hungary | Cyprus |
| Congo, Democratic Rep. | Gabon | China | Latvia | Czech Republic |
| Côte d'Ivoire | Honduras | Colombia | Lebanon | Denmark |
| Ethiopia | Kazakhstan | Dominican Republic | Lithuania | Estonia |
| Gambia, The | Kuwait | Ecuador | Malaysia | Finland |
| Ghana | Mongolia | Egypt | Mauritius | France |
| India | Nigeria | El Salvador | Mexico | Germany |
| Kenya | Philippines | Georgia | Oman | Greece |
| Kyrgyz Republic | Russian Federation | Guatemala | Panama | Hong Kong SAR |
| Lao PDR | Ukraine | Indonesia | Poland | Iceland |
| Lesotho | Venezuela | Iran, Islamic rep. | Saudi Arabia | Ireland |
| Liberia | Vietnam | Jamaica | Slovak Republic | Israel |
| Madagascar | | Jordan | Turkey | Italy |
| Malawi | | Macedonia, FYR | Uruguay | Japan |
| Mali | | Montenegro | | Korea, Rep. |
| Mauritania | | Morocco | | Luxembourg |
| Moldova | | Namibia | | Malta |
| Mozambique | | Paraguay | | Netherlands |
| Nepal | | Peru | | New Zealand |
| Nicaragua | | Romania | | Norway |
| Pakistan | | Serbia | | Portugal |
| Rwanda | | South Africa | | Qatar |
| Senegal | | Sri Lanka | | Singapore |
| Sierra Leone | | Thailand | | Slovenia |
| Tajikistan | | Tunisia | | Spain |
| Tanzania | | | | Sweden |
| Uganda | | | | Switzerland |
| Yemen | | | | Taiwan, China |
| Zambia | | | | Trinidad and Tobago |
| Zimbabwe | | | | United Arab Emirates |
| | | | | United Kingdom |
| | | | | United States |

4. Global Competitiveness Report

2016–2017 rankings

[Switzerland](#) 5.81 (—)
[Singapore](#) 5.72 (—)
[United States](#) 5.7 (—)
[Netherlands](#) 5.57 (+1)
[Germany](#) 5.57 (-1)
[Sweden](#) 5.53 (+3)
[United Kingdom](#) 5.49 (+3)
[Japan](#) 5.48 (-2)
[Hong Kong](#) 5.48 (-2)
[Finland](#) 5.44 (-2)
[Norway](#) 5.44 (—)
[Denmark](#) 5.35 (—)
[New Zealand](#) 5.31 (+3)
[Taiwan](#) 5.28 (+1)
[Canada](#) 5.27 (-2)

[United Arab Emirates](#) 5.26 (+1)
[Belgium](#) 5.25 (+2)
[Qatar](#) 5.23 (-4)
[Austria](#) 5.22 (+4)
[Luxembourg](#) 5.2 (—)
[France](#) 5.2 (+1)
[Australia](#) 5.19 (-1)
[Ireland](#) 5.18 (+1)
[Israel](#) 5.18 (+3)
[Malaysia](#) 5.16 (-7)
[South Korea](#) 5.03 (—)
[Iceland](#) 4.96 (+2)
[China](#) 4.95 (—)
[Saudi Arabia](#) 4.84 (-4)
[Estonia](#) 4.78 (—)

5. OECD and International Trade

<http://www.oecd.org/trade/>

The Organisation for European Economic Cooperation (OEEC) was established in 1948 to run the US-financed Marshall Plan.

Encouraged by its success and the prospect of carrying its work forward on a global stage, Canada and the US joined OEEC members in signing the new OECD Convention on 14 December 1960. The Organisation for Economic Co-operation and Development (OECD) was officially born on 30 September 1961, when the Convention entered into force. Headquarters is in Paris.

Main Topics:

- ✓ **Benefits of Trade Liberalization;**
- ✓ **Services Trade;**
- ✓ **Non-tariff measures;**
- ✓ **Trade facilitation;**
- ✓ **Environment and Trade;**
- ✓ **Trade and Development**
- ✓ **Trade in Counterfeit and Pirated Goods**



OECD has 35 member States: 22 EU Member States (all except Bulgaria, Romania, Croatia, Lithuania, Malta and Cyprus) **+ 4 non-EU European countries (Turkey, Switzerland, Norway, Iceland) + 3 NAFTA Member States (USA, Canada and Mexico) + Japan, South Korea, Australia, New Zealand, Israel and Chile.**

29 of them are innovation-driven and 6 in transition from efficiency-driven to innovation-driven economies.

Some results:

https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/Mapping_the_Economic_Impact_study/Mapping_the_Economic_Impact_en.pdf

Trade in counterfeit and pirated goods amounted to up to 2.5 % of world imports in 2013 (\$ 475 billion).

This was even higher in the EU context where counterfeit and pirated goods amounted to up to 5 % of imports (\$ 300 billion).

