Introduction and foreword
World Economy and International Markets

The world economy and current international markets constitute a "whole" compound of nearly two hundred interlinked national economies; a network of countries, markets, sectors and populations, as well as entities, standards, and international organizations that we call, generically, "institutions".

In order to study world economy, with a vision focused on the pursuit of economic development, we use the term "structure" to highlight these multiple interrelations; with an approach that seeks to identify and analyse more permanent, "structural" characteristics.

To study the different national economies that make up the structure of these markets we need the series of tools and basic techniques presented in this manual. They include indicators and economic ratios, national accounts and macroeconomic pictures.

Although the structural and most permanent analysis of international business tends to reflect the stronger of these features, its convergence with short-term changes and trends is unavoidable; hence the need to understand and analyze the main indicators in the different national markets.

Economic indicators. Economic indicators are simple values that provide information about specific aspects of an economy in a given period of time. We can group them by *blocks of indicators.*

Production indicators (indices of agricultural production, livestock, industry, services and others). **Labour market indicators** (such as the number of affiliates to the Social Security, the registered unemployment, or the survey of the active population). **Indicators of wages and prices** (such as the consumer price index, the CPI, or industrial prices). **Demand indicators** related to private consumption (such as retail sales), public consumption (refers to the public administration, such as wages paid to public sector workers), investment or gross capital formation (purchases of machinery and equipment), and exports and imports (listed in the foreign trade statistics). **Indicators of the monetary and financial situation** (such as interest rate levels or the growth of credit to businesses, families or the public sector).

By tracking these indicators we can obtain relatively long time series which make it possible to deduce trends and behaviors. These time series are the succession of values of an economic magnitude of constant definition over time. Such monitoring is necessary to the extent that economies evolve in time seasonally and experience more or less intense fluctuations. Although such fluctuations, called cycles, are not regular, they recur and may have comparable intensity.

We talk about cycles only when the duration of fluctuations is greater than one year. Lower amplitude movements are usually seasonal (such as the sale of cement in winter) or specific variations (an increase in the price of oil, for example). According to duration, cycles can be divided into: 1) short cycles, between three and five years, which often coincide with the political and electoral cycles in developed countries; (2) medium cycles, between seven and ten years; (3) long cycles, called *Kondratieff*, of 40 years or more.

When assessing the evolution of each indicator we must take into account what is known as the **reference cycle**. This reflects the cyclical developments in the economy as a whole, and it can be compared with the cycles of each indicator. If an indicator has regular cycles with minimum and maximum points about three months ahead of the corresponding points of the reference cycle, it is an **advanced** indicator (e.g. the consumption of electrical energy). **Retarded indicators** are those in which the cycles take place about three months after the reference cycle. The remaining are **coincident** indicators (e.g. industry order-book levels).

In the so-called "classic cycle", GDP or income level decreases in the contraction phase (as happened in the US in 1929, 1973, 1993, or 2009). This is usually followed by a phase of recovery or expansion, which reaches a maximum or peak, to be succeeded by a phase of contraction or recession, with a minimum or valley. In the so-called "growth cycle", in the contraction phase the GDP does not decrease. It may grow more or less but it never falls.

Despite the temporary or "cyclical" nature of many indicators, we must highlight the need to study them, as some of those "short-term" variables in many countries have become permanent or "structural" problems (public deficit, debt, inflation, unemployment, etc.) In such cases, a normal development of markets of goods and services is impossible, preventing any chance of economic development; hence the need to undertake the so-called "structural reforms".

Structural or economic ratios are expressed as relationships between two or more economic variables, usually measured in percentage terms. They indicate

the more permanent characteristics of national economies. The most important are public deficit and public debt (which are defined later), tax burden, the external trade openness coefficient, investment rates, exports to imports ratio, propensity to consumption or to import, and others, which could be more or less useful in providing specific features, depending on each market.

Also the "*natural base*" or "physical infrastructure" (in the terminology of Professor Perpiñá Grau) can facilitate or hinder economic development and starts with the spatial or geographic location, and the possibility to enjoy locational advantages. The size of the internal market, which conditions the possibility to exploit economies of scale, is another important factor. Other elements are the determinants of agricultural productivity, the costs of transportation and water resources, climate, orography and hydrography, and, finally, soil, vegetation and the subsoil, in terms of fertility and eventual mineralogical potential.

Some nations, however, such as Switzerland, Spain or Japan, had an adverse "natural base" for the development of productive activities. Complicated communications, poor subsoil or decompensated climatology require very high levels of investment and accumulation of capital to remedy the "natural base" disadvantages. Building communication infrastructures, tunneling through mountains, constructing dams, building bridges and ports, reforesting or improving the environment, require vast accumulations of inter-generational savings.

Macroeconomic pictures represent a synthesis of the national accounts, and in this sense we could say that a macroeconomic picture is nothing more than an ordered set of data that allows us to know the main characteristics and magnitudes of the economy. They always include two or more past years and some forecasts. They are presented and included in the annual government budgets in most countries. Macroeconomic pictures can be used, among other things:

- As a summary and synthesis of the economic situation of a country; something like the ID, or the balance sheet of a company.

- To reveal the relationships that exist between the different economic variables.

- As a tool to analyze the economic development process of a country during certain years or in comparison with other countries during the same period.

- As a model of the economic reality that allows us to make simulations of the reactions in some variables as a result of changes in others.

- In many countries they are used to replace the national accounts, which are more complex.

Macroeconomic pictures provide information:

1. *On the demand side:* offering information about domestic demand (private consumption, public consumption and gross capital formation) and the external balance (exports minus imports).

2. *On the supply side:* indicating the sectoral composition of GDP so we can know how much each sector (agricultural, industrial and services) contributes to GDP. Some differential sub-sectors may appear for specific reasons: thus «construction» may be included in the industrial sector and «tourism» within services, for example.

Adding the information from the demand and the supply side we get GDP. Its evolution and growth rate will depend on the variables that influence it.

The macroeconomic picture is often accompanied by other indicators considered basic for the knowledge of the economy, such as public deficit, GDP per capita, productivity, or others.

Economic development determinants. In this course we will identify the impediments that hinder the processes of sustainable growth of countries, and therefore the development of markets that meet their needs. By "sustainable" we mean that they can be maintained in the long term, for future generations. In this sense, the new objectives (post 2015) of the United Nations Millennium Development Goals, fixed for 2030, declared a set of 17 goals through 169 indicators.

If we were to synthesize the key variables for the economic development of any country, apart from the strengthening of the institutions, we could identify ten:

1) Price stability. It is a necessary condition, but is not sufficient, for the development of countries. Inflation runs as an invisible tax that discourages saving and creates uncertainty about the investment process. The central bank of each country is the key institution to control inflation.

2) Control of public deficit. The public deficit relates (with respect to GDP) the difference between income and expenditure of the public sector.

$$\text{Public deficit indicator} = (\text{Income} - \text{Expenditure}) / \text{GDP} \times 100$$

A growing government deficit restricts credit and the capacity of investment of families and businesses.

3) Control of public debt. It is also measured as a percentage of GDP. A high indebtedness of countries, through successive deficits, loans and state bonds, increases financial expenses and interest rates. It is particularly harmful for economic growth if the debt is used for unproductive ends.

$$\text{Debt ratio} = \text{Debt} / \text{GDP} \times 100$$

If the borrowing necessity is covered through foreign savers, the country will experience even more limitations, as happened after 2010 in Greece, causing a default, which will cause international sources of liquidity to disappear. Both high public deficit and public debt will carry interest rates upward, making credit, investment, consumption and exports still more difficult.

4) Legal certainty. The existence of a stable legal framework which is agile and reliable, along with an independent court of justice, generates the confidence that social and economic agents need to enable the development of countries. The simple creation and existence of property records (non-existent in many countries), is another *sine qua non* condition for the development of markets.

5) To promote the agricultural sector. There is no country that has come to be developed without starting from accumulations of capital and savings arising from its agricultural sector. The search for productivity gains and the tendency to achieve self-sufficiency are especially critical in the first stages of development; hence the importance of promoting and regulating agriculture.

6) Reliable statistical institutes which make it possible to analyze the economic situation of countries, and compare their evolution though time and with other markets. The lack of such solvent statistical data in many countries is an added difficulty for economic development.

7) Education and renowned academic centers. Bribes and the possibility of buying and selling academic titles in developing countries constitute another impediment to economic development. The lack of reputed centers or mechanisms to generate and select a ruling class able to lead the processes of economic growth successfully has similar effects.

8) Indicator of corruption. This indicator is becoming increasingly important. It is used by the international debt rating agencies more than by the United Nations, and is a determinant of good governance and the accountability of public administrations.

9) The institutional role of women. It is also relevant to determinate the potential and degree of economic development. If a country marginalizes a part of its potential active population it will be in a worse position to escape from poverty or to overcome underdevelopment. A good example was the case of Ataturk, father of modern Turkey, who passed the European Civil Code establishing the equality of women, eliminating polygamy, the right of repudiation, the compulsory use of certain garments and the ban on training for women.

10) Values. Understood as a set of traditions, usages, religion and manners of a population or a particular country. Values are intangibles that influence the settings of each economy. Thus the possible prohibition or not in a market of eating a specific product has consequences in the development of the sector of activity and therefore, on the economy as a whole (living standards and income of its inhabitants). The Bible is full of references or incentives of an economic nature, such as the talents, that of the tree that bears no fruit and is thrown into the fire, and many others. Values related to the family also determine different degrees of social cohesion and the propensity to save or to make unproductive expenditure. In the end, values generate different incentives on individual behaviors.

Remember, finally, the School of Salamanca. As Cellorigo Gonzalez said in his "Memorial of the necessary policy, (1600),"gold does not support States, nor is the wealth of them". In the global economy we can identify rich countries (in terms of raw materials or natural resources) but with poor people and small domestic markets; and countries with poor natural resources (Japan, Switzerland, Spain) with rich people and large markets. We can say, finally, that the development of international markets and countries has been compared with the ascent of a mountain. There is no direct route of ascent; what is necessary is to have a clear idea of the general orientation and tactics to be adopted, discarding mistaken paths which would be costly to have to repeat and imply many lost years or decades in terms of development.

We hope that this text, produced thanks to the efforts of professors Gonzalo Sanz-Magallón, Gregorio Izquierdo Llanes, José Terán, Graham Jones, José María Larrú, and Margarita Núñez, will help you to understand and analyze the structure of international markets, and to identify the measures to promote their development, identifying "obstacles" to be removed –using Jovellanos term– and the structural reforms to be tackled.

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Economic development

1. The definition of economic development

Development must always be seen from a particular temporal and spatial perspective. *In practice, the fact that development is a relative concept requires us to quantify this phenomenon to carry out both temporal and spatial comparisons.* Although development can be quantified using different indicators, a developed country is one which has undertaken the economic and social changes that allowed it to leave the situation of low income and reduced standard of living that characterizes underdevelopment. In this way, we can distinguish between *the phenomenon of "economic growth" (quantitative), understood as the actual increase in product or income, and "economic development" (a qualitative phenomenon), considered to be the structural transformation that improves the modes of production and the standard of living of a certain economy.* Finally, a new conception of economic progress, defined as "**sustainable development**", was introduced in the 1990s. According to the World Bank, sustainable development is the growth rate that can be extended indefinitely in time, to the extent that does not degrade or exploit the environment, or produce excessive income inequality.

The economic growth rate of a country is usually calculated by comparing the production obtained in two periods. From the point of view of economic development, more important than growth itself, which is a cyclical phenomenon resulting from the comparison between two periods, is the income generated. In general, countries with lower income per head tend to grow at higher rates than countries with higher income, but this certainly does not mean that the former are more developed than the latter.

Table 1. The 15 major economies of the world

	Population	Population density	Gross national income	Gross national income per capita	GDP	
	Million	People per km2	Billion $	$	Var. %	% Var. per capita
United States	318.9	35	17,601.10	55,200	2.4	1.6
China	1,364.30	145	10,069.20	7,380	7.4	6.8
Japan	127.1	349	5,339.10	42,000	-0.1	0.1
Germany	80.9	232	3,853.50	47,640	1.6	1.3
France	66.2	121	2,851.70	43,070	0.2	-0.2
United Kingdom	64.5	267	2,754.10	42,690	2.6	1.9
Brazil	206.1	25	2,375.30	11,530	0.1	-0.7
Italy	61.3	209	2,102.80	34,280	-0.4	-2.2
India	1,295.30	436	2,035.90	1,570	7.4	6.1
Russian Federation	143.8	9	1,930.40	13,210	0.6	-1.1
Canada	35.5	4	1,836.90	51,690	2.5	1.4
Australia	23.5	3	1,519.40	64,680	2.5	0.9
Spain	46.4	93	1,395.90	29,940	1.4	1.9
Korea, Rep.	50.4	517	1,365.80	27,090	3.3	2.9
Mexico	125.4	65	1,235.70	9,860	2.1	0.8

Source: Own elaboration from the *World Development Indicators* (2015), World Bank. Note: all data refer to 2014.

Income is usually an incomplete indicator to measure economic development, since a high level of income in absolute terms may be due to the fact that the country has a high number of inhabitants, but they do not enjoy a high level of income. That is the case, for example, of China and India. To avoid this problem absolute income must be compared with the population that generates it. This calculation is called *per capita income. Depending on the level of income per capita at a given time the country will be considered undeveloped or developed.* For these purposes, the World Bank identifies four groups of countries:

a) low income (up to 1,045$),

b) low median income (from 1,046$ to 4,125$),

c) high median income (from 4,126$ to 12,735$) and

d) high income (12,736$ or more).

Only countries included in the high-income group and some in the medium-high group are considered as developed. It is important to note that developed countries are responsible for 68% of world production, but they only represent 19% of the world's population, while low-income countries, which represent 8% of the world's population, only generate 0.5% of world income.

Table 2. The distribution of world income

Groups of countries	Threshold of income	Population 2014 (mill.)	GNP 2014 ($m.mill.)	Population (%)	Income (%)
Low income	PNBpc<1.045$	622	389	8,6%	0,5%
Mid-low income	1.046$<PNBpc< 4.125$	2.879	5.793	39,7%	7,4%
Mid-upper income	4.126$<PNBpc< 12.735$	2.361	18.586	32,5%	23,7%
High income	12.736$<PNBpc	1.399	53.597	19,3%	68,4%
World		7.261	78.365	100,0%	100,0%

Source: Own elaboration from World Development Indicators Database (2015), World Bank.

*Although **per capita income** is the most common development indicator, it presents several **defects** or biases that can lead to erroneous conclusions.* First, there are many statistical shortcomings concerning both income and the censuses used to calculate this indicator. Statistics of most underdeveloped countries tend to be of low technical reliability, if not non-existent. In addition, in the calculation of GDP, items such as the consumption of non-renewable resources, which would lower it, are not considered. There is also a bias due to the existence of the black or illegal economy (which is often underestimated, since the agents involved in it make it difficult to record, breaching their accounting obligations, tax, census, etc.), or the informal economy (carried out on the fringes of the market, with the occasional use of barter and subsistence-oriented activities).

Also, income per capita may reflect the reality of a country poorly when the **distribution of income is highly unequal**. The distribution of income is usually represented graphically with the **Lorenz curve**, which relates the percentage of income obtained with a given percentage of the population, and is quantified with the **Gini index.** The Gini index varies between 0 and 1. The lower the value, the more equitable is the income distribution of the country.

Illustration 1. Example of a Lorenz curve
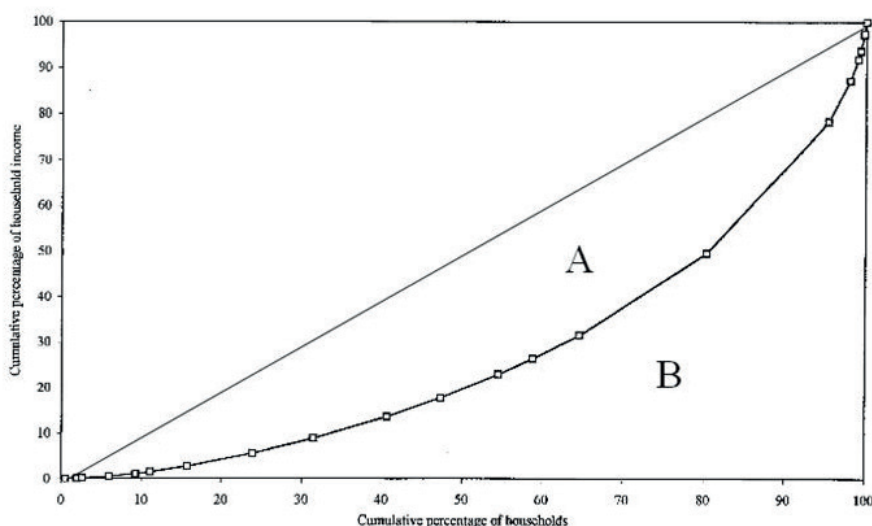
Gini index: A / A+B; (0,1) 0= perfect distribution

For international comparisons, per capita income figures must be converted into a common currency, such as the dollar or the euro. The problem of a possible distortion of the figures here arises insofar as the exchange rate does not reflect the relative purchasing power of currencies. This difficulty is often overcome with the use *purchasing power parities* (PPP) as a conversion factor. The PPP is calculated from the ratio of the prices of the goods in the country and the prices of these goods in the international markets. In general, the poorest countries have a greater purchasing power with their own currency at home than abroad.

As, in some cases, income per capita does not reflect development or the relative standard of living in different countries properly, **complementary development indicators** are often used. The possibilities are numerous: the relative importance of the industrial sector, the availability of more expensive consumer

goods (cars, phones, appliances...), the degree of urbanization, demographic rates, the level and quality of the nutritional, health and educational conditions, etc.

In this way, the United Nations development program began to build a synthetic index of development known as 'the human development index'. The **human development index (HDI)** measures the average progress made by a country in three basic dimensions of human development: the enjoyment of a long and healthy life, access to education and standard of living. It is based on the weighted use of alternative development indicators: per capita income, measured in terms of purchasing power parities, and health and educational level. Other indexes prepared by the United Nations are:

- **Inequality-adjusted human development index (I-HDI).** This index adjusts the HDI with the inequality in the distribution of income and other dimensions among the population. The I-HDI gives an account of inequalities in the dimensions of the HDI "discounting" the average value of each dimension according to its level of inequality. The I-IDH will be identical to the HDI if there is perfect equality between people, but it falls below the HDI as inequality appears. In this sense, the inequality-adjusted HDI is the real level of human development (considering inequality), while the HDI can be seen as an index of "potential" human development that could be achieved if there were no inequality. The 'loss' in human development potential due to inequality is given by the difference between the HDI and the I-IHD and can be expressed in percentage terms.

- **The gender inequality index (GII)** reflects the disadvantages experienced by women in three dimensions: reproductive health, empowerment and the job market. The index shows the loss in human development due to the inequality between the achievements of women and men in these dimensions. It varies between zero, when women rate as well as men, and 1, when women do as badly as possible in all measured dimensions.

- The **index of multidimensional poverty (IMP)** identifies multiple individual deprivation in education, health and living standards. This index uses microdata from household surveys and, unlike the inequality-adjusted human development index, all the indicators needed to build the index must come from the same survey. Each person in a given household is classified as poor or not, depending on the amount of hardship in his/her family. These data are then added to obtain an indicator of national poverty.

2. The brakes on development

2.1. Lack of capital

The availability of factors of production (capital and labour) limits the potential economic growth. A country can grow (quantitative phenomenon) incorporating additional units of production inputs, especially labour, but to be considered economic development (qualitative phenomenon), it is necessary for productivity to increase**,** since it is the consequence of rising efficiency in the use of available resources, and allows workers' incomes and spending power to increase. The increase in **total factor productivity** (**TFP**) is identified with the production rises not explained by the increase in the number of employed factors, but for other reasons, such as technological advance incorporated into the new equipment, the improvement of public infrastructure, economies of scale, human capital, or the reallocation of production factors from some activities to others. All these circumstances contribute to economic development, but are difficult to promote in underdeveloped countries.

Financing of investment can be done internally, by using national savings, or externally. Capital flows from abroad are a driving factor for economic development. The arrival of foreign capital depends on the profitability offered. This profitability is at the same time a cause and effect of economic development, since it tends to be accompanied by the creation of an institutional framework and the macroeconomic stability that characterizes the more prosperous countries. The best alternative is obtaining foreign resources through exports. These, however, do not usually abound in the initial phases of underdevelopment, especially if there is a lack of a generous endowment of natural resources that will allow the country to export primary resources.

In practice, domestic savings tend to become the main source of financing for investment in a country in the early stages of development. The level of savings limits the level of the investment, given the reduced quantitative importance of the inflow of foreign capital. The problem is that with the low level of income in underdeveloped countries, the inhabitants are forced to devote a high percentage of their income to buy basic needs (such as food and housing), thus leaving very limited possibilities for saving. This low saving capacity limits the level of investment and capital stock available per worker, with the consequence of the reduction of productivity and income, generating a "**vicious circle of poverty**" or "**poverty trap**".

Illustration 2. The vicious circle of poverty
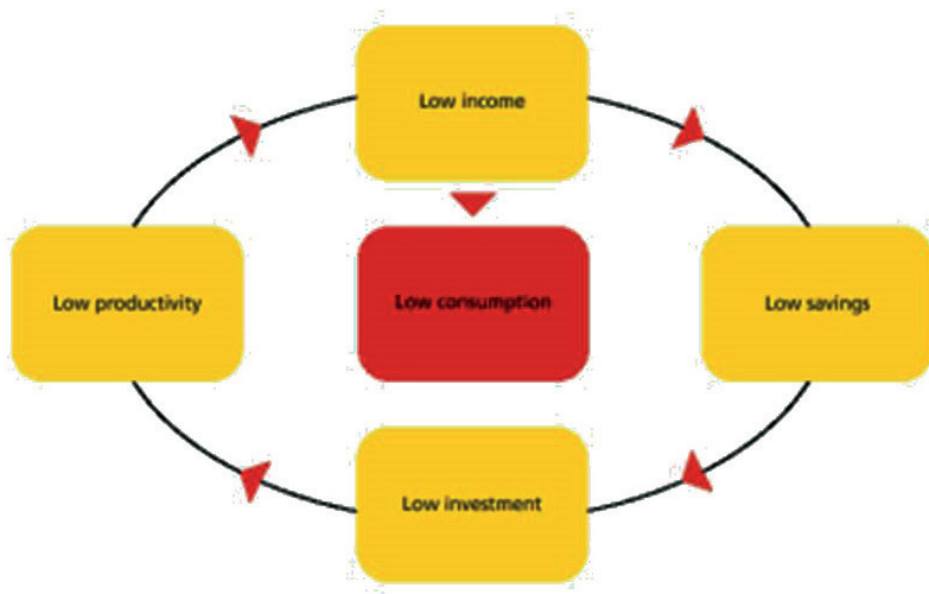
Developing countries tend to have deficiencies in their economic infrastructures that have become bottlenecks for their economic development. The gaps in the basic infrastructures of transport, communications and energy fragment markets. This situation makes production more expensive than other competitors and isolates them from the outside. Another widespread problem is the lack of housing with such basics as running water, electricity or sanitation. Strong population growth and migration to cities generate the proliferation of substandard housing.

2.2. The problem of the population explosion and the unequal distribution of income

The explosive population growth experienced by developing countries often becomes a drag on economic development. The increase of the population, made possible by the reduction of mortality rates, hinders the growth of per capita income and creates conditions conducive to situations of political instability and poverty traps. *The population of the countries with the lowest level of development usually grows at high rates as a result of the delay between the fall of mortality and the subsequent adjustment of birth rates.* The increase of the country's income improves the delivery of basic food and healthcare, which in turn reduces the mortality rates (general and children).

Population growth hinders the increase of income per capita, since a very young population pyramid raises dependency rates, thus retarding economic growth and preventing education and training development from spreading. The distribution of income and wealth in developing countries tends to be very uneven, which reduces the possibilities of development. Although long-term economic development tends to lead to a more uniform distribution of income within a society, in the initial moments of take-off there may be temporary increases in inequality in favor of groups that have scarce production factors, such as, for example, the more skilled human capital, entrepreneurship, or productive capital.

Although, in general, savings increase with income, when they are concentrated in few individuals the situation is not so clear. The richest families do not have incentives to increase their wealth (as they are already the richest) and they tend to copy the consumption patterns of the wealthiest groups of rich countries (consumption imitation), spending above their possibilities. The situation is different when the increase of income allows the creation of an extended middle-class, since this generates higher levels of savings, as families try to keep intertemporal consumption levels relatively constant over time, and make investments that allow them to improve their relative economic level through human and financial capital.

Various international conferences on **population and development** have taken place within the framework of the **United Nations** in order to reconcile both issues. In 1974 the World Population Conference took place in Bucharest, and in 1984 there was another conference in the city of Mexico. Both emphasized the need to strengthen preventive family planning in underdeveloped countries. Subsequent conferences in Cairo (1994) and New York (1999) tried to balance the recognition of individual human rights and the right of nations to development, with full respect for the various religious and ethical values and cultural backgrounds of people.

Among its principles the UN has pointed out that the population is the most important and valuable of all a nation's resources and that the right to development must be exercised in order to meet the needs of the population and the development and environment of present and future generations equitably. In accordance with these principles, they declared the need to promote equity of gender, as well as the training of women and the elimination of all forms of violence against them, assuring that women have control of their own fertility. The basic right of all couples and persons to decide freely and responsibly the number and spacing of the births of their children, and to have the information, education and the means to implement such decisions, highlighting the need to **strengthen the role of the family** as the basic unit of society were also reaffirmed.