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## A Case Study on the Development of Social Indicators Model: The Assessment of the Effects of Italy's Membership in the EEC on the Quality of Life

Lia T. Vasconcelos

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A CASE STUDY ON THE DEVELOPMENT  
OF

SOCIAL INDICATORS MODEL:

The assessment of the effects of Italy's membership  
in the EEC on the quality of life.

A RESEARCH PROJECT SUBMITTED IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF  
COMMUNITY PLANNING

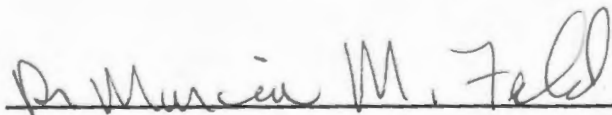
UNIVERSITY OF RHODE ISLAND

1982

MASTER OF COMMUNITY PLANNING  
RESEARCH PROJECT  
OF  
LIA T. VASCONCELOS

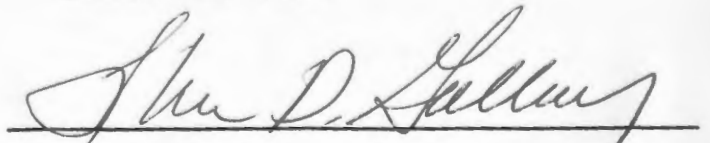
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## VITA

Lia Maldonado Teles de Vasconcelos was born on the 20th of June of 1953 in Maputo, Mozambique. She was awarded in 1977 the diploma in Architecture ('Licenciatura') by the Escola Superior de Belas Artes, Universidade Tecnica de Lisboa, Portugal. Between 1973 and 1977 she worked in the offices of several architects as an Architect practitioner. Upon completion of her Architect studies, the author participated in a research project on Data Bases for Urban Analysis and Town Planning at the Laboratorio Nacional de Engenharia Civil, Lisboa, Portugal. She joined the Graduate Curriculum in Community Planning and Area Development of the University of Rhode Island in 1979. Since then she has participated in several planning projects under the direction of Dr. Marcia M. Feld.

## ACKNOWLEDGEMENTS

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## Chapter I

### INTRODUCTION

#### 1.1 ISSUE STATEMENT

The primary objective of this study is to develop a framework for a social indicators model which can characterize the quality of life at the level of a nation.

Up to a certain extent, the development of such a model is dependent upon the particular application envisaged. For the purposes of illustration, the country of Italy was chosen for the application of the general methodology. The assessment focuses on the impact on the quality of life in Italy resulting from membership on the European Economic Community (EEC).

#### 1.2 METHODOLOGY

The basic methodology involved in the present study concerns the choice of socio-economic indicators. Thus, the methodology requires certain assumptions be established for the social system under consideration. Using the techniques developed and described in the literature of social indicator theory, indicators are chosen in relation to basic human needs (nutrition, shelter, health, safety,

leisure) and general human expectations (education, communication, culture).

For the application considered, data on the indicators to be chosen are collected for two separate periods, one prior to, and, the other subsequent to, the entrance of Italy in the EEC. The time periods considered are 1950-1959 and 1960-1969; this choice was based on two major factors: first, the inclusion of the period of the Second World War or of the immediately following years is not appropriate because of the very special impact that the War had on the life conditions in Europe; second, there are limitations on the availability of time for data collection, especially because social indicators were not satisfactorily developed and systematized. One must be aware of the limitations that result from these factors: the periods are too short to provide an irrefutable characterization of general trends; they remain (and unequally so) under the influences of the post-war special characteristics; and, the effects of the policies resulting from the entrance of Italy to the EEC were mostly long range and therefore can only be adequately assessed after a considerable period of time. However, even with these limitations, important information can be provided relative to the objective of the study.

### 1.3 SIGNIFICANCE OF THE APPLICATION CHOSEN

The determination of the impact of EEC membership on the quality of life of the population of a country is a most important problem at the present time. Most of the studies of this subject are based strictly on economic and political factors. It is, therefore, of considerable importance to assess directly, by social indicators, the effects on the quality of life in the country.

The proposed application is of particular interest at a time when two countries, Portugal and Spain, are seeking membership, and, a third country, Greece, is going through its beginning years in the Community<sup>1</sup>. Judging from recent European history, the entrance of these countries to the EEC is certain to be the most important factor in both of their socio-economic and political futures.

The three countries above mentioned are situated in Southern Europe and they appear to have structural characteristics more similar to those of Italy than of any other country presently belonging to the Community. The issue is of special interest to the author, a Portuguese citizen, because this study may provide indications useful for the analysis of the potential impact on Portugal relative to her participation in the Community. It is hoped that the results of further elaboration of the model can be employed to analyze the potential for change of quality of life that could be expected should Portugal join the Community, as well as to monitor observed changes following membership.

---

<sup>1</sup> Greece joined the Community in 1981.

#### 1.4 ORGANIZATION OF THE TEXT

The social indicators model developed in the present study is applicable to other countries with some modifications. However, it would be misleading to carry out its application without mentioning the general characteristics of the social, economic and institutional life of both the EEC and Italy, both before, as well as during the time periods chosen for the data analysis. In fact, the understanding of the limitations or drawbacks of such an analysis requires the consideration of the overall situation in the system under analysis. On the other hand, the gathering of data and the understanding of their significance, also requires a certain general knowledge of the socio-economic system being considered. These facts dictated the inclusion of two general chapters providing background information on the economic, social and institutional structure of the EEC (second chapter) and Italy (third chapter).

The fourth chapter carries out the development of the social indicator model for assessing quality of life, after describing the methodological bases for such a process.

The data analysis is carried out in Chapter V. After a presentation of the data on the used social indicators for the two time periods considered (before and after Italy's entrance to the EEC), comparisons are established between values and trends.

In the sixth, and final, chapter the findings are presented and the limitations and drawbacks of the study are discussed. Directions for further work in this area are noted.

## Chapter II

### GENERAL BACKGROUND ON THE EEC

#### 2.1 INTEGRATION MOVEMENTS IN EUROPE

The movement towards socio-economic integration of Europe, although going back to a distant past, received renewed attention in the years following the end of the Second World War. There was a growing awareness of the desirability of creating supranational institutions that would attenuate the historical animosity between several of the European states, and would establish a sufficiently large political and economic entity able to negotiate with the United States of America and the Soviet Union from an European stand.

The first concrete step towards economic unity in Europe was taken by the formation of the Benelux, a customs union created by Belgium, Luxembourg and the Netherlands in 1947. In the following year (1948), the Organization for the European Economic Cooperation (OEEC), incorporating seventeen countries, was established with the immediate purposes of liberalizing trade and of allocating the economic aid for the reconstruction of post-war Europe which it was receiving from the U.S.A. under the Marshall Plan. However, this cooperative organization did not provide an adequate institutional framework for economic unity.

The members of the Benelux together with France, Italy and West Germany established in 1952 a common market for coal and steel, called the European Coal and Steel Community (ECSC), which abolished tariffs and quotas on these products in the trade among the member states. The ECSC played a very important role in preparing the ground for a broader economic unity in Europe.

In 1954, an attempt was made to create a European Defense Community and an associated Political Community aimed at achieving European integration in terms of common defense and political interests. The failure of this attempt called attention to the difficulties involved in establishing political integration in a continent with such varied regional interests and with such strong nationalistic positions of the member countries. This failure, in conjunction with the success of the ECSC, suggested that the establishment of a broader supranational organization should be based primarily on economic factors and should aim at protecting the member states against unfavorable economic and social situations.

## **2.2 THE CREATION OF THE EUROPEAN ECONOMIC COMMUNITY**

The six members of the ECSC agreed in 1955 to create a full economic union and to unite their efforts in the peaceful uses of atomic energy. A Committee was charged with preparing a preliminary report on these two initiatives. This report was eventually named after the President of the Committee. The so called Spaak report emphasized the economic advantages of a larger market, in

particular the bigger productive base and the increased division of labor which would result. It was believed that the achievement by Europe of an economic and political stature comparable with the United States of America and the Soviet Union, would be more effective by the establishment of a common market than by a free trade organization similar to the OEEC.

Three major actions were considered in the Spaak report as essential for the success of the new initiative: 1) the abolition of obstacles to free trade; 2) the establishment of rules of competition, including joint policies to deal with balances of payments, monopoly control and state competition; 3) the enhancement of European resources through the aid to regional development of underdeveloped areas, the absorption of mass unemployment, the productive reconversion of industry and labor, and the free movement of capital, labor and services.

Official negotiations among the six countries of the ECSC took place in 1956 and resulted in the preparation of two treaties: the European Economic Community (EEC) and the European Atomic Energy Community. On March 25, 1957, the treaties were signed in Rome and, by the end of that year, they were approved by the respective national parliaments. The EEC treaty began to be applied in 1958 and the institutions of the Community were immediately created in Brussels.



### 2.3 THE TREATY OF ROME

The Treaty of Rome focused on measures to introduce a common market and on provisional procedures necessary for the transitional period. It does not contain any reference to defense, foreign policy or domestic administration which were to be of the responsibility of the individual member nations. The core of the legislation in the Treaty is concerned with the establishment of a customs union. A customs union differs from a free trade area in that, in addition to free trade among its members, it also provides for a common external tariff against imports from outside countries. The Treaty of Rome provides for more than a mere customs union, as it envisages the ultimate merging of the economies of its members. This was to be achieved by allowing the free movement of labor, capital, and enterprises, between the member states. The Treaty called for an initial transitional period of twelve years which would provide for the progressive establishment of the customs union in three four-year stages, to be finished by the end of 1969.

The document also contains provisions relative to the establishment of common policies in agriculture, transportation and the control of distortion in competition. It includes references to a common social policy, the creation of an European Social Fund for the improvement of employment opportunities, the raising of standards of living and the levelling of living and working conditions in the upward direction, the creation of an European Investment Bank for the financing of projects for developing less developed regions and modernizing or converting enterprises. The structure and institu-

tional mechanisms of the Community, which is the focus of the following section, are also defined in the Treaty.

A certain number of protocols were signed by the member countries at the same time as the Treaty of Rome regarding particular dispositions. One is of specific importance to Italy. It was agreed that the institutions of the Community should put into effect "all means and procedures" for helping Italy to carry out a ten-year program of economic expansion for the correction of structural imbalances in Italy, especially by the development of the Southern regions of the country.

#### 2.4 INSTITUTIONAL STRUCTURE OF THE EEC

The main institutional components of the EEC, as stipulated in the Treaty of Rome were: the Assembly, the Council, the Commission and the Court of Justice. A Convention signed by the member states, after the Treaty of Rome, established that a single Assembly and a single Court of Justice would be shared by the three European Community organizations: EEC, Euratom and ECSC.

##### a) The Assembly

Composed by delegates from the Parliaments of the member states in numbers stipulated in the Treaty, the Assembly had the responsibility of discussing the annual general report submitted to it by the Commission, and could issue motions of censure concerning the activities of the Commission which, if approved by two-thirds of its members, would force the resignation of the Commission.

The Commission could attend and address the Assembly meetings and was required to reply to questions formulated by the Assembly or its members.

b) The Council

The Council was composed of delegates of the governments of the member states. It was invested with decision power regarding the Community affairs and had the responsibility of ensuring the coordination of the general economic policies of the member states.

c) The Commission

The Commission was composed of nine members chosen for their general competence and indisputable independence (no more than two with the same nationality), and appointed by the governments of the member states acting in common agreement. Their term of office was four years which could be renewed. The members of the Commission had to carry out their duties in the general interest of the Community and with complete independence, without seeking or accepting instructions from any Government or other body.

The Commission had the responsibilities of: ensuring the application of the provisions of the Treaty or the ones enacted by the institutions of the Community, formulating recommendations or opinions in matters of the Community interest, exercising its own executive power in accordance with the provisions of the Treaty and the determinations of the Council, and participating in the preparation of acts of the Council or the Assembly. An annual report on the activities of the Community was to be prepared by the Commission and submitted to the Assembly.

d) The Court of Justice

The Court of Justice consisted of seven judges, appointed for terms of six years by the governments of the member states acting in common agreement. They were selected as persons of indisputable independence who fulfilled the conditions required for holding the highest judicial office in their respective countries. The Court was assisted by two advocates-general, chosen by the same procedure as the judges, whose role was to give impartial reasoned opinions on each case prior to the deliberations of the Court.

The Court of Justice was the guarantor of justice and the law in its interpretation and application of the Treaty. It was to rule on matters submitted by the Commission, the Council, the Assembly or any Member State, regarding such matters as the application of the Treaty, the exercise of the institutions of the Community, and cases between the Community and its employees.

e) Other Community Institutions

Several auxiliary and consultive bodies were provided for in the Treaty of Rome: the Economic and Social Committee, The Monetary Committee, the Transport Committee, the European Social Fund, and the European Investment Bank.

## 2.5 THE EEC FROM THE BEGINNING UP TO 1968

The first five years of the EEC were characterized by marked advances in all the major economic development objectives established in the Treaty of Rome. In fact, the Community grew faster than any other major economic area in the West, stimulating increases in the gross national products, production, consumer purchasing, employment, trade, and overall economic strength of its members. Between 1958 and 1963, the gross Community product grew by about 30% (compared to 22% in the U.S.A. and 16% in the United Kingdom), the index of industrial production rose by 41%, the general standard of living in terms of real private consumption per capita went up by 23%, the internal trade by 130% , and, in the trade with nonmember countries, imports increased by 51% and exports by 35% (see Figures II-1 to II-3).

During this period, several new Community institutions were created, all of them incorporating representation from the member governments and the Commission. These included:

- the Administrative Commission for the Social Security of Migrant Workers, supervising the social security arrangements for Community citizens working in a member country other than its own,
- the Committee of Permanent Representatives, set up in 1958 with the main task of preparing the meetings of the Council and performing whatever functions the Council wished to delegate to them,

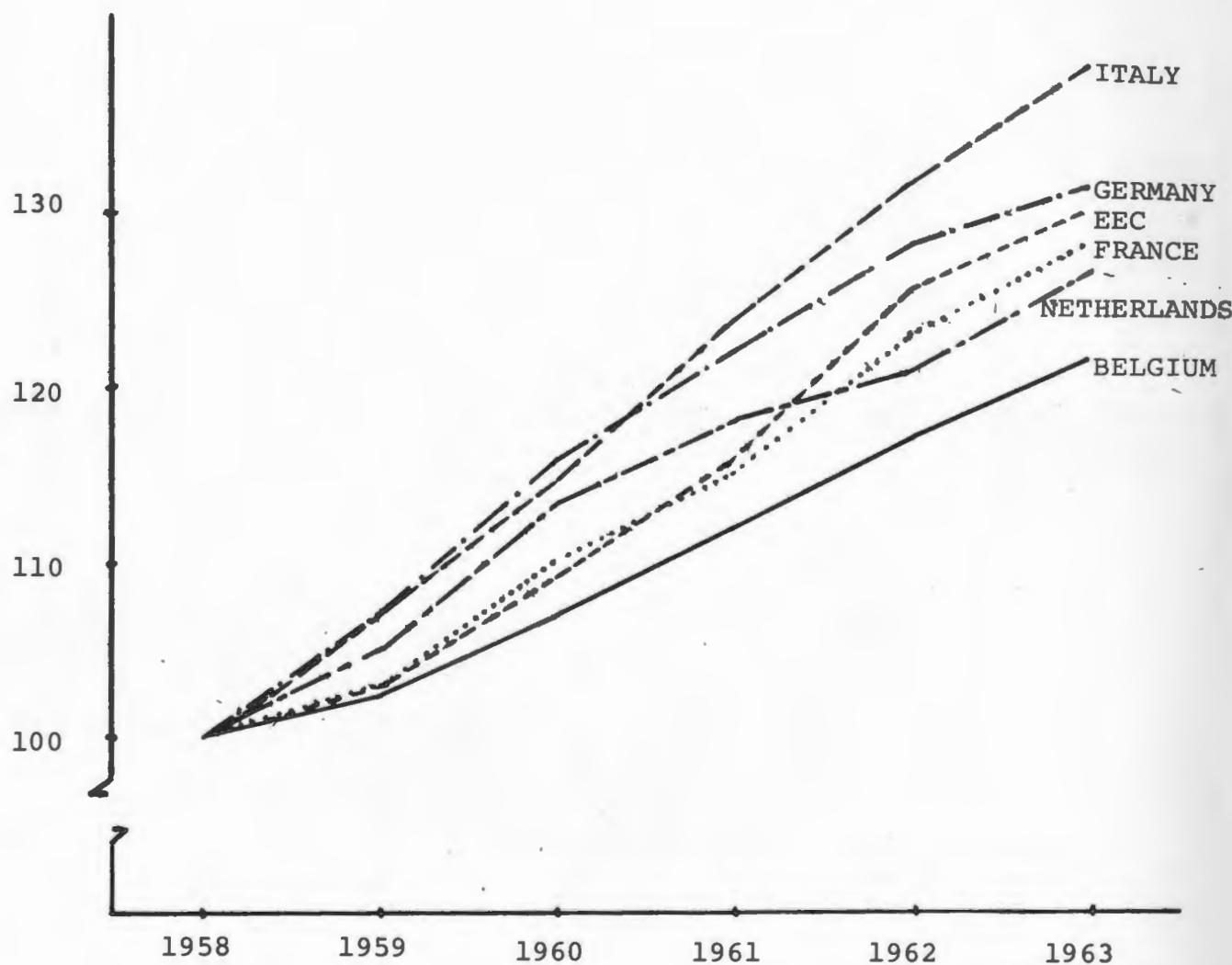


Fig. II.1 - Expansion of GNP. Index of volume for 1958-1963.  
(1958=100)

Source: Weil, G.L. (editor) A Handbook on the European Economic Community Frederick A. Praeger Publishers, New York, 1965.

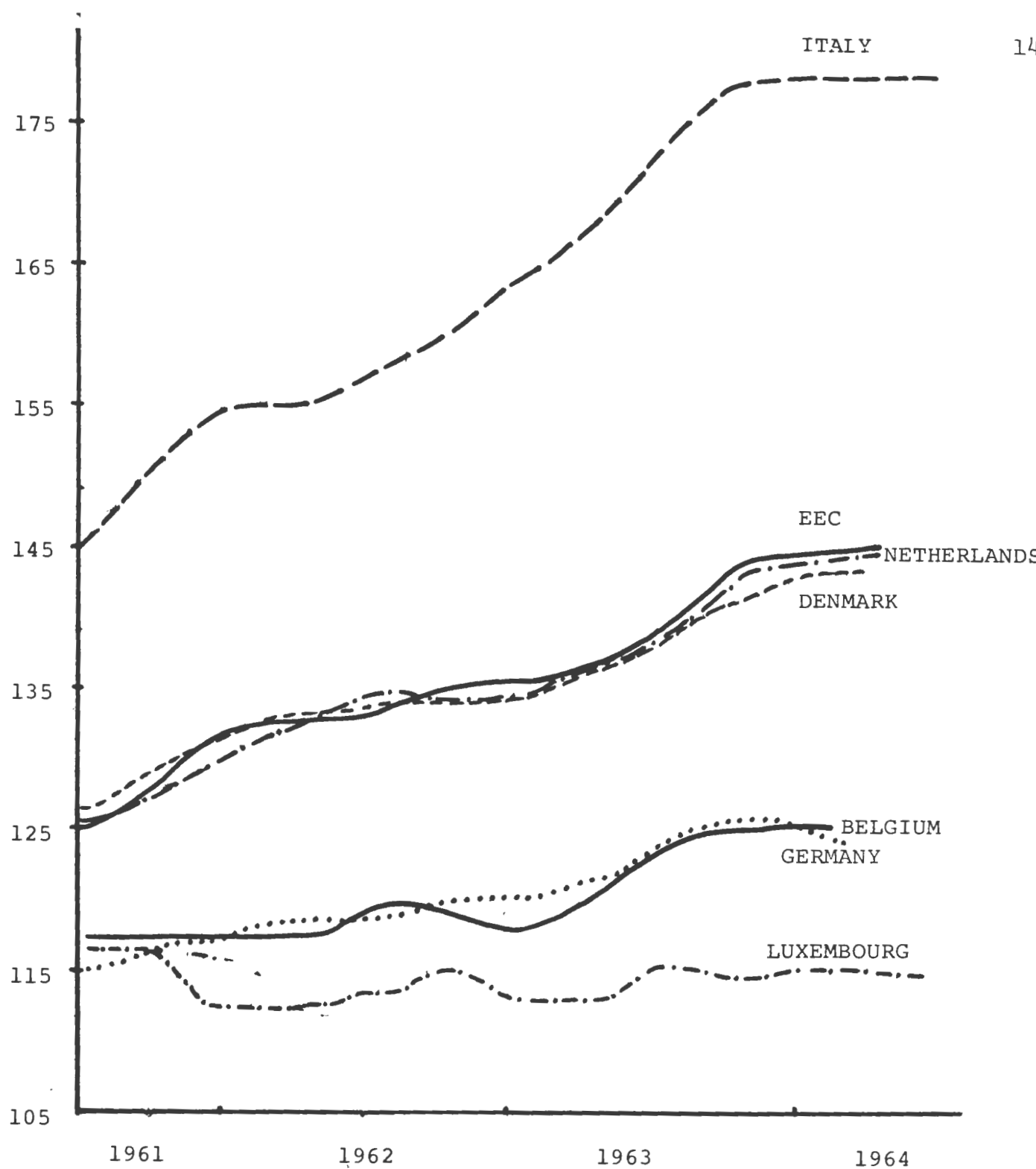


Fig. II.2 - Indices of industrial production  
(1958=100)

Notes: The curves represent estimated trends, which have been established - with the exception of the last two months - on the basis of indices, adjusted by the S.O.E.C. for seasonal variations. - Excluding construction, food, beverages and tobacco. - Netherlands: including food, beverages and tobacco.

Source: Economic Situation in the Community, December 1963 and Graphs and Notes on the Economic Situation in the Community, April, 1964, in Weil, G.L. (editor) A Handbook on the European Economic Community Frederick A. Praeger Publishers, New York, 1965.

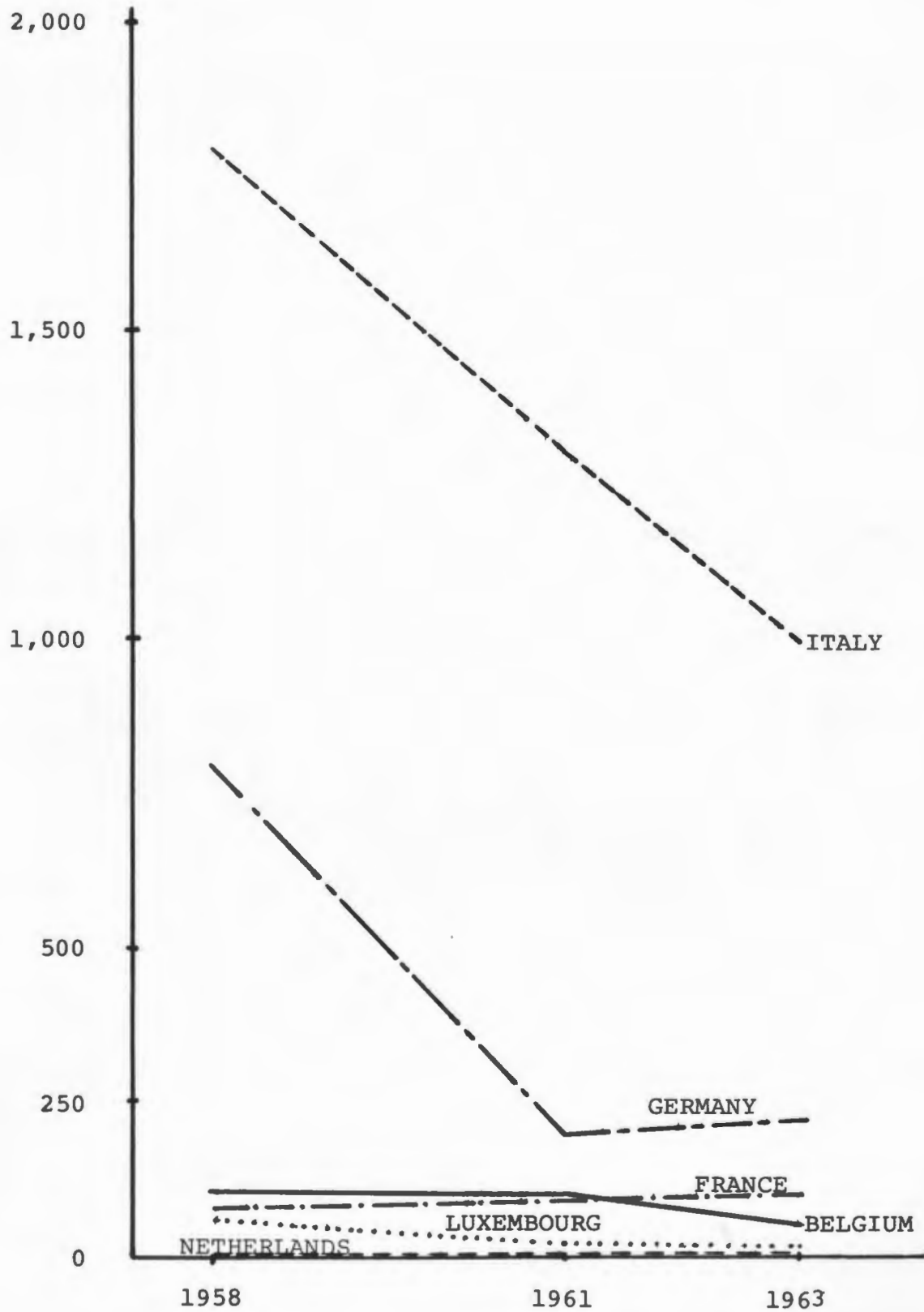


Fig. II.3 - Number of unemployed (in thousands)

Source: Weil, G.L. (editor) A Handbook on the European Economic Community Frederick A. Praeger Publishers, New York, 1965.



- the Special Agricultural Committee, set up in 1960, whose main responsibility was the discussion of agricultural matters to be later reviewed by the Council,
- the Short-term Economic Policy Committee, set up in 1960 with the task of assisting in the coordination of the day-to-day economic policies of the Community.

The creation of these committees was regarded with great suspicion by the persons favoring a strong supranational organization. Such an organization was to control the affairs of the community with independence from the particular policies of the member countries. However, in practice, the committees actually reinforced the Community and permitted further development in the integration movement.

The rapid growth of the Community economy during 1958-63 created inflationary pressures that limited the pace of future development. The member states, in cooperation with the Commission agreed to take concerted countermeasures, involving monetary and financial policies, as well as medium-range economic planning and programming.

In 1962, a common agricultural policy was initiated with the objective of extending the common market to agricultural goods which was to be completed by the end of 1969. The negotiations for a common agricultural policy presented serious difficulties due to the many differences in agricultural characteristics and regulations of the different member states. However, agreement was eventually reached.

The major task during the initial years of the EEC, as fixed by the Treaty of Rome, was the establishment of the customs union within a transitional period of twelve years. Actually, by a proposal from the Commission, this process was accelerated in relation to the fixed schedules so that by the end of June 1968, the customs union was completely achieved --- one year and one-half ahead of the scheduled date.

On balance, the first years of the EEC were highly positive, as can be seen from the developments related above. However, several difficulties presented real threats to the continuity of the Community. The most serious crises occurred in relation to France, then under the presidency of de Gaulle. These difficulties were triggered by the British application for membership in the Community<sup>2</sup> (1961) and the EEC constitutional crisis following a Commission proposal on farm financing and Community budgets (1965).

The United Kingdom application to membership received considerable attention by the EEC. At first it was progressing favorably, but in January 1963 de Gaulle opposed the British entrance to the EEC in a press conference. The French decision was based on the difficulties of accommodating the disparate agricultural structures of the two countries. However, it was also very much influenced by General de Gaulle's vision of a strong European block under the leadership of France and by his suspicion of the possible influence of the U.S.A. on the Community, through her leverage on the United Kingdom. France used its "veto" in an unilateral way, without pre-

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<sup>2</sup> In the same year Ireland and Denmark also applied to membership.

vious consultation with the other members of the Community. This posture violated the spirit that had existed previously in the Community and created a serious crisis of confidence. A first reaction on the part of the other member states was to attempt to stop measures thought to be of interest to France. In the spring of 1963, this led to a policy, proposed by Germany, of "synchronization" of reciprocal concessions, tying measures of special interest to France with measures of interest to the other countries. The adoption of the "synchronization" principle was, in fact, an acknowledgement of the crisis of confidence within the Community. It did prove successful, however, in maintaining the operations of the organization up to 1965.

On April 1965, the member countries agreed on changing the institutional structure of the Community in view of an eventual merger of the three Community organizations (ECSC, EEC, and Euratom). It was decided that, beginning in July 1967, a single Commission and a single Council would be established and a transitional period would be initiated leading to the effective merger of the three entities by July 1970. In the same treaty, the Council received the official name of Council of Ministers, the Assembly received the name of European Parliament, and the Committee of Permanent Representatives was formalized.

The most serious crisis of the EEC occurred, however, in 1965 and resulted from an attempt to pursue the "synchronization" policy. In June 1965, the Commission tried to link three policy measures in a package deal: the completion of the farm finance regu-

lations, strongly desired by France; the financing of the Community by its own resources, strongly desired by the Commission; and the granting of greater budgetary powers to the Assembly, demanded by the Assembly and by the Netherlands and later also supported by Germany. France opposed alone the consideration of these proposals in a single package and tried to put the priority on the first of the three items. This attitude was taken because France saw the budgetary independence of the Community's supranational institutions as a threat to her considerable influence in the Community, and, because the issue of farm financing was of extreme importance for the country. The aim of the French move was therefore the separation of the three matters so that the farm financing issue could be approved and the others rejected. Agreement on this discussion was not reached and by June 1965 France decided to absent her higher level officials from future meetings of the Council. Instead, junior representatives were sent to meetings or written procedures were used to transact routine business. This situation continued for a period of seven months, during which France called for a general revision of the institutional structure of the Commission. However, after de Gaulle was confronted with internal political difficulties during his 1965 Presidential campaign, it was possible to resume normal procedures with France as a member of the Community. An agreement was reached which covered two main subjects: the role of the Commission, and, the question of majority voting in the Council (as opposed to a consensual form of operation). The French "boycott" did not achieve an alteration of the Community's constitution, but it did succeed in postponing budgetary questions until 1970.

In spite of all these difficulties, the EEC established itself as a viable supranational entity, with increasing power over the economies of the member states and with the reinforcement of its independence from national governments. An indication of this trend is the extension of the Commission executive role as observed throughout time. Between 1958 and mid-1962, a total of 55 Common Market regulations came into force, of which only nine were issued by the Commission. Between July and October 1962 the Commission adopted 70 regulations on its own and, two years later, it was issuing 120 annual regulations.

The European economic integration has been pursued since 1968 leading to the added membership of various other countries.

## Chapter III

### GENERAL BACKGROUND ON ITALY

#### 3.1 HISTORIC OVERVIEW

The major characteristics of Italy which require historical perspective for the present study, are the existence of sharp regional, social and economic contrasts throughout the country. The following overview is intended to describe these characteristics while also providing historical information for the understanding of the Italian situation for the study period.

During the Middle Ages, Italy became divided in numerous rival independent states, a situation which persisted up to the 19th century. Several factors contributed to delaying national unification efforts. The dominant groups in the numerous principalities, city-states, and aristocratic republics wanted to maintain their privileges, particular interests and power. They not only opposed unification with the other states, but they also resisted the creation of a modern centralized administration, inside their own states, as this would put an end to the existing feudal organization. On the other hand, both the Roman Empire and the Catholic Church, the major institutions influencing Italy in her early history, encouraged cosmopolitan, rather than nationalistic attitudes. The Catholic Church, while attempting to control extended

areas of the peninsula and not being able to do so, had, however, the sufficient power to keep others from gaining widespread political control, and did not hesitate in asking the help of central European states for that purpose. Furthermore, the success of the Roman Empire and, later on, of the important city-states, like Genoa, Florence and Venice, relied substantially on the use of rural resources to support the radiant life in the towns. These characteristics of exploitation and oppression in the urban-rural relations persisted in Italian life up to recent years.

During the Renaissance, the failure of coordinating efforts in Italy resulted in foreign domination of extensive areas of the peninsula, first by Spain and later on by Austria. In order to maintain their influence, these two foreign powers pursued a successful game of playing the different Italian forces against each other. At that time the Mediterranean trade routes were being replaced by those of the Atlantic. The resulting state of the economic affairs in Italy, accompanied by the cultural torpor imposed by the foreign rule and the Inquisition, created a situation of marked political passivity.

The effects of the political events in France in the late 18th century and the beginning of the 19th century, namely the French Revolution and the Napoleonic Empire, very strongly influenced Italy, as they did influence almost all other European countries. It was under this influence that a period of revolutionary agitation began around 1820 in the Northern Kingdom of Piedmont, which eventually led to the political unification of the country between 1859

and 1870. However, the political unification of the country did not have much effect on the interregional imbalances within Italy and de facto unity was not achieved. The reasons for this are deeply rooted in past regional imbalances which were reinforced by the fact that the unification movement was predominantly a bourgeois undertaking controlled by the constitutional Kingdom of Piedmont. The Northern bourgeoisie, seizing the revolutionary ardor of republican democrats, but neutralizing their political influence, gained control of the administration throughout the country for several years. Still under the regime of a constitutional Monarchy, economic development was oriented towards industrial competition with the rest of Europe. At the time, the Industrial Revolution had barely begun in Italy --- a country with 75% of the total population illiterate, a railroad system with only 2,500 km (1,550 miles) of railroad tracks, an industry in the handicraft stage, and custom barriers obstructing the trade between the several states. The considerable amount of funds needed for the industrialization effort were made possible by heavy taxation of the agricultural sector. The new economic development benefitted the bourgeoisie of the Northern regions the most at the expense of the countryside and, in particular, the Southern regions. The regions not only were predominantly agricultural, but they were also much less industrialized and could not benefit directly from the overall industrialization effort. Consequently, the initially wide gaps between the North and the South, between urban and rural areas, and between different social groups, were further widened.



Between the period of unification and the beginning of the First World War in 1914, the life in Italy was characterized by economic instability. Periods of considerable economic development, almost exclusively in the Northern regions of the country, alternated with periods of economic crisis characterized by inflation, low wages and unemployment. During this, the population was markedly increasing, particularly in the Southern regions. The periods of economic crisis were usually accompanied by emigration to foreign industrialized countries, by social unrest, and by extensive strikes in the industrial areas. This unrest invariably started in the South and propagated to the North. These factors sharpened the imbalances verified between different regions and social groups.

Italy's participation in the First World War unfavorably influenced the economy. A deep recession led to the bankruptcy of several important enterprises, to unemployment and low wages. The increasing social unrest created a serious situation of widespread revolt. The political parties on the left were radicalizing at the same time: the Communist Party appeared and a strong marxist wing of the Socialist Party was formed. At the governmental level, a period of high instability also occurred. Four different governments were installed in a period of three years.

The Fascist movement began as a reaction against the threat of revolutionary Marxist forces and the liberal bourgeois principles of the French Revolution. Initially orientated toward anarchosyndicalism, the Fascists used violence to destroy the Socialist activists and trade unions, and created an atmosphere of fear. The in-

dustrialists of the North saw in the new movement a way of controlling the workers, and lent their support. By recruiting the unemployed with offers of money, the Fascists were able to gain power in 1922. They successfully established a dictatorship based on the principles of the supremacy of the State, nationalism and corporativism, and opposing rationalism, intellectualism, individualism, parliamentarism, democratic pluralism and Marxism. This dictatorship was only to end at the conclusion of the Second World War.

From the economic point of view, the Fascist dictatorship can be divided into four periods. The first period (1922-1926) was characterized by liberal policies and the dismantling of the regulatory mechanisms of the First World War. It was a period of a considerable economic improvement. A period of strong governmental regulatory policies (1926-1930) followed when predominantly political objectives were pursued. Several "economic battles" were waged, but none had visible success. The third period was characterized by autarchic policies (1930-1940), with strong regulatory measures being taken to achieve self-reliance and economic independence from foreign markets. Finally, a rapid deterioration of the economy, accompanied a period of war (1940-1943). The country suffered extensive damage during the war (about 1/3 of Italy's wealth) that resulted in a gross national product one-half of the value attained in 1939.

The Fascist dictatorship had imposed an apparent unity and calm by the use of force, but once its domination ended, the deep re-

gional, sectorial and social divisions emerged again undiminished in strength.

The Republic was established in 1946 following a national referendum, and a Constitutional Assembly was elected which produced the Republican Constitution of 1947. For sixteen years (1947-1963) the Christian Democratic Party controlled the government. From 1963 until 1970 a coalition of the Christian Democrats and the Socialists took charge of the government. Although suffering from significant political instability associated with the difficult politics of the coalition, the governments during this period were able to pursue a considerable stabilization of the economy and of the democratic State.

### 3.2 POLITICAL STRUCTURE

The present Italian Constitution decreed, on January 1, 1948, the displacement of the Italian Monarchy by the Italian Republic. This document establishes for Italian citizens individual rights and duties, and the general political structure of the country. The main elements of this structure are two legislative bodies (Senate and Chamber of Deputies), the President of the Republic, the Government and the Courts.

The Senate and the Chamber of Deputies have 315 and 630 members, respectively. A majority of the Senators and all the Deputies are directly elected by Italian citizens. The non-elected members of the Senate are former Presidents of the Republic and five individu-

als appointed by the Italian President for their cultural or scientific stature. Besides their legislative functions, these two assemblies supervise the government and may grant or withhold their confidence in the cabinet.

The President of the Republic is elected by a joint session of the Senate and the Chamber of Deputies. The Italian President is much less powerful than are the American or the French Presidents. He can, however, dissolve the legislative assemblies. The presidential functions include: the authorization to introduce governmental bills to the Parliament, the promulgation of legislation passed by the Parliament or governmental decree, the appointment of the Prime Minister (Presidente dei Consiglio di Ministri), and the approval of the ministers proposed by the latter.

The Government is composed of the Prime Minister, 19 ministers charged with individual sectors of the administration (Internal Affairs, Defense, Justice, Foreign Affairs, Foreign Commerce, Budget and Economic Planning, Finance, Treasury, Education, Public Works, Industry and Commerce, Agriculture and Forest, Labor and Social Security, Transportation and Aviation, Merchant Marine, Post Offices and Telecommunications, State Holdings, Health, and Tourism and Exhibitions), and several ministers without portfolio (such as ministers for Bureaucratic Reform, Scientific Research, Parliamentary Relations, and Southern Italy). The government has the responsibility of presenting to the legislative branch a detailed program for its activities, and may introduce bills to the Parliament and issue Decrees-law in exceptional circumstances and in accordance to

the Constitution provisions. Interministerial committees are also important components of the governmental structure. They are usually appointed to solve specific problems related to the economy. Italy's governmental system is decentralized in 20 regional governments with administrative and legislative power in specific areas (e.g., agriculture, tourism, urban development and forestry). Local governments (in provinces and communes) are composed of members locally elected and have only administrative power. Their acts are subject to the approval of a Prefect or a Board appointed by the national government.

The Italian court system is composed of Civil, Criminal and Administrative Courts. The Constitutional Court (Corte Costituzionale) supersedes all other courts and is responsible for issues related to the Regions, and to the higher organs of the State.

The political arena in Italy includes several parties which range from left to right. At the center is the Christian Democratic Party (DC), which has been the core of the government since 1945. To the right of the DC, the important political formations are the Liberal Party (PLI), the Italian Social Movement (MSI), which is neofascist, and the Italian Democratic Party of the Monarchist Unity (PDIUM); to the left of the DC the most important parties are the Italian Socialist Party (PSI), the Socialist Party of the Proletarian Unity (PSIUP), the Communist Party (PCI) and the Republican Party (PRI).

### 3.3 ECONOMIC OVERVIEW

Italy's participation in the Second World War as an ally of Germany is an important factor for the understanding of the economic characteristics of the period under analysis in the following chapters (1948-68). When the war ended, the country was faced with severe unemployment, high inflation, serious shortages of many commodities, and a disrupted industrial structure due to extensive war damage. Unemployment was running as high as 12% of the working population throughout the entire country, and, in the South, it reached 17.5% .

To the immediate problems faced by postwar Italy, one must add the problems that resulted from the structure of the Italian economic system at the time. The Fascist government, which remained in power between 1922 and 1943, pursued economic policies that produced an autarchic system under strict governmental regulations. The centralization of economic decisions, a feature of fascist ideology and politics, was further aggravated by the need for governmental intervention for a concerted war effort. Furthermore, the industrial sector was comparatively weak in the overall economy of the country. The traditional and technologically backward industries, such as food-processing and textiles, dominated, while agriculture was excessively concentrated in cereal production.

The recovery period, following the war, was characterized by the onset of liberal economic policies intended to restore "free market" mechanisms and to develop "modern" industries, such as automobile steel and chemical industries. A progressive dismantling of

the Fascist controls, protectionism and autarchy was carried out. The development of "modern" industries required an increase of foreign trade, since raw materials such as iron ore, petroleum, coal and timber were scarce, and the domestic market did not have sufficient capacity to make economies of scale and specialization viable.

The return to the "free market" system was, of course, accompanied by speculation in the commodity and financial markets, which further enhanced inflation. Alternatively, foreign trade, which had been completely controlled by the government, was liberalized by the creation of two foreign exchange markets, one controlled by the government and the other subjected to a "free market" operation. These two foreign markets conduced to multiple exchange rates with associated speculations and distortions. Only when inflation and deficits in the balance of payments attained intolerable values was serious interventicnistic corrective action taken by the government. Financial measures which involved the reduction of liquidity by a partial freeze of bank deposits and by the coverage of imports with foreign exchange reserves. This difficult financial situation was alleviated in 1948, when U.S.A. aid in the form of the Marshall Plan came to support the Italian currency and economy. The liberalization of foreign trade and the integration into European markets was then pursued by the entrance of Italy into the European Coal and Steel Community (1951) and the European Economic Community (1958).

The economic liberalization pursued during the recovery period was important in the modernization of an economy directed to the foreign markets, but its opposition to the creation of planning institutions and instruments led to the reinforcement of structural problems and had an adverse effect in subsequent years.

The dismantling of regulatory controls and governmental protectionism was expected to reduce governmental spending, bureaucratic mismanagement, redtape, and corruption. However, as in other countries that have experienced similar situations, this process of dismantling governmental intervention created its own organizational needs, bureaucratic offices and red tape, while leaving room for new forms of corruption. Thus, the structural and organizational deficiencies of the government persisted, aggravated by an almost complete non-existence of institutionalized planning<sup>3</sup>.

In the period between 1951 and 1963, which has been called the Italian "economic miracle", the increase in the gross national product (GNP) exceeded all other European countries, with the exception of Germany (see Fig. III-1). The observed increases in GNP were not particularly high, but, while most countries experienced sharp downturns during different periods, Italy maintained a steady increase. During this period of rapid economic growth, the most dynamic sectors of total demand were fixed-capital formation and exports. In fact, aggregate demand (GNP growth plus imports) increased at an average annual rate of 6.3%, and contributed to

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<sup>3</sup> Only in 1966 was the first five-year plan introduced in Italy, and it was extremely inefficient.



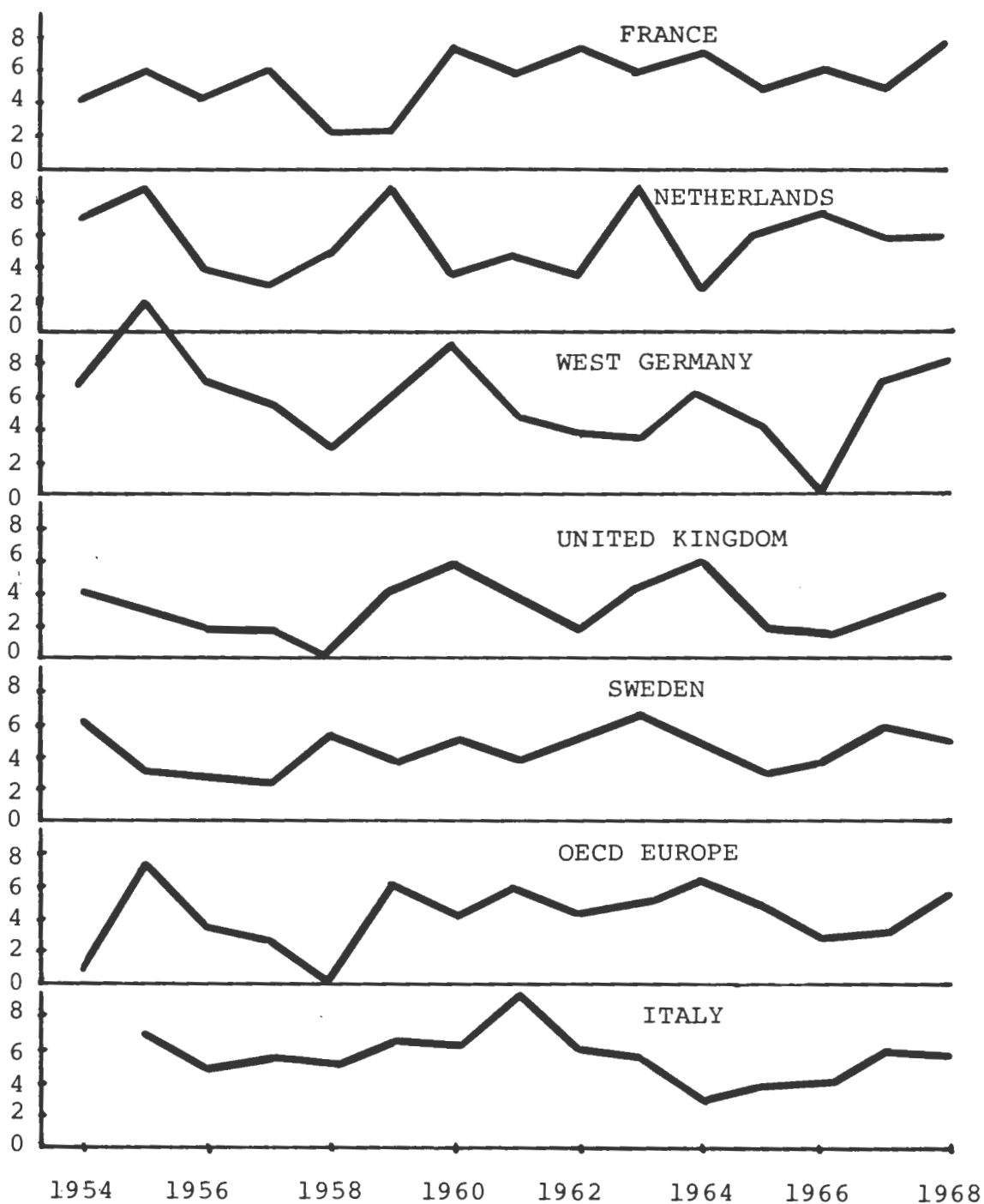


Fig.III.1 - Gross national product in selected countries, 1953-1972. Percent changes from previous years at constant prices.

Note: Except for Italy, the figures for 1972 are estimates.

Sources: Italy: ISTAT, *Annuario di contabilità nazionale* (1971) Ministero Del Bilancio e della Programmazione Economica, *Relazione Generale* (1972)  
Other countries: O.E.C.D., *Nationale Accounts of O.E.C.D. Countries*.

In Podbielski, G. *Italy: Development and Crisis in the Post-War Economy* Clarendon Press, Oxford, 1974.

fixed-capital formation and to exports by rates of 1.5 and 1.2 percentage points, respectively. Private consumption rose more slowly than either total demand or GNP (see Fig. III-2 and Table III-1). This period was also characterized by a high degree of price stability (see Table III-2).

The importance of foreign trade in the Italian economic recovery is illustrated by increases in the ratio imports/GNP from 7.4% in 1951-52 to 14.3% in 1961-62, and in the ratio exports/GNP from 6.2% to 14.5%, in those years. The acceleration of foreign trade had a direct impact on the economy by consolidating the balance of payments, and an indirect impact by stimulating industry to utilize mass production methods and to introduce advanced technology, both of which were required for successful competition in foreign markets.

In order to identify the factors that determined the economic growth of the period, it is useful to consider Denison's study of the sources of growth in several countries (Denison, 1967) which is summarized for Italy in Table III-3. The most important factors are the application of knowledge in 1950-55 (having "caught up" with the other developed countries), the improved allocation of resources (mainly due to the significant shift of labor from agriculture to industry), and the development of economies of scale, with the last two having increasing importance during 1955-62. The availability of a large, under-utilized labor supply contributed to the marked expansion observed. Important increases in productivity were made possible by the employment of workers in new sectors, by

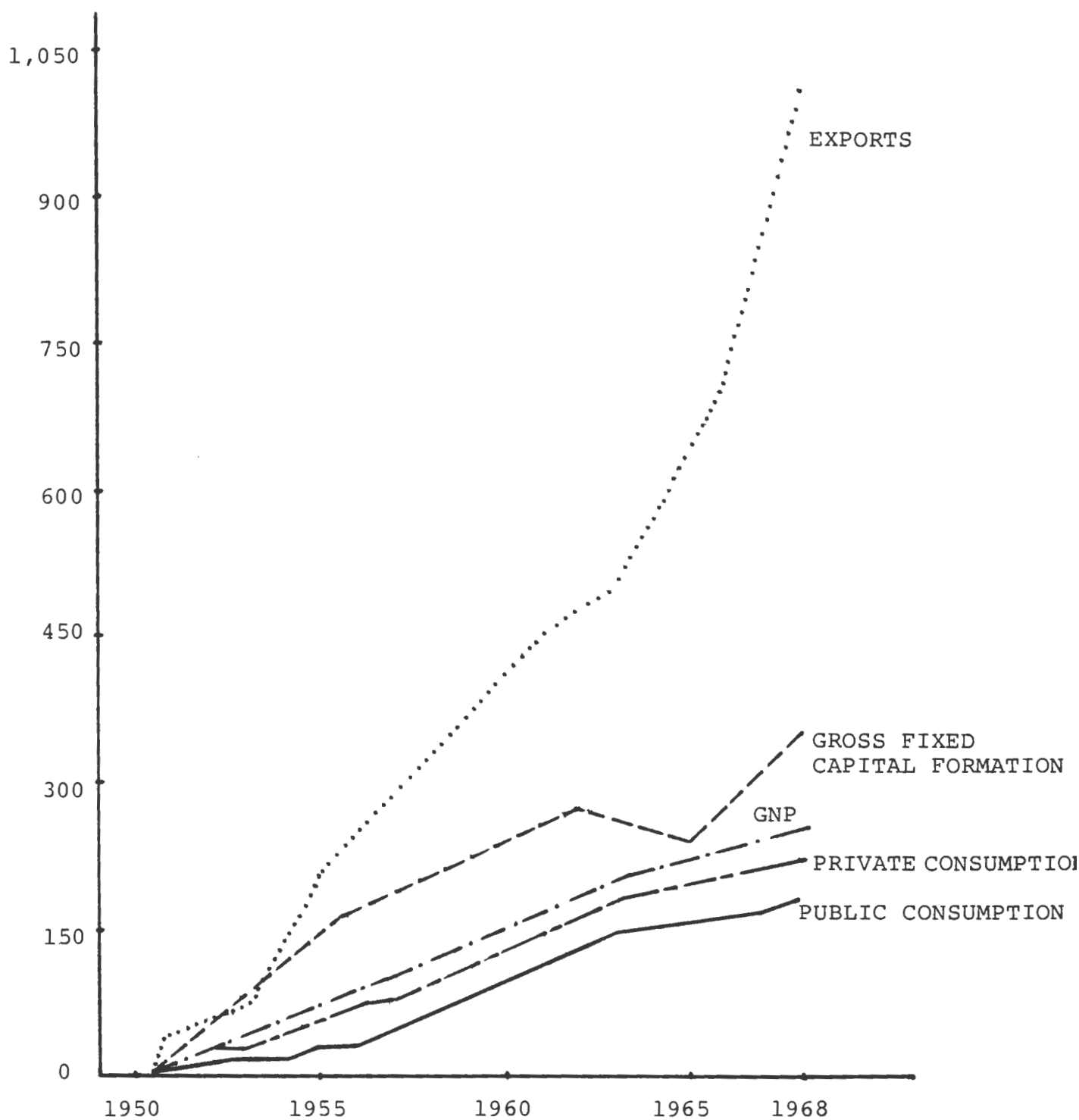


Fig.III.2 - Growth of GNP and main sectors of demand, 1950-1972.  
At 1963 prices, average 1951/52 = 100.

Source: ISTAT, *Annuario di contabilità nazionale* (1971).

In Podbielski, G. *Italy: Development and Crisis in the Post-War Economy* Clarendon Press, Oxford, 1974.

Table III.1 - Italy: Supply and use of resources 1952-68, annual percentage increases at constant prices

	1952-62 average	1962	1963	1964	1965	1966	1967	1968
<b>RESOURCES</b>								
GNP at market prices	5.9	6.3	5.4	2.9	3.6	5.9	6.8	6.4
Imports of goods and services	13.5	16.4	22.4	-5.1	1.9	13.7	13.1	7.5
Total	6.2	7.5	7.6	1.7	3.4	7.0	7.7	6.6
<b>UTILIZATION</b>								
Private consumption	5.0	6.5	8.9	3.0	2.7	6.8	7.1	4.9
Public consumption	3.8	5.4	4.6	3.6	4.0	3.2	4.3	4.1
Gross fixed capital formation	10.2	10.1	8.1	-6.4	-8.6	4.0	11.8	9.7
of which:								
Residential construction	13.0	15.4	12.1	6.9	-6.2	-1.3	5.6	11.9
Other construction	8.8	12.6	0.4	-3.0	-2.1	2.6	10.4	6.5
Machinery and plant	9.1	8.3	7.4	-18.7	-19.5	14.7	15.6	9.8
Transport and equipment	10.4	9.1	22.3	-11.7	-5.1	0.3	24.6	11.2
Exports of goods and services	13.7	12.3	6.9	11.6	20.1	13.2	6.7	15.4

Sources: ISTAT, Annuario di contabilità nazionale (1971); Ministero del Bilancio e della Programmazione Economica, Relazione general (1971 and 1972)

Table III.2 - Italy: Price developments 1952-1968, annual percentage increases

	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
Implied price deflector of GNP	3.2	2.8	2.8	3.4	3.9	2.0	2.3	-0.2	2.0	2.7	5.7	8.7	6.3	3.9	2.2	3.0	1.5
Wholesale prices of non-agricultural goods	..	..	-1.3	0.5	0.5	-2.1	-2.9	-1.9	0.8	-0.3	1.5	4.9	4.5	0.9	1.3	0.0	3.6
Consumer prices	..	..	2.9	2.3	3.4	1.3	2.9	-0.6	2.4	2.1	4.6	7.6	5.9	4.5	2.3	3.7	1.3
Imports, unit values	-1.8	-7.8	-4.1	1.4	3.2	5.3	-12.1	-7.0	-1.3	-2.3	0.2	1.7	0.6	0.3	1.2	1.0	0.5
Exports, unit values	-5.2	-0.9	-2.9	-3.0	-2.4	3.4	-4.7	-8.0	4.0	-3.4	0.9	1.2	1.4	0.3	-1.1	0.9	-0.5

Sources: ISTAT; for 1972, Bank of Italy, Relazione Annuale.

Table III.3 - Italy: Percentage contribution to expansion of gross domestic product in each period.

	1950-62	1950-55	1955-62
Total factor input	28	31	26
Labor	16	22	12
Capital	12	9	14
Output per unit of input	72	69	74
Advances in knowledge <sup>1</sup>	13	12	13
Changes in the lag of application of knowledge	15	22	9
Improved allocation of resources	24	19	28
of which:			
Contraction of agricultural inputs	17	14	20
Economies of scale	21	16	24
Total	100	100	100

1. Advances in technological and managerial knowledge, including business organization.

Sources: E. F. Denison, Why growth rates differ (Brookings Institution, Washington, D.C.).

the shift of labor away from low-productivity sectors (in particular, agriculture) to high-productivity sectors, and by enabling workers' wages to be maintained at low levels, relative to the rest of Europe, because of the weak bargaining position of trade unions due to widespread unemployment.

In 1963, the Italian economy experienced an inflationary period followed by a sharp recession which lasted until 1965. This situation was triggered by sharp wage increases forced upon the industry by the trade unions (see Table III-4). Labor had its first opportunity to demand substantial wage increases in 1962 when full employment, and even shortages in some types of skilled labor, was taking place in the industrial centers of the North. However, unemployment and underemployment were still considerable in other regions and in low-paid, low-productivity sectors, such as agriculture, retail commerce and public administration. Unit labor costs in manufacturing, which had been increasing at a rate of 1.2% in 1961, rose to 5.3% in 1962 and to 15% in 1963, dramatically reversing the trend observed during the 1950's, when they declined on the average (see Table III-4). Gross fixed-capita formation, which had been approximately 12% in 1960 and 1961, lost two percentage points in each one of the following years and declined sharply in 1964 and 1965 by -6.4% and -8.6% , respectively (see Table III-1).

As a consequence of wage increases, consumer expenditures rose by 9% in 1963, compared with an average annual rate of increase of 5% during 1955-62 (see Table III-2). Moreover, the rapid growth in personal income changed the composition of private consumption toward high-quality foods, household durables and motor vehicles.

Table III.4 - Italy: Output, employment, productivity, wages, unit labor costs, and profits in manufacturing, 1954-1968, annual percentage increase

	1954-61 average	1961	1962	1963	1964	1965	1966	1967	1968
Output <sup>1</sup>	8.0	10.3	10.7	6.5	1.3	5.2	9.2	9.9	9.3
Employment	2.1	4.8	2.5	2.0	-0.2	-2.6	0.6	3.6	1.0
Hours worked	2.1	3.8	-0.3	2.3	-4.4	-5.4	3.6	4.1	0.7
Output per man	6.0	5.2	8.0	4.4	1.5	8.0	8.5	6.1	8.3
Output per man-hour	5.7	6.3	11.1	4.1	6.4	10.8	5.4	5.6	8.6
Wage rates <sup>2</sup>	4.5	4.4	10.7	14.7	14.0	8.5	3.9	5.5	3.6
Hourly earnings	4.9	7.0	15.3	16.8	11.1	7.4	3.9	6.2	4.5
Unit labor cost <sup>~</sup>	-0.3	1.2	5.3	14.5	5.2	-3.4	-2.0	0.4	-0.1
Unit profits <sup>3</sup>	-1.0	2.1	-8.7	-9.1	4.0	13.8	10.9	-8.7	5.4
Gross profit ratio <sup>4</sup>	45.1	41.8	38.6	34.8	34.7	37.2	39.0	36.5	36.6
Non-agricultural wholesale prices	-0.2	-0.2	1.4	4.9	4.4	0.9	1.3	0.0	0.0

1. Value added in manufacturing

2. The base of the index was changed in 1966.

3. Gross profits per unit of output.

4. Value added minus compensation of employees as a ratio of value added-actual ratios, not annual percentage increases.

Sources: ISTAT, and data supplied by the Bank of Italy.



The increase in consumption began affecting imports in 1962 and the balance of payments evolved from a balance of 551 million in 1961 and 51 million in 1962, to a deficit of 1,252 million in 1963 (see Table III-5).

By 1964, the decline of productive investments observed in the preceding years, began to be felt by reduced employment and the rate of wage growth and, consequently, reduced consumption levels. On the other hand, the government had initiated deflationary policies by overall monetary restraint, the use of fiscal measures, such as raising taxes on automobiles and gasoline, and of all turnover rates, and by carrying out shock imports of butter and meat to be sold at government-controlled prices. In addition, to cover the loss of international reserves in 1963, credit facilities of 1 billion were obtained from the U.S.A. and Western European central banks, and a credit of 225 million was received from the I.M.F. At the same time, due to a booming demand in other European countries (see Fig. III-1), the rate of exports increase accelerated from 6.9% in 1963 to 11.6% in 1964. These factors all contributed to an improvement of the overall economic situation, and, by the beginning of 1965, the recession had reached its turning-point. A four year period of relatively rapid expansion followed, but it took these four years to return to the fixed investment levels of 1963. During 1965-69, it might have appeared that the Italian economy was normalizing, but, in fact, the recession of 1963-64 initiated a phase of serious difficulties that have since recurred in Italian economic life.

Table III.5 - Italy: the balance of payments 1960-1968, million dollars

	1960	1961	1962	1963	1964	1965	1966	1967	1968
Exports (FOB)	3,570	4,101	4,590	4,974	5,863	7,104	7,929	8,605	10,098
Imports (FOB)	4,216	4,679	5,505	6,877	6,508	6,458	7,595	8,626	9,050
Trade balance	-646	-578	-915	-1,093	-645	646	334	-21	1,048
Capital movements	73	187	-309	-485	110	-455	-1,277	-1,023	-1,691
Overall balance on nonmonetary transaction	437	551	51	-1,252	774	1,594	696	324	627
<u>Foreign reserves, end of period.</u>									
Official reserves:									
Gold	2,203	2,225	2,243	2,343	2,107	2,404	2,414	2,400	2,923
Convertible currencies	876	1,194	1,196	837	802	1,462	1,288	1,419	958
IFM position <sup>1</sup>	-	243	203	226	141	479	885	842	894
Total Official <sup>2</sup>	3,080	3,749	3,804	3,395	3,756	4,564	4,679	5,238	4,878
Commercial banks:									
Net foreign position	-135	-174	-605	-1,254	-812	-178	230	35	723

1. The IMF position includes credits granted on a multilateral basis previously recorded under other items.

2. Excluding medium- and long-term assets of the monetary authorities.

Source: Bank of Italy.

Despite progress, especially in the period 1951-1963, the GNP per capita, the share of industry in the gross domestic product (GDP), the private consumption per capita, and the share of national income invested in machinery and equipment have stayed considerably below the levels observed in other advanced industrial countries. It is often emphasized in the literature that many of the Italian economic problems result from structural imbalances and distortions described by the term "dualism". In the words of Podbielski,

"These manifest themselves in disparities between technologically progressive, competitive, export-oriented and large-scale industries, on the one hand, and backward, inefficient, traditional and medium sized industries, on the other; between a rapid growth of private consumption and a highly inadequate level and slow advance of collective consumption; between shortages of skilled workers in some areas and the persistence of large-scale under-utilization of labour resources in others; between excessive urbanization and congestion and the abandonment of rural regions.

All these aspects of an economic and social 'dualism' appear in even sharper contrast in the development gap between Centre-North and the South country." (Podbielski, 1974, pp. 2-3)

The historical basis for this "dualism" was explained in the historic overview earlier in this work. The point of interest now is that the liberal policies of the recovery period following the war set the stage for future economic development based upon the forces of the "free market", without establishing planning institutions and instruments that would correct these structural imbalances.

### 3.4 ECONOMIC LEGISLATION

The general guidelines for the Italian economy are primarily dictated by the Constitution, which was written by Christian Democrats, Socialists and Communists in 1948. It establishes a compromise between the traditional liberal conception of civil and property rights, and the need for improvement of social conditions. The Constitution authorizes certain direct and indirect governmental intervention in the economy. Direct intervention includes governmental ownership and operation of enterprises, through special laws or ordinary rules. There are three types of governmentally owned agencies: i) the autonomous agencies, organs of Government ministries; ii) the agencies owned and managed by state corporations, regulated by special laws and under Government control; and, iii) the stock corporations, partially owned by the State.

In 1967, a general economic plan was developed by the Ministry of the Budget and Economic Planning, for the first time, and was approved by the government. This economic plan is defined as the "framework of economic, financial and social policies of the Government and of all public investments". The plan is committed to: i) developing social services and institutions in areas related to education, housing, health, social security and scientific research; ii) providing equality of agricultural, industrial, professional and commercial incomes; and, iii) reducing the disparity between developed and underdeveloped regions in the country. The plan defines public investments in fields of State responsibility and provides guidelines for agricultural, industrial and commercial

development. Although it establishes compulsory rules that apply only to public agencies, it is expected that governmental bodies use this plan as a guideline for regulation of private enterprise, primarily through taxation and credit measures.

Urban planning is almost nonexistent in Italy. However, in 1967, an amendment to a 1947 on urban planning law mandated that municipalities adopt compulsory plans. In particular, this provision allows municipalities to acquire land according to plans which are developed for low-income housing.

In the 1950's, land reform programs authorized the expropriation of under-utilized land and its delivery to unemployed farmers. Later, in 1961, a Five Year Plan for the Development of Agriculture, also known as the "Green Plan", was enacted to develop and stimulate the economic and social situation of the agricultural sector. Contrary to the land reform programs of the 1950's, the "Green Plan" approaches comprehensive economic development.

Price control was initially adopted in 1936. During World War II, the prices of goods were actually frozen. By 1944, the Inter-ministerial Committee on Prices (CIP) was created to regulate: i) price of products, both domestic and foreign; ii) supply and distribution of basic foreign commodities; and, iii) interprovincial trade. The CIP exercised tight control during and immediately following World War II, but it has since gradually restricted its intervention to essential commodities and services, public utilities and monopolistic or oligopolistic market actions.

Although the 1948 Constitution provides for nationalization of the public service sector, most of the public utilities had been nationalized prior to the Constitution. The only utilities to be nationalized after 1948 were the electrical power generation and distribution enterprises, which were nationalized in 1962. In this context, "nationalization" does not denote State ownership and management, but, rather, direct supervision of an enterprise. This system of State control is called "franchise". It has a limited duration, which can be renewed, and its terms are stipulated by a contract.

The nationalized enterprises can be divided into fiscal monopolies (such as the sale of tobacco, matches and salt, and the operation of lotteries), and into public services (postal facilities, telegraph, telephones, radio, television, railroads). The nationalization of the enterprises in the first group was carried out with the objective of gaining public control of those high profit activities. The nationalization of those in the second group was the standardization of important public services. The most important State property-holding companies in Italy are the Istituto per la Ricostruzione Industriale (IRI) and the Ente Nazionale Idrocarburi (ENI), created in 1933 and 1953, respectively. The effect of the IRI in the Italian economy is substantial, as it controls a large number of enterprises, but, since its aim is primarily to aid "sick" industries, its profits are low. The ENI, created to perform a dynamic role in the Italian economy and concentrated in specific sectors, is the more productive.

The Italian banking system was completely reformed in 1938, as a consequence of the deficient monetary policies applied in 1926 by the Italian Discount Bank (Banca Italiana di Sconto). The monetary and banking policies have, since then, been defined by an Interministerial Committee for the Protection of Savings and the Regulation of Credit, and implemented by the Bank of Italy (Banca di Italia). The Bank of Italy is responsible for the: issuing of currency, setting of discount rates, keeping the Treasury provincial reserves, issuing licenses for the creation of new banks or new branches of existing banks, exercising supervision and control over all other banks. The Ministry of the Treasury exercises regulative power over the banks, upon suggestions of the Bank of Italy, by imposing sanctions and penalties for violations of the established rules.

In Italy, direct taxes include income taxes on land, buildings, movable wealth and agriculture. In addition, a progressive complementary tax is applied to individuals and a company tax is applied to enterprises. The indirect taxes include: turnover tax (levied on prices of goods and services, at a rate of 4%), registration tax (levied on the total value of contracts, deeds and bills of sale executed in National territory, at rates varying from 1% to 7.5%), profits from fiscal monopolies. The indirect tax revenues account for 70% of the total revenues. Direct taxes are considerably high, but they provide only a modest share of the total tax returns, which suggests significant tax evasion.

Several Social Security programs covering on-the-job accidents, occupational diseases and unemployment exist, and are compulsory for employers and employees, who are both required to contribute. Three main agencies are responsible for these programs: INPS (unemployment, tuberculosis, insurance and family allowances, old age, death and disability pensions), INAM (nonoccupational and pensioner's health insurance, including maternity benefits), INAIL (women compensation, occupational health risks, non-occupational accident benefits).



## Chapter IV

### DEVELOPMENT OF THE SOCIAL INDICATORS MODEL

Most of the studies which investigate the impact of internal and external policies on the quality of life in a country use an exclusively economically oriented approach. The underlying assumption of this approach, that the quality of life of a population is directly related to the wealth of the nation, has been challenged by social scientists. A growing awareness of the biases and limitations involved in a strictly economic approach has created the need to determine a mechanism to assess directly the general quality of life in a society.

In fact, the belief that high income levels do not necessarily imply the satisfaction of the needs and aspirations of a population contributed to the awareness of the insufficiency of the economic approach and created the basis for the development of the "Social Indicator Movement" and the closely associated concern with the concept of "Quality of Life".

The development of an analytical model to assess the impact of the EEC membership on the quality of life in Italy, which is described in the present study, is governed by the assumption that societal well-being includes social as well as economic concerns.

#### 4.1 THEORETICAL FRAMEWORK

The theoretical framework underlying the present work involves two components: the concept of "Quality of Life" and the general structure of social indicator models.

##### a. Quality of Life

Several approaches have been proposed to describe the concept of "Quality of Life". Perhaps the two most common are one which emphasizes the individual's perception of being pleased (happy or satisfied) with the characteristics of his/her life, and one which regards quality of life as the totality of observable conditions in which people live. The proponents of the first approach emphasize the use of individual responses to questionnaires, content analysis and discussions, all highly subjective measurement tools, and contend that more important than the observed physical facts about the life conditions of the individual is the way he/she perceives them. The proponents of the second approach question the reliability and relevance of the information obtained from declarations of the individuals concerned, and emphasize the extent to which the answers to such inquiries can be affected, or even determined, by the researcher conducting the inquiry. Therefore, they favor the use of direct observation of objective facts about life conditions.

It can be argued that the two views presented above should both be incorporated in "Quality of Life" studies, but the question of the proper use of subjective and objective indicators has not received consensus among researchers. Some methodological problems

are involved in this question (UNESCO, 1974): i) experimentally observed correlations between objective and subjective indicators are generally weak; ii) individuals who are more critical of their quality of life are often those who, objectively, have greater resources, such as education and income; iii) empirical research has determined that judgement of satisfaction is affected by the consideration of reference groups; iv) an individual's dissatisfaction with an element of quality of life tends to elevate the comparative importance of that element in the overall personal judgement, and, accordingly, elements that are well provided for in a society, so as to be taken for granted, are attenuated in the individual's perception of the quality of life; and, v) overall high or low levels of satisfaction of individuals with their quality of life have been observed to influence their perceptions of each of the specific elements of their life quality. The scope of the present work involves the quality of life of the population of an entire country, rather than an analysis of individual psychological attitudes. For this reason, and because there exist no definitive data regarding how life conditions are perceived by individuals in Italy and how to classify and quantify these perceptions, the present study is based solely on objective data regarding observable life conditions that are generally accepted as important factors in quality of life.

The above considerations taken into account, "Quality of Life" is explored, in the present study by comprehensive criteria defined in terms of the degree of fulfillment of the basic human needs associated with the human life cycle, and the satisfaction of general

human expectations which may not be basic needs, but are, in general, considered important life conditions for a population. The basic human needs are defined in relation to the following elements: nutrition, shelter, health, safety and leisure. Assessing the satisfaction of general human expectations is far more difficult. Culture-dependent aspirations of a population must be identified, yet reliable empirical studies on individual expectations are presently unavailable. For the purpose of the present study, the following human expectations are considered: education, communication and culture. These were identified by the author as major general human expectations, in terms of values of present-day Western civilization.

The two main categories mentioned above, basic human needs and general human expectations, are the determinants for the development of the social indicator model in the present study.

#### b. General Structure of Social Indicator Models

The analytical model developed for this study is organized according to the conceptual framework provided by Land and Spilerman (1975) for the general structure of social indicator models. They suggest that social indicators be organized into two broad categories: exogenous variables and endogenous variables. The former refers to factors determined outside the social system model (inputs), and the latter identify factors determined by the model (outputs). Each of these two groups is further divided in another two: policy instrument descriptive indicators and nonmanipulable descriptive indicators, for the input variables, and output de-

scriptive indicators and side-effect descriptive indicators, for the output variables. These four groups of indicators are interrelated through the social system model, which is associated with internal variables characterized by the so-called analytical indicators.

The different groups of indicators considered above can be defined as follows:

(i) output descriptive indicators measure the outputs of the system model which are most directly associated with the assessment of the social situation under study;

(ii) policy instrument indicators refer to inputs to the model which are the result of direct policy actions

(iii) nonmanipulable descriptive indicators are associated with inputs to the model and are not subject to direct policy actions;

(iv) side-effect descriptive indicators report to the outputs of the social system model which are not of direct concern for the assessment of the social situation under study, but are directly related to it; and,

(v) analytic indicators associated with the social system model interactions.

The comprehensive approach defended by Land and Spilerman has the advantage of providing a classification scheme to group social indicators in a rational and logical way. It provides an organizational framework which puts into perspective the relationships between the different components of social indicators.

#### 4.2 IDENTIFICATION OF OUTPUT DESCRIPTIVE INDICATORS

Output descriptive indicators are the most important indicators because they involve the variables directly related to measuring the quality of life. Accordingly, the number of indicators considered and their description is much more detailed than for the other groups of indicators.

As explained in the preceding section, the major hypothesis used in the development of social indicators for the quality of life is that the quality of life is directly related to the degree of satisfaction of the basic human needs and the fulfillment of general human expectations.

The basic human needs were classified above as: nutrition, shelter, health, safety and leisure. The satisfaction of these needs may be evaluated by the indicators reported in Table IV-1. In an analysis of nutrition both the quantity and the quality of the products consumed are examined and determined by the consumption levels of several food products and of their protein and calorie contents. The adequacy of shelter may be evaluated by the number of available housing units per capita, the percentage of housing units not occupied, the number of structures used for shelter which are not proper housing, the number of housing units with services or facilities such as sewage, water, electricity, bathroom, kitchen, and the demand for shelter from private and public social services. The quality of health is influenced by the quantity and the quality of available health services, and by environmental factors or factors related to the style of life. Quality of health can also be

Fig. IV.1 - Social Indicator Model

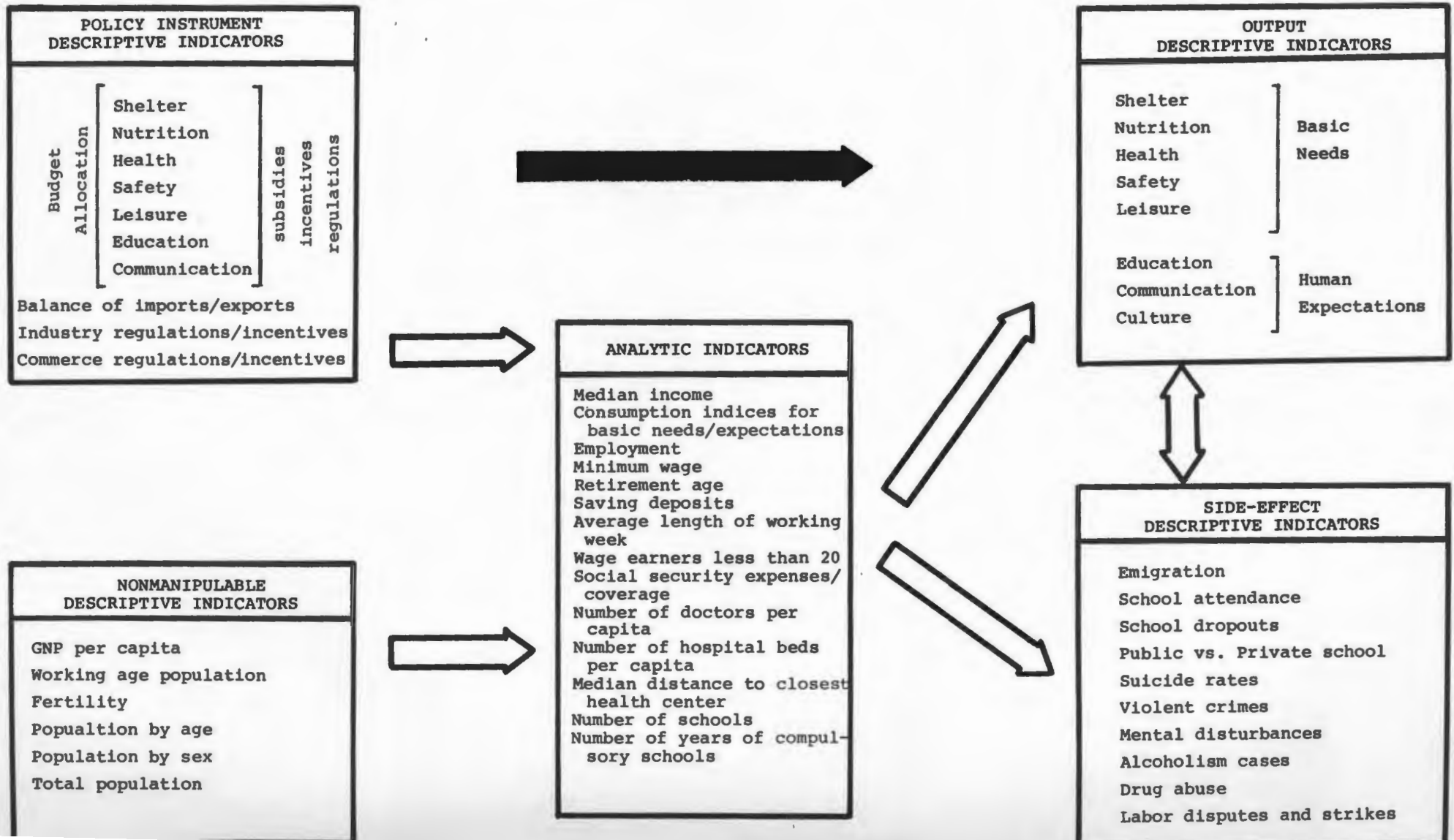


Table IV.1 - Output Descriptive Indicators (Basic Human Needs)

AREA OF SOCIAL CONCERN	INDICATOR
Nutrition	Meat consumption per capita Fish " " " Milk " " " Eggs " " " Cheese " " " Sugar " " " Fruit " " " Vegetables " " " Cereals " " " Potato " " " Animal protein consumption per capita Vegetal protein " " " Animal calories " " " Vegetal calories " " " Demand for food from social assistance service
Shelter	Number of housing units per person Number of rooms per housing units Percent of occupied housin units Percent of other type of shelter relative to total housing units Services and facilities available in housing units Demand for shelter from social assistance services
Health	Mean age of death Mortality rate Infant mortality rate Incidence of epidemic diseases " " tumor " " " circulatory " " " respiratory "
Safety	Traffic accidents leading to death Number of homicides Number of other (than traffic and homicides) accidents leading to death Number of robberies reported to the police
Leisure	Total time available for leisure Recreational area available Use of leisure time



evaluated by analyzing the mean age of death, mortality rates, the incidence of certain epidemic, circulatory and respiratory diseases. Safety can be assessed by examining the incidence of accidents and crimes, and, to a certain extent, the levels of environmental pollution. The satisfaction of leisure needs depends on the number, size, availability and characteristics of leisure facilities, and on the total amount of time available for leisure accompanied by statistical information on the use of that leisure time.

The general human expectations considered above are: education, communication and culture. The fulfillment of these expectations can be evaluated by the indicators listed in Table IV-2. Education can be assessed by an analysis of illiteracy and enrollment rates and the number of students per teacher in the several educational grades. Communication involves the movement of people and the indirect means of communication at long distance, either written or spoken. These can be enquired through information on road and railway traffic (both the number of vehicles and the length of road or railway), information on the use of available transportation, the number of telephones per capita and the number of phone calls, letters and telegrams per capita. The adequacy of cultural opportunities is determined by the availability and usage of books, art museums and galleries, concert and theater performances.

Table IV.2 - Output Descriptive Indicators (Human Expectations)

AREA OF SOCIAL CONCERN	INDICATOR
Education	Percent of illeterates Percent of school age population enrolled in different grade groups Number of students per teacher in different grades
Communication	Number of passenger cars Number of commercial vehicles Length of motorway Length of railway Railway passenger traffic Number of telephones per capita Number of telephone calls per capita Number of letters per habitant Number of telegrams per habitant
Culture	Number and use of published books Number and use of public libraries Number and diversity of theater performances Number of theater admissions Number of visits to museums Number of visits to art galleries Number of visits to monuments

#### 4.3 IDENTIFICATION OF SIDE-EFFECT DESCRIPTIVE INDICATORS

Side-effect descriptive indicators are outputs of the social system model which are not directly related to the determinants of the quality of life, but are associated indirect indicators. They provide an indirect measure of the satisfaction of the population with the life conditions in the nation. The following variables are considered in this group: emigration, anti-social behavior (suicide rates, violent crimes, mental disturbances, alcoholism and drug addiction), labor disputes and strikes, school attendance rates, school dropout rates, attendance of private vs. public education.

#### 4.4 IDENTIFICATION OF POLICY INSTRUMENT INDICATORS

The policy actions which influence the quality of life in a nation are ultimately taken at the governmental level. The primary determinant of governmental policies is the allocation of the country resources to the different areas of social concern, as assigned in the national budget. Consequently, the share of the total resources allocated to each one of the basic human needs and expectations provides primary policy instrument indicators for the quality of life, as well as the regulatory/incentivation measures taken by the government. Other policy instrument indicators are: the balance of imports/exports, industry regulation/incentivation measures, and commerce regulation/incentivation. These are the major means available to the government for influencing the quality of life its citizens through policy measures.

#### 4.5 IDENTIFICATION OF NONMANIPULABLE DESCRIPTIVE INDICATORS

The inputs to the social system model which describe external influences on the quality of life which are not directly subjected to policy actions involve: Gross National Product (GNP) per capita, Gross Domestic Product (GDP) per capita, and demographic characteristics such as total population, population by sex and age, urban and nonurban population, share of population in working age, fertility. These indicators provide information on the general profile of the country and are used as a secondary information base.

#### 4.6 MODEL FOR SOCIAL SYSTEM. IDENTIFICATION OF ANALYTIC INDICATORS

The interactions between the inputs and the outputs of the social system model, which were identified in the preceding sections, are given in diagrammatic form in fig. 4-1 .

Budget allocations and incentives/regulations directly influence the fulfillment of the associated basic needs and human expectations. Other basic needs and human expectations are also directly influenced: policies on both shelter and nutrition influence the quality of health; policies on safety influence communication; policies on leisure influence health, education, communication and culture; and the policies on communication influence safety, leisure, culture and shelter. The policy instrument variables are also directly related to certain nonmanipulable variables, such as GNP and GDP.

The side-effect descriptive variables influence, in a direct way, some of the output descriptive variables: school attendance, school dropouts and the attendance of private vs. public schools are related to education; anti-social behavior is related to health; violent crimes are related to safety; labor disputes and strikes provide information on the satisfaction of all needs and expectations.

Certain analytic variables, related to the interactions of the model inputs and outputs, are explicitly mentioned below due to their particular importance in connection with the objective of this present study. These variables are: median income, share of income allocated to each one of the identified basic needs and expectations, employment, minimum wage, retirement age, savings deposits, average length of the working week, wage earners under 20 years old, social security expenses and coverage, number of medical doctors per capita, number of hospital beds per capita, median distance to closest hospital facility, number of schools at different levels, and number of years of compulsory education.

Relative to the direct interactions of these variables with inputs of the model, the following are the most important: the median income and the consumption indices for each one of the basic needs or expectations are determined by the inputs to the model, and determine, in a direct way, all the outputs; employment, minimum wage, retirement age, savings deposits, and average length of working week are directly determined by the policies on education, the values of GNP, and the size of the working age population; the

number of medical doctors and the number of hospital beds are directly affected by the policies on health and education; the number of schools and the number of years of compulsory education are influenced by the policies on education. On the other hand, the analytic variables influence the outputs in the following direct ways: employment, median income and minimum wage determine emigration; number of medical doctors and number of hospital beds determine health; number of schools and number of years of compulsory education determine education; and social security expenses and covering influence the satisfaction of shelter, nutritional and health needs.

#### 4.7 SPECIFICATION OF OUTPUT DESCRIPTIVE INDICATORS

Since the output descriptive indicators are the most important for this analysis, they are described in detail in this section. For each one, the concept represented, its definition, its purpose, its assumptions and limitations are described.

##### Basic Human Needs

###### A. Nutrition

- (i) Meat consumption per capita
- (ii) Fish           "       "       "
- (iii) Milk           "       "       "
- (iv) Eggs           "       "       "
- (v) Cheese          "       "       "
- (vi) Sugar          "       "       "

(vii) Fruit	"	"	"
(viii) Vegetables"	"	"	"
(ix) Cereals	"	"	"
(x) Pctato	"	"	"
(xi) Animal protein consumption per capita			
(xii) Vegetal protein	"	"	"
(xiii) Animal calories	"	"	"
(xiv) Vegetal calories	"	"	"

Concept

Represented Consumption of essential nutrients.

The

Measure Total weight (or volume) consumed yearly divided by the total population, for each one of the products, except for calories consumption when it is the total number of calories yearly consumed divided by the total population.

Purpose To measure the adequacy of nutrients consumption.

Assumptions High values of these measures are positive indicators of the satisfaction of nutrition needs.

Limitations High consumptions of the above nutrients does not necessarily mean a better diet, though that still provides some indication on diet quality.

(xv) Demand of food from social assistance services

Concept

Represented The impossibility of individuals to account for their own food supply.

The

Measure Total number of persons seeking food assistance divided by the total population.

Purpose To measure the inability of individuals to provide for their own nutrition.

Assumptions The population not able to account for adequate nutrition seeks food supply from social assistance services. A decrease on the value of this indicator identifies an improvement on the satisfaction of nutrition needs.

Limitations Population seeking assistance is not a reliable measure of deprived population. Irrational allocation of individual financial resources is not accounted for. Individuals with financial resources to provide for their own nutrition may ask social assistance due to a deficient allocation of their resources, e.g., drug addicts.



## B. Shelter

## (i) Number of housing units per person

## Concept

Represented Number of building structures officially qualifying as adequate for housing.

## The

Measure Total number of housing units divided by the total population.

Purpose To measure the availability of housing in the market.

Assumptions High values of this variable are assumed to be desirable since they imply better opportunities for adequate housing conditions, less overcrowding of individual units and lower housing costs.

Limitations The number of units available in the market is not necessarily a measure on the availability of adequate housing. The quality of the housing units, their localization and affordability are not taken into consideration.

## (ii) Number of rooms per housing unit

## Concept

Represented Size of the housing units.

The

**Measure** Total number of rooms in all housing units which could be possibly used as bedrooms (kitchens and bathrooms are not included) divided by the total number of housing units.

**Purpose** To measure the adequacy in size of the available housing units.

**Assumptions** Large values of this indicator are considered positive for the quality of shelter, since they imply the possibility of reducing overcrowding.

**Limitations** Does not necessarily measure the adequacy in size of housing units. These are only mean values for the total housing units, without distinguishing too small or too big housing units, and without considering the size of the families habiting them.

(iii) Percent of occupied housing units

**Concept**

**Represented** Availability of unoccupied housing units.

The

**Measure** Percentage of the total housing units which are occupied.

**Purpose** To measure the availability of housing in the market.

**Assumptions** (as for (i))

**Limitations** (as for (i))

(iv) Percent of other type of shelter relative to total housing units

Concept

Represented Inadequate shelter being used.

The

Measure Percentage of structures that do not officially qualify as adequate for housing, but are actually being occupied for that purpose, relative to the total number of structures officially qualifying as adequate for housing.

Purpose To measure the share of structures inadequate for housing which are actually being used for this purpose.

Assumptions High values of this indicator are negative for the quality of housing.

Limitations Does not provide information on the comparative distribution of the quality of the structures involved, and on the number of persons housed in such inappropriate shelter.

(v) Services and facilities available in housing units

Concept

Represented The quality of housing units.

The

Measure Percentage of housing units with water supply, electricity supply and sewage facilities over the total number of housing units.

**Purpose** To measure the share of housing units meeting minimum quality standards and sanitary conditions.

**Assumptions** An increase in the value of this indicator is considered positive for the quality of shelter.

**Limitations** The conditions used in the classification of houses with services and facilities may fail to be directly related to the quality of shelter. Cultural and educational constraints are not taken into consideration (groups of population exist who use facilities for unusual purposes, such as indoor gardens in the bathtub).

(vi) Demand of shelter from social assistance services

**Concept**

**Represented** The impossibility of individuals to account for their own shelter.

**The**

**Measure** Total number of persons seeking shelter assistance divided by the total population.

**Purpose** To measure the inability of individuals to provide for their own shelter.

**Assumptions** The population unable of accounting for adequate shelter seeks it from social assistance services. A decrease from the value of this indicator identifies an improvement on the satisfaction of nutrition needs.

**Limitations** Population seeking assistance is not a reliable measure of the deprived population. Irrational of individual financial resources is not accounted for.

### C. Health

#### (i) Mean age of death

##### Concept

**Represented** The longevity of the population.

##### The

**Measure** Mean age of death of individuals dying per year.

**Purpose** To measure the quality of health care and safety.

**Assumptions** An increase on the value of this indicator is related to better health conditions.

**Limitations** An increase in the mean age of death may be achieved by increasing the number of people living in supervised and restricted medical situations, and it may be arguable that this would be a significant improvement in the quality of health care. More important, changes in the age composition of the population are not taken into account and this affects the conclusions that can be drawn from this indicator (a disproportionate increase of young population may indirectly result in higher mean age of death).

## (ii) Mortality rate

Concept

Represented The total number of deaths.

The

Measure Mortality rate measures the yearly total number of deaths per one thousand persons in the total population.

Purpose This indicator measure the adequacy of health care.

Assumptions An increase in mortality rates is directly related to inadequate health care.

Limitations The age composition of the population is not taken into account. Deaths due to causes not related to health are not distinguished from those that are health related.

## (iii) Infant mortality rate

Concept

Represented Number of infant deaths.

The

Measure Number of deaths of children less than one year old per one thousand of live births during the year.

Purpose To determine the health care conditions during the first year of life.

**Assumptions** A decrease in the infant mortality rate is assumed directly associated to an increase in the quality of the health care conditions.

**Limitations** Deaths are not exclusively related to health conditions.

(iv) Incidence of epidemic diseases

(v) " " tumor "

(vi) " " circulatory "

(vii) " " respiratory "

**Concept**

**Represented** Preventive health care for most frequent diseases.

**The**

**Measure** Number of hospitalized patients with the corresponding disease per one thousand habitants.

**Purpose** To evaluate preventive medicine.

**Assumptions** Lower values of these variables are indicative of better health care.

**Limitations** The incidence of the disease is not completely related to the inadequacy of preventive health care.

## D. Safety

### (i) Traffic accidents leading to death

**Concept**

**Represented** Lack of safety.

**The**

**Measure** Total number of yearly reported cases of traffic accidents involving deaths, per one million habitants.

**Purpose** To measure inadequacy of transportation infrastructures and traffic safety.

**Assumptions** High values of these variable indicate bad safety conditions in traffic.

**Limitations** The comparative importance of the several accidents is not included in this measure.

### (ii) Number of Homicides

**Concept**

**Represented** Lack of security against crime.

**The**

**Measure** Total number of homicides yearly reported to the police per one million habitants.

**Purpose** To assess safety of the environment.

**Assumptions** The increase in homicides is a threat against safety.



Limitations Homicides are frequently related to specific events and do not represent a direct threat to the overall safety of the population.

(iii) Number of other (than traffic and homicides) accidents leading to death

Concept

Represented Lack of safety against accidental death.

The

Measure Total number of accidents leading to death, other than traffic accidents and homicides.

Purpose To assess safety of the environment.

Assumptions The increase of this indicator represents a threat against safety.

Limitations The causes of the reported accidents are not taken into account in this indicator and, consequently, it is not possible to have a clear evaluation of the threat they represent to the safety of the overall population.

(iv) Number of robberies reported to the police

Concept

Represented Lack of security against crime.

The

Measure Total number of yearly reported robberies.

Purpose To assess safety of the environment.

**Assumptions** The increase in criminal activity is a threat against safety. Besides the possible dispossession of property, which affects directly the individual who is robbed, other individuals fear to be victims of crime and, in trying to avoid being subjected to it, they limit their activities, interfering with the fulfillment of their needs and aspirations.

**Limitations** Subjective judgement is involved due to different perceptions of public safety. Besides, the comparative importance of the reported robberies is not taken into account.

## E. Leisure

### (i) Total time available for leisure

#### Concept

**Represented** The availability of time of each individual for activities other than work, transportation to and from work, meals and sleep.

#### The

**Measure** Percentage of the total time available for activities other than work, transportation to and from work site, meals and sleep.

**Purpose** Measures the individual availability of time for leisure.

Assumptions Quality of life is positively related to the availability of time for leisure.

Limitations Does not consider the opportunities to use leisure time in a gratifying way, and does not exclude the possibility of individuals using this time for other working activities.

(ii) Recreational area available

Concept

Represented Per capita availability of recreational space.

The

Measure Total area assigned to recreational activities divided by the total population.

Purpose To measure the space available for recreation.

Assumptions This indicator measure recreational opportunities of the population. An increase in its value is considered positive for the quality of life.

Limitations Does not take into account factors like utilization rates, adequacy for recreational uses, accessibility, types of recreational facilities provided, location, size.

(iii) Use of leisure time

Concept

Represented Utilization of leisure time.

<b>The</b>	
<b>Measure</b>	Allocation of time available for leisure by activities actually performed.
<b>Purpose</b>	To evaluate the adequacy of utilization of time available for leisure.
<b>Assumptions</b>	The percent of time dedicated to recreational activities is assumed to be positive for the satisfaction of leisure needs.
<b>Limitations</b>	Does not take into account the specific circumstances associated with the activity performed. Certain individuals may feel more gratified by carrying out work assignments than by participating in recreational activities.

### Human Expectations

#### A. Education

##### (i) Percent of illiterates

###### Concept

**Represented** Share of the total population deprived of education.

###### The

**Measure** Percentage of illiterates in the total population over 6 years old.

**Purpose** To measure the opportunities for education.

**Assumptions** Decreases in this variable are assumed to be positive for the fulfillment of the population educational expectations.

**Limitations** Certain cases of illiteracy may be unrelated to educational opportunities. Certain individuals may be physically handicapped or may have refused, by personal choice, to attend school.

(ii) Percent of school age population enrolled in different grade groups

**Concept**

**Represented** Share of school age population enrolled in school.

**The**

**Measure** Total number of students enrolled in each grade group divided by the total population of the corresponding age group.

**Purpose** To measure the adequacy of educational opportunities.

**Assumptions** People not enrolled in the school were forced to be in that situation due to lack of opportunities.

**Limitations** Does not take into account the student population having opportunities but not willing to study due to other reasons, such as illness or mental disturbances.

## (iii) Number of students per teacher in the different grades

## Concept

Represented Availability of teachers.

## The

Measure Total number of students in each of the school grade groups divided by the total number of teachers in the same group.

Purpose To measure the quality of education.

Assumptions Lower numbers of this variable are related to better quality of education.

Limitations Does not take into consideration the distribution of teachers and students by different schools or regions, as well as the quality of the teachers.

## B. Communication

(i) Number of passenger cars

(ii) " " Commercial vehicles

## Concept

Represented Mobility of the population by road transportation.

## The

Measure Total number of vehicles by one million habitants.

**Purpose** To measure the opportunities for mobility by road transportation.

**Assumptions** The mobility of the population increases with the increase of the number of vehicles. Such an increase is considered positive for the quality of life.

**Limitations** Does not take into account the quality of vehicles, the utilization rates, and the fact that certain individuals own more than one vehicle.

(iii) Length of motorway

(iv) " " railway

**Concept**

**Represented** Existing transportation infrastructures.

**The**

**Measure** Total length of existing motorway or railway.

**Purpose** To measure the mobility opportunities of the population.

**Assumptions** The length of motorway and railway reflect the mobility of the population. High values of this variable are assumed to be favorable for the quality of life of the population.

**Limitations** Does not take into account rates of utilization, quality of transportation and adequacy of the communication network.

(v) Railway passenger traffic (in passengers and passenger.kilometers)

Concept

Represented Railway utilization.

The

Measure Total number of passengers divided by the total population, and total number of passenger.kilometers travelled divided by the total population.

Purpose To determine the mobility of the population through rates of utilization of railway transportation.

(vi) Number of telephones per capita

(vii) Number of telephone calls per capita

Concept

Represented Ability to satisfy the verbal communication needs of the population.

The

Measure Total number of telephones per one thousand habitants, and total number of yearly telephone calls per one thousand habitants.

Purpose To measure the satisfaction of the population expectations related with verbal communication at distance.



**Assumptions** Persons having a telephone have better opportunities for communication, and the number of telephone calls is a measure of the adequacy of verbal communication at distance.

**Limitations** Does not take into account the quality of the communication services and the adequacy of the communication network.

(viii) Number of letters per habitant

(ix) " " telegrams " "

**Concept**

**Represented** Ability to satisfy the population expectations related to written communication.

**The**

**Measure** Total number of letters or telegrams yearly issued divided by the total number of habitants.

**Purpose** To measure the satisfaction of the population expectations related to written communication.

**Assumptions** Higher values of these variables indicate better satisfaction of the population expectations related to written communication.

**Limitations** The quality and efficiency of the postal services and the distribution of its utilization through population groups is not taken into account.

## C. Culture

(i) Number and use of published books

(ii) " " " " public libraries

Concept

Represented Availability and use of printed material.

The

Measure Number of yearly published books, number of books sold and number of users of public libraries divided by the total population.

Purpose To measure the cultural opportunities related to the availability of printed material.

Limitations The quality and diversity of the publications are not taken into account, as well as the diversity of users.

(iii) Number and diversity of theater performances

(iv) " of theater admissions

Concept

Represented Availability and attendance of theater performances.

The

Measure Total number of theater performances, number of distinct plays enacted and number of theater admissions per year and per habitant.

**Purpose** To measure the population opportunities for attending theatre performances.

**Assumptions** The number and diversity of theatre performances and the number of theatre admissions are a measure of the fulfillment of the population cultural expectations.

**Limitations** The quality of plays and performances, the diversity of the public and the regional distribution are not taken into account.

(v) Number of visits to museums

(vi) " " " " art galleries

(vii) " " " " monuments

**Concept**

**Represented** Availability and use of public art displays.

**The**

**Measure** Total number of yearly visits divided by the total population.

**Purpose** To measure the opportunities for visiting public art displays.

**Assumptions** Higher values of these variables indicate better opportunities for visiting public art displays.

**Limitations** The quality, diversity and localization are not taken into account, as well as the diversity of visitors.

## Chapter V

### DATA ANALYSIS

In this chapter, data on the indicators developed through the social indicator model previously described are presented and analyzed. Whenever it was possible to obtain data for all of the years during the two periods of this study, the following quantities were computed for each of the two periods (1950-59 and 1960-69): the mean, the slope of the regression line, and the correlation coefficient. The slope of the regression line provides the linear trend that better fits the data of the corresponding period. The correlation coefficient gives an indication of the scattering of data values around the regression line, and, therefore, provides information on the adequacy of the linear trend in describing the changes observed during the period (correlation coefficient equal to +1 or -1 means linearity of data and smaller magnitudes of the coefficient indicate departure from linearity). A comparison of the indicator values for the two periods is carried out by comparison of the three quantities just defined.

The gathering of data was difficult and extremely time consuming, as information on social indicators is, in general, deficient. Indirect sources often had to be used and, in certain cases, the indicator identified in the model developed had to be replaced by related, but different, variables, or even bypassed due to the unavailability of data.

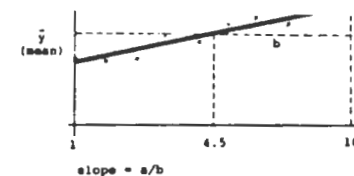
## 5.1 OUTPUT DESCRIPTIVE INDICATORS

### a) Nutrition

It was not possible to obtain data on consumption levels of the several food products identified in the social indicator model developed in the previous chapter. Instead, the total amount, per capita, of each product available in the market (domestic production plus imports) is used. Table V.1 contains the corresponding data, as well as information on the protein and calorie contents of animal and vegetal products.

For all products, except cereals, the availability per capita increased from 1950-59 to 1960-69. The increase in mean values was particularly high for meat (95%), fruit (56%) and sugar (50%), and was substantial for fish, milk, eggs and vegetables (all between 23% and 33%). The increase in the mean availability per capita of potatoes (10%) and the decrease in the availability of cereals (-10%) were moderate. The linear trends, as measured by the slope of the regression line, show a substantial increase for fish (450%), cheese (200%), meat (115%), cereals (113%), remained fairly stable for sugar and fruit, and declined substantially for vegetables (-128%), potato (-167%) and milk (-200%). It should, however, be noted that the assumption of linear trends is not supported by the values of the correlation coefficient for fish in 1950-59, vegetables and potato in 1960-69, and cereals in both periods, but is fairly good for the other products.

Table V.1 - Indicators related to nutrition in Italy:  
mean, slope of regression line and correlation coefficient.



INDICATOR		1950 - 59			1960 - 69			PERCENT CHANGE	
		mean	slope	r1*	mean	slope	r2*	mean	slope
AVAILABILITY OF FOOD PRODUCTS +	Meat (Kg)	20	1.3	0.96	39	2.8	0.98	95	115
	Fish (Kg)	6.7	0.06	0.58	8.6	0.33	0.87	28	450
	Milk (Ltr)	52	1.5	0.95	65	0.5	0.80	25	-67
	Eggs (Kg)	7.7	0.3	0.90	9.5	0.09	0.68	23	-70
	Cheese (Kg)	6.4	0.1	0.81	8.5	0.3	0.95	33	200
	Sugar (Kg)	16	0.8	0.99	24	0.7	0.94	50	-13
	Fruit (Kg)	61	2.7	0.86	95	3.3	0.95	56	22
	Vegetables (Kg)	101	5.7	0.87	133	-1.6	-0.40	32	-128
	Cereals (Kg)	201	-1.6	-0.45	182	0.2	0.35	-9	113
	Potato (Kg)	44	1.8	0.95	48	-1.2	-0.64	9	-2
PROTEIN CONTENT+	Animal (Grs)	62	1.6	0.97	79	2.1	0.98	27	31
	Vegetal (Grs)	518	0.4	0.06	519	2.4	0.70	0.2	500
CALORIES CONTENT+	Animal	399	9.8	0.94	498	12.9	0.98	25	32
	Vegetal	2,300	6.6	0.21	2,400	19.5	0.85	4	195

\* Correlation coefficient (r)

+ Per capita per year

Source: Derived from Appendix A, Table 1.

The protein and calorie contents of the animal food products increased from 1950-59 to 1960-69 by approximately 25% in the mean and by 30% in the linear trend. The values for vegetable products remained stable in the mean, but the associated linear trends increased by 500% for protein and by 200% for calorie. The linear approximation is fairly good for the animal products, but for vegetable products it is not supported by the values of the correlation coefficients during the period 1950-59.

It was not possible to obtain information on the other indicator identified in the model: the demands for food from social services.

Summary : The data described above indicate a substantial improvement in the nutrition of the Italian population from 1950-59 to 1960-69, not only in absolute values of food products available for consumption, but also in the diet composition, where a shift from cereals and potato to meat, fruit and fish occurred.

b) Shelter

Data on shelter were only available for the years of the general census of the Italian population: 1951, 1961, 1971. The recorded values are given in Table V.2 .

The total number of housing units available per habitant in 1951, 1961 and 1971, was, respectively, 0.24, 0.28 and 0.32, which correspond to an increase of 17% during 1951-61 and 14% during 1961-71. The term "housing unit" is applied here only to structures satisfying the conditions stipulated by Italian Law as appropriate for housing, and, therefore, do not include residences which

Table V.2 - Indicators related to shelter in Italy: value and percent change in the periods 1951-61 and 1961-71.

INDICATORS	1951	1961	1971	PERCENT CHANGE	
				51-61	61-71
Number of housing units per person	0.24	0.28	0.32	17	14
Number of rooms per housing units	3.2	3.3	3.6	3	9
Percent of occupied housing units	94	92	88	-2	-4
Percent of other type of shelter relative to total housing units	1.7	1.2	0.32	-29	-73

Source: Derived from Appendix A , Table 2 .



do not satisfy minimum housing requirements or were approved for other uses (such as offices, shops, etc.).

The percentage of occupied housing units was 94%, 92% and 88% in 1951, 1961 and 1971, respectively. These figures show a certain increase in the availability of non-occupied housing units, especially during the period 1961-71.

The term "other type of shelter", which appears in the table, refers to shelter which was not intended for residence or does not satisfy the minimum approved conditions for housing, but was occupied by one or more resident families at the time of the census. The ratio of "other type of shelter" to the number of housing units was 1.7%, 1.2% and 0.3%, for 1951, 1961 and 1971, respectively. This shows a comparative improvement in the housing conditions of the population, which was substantially higher during 1961-71 than 1951-61.

It was not possible to obtain sufficient data on services and facilities available in housing units and on the demand for shelter from social services to make a useful comparison.

Summary : The observed values described above indicate an improvement in the shelter conditions of the Italian population from 1951 to 1961 and from 1961 to 1971. This improvement was somewhat higher in the second period.

c) Health

Table V.3 provides information on the mean age of death, on mortality rates and on the incidence of certain diseases.

The average of the mean age of death during 1950-59 was 66 years old, compared to 71 years old for 1960-69. The total mortality rate and the infant mortality rate were, respectively, 67 and 62 per thousand habitants, in 1950-59, and 71 and 37 per thousand habitants in 1960-69.

The mean incidence of epidemic and of respiratory diseases decreased substantially from 1950-59 to 1960-69, but the mean incidence of tumors and of circulatory diseases increased from one period to the other.

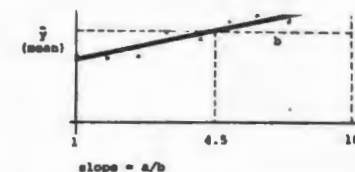
Summary : The data just described indicate improvement in the health conditions of the population from 1950-59 to 1960-69, except for the incidence of tumors and circulatory diseases which, usually, increase with technological development and with major population migrations from rural to urban areas.

d) Safety

Information on accidents leading to death by traffic, murders or other causes, is given in Table V.4, together with the number of robberies reported to the police.

The average number of fatal traffic accidents increased by 40% from 1950-59 to 1960-69. The average number of murders decreased by 92% from the first to the second period. At the same time, other accidents causing death decreased, in average, by 34% from

Table V.3 - Indicators related to health in Italy:  
mean, slope of regression line and correlation coefficient.

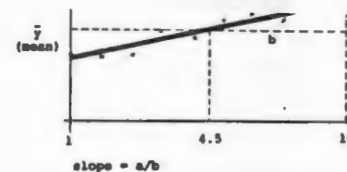


INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Mean age of death (1)	67	1.3	0.71	71	0.2	0.93	6	-85
Total mortality rate (1) per 1,000 habitants	67	1.3	0.71	71	0.2	0.93	6	-85
Infant mortality rate (1) per 1,000 live births	62	-1.2	-0.39	37	-1.5	-0.98	-40	25
Diseases: (1) per 1,000 habitants								
Epidemic	0.43	-0.04	-0.91	0.23	-0.01	-0.81	-47	-75
Tumors	1.3	0.04	0.95	1.7	0.04	0.96	31	0
Circulatory	2.6	0.10	0.84	3.4	0.17	0.74	31	70
Respiratory	1.04	-0.07	-0.46	0.86	0.02	0.40	-17	-129

\* Correlation coefficient (r)

Source: Derived from Appendix A, Table 3.

Table V.4 - Indicators related to safety in Italy:  
mean, slope of regression line and correlation coefficient.



INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Accidents leading to death: per 1,000,000 habitants								
Traffic	161	9.2	0.91	228	3.3	0.65	0.42	-0.64
Homicides	121	1.5	0.64	9.7	-0.4	0.81	-0.92	-127
Other	337	0.1	0.21	222	-1.6	-0.30	-0.34	-17
Robberies reported to the police per 1,000,000 habitants	4,700	47	0.39	4,900	23	0.33	4.3	-51

\* Correlation coefficient (r)

Source: Derived from Appendix A, Table 4.

1950-59 to 1960-69. A comparison of the linear trends, obtained by regression analysis, shows a decline in the trends for traffic, murders and other types of accidents leading to death, from 1950-59 to 1960-69, by, respectively, 65%, 126% and 1,670%. However, the assumption of linear trends is not supported by the value of the correlation coefficients, except for traffic accidents in both periods considered, and murders in 1960-69.

On the other hand, the cases of robbery reported to the police increased by 7% from 1950-59 to 1960-69, and the linear trend decreased by 52%, although the observed values are too much scattered around the line of best fit to be considered linear.

Summary : Relative to the occurrence of crimes, the overall safety increased markedly from 1950-59 to 1960-69, and the increase in the second period was substantially higher. However, traffic safety decreased from the first to the second period, although the line of best fit provided for a moderate increasing trend in 1950-59, as compared to a substantial decreasing trend in 1960-69.

e) Leisure

It was not possible to obtain adequate data on leisure. In particular, the total time available for leisure, the total area available for recreation, and the use of leisure time could not be found in the available literature.

f) Education

Illiteracy and school enrollment data were available only for the years of the general census of the Italian population : 1951, 1961 and 1971. The corresponding values appear in Table V.5 .

The ratio of illiterates to the total population of age greater or equal to six years old, decreased by 36% from 1951 to 1961 and by 1.6% from 1961 to 1971. In 1971 the observed illiteracy rate was 5.2%.

The ratio of enrolled students to the number of individuals in the corresponding age groups increased from 1951 to 1961 and from 1961 to 1971. The increases were much greater during the second period.

Information on the number of students per teacher was available for all years during the periods considered in this study, and is given in Table V.6 . These numbers were 22 and 12 students per teacher by 1970, for the elementary and the secondary grades, respectively, and they decreased, in average, from 1950-59 to 1960-69 by 18% for the elementary grades (ages 6-10 years old) and by .05% for the secondary grades (ages 11-13 years old).

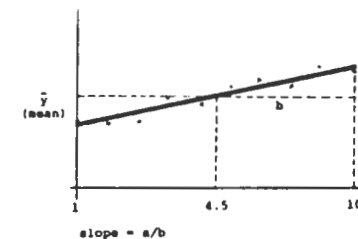
Summary : Illiteracy and the number of students per teacher decreased in both periods of study, with important decreases during the first period and small decreases during the second. However, by the end of the second period both variables were assuming acceptable values. The enrollment ratios in the different school grades increased substantially in both periods, with particularly high values for 1960-69.

Table V. 5 - Indicators related to education in Italy:  
value and percent change in the periods 1951-61 and 1961-71

	1951	1961	1971	PERCENT CHANGE	
				51-61	61-71
Percent of illitera (6 years old and over)	12.9	8.3	5.2	-34	-37
Percent of school age population enrolled:					
Elementary and secondary (6 to 10 and 11 to 13 years old)	88.2	90.4	102.4	2.5	13.3
Advanced (14 to 18 years old)	10.6	21.8	43.7	105.7	100.5
University (19 to 23 years old)	5.5	7.1	19.0	29.1	4.7

Source: Derived from Appendix A, Table 5.

Table V.6 - Indicators related to education in Italy:  
 mean, slope of regression line and correlation coefficient.



INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Pupils per teacher								
Primary	25.67	-0.33	-0.77	21.75	-0.02	-0.24	-153	-94
Secondary	11.62	0.22	0.85	11.56	-0.03	-0.54	-0.5	-114

\* Correlation coefficient (r)

Source: Derived from Appendix A, Table 5.



g) Communication

Data on the adequacy of means of communication were obtained relative to the following variables: number of cars per capita, total length of motorway, total length of railway line open to traffic, railway passenger traffic (passengers and passenger.kilometers), number of telephones and of telephone calls per capita, number of letters and of telegrams per capita. The values observed for these variables are collected in Table V.7 .

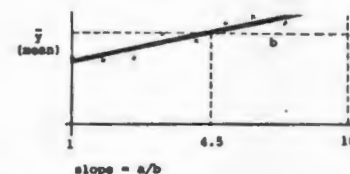
The average number of passenger cars per capita increased by 460% from 1950-59 to 1960-69, and the average number of commercial vehicles increased by 81% from one period to the other. The corresponding linear trends also increased from one period to the other, by factors of comparable magnitudes. The total length of motorway increased, in average, by 30% from the first period of study to the second.

The length of railway and the passenger traffic on the railway both decreased slightly throughout the two periods, with a more pronounced decrease during the second period.

The number of telephones per capita increased, in average, by 170% from 1950-59 to 1960-69, and the number of telephone calls per capita increased by 277%. The associated linear trends increased by 54% and 197%, respectively.

Both the number of letters and of telegrams per capita increased, in average, by 38% from 1950-59 to 1960-69. The corresponding linear trends decreased significantly from the first period to the second.

Table V.7 - Indicators related to communication in Italy:  
mean, slope of regression line and correlation coefficient.

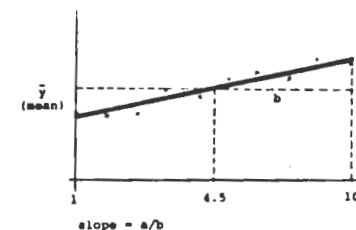


INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Number of motor vehicles: (per 1,000,000 habitants)								
Passenger cars	18.10	2.85	0.99	101.61	15.16	1.00	461	432
Commercial vehicles	6.81	0.40	0.97	12.33	0.66	0.99	81	65
Total length of motorway (Km)	174,979	1,485.7	0.94	227,809	12,775.3	0.93	30	760
Total length of railway (Km)	21,673	-27.55	-0.45	20,771	-110.79	-0.96	-4.2	302
Railway passenger traffic:								
Passenger per capita	11.24	-0.02	-0.25	9.47	-0.36	-0.94	-15.8	1,700
Passenger.kilometer per capita	544.70	9.93	0.94	601.89	-4.93	-0.62	10.5	-149.7
Number of telephones (per 1,000 habitants)	1,816.8	227.15	0.99	4,897.2	350.35	1.00	169.6	54.2
Number of telephone calls (per 1,000 habitants)	225.5	32.5	0.98	850.8	98.0	0.99	277.3	201.5

\* Correlation coefficient (r)

Source: Derived from Appendix A, Table 6.

Table V.7 - Indicators related to communication in Italy:  
 mean, slope of regression line and correlation coefficient.  
 (cont.)



INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Number of letters (per 1,000,000 habitants)	79.63	4.8	0.99	109.92	1.5	0.89	38	-68.8
Number of telegrams (per 1,000,000 habitants)	0.66	0.01	0.85	0.66	-0.03	-0.82	0	-400

\* Correlation coefficient (r)

Source: Derived from Appendix A, Table 6 .

Summary : The availability of means for communication through motor vehicles, telephones, letters, and telegrams increased substantially from 1950-59 to 1960-69. The linear trends observed in these variables increased significantly for the number of vehicles and the number of telephones. The railway services and traffic remained almost constant, decreasing only slightly. The linear trends observed in the number of letters and telegrams decreased significantly from the first period to the second.

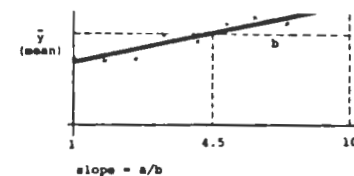
#### h) Culture

It was not possible to obtain adequate data on the fulfillment of the cultural expectations of the population. In particular, the number and use of published books, theater performances and public libraries could not be found in the available literature. Some indirect information was obtained on the number of visits to museums, art galleries and monuments. These data are given in Table V.8.

The average number of visits to museums, art galleries and monuments increased by 57% from 1950-59 to 1960-69. At the same time, the linear trend associated with these variables decreased by 110% .

Summary : The available data on the fulfillment of cultural expectations of the population are not enough to reach reliable conclusions. However, the numbers of visits to museums, art galleries and monuments indicate a considerable increase in those cultural activities from 1950-59 to 1960-69.

Table V.8 - Indicators related to culture in Italy:  
mean, slope of regression line and correlation coefficient.



INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Visits to:								
Museums per 1,000 habitants	30	0.7	1.00	41	1.6	0.95	37	129
Galleries per 1,000 habitants	19	0.5	1.00	27	1.3	1.00	42	160
Monuments per 1,000 habitants	118	6.4	1.00	191	13	0.97	62	103
Total per 1,000 habitants	167	7.6	1.00	263	16	0.99	57	111

\* Correlation coefficient (r)

Source: Derived from Appendix A, Table 7.

## 5.2 SIDE EFFECT DESCRIPTIVE INDICATORS (OUTPUT)

Data on side-effect descriptive indicators is given in Tables V.9 and V.10 . It was not possible to acquire information on school attendance, school dropout rates, alcoholism and drug abuse. The variables for which data were available are analyzed below. It should be noted that the correlation coefficient of most of the variables indicate high dispersion from the line of best fit, and, therefore, that the information on linear trends is not reliable.

### a) Emigration

The emigration rates for the periods 1950-59 and 1960-69 remained, in average, stable, and the associated linear trends changed considerably from positive in the first period to negative in the second.

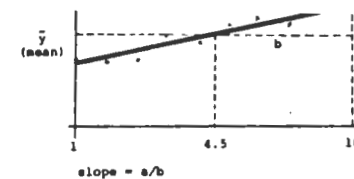
### b) Suicide rates

Rates of suicides reported to hospitals decreased, in average, from 1950-59 to 1960-69 by 14% . At the same time, the suicide attempts reported to the police increased from the first period to the second by 9% .

### c) Psychic disturbances and diseases of the nervous system

The incidence of psychic disturbances and of diseases of the nervous system decreased, in average, from 1950-59 to 1960-69 by 4% .

Table V.9 - Side-Effect Descriptive Indicators



INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Emigration (per 1,000 habitants)	5.69	0.11	0.35	5.64	-0.47	-0.94	-8	- 527
Suicide rates reported to the hospital (per million habitants)	64.3	0.07	0.09	55.3	-0.45	-0.52	-0.14	- 743
Psychic disturbances and diseases of the nervous system (per 1,000 habitants)	1.50	0.01	0.28	1.44	-0.03	-0.72	-0.04	- 400
Labor disputes:								
Total number	65.40	-2.06	-0.33	47.2	-8.40	-0.66	-28	308
Workers involved (in thousands)	14.90	-0.68	-0.18	19.00	-4.41	-0.54	28	549
Man Days Lost (in thousands)	75.40	-6.35	-0.27	69.30	-25.22	-0.54	- 8	- 297

\* Correlation coefficient (r)

Source: Derived from Appendix B, Table 1.

Table V.10 - Side-Effect Descriptive Indicators (cont.)

INDICATORS	1953/54	1956/57	1960/61	1965/66	PERCENT CHANGE		
					53-56	56-60	60-65
Public vs. Private Schools: (primary+secondary)							
Public (in millions)	5.3	5.8	6.2	6.9	9	7	11
Private "	0.6	0.6	0.7	0.7	0	17	0
Public/Private	12%	11%	11%	10%	-9	0	-9

Source: Derived from Appendix B, Table 1 .



d) Labor disputes

The average number of labor disputes decreased by 28% from the period 1950-59 to 1960-69. At the same time, the average of the total number of workers involved in those disputes increased by 28%, and the average number of person-days lost in related worker strikes decreased by 8% .

e) Public vs. private school

The number of students enrolled in the elementary or the secondary grades of public and private schools is given in Table V.10 for the school years 1953-54, 1956-57, 1960-61 and 1965-66. The percentage of students in private schools, relative to public schools, remained almost constant, but showed a slight tendency to decrease: the observed percentages were 12, 11, 11 and 10, for the years 1953-54, 1956-57, 1960-61 and 1965-66, respectively.

Summary : The side-effect indicators for which data were available did not show significant changes from 1950-59 to 1960-69.

### 5.3 POLICY INSTRUMENT INDICATORS (INPUT)

a) Governmental budget allocation

The social indicator model developed in chapter IV provides indicators for the share of the national budget assigned to the specified basic human needs and human expectations. However, from the available data sources, it was only possible to obtain information

on the resources allocated to national defense, education, and health and social welfare. The data for the years 1951, 1961 and 1971 are given in Table V.11 .

The most important changes in the budget allocation were observed in the resources assigned to education and those assigned to health and social welfare. In fact, the share of the national budget assigned to education was 8%, 17% and 31% in 1951, 1961 and 1971, respectively. Relative to health and social welfare, the observed percentages were 11%, 14% and 15%, for the three years above and in the same order. The share of the national budget allocated to national defense decreased from 18% to 14% in the period 1951-61, and increased from 14% to 16% in the period 1961-71.

The composition of imports and exports, in percentages relative to the totals, are given in Tables V.12 and V.13 . The imports of food products contributed approximately the same share to the total imports during both periods, 1950-59 and 1960-69. On the other hand, a relative increase in imports of non-food products occurred from the first to the second period, and was accompanied by a corresponding decrease in imports of auxiliary materials. In relation to the composition of exports, the percentage of food products decreased significantly, and in a gradual way, from 1950-59 to 1960-69 (20% in 1950 and 9% in 1970), while the percentage of imports of non-food products increased, approximately, by an average of 10 percentage points from the first to the second decade. The percentage of exports of auxiliary materials increased in earlier years of the first period (2% in 1950 to 11% in 1954) and decreased

Table V.11- Policy Instrument Descriptive Indicators  
Budget Allocation

INDICATORS	1951	1961	1971	PERCENT CHANGE	
				51-61	61-71
National defense	18	14	16	- 22	14
Health/Social welfare	63	55	39	- 13	- 29
Education	8	17	31	113	82

Source: Derived from Appendix C, Table 1.

Table V.12 - Composition of imports/exports (percentages relative to total)

INDICATORS	1950	1961	1970
<b>Imports:</b>			
Food products	22	17	19
Non food products	60	69	67
Auxiliar material	18	14	14
<b>Exports:</b>			
Food products	26	15	9
Non food products	72	79	86
Auxiliar material	2	6	5

Source: Derived from Appendix C, Table 1.

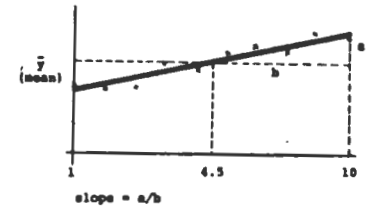


Table V.13 - Composition of import/export (percentages relative to total value)

INDICATOR	1950 - 59			1960 - 69		
	mean	slope	r1*	mean	slope	r2*
Imports:						
Food products	18.6	-0.27	-0.43	20.3	0.46	0.57
Non food products	61.9	0.20	0.36	65.3	0.73	-0.61
Auxiliar material	19.5	0.08	0.25	14.5	0.24	0.56
Exports:						
Food products	22.6	-0.44	-0.53	12.1	-0.81	-0.98
Non food products	70.2	0	0	82.4	0.84	0.95
Auxiliar material	7.2	0.44	0.47	5.5	-0.03	-0.21

\* Correlation coefficient (r)

Source: Derived from Appendix C, Table 1.

thereafter, stabilizing around 6% during the entire period of 1960-69 .

It was not possible to obtain data on governmental regulations or incentives for industry and commerce, variables that were stipulated in the model developed in the previous chapter.

Summary : The important increases in the share of the national budget assigned to education and to health and social welfare indicate the emphasis of governmental policies on these two areas during the periods of study. However, they do not indicate substantial changes in budget allocation from 1951-61 to 1961-1971. The composition of imports and exports indicates that the upgrading of the nutrition standards, analyzed in section 1 , was achieved through a reduction of exports while maintaining the related imported values. This was accompanied by an increase in the importance of the exports of non-food products.

#### 5.4 NONMANIPULABLE DESCRIPTIVE INDICATORS (INPUT)

##### a) Total population

As Table V.14 shows, the period 1936-51 was characterized by a 12% increase of total population, considerably higher than the other two periods considered in this study (6.5% in 1951-61 and 6.9% in 1961-71). The annual average increase verified in 1936-51 (0.8%) decreased in 1951-61 (0.6%) and experienced a slight increase in 1961-71 (0.7%).

Table V.14 - Total population (in thousands)

YEAR	MALES	FEMALES	TOTAL	PERCENT total	CHANGE annual average
1936	20,826 (49.1)	21,573 (50.8)	42,399 (100.0)	12.1	0.8
1951	23,259 (48.9)	24,257 (51.1)	47,516 (100.0)	(1936-51)	
1961	24,789 (48.9)	25,840 (51.0)	50,624 (100.0)	6.5 (1951-61)	0.6
1971	26,476 (48.9)	27,661 (51.1)	54,137 (100.0)	6.9 (1961-71)	0.7

Source: La Population de L'Italie, C.I.C.R.E.D. Series, 1974.

b) Population by age

The distribution of the population into age cohorts is given in Table V.15 , for the years 1936, 1951, 1961 and 1971.

The most characteristic change is the comparative aging of the population. This is clearly illustrated by the following observations:

(i) in 1936 the largest cohort appearing in the table was the 15-34 years old (32% of the total population), while, in later years, it became the 35-64 years old cohort (34% of the total population in 1951, 35% in 1961 and 37% in 1971);

(ii) the relative share of the age group of persons over 65 years old increased steadily throughout time: the percentages of this age group relative to the total population for the four years considered were, respectively, 7.5%, 8.2%, 9.5% and 11.5%;

(iii) the share of the youngest cohort (0-4 years old) in the total population decreased by one percentage point from 1936 to 1951 and from 1951 to 1961, and remained stable from 1961 to 1971, assuming the value of 8% in this latter year.

c) Population by sex

The ratio of female population to male population (see Table V.15 ) was stable throughout the entire period considered, showing just a slight tendency to increase in the later years.



Table V.15 - Population by age and sex

YR. AGE	1 9 3 6			1 9 5 1			% 36-51	1 9 6 1			% 51-61	1 9 7 1			% 61-71
	M	F	T	M	F	T		M	F	T		M	F	T	
0-4	2,218	2,140	4,358 (10.2)	2,219	2,113	4,332 (9.1)	-0.6	2,152	2,044	4,197 (8.3)	-3.1	2,266	2,150	4,416 (8.3)	+5.2
5-14	4,443	4,328	8,771 (20.4)	4,123	3,967	8,090 (17.1)	-7.8	4,190	4,019	8,208 (16.3)	+1.5	4,504	4,293	8,797 (16.6)	+7.2
15-34	6,910	6,909	13,819 (32.2)	7,441	7,543	14,984 (31.5)	+8.4	7,796	7,712	15,508 (30.6)	+3.5	7,705	7,579	15,284 (28.8)	-1.4
35-64	5,987	6,786	12,773 (29.8)	7,719	8,496	16,215 (34.1)	+30.0	8,605	9,278	17,883 (35.3)	+10.3	9,411	10,057	19,468 (36.7)	+8.9
65 +	1,511	1,688	3,199 (7.5)	1,758	2,137	3,895 (8.2)	+21.8	2,040	2,787	4,827 (9.5)	+23.9	2,551	3,552	6,103 (11.5)	+26.4
TOTAL	21,069	21,851	42,920	23,259	24,257	47,516	+10.7	24,784	25,840	50,624	+6.5	26,437	27,631	53,068	+4.8

Source: European Historical Statistics 1750-1975, B.R.Mitchell, Facts on File

d) Fertility

Fertility rates, as presented in Table V.16, decreased from 94 births per 1,000 females in 1930-32 to a value of 69 in 1950-52, increasing slightly to a value of 74 in 1960-62 and decreasing again to 68 1970-72.

Regional differences are worth mentioning, as they show a large discrepancy between the fertility rates in the Northern areas when contrasted to the Southern areas of the country. In fact, fertility rates in the South were close to double of those in the Northwest, although this gap showed a tendency to decrease during 1970-72.

e) Working age population

The potential working force, defined by the relative size of the age group 15 to 64 years old, jumped, between 1951 and 1961, from 62% of the total population to about approximately 66%, and remained stable from 1961 to 1971.

The active population by major industrial groups, for 1936, 1951 and 1961 (see Table V.17), shows a considerable decrease in the population group committed to agriculture, forestry, and fishing. Actually, during the period 1936 to 1951, the share of this group to the total working age population decreased to about one-half of its initial value (48% in 1936 and 29% in 1961). The population group working in Commerce and Finance also experienced, between 1936 and 1951, a decrease of its share to the total population, from 9% to 1%. The losses observed in these two groups

Table V.16 -Fertility rate by region (births per 1,000 females)

YEARS	REGIONS					ITALY
	NW	NE	CENTER	S	ISLANDS	
1930 - 32	68.7	89.2	87.3	127.5	112.3	94.4
1950 - 52	48.3	57.8	58.7	95.2	92.5	69.2
1960 - 62	59.2	65.4	63.7	96.8	91.2	74.0
1970 - 72	60.0	62.1	61.6	84.1	80.5	68.4

Source: La Population de L'Italie, C.I.C.R.E.D. Series 1974.

Table V.17 - Economically active population by major industrial group  
(in thousands)

YEAR	AGRICULT. FORESTRY FISSHING	EXTRACTIVE INDUSTRY	MANUFACT. INDUSTRY	CONSTRUCT.	COMMERCE FINANCE	TRANSP. COMMUNIC.	SERVICES	OTHERS
1936	8,843	128	4,049	979	1,605	35,702	1,820	219
1951	8,261		4,817	1,473	176	54,785	4,065	-
1961	5,657		7,886			5,976		
1971	3,242		6,323	2,026	2,810	992	3,437	975

Source: European Historical Statistics 1750-1975, B.R. Mitchell, Facts on File.

(Agriculture+Forestry+Fishing and Commerce+Finance), during 1936-1951, reverted in favor of the Construction and the Services industries, which gained 2 and 10 percentage points, respectively. The last decade is characterized by a steady decline in the population involved in Agriculture, and by a growth of more than 100% in the Commerce and Finance sectors. Most of the remaining sectors experienced increases, although these are difficult to assess for some of the sectors, due to changes in the classification system.

f) GNP per capita

The real GNP per capita (see Table V.18 ) increased at a faster annual average rate in the period 1958-61 (8%), than in 1948-51 (7%) or 1951-58 (5%). This pattern was also observed in the Industrial Production Index for the same periods.

The total GDP, at market prices, experienced a rate of increase of over 100% in the first decade of the period under study, and grew approximately 77% during 1951-61. Furthermore, the rate of increase of the GDP per capita doubled in the second decade under study.

Summary : Italy experienced a considerable aging of its population during the period of study. At the same time, the working age group of the population (15-64 years old) was increasing its share of the total population from 62% in 1951 to 66% in both 1961 and 1971. The considerable differences in the demographic characteristics between the North and the South of the country persisted throughout the period of study, but showed a tendency to decrease,

Table V.18 - GNP, total and per capita of population resident

YEAR	POPULATION RESIDENT	REAL GNP		INDUSTRIAL PRODUCTION
		TOTAL (billions lire)	Per resident (1,000 lire)	
1948	46,542	8,497	182.6	63.5
1951	47,516	10,511	221.2	88.5
1958	49,530	14,882	300.5	142.4
1961	50,464	18,663	369.8	199.7

Source: Growth and structure in the economy of modern Italy, George H. Hildebrand, Harvard University Press, 1965.

in particular, through the closing of the gap in fertility rates between the two regions. The GNP per capita increased throughout the period of time considered, but this increase was more important during 1948-51 and 1958-61 than during 1951-61.

### 5.5 ANALYTIC INDICATORS (INTERNAL)

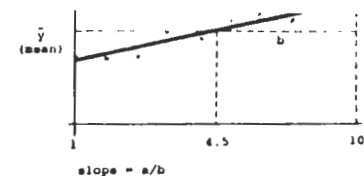
Table V.19 contains data on employment, wages, saving deposits, number of health care structures, and number of schools.

#### a) Employment

The unemployment rate decreased from an average of 9% in 1950-59 to an average of 3% in 1960-69. As the values of the correlation coefficients illustrate, the unemployment rate decreased almost linearly by 0.3 percentage points per year, during the first period, but showed random fluctuations during the second period. These are associated with the achievement of almost full employment during that period.

Relative to employment by sectors, a significant average decrease of employment was observed in the agricultural sector (from 36% in 1950-59 to 26% in 1960-69), which was very close to linear, and had almost equal trends in both periods of study. This decrease in the employment in the agricultural sector was accompanied by increases of employment in the industrial sector.

Table V.19 - Analytic Indicators



INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Unemployment (Percent of total labor)	8.50	-0.36	0.79	3.40	0	0	-60	-100
Employment by sector: (Percent of total labor force employed )								
Agriculture	36.39	-0.95	-1.00	26.05	-0.99	-0.98	-28	4
Industry	34.04	0.44	0.95	40.47	0.48	0.93	19	9
Other	29.57	0.50	0.99	33.48	0.52	0.98	13	4
Wages indices: (1955=100)								
Agriculture	97.00	4.47	0.99	182.90	16.68	1.00	89	273
Industry	100.22	4.37	1.00	170.80	11.69	0.99	70	168
Saving deposits (corrected to 1971 prices)	6.6	0.68	0.99	17.3	1.3	0.99	162	91
Number of health care structures	46.17	3.17	0.70	48.09	-0.7	-0.89	4	-122
Number of schools								
Primary	42,948	834.56	0.99	46,445	-776.94	0.96	8	-193
Secondary	6,949	193.04	0.95	9,485	75.31	0.63	36	- 61

\* Correlation coefficient (r)

Source: Derived from Appendix D, Table 1, 2.



b) Wage indices

The wage indices for agriculture normalized to 100 in 1955, increased linearly by an average of 5 points per year in 1950-59 and by 17 points per year in 1960-69, while for industry they increased linearly by 4 points per year in the first period and by 12 points per year in the second period.

At the same time, as Table V.20 shows, the purchasing power of the Italian currency, normalized to 100 in 1955, decreased linearly by an average of 4 points per year in 1950-59 and by an average of 3 points per year in 1960-69. Consequently, the purchasing power of the working population increased dramatically, in average, from the first period to the second.

c) Consumption indices

The consumption indices were available for two separate periods of time, 1950-65 and 1967-70, using two different normalizations: the values for the first period were normalized to 100 for 1955 and those for the second were normalized to 100 for 1970. Table V.21 contains information relative to the regression analysis for the periods 1950-59, 1960-65 and 1967-70. The correlation coefficients indicate the trends are very close to linear, and, therefore, the value for 1966 can be estimated, from above and below, by linear extrapolation. These estimates can then be used to adjust the values for 1967-70 to a common normalization of 100 for 1955. The information relative to the regression analysis based on the adjusted indices, for the periods 1950-59 and 1960-69, is given in Table V.22 .

Table V.20 - Purchasing power of the Italian population

YEAR	PURCHASING POWER 1955=100	MEAN, SLOPE OF REGRESSION AND CORRELATION COEFFICIENT
1950	123	Mean = 102 Slope=- 4 r* =-0.97
1951	112	
1952	108	
1953	106	
1954	103	
1955	100	
1956	95	
1957	93	
1958	89	
1959	90	
1960	87	Mean = 73 Slope=- 3 r* =-0.97
1961	85	
1962	81	
1963	75	
1964	71	
1965	68	
1966	67	
1967	65	
1968	64	
1969	63	

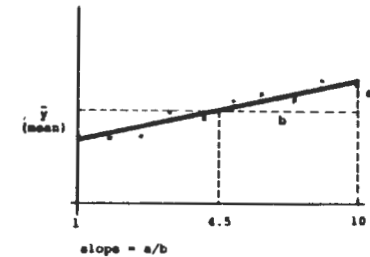
\* Correlation coefficient (r)

Source: Annuario Statistico Italiano

Instituto Centrale di Statistica,

Ministero dell'Economia Nazionale, Italy, 1948-1972

Table V. 21 - Analytic indicators, consumption indices



INDICATOR	1950 - 59			1960 - 65			1967 - 70		
	mean	slope	r1*	mean	slope	r2*	mean	slope	r3*
Food	100.50	2.70	0.96	122.66	6.23	0.98	97.12	2.90	0.97
Clothing	101.10	0.33	0.21	114.33	4.74	0.98	95.88	4.68	0.96
Energy	98.50	1.48	0.79	105.33	2.46	0.96	97.24	2.53	0.87
Housing	119.50	16.05	0.89	347.00	30.51	0.98	94.76	4.37	1.00
Other services	98.50	2.77	0.96	29.00	6.69	0.99	97.10	3.80	0.96
General	99.10	3.29	0.99	130.33	6.86	0.99	96.84	3.46	0.97

1938=1

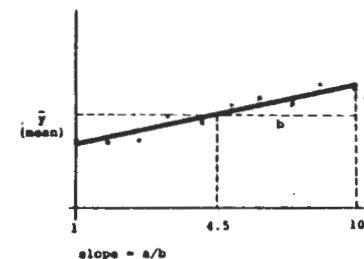
1938=1

1970=100

\* Correlation coefficient (r)

Source: Derived from Appendix D, Table 3.

Table V.22 - Analytic Indicators, consumption indices.  
(1938=1)



INDICATOR	1950 - 59			1960 - 69			PERCENT CHANGE	
	mean	slope	r1*	mean	slope	r2*	mean	slope
Food	100.50	2.70	0.96	133.50	5.42	0.98	33	101
Clothing	101.10	0.33	0.21	124.10	4.83	0.99	23	1364
Energy	98.50	1.48	0.79	109.90	2.21	0.97	12	49
Housing	119.50	16.05	0.89	398.10	26.44	0.99	233	65
Other services	98.50	2.77	0.96	141.70	6.31	0.99	44	128
General	99.10	3.29	0.99	142.50	6.13	0.99	44	86

\* Correlation coefficient (r)

Source: Derived from Appendix D, Table 3.

The most dramatic increases in consumption indices occurred for housing costs. These increased at average linear rates of 16 and 26 for 1950-59 and 1960-69, respectively. The food consumption indices increased at average yearly rates of 3 and 5 for each one of the two decades, and the clothing consumption indices increased at yearly rates of 0.3 and 5, respectively. Consequently, the food consumption indices increased at a rate slightly lower than the decrease in the purchasing power of the Italian currency (reported in Table V.20) during 1950-59, and they increased at a rate slightly higher than the currency purchasing power during 1960-69. However, the consumption indices in clothing increased at a much lower rate than the decrease in the currency purchasing power during the first period, and they increased at a slightly higher rate than the currency purchasing power during the second period. As for housing, the consumption increased at a much higher rate than the decrease in the Italian currency purchasing power.

d) Savings deposits

Table V.19 contains information on the total amount of savings deposits, after correction to constant Italian lire of 1971. The observed values are fairly close to linear in both periods of study, as the correlation coefficients illustrate. The average values of savings deposits is considerably higher in 1960-69 (17.3 billion of 1971 lire) than in 1950-59 (6.6 billion of 1971 lire), and the same is true of the linear trends (1.3 billion per year in 1960-69 and 0.68 billion per year in 1950-59).

e) Number of schools

Information on the number of elementary and secondary schools is given in Table V.19 . Again, data were only available for part of the periods of interest. During the whole period of study, the number of compulsory school years was constant: 8 years covering the age group of 6 to 14 years old.

The number of elementary schools increased, in average, from a value of 43 thousand in 1950-59 to 46 thousand in 1969-70, increasing with a substantially high linear rate (835 per year) during the first decade and decreasing during the second decade with a linear rate of the same magnitude (777 per year). The number of secondary schools increased, in average, from 7 to 10 thousand, from the first to the second decade, and the observed linear rates of increase were high (193 per year) in the first period and moderate (75 per year) in the second.

f) Health care infrastructures

Table V.19 includes information on the number of health care structures. From 1950-59 to 1960-69 the average values increased 4% , but almost all of this increase occurred during the first decade. Actually, during the second decade the regression line has a negative slope.

Summary : The employment situation changed from low unemployment rates in 1950-59 to a state of virtually full employment in 1960-69, a change that was accompanied by an important shift of the working force from the agricultural to the industrial sectors. The

wage indices, corrected to constant lire, indicate a major increase in the overall purchasing power of the working population, from the first to the second decade. At the same time, the consumption indices indicate a disproportionately high increase in the consumption in housing which, however, does not seem to have affected the financial resources allocated to food, and, in fact, still allowed a marked increase in the consumption in clothing. The data on savings deposits show an accentuated increase from 1950-59 to 1960-69, both in average values and in linear trends, indicating improved satisfaction of the monetary needs of the population, since higher levels of saving could be afforded in the second decade. The number of elementary schools remained almost constant from the first to the second decade, while the number of secondary schools increased considerably. The number of health care structures increased, in average, from 1950-59 to 1960-69, but this increase was almost all due to changes verified during the first decade.

## Chapter VI

### CONCLUSIONS

#### 6.1 SUMMARY OF RESULTS

The time series analysis of the indicators described in the preceding chapter, especially the observations of the output descriptive indicators, indicates a considerable improvement in the quality of life of the Italian population from 1950-59 to 1960-69. All of the descriptive indicators, for which data were available, indicate a significant improvement in the quality of life from the first to the second decade, except for the component of safety associated with traffic accidents. The side-effect descriptive indicators did not experience significant differences between the two periods. The policy instrument indicators suggest that a greater emphasis was placed upon policies related to the improvement of the quality of life than on defense interests. The nonmanipulable descriptive indicators show that the favorable changes verified from one decade to the other were accompanied by a considerable aging of the Italian population, and that the GNP increased much more during the first decade than during the second. The analysis of the analytic indicators shows a very significant improvement, from the first to the second decade, in employment, purchasing power and saving deposits, changes that, indirectly, indicate a substantial improvement in the quality of life in Italy.



Because the participation of Italy in the EEC began in 1958, it may be argued that the improvements verified in the quality of life of the Italian population were associated with the entrance of the country into that international organization. This is, in fact, the conclusion of the time series analysis performed in the preceding chapter, but it is limited by the methodology characteristic of time series studies, as is emphasized in the following section.

## 6.2 LIMITATIONS OF THE STUDY

The main objective of the present work was the development of a framework for an analytical model to guide the choice of social indicators characterizing the quality of life at the level of a nation. The evaluation of the impact of Italy's membership in the EEC on the quality of life was used as a case study of the application of the general methodology developed. However, it is of interest to point out some of the most important limitations involved in this application.

The present study was exclusively based on a time series analysis of several indicators relevant to the problem under consideration. However, general underlying conditions have changed during the period of study, as a consequence of changes in the international economy, of technological advances, and of changes in life style and social values. Consequently, in order to obtain reliable conclusions on the impact of the membership of Italy in the EEC on the quality of life of her population, it would be necessary to de-

velop a control system consisting of one or more countries which had similar characteristics to Italy, prior to its entrance to the EEC, which have otherwise experienced similar general conditions, but which did not join the EEC. Comparisons with such a control system would complement the information obtained through the time series analysis, permitting the isolation of the changes due to membership in the EEC and, thus, leading to more reliable conclusions.

It is not clear that the two years between the entrance of Italy to the EEC (1958) and the beginning of the second decade of study in the present work (1960) were sufficient for the impact of membership in the EEC to have begun to be measurable. Such an assumption would, of course, require empirical validation.

Further limitations of the present study result from the unavailability of data on certain variables of interest and from the unreliability of certain of the values reported by the data sources that could be obtained. This consideration is related to the inadequacy of data on social indicators, which are a relatively recent subject of attention from both social scientists and statistics bureaus.

In spite of these limitations, the study presented in the previous chapters is a sound first step toward the understanding of the impact of nation's membership in the EEC on the quality of life of its population, and provides important information specifically on Italy.

### 6.3 A NOTE ON FURTHER STUDY

The present study should be completed in more than one way:

- 1) A control system, consisting of one or more countries or regions with basic characteristics similar to Italy, but which did not join the EEC, should be considered and used for comparison with Italy, in order to complement the time series analysis carried out in the present work.
- 2) Data on some indicators were not available and information on other indicators was incomplete. Other data sources should be made available for completing the missing information.
- 3) Extensive study of other periods of time, before and after entrance to the EEC, should be considered in order to characterize the dynamics of the influence of Italy's membership in the EEC on quality of life. In particular, the delays observed in the effects relative to the entrance of the country into that international organization.

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Appendix A

OUTPUT DESCRIPTIVE INDICATORS



Table A.1 - OUTPUT DESCRIPTIVE INDICATORS: Indicators related to nutrition in Italy

Appendix A

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Availability of food products:*																								
Meat (Kg)	14.2	15.5	15.6	13.1	17.4	18.1	18.7	19.6	21.4	22.4	23.9	26.6	28.6	29.6	32.0	34.0	34.1	40.4	44.2	48.7	49.5	50.6	54.5	56.1
Fish (Kg)	5.7	5.7	6.4	6.3	7.1	6.4	6.6	7.1	6.9	6.8	6.8	7.0	7.2	7.6	7.4	7.8	7.6	9.7	9.8	9.8	9.3	9.7	9.7	9.4
Milk (Kg)	45.2	47.2	48.0	47.5	47.3	48.6	50.6	53.6	53.2	54.0	58.9	60.7	62.7	62.9	61.5	63.9	64.3	63.4	67.6	66.3	65.7	63.9	66.9	69.6
Eggs (Kg)	5.4	5.8	6.3	6.9	7.0	6.9	7.5	8.2	8.7	8.8	8.7	8.2	8.7	9.1	9.4	9.6	9.8	9.6	9.6	9.3	9.4	10.2	11.0	10.7
Cheese (Kg)	4.8	5.3	5.7	6.1	6.0	6.3	6.7	6.8	6.4	6.5	6.8	6.9	7.2	7.5	7.8	7.7	7.7	8.5	9.2	10.0	9.5	10.0	10.6	10.6
Sugar (Kg)	9.6	10.4	12.4	12.7	13.6	14.5	16.1	16.1	17.2	17.4	18.3	18.8	19.9	21.3	22.3	23.8	25.3	24.5	24.9	25.5	25.5	27.2	27.6	27.6
Fruit (Kg)	34.3	41.5	46.4	53.5	57.3	60.6	58.8	60.8	62.7	59.5	80.8	72.7	77.4	82.5	92.7	88.8	88.6	95.0	101.9	103.6	107.8	106.1	108.3	104.8
Vegetables (Kg)	76.9	77.6	81.5	84.2	88.2	92.7	97.1	93.3	91.6	107.7	138.1	134.1	133.3	137.0	133.7	148.9	156.4	119.5	122.8	121.0	121.6	135.2	134.9	124.5
Cereals (Kg)	203.0	189.6	195.4	201.6	208.4	216.1	205.2	207.8	212.9	188.3	197.5	180.5	180.8	182.0	182.9	182.3	180.5	180.0	180.0	180.6	184.4	184.7	185.9	183.8
Potato (Kg)	42.2	36.3	34.3	37.5	37.3	43.1	44.1	43.9	48.4	44.9	49.3	51.0	51.2	54.4	47.4	58.2	52.0	42.3	42.4	42.8	44.8	46.1	48.1	47.3
*per capita per year																								

Source: Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.



Table A.2 - OUTPUT DESCRIPTIVE INDICATORS: Indicators related to shelter in Italy

Appendix A

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Housing* units T. per person				11.3										14.2										17.4
				0.24										0.28										0.32
Rooms* T. per house				55.7										47.2										65.2
				3.2										3.3										3.6
Occupied* housing T. units				10.6										15.0										15.3
				94.0										92.0										88.0
Percent of other type of shelter relative to total hou- sing units				1.7										1.2										0.32
*million units																								

Source: Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1951, 1961, 1971.

Table A.3 - OUTPUT DESCRIPTIVE INDICATORS: Indicators related to health in Italy

Appendix A

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Mean age of death (1)	-	53.0	55.0	-	68.2	68.9	68.6	-	-	69.4	69.6	-	70.4	70.4	70.9	70.9	70.8	-	-	71.7	72.1	71.6	71.8	-
Total mortality rate *(2)	10.6	10.5	9.8	10.3	10.0	9.9	9.1	8.6	7.6	8.0	9.3	7.1	9.6	9.3	10.0	-	-	9.8	9.3	9.5	9.9	9.9	7.3	9.3
Infant mortality rate§(2)	72	74	64	67	63	58	53	51	51	50	48	45	44	41	42	40	36	36	35	33	32	30	29	28
Disease rate: * (1)																								
Epidemic T	47,792	48,571	52,103	-	21,855	18,244	18,424	17,974	17,307	16,702	16,413	-	13,900	13,087	12,584	11,947	10,840	-	9,042	8,174	11,308	10,562	9,511	8,558
r	1.0	0.9	0.7	-	0.5	0.4	0.4	0.4	0.4	0.3	0.3	-	0.3	0.3	0.3	0.2	0.2	-	0.2	0.2	0.2	0.2	0.2	0.2
Tumors T	48,000	50,104	53,578	-	57,520	60,560	62,220	64,654	67,641	69,480	70,204	-	76,915	78,117	81,056	82,805	86,011	-	90,793	92,147	95,262	97,187	97,260	101,793
r	1.0	1.1	1.1	-	1.2	1.3	1.3	1.3	1.4	1.4	1.4	-	1.5	1.6	1.6	1.7	1.7	-	1.7	1.8	1.8	1.9	1.9	1.9
Circulatory T	96,410	96,896	93,745	-	116,283	125,511	118,928	122,235	146,152	140,243	132,654	-	144,734	142,723	160,876	162,425	153,857	-	153,745	164,779	205,631	245,355	235,372	234,362
r	2.1	2.1	2.0	-	2.4	2.6	2.5	2.5	3.0	2.9	2.7	-	2.9	2.9	3.2	3.2	3.0	-	3.0	3.1	4.7	4.6	4.4	4.4
Respiratory T	64,034	58,757	44,432	-	45,404	47,221	36,266	38,133	50,373	46,425	39,341	-	42,768	36,673	46,714	46,916	36,136	-	37,176	41,821	53,414	56,756	50,595	39,426
r	1.4	1.3	1.0	-	2.0	1.0	0.8	0.8	1.0	0.9	0.8	-	0.9	0.7	0.9	0.9	0.7	-	0.7	0.8	1.0	1.1	0.9	0.7

\* Per 1,000 habitants

T Total

§ Per 1,000 live births

r Rate

Source: (1) Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.

(2) Mitchell, B.R. European Historical Statistics 1750-1970 Columbia University Press, New York, 1967.

Table A.4 - OUTPUT DESCRIPTIVE INDICATORS: Indicators related to safety in Italy

Appendix A

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Accidents leading to death: *																								
Traffic																								
T	4,056	4,295	5,114	5,682	6,424	7,237	8,064	9,149	8,992	9,144	9,205	9,019	9,609	10,601	11,693	12,180	12,266	11,651	11,523	12,110	12,384	12,986	13,774	—
r	86.8	91.4	108.1	119.6	134.7	150.8	167.3	188.6	183.6	187.0	187.1	182.2	194.9	212.0	232.5	240.2	240.0	225.0	221.6	231.5	235.0	245.0	258.0	—
Homicides																								
T	1,084	807	767	691	690	654	666	714	753	675	672	614	655	573	498	487	451	460	424	481	469	448	447	—
r	23.2	17.2	16.2	14.5	14.5	13.6	13.8	14.7	15.5	13.8	13.7	12.4	13.2	11.5	9.9	9.6	8.8	9.0	8.2	9.2	8.9	8.5	8.4	—
Other																								
T	13,527	13,450	14,608	15,409	15,968	15,721	16,749	17,444	18,638	19,203	19,070	19,118	19,549	11,638	11,183	13,839	19,940	11,127	10,808	11,284	11,967	11,302	11,535	—
r	289.7	286.2	308.8	324.4	339.8	329.5	349.5	370.0	381.7	392.7	387.0	204.4	212.3	232.8	222.3	268.1	214.1	217.7	207.8	215.8	217.6	217.0	216.0	—
Robberies reported to the police*																								
T	—	—	—	—	—	—	—	210,639	233,001	237,033	227,806	230,544	242,783	244,093	243,175	240,152	273,779	241,412	250,152	256,875	271,340	277,390	343,496	408,327
r	—	—	—	—	—	—	—	4,343	4,784	4,847	4,630	4,657	4,885	4,882	4,884	5,181	5,304	4,679	4,811	4,902	5,147	5,234	6,432	7,604

\* Per 1,000,000 habitant      T Total  
r Rate

Source: Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.

Table A.5 - OUTPUT DESCRIPTIVE INDICATORS: Indicators related to education in Italy

Appendix A

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Percent of illiterates (6 yrs old and over)				5,454										9,797										
				12.9										8.3										5.2
Percent of school age population enrolled:																								
	Elementary +Secondary			88.2										90.4										102.4
	Advanced			10.6										21.8										43.7
	University			5.8										7.1										19.0
Pupils per teacher:																								
	Primary	29.5	28.7	27.3	26.1	25.9	25.7	26.4	26.8	26.2	25.1	24.4	22.8	22.1	22.0	21.4	21.6	21.7	21.8	21.7	21.7	21.6	21.9	21.8
Secondary	10.6	10.0	10.4	10.8	11.2	11.8	11.6	11.7	11.0	12.6	12.6	12.5	12.0	11.6	11.5	11.5	11.5	11.6	11.4	11.4	11.5	11.6	11.0	

Source: Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.

Table A.6 - OUTPUT DESCRIPTIVE INDICATORS: Indicators related to communication in Italy

Appendix A

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Number of motor vehicles																								
PC	219 4.7	267 5.7	342 7.2	425 8.9	510 10.7	613 12.8	744 15.4	879 18.1	1,031 21.2	1,231 25.2	1,393 28.3	1,644 33.2	1,995 40.1	2,444 48.9	3,080 60.2	3,915 77.2	4,675 91.5	5,473 106.1	6,357 122.3	7,311 139.8	8,246 156.9	9,174 173.1	10,181 190.7	11,299 210.4
CV	196 4.2	214 4.6	229 4.8	249 5.2	274 5.7	305 6.4	339 7.0	367 7.6	360 7.4	373 7.6	385 7.8	426 8.6	456 9.2	489 9.8	538 10.7	596 11.8	630 12.3	650 12.6	684 13.2	718 13.7	793 15.0	793 15.0	904 16.9	772 18.1
Total length of motorway §	170,305	171,150	170,837	170,662	170,483	170,811	171,202	175,175	176,978	181,018	181,055	181,582	191,746	194,229	193,876	195,727	196,719	—	—	281,443	283,976	285,138	289,318	286,496
Total length of railway §	21,399	21,639	21,550	21,711	21,743	21,822	21,852	21,923	21,923	21,584	21,516	21,310	21,277	21,143	20,972	21,014	20,885	20,812	20,891	20,566	20,358	20,301	20,212	20,239
Railway passenger traffic: passenger per capita	544.6 11.7	574.0 10.9	527.1 11.1	522.3 11.0	537.8 11.3	557.4 11.6	556.5 11.5	564.8 11.6	559.5 11.5	531.5 10.9	538.1 11.0	539.6 10.9	574.4 11.6	542.5 10.9	525.4 10.4	503.5 10.0	471.7 9.2	448.7 8.7	444.8 8.5	446.4 8.5	446.1 8.5	444.0 8.4	456.0 8.5	462.5 8.5
passenger.km per capita	26,594 569.5	27,750 507.4	23,378 498.5	24,476 515.3	25,107 526.4	25,784 537.2	24,888 516.3	26,071 537.5	27,711 569.0	28,114 575.0	28,867 586.8	28,953 585.0	30,723 618.2	31,479 629.0	31,465 625.5	32,026 631.7	30,617 599.2	29,024 562.7	27,886 574.7	30,185 581.0	31,811 594.1	31,946 602.8	34,764 647.4	
Number of telephones	850 19.2	1,114 19.6	1,041 22.0	1,159 24.4	1,296 27.2	1,508 31.4	1,764 36.6	2,004 41.3	—	—	2,718 55.2	3,044 61.5	3,379 68.0	3,717 74.3	4,041 80.3	4,301 84.4	4,636 90.7	5,015 97.2	5,423 104.3	5,786 110.6	6,149 116.7	6,525 123.1	6,961 130.4	7,502 139.7
Number of phone calls	81.1 0.17	87.5 0.19	101 0.21	121 0.25	143 0.30	164 0.34	193 0.40	206 0.42	239 0.49	307 0.62	349 0.71	402 0.81	445 0.90	517 1.03	603 1.20	716 1.41	787 1.54	869 1.68	926 1.80	1,070 2.05	1,185 2.25	1,380 2.60	1,609 3.01	1,839 3.42
Number of letters+	2,651 56.8	2,617 55.7	2,797 59.1	3,054 64.3	3,185 66.8	3,423 71.3	3,565 74.0	3,876 80.0	4,339 87.1	4,648 95.1	4,834 98.3	4,867 103.6	5,147 102.3	5,116 105.2	5,292 112.6	5,664 —	5,600 108.5	5,850 112.5	5,923 113.3	5,936 112.6	6,292 118.7	6,356 119.0	6,267 116.7	
Number of telegrams	26.0 0.6	28.1 0.6	30.2 0.6	29.4 0.6	29.7 0.6	30.4 0.6	31.2 0.7	34.4 0.7	35.1 0.7	34.4 0.7	33.0 0.7	33.5 0.7	34.5 0.7	36.4 0.7	39.3 0.8	40.7 0.8	—	37.5 0.7	31.8 0.6	29.0 0.6	26.4 0.5	26.4 0.5	25.9 0.5	25.2 0.5

\* per 1,000,000 habitant

§ kilometers

♀ per 1,000 habitants

+ per 1,000,000 habitants

Source: Mitchell, B.R. European Historical Statistics 1750-1970  
Columbia University Press, New York, 1975.

Table A.7 - OUTPUT DESCRIPTIVE INDICATORS: Indicators related to culture in Italy

Appendix A

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Visits to:																								
Museum T. per 1,000 hab.								1,388				1,553			1,740		2,107	2,160				2,480		2,454
								28.5			31.4			34.6		41.2	41.9				46.7		45.7	
Gallerie T. per 1,000 hab.								869			985			1,175		1,823	1,882				1,706		1,928	
								17.9			19.9			23.4		25.9	26.8				32.2		35.9	
Monuments T. per 1,000 hab.								5,090			6,453			8,170		8,897	9,220				13,178		14,331	
								104.9			130.4			162.4		174.1	178.7				248.6		266.8	
Total T. per 1,000 hab.								7,342			8,991			11,084		12,827	12,761				17,364		18,714	
								151.4			181.6			220.4		241.2	247.3				327.6		348.5	

Source: Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.



Appendix B

SIDE-EFFECT DESCRIPTIVE INDICATORS

Table B.1 - SIDE-EFFECT DESCRIPTIVE INDICATORS

Appendix B

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Emigration T per 1,000 hab (1)	308,515 6.606	254,461 5.414	200,806 4.235	248,057 6.170	277,535 5.918	224,671 4.681	250,725 5.306	246,226 6.120	344,802 7.080	341,788 6.988	255,454 5.172	268,770 5.424	303,708 7.725	307,123 7.742	365,611 7.369	277,611 5.476	258,472 5.057	202,643 5.478	246,477 5.702	229,224 4.384	219,718 4.093	182,197 3.488	181,854 2.844	167,713 2.123
Suicides re- ported to the hospital T. per 1,000,000 (3)	3,262 61	3,040 65	2,991 63	3,167 67	2,984 63	3,067 64	2,911 60	3,221 66	3,287 67	3,216 66	3,079 63	3,174 64	3,066 62	3,816 56	2,768 55	2,709 53	2,811 53	2,861 55	2,724 52	2,912 56	2,862 54	2,917 55	3,052 57	— —
Psychic dis- turbances and diseases of the nervous sys- tem (3) T. per 1,000 hab	6,517 1.4	6,748 1.4	6,051 1.5	— —	7,202 1.5	7,213 1.5	6,910 1.4	6,918 1.4	7,329 1.6	7,205 1.6	7,310 1.5	— —	75,121 1.5	73,958 1.6	77,198 1.5	77,505 1.5	75,223 1.5	— —	77,302 1.5	77,617 1.5	69,180 1.3	65,400 1.2	67,210 1.3	— —
Labor (2) disputes: Total number workers in- volved* Man days lost	183 19	116 15	79 21	85 15	40 4	58 11	91 21	63 24	80 38	87 2	73 5	48 8	121 85	43 10	24 2	104 30	53 9	60 23	20 11	8 2	11 6	28 12	99 52	15 36
School (4) enrollment <sup>†</sup> Public Private																								
Public/Private (8)																								
						5.3 0.6			5.8 0.6				6.2 0.7					7.0 0.7						
						12			11				11					10						

\* In thousands  
& In millions

Source:

- (1) Rosoli, G. (editor) Un Secolo di Emigrazione Italiana 1876-1976 Centro Studi Emigrazione, Roma, 1978.
- (2) Mitchell, B.R. European Historical Statistics 1750-1970 Columbia University Press, New York, 1975.
- (3) Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.
- (4) Unesco, World Survey of Education

Appendix C

POLICY INSTRUMENT DESCRIPTIVE INDICATORS

Table C.1 - POLICY INSTRUMENT DESCRIPTIVE INDICATORS: Composition of imports/exports  
(percent relative to total)

Appendix C

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Imports:																								
Food products			22	21	18	19	15	18	18	17	19	19		17	17	20	21	24		22	21	20	19	
Non food products			60	50	63	62	65	62	62	62	61	63		69	70	67	65	60		62	63	66	67	
Auxiliar material			18	20	19	19	20	20	20	21	20	18		14	13	13	14	16		16	16	14	14	
Exports:																								
Food products			26	20	23	24	25	23	23	24	20	18		15	15	14	12	12		11	9	9	9	
Non food products			72	77	70	66	64	60	69	69	72	75		79	79	81	83	83		83	85	86	86	
Auxiliar material			2	3	7	10	11	9	8	7	8	7		6	6	5	5	5		6	6	5	5	

Source: Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.

Appendix D  
ANALYTIC INDICATORS

Table D.1 - ANALYTIC INDICATORS

Appendix D

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Unemployment (1) T.	1,742	1,673	1,615	1,900	1,915	1,875	1,815	1,705	1,605	1,500	1,485	1,117	836	710	611	504	549	721	769	689	694	665	619	
% of labor force	8.9	8.6	8.3	10.1	10.0	9.7	9.3	8.7	8.2	7.6	7.5	5.6	4.2	3.5	3.1	2.5	2.7	3.7	3.9	3.5	3.5	3.4	3.2	
Employment(1)																								
Agriculture				6,800	6,730	6,650	6,570	6,480	6,390	6,300	6,250	6,066	6,028	5,687	5,474	5,295	4,967	4,956	4,647	4,556	4,249	4,027	3,689	
%				40.0	39.3	38.3	37.3	36.4	35.5	34.6	34.0	32.1	31.3	29.5	28.3	27.0	25.4	26.1	24.8	24.1	22.5	21.5	19.7	
Industry				5,505	5,619	5,768	5,926	6,059	6,180	6,320	6,380	6,928	7,201	7,466	7,693	7,986	7,996	7,928	7,601	7,782	7,887	8,045	8,207	
%				32.4	32.8	33.2	33.6	34.0	34.3	34.7	34.7	36.7	37.5	38.7	39.7	40.7	40.8	40.7	40.6	41.1	41.8	43.1	43.7	
Other				4,695	4,791	4,957	5,119	5,286	5,440	5,600	5,750	5,883	6,001	6,140	6,200	6,349	6,618	6,327	6,460	6,584	6,740	6,615	6,873	
%				27.6	27.9	28.5	29.1	29.6	30.2	30.7	31.3	31.2	31.2	31.8	32.0	32.3	33.8	33.3	34.5	34.8	35.7	35.4	36.6	
Total persons employed (1)				17,000	17,140	17,375	17,615	17,829	18,010	18,220	18,380	18,871	19,230	19,245	19,367	19,630	19,581	19,011	18,708	18,922	18,876	18,687	18,769	
Total labor force (1)				18,900	19,035	19,250	19,430	19,530	19,615	19,720	19,865	19,994	20,066	20,005	19,978	20,134	20,130	19,732	19,477	19,611	19,570	19,352	19,388	
Wages indices (1955 = 100)																								
(2) Agriculture	-	77	78	79	83	92	97	100	105	108	113	115	116	121	133	156	178	195	206	225	237	262	308	
Industry	69	73	76	84	88	90	94	100	105	109	115	117	121	125	135	150	172	186	192	200	207	220	260	

Source: (1) Stern, R. Foreign Trade and Economic Growth in Italy Praeger Publishers, New York, 1967.(2) Mitchell, B.R. European Historical Statistics 1750-1970 Columbia University Press, New York, 1975.

Table D.2 - ANALYTIC INDICATORS (cont.)

Appendix D

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	
Saving deposits thousands of million of lire																									
corrected to 1971 prices		1,538	1,861	2,160	2,418	2,906	3,362	3,817	4,358	4,949	5,766	6,607	7,490	8,664	10,102	11,154	12,593	14,452	16,504	18,417	20,430	21,859	21,508	24,642	
		3.3	4.0	4.3	4.6	5.4	6.1	6.7	7.3	8.2	9.1	10.0	12.0	13.0	14.0	15.0	16.0	17.0	19.0	21.0	23.0	24.0	23.0	25.0	
Number of health centers							1,417	2,315	2,431	2,453	2,475	2,483	2,507	2,518	2,532	2,563	2,553	2,518	2,484	2,451	2,414	2,390	2,318	2,285	
							29	48	50	50	50	50	50	50	50	51	50	49	48	47	46	45	43	43	
Number of schools:																									
Primary			39,156	40,138	40,550	41,277			43,761	45,052	45,878	47,170	48,343	49,395	49,569	45,614	45,034	44,712							
Secondary			6,122	6,273	6,434	6,960				7,243	7,418	8,193	9,036	9,584	9,584	9,523	9,643	9,540							

Source: Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.

Table D.3 - ANALYTIC INDICATORS (cont.)

Appendix D

INDICATOR	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Consumption indices:			← 1958 = 100 →										← 1970 = 100 →											
Food			85	91	95	97	100	103	107	107	112	108	110	111	117	127	132	139		94.4	92.2	95.1	100.0	103.9
Clothing			91	111	102	99	100	100	100	102	103	103	105	105	110	117	123	126		66.1	90.4	93.0	100.0	107.3
Energy			85	92	99	100	100	100	102	104	102	101	101	101	102	106	110	112		94.4	93.9	93.9	100.0	104.0
Housing			35	59	75	82	88	100	129	154	188	228	263	299	335	380	395	410		86.0	90.1	94.8	100.0	102.9
Other serv.			80	91	95	90	98	100	102	106	107	110	114	118	123	134	139	146		91.1	92.8	95.1	100.0	106.5
General			81	89	93	95	97	100	105	107	112	112	115	118	125	136	141	147		91.4	92.6	95.2	100.0	105.0

Source: Annuario Statistico Italiano Istituto Centrale di Statistica, Ministero dell'Economia Nazionale, Italy, 1948-1972.