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CIVIL AFFAIRS HANDBOOK ON ITALY, SECTION 8 ON INDUSTRY + COM

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Preliminary Draft

Return to:

Maj. J. O. Babcock
0523504.

CIVIL AFFAIRS HANDBOOK

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I N D U S T R Y A N D C O M M E R C E

Prepared by

OFFICE OF STRATEGIC SERVICES

for

THE MILITARY GOVERNMENT DIVISION
PROVOST MARSHAL GENERAL'S OFFICE

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CIVIL AFFAIRS HANDBOOKS

TOPICAL OUTLINE

1. Geographical and Social Background
2. Government and Administration
3. Legal Affairs
4. Government Finance
5. Money and Banking
6. Natural Resources
7. Agriculture
8. Industry and Commerce
9. Labor
10. Public Works and Utilities
11. Transportation Systems
12. Communications
13. Public Health and Sanitation
14. Public Safety
15. Education
16. Public Welfare

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INTRODUCTION

Purposes of the Civil Affairs Handbook.

International Law places upon an occupying power the obligation and responsibility for establishing government and maintaining civil order in the areas occupied.

The basic purposes of civil affairs officers are thus (1) to assist the Commanding General of the combat units by quickly establishing those orderly conditions which will contribute most effectively to the conduct of military operations, (2) to reduce to a minimum the human suffering and the material damage resulting from disorder and (3) to create the conditions which will make it possible for civilian agencies to function effectively.

The preparation of Civil Affairs Handbooks is a part of the effort of the War Department to carry out this obligation as efficiently and humanely as is possible. The Handbooks do not deal with planning or policy. They are rather ready reference source books of the basic factual information needed for planning and policy making.

Revision for Final Publication.

Information on areas of potential occupation is immediately needed (a) for civil affairs officers charged with policy making and planning, (b) for the use of civil affairs officers-in-training and (c) to make certain that this data is available at the time of occupation.

Arrangements were therefore made with the cooperating agencies to quickly organize all immediately available material in accordance with a prepared outline. This section on Industry and Commerce in Italy should, therefore, be considered a preliminary draft only.

It is inevitable that the dissolution of the Mussolini regime should lead to marked changes in the administrative control over industry and commerce and that combat operations (as well as political disorders) will decrease the capacity of Italian industry.

The data presented here together with information on the effect of combat operations on industry will provide a basis for an estimate of remaining Italian industrial capacity. If sufficient information can be obtained to make it worthwhile, a brief supplement will be added to this section indicating (a) the most recent changes in political organization and (b) estimates of current industrial capacity.

OFFICERS USING THIS MATERIAL ARE REQUESTED TO MAKE SUGGESTIONS AND CRITICISMS INDICATING THE REVISIONS OR ADDITIONS WHICH WOULD MAKE THIS MATERIAL MORE USEFUL FOR THEIR PURPOSES. THESE CRITICISMS SHOULD BE SENT TO THE OFFICE OF THE CHIEF OF THE SURVEY AND RESEARCH SECTION, MILITARY GOVERNMENT DIVISION, P.M.G.O., 2805 MUNITIONS BUILDING, WASHINGTON, D.C., (OR PHONE WAR DEPARTMENT EXTENSION 76370).

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INDUSTRY AND COMMERCE -- ITALY

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Since the rise of the Fascist regime, the goal for Italian industry has been autarchy, or self sufficiency. Great efforts have been made to expand industrial production and to utilize such natural resources as may be found in Italy. About half of the wage earning population is employed in industry and elaborate governmental agencies direct and control production of goods and utilization of resources in the struggle for a self sufficient war economy.

The struggle for industrial self sufficiency, however, was doomed to failure from the start by the lack of raw materials. The Italians have to import nearly three-fourths of their coal, all their liquid fuel supplies, and one-third of their iron and steel supplies. There are sufficient supplies of aluminum, mercury, and zinc and a surplus of silk and hemp. The chief industrial asset is hydro-electric power, which provides motive power for at least 80 percent of Italian industry. In spite of the obvious lack of raw materials, the Fascist Government has attempted by bureaucratic control to transform the Italian industrial system into an independent war economy.

(1) Size of concerns and their geographical distribution.* Small concerns constitute the bulk of Italian industry. In 1940, out of a total of 150,000 industrial companies, 71 percent employed 10 or less workers, 21 percent employed 11 to 50 workers, 7 percent 51 to 150 workers, and only about 1 percent employed 151 or more workers. Of all Italian industrial firms, about 43 percent are located in Northern Italy, 27 percent in Central Italy, and the remainder in Southern Italy and the islands.

(2) Relative importance and brief description of principal manufacturing industries. The relative importance of the principal Italian manufacturing industries, from the point of view of the number of workers employed in each, is indicated by the data in the following table:

Distribution of employees in the
principal Italian manufacturing industries, 1936

| <u>Description of Industry</u> | <u>Number of Employees ('000)</u> |
|----------------------------------|---------------------------------------|
| Clothing | 991 |
| Engineering (mechanical) | 840 |
| Textile | 559 |
| Woodworking | 447 |
| Food processing | 350 |
| Chemical | 262 |
| Non-metallic minerals processing | 179 |
| Metallurgical | 141 |
| Printing | 90 |
| Power, light, and water | 68 |

* Paragraphs (1) and (2) are taken directly from "Preliminary Memorandum on Italy", Office of Foreign Relief and Rehabilitation Operations, Dept. of State.

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On the basis of the number of employees, the clothing industry is Italy's most important industry. Of the 991 thousand workers which it employed in 1936, 458 thousand were employed in the manufacture of clothes and 305 thousand in the manufacture of shoes, the most important production centers being located in the northern provinces, mainly in Piedmont and Lombardy. Of the mechanical industries, the most important are the automobile industry (mainly at Turin), which employed about 80 thousand workers, and the electrical machinery (Milan) and shipbuilding industries (Genoa, Trieste), with about 60 thousand workers employed in each.

Italy's large textile industry, concentrated for the most part in the northern provinces in Piedmont, Lombardy, and Veneto, processes cotton (imported), wool (domestic and imported), silk (domestic), and artificial fibres (domestic). The output of the industry is sufficient to meet local demands and to supply large quantities for export. The Italian silk industry is particularly important, Italy being the largest silk producer in Europe and, after Japan and China, the third largest in the world.

Italy's food-processing industry prepares both for the local market and for export. It processes some foods in excess of domestic needs and others in which Italy is not self-sufficient. In the first category are primarily canned peeled tomatoes and tomato paste, fruits, marmalades, vegetables, and citrus fruit essences; in the second group are wheat flour, alimentary pastes, sugar, prepared meats, especially sausages, sardines, and anchovies, and olive oil. Flour mills are well distributed throughout Italy, but the largest are mostly around Genoa, Turin, Venice, Trieste, Bologna, and Naples. The largest macaroni factories are in and around Naples and in the larger Sicilian cities. The center of the Italian canning industry is the environs of Naples. Other food preserving centers are Porto Marghera (near Venice), Genoa and its suburbs, the Istrian peninsula (for fish canning), and Milan (meat products).

The Italian chemical industry was developed originally to serve Italian agriculture and to process some of its principal products: its main output consisted of such commodities as fertilizers, citric acid, tartaric acid, and essential oils. World War I stimulated the manufacture of caustic alkalis and dyes, and in subsequent years the manufacture of artificial fibres (mainly rayon) came into prominence. Today the industry is dominated by the powerful Montecatini concern, which produces a wide variety of chemicals ranging from fertilizers to synthetic dyes.

Among the non-metallic minerals processing industries, the most important are those which process stone, sand, and clay materials and such minerals as sulphur, of which Italy is a large producer. The country's metallurgical industries, though dependent in large part upon foreign raw materials and fuel, have developed rapidly in recent years. The iron and steel industry, the most important among them, employed over 90 thousand workers in 1936; its principal plants are located in the environs of Genoa and Trieste (blast furnaces), at Terni and in various centers of Liguria, Piedmont, and Lombardy (iron and steel works).

Though relatively unimportant from the point of view of the number of workers employed, the hydroelectric industry is, nevertheless, a factor of primary importance in Italy's industrial economy.

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(3) The Textile Industry. The textile industry is one of the most important in Italy. It employs over a half million people, or 10 percent of the industrial population, but since the outbreak of war, shortages in raw materials and power have led to a reduction in production. Before the war, Italy was the second largest producer of soft hemp in the world and the third greatest producer of silk. The textile industry has provided an export surplus over a number of years.

Italy produces the following textiles: silk, cotton, wool, rayon, short fibre (fioco), flax, hemp and jute. Silk and cotton manufacture has remained in a fairly primitive state, while artificial fibres are produced with the most modern equipment possible. The cotton industry has about 300 stock companies, while artificial fabrics companies number about 17. The capital distribution in the textile industry is given in the following table:

Capital Distribution in Italian Textile Industry

| Branch | Stock Companies Number | Capital in 1000 lire | Average Capital in 1000 lire |
|---------------------------------|---------------------------|-------------------------|---------------------------------|
| Raw silk | 17 | 3,849 | 226 |
| Silk yarn | 60 | 116,608 | 1,943 |
| Silk fabrics | 54 | 174,797 | 3,237 |
| Cotton | 308 | 1,156,621 | 3,755 |
| Wool | 82 | 353,417 | 4,310 |
| Flax and hemp | 58 | 292,163 | 5,037 |
| Artificial silk | 17 | 763,760 | 44,927 |
| Various fabrics | 296 | 300,602 | 1,015 |
| Attire (<u>abbigliamento</u>) | 148 | 48,102 | 325 |
| Hats (<u>cappelli</u>) | 68 | 87,702 | 1,143 |

(a) Silk. The silk industry is concentrated in Venetia, Lombardy, and Piedmont. The main collection centers for the cocoons are Treviso, Avidale di Friuli, Brescia, Milan, Vicenza, Turin, Bologna, and Verno. The allocation of supplies to processors is under government control. The main weaving center is at Como where all types of silk and silk waste are woven pure or with a mixture of other fibres. Rayon has in recent years entered the silk industry in increasing quantities and in 1938 was estimated to have supplied over 70 percent of the raw materials for the silk industry. The production of silk has fluctuated considerably in recent years. In 1929, production of raw silk was 6,118 metric tons, but in 1938 it was only 2,739. Since the war it is estimated that Germany has taken from 60 to 70 percent of the Italian silk production for war needs, particularly in making parachutes.

(b) Rayon. The growth of the rayon and staple fibre industry has been rapid in recent years. The bulk of the Italian production is by the viscose process, only two mills producing by the acetate process and one by the Bemberg. Prior to the war, the largest acetate mill in Europe was located in Italy. Synthetic fibre production is controlled by "Italviscosa," a cartel organized in 1939 with a capitalization of one million lire, which controls the national output and distribution. The leading producers are "Snia-Viscosa" and "Chatillon." For some years

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prior to the war Italy has been producing lanital, a protein fibre produced from casein and employed as a wool substitute. Output, however, is limited by the shortage of milk for casein and other important wartime uses for casein. Production of synthetic fibres is as follows:

| Synthetic fibre production in Italy (metric tons) | | | | |
|--|---------|---------|---------|--------------------|
| | 1939 | 1940 | 1941 | 1942 |
| Rayon | 53,610 | 52,754 | 53,000 | 60,000 (estimated) |
| Staple Fibres | 86,567 | 113,330 | 130,000 | 145,000 " |
| Lanital | 2,001 | 3,175 | 6,000 | 8,000 |
| | 142,178 | 169,799 | 189,000 | 213,000 |

The chief producers of synthetic fibres are:

Società Nazionale Industria Applicazioni Viscosa (SNIA) (SNIA Viscosa), Milan. The plants are located at Altessano (Venarea Reale), L'Aquila, Ceriana, Laghetto, Cesano Maderno, Cismon del Grappa, Cocquio Trevisago, Desio, Magenta, Oggiono, Pavia, Turin, Varedo, Venaria Reale, and Voghera.

The plants formerly controlled by the Cisa Raion Società Anonima are now controlled by SNIA by reason of the merger of the two concerns. The former CISA plants are:

Società Generale Italiana della Viscosa, Rome and Padova.
Società Anonima Supertessilo, Rieti.
Società Anonima Meridionale Industrie Tessile, Naples.
Società Anonima Subsidiaria Applicazioni Rayon, Cusano Milanino.

Società Anonima per le Fibre Tessili Artificiali (Châtillon), Milan. The plants are located at Châtillon (Castiglione Dora), Vercelli, Ivrea, Rho, Fogliano, Parabiago.

The plants of SNIA and Châtillon produce 90 percent of the total Italian production of artificial fibres. Other producers are:

S.A. Gerli Industria Raion, Cusano Milanino
S.A. Orsi Mangelli Forli S.A.F., Casale Monferrato
S.A. Rhodiaceta Italiana, Palianza
S.A. Bemberg, Gozzano
S.A. Italo-Olandese Enka, Pizighettoni
S.A. Manifattura di Caluso, Caluso-Canavese

(c) Cotton. There are about 1000 cotton producing enterprises in Italy in normal times and it is still the most important branch of the textile industry. In 1939, there were 219 spinning mills in operation with 5.5 million spindles, and 717 weaving mills with 136,000 looms. Total cotton fibre turned out in 1938 was 203,000 metric tons. The largest companies are:

De Angeli Frus
Cotonificio Cantoni
Stabilimenti Tessili Italiana
Cotonificio Oleose
Cotoniere Meridionale
Unione Manifatture

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Before the war, Italy was the fourth largest importer of raw cotton in Europe. Over half the supply came from the United States and 20 percent from Egypt. The decline in the import of cotton has been offset to a small extent by the production of home-grown supplies. The area that can be utilized is limited by climatic conditions and by the fact that any land taken over must be at the expense of more important crops. In 1941, 150,000 acres were under cotton cultivation, producing a yield of 10,600 metric tons, which is less than Italy imported from Brazil in 1939. In recent years, many of the weaving and spinning mills have supplemented cotton supplies with rayon and staple fibre. In 1938, rayon and staple fibre accounted for 24 percent of the raw materials used in the cotton industry.

(d) Hemp. The production of hemp is concentrated in the provinces of Florence, Naples, and Ferrara. Production in 1939 is summarized as follows:

Hemp Production in 1939

| | |
|---------|--------------------|
| Ferrara | 34,500 metric tons |
| Naples | 34,000 |
| Bologna | 21,500 |
| Rovigo | 6,500 |
| Modena | 5,500 |
| Total | 102,000 |

Italy is the second largest producer of soft hemp in the world. The major part of the hemp and flax industry is controlled by the Linificio e Canapificio Nazionale of Milan, who also produce about one-half of the Italian rope output. This concern has about 20 mills with a combined capacity of 117,000 spindles and 2,000 looms, consuming over 30,000 tons of fibre and yarn. This concern produces 5,000 tons of twine, 5,000 tons of rope and cord, and 15 million meters of hemp cloth a year. About 15,000 workers are employed. The remainder of the Italian hemp and flax industry is in the hands of smaller firms concentrated in the Milan area. The demand for hemp has been increased by the war and the Germans have attempted to purchase the entire export surplus. In attempting to safeguard supplies for domestic use, the Italian Government put an embargo on the sale of hemp products and created a state monopoly (Ente Nazionale Esportazione Canapa, capitalized at 10 million lire) to control all exports.

(e) Wool. In view of the needs of the woolen industry, the government decreed that home grown Italian wool be mixed with imported wool, with increasing percentages of the latter. Import supplies have been cut off by the war, and wool has become a scarce commodity. The home produced wool and any remaining stocks have been reserved for government use. The wool industry is centered in Northern Italy. In 1939, there were 966 mills with a total capacity of 1,250,000 spindles and 21,000 looms. The total number of employees in 1936 was 101,000.

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(4) Iron and Steel. The relation between iron and steel in metallurgical production in Italy is not the same as may be found in other countries. In the first place, Italian pig iron production is only 40 percent of steel production, while in other countries it is about 70 percent. In the second place, the large resources of hydro-electric power have made possible the development of electric steel capacity so that a large proportion of the steel produced in Italy is of high quality. The lack of pig-iron is due primarily to the absence of coking coal. The coke oven and blast furnace industries have been developed on imported coal and, consequently, did not develop as rapidly or extensively as the steel furnace industries.

(a) The production of pig iron is listed below in thousands of metric tons:

| 1935 | 1936 | 1937 | 1938 | 1939 |
|------|------|------|------|-------|
| 633 | 762 | 801 | 864 | 1,005 |

Finsider, a semi-public holding company whose ownership is equally divided between the state and private individuals, dominates the iron and steel industry. A breakdown of the pig iron capacity and production is given in the following table:

Pig Iron Capacity and Production

| <u>Company</u> | <u>Plant</u> | <u>Capacity 1938</u> (thousands of metric tons) | <u>Output 1938</u> |
|--------------------|--------------------|--|--------------------|
| ILVA (Finsider) | Bagnoli | 220 | 662 |
| | Piombino | 140 | |
| | PortoTerraio | 225 | |
| | Servola | 150 | |
| "COGNE" | Cogne | 150 | 120 |
| A.F.L. Falck | Sesto San Giovanni | 110* | 82** |
| SIAC*** | Cornigliano | -- | -- |
| | | 995 | 864 |

* Elettrotecnica, June 1940, p. 289. Also Elettrotecnica 1938, p. 820.

** L'Economia Armata, 1938, gives 80,000 tons.

*** New Plant.

(b) Steel production shows a corresponding concentration. The companies are divided into two groups. Group A is controlled by Finsider and represents companies carrying on a full cycle of production from iron ore to steel. Group B includes companies producing steel from pig iron and scrap. The capacity of each group is listed in the two following tables.

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(Thousands of Metric Tons)

| <u>Company</u> | <u>Plant</u> | <u>Capacity 1938</u> | <u>Capacity 1940</u> |
|--------------------|--------------|----------------------|----------------------|
| ILVA (Finsider) | Bagnoli | 220 | 400 |
| | Piombino | 150 | 310 |
| | Servola | | 100 |
| SIAC (Finsider) | Cornigliano | | 300 |
| COGNE | Aosta | 300 | 300 |
| | | 670 | 1,410 |

Capacity of Group B
(In Metric Tons)

| <u>Company</u> | <u>Plant</u> | <u>Capacity 1938</u> |
|-----------------------------------|--------------------|----------------------|
| Acciaierie e Ferriere Lombarde | Sesto San Giovanni | 350,000 |
| Societa It. e Breda | " " " | 200,000 |
| Ferriere Torino F.I.A.T. | Torino | 250,000 |
| Stabilimenti di Dalmine | Dalmine | 150,000 |
| S. A. Redaelli | Milano Rogoredo | 150,000 |
| S. A. Terni | Terni | 200,000 |
| La Magona l'Italia | Piombino | 200,000 |

At the time of the war, the Italian Government prepared a program to increase crude steel output to 4 million tons per year, and at the same time to reduce the need for importing scrap, ore, and coke. New iron deposits were sought to increase domestic production, greater use was made of pyrite cinders instead of ore, and new blast furnaces were installed requiring little coke and suitable for the consumption of pyrite cinders. In view of this program of increasing production and eliminating imported raw materials, the experience of the years since 1939 must be accounted a failure. However, crude steel production has not declined to any marked extent. Imports of semi-finished steel from Germany have kept the Italian rolling mills busy, and the consumption of iron and steel in 1942 was about the same as it was at the outbreak of war.

(5) Non-Ferrous Metals

(a) Aluminum. The aluminum industry in Italy has grown very quickly and is based on ample supplies of bauxite. The present production of alumina and aluminum is estimated to be as follows, according to the producing company and location:

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Aluminum and Alumina Production in Italy

| Location | Company | Aluminum | Alumina |
|----------------|------------------|----------|---------|
| Porto Marghera | SAVA | 20,000 | 60,000 |
| Porto Marghera | Montecatini | | 75,000 |
| Mori | Montecatini | 10,000 | |
| Bolzano | Montecatini | 20,000 | |
| Bussi | SAVA | | 15,000* |
| Borgofranco | Al. It. | 5,000 | |
| Narni Ascoli | Elettrocarbomium | | |
| | | 55,000 | 150,000 |

* Capacity, but may not be working.

Italian imports of alumina in recent years have been negligible. About 40,000 tons were exported in 1938 and 1939, of which 30,000 tons went to Switzerland and the rest to Germany. Owing largely to the shortage of power, the production of aluminum has fallen short of capacity. The output for 1942 is believed to be less than that for 1941. Production of aluminum is shown in the following table:

| Production of aluminum | |
|------------------------|-------------|
| 1936 | 15,900 tons |
| 1937 | 22,900 |
| 1938 | 25,800 |
| 1939 | 34,000 |
| 1940 | 40,000 |

(b) Great interest has been shown in Italy in leucite as a source for alumina. The processing of leucite produces not only alumina, but valuable potassium salts as well. According to reports, leucite-alumina plants were under construction by two concerns in 1941. Plants were being built by the S.A. Italiana Potassa at Apuania and Civita Castellana, and by the S.A. Leucite Potassa Alumina at Castellina in Chianti and Orvieto. Permission to erect plants was given in 1941 to S.A. Prodotti Chimici Nazionale and to Montecatini. As far as is known, only the plant at Civita Castellana was actually in operation.

(c) Production of carbon electrodes for the aluminum industry appeared to be adequate for all requirements, although most of the raw materials (petroleum coke, pitch coke, anthracite) had to be imported. Petroleum coke is manufactured in Italy by the Azienda Nazionale Idrogenazione Combustibili at Leghorn and Cokitalia makes hard pitch for coking. In 1941-2, Italy was importing sufficient electrode coke from Germany. The chief producers of carbon electrodes are as follows:

Società Industrie Minerarie ed Elettro-Chimiche (SIME),
Bussi
Società Alluminio Italiano (SAI), Borgofranco
Montecatini, Porto Marghera
Società It. del Forno Elettrici e dell' Elettro-
carbonium, Ascoli Piceno (a subsidiary of Siemens)

Other plants are located at Mestre, Narni, Mori, Bolzano, and Malonno.

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(d) The capacity for the manufacture of artificial cryolite is reported to be 7,000 tons a year. The production is controlled by Montecatini in two plants at Porto Marghera and Bolzano. The Italian Government announced that the requirements of cryolite for 1940 were covered by domestic production and that Italy was offering to export cryolite.

Light alloy fabrication is carried on by the Lavorazione Leghe Leggere of Porto Marghera, a Montecatini subsidiary, producing a full range of fabricated aluminum products. The principal sheet works are: Metallurgica Lombarda Piemontese at Piedimulera, and the Trafilerie e Laminatoi di Metalli S.A., with plants in Turin, Milan, Genoa, and Brescia. A wide variety of semi-manufactured aluminum products is made by the Societa Metallurgica Italiana at Leghorn. Tubes are made by the Fabbrica Italiana Tubi Metallici at Turin. Foil is manufactured by Societa Laminazione of Alessandria. Castings and forgings are made by engineering firms as Fiat in Turin, Isotta-Fraschini in Milan, Alfa-Romeo in Milan, and others.

(e) Magnesium. Before 1939, magnesium production was negligible, but has increased to the point that it was expected to reach 10,000 tons in 1942. The magnesium companies and their capacity are as follows:

| | | | |
|--|--------------------------------|------------|--|
| S.A.I. per il Magnesio e leghe di Magnesio, Bolzano, | | | |
| | 2,400 tons | | |
| Montecatini | Bolzano | 1,200 tons | |
| Montecatini | Massa | 3,000 | |
| S.A. Cogne | Aosta | 3,000 | |
| S.A. Cogne | San Giovanni Sergiu (Sardinia) | 1,200 | |

(f) Mercury. Italy and Spain have a practical monopoly on mercury production in Europe. The producers of mercury are:

S.A. Mineraria Monte Amiata (Rome), mines in Abbadia
Regia Miniera d'Idria (Trieste), mines in Idria
Stabilimento Minerario del Sile (Leghorn), mines at
Piancastagnaio and plant at San Fiora
S.A. Mercurifera Italiana (Rome) mines at Monte-Labro
and Bagnone.

The Italian producers are members of the cartel Mercurio Europeo. By a decree of February 3, 1940, mercury production was placed under the control of the Italian Government for the duration and no export was permitted without a license.

(g) Lead and Zinc. About 80 percent of Italy's lead and zinc are mined in Sardinia. All of the lead ore, about 60,000 metric tons (metal content), is smelted in Italy. Only part of the zinc ore is smelted there -- about 35,000 tons.

Estimated output of Italian zinc smelters is listed below in the following table:

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| <u>Location</u> | <u>Company</u> | <u>Capacity in Metric Tons per Year</u> |
|-----------------|----------------|---|
| Vado Ligure | Soc. Monteponi | 9,000 |
| Monteponi | Soc. Monteponi | 7,000 |
| Crotone | Soc. Pertusola | 12,000 |
| Porto Marghera | Soc. Italzinc | 24,000 |
| | | 52,000 |

There are 3 lead smelters in Italy. Their estimated output is given in the following table:

Italian Lead Smelters

| <u>Location</u> | <u>Company</u> | <u>Capacity in Metric Tons per Year</u> |
|----------------------------------|--|---|
| S. Gavino Monreale | Soc. Italiana del Piombo e dello Zinco | 24,000 |
| Pertusola (near La Spezia) | Soc. Mineraria e Metallurgica di Pertusola | 22,000 |
| Iglesias (Sardinia) | Soc. Monteponi | 10,000 |

Optimistic reports concerning the increase in lead and zinc production have been published in the Italian press. While the output of the present may be higher than 1938, it probably has not increased to the extent that sufficient supplies are on hand for war needs. In July 1942, the Pertusola plant was reported to have closed because of difficulty of obtaining concentrates from Sardinia.

(h) Antimony. The production of antimony in Italy is small. The mines are located in Sardinia, Tuscany, Piedmont, and Trentino. The chief smelting plant is the Miniere e Ponderie di Antimonio at Suergiu. The capacity is about 1,000 tons a year. Annual production of antimony is supposed to have reached 1,000 tons a year as a result of the efforts to increase the total output. Recently the Azienda Minerale Metallurgica Italiana (A.M.M.I.) was given a ten year concession to exploit the resources in the Podere Cetine deposits in the Siena district.

(i) Copper. The normal peacetime requirements of copper in Italy are 80,000 tons a year. Of this amount, 95 percent has to be imported. The only large producer of copper alloys is the Societa Metallurgica Italiana which operates three plants. The plant at Leghorn produces fire-refined and electrolytic copper with a capacity of 3,000 tons of blister copper a year. Copper alloys are produced by electric furnace and crucible in the plant at Borga. Aluminum-bronze and nickel bronze are produced at Campo Tizzoro. Before the entrance of Italy into the war, a decree (December 1939) required that all copper stocks be reported to the Ente Distribuzione Rottami, a government scrap distribution board. After June 1940 all copper stocks and kitchen utensils in excess of 44 pounds had to be reported to the board and the use of copper for non-military purposes was prohibited. In 1941, all copper objects except works of art were requisitioned. Individuals were not permitted to

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own copper objects in excess of four and one-half pounds and churches were permitted to have only one bell. The difference between the supplies and the need for copper was filled by the import of copper scrap from Germany.

(6) The Chemical Industry in Italy. The original purpose of the chemical industry in Italy was for the production of fertilizers which are needed for the intensive cultivation of the land. Phosphates and sulphuric acid were the first products to be manufactured in quantity. Nitrogen fertilizers are produced by the cyanamide and the synthetic ammonia process. These products use large quantities of electric power. Much of the chemical industry is dependent on coal, especially the by-products of coke production. Other products are chlorine and caustic soda, which require cheap electric power. Sufficient quantities of chlorine and caustic soda are produced for Italy's needs. Production of all chemicals is fairly well concentrated in northern Italy, making use of abundant electric power.

The principal company is Montecatini, which dominates the entire industry. Montecatini is a mixture of a holding company and various producing companies. Of course, it operates in harmony with I. G. Farben and other international cartels. Other leading companies are Terni (metallurgy, etc.) Ilva (metallurgy, coke and ammonia), Anic (petroleum, etc.) Italgas (coke and gas), Vetrocokes (a subsidiary of F.I.A.T.), Italviscosa (rayon, etc.) and Distillerie Italiane (alcohol).

(a) The total chemical nitrogen production in 1939 was 119,921 metric tons. Caustic soda production in the same year was 200,388 metric tons, liquid chlorine 4,373 tons, and chlorine in hyperchlorites 17,482 tons. The production of caustic soda has not been maintained in the course of the war. In 1941, 10,000 tons of caustic soda and soda ash were imported by Italy. In 1942, 23,000 tons were imported. Since the soda ash and caustic soda capacity is 125 percent of Italian industrial requirements, the decline in this industry may be due to the shortage of coal and electric power. The most important soda factories are owned by the Solvay company at Monfalcone (Trieste) and Rosignano (Livorno).

(b) Production of carbides was 445,000 metric tons in 1939. The chief carbide plants are:

Societa per l'Industria e l'Elettricit , Terni
S.A. San Marco-Elettrometallurgica, Porto Marghera
Societa Industriale Carburo, Ascoli.

(c) Pre-war capacity of calcium cyanamide was 298,000 tons a year. Sulphuric acid production in 1938 was 1,721,000 tons. The principal sulphuric acid plants are those of the Ammonia e Derivati S.A. at San Giuseppe di Cairo, and the Montecatini plants at Cengio, Porto Marghera, Avigliano, Bussi, Milan-Bovisa and Cesano Maderno. The principal use of sulphuric acid is in making superphosphate fertilizers. Since Italy cannot get phosphates from North Africa to make fertilizers in combination with sulphuric acid, production is less at present than it was before the war.

(d) Synthetic ammonia capacity in 1939 was 150,000 tons a year. The greatest producers of synthetic ammonia are:

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Società Ammonia e Derivati, San Giuseppe di Cairo.
Società Industriale San Marco, Porto Marghera.
Soc. Meridionale Ammonia, Crotone.
Montecatini, in Apuania, Vado Ligure, and Sinio.
S.A. per l'Industria e l'Elettricità, Nera Montoro.

(e) The coal tar industry manufactures synthetic resins, drugs, and dyes from the primary derivatives of coal tar and coal gas. Although great strides have been taken in building this industry, Italy is completely dependent on Germany for the coal supplies from which these products are derived. In 1938, the production of primary coal tar products was as follows:

| Coal Tar Products, 1938 | |
|-------------------------|-------------------|
| Benzol (90%) | 7,000 metric tons |
| Benzol (Pure) | 4,000 " |
| Toluol (pure) | 3,000 " |
| Xylol (commercial) | 600 " |
| Xylol (pure) | 200 " |
| Solvent naptha | 900 " |

The chief producing plants for coal tar products are:

Cokitalia S.A. (Milan, main office). Plant at San Giuseppe di Cairo.
Vetrocoke, Società Riunita Italiana (Milan). Plant at Porto Marghera.
Società per l'Industria e l'Elettricità (Genoa). Plant at Nera Montoro.
Azienda Colori Nazionali Affini (Milan). Plant at Cengio.
Cokapuania S.A. Apuania.

(f) The dye industry has made great progress in Italy during the last twenty years. The production at the beginning of the war amounted to about 12,000 tons a year. The major part of the dye production is controlled by Montecatini. The greatest producer is the Azienda Colori Nazionali Affini near Milan. Other firms are the Montecatini at Cesano Maderno, Società Chimica Lombarda Bianchi at Rho, Industria Piemontese Colori Anilina at Cirie, Fabbrica Lombarda Colori Anilina at Milan, and Industria Chimica Dott at Melegnano.

(g) In the field of plastics, Italy has concentrated on celluloid and the bakelite and casein types, producing about 20,000 tons in all. Three-fourths of the plastics production is controlled by Montecatini, with plants located at San Giuseppe di Cairo, Villadosola, Cesano Maderno, Turin, Naples, Ferrara and Novara.

(h) The sources for the production of alcohol are beets and the distillation of wine. Plants using beets for the production of alcohol are:

Società Eridania, Mezzano.
Zuccherificio e Raffineria di Pontelongo, in Pontelongo and Bottrighe.

Plants deriving alcohol from the distillation of wine are:

Distillerie Italiane, in Barletta and Reggio nell' Emilia.
Società Agricola Industriale degli Alcoli, Lago.

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(1) Soap production is carried out in 1800 plants of varying sizes. The most important producer is S.A. Mira-Lanza, with plants in Rome, Naples, Genoa, and Mira. Pre-war soap production amounted to 200,000 tons a year.

(7) Engineering Industries, Aircraft and Armaments.

From the point of view of the domestic economy, the electrical engineering industry is the most important of the engineering industries. Italy possesses the greatest mileage of electric railways of any country in Europe and practically all the equipment has been manufactured in the country. Italian engineers have taken a leading place in the field of radio and in electro-chemistry and electro-metallurgy.

The engineering industries are located mainly in the north of Italy, near Turin and Milan, where advantage can be taken of the natural power resources. Other centers are Genoa, Trieste, Spezia and Brescia. Recently there has been a considerable development of the engineering industries around Naples and Terni, and a new industrial area has been opened near Rome, utilizing the Terni power scheme.

In the 1936 census, nearly 850,000 people were employed in the engineering industries. About 400,000 were employed in a large number of small plants. The employment in the significant branches of the industry is as follows:

Employees, in the Engineering Industries, 1936

| | |
|-----------------------------------|-------------|
| Motor car | -----81,000 |
| Shipbuilding | -----63,000 |
| Electrical machinery | -----63,000 |
| Armaments | -----48,000 |
| Aircraft | -----37,000 |
| Metalwares | -----31,000 |
| Motorcycles and bicycles | ---34,000 |
| Optical and precision instruments | -----30,000 |
| Heating and hydraulic | -----26,000 |
| Railway material | -----19,000 |
| Agricultural machinery | -----18,000 |
| Machine tools | -----16,000 |

(a) Motor cars. In 1938, the motor car industry produced 69,118 vehicles, of which 58,974 were passenger cars and 10,114 were trucks and buses. Italy ranked seventh in world production and produced 2% of the total world output. At the beginning of the war the motor car industry was nationalized and only four companies were permitted to produce vehicles. These companies are:

Fabbrica Italiana Automobili, Torino (FIAT), Turin.
Capital: 400 million lire. 70,000 workers. Produces 90% of the Italian output.

Alfa-Romeo. Milan. Capital 30 million lire. 10,000 workers.

Fabbrica Automobili e Velocipedi Edoardo Bianchi. Milan.
Capital: 30 million lire. 2,500 workers.

Fabbrica Automobili Lancia. Turin. Capital: 50 million lire. 3,000 workers.

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There are many other plants in Italy equipped to produce passenger cars, trucks, buses and tractors. The chief companies are as follows:

Cars and trucks:
 Fabbrica Automobili Isotta, Milan, Capital: 54 million lire.
 Fabbrica Bresciana Automobili "O.M." Milan, Capital: 42 million lire.
 Società Ligure Piemontese Automobili, Turin, Capital: 10 million lire.

Passenger cars:
 Officini Alfieri Maserati, Bologna. Capital: 1 million lire.

Trucks and tractors:
 S.A. La Motomeccania, Milan. Capital: 12 million lire, 1,100 employees. Controlled by Alfa Romeo.
 Fabbrica Italiana Automobili Citroen, Milan. Capital: 2,600,000 lire.

Tractors:
 Officini Costruzioni Industriali, Milan. Capital: 3 million lire.

In the field of accessories, the key firms are the Italia Magneti Marelli of Milan, producing electrical equipment for the motor car industry; Officini Villar Parosa of Turin, producing bearings; and the S.A. Cogne of Turin, producing alloy steel.

(b) Railroad equipment. Since the Italian railroads are largely electrified, no steam locomotives have been manufactured for local service since 1930, although they have been re-conditioned for use in Germany. The leading producers are as follows:

FIAT, Turin (electric and steam locomotive)
 Società Italiana Ernesto Breda, Milan (Electric and steam)
 S.A. Ansaldo, Genoa-Cornigliano. (Electric)
 Reggiane Officini Meccaniche, Italiane, Reggio nell' Emilia.
 S.A. Officine Meccaniche Milan. (Diesel locomotives and road vehicles).

Rolling stock for the railways is manufactured by the following:

Società Italiana Ernesto Breda, Milan.
 Società Nazionale delle Officine di Savigliano, Turin.
 S.A. Ansaldo, Genoa.
 Cantieri Navali Riuniti, Naples.
 S.A. San Giorgio, Pistoia.

(c) Electrical industry. The great majority of the firms in the electrical industry are small. The greatest producer of electric equipment is the Fabbrica Italiana Magneti Marelli of Milan, making a wide range of heavy electrical goods. Power station equipment is manufactured by the Società Nazionale delle Officine di Savigliano at Turin. Cable manufacture is concentrated in the Società Italiana Pirelli, in Milan, the S.A. Ing. Tedeschi V & C

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in Turin, and Conduttori Elettrici et Affini in Turin and Leghorn. Storage batteries are manufactured by Marelli and by Fabbrica Accumulatori Henseberger at Monza and the Societa Generale Italiana Accumulatori Elettrici of Melzo. Alkaline storage batteries are made by the Societa Italiana Accumulatori "Nife" of Genoa.

(d) Machine tools. The machine tools industry has never been able to supply more than 50% of the Italian needs. Usually, machine tools are manufactured by the large engineering concerns as a branch activity. Two firms, Geruti of Milan, and Giuseppe Mignatelli of Bologna, specialize in the manufacture of machine tools, the latter producing grinding machines and turret lathes as a specialty. Machine tools for the FIAT works are produced by the FIAT subsidiary Microtecnica in Turin. Drilling machines, Lincoln type drillers, and many types of small drills are produced by Olivetti & C. in Ivrea. Heavy machine tools are not as a rule produced in Italy and are imported from Germany. Imports include vertical lathes and presses and precision instruments, such as thread grinders and crankshaft grinders.

(e) Oil engines. The outstanding firm producing marine, stationary, and road vehicle engines is the FIAT subsidiary, Stabilimento Grandi Motori in Turin. Oil engines for marine uses are manufactured by Ansaldo in Genoa and Franco Tosi in Legnano. Other firms manufacturing oil engines are: Cantieri Officina Savoia of Sestri Ponente (Genoa), Cantieri Riuniti dell'Adriatico of Trieste and Officine Meccaniche e Navali di Napoli at Naples.

(f) Other engineering firms. Motorcycles and bicycles are manufactured by Edoardo Bianchi in Milan, S.A. Moto Guzzi in Mandello del Lario, of Como, and Fabbrica Italiana Motocicli Gilera Giuseppe Arcore of Milan. In 1939 there were 200,000 motorcycles and 4 million bicycles registered in Italy. The greatest production was in 1937, when 25,000 motorcycles were produced.

Optical and precision instruments are produced by several firms, the outstanding being:

Officine Galileo, Florence and Milan; Ottica e Meccanica di Precisione, Crema; La Filotecnica, of Milan; Officine Fratelli Borletti. Electrical instruments are made by the Societa Italiana per Istrumenti Elettrici.

Hydraulic and pumping machinery are made by most of the engineering firms and by specialized firms as Lombardia Costruzione Pompe in Milan, and S.A. Ing. Audoli e Bertola in Turin.

The leading firms specializing in the manufacture of agricultural machinery are Reggiane Officine Meccaniche Italiane of Reggio nell' Emilia, and Galtarosso in Verona.

(g) Aircraft. There are about thirty companies engaged in the major process of aircraft reproduction. The centers of production are fairly scattered, but there is a degree of concentration in the Turin, Milan, and Naples districts.

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The leading firms are:

Fiat - Turin. Rifredi (Florence)
Breda - Sesto San Giovanni (Milan)
Caproni - Taliedo (Milan) and Reggio nell' Emilia
Macchi - Masnago (Lake Maggiore)
Savoia - Marchetti - Sesto Calende
Breda - Capodichino (Naples)

Caproni branch factories are located at Palermo and Bocca di Falco in Sicily and a repair works at Cagliari in Sardinia.

Italy has never been able to equal the technical advances made in aviation in other belligerent countries. Production has been limited to a small number of modern designs by the elimination of old types of wooden and mixed wood-metal types. Under favorable conditions, the aircraft industry is believed to be capable of producing 500 planes of transport and operational types, excluding trainers.

Aero-engines are produced by many firms. The outstanding firms are:

Isotta Fraschini, in Milan
Fiat, in Turin and Rifredi (Florence)
Alfa-Romeo, in Milan and Pomigliano d'Arco (Naples)
and Piaggio Pontedera (Pisa)
Caproni, in Reggio nell' Emilia and Ponte San Pietro.

In 1939, plant capacity was estimated at 900 engines a month and has probably been increased to 1000 a month. The industry produces about 17 or 18 types of engines, the predominant type being the radical air-cooled engines of 7 to 18 cylinders. The German Daimler-Benz 601, 12 cylinder, inverted V of 1150 HP is being manufactured by Alfa-Romeo at Pomigliano d'Arco.

The number of workers engaged in the aircraft industry, including all part manufacture and sub-contracting, is estimated at 100,000, which is approximately the number employed before the war. Military equipment for aircraft accounts for the employment of an additional 30,000. In 1941, a government decree introduced the 12-hour day for the metal working industries.

The vertical organization of the aircraft industry makes unnecessary the importation of semi-manufactured products. Such firms as FIAT, Caproni, and Breda have metallurgical and fabricating plants. Plant capacity for aluminum is sufficient unless production is affected by adverse conditions, such as droughts, which affect the hydro-electric supply.

(h) Armaments. The Italian capacity to produce armaments is limited by the ability to produce steel, forgings, precision tools, and special steel. In general, armaments are produced by the principal engineering firms and many difficulties were encountered in changing to war production. The production of tanks is concentrated in the following concerns:

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FIAT - Turin, Lingotto and Mirafiori works.
Ansaldo - Genoa. Sestri-Ponente and Cornigliano works.
Ernesto Breda. Milan.

The combined capacity of these five plants is estimated to be 100 medium tanks a month. Armored cars (The "S.P.A." and "Autoblinda 40") are produced by the Societa Piemontese Automobile of Turin, a FIAT branch.

Armaments, such as rifles, machine guns, anti-aircraft, anti-tank, and field guns are produced by:

Societa Italiana Ernesto Breda in plants located at Brescia, Milan, Rome, Torre Daia, Mestre, Porto Marghera.

Odero-Terni-Orlando, with plants located at Terni, Muggiano, Fornaci di Barga, Legnano, Fiume.

Societa Metallurgica Italiana, at Brescia, Pistoia, Alessandria, Zocca, Lucca.

S.A. Ansaldo at Genoa, Cornigliano, Sestri Ponente, Turin, Pozzuoli (naval guns)

Important arsenals are located at Turin, Piacenza, Spezia, Venice, and Naples. Machine guns are produced in the arsenals of Turin, Gardone Val Trompia and the Government small-arms factory at Terni, and by Isotta-Fraschini in Milan and Brescia; government shell filling factories are located at Genoa, Bologna, Fontana Liri, Capua and Terni. Fuses are manufactured by the Societa Metallurgica Italiana at Brescia, the Breda works at Mestre Fratelli Bonelli in Milan, and in arsenals at Turin and Torre Annunziata.

Military instruments, such as range finders, gun sights, sound detection, etc., are produced by the Officini Galileo of Florence and the S.A. Industriale San Giorgio at Sestri Ponente. Naval searchlights are manufactured exclusively by Galileo and Salmoiraghi of Milan.

(8) Liquid Fuel

Prior to 1930, Italy had practically no oil industry. In 1932, a law required distributors to establish refineries. The government took a direct interest in the oil industry through the Azienda Generale Italiana Petroli which owned a refinery at Venice and a controlling interest in Raffineria di Oili Minerali Societa Anonima, owners of the refinery at Fiume. The Vacuum Oil Company built a refinery at Naples, and Aquila erected a plant at Trieste. The Italian government erected hydro generation plants at Bari and Leghorn in 1936.

The Italian oil industry is dependent upon imports. Prior to the war (1937) 25% of the oil imported came from the United States, 20% from Rumania, 20% from the Dutch East Indies, and 12% from Iran. In addition to the refineries at Bari and Leghorn, important plants are located at Naples (Societa Raffineria di Napoli) Venice (Azienda Generale Italiana Petroli), Trieste (Aquila), Spezia (I.N.P.E.T.) Fiume (Raffineria di Oili Minerali S.A.), Trieste (S.I.A.R.), Milan (Permollo).

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The chief commercial storage installations are located at Savona, Naples, Trieste, Venice, and Valona (Albania). Military storage installations are located at Augusta, Taranto, Naples, and Palermo.

Two synthetic oil plants have been erected in Italy. In Florence, the Industria Chimica Melegane (Milan) has erected a plant operating on lignite. Another plant has been built at Valdarno. Many substitutes have been utilized to offset the decline in crude oil imports. Alcohol and benzol are blended with motor fuel. Methane gas has been used to a considerable extent.

(9) Other Industries.

(a) The Italian rubber industry is concentrated in the northern industrial zone around Milan and Turin. Crude rubber was imported from Malaya and the Netherlands East Indies before the war. With the breakdown of the normal imports of 23,000 metric tons a year, efforts have been made to produce synthetic rubber from alcohol. The principal rubber concern is the Pirelli group, with headquarters in Milan and associated companies in several localities. Synthetic rubber production is controlled by S.A. Industria Gomma Sintetica, with plants at Ferrara using the Polymer process, and at Gualdo Cattaneo operating under Buna patents. An experimental plant is operated at Bicocca (Milan).

(b) The tanning industry is conducted in about 700 factories located at Varese, Novara, Belluno, Como, Naples, and Turin. Leather manufacture is carried on in 2000 or more small plants.

(c) The cement industry produces an export surplus. The industry is centered in Monferrato, Bergamo, and in Venetia and Tuscany. The leading concern is Italcementi (Fabbriche Riunite Cemento) which controls about one-third of the output. Other plants are located in Sicily (Banso-Messina, Palermo, and Catania) and in Sardinia (Cagliari). All producers were required to join a state cartel in 1941, which controlled sales and prices.

(d) The paint and varnish industry is dependent on the importation of natural resins and drying oils. Synthetic resins have been made, but production is restricted by the fact that they are derived from imported coal. There are over 200 paint and varnish factories in Italy. The most important are Duco, with several plants, S.A. Vernice Italiana, at Musorio, S.A. Industria Vernice Italiana at Boviso, and S.A. Italiana del Litopone at Leghorn.

(10) Organization and Government Control

The corporate system which is designed to control and direct economic activity within Italy is described in detail in another section. The Italian economy is a controlled and directed economy in which the vast bureaucracy of the Fascist regime exercises complete jurisdiction over economic initiative and practice. Since the goal of the Fascist regime is self-sufficiency, a vast web of bureaucratic decrees has been erected to make the Italian economy less dependent

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on the world market. Bureaucratic control lines meant the erection of a complicated structure uniting economic activity with the political administration of the state.

Government control is exercised through a hierarchy of administrative agencies. The basic organization of the corporate economy is the syndicate (Sindacato), a local organization of employers or employees, which is given the power to operate as a state agency in settling collective disputes. The syndicates are organized into Federations (Federazioni) which exist nationally and which are the official bodies representing employers or employees in any occupational group. The Federations make and administer collective agreements and nominate representatives for the various political bodies of the state. The Federations, in turn, are grouped into Confederations, of which there are 9 in Italy; 4 representing employers, 4 employees, and 1 professional men. The broad fields represented by the Confederations are industry, commerce, agriculture, and credit and insurance. The Confederations send delegates to the Corporations (corporazioni), the bodies which provide the close relation between the political state and economic activity. Each one of the 25 Corporations represents an entire cycle of economic activity within its sphere. For example, the textile Corporations control all the processes in textiles from the production or acquisition of raw materials through retail distribution. The Corporations have consultative, conciliatory, and legislative powers, and their duties are described as the "Collective regulation of economic relations and the unitarian discipline of national production." All phases of production, distribution, and price are controlled by the Corporation, after the general economic policy has been established in State agencies. The Corporation also has political functions in sending delegates to the National Council of Corporations (Consiglio Nazionale delle Corporazioni), which is one of the three constituent parts of the Chamber of Fasci and Corporations, the legislative branch of the Fascist State.

The basic control over economic activity is found in the administrative branch of the Fascist Government. The Central Corporative Committee (Comitato Corporativo Centrale) coordinates the work of the National Council adopted by the Corporations. The point of contact between the Government and the Corporate structure of Italy is the Ministry of Corporations (Ministero delle Corporazioni). The Ministry has direct administrative control over all the organizations of employers and employees. It works in localities through the Prefects, the Provincial Offices of the Ministry, and the Provincial Councils of Corporative Economy, the Fascist bodies which have replaced the former Chambers of Commerce.

In order to achieve self sufficiency, the Fascist Government has established various bodies to direct specifically the reorganization of Italian economy. The Central Corporative Committee (Comitato Corporativo Centrale) was authorized to sit as a Supreme Commission for Autarchy, the

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chief body directing the efforts towards self sufficiency, and in January 1939 coordination among the various government departments was established by the Inter-Ministerial Committee for Autarchy. It is given, first, the power to erect new plants, to direct firms to adopt different productive processes, and to fix prices. The members of the Inter-departmental Committee include: the Ministry of Corporations, Secretary of the Fascist Party, the Ministries of Italian Africa, Finance, Public Works, Agriculture, Communications, Foreign Trade and Exchange; the Chief of the General Staff; President of the National Research Council; General Commissioner for War Manufactures; Governor of the Bank of Italy; Secretary of the Supreme Defense Committee.

In 1933, the Istituto Ricostruzione Italiana (I.R.I.) was established to aid Italian industries during the depression. It now finances the industrial and commercial reorganization that self sufficiency has made necessary. I.R.I. operates through the financial structure of Italy, and by the control of banks, has organized various subsidiary organizations to finance economic enterprises. A government company Fimmare Finsider controls many of the iron and steel companies. Subsidiary organizations exist also in hydro-electricity, synthetic rubber, cellulose, and colonial development. Loans and investments to the extent of 20 million lire have been made by I.R.I.

Under the direction of the Ministry of Corporations, quasi-public companies have been established to control industrial and commercial activity. The government Petroleum Board (Ufficio Combustibili Liquidi) established the Azienda Generale Italiana di Petrolio (AGIP) to erect oil refineries. Hydrogenation plants have been built in Bari and Leghorn by the Azienda Nazionale Idrogenazione Combustibili, a quasi-public company operating in conjunction with Montecatini. The Mines Products Board (Officina Prodotti Minerari) has established the Azienda Minerale Metallici Italiani and the Azienda Carboni Italiani to develop and control the production and imports of minerals and coal.

(11) Important Effects of the War on Industry.

The effect of the war on specific branches of Italian industry has already been referred to above. The chief effect of the war has been the cutting off of Italy from the main sources of raw material supplies, which has meant fluctuations and decreases in production and a serious curtailment of civilian supplies. A great shortage in Italian industry has been in the field of power. Italy imports three-fourths of the coal supply, and a great strain has been placed on the

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system of hydro-electric power. Since 80% of Italian industry operates on hydroelectricity, industrial fluctuations may be explained in part by power shortage or the diversion of power to military production.

Prior to the war, Italy was dependent upon imports of coal, iron, oil, cotton, wool, copper, and many other commodities to fill the normal requirements of industrial production. With the cutting off of supplies from Britain, the United States, and Africa, Italy has been dependent on Germany for the basic resources of coal, metals, and minerals. Twelve million tons of coal are imported each year from Germany. Italy is dependent upon Germany for tungsten, molybdenum, copper, glycerine, and other products. Efforts have been made to utilize the resources of the conquered lands of Europe. Chrome and oil are imported from Albania, and nickel is brought from the mines in Greece. The raw materials of Spain, Hungary, Rumania, and Croatia, are also available to Italy, but in no way do they compensate for the loss of world supplies. The result may be measured in the deficiencies in Italian production, whether they be in the industries manufacturing for civilian consumption or for war material. Consumption levels as set by rationing as low as any area in Europe.

The transition from peace economy to war economy was difficult, in spite of the fact that the government held complete control through the complicated system of bureaucracy. The government plan at the beginning of the war was to utilize the available industrial capacity without any special reorganization or expansion for war production. It is now apparent that the plans for the transition to war production were inadequate and the Italians have experienced many difficulties in gearing their engineering industries to the requirements of modern war.

The location of war plants and arsenals is in Section a. (7) above.

b. Commerce(1) Domestic Trade.

Italy has long been known as a nation of small shop-keepers, and she remains that today in spite of a few department stores in her larger cities, particularly Milan, Turin, and Rome. Chain stores are almost completely lacking. The nearest thing to a chain store is Upima, a variety store, which has 7 or 8 branches in some of the larger cities.

Cooperatives are relatively unimportant in Italy except in agriculture, where they do most of the buying of fertilizer, farm machinery, etc. Cooperative retailing exists on a small scale in Turin and other cities, but this trade is not very important.

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Every town has its public market (or markets) under the control of the municipal health and market ordinances. The market police enforce the regulations. Prices are under the control of the Provincial Office of Corporate Economy, if the city is a provincial capital. If it is an ordinary commune, then the Presidents' Committee, headed by the mayor, will supervise prices and make up maximum price lists every month or fortnight. Each booth-holder in the market must be licensed and street peddlers are urged, and, in some cases, compelled to use stalls in the public market, where it is easier to control them.

A number of famous fairs are traditionally held each year in Italy. There is the well-known "fiera di Milano" at Milan. Other fairs are held at Padua and Bari. In many cities and towns the Italians hold celebrations at the time of the grape harvest. Fascism has gone in for demonstrations of all sorts in a big way, such as trade fairs, rewards to farmers, mothers of large families, exhibitions stressing self-sufficiency and native substitute products, textile shows, the usual auto show in Milan, etc.

There is no problem of discrimination against department stores and chain stores, since they are very few in number and present no difficulties.

It is well to point out that some markets have been revolutionized by the Fascists, especially in the realm of important products. Wheat and rice distribution, for example, is very carefully controlled. The prices for both are determined for an entire year at harvest time. The wheat must be delivered to government pools at a fixed price, then it is sold to millers, and the margin of increase is fixed, so that no speculation can take place. There is no wheat pit or wheat broker in Italian marketing. Likewise, the marketing of imports of scarce products is very closely controlled and price differentials fixed. On the domestic market the prices of goods made of imported raw materials are often higher than prices paid for exports made of the same material, to allow an unusual profit which can be used to subsidize exports.

Domestic trade in each field comes under control of the appropriate corporative and federative bodies of the industries concerned. Local market conditions are policed by the Market Police and the Sanitary Police, who enforce health standards, fair trade, and proper weights and measures. The Ministry of Corporations sets up standards of quality and grade of goods for all of Italy. The Provincial Councils of Corporate Economy enforce these provisions locally.

(2) Foreign Trade

(a) Government Control of Foreign Trade* The imposition of sanctions on Italy by 52 nations on November 18, 1935 brought very important changes in the control and conduct of

* Chief source for this paper was "Italian Commercial Policy and Foreign Trade, 1922-1940", Report No. 142, United States Tariff Commission.

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Italian foreign trade. The central government began issuing import licenses. Exports were permitted only if there was a confirmed credit available to cover the proposed export or if a special permit was secured from the National Institute for Foreign Trade. All foreign exchange had to be sold by exporters to this office against payments in the form of treasury bonds. The control of the lira, foreign exchange, and trade policy in general was vested in the Office of the Undersecretary for Trade and Exchange.

After sanctions had been removed, the policy on foreign trade was to arrange autarchic clearing and barter agreements in such a way that imports balanced exports, or that Italian exports were greater than imports with any particular country to clear up the old Italian commercial debts to that country. The new agreements were administered under the National Foreign Exchange Institute (Istcambi) which had branch offices in the financial centers of all the leading countries.

The devaluation of the lira on October 5, 1936 to the 1927 base (19 lire to the dollar) brought necessary changes in the tariffs. The 15 percent surtax on imports (imposed in 1931) was taken off. Export subsidies were abolished and the tourist lira rate was changed to fit with the new value of the lira. Large reductions were made in import duties on wheat, flour, meat, eggs, coal, coke, bacon, lard, and raw cotton. Several further reductions were made until by January 1937, the new duty on wheat was 18 lire per quintal, one-fourth of its amount in October 1936. A domestic price freeze was proclaimed concurrently with the devaluation of the lira. A commission for Revision and Modernization of the Italian Customs Tariff was established in December 1936 to adjust rates and to revise the classification of goods subject to the tariff.

1. Control of Imports. From 1935 to 1940 there were four ways of controlling imports. The first was the customs receipts procedure ("regime a bollette"). This was a quota system based on amounts formerly imported. The base period was 1934. Importers presented customs receipts ("bollette doganali") issued in 1934 to establish the amounts imported in that year. Then they could import goods up to the 1934 amounts. In 1938 this system was limited to trade with countries having trade agreements with Italy, and in 1940 the procedure was abolished.

A second method of controlling imports was by the system of ministerial import licenses which covered goods not subject to special import monopolies. There was freer choice of goods, and the setting of quotas was somewhat more flexible under this method. The Import Advisory Committees were established to assist the Ministry of Trade and Exchange in granting quotas and licenses. These Committees recommended the distribution of goods among members of the various federations. If the president of a given Federation disagreed with the decision, then the Minister of Trade and Exchange decided after consulting the appropriate Import Advisory Committee again. Licenses were granted after application had been made to the Federation through the Local Provisional Council of Corporative Economy. The actual licenses were issued by the "Ufficio divieti" of the

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Ministry of Finance on order of the Minister of Foreign Trade and Exchange. Allotments to firms were based partly on the amounts of former customs receipts. Licenses were considered a concession, not a right, and were revocable at any time. To facilitate matters the Ministry of Foreign Trade set up a new Division for Import Licenses. Actually the routing of licenses through this office was very slow and encumbered with red tape. A 3 percent ad valorem fee was charged on all licenses. The administrative organization was dominated by the Fascist Party and made possible favoritism and graft in its administration.

The third method of controlling imports was the system of government import monopolies. These were of two kinds to begin with, one type run directly by the government, the other run by semi-public or private organizations. Under war conditions practically all imports are made under government monopolies, whose number has increased to include almost all goods entering foreign trade.

The most important government monopoly run by the government is the coal and metals monopoly, covering all imports of coal, coke, copper, tin, and nickel, organized in July 1935 under the Supply Service (Servizio approvvigionamento) of the State Railways under the Minister of Communications.

Next in importance is the Iron and Steel Scrap Consortium set up in October 1935, the Consorzio nazionale approvvigionamento materie prime siderurgiche (Capsider for short). In June 1938 this was taken over by the General Commissariat for the Production of War Materials (Commissariato generale per la fabbricazione di guerra) which was to work in harmony on the allocation of scrap with the Corporazione della Metallurgia e della Meccanica with the over-all approval of the Supreme Commission on National Self-sufficiency (Commissione suprema per l'autarchia). A special ente (organization) under the commissariat, the Ente Distribuzione Rottami, had monopoly power over purchase and distribution.

Gold was put under a monopoly run by the Istcambi, while the banana monopoly was given to the Ministry of Agriculture and Forests. Imports of bananas were allowed only from Italian colonies.

The semi-public and private monopolies are many and varied. They are arranged in tabular form in Table I.

Table I

| <u>Products</u> | <u>Monopoly Organization</u> |
|------------------------------|--|
| 1. <u>Oil seeds and nuts</u> | Giunta dei semi e frutti oleosi |
| 2. <u>Wool</u> | Giunta delle lane. In April 1938, taken over by Ministry of Foreign Trade and Exchange. |
| 3. <u>Coffee</u> | Società Anonima Compagnia Italiana Importatori Caffè (a company formed by coffee importers in 1934). |

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Società per L'importazione del Bestiame (1936) under supervision of the Ministry of Finance. Formed by meat importers; controls distribution and stabilizes prices.

5. Grains

All to Ammassi - Wheat Pools. The monopoly is run by the Federazione nazionale dei consorzi agrari.

6. Poultry and Eggs

Two government controlled companies for imports and exports.

7. Cotton

Italian Cotton Institute (Istituto cotoniero italiano). Imports dependent on quantity of finished goods exported.

8. Leather and Hides

5 State controlled monopoly companies for imports and exports. 17½ percent ad valorem levy to promote exports of Italian leather goods.

9. Cellulose

1938 National Cellulose and Paper Organization (Ente Nazionale per la cellulose e per la carta) under the supervision of the Ministry of Corporations. All cellulose consumers must belong to the Ente.

10. Lumber

Special Committee of Representatives of the Trade. 1939 five companies formed for imports of lumber: At Genoa for imports from the United States

At Naples for imports from the U.S.S.R.

At Venice for imports from Germany

At Trieste for imports from Yugoslavia

At Catania for imports from Rumania

11. Motion Picture Films

1938 - Ente Nazionale per le industrie cinematografiche (E.N.I.C.)

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A third method of arranging imports was based on private compensation agreement. That is, importers would use credits established by Italian exporters. This method was ended in 1936.

The fourth category included those imports on which no restrictions were placed. This included only a few items: manuscripts, newspapers, coins, and silver.

11. Control of Exports. In May 1940, the system of export controls was extended considerably and the restrictions became tighter. As long ago as 1926 exports of wheat, rice, tobacco, iron and steel scrap, hides and skins, required licenses. In September 1939, a long list of agricultural products was put under export license control. The most important items were farm livestock, wheat, grains, flour, chestnuts, dried vegetables, butter, and cocoa. In May 1940 this list was further increased. The main purpose of such action was to prevent needed foods from leaving the country, and to get ready for war time needs.

The Italian government has encouraged exports of goods other than those licensed, in order to create foreign exchange funds in foreign countries to pay for Italian imports. This has been done by a system of secret bounties and subsidies. One device that was used, particularly with textiles, an industry in which most of the raw materials, such as cotton, wool and cellulose have to be imported, was to charge different prices for the finished goods. The cheapest prices were for exports, so that actual dumping took place. The exporters were paid a subsidy, the money for which came from higher prices charged to Italians at home. Another method was to pay premiums on foreign exchange received by the importers, since all foreign exchange had to be turned over to the government. Certain banks were authorized to buy up the foreign exchange at rates 20 to 50 percent higher than the official rate. In addition there was control by the export-import companies listed in Table I.

111. Control of Foreign Exchange. In 1934 various controls prohibited the exportation of Italian banknotes except in very limited amounts for necessary travel. A complete monopoly on all foreign exchange transactions was established. All foreign exchange had to be sold to the government and foreign securities had to be registered. Later these securities were bought by the government with treasury bonds. In May 1935 a Superintendent of Trade and Exchange was appointed to take care of foreign exchange. This office was changed to Undersecretary of Trade and Exchange. Finally in November 1937 this task was entrusted to a cabinet minister, the Minister of Trade and Exchange, in order to strengthen National self-sufficiency and prepare for military exigencies. The National Foreign Exchange Institute (Istcambi) carries out the policies of the Minister of Trade and Exchange, who is ex-officio president of the Institute. The duties of the Istcambi are to:

1. Buy and sell for cash and credit, gold, foreign exchange, foreign money, and foreign securities.
2. Supervise and control all trade in foreign exchanges for the duration of the foreign exchange monopoly.

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3. Administer for the Italian Treasury legal provisions as to forced sale to it of foreign credits and foreign securities and gold bullion.
4. Regulate and control clearing and compensation accounts.
5. Do anything else to help foreign trade, tourist lire, etc.

All of the controls the Minister of Finance had over foreign exchange are now in the hands of the Minister of Finance. The Bank of Italy (Banca d'Italia) acts as "cashier" for the Istcambi and the Ministry of Trade and Exchange. It supervises all banks engaging in foreign exchange dealings.

iv. Clearing Agreements. In 1934 Italy started a program of clearing agreements designed to ameliorate her unfavorable trade position. The purpose of these agreements is to balance up imports and exports to and from any one country. It is not all reciprocal trade, since some goods may be sent to pay old debts. The payment for goods is very much simplified. In the clearing agreement with Germany, for example, Italians pay for German goods in lire at the Banca d'Italia, while Germans in turn pay for Italian goods in marks at the Reichsbank. No money or gold passes between the two countries. quotas are set up under the clearing agreements and limits are placed on the goods cleared. Some goods may fall outside the treaty arrangement. The German-Italian Clearing Agreement covers almost everything and includes trade with the Italian colonies, trade which is now "academic" in character. Payments are made at the "clearing rate" which is fixed from time to time, or, if other currencies are involved, payments may be made at the market rate of the day preceding the sale on the Rome or Milan exchange. Twenty-three of these agreements had been made by January 1940. None was ever signed with the United States.

(b) Foreign Trade Statistics. The course of Italian foreign trade can be traced in Table II, which gives import and export figures for 1934-38 and for 1927. The latter year was chosen to show how Italy's trade in more "normal" years compared with the trade in the period of depression, sanctions, and autarchy. The increase in controls has brought a decrease in total trade, even if the unfavorable balance has become somewhat less.

Table II

Total Italian Trade

| Year | (in millions of lire) | | |
|---------------------|-----------------------|---------|----------|
| | Imports | Exports | Balance |
| 1931-5 (average) | 8,562 | 6,695 | -1,867 |
| 1936 | 6,039 | 5,542 | -497 |
| 1937 | 13,942 | 10,434 | -3,508 |
| 1938 | 11,265 | 10,476 | -789 |
| 1939 | 10,309 | 10,823 | (+514) |
| 1940 | 13,220 | 11,519 | -1,701 |
| 1941 | 11,409 | 14,490 | (+3,081) |
| 1927 (average year) | 20,375 | 15,634 | -4,741 |

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Before the depression the excess of imports was balanced by Fascist expenditures, shipping receipts, and emigrant remittances. In Table III are listed the principal sources of imports in 1938 and the leading markets for exports.

Table III
Principal Sources of Imports

| | <u>1938</u> |
|----------------|--------------|
| Germany | 26.7 percent |
| United States | 11.9 " |
| Great Britain | 6.5 " |
| Rest of Europe | 29.3 " |

Leading Export Markets

| | <u>1938</u> |
|----------------|--------------|
| Germany | 19.1 percent |
| United States | 7.5 percent |
| Great Britain | 5.6 " |
| Rest of Europe | 24.3 " |

In 1938 the main imports were coal, phosphate rock, mineral oils, raw cotton, iron, steel, wood pulp, machinery, wool, grains, oil, seeds, copper, wood, hides, cattle, rubber, coffee, olive oil, and tin. The principal exports in 1938 were fruits, nuts, cotton goods, raw silk, artificial fibers, automobiles, sulphur, marble, woolen goods, hemp, wines, rice, cheese, and olive oil.

The main categories of Italian foreign trade are contained in the following table:

| <u>Imports</u> | <u>1938</u> | <u>1939</u> | <u>1940</u> | <u>1941</u> |
|--------------------------|---------------------------|---------------|---------------|---------------|
| | <u>(Millions of lire)</u> | | | |
| Industrial raw materials | 5,348 | 4,580 | 5,512 | 3,526 |
| Semi-manufactures | 2,411 | 2,263 | 3,337 | 4,043 |
| Finished manufactures | 2,076 | 1,880 | 2,382 | 2,415 |
| Livestock and foodstuffs | 1,430 | 1,506 | 1,989 | 1,425 |
| Total Imports | 11,265 | 10,309 | 13,220 | 11,409 |
| <u>Exports</u> | | | | |
| Industrial raw materials | 644 | 745 | 984 | 1,822 |
| Semi-manufactures | 1,916 | 2,188 | 2,404 | 2,519 |
| Finished manufactures | 4,344 | 4,520 | 4,154 | 4,335 |
| Livestock and foodstuffs | 3,372 | 3,370 | 3,977 | 5,814 |
| Total Exports | 10,476 | 10,823 | 11,519 | 14,490 |

There have been notable changes in the relative importance of the imports under the Fascist program of autarchy. Wheat imports have steadily declined. From 1934 to 1938 the average imports were 500,000 metric tons of wheat a year (except for 1937, when it was 1,658,400 because of the bad harvest in 1936). This is a considerable decline from the average 2,500,000 metric tons, imported in the 1920's. These figures do not indicate

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complete success for the "Battle of Wheat", since growing the additional wheat in Italy has been very costly. The imports of corn have declined somewhat. Most other imports show no changes, in fact some show increases which are traceable to the program of preparedness. Raw cotton, raw wool, iron, steel, machinery, lumber, and hides have remained about the same. Imports of copper were somewhat greater. Coal imports remained at about 12 million metric tons a year. Petroleum products jumped from about 700,000 tons in 1929 to 1,682,000 tons in 1938. The Italians were undoubtedly storing oil against the outbreak of war.

In 1938 Italy was getting 58 percent of its coal from Germany, and lesser amounts from England and Poland. Its cotton came principally from the United States (57.7 percent) and Egypt (19.7 percent). 65.6 percent of the imported machinery came from Germany; smaller amounts came from Switzerland (9.9 percent), England (7.8 percent), and the United States (6.9 percent). The mineral oil imports came from the United States (42 percent), Rumania (17.5 percent), Caribbean countries (15.1 percent), and Iraq (10 percent). The Italians imported wool from Australia, the Union of South Africa, and Argentina. Wood pulp came from Sweden, Finland, and Germany. Imports of copper were received from Chile, United States and Portuguese South Africa. Most of the fish came from Norway, Spain, and Portugal. Italy received its lumber from Germany (40 percent), Yugoslavia (32.7 percent), and the United States. The United States sent Italy 69.2 percent of its iron and steel imports.

Germany was Italy's leading customer in 1938 for citrus fruits, dried fruits, nuts, fresh fruits other than citrus, artificial fibers, and hemp. The Italian colonies took most Italian exports of machinery, wires, automobiles, and cotton cloth. World War II has brought further readjustments. Germany's importance as a supplier and customer has increased tremendously. To summarize, in 1938, Italy's leading suppliers were Germany (26.7 percent), the United States (11.9 percent), England (6.5 percent), Switzerland (3.3 percent), and Poland (2.8 percent). Her best customers were Germany (19.1 percent), Eritrea (12.6 percent), the United States (7.5 percent), the United Kingdom (5 percent), and Libya (5 percent).

World War II

Exports to Germany are now about 80 percent of the total, and practically all Italy's trade is with Europe. Imports from Germany are about 70 percent of the total. Trade with Spain, France, Sweden, Switzerland, and Algeria has increased. Most of the trade is with Axis Europe and Axis-dominated countries.

(3) Price Control and Rationing.

(a) Price Control. Italy has had central price control since October 1935. In May 1937 control was in the hands of the Central Cooperative Committee and the details were handled by the Ministry of Corporations. Local control has been exercised for the provinces by the Provincial Councils of Corporative Economy and for each commune by the local presidential committee. The strain of the war brought control of prices and distribution of foodstuff under the Ministry of Agriculture. In July 1941 a Committee of the Fascist Party assumed control of unblocked food prices and the policing of retail prices.

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Desperate measures were taken in April 1942 when an Inter-Ministerial Committee for the Coordination of Supply and Prices was set up with Mussolini as head. The central administration is still handled by the Ministry of Corporations.

The price control system is based on maximum price lists of basic wholesale and retail prices, which are determined each month by the Provincial Councils of Corporative Economy. Also each provincial capital has a Provincial Committee for Agriculture to take care of agricultural quotas, pricing, regulations, etc. Then each commune has its own price committee headed by the Podestà for fixing local prices. The commune follows the lead of the Provincial Council of Corporative Economy, which in turn telegraphs or telephones to Rome in cases of any unusual pricing problem. Prices of national importance are fixed in Rome for the entire year, with allowances for regional transportation differences.

The Fascist policy on food prices has always been one of encouragement to the producer. "The Battle of Wheat" was fought on one front with incentive prices. The war has brought an aggravation of another problem. If producer's price rise, then the prices to consumers must, hence, increase the cost of living. In the 1930's this was avoided by cutting out speculation in wheat and controlling the entire market from farmer to consumer. During the war liberal subsidies have been granted to the farmer, but the consumer's price has been kept down. That is, the government has absorbed the subsidy and it becomes a general expense to the entire nation. The subsidies amount currently to about 6 billion lire. Two billion of this sum are paid to wheat farmers alone. The present price of wheat at the government pools in Sicily, for example, is 175 lire (basic price) and 135 (premium), or a total of 310 lire.

Price control is part of a whole system of controls. It will not work well unless all parts of the program do. It will be a failure, if peasants keep back their produce and if run-away black markets are allowed to thrive.

For crops of national importance the procedure is to fix the prices for an entire year. This is done especially in the case of wheat and olive oil. It is also used for such crops as sugar beets and rice. The latter product is priced rather high on the domestic market to compensate for cheap export prices. Export prices are kept as low as possible to gain competitive trade advantages and to build up foreign balances to pay for Italian imports.

(b) Food Rationing. Food rationing was unnecessary before the war in Italy except for sugar and coffee, which were rationed in early 1940. Since then various products have been rationed, fats and pasta, starting in 1940, bread in October 1941, and cheese in 1942. Locally, wine, meat, milk, and eggs have had to be rationed. On the whole, food distribution in Italy has not been well organized. Recently there is evidence of some improvement—rather late in the war. The mere fixing of a ration has not meant that the consumer would receive his share. Usually bread and sugar have been available, but other rationed goods are frequently unobtainable in some places.

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The present rations make allowances for special classes of consumers, since the basic ration is very low in some cases. A summary of ration regulation follows:

Sugar: 500 grams per month.
100 grams additional for children under 14.
1,000 grams to children under 4.
500 grams of jam for children up to 18.
1,000 grams of jam for old people over 65.

Fats: 400 grams a month, oil, butter, and lard. In Sicily and Sardinia, more olive oil than other fats.

Pasta: In Sicily and Sardinia, 2,500 grams per month (pasta 2,300, rice 200). For northern Italy, 1,000 grams pasta, 1,000 grams rice - total 2,000 grams.

Bread: Normal consumer 150 grams daily.
Light worker 250 " "
Heavy worker 350 " "
Very heavy workers 450 grams daily
Adolescents 200 grams daily.
Expectant Mothers
(from 5th month
of pregnancy) 300 " "

Cheese: 250 grams per month.

The sugar ration does not entail hardship, since the amount allowed is about the same as normal consumption before the war. In Sicily and Sardinia consumption was always less than the average for the kingdom.

The fat ration is very low and entails great hardship, the more so since supplies are frequently in default. Sicilians are more used to olive oil than other fats. The farming half of the population does not suffer under the rationing program, if they produce the rationed product. It is likely that some oil is held back by the farmers. There are frequent punishments for olive oil irregularities of one sort or another.

Sicilians and Sardinians prefer bread grains to rice and corn. This is recognized in the rationing pattern by granting them 2,300 grams of pasta per month and 200 grams of rice. The total, 2,500 grams, is 500 more than the ration for northern Italy. Also Sicilians eat relatively little meat and need the extra pasta rations.

It should be apparent at this point that rationing will not succeed in Italy unless the farmers turn in all of their produce to the government pools except the amounts allowed for their own consumption and seed. Any holding back will mean an inadequate supply on the regular market and will encourage either black markets or feeding livestock with precious human food. However, it is unlikely that the black market is as serious in Italy as it would be in other countries, since there are very few Italians wealthy enough to patronize it. A more serious difficulty in Italy would lie in shortages of rationed

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goods which would lead to consumption of unrationed goods, the prices of which control authorities have failed to check. This situation has led to local rationing in many parts of Italy of dried vegetables, wine, meat, milk, cheese, and eggs.

The consumer has two ration cards for each month. The cards are secured by registering with the retailer during the last few days of the preceding month. The first card contains coupons for bread, pasta, rice, fats, soap, and sugar; the second one has coupons for meat, cooked meat, cheese, eggs, and potatoes. These cards, "cedole di Prelevamento", are printed locally in different colors for each locality and contain the name and address of the consumer, his province and commune. The card must be signed by him and stamped with the municipal stamp. As purchases are made the retailer stamps the appropriate coupon and cuts it out. The coupons are good for varying periods. Bread coupons are good for one day, although you can get stale bread with old coupons. Also, it is possible to get flour (a week's supply at a time) in place of bread. The retailer's allotment is based on the number of coupons he collects. He can borrow on future supplies, however. The customer can get two week's supply at once; he cannot use the coupons for the second half of the month before the 15th, but he can use both coupons (covering a whole month) in the latter half of the month. The daily pasta coupon is for use in restaurants. Priority in milk consumption is given to babies, expectant mothers, nursing mothers, sick people and those in unhealthy occupations.

Rations vary according to the kinds of work done. The classes of workers are not clearly defined. Heavy workers include firemen, policemen, militiamen, and civil defense workers. Very heavy workers include miners, dock workers, salt miners, herdsmen, persons working at high altitudes, and underground workers.

Restaurants are also rationed except for the first class (luxury) eating places. Seventy grams of pasta, meat, and bread are obtained only by surrendering coupons. No anti-pasti can be served at all. All oil, butter and seasoning must be put on in the kitchen. Monday, Tuesday, and Saturday, lunch may include poultry, ham and sausage. On Monday and Saturday lunch, horsemeat, beef, and veal may be served. However, for Saturday dinner and Sunday lunch the restaurant meal is standerized at soup, vegetables, and fruit - no meat, fish, eggs, or cheese may be served.

Factory canteens are supposed to serve 1.5 million workers with extra meals. The figure for December 1942 was 550,000 meals. The canteens are allowed to obtain the following quantities of food per customer without ration tickets each month:

| | | |
|-------|-------|----------|
| 1,500 | grams | pasta |
| 200 | " | fat |
| 3, | " | potatoes |
| 500 | " | beans |

For another rationed food, the customer must surrender his coupons. Also free lunches are given to school children - 900,000 meals in November 1942.

The penalties for hoarding and for violating ration regulations are very severe. A few typical violations and

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their penalties will give some idea of the desperate state of the distribution system. Obtaining false cards or documents to get goods is punished by one year in prison and a 10,000 lire fine. For hoarding unrationed goods, 4 years in prison and fines up to 20,000 lire. For anyone admitting getting rationed or blocked goods against ration regulations, 1 to 6 years in prison, up to 30,000 lire fine. If the national economy is seriously impaired, life sentence is the penalty. If goods are procured to provoke scarcity or increase prices, the violator receives the death penalty.

1. Government Pools. The first government pools set up on a national scale in 1936 were the wheat pools. Thereafter, pools were organized for practically every other important agricultural product, namely, rye, barley, oats, corn, rice, potatoes, beans, oil seeds, olive oil, and nuts. Ideally the system calls for delivery to the pools by the farmer of all he produces, except for what he and his household needs for personal consumption and seed for the new crop. The farmer may keep 1.85 quintals of wheat for each member of the household, while non-resident landlords may keep 1.75 quintals. In lieu of wheat, the grain producer could substitute:

| | | | | | | | | |
|------|----------|----|--------|-----|------|---------|----|-------|
| 1.50 | quintals | of | rice | for | each | quintal | of | wheat |
| 1.30 | " | " | rye | " | " | " | " | " |
| 1.50 | " | " | barley | " | " | " | " | " |
| 1.75 | " | " | corn | " | " | " | " | " |

In order to get these allowances the producer is supposed to give up a corresponding number of ration cards for bread and pasta (food paste, made of flour, spaghetti, etc).

Below is a summary of the amounts of other crops producers may keep for their own consumption:

Olive Oil: 10 kg. for each member of the household
 7½ " " Administrators of land or non-resident owners.
 7½ kg. if producer also has pig fat available.

Oil Seeds (rape and sunflower): 2 kg. for every quintal of seeds delivered to the ammassi (pools).

Potatoes: 120 kg. a year, plus 50 kg. if there is a second crop.

Peas and Beans (dried): 10 kg. per person plus 4 kg. for second crop.

Nuts: 80 kg. for entire family group. (not for each individual).

This covers unshelled almonds, hazelnuts, and walnuts.

40 kg. for above if shelled
 10kg. pistachios if in shell
 5 kg. if shelled.

Pigs: One pig may be slaughtered for every 6 members of the household per year, but ration cards for butter and pig fat must be surrendered for one year after slaughter.

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Corn for Fodder: If there is a second crop of corn after wheat, rye, or barley, then the producer is allowed 1 to 1.5 quintals for each pig, 1 quintal for each cow, and 2½ kg. for each fowl.

So much for producer's consumption requirements. Below are listed the quantities that may be retained for seed by the grower.

Current Seed Allowances

| | | | | |
|---------------|-------|----------|-----|---------|
| Wheat (early) | 2.00 | quintals | per | hectare |
| Wheat (late) | 1.80 | " | " | " |
| Rye | 1.60 | " | " | " |
| Barley | 1.60 | " | " | " |
| Oats | 1.50 | " | " | " |
| Corn | 0.60 | " | " | " |
| Rice | 1.80 | " | " | " |
| Beans | 1.20 | " | " | " |
| Potatoes | 15.00 | " | " | " |

On paper, then, the government should have direct control of all the farmer produces except the quantities allowed for home consumption and seed. Actually it has worked none to well. Farmers in Italy are shrewd, individualistic people who have wanted to go along as they did in the carefree manner of the past. They have kept back more than their allotted share in many instances. The authorities have tried to set final dates for delivery to the pools, but these have had to be postponed again and again. Not even liberal premiums or subsidies and high prices have brought all the produce to the pools up to this date. In fact the government has had to bring in foreign wheat to meet urban rations, because, according to M.E.W. estimates, over one and a half million metric tons of wheat out of a crop of 7 millions have been illegally retained by the producers and either fed to livestock or sold at high prices on the "mercato nero" (black market). On May 14, 1943 the Italian government laid plans to obviate these difficulties. Instead of saying to the farmer, you may keep so much and turn the rest over to the pools, actual quotas are to be determined through the Bureaus of Certification of produce to be delivered on specified dates to the pools. The farmer can appeal from the decision of the local communal office to the Provincial Committee for Agriculture. Any surpluses, arising from miscalculation or better crops than anticipated, must be sold to the pools. This is an attempt to stop up gaps in the food distribution system that should have been repaired long ago. One must remember that Italian controls of all sorts have neither been as successful nor complete as their German counterparts.

If any products are needed from abroad, such as wheat, these are imported by the government and deposited in the pools. This wheat can be bought at cheaper prices abroad, but will be sold at current Italian domestic prices, yielding a profit to the government. This sounds more favorable than it really is, since Fascist Italy has tried to be self-sufficient in wheat and finds it very difficult to get the foreign credits to pay for such imports.

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PRELIMINARY DRAFT

11. Rationing of other Commodities. The Italians have rationalized the production of scarce products such as soap, shoes, clothing, etc., by limiting the variety of styles and prescribing carefully the specifications for each product. For instance, there is only one type of toilet soap and one type of laundry soap and very little of each. Furniture is greatly restricted and must be of simple design. "Autarchic shoes" have cardboard or composition soles and heels.

Clothing rationing extends even to clothes for new born babies. Sufficient extra textile ration coupons are given to each mother. Working boots made of leather are distributed only through the syndical organizations, the provincial agricultural consortium for peasants, and the industrial unions for industrial workers. Workers in Alpine, mountainous and marshy districts have first call among agricultural workers. Heavy boots with wooden soles may be obtained without a purchase coupon and without surrendering clothing points. Other shoes are made with cork soles and, lacking that, oak bark.

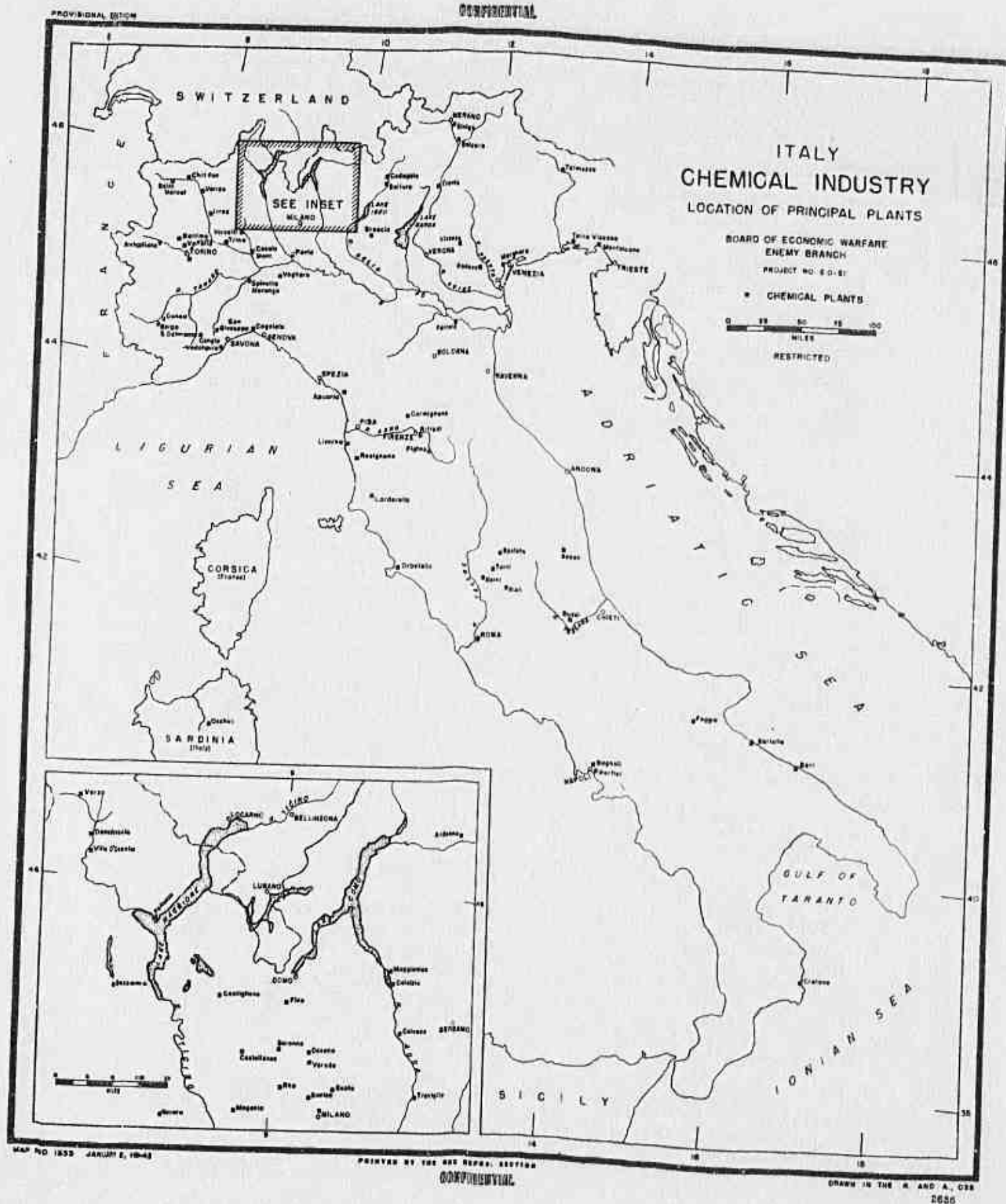
Clothing rationing permits the purchase of a suit or a coat annually, but not both. Tailoring prices are fixed. Maximum prices in 1942 for "extra" grade suit (without a vest) or a light overcoat was 1,190 lire, first grade 850 lire, second grade 510 lire, and third grade 425 lire.

Clothing ration cards were issued for a 14 month's period, from November 1st, 1942 until December 31st, 1943. On the cards are 120 Arabic numerals and 30 Roman numerals. The letters of the alphabet are used for thread, yarn for embroidery, etc. 40 points are required to buy a pair of pajamas. A shirt takes 14 points. The Roman numerals are for household linens. For a man's heavy suit, 83 points are required, 85 points for a heavy overcoat. Ties require 2 points, a handkerchief 1 point. Material for a woman's winter dress takes 44 points and a summer dress requires 23 points.

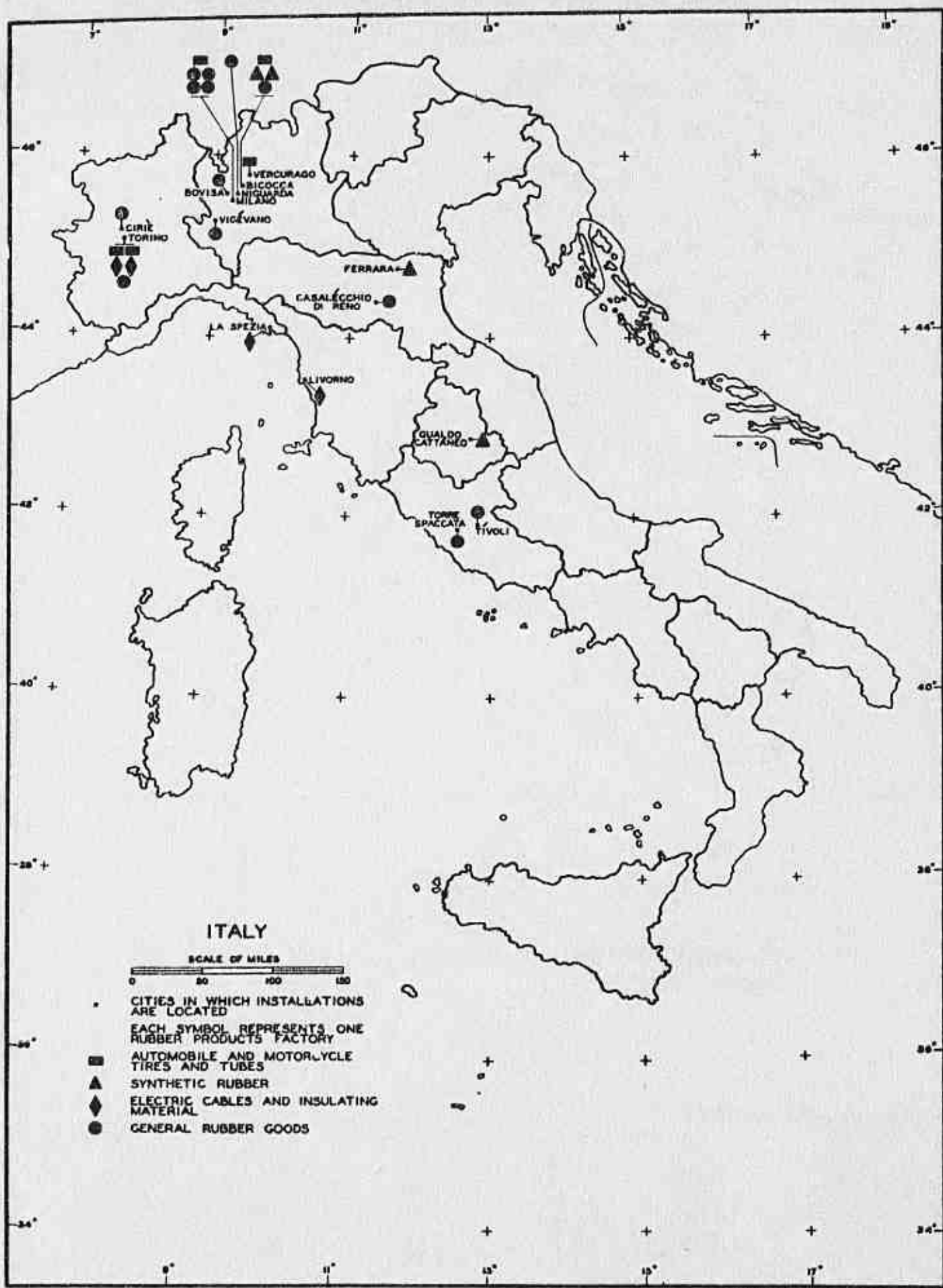
Hats have been standardized and sell as follows: (Maximum prices) Number 1 type 85 lire, 2nd type 125 lire, 3rd type 134 lire, and 4th type 170 lire.

Various other products are rationed. Coal for domestic use is rationed in two ways: 1) by quantity, 2) by limiting periods when coal can be used. New furniture must be of the "standard" variety. Second-hand or antique furniture can only be bought if there has been a major catastrophe, such as fire or a bombing. The standardized goods have been unpopular. Electric power is rationed if there is a shortage. War factories have first place in priorities, while other factories and homes have had to cut down 25 to 35 percent in their consumption of electricity.

Imported goods of all sorts are scarce and their distribution is usually under control of import monopolies which determine the allotment of goods to various producers and consumers.



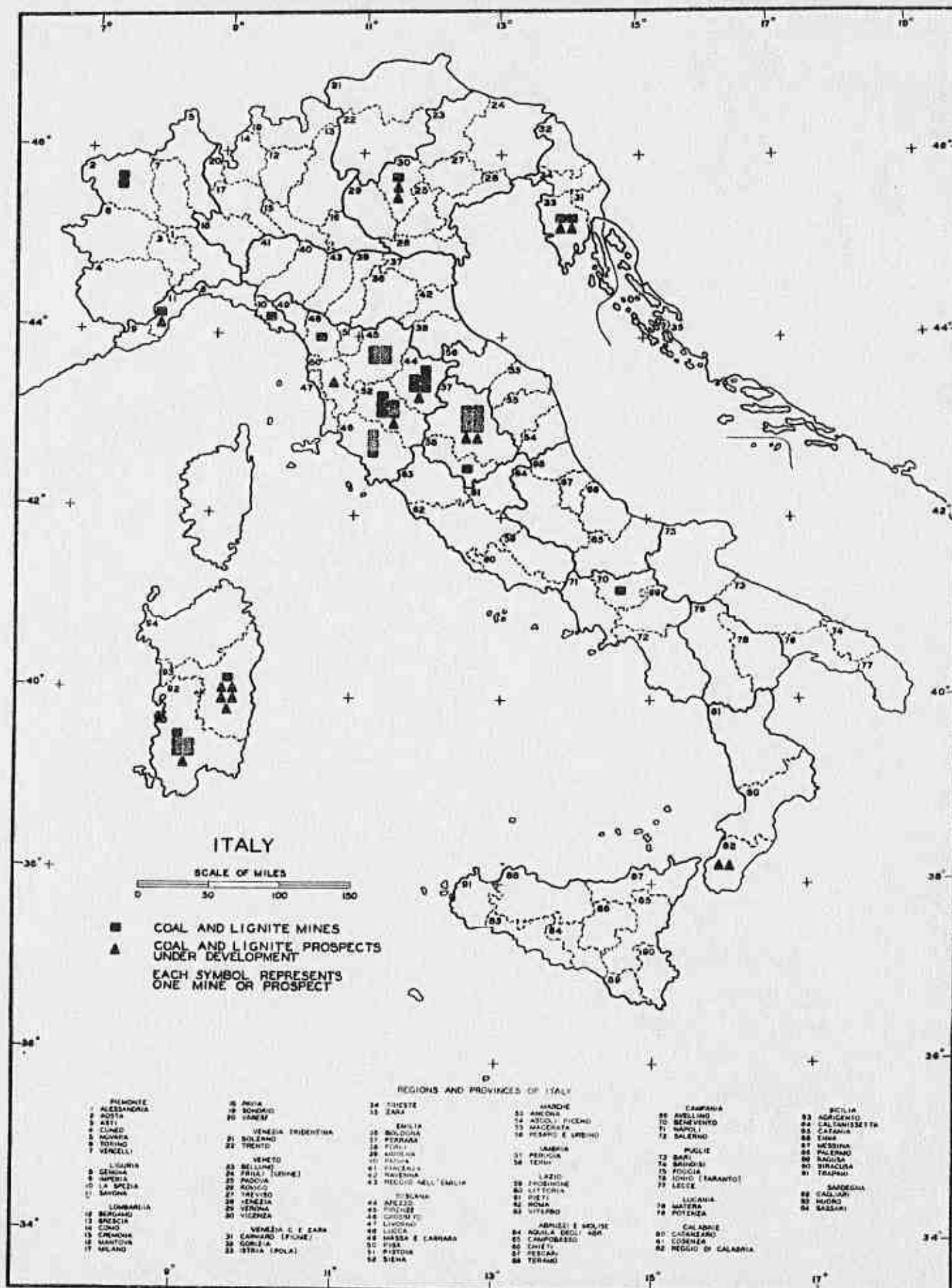
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IMPORTANT RUBBER PRODUCTS FACTORIES



U. S. TARIFF COMMISSION JAN. 1943 (32547)

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COAL AND LIGNITE MINES, BY PROVINCE

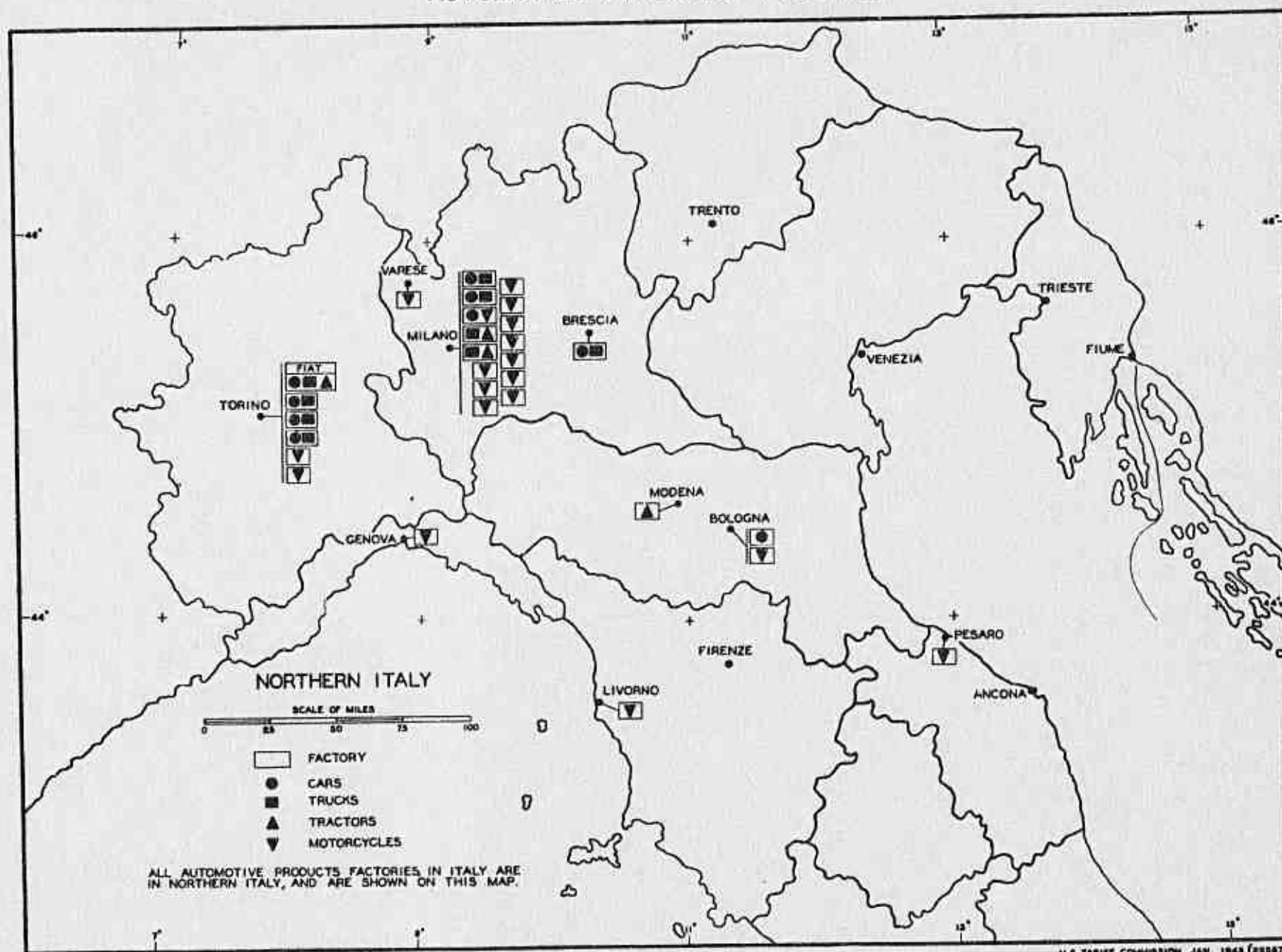


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AUTOMOTIVE PRODUCTS FACTORIES



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