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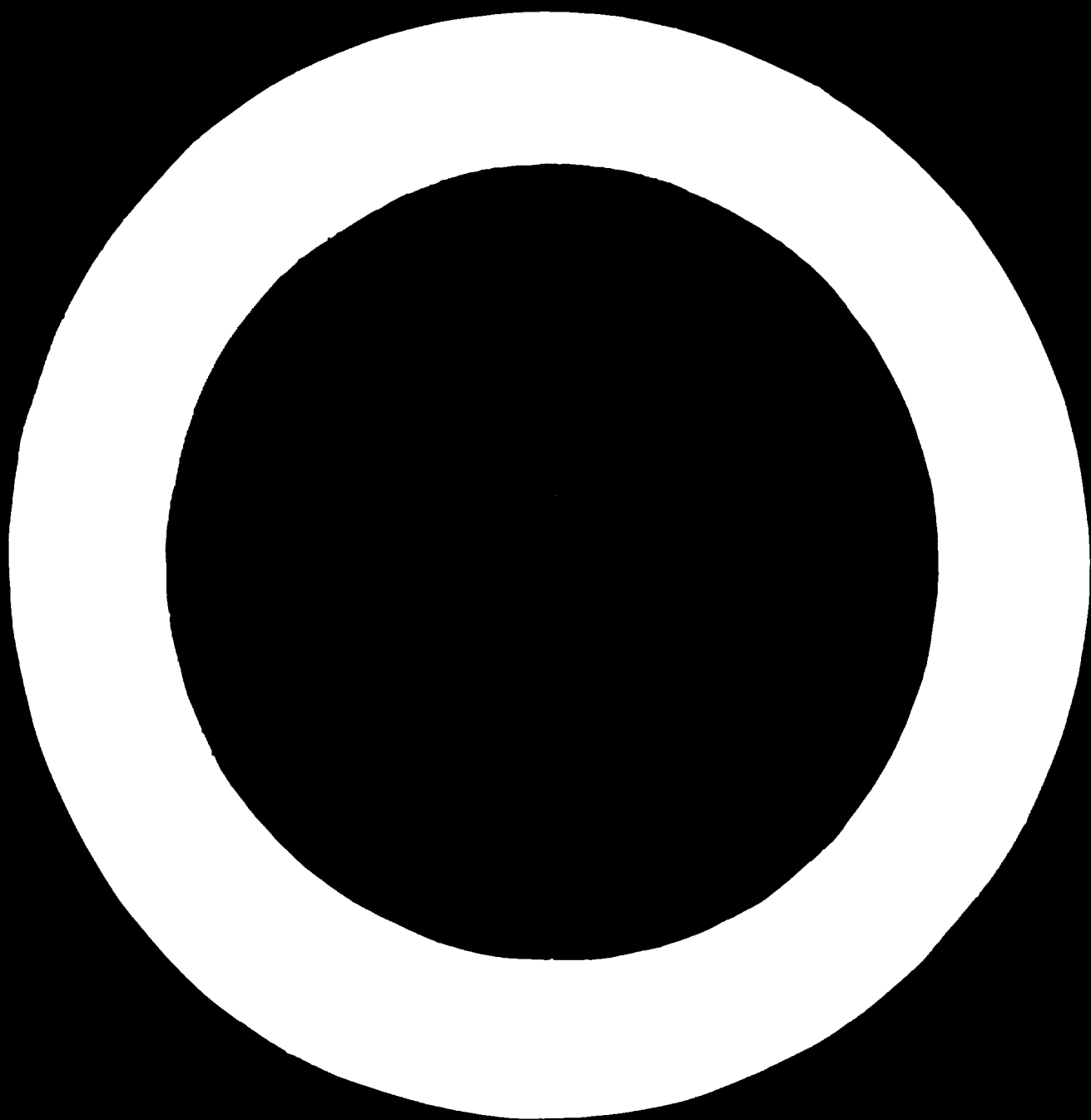
THE JUDGMENT ON EXTERNAL INFLUENCES ON THE  
EFFECTIVENESS OF THE ORGANIZATION 1/

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**THE JUDGEMENT ON EXTERNAL INFLUENCES ON THE EFFECTIVENESS**  
**OF THE ORGANIZATION**

**Introduction**

A great number of publications, for example <sup>1</sup>), during the last years underline the important influence of external circumstances on the effectiveness of industrial organizations in developing countries. Industrial managers in developed countries are, of course, confronted with similar problems, but mostly will not have the same negative effect on the results of their enterprises.

The report of the "Industrial Clinic", held in Indonesia in 1968, indicates that rather an important part of the available time was spent on the subject external influences.

Due to the complexity of these external circumstances an objective judgement or a measurement of the quantitative effect on the earning power of the industrial enterprises is very difficult.

The purpose of this paper is to indicate a possible approach for quantifying the influence of external circumstances in developing countries.

Measuring these external influences was the subject of a study by Richard Farmer en Barry M. Richman entitled "a model for research in comparative management" <sup>2</sup>).

The purpose of the authors was to consider the kinds of problems which arise when different countries are compared in terms of their relative managerial efficiency. To their point of view such discrepancies cannot be explained in terms of any existing management theory. Therefore, they tried to evaluate, in a subjective way, the constraint of external influences affecting internal managerial effectiveness.

In this study an analysis was made of the relevant influencing factors with their relative importance expressed in a weight-factor (see Annex 1.). As a result of this study a management comparison in different countries was shown in a matrix (see Annex 2.).

### Industrial Clinics approach

Although very useful thoughts in the approach of the above mentioned authors are introduced, judgement of the external influences remains for the greater part of a qualitative nature. Several other publications underline the need for quantification. Studies of this kind were published recently<sup>3)</sup> and show that an objective quantification, covering every possible influence factor gives a tremendous lot of work and is at the moment only in a research stage.

The complexity and importance of the influences make it clear that relatively short examinations and discussions, on these aspects, within the scope of an industrial clinic can only have a general character.

Therefore, it is necessary to look for more simple measuring methods to arrive at an objective quantification of the external aspects influencing the effectiveness of an individual enterprise or an industrial branch as a whole.

These quantified factors can make the negotiations easier and can provide a clear picture, for the government concerned, in which direction and with what desired priority an improvement of the external situation must be sought.

In the following pages this paper gives a possible method for measuring the effects of the external circumstances by means of simplified economic calculation models.

The basis of these models can be a theoretical mill-set up, per productgroup with different mill-sizes, or a branch of the textile industry with an average production program. Although computerizing of such a model is a wishful sophisticated approach, a certain amount of over simplification<sup>4)</sup> is absolutely necessary in order to enable calculations by hand.

Therefore the input variables must be restricted, for example, to:

1. Quantity and costs of:

raw materials

labour

energy: - water

- fuel

- electricity.

**2. Fixed costs**

depreciation  
calculated interest of total invested capital  
interest on foreign capital.

**3. Degree of utilisation of the equipment.**

**4. Salesprices, respectively margins, and the influencing factors such as:**

costs of transport  
import- and exportduties  
exportsubvention  
costs of marketing  
taxes.

With this (or these) model(s) the effects of the external influences on the effectiveness of the organization can be simulated.

As is shown by the extensive list of influences in Annex I., it is necessary to make a selection of all these influences and choose the most important out of them to be calculated.

In general one can expect that a choice must be made out of the following external aspects:

- fluctuation of the salesprices
- the - continuous - availability and the costs (fluctuating or not) of:
  - capital
  - raw materials
  - energy: - electricity
  - water
  - fuel
  - spare parts
  - labour (and the labour legislation)
  - transport facilities
- the fiscal and financial climate for the industry concerned, such as:
  - import-, exportduties and subsidies of own country and other relevant countries

- trade agreements

- educational and training facilities in the country concerned.

The objectives of the textile industry concerned are to get a reasonable return on the invested capital, whether it be the individual enterprise or the collectivity of the region or country.

By comparing the results of the simulated influence of the varying external factors, by means of the models, with the standards, to be set for this return on investment, the hindering effect of the external circumstances can be quantified and put in order of importance.

Some of these standards to be set are:

- return on investment for the individual enterprise or the branch of industry
- the rate of employment
- the tax-contribution
- the added value contribution seen from the national view point
- the effect on the balance of payments.

These quantified effects of external influences will be an important contribution to the negotiations with the government of that country.

#### Summary

In the preparation of "industrial clinics" for developing countries an important part of the time should be reserved for the setting up of economic calculation models, not only for measuring the influence of external circumstances but also for a judgement of the internal situation of the organizations concerned.

The necessary procedure of approach could be the following.

#### A. Preparation of the clinic

1. General survey of the situation in the country by local United representatives or the local productivity centers regarding information, such as:
  - economic structure



- industrialisation; development plans if existing for the next 5 years
- population: vital statistics
- labour legislation.

2. Specific survey of the textile situation  
(by local Unido representatives or local productivity centers)

- import and export quantities of raw materials and textile products defined as far as possible
  - textile production specified as far as possible
  - textile machinery imports
  - structure of the textile industry
    - . number of enterprises per branch defined in yearly turnover and productgroups, number of workers
    - . added value, cost of labour
  - specific information about the textile industry which is represented in the industrial clinic:
    - . type and size of mills, production quantities
    - . specifications of raw materials, cloth constructions, available equipment
    - . cost structure.
3. Set up of the calculation models by the Unido expert team.
4. Critical analysis of the most important external influences for the industry concerned (after local analysis by the Unido representatives and/or desk research).
5. Calculation of the effect on the effectiveness of the hindering factors by means of the calculation models.

B. Activities of the Industrial Clinic

1. Checking of the input variables of the model (external and internal factors) with the industrial managers, participants of the clinic.  
Discussion of the team with the said managers and summarizing the effects of the external influences in a report.

2. Discussion, in the scope of the clinic, with government representatives, drawing conclusions and making recommendations for improvement of the external circumstances.

**C. Follow-up of the clinic**

- Confrontation of the joint conclusions and recommendations of government- and industry-representatives with solutions of similar problems in other developing countries in close cooperation with international organizations such as Unido. The Jackson report ) gives recommendations as to that kind of coordination possibilities.

**Conclusion**

Recent studies on comparative management indicate that a quantification of the influence of external circumstances on the effectiveness of the organization can only, with a very extensive model-building, give a complete answer.

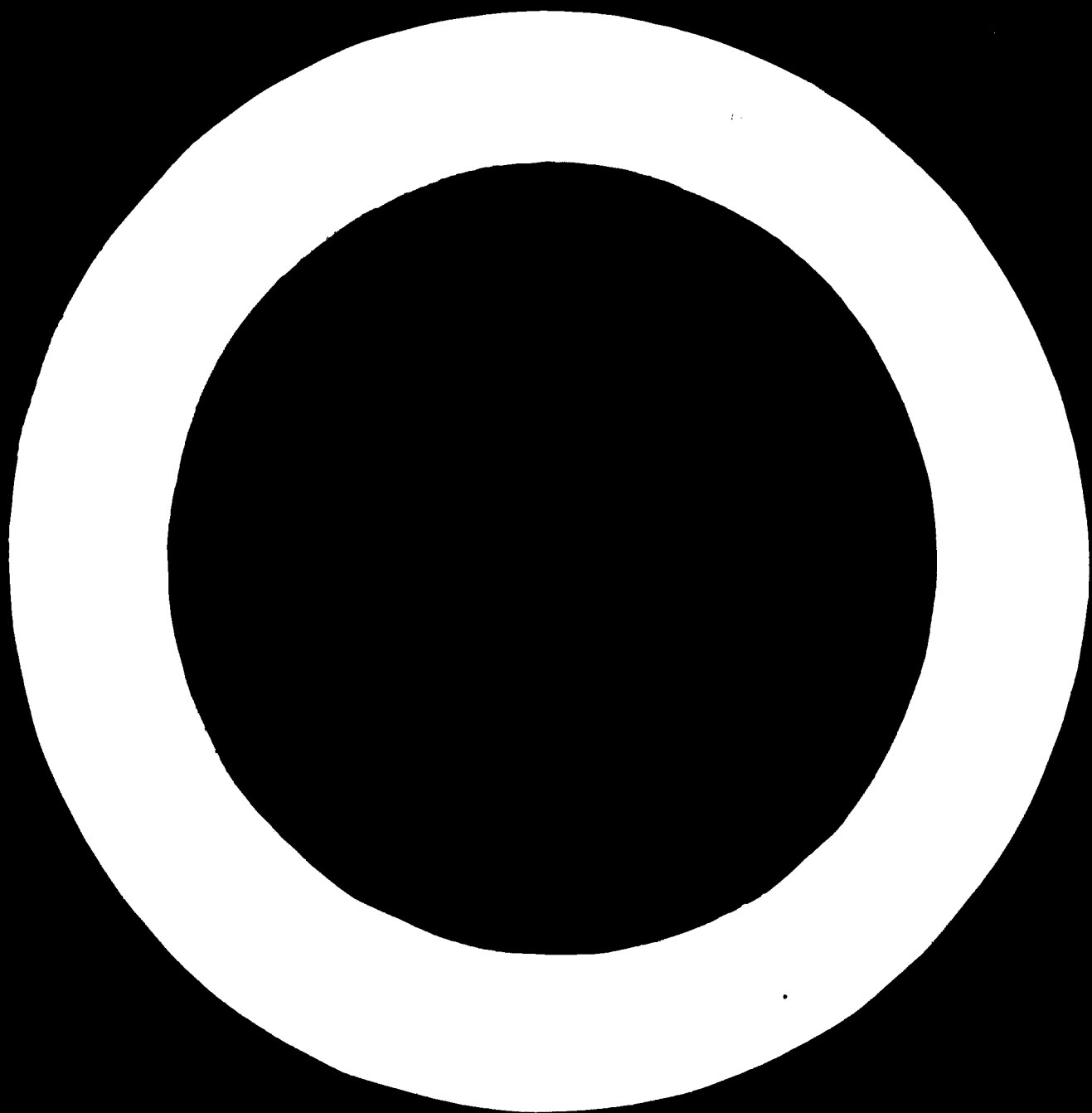
Experiences, on the other hand, with industrial clinics show that these external influences are of vital importance for the industrial managers in developing countries.

Therefore it is proposed in this paper to use simplified calculation models in order to enable a reasonable quantification to be made of the external influences affecting the effectiveness of the enterprises.

Although the preparative work by "the Unido team" and the verification of the model with the local managers and government is rather time consuming, a quantification of the influencing factors and putting them in order of magnitudes, must be preferred to a too rough estimate of these influences.

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ANNEX I

EXTERNAL MANAGERIAL CONSTRAINTS AND

SUGGESTED WEIGHTS

I. Educational Characteristics (100)

- C<sub>1.1</sub>: Literacy Level. The percentage of the total population who can read and write, and the average years of schooling of adults. (50)
- C<sub>1.2</sub>: Higher Education. The percentage of the total population with post high school education, plus the quality of such education. Numbers and quality of colleges and universities in the country. The types of persons obtaining higher education. (20).
- C<sub>1.3</sub>: Specialized Technical Training. Types and quality of technical training, including apprenticeship programs, engineering training, technical institutes, company training programs, vocational high school training, and similar. The type, quantity, and quality of persons taking such training. (10)
- C<sub>1.4</sub>: Attitude Toward Education. The general cultural attitude toward extensive education, in terms of its presumed desirability. (10)
- C<sub>1.5</sub>: Educational Match with Requirements. Whether or not the type of training available in a culture fits the needs of productive enterprise on all levels of skill and achievement. (10)

II. Sociological Characteristics (100)

- C<sub>2.1</sub>: View of Managers as an Elite Group. The general social attitude toward managers of all sorts. (10)
- C<sub>2.2</sub>: View of Scientific Method. The general social attitude toward the use of rational, predictive techniques in solving various types of social, business, technical, and economic problems. (40)
- C<sub>2.3</sub>: View of Wealth. Whether or not the acquisition of wealth is considered socially desirable. (10)
- C<sub>2.4</sub>: View of Rational Risk Taking. Whether or not taking of various types of personal, corporate, or national risks is considered acceptable, as well as the general view toward specific types of economic and productive risks. (10)
- C<sub>2.5</sub>: View of Achievement. The general attitude toward personal achievement in the culture. (20)
- C<sub>2.6</sub>: Class Flexibility. The possibilities of social class mobility, both upward and downward, in the culture, and the means by which it can be achieved. (10)

**III. Political and Legal Characteristics (100)**

- C<sub>3.1</sub>**: Relevant Legal Rules of the Game. Quality, efficiency, and effectiveness of the legal structure in terms of general business law, labor law, tax law, and general law relevant to business. Degree of enforcement, reliability, etc. (30)
- C<sub>3.2</sub>**: Defense Policy. Impact of defense policy on productive enterprise in terms of trading with potential enemies, purchasing policies, strategic industry development, labor competition, and similar factors. (10)
- C<sub>3.3</sub>**: Foreign Policy. Impact of policy on productive enterprise in terms of trading restrictions, quotas, tariffs, customs unions, etc. (20)
- C<sub>3.4</sub>**: Political Stability. Influence on productive enterprises of revolutions, changes in regime, stability or instability over protracted periods, etc. (20)
- C<sub>3.5</sub>**: Political Organization. Type of organization in constitutional terms, degree of centralization or decentralization, pressure groups and their effectiveness, political parties and their philosophies, etc. (10)
- C<sub>3.6</sub>**: Flexibility of Law and Legal Changes. Degrees to which relevant barriers to efficient management can be changed, certainty of legal actions, etc. (10)

**IV. Economic Characteristics (200)**

- C<sub>4.1</sub>**: General Economic Framework. Including such factors as the over-all economic organization of the society (i.e., Capitalistic, Marxist, mixed), property rights, and similar factors. (50)
- C<sub>4.2</sub>**: Central Banking System. The organization and operations of the central banking system, including the controls over commercial banks, the ability and willingness to control the money supply, the effectiveness of legal policies regarding price stability, commercial bank reserves, discounting, credit controls, and similar factors. (20)
- C<sub>4.3</sub>**: Economic Stability. The vulnerability of the economy to economic fluctuations of depression and boom, price stability, and over-all economic growth stability. (10)
- C<sub>4.4</sub>**: Fiscal Policy. General policies concerning government expenditures, their timing, and their impact; the general level of deficit, surplus, or balance; total share of government expenditures in gross national product. (10)

- C<sub>4.5</sub>: Organization of Capital Markets.** The existence of such markets as stock and bond exchanges, their honesty, effectiveness, and total impact; the size and role of commercial banking, including loan policies and availability of credit to businessmen; the existence of other capital sources, such as savings and loan associations, government-sponsored credit agencies, insurance company loan activities, etc. (20)
- C<sub>4.6</sub>: Factor Endowment.** Relative supply of capital and land (agricultural and raw materials) per capita; skills and ability of the work force. (20)
- C<sub>4.7</sub>: Market Size.** Total effective purchasing power within the country, plus relevant export markets. (20)
- C<sub>4.8</sub>: Social Overhead Capital.** Availability and quality of power supplies, water, communications systems, transportation, public warehousing, physical transfer facilities. (40)
- C<sub>4.9</sub>: Interorganizational Cooperation.** Degree to which various firms, government agencies, unions, and other relevant organizations co-operate with each other to achieve desired mutual goals. (10)

ANNEX II

TABLE I. SUGGESTED COMPARATIVE MANAGEMENT MATRIX

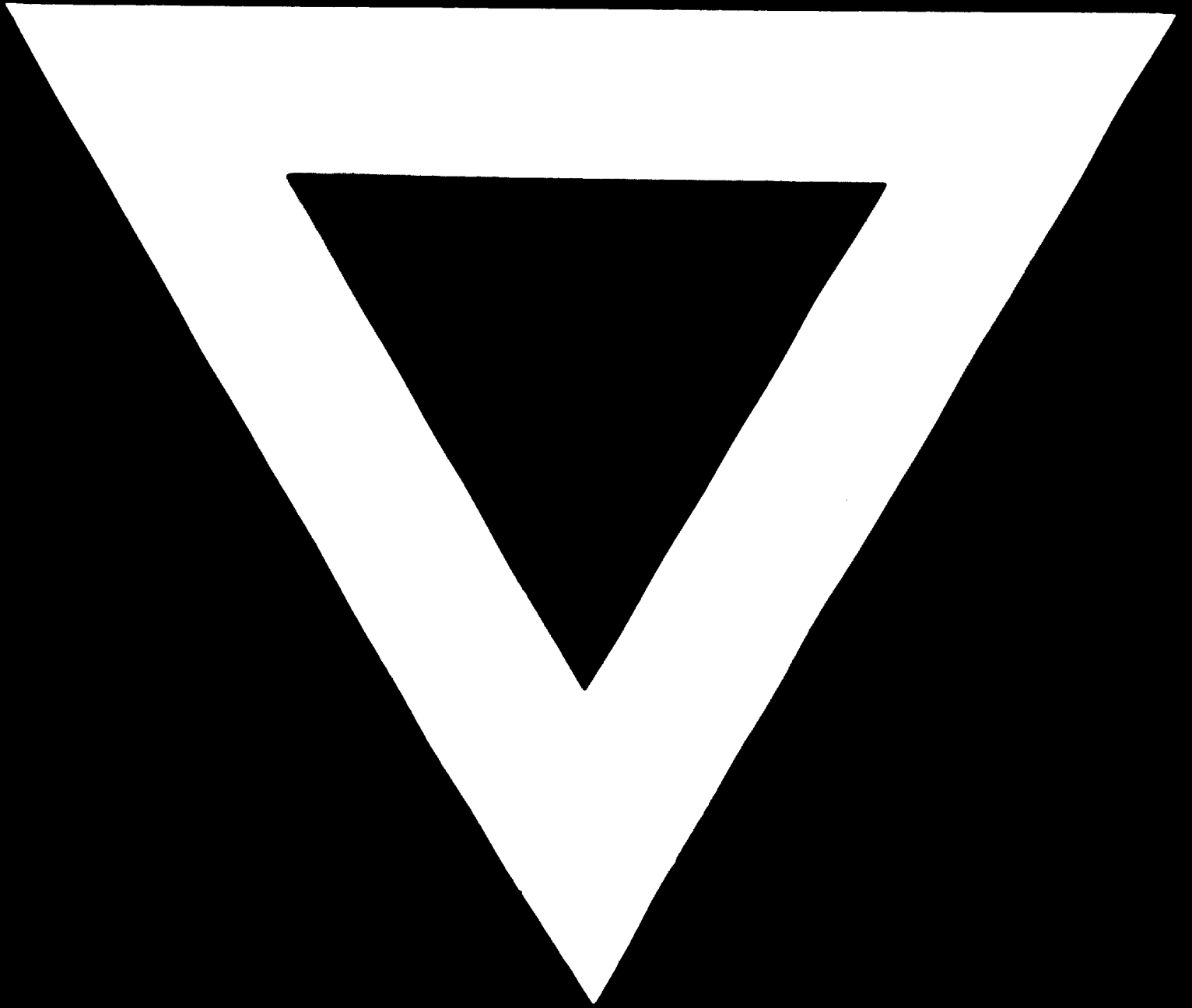
External Constraints	U.S.A.	U.S.S.R.	U.K.	Mexico	Saudi Arabia
<b>Educational (100)</b>					
C <sub>1.1</sub>	48	40	45	25	6
C <sub>1.2</sub>	15	11	10	5	1
C <sub>1.3</sub>	6	8	9	3	1
C <sub>1.4</sub>	6	9	5	5	3
C <sub>1.5</sub>	8	5	7	5	1
	<u>83</u>	<u>78</u>	<u>76</u>	<u>43</u>	<u>14</u>
<b>Sociological (100)</b>					
C <sub>2.1</sub>	5	8	4	5	6
C <sub>2.2</sub>	35	25	35	25	3
C <sub>2.3</sub>	6	8	5	6	8
C <sub>2.4</sub>	6	3	4	5	3
C <sub>2.5</sub>	12	15	10	10	8
C <sub>2.6</sub>	8	9	5	4	4
	<u>72</u>	<u>68</u>	<u>63</u>	<u>55</u>	<u>36</u>
<b>Political-Legal (100)</b>					
C <sub>3.1</sub>	25	20	28	20	10
C <sub>3.2</sub>	6	3	8	6	3
C <sub>3.3</sub>	10	5	15	12	3
C <sub>3.4</sub>	18	15	20	10	10
C <sub>3.5</sub>	6	3	8	5	4
C <sub>3.6</sub>	6	2	5	5	1
	<u>71</u>	<u>50</u>	<u>84</u>	<u>58</u>	<u>38</u>



Internal Constraints	U.S.A.	U.S.S.R.	U.K.	Mexico	Saudi Arabia
<b>Economic (200)</b>					
C <sub>4.1</sub>	30	20	32	28	25
C <sub>4.2</sub>	18	10	19	12	3
C <sub>4.3</sub>	5	6	8	5	3
C <sub>4.4</sub>	5	5	6	5	2
C <sub>4.5</sub>	18	10	19	8	2
C <sub>4.6</sub>	16	12	10	6	6
C <sub>4.7</sub>	19	15	15	8	4
C <sub>4.8</sub>	35	25	30	12	6
C <sub>4.9</sub>	8	4	7	6	6
	<u>154</u>	<u>107</u>	<u>146</u>	<u>90</u>	<u>99</u>
<b>Total (Constraint Index)</b>	<b>380</b>	<b>303</b>	<b>369</b>	<b>246</b>	<b>144</b>
<b>1960 GNP<sup>R</sup> capita</b>	<b>\$ 2,300</b>	<b>\$ 760</b>	<b>\$ 990</b>	<b>\$ 280</b>	<b>\$ 110</b>
<b>1951-60 growth rate</b>	<b>1.5</b>	<b>4.0</b>	<b>2.0</b>	<b>1.5</b>	<b>2.0</b>
<b>Efficiency Index</b>	<b>405.0</b>	<b>272.6</b>	<b>178.2</b>	<b>37.8</b>	<b>19.8</b>

↳ GNP data derived from United Nations, Statistical Yearbook, 1961 (New York: United Nations, 1961), pp. 21-38; 486-489. The U.N. noted that inter-country GNP comparisons should be used with caution because of the statistical discrepancies between countries.





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