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THE CHANGING ROLE OF GOVERNMENTS IN THE REGULATION AND PROMOTION OF LICENSING ARRANGEMENTS 1/

by

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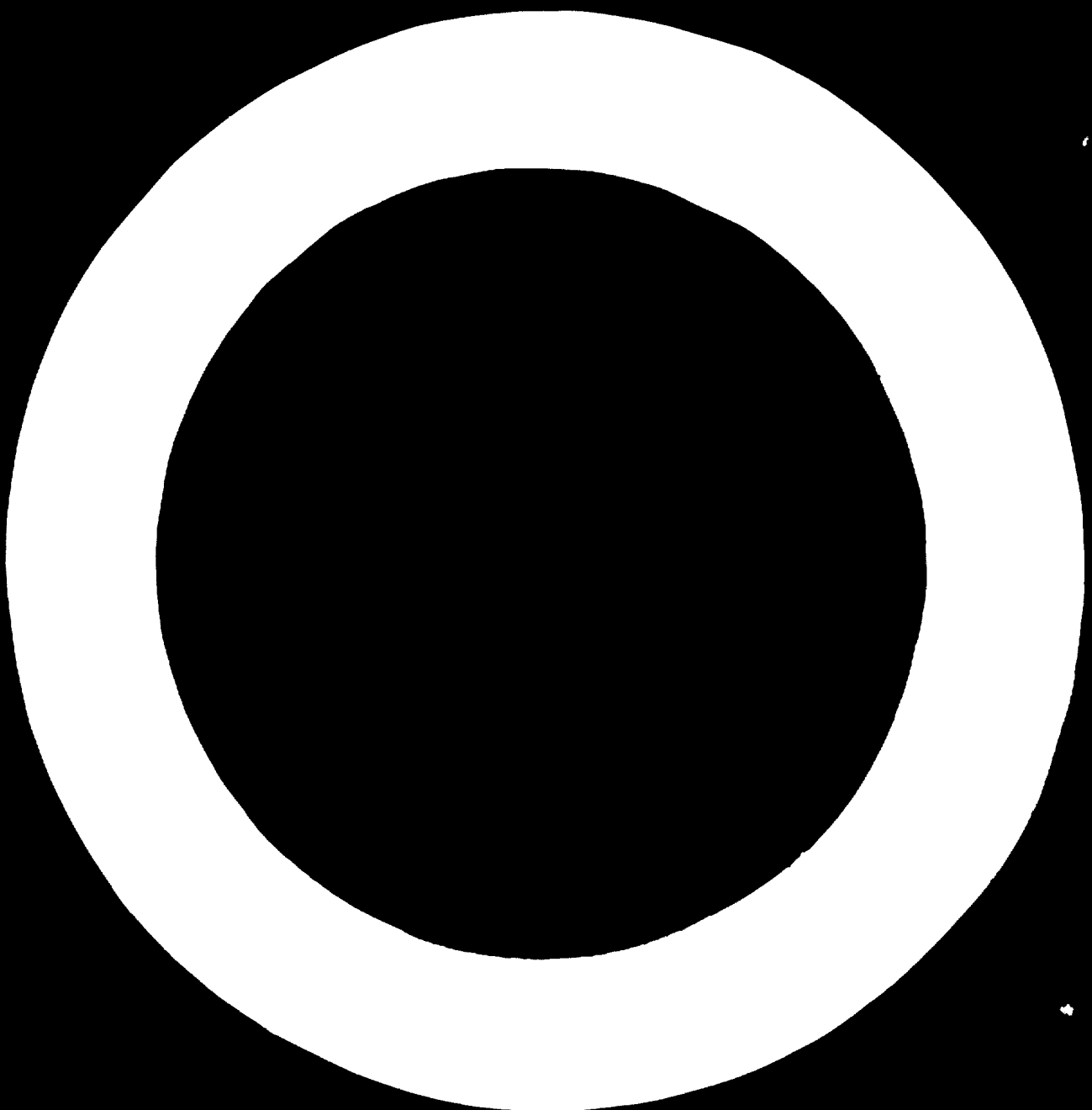

THE CHANGING ROLE OF GOVERNMENTS IN THE REGULATION AND PROMOTION OF LICENSING ARRANGEMENTS

A significant feature of the last two decades has been the rapid growth of international commercial links and relationships between manufacturing enterprises in different countries and the emergence of technology licensing as a principal instrument for the acquisition and transfer of technological knowledge and skills. The commercial transfer of knowledge of production processes and techniques has become a common international phenomena, both among developed countries and between industrialised and developing economies and is bringing about new combinations of factor resources in various manufacturing sectors. As technology transfer grows in coverage and magnitude, the instrument of licensing is assuming new dimensions and is posing a wide range of complex problems and issues. The nature of such problems is, in turn, involving governmental authorities, both executive and judicial, to an increasing extent & a changing governmental role is gradually emerging in a number of countries.

2.- The nature of the technology acquisition function tends to vary considerably in scope and magnitude in the case of licensees from industrially-advanced countries and licensees from developing economies. In the case of the former, the technology license normally comprises of user rights to a specific production process or technique, patented or unpatented, accompanied by the related specialised knowhow as may be involved. Both the licensor and licensee are operating in a similar technological background and level of knowledge and skills and the user rights transferred, together with the know-how relating thereto, is quite specific and well defined. Often as not, the license basically comprises of the user rights, which are protected by patents or trade or business secrets and cannot be utilised otherwise. Both parties are fully aware of the intricacies of licensing and the rights and obligations of each party, as also their technological competence. The situation tends to be considerably different when a licensee from a developing country is involved. There is usually wide divergence in the overall technological background and level

of skills and the knowhow element is often much wider in scope and often includes a wide range of technical services such as detailed and plant engineering, assistance in securing machinery, training of management and operational personnel and, in general, much greater technological support, particularly in early production stages. There are ofcourse wide variations, ranging from turnkey projects to straight patent or trademark licenses with little or no knowhow support but, in a large percentage of cases, there is a strong element of direct technical assistance over and above the technology and knowhow directly involved. At the same time, knowledge regarding technological alternatives and of the licensing mechanism is usually very limited on the part of such licensees and adds to the weak bargaining position of such licensees resulting, in many cases, both in high costs for technology acquired and acceptance of a number of harsh and detrimental contractual conditions such as restrictions on exports and even on production in some cases, restraints in acquisition of other processes of techniques, tie-in clauses for supply of machinery, raw materials and components or for sales, grant back provisions, unduly high royalty and other payments and various contractual provisions operating to the advantage of the licensor. Many such provisions not only militate against the licensees but have an adverse effect on the national economy over a period of time.

3. - Apart from the problems posed by specific license agreements, the unrestricted inflow of technology tends to perpetuate continuing dependance not only on imported techniques in general but over a wide range of allied technical services. Licensees from developing countries tend to be much more dependant on their licensors even in respect of functions and services which can be indigenously developed with comparatively little effort. Foreign techniques, including use of brand names, are sought to be secured in almost every field, to the detriment of domestic technological development, both in the initial stages and in subsequent phases of product development. While there is essential need for technology inflow to developing countries, there is greatly increased awareness in many of these countries of the problems flowing from unrestricted imports of foreign technology and techniques, together with the type and nature of the technology acquired and the terms and conditions of such acquisition. It is this exercise in screening and selectivity that emerges in the form of varying degrees of regulatory control over inflow

of technology in many developing countries. While such regulation is still new in concept, it has taken various forms, ranging from national laws for regulation of technology inflow as in Argentina and Mexico, together with regional measures for such control as in the case of the Andean Pact countries, to the exercise of considerable regulatory control through the executive mechanism alone, as in the case of India. In view of wide differences in economic conditions and in the level and stage of industrial growth, there continues to be wide divergence in approach and there are still many developing countries where there is little or no regulation of acquisition of technology. Yet, the trend towards a degree of control is clearly discernible in most such countries which have achieved intermediate stages of industrial development, though the pattern and detailed nature of such regulation may vary.

4.- What is of considerable interest in the above context is the fact that the governmental role in the commercial transfer of technology appears to be undergoing significant transformation in the USA and in many European countries, while the regulatory nature of this role in the case of Japan continues to be an object lesson for most developing nations. It is proposed, in this paper, to highlight some of the principal trends in certain countries such as the USA, France, Japan and the Soviet Union, primarily with a view of relating such trends to existing problems and experiences in developing countries.

5.- In the USA, the most significant trend appears to be the growing conflict, largely in the form of a series of juridical interpretations and court decisions, between the interest of licensors on the one hand, as covered by patent legislation and those for the protection of trade and business secrets and those of licensees on the other, as reflected in anti-trust legislation. The latter provisions are embodied in the Sherman and Clayton Act, which are fairly general and broad-ranging in their scope, but a substantial body of case-law has developed in recent years which are militating strongly against licensing provisions which aim to or result in reduction of competition or bring unfair means of competition into operation. Court decisions have generally been in favour of the licensee where the obligations imposed on the licensee were deemed to be against the interest of fair competition and a number of provisions which were considered common features of licensing agreements, in the past, have now been held to constitute restraints on competition or resulting in unfair competition and thereby violating

antitrust legislation. On an important aspect of "disclosure" in agreements relating to unpatented knowhow, Finnigan concludes that these could be enforced in U.S. courts against the licensee "only so long as a portion of the knowhow retains its status as secret and valuable information, that is the knowhow license is not enforced if the knowledge forming the licensee's consideration becomes part of the public domain". In respect of patent licenses, Finnegan has defined three tests as determining the rule of reason in U.S. courts viz that the restriction or restrictions must be ancillary to the main purposes of the license contract, that the scope of the restriction or limitation should not be substantially greater than necessary to achieve the lawful main purposes, and that the restraint can apply only for a reasonable period - a duration of 10 years being held to be reasonable, while an indefinite period may not. Following from this, certain restrictive clauses in patent and knowhow licenses may be held in the USA to be per se illegal. These could include provisions such as (i) tie-in clauses forcing the purchase of materials and components from the licensor, (ii) restrictions on licensee's operation to deal in other products and services or to obtain competitive technology (iii) package licenses including patent licenses, not required by a licenses, (iv) restricted use of patented material which would create monopolistic situations (v) fixation of price to be changed by the licensee , (vi) territorial restrictions in the USA, (vii) cross licensing provisions, and the like. Even a grantback provision, if one-sided, may be questioned as constituting a misuse. The above trend of judicial decisions has resulted in a fairly liberal interpretation of anti-trust legislation in so far as those can be applied to license agreements. While the patent laws still afford considerable protection for patented processes and techniques, these cannot be misused for the purpose of stifling competition and imposing unfair and restrictive conditions on licensees. On unpatented know-how, the present trends in U.S. court decisions are even more liberal and in the recent case of Kewanee vs. Bicron (478F2D1074 6th Cir. 1973) presently on appeal to the U.S. Supreme Court), the Court has held that a trade secret, which is an appropriate subject for a patent and which has been commercially used for more than one year cannot be protected except under Federal patent laws. If this decision is upheld, it would substantially reduce the legal protection for licensors in respect of unpatented technology and knowhow. The decisions of US. Court in a number of cases has led to forced transfer of knowhow by licensors when it is held that there has been a misuse of patent rights. On the other hand, patent infringements are difficult to prove and this is all the more difficult in the case of*

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*Marcus B. Finnegan "Antitrust problems in licensing in USA and EEC: Panel discussions LES Society Conference - Tokyo - 1972.

imported knowhow. The growing anti-trust attitude in US Courts is accompanied by moves in the legislature in the direction of compulsory licensing in certain sectors where the national or community interests may be involved. The mandatory licensing provisions of the Clean Air Act 1971 may pave the way for similar provisions in other environmental legislation as also for manufacturing sectors such as drugs and pharmaceuticals or processed foods. The special significance of judicial interpretations in the USA in this field is derived from the fact that the USA is still, by far, the major source of technology licensing with a revenue of 2.5 billion dollars in 1970 on this account against the income of $263 million of the UK., which is the second major supplier of technology. The revenue from technology rose to $3.1 billion in 1972 in the case of the USA.

6.- In the case of France, as of other EEC countries, the regulatory control over licensing has assumed new significance in the context of Articles 85 and 86 of the Treaty of Rome. which inter alia prohibit (i) the prevention or restriction of commerce and competition within the Common Market countries and (ii) improper exploitation by any undertaking or undertakings of a "dominant position within the EEC or a substantial part thereof". Even prior to the EEC, technology agreements in France were screened by the Commision Technique das Ententes in terms of the applicability of various laws. Brochon has summarised these regulatory aspects as prohibiting inter alia (a) restrictions on free competition (b) restrictions on decrease of prices or promotion of artificial price increases (c) refusal to sell under normal commercial conditions, (d) compulsory purchase by licensees of other products or services, etc. While these prohibitions would not always be applicable to patent holders, in general the pattern is similar in principle to some of the anti-trust provisions in the USA. The fact that a European system of patents has been agreed to in Oct 73 would also be of significance. This would enable the filing of a patent application, which would have validity in 14 European countries, including the 9 EEC members. Thus, increased patenting facilities in Europe are accompanying emphasis on greater freedom of trade within the EEC. On the whole, France still continues to be a net importer of technology, with technology sales of about $155 million, against acquisition of technology worth $286 million, mainly from USA. With the advent of the EEC, the interpretation of Articles 85 and 86 have over-riding consideration and here also a substantial body of case-law is being built up, largely through decisions of the Commission. The provisions principally militate against any arrangements which seek to impose restraints in territorial operations within the Common Market or*

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* *Michel Brochon "Licensing between Japan and EEC. LES Conference-Tokyo'72*

*the use of restrictive or unfair practices by dominant units. Thus, where sales by particular licensees were sought to be restricted to one or other area of the Common Market, this was deemed to be a violation (Davidson Rubber Co. case). In the case of Grundig vs. Consten, the Commision considered the exclusive sales agreement given by the former to the latter for its products in the territory of France as being a violation of Art. 85. A violation of Art. 86 entails three pre-requisites viz "that the undertaking or undertakings must be in a dominant position and that such dominant position must be improperly exploited and that trade between member states must be prejudiced *. Where a dominant position is not established, there would be no violation. Similarly, where there is no restriction in trade or movement, the prohibitory article would not be applicable. So far, the number of cases that have come up before the Commission, or subsequently before the national courts, is relatively few but the trend is clearly being established that license agreements should not result in restraints on trade within the Common Market countries or the use of unfair or restrictive practices.*

7.- There can be little doubt that regulatory control over technology inflow has been practised most successfully in the case of Japan. The extent of such control has been very pronounced, in that all technology agreements, including extensions and amendments are required, in principle, to be approved by the government. While such approval is accorded automatically by the Bank of Japan where payments of upto $50 000 are involved, other cases are referred to Government, in the Ministry of Trade and Industry (MITI) which is required to consult other concerned agencies and give its approval or otherwise within 30 days. Upto July' 73. all proposals relating to 7 defined sectors required a case-by-case analysis, but now such examination is required only in respect of proposals relating to computer technology. During the post-war decades, Japan imported Western technology very heavily and during 1950 to 1970, there have been about 14 000 license agreements, of which nearly 60% are with US. companies. It is significant that the number of licenses for trademarks has been very few and has constituted only about 5%. In recent years, Japan has also been exporting technology in various fields but net technology imports are still much higher and amounted to $433 million in 1970 against exports of technology of the order of $60 million. The extraordinary success of Japan's policy can be attributed to the fact that the country already possessed a very strong technological and industrial base and its selective imports of technology acted as a powerful catalytic agent for Japanese industry. The fact of very close so-ordination between

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**Finnegan: IBID*

the Japanese government and industry also ensured that its policy of regulated control functioned in the best interest of Japanese industry. An important aspect of licensing in Japan is that license agreements also require to be reported to the Fair Trade Commission (FTC) which has been set up under the Anti-Monopoly legislation. Such agreements require a negative clearance in that they should not contain provisions which constitute unreasonable restraints or unfair business practices as defined in the legislation. The FTC has prescribed certain guidelines which prohibit restrictions on exports, restrictions on acquisition of competitive techniques, tie-in restrictions and the like. Grantbanks must be non-exclusive and reciprocal. Thus, protection to Japanese licensees is not only accorded through the approval requirements of government but through the statutory provisions of the FTC, as clarified in its guidelines.

8. - Technology acquisition and licensing in the USSR and other centrally planned economies introduces a new dimension in the approach to this question. In the last two decades, the Soviet Union has acquired technology in a number of sophisticated manufacturing fields, including synthetic fibres (from the UK), automobile production (from Italy), etc. It has also licensed knowhow to a number of countries including UK, Finland, India and Egypt, apart from the COMECON countries, with whom its technological relations are very close. The Soviet Union and the centrally-planned economies operate in the field of licensing through centralised acquisition, as also centralised sales, of technology and one state agency is generally responsible for this function. In the USSR, this function is discharged through V/O Licensintorg, which is responsible for acquisition of technology in all the fields in which this may be required by the Soviet manufacturing sector. This inevitably requires very close co-ordination with the major manufacturing units, both in the determination of the type and nature of technology to be secured and in the actual process of negotiations and implementation. Nevertheless, by centralising the acquisition process, considerable advantages also accrue in that the agency develops considerable knowledge and expertise in contractual licensing, while the manufacturing units provide the necessary technical support. The fact that a technology once secured can be utilised in more than one plant, all of which are state-owned, constitutes an important determinant factor in such centralised acquisition and also constitutes the rationale for outright purchase of foreign technology through lump-sum

payments rather than royalty payments related to production. Where technology is sold or licensed from the Soviet Union, the same procedure operates in reverse. While the state trading units assess the possibilities of such sales or licenses, usually in accompaniment with sales of plant and machinery, V/O Licensintorg negotiates the license agreement on behalf of the manufacturing units and assumes full responsibility for the license. In principle, this enables the manufacturing units to concentrate on manufacture while a separate agency looks after the intricacies of licensing, but very close co-ordination is, however, necessary with the manufacturing plants, particularly during the life of technology agreements and this is not always easy. The essential licensor-licensee relationship is also far more difficult to ensure when licensing is conducted through a centralised agency. In many cases where Soviet technology has been extended for steel, machine-building, etc., fairly close relations have, in fact, developed between the Soviet units and the licensees, but as the number of cases multiply, this may become increasingly difficult, particularly when Western technology is acquired by the Soviet Union for a wide range of products. In the other centrally-planned economies, the acquisition and sale of technology follows a similar pattern, with Polservice in Poland, Polytechna in Czechoslovakia and Licensia in Hungary performing similar centralised licensing functions. It needs to be emphasised that the Soviet Union and the COMECON countries are members of the Paris Convention for the protection of industrial patents and of industrial property rights and that patents are both recognised and protected adequately in these countries. In recent years, co-operation in the form of joint production programmes between enterprises in the COMECON countries and other nations is growing and licensing to and from these countries is becoming increasingly broad - based.

9. - It is against the above background of the role of governmental authorities in certain developed countries, including the judiciary in the USA and in the EEC countries, that the question of institutional regulatory control in developing countries needs to be considered. As this brief analysis has brought out, the stress on industrial property rights in the USA and in Western market economies has been considerably tempered through judicial and administrative interpretations of anti-trust legislation when it comes to licensing and the emphasis is against any undue restrictions on the use of industrial property, both patented and unpatented, once the basic right of use is conceded. In Japan of course, fairly strict but pragmatic regulatory controls has had extremely sucessful results.

In the USSR and the COMECON countries, the centralised acquisiton and sale of technology through state organisations provides an alternative institutional approach to commercial technology transfer.

10.- It is significant that, in a large number of license agreements with licensees in developing countries, provisions are included which would be considered restrictive and legally unenforceable if sought to be applied in the country of the licensor. This is ofcourse, particularly true of U.S. licensors and since U.S. licenses constitute 70% of global license revenues, this becomes extremely pertinent. The dependance and weak bargaining portion of such licensees, together with ignorance in many cases, necessitates governmental institutional support in many developing countries. The fact that foreign subsidiaries and affiliates control sizeable segments of manufacture in many of these countries and operate primarily on a parent-affiliate rather than a licensor-licensee relationship is an added reason for institutional control of certain aspects of their activities. The questions that have, however, to be considered are, firstly, the limits upto which negative regulatory control should be exercised and secondly, the positive and promotional character that should also be an integral feature of such controls. The answer to the first question would primarily depend on the bargaining strengh of the licensee and the country which, in turn, would depend on the level of development, the size of the internal market and other economic factors. Negative controls, if exercised injudiciously and indiscriminately could result in non-inflow of essential technology with or without the accompaniment of foreign capital investment. Similarly, a non-selective, promotional approach to technological inflow could also result in undue dependance on foreign technology in all fields, as has occured in many developing countries. It is, therefore, extremely important to define the scope and role of regulatory control in the context of each developing country so that both the dangers of over-regulation and of inadequate regulatory control can be minimised. While the situation varies from country to country and from time to time, certain broad norms can be prescribed in the light of existing experience. For this purpose, it would be useful to briefly analyse the role of institutional control of foreign technology in India and in parts of Africa and Latin America.

11.- In India, considerable regulatory control has been exercised for a number of years, both in respect of import of technology and foreign capital investment. Specific guide-lines in this respect were published in December 1968 and a Foreign Investment Board, comprising of senior

representatives from concerned government departments, was established to administer both these aspects. The policy guide-lines divided the industrial sector in three categories with illustrative lists for each category. The first list covered the industrial branches where foreign capital participation would be permitted, the second list included industries where foreign technology without capital participation would be allowed and the third list indicated the industrial sectors where no foreign technology or investment collaboration would be permitted. A close link has throughout existed between foreign capital investment and inflow of technology in certain sectors and this aspect is taken into account in determining payments for the latter. The general approach has been to limit foreign participation in new projects to 40% of equity capital (49% in special cases). Majority foreign holdings are not normally permitted except where existing companies with majority foreign holdings accept a phased reduction in such holdings when the equity base is expanded to finance new projects or expansions. The guide lines also defined the maximum rates of royalty for technology in various sectors. It was also prescribed that the maximum duration of license agreements should not normally exceed five years. In addition, the guidelines also specified:

> (i) that foreign trademarks should not be used for sales within India; (ii) that clauses which provided for minimum royalty payments would not be permitted; (iii) that royalty payments should be computed on the basis of value of production ex-works, minus value of imported components, and subject to tax; (iv) that clauses in the licence agreement which prevented exports would not be permitted except for exports to countries where the foreign party had similar manufacturing licensing agreement or was legally not in a position to permit exports; (v) that provision should be made for sub-licensing know-how to other Indian enterprises on terms which would be mutually acceptable to all the parties concerned including the foreign collaborator and the Government.

Last year, a new Foreign Exchange Regulation has been enacted, which provides that non-residents or non-citizens and companies with foreign holdings of above 40% shall require the approval of the Reserve Bank of India before, inter alia, acting as or accepting appointment as agent or technical or management adviser in India, or permitting the user of any trademark by any such person or company. Thus, the additional approval of the Reserve Bank will now be required for registered user agreements in trademark license agreements, for employment of foreign advisers and for various activities of foreign subsidiaries and companies having substantial foreign holdings.

12. - The approach of the Indian Government is to ensure considerable selectivity in the inflow of technology. Foreign technology is not normally permitted in non-essential and non-priority sectors except when there is a substantial degree of export orientation. Despite the more detailed scrutiny now involved, 810 technology agreements were approved during 1961 to 1972, of which 143 proposals involved foreign capital participation of over $25 million. It is significant that 488 applications were rejected during this 4-year period. Most of the technology agreements related to the manufacture of industrial machinery and equipment, including electrical equipment, machine-tools, transport equipment, manufacture of chemicals and petrochemicals, and various metallurgical industries. While the guidelines have been conformed to fairly strictly, a fairly pragmatic approach has been adopted on a case to case basis, so that essential technology is able to be obtained by Indian licensees. Implementation of the guidelines has not posed any serious difficulty and, in fact, has greatly strengthened the bargaining power of licensees besides aboiding undesirable and restrictive provisions. The limit of duration of agreements to five years (with expections in a few special cases involving highly sophisticated technology) has had a very salutary effect in forcing licensee enterprises to make maximum efforts for effective absorption of imported technology as speedily as possible. Royalty payments are usually able to be adjusted within the limits prescribed, though, in some cases, these have been accompanied by fairly high initial lump-sum fees. The avoidance of restrictive export provisions have posed problems in some cases but these have usually been satisfactorily resolved by a pragmatic approach on both sides. In respect of sub-licensing provision, there was some controversy initially, but it has now been accepted by most foreign licensors that the government's insistance is primarily to ensure that similar technology is not imported through a large number of foreign technology agreements, all at considerable cost. Repetitive purchases of technology now receive greater attention, but it is still too early to evaluate the overall potential benefits of such a clause vis a vis the commercial obstacles in operating such a provision. By and large, Indian policy on technology imports has been similar in principle to that of Japan, though the pattern and impact of technology inflow has been widely divergent in the two countries and reflects the differences in the level of industrial growth.

13. - There has been relatively little exercise of governmental control in respect of technology agreements as such, in most countries of Africa (excluding South Africa and Rhodesia). In most of these countries, particularly those in Northern Africa, besides Nigeria, Kenya, Tanzania and others, there has been considerable control exercised in respect of foreign investment and licensing of technology has so far played a very

limited role except in some of the more industrially advanced countries. It is inevitable, however, that technology licensing for African projects will increase substantially in the near future and it would be desirable for most of these countries to establish and develop some mechanism for determining the cost and value of alternative techniques and processes, together with identification of the principal technological gaps in each economy.

14.- In Latin America, the most significant developments have been in Argentina and Mexico and in the Andean group of countries. In Argentina, two laws were passed in 1971, the first (N°19135) prohibiting the imposition of certain restrictive conditions in the automotive industry, while the second law (N°19231) prescribed the regulation of agreements for foreign technology and patents and the establishment of a National Registry for all such contracts. It was provided that agreements would not be registered if they contained restrictive clauses which would, inter alia, force the purchase of equipment, raw materials or components from particular sources, restricted exports except with licensor's permission, or prescribedunreasonable grantback provisions, or trademark licensing without technological contribution, jurisdiction of foreign courts, or unreasonably high royalties and payments. Agreements would also not be registered if the technology was indigenously available. In Mexico, similar legislation came into effect in 1973 and a National Registry has sence been set up and has had to deal with a very large number of agreements during recent months. An important feature of both the Argentine and Mexican laws is that they also require all existing agreements to be registered within specific periods. This necessitates re-negotiation of many of these agreements so as to conform to the provisions of the law. At the regional level, the provisions of the Cartagena Agreement (1970) to which the Andean group countries are signatories, is of great significance. Resolution 24 prescribes the norms and conditions which would regulate the approval of the five member governments to contracts for technology and patents in their countries. These provide for rejection of agreements which provide for, inter alia, tie-in obligations for purchase of materials, intermediate products etc. or prescribe restrictive conditions on volume of production, use of alternative technology, export rights, grantbacks and the like. Similarly, restrictive conditions in the use of trademarks would also not be permitted (Article 25), such provisions inter alia including export restrictions, tie-in clauses for purchase of intermediate products, royalties for unused marks and the like. In respect of both

technology and trademark agreements, provisions relating to permanent employment of licensor's personnel or appointees are specifically prohibited. While a number of license agreements have been entered into within the above framework, it is still too early to assess whether the Andean group countries have suffered from non inflow of technology in essential sectors as a result of the Cartagena agreement.

15.- In the case of Brazil, regulatory control is exercised mainly through the Industrial Properties Code enacted in December 1971. A well-manned National Institute of Industrial Property has been set up, which plays an important role in implementing the country's basic plan for the development of science and technology. By and large, however, the approach to technology inflow had been very liberal as also the conditions allowed in a number of license agreements. There is relatively less control over inflow of raw materials and components, once certain basic criteria are fulfilled. As in the case of foreign investments, which have increased enormously in this country during the last decade, the inflow of technology has also been very considerable. It is difficult to visualise future trends in Brazil but it would appear that a greater degree of regulatory control over technology inflow would gradually be introduced. Already, in a number of instances, governmental authorities have exercised and are exercising considerable executive control by way of modifications to technology supply agreements and aspects such as avoidance of tie-in provisions, export rights and phased domestic manufacture are assuming increasing significance.

16.- It will be seen, from the above instances, that the restrictive conditions which are sought to be avoided, either by law or through executive direction, are similar in character and can be fairly clearly defined in terms of norms. It is significant that, in most cases, such restrictive provisions would constitute violations of anti-trust provisions in the USA as also in Japan and in the EEC countries if sought to be applied in these countries. Yet, in recent years, there has been considerable criticism, in certain developed countries, of the Argentine and Mexican legislation, as also of the Cartagena Agreement and its follow-up action. It has often been expressed that such measures may lead to stoppage or substantial reduction of technological inflow to these countries. Part of the doubts arose because of the element of uncertainty as to the manner in which these enactments would be implemented. While it is still too early to assess, in quantitative terms, the results of these regulatory measures, it is

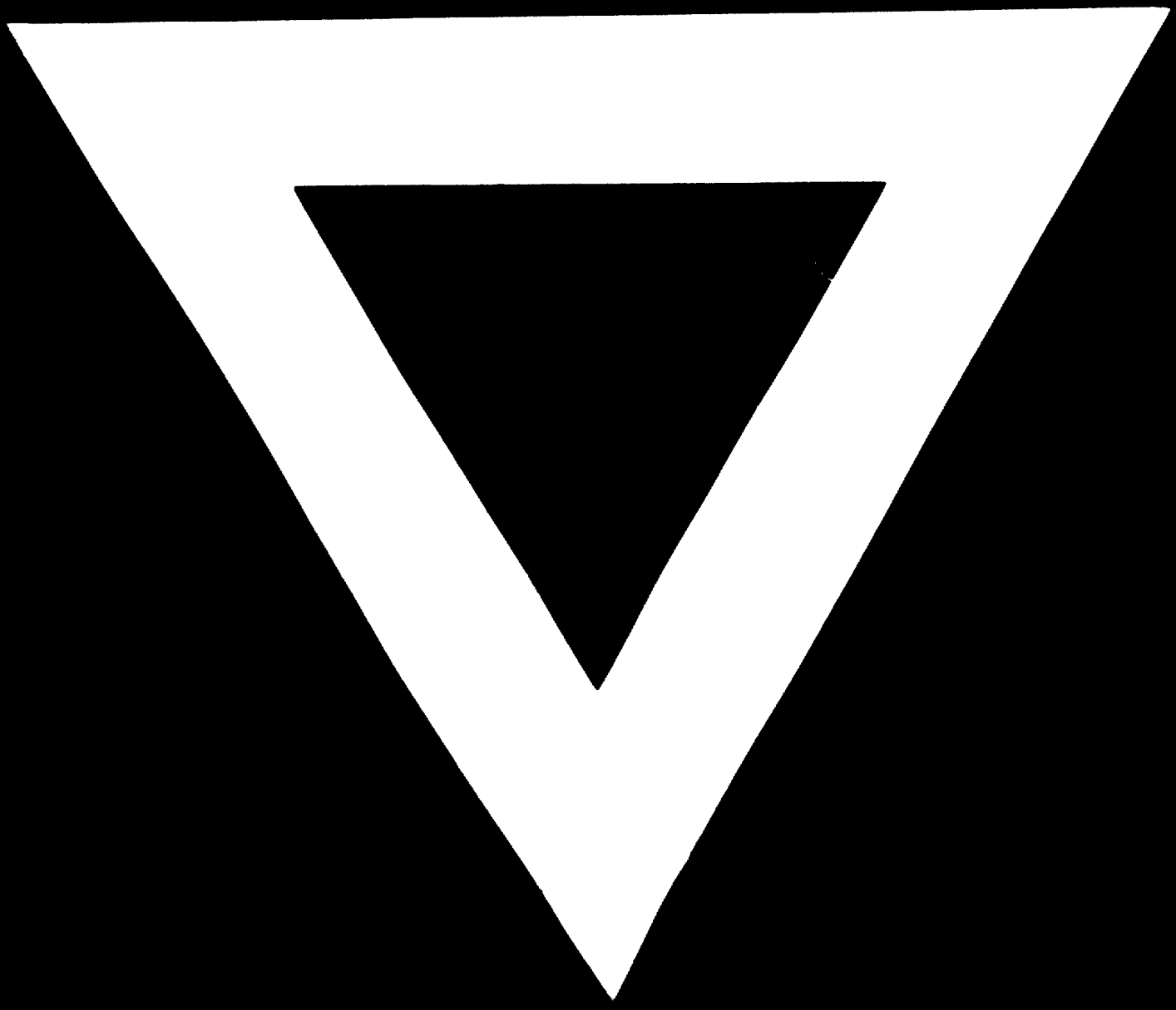
clear that there has been no stoppage of technological inflow, though perhaps the pace has slowed down. This may as much be due to the considerable time-lag in processing technology agreements as it is due to any reluctance on the part of licensors to license in these countries. At the same time, it is inevitable that there would be a period of adjustment for existing and potential licensors to these countries. By and large, however, most of the regulatory institutions in Latin America have developed or are developing fairly clear-cut guidelines for processing technology proposals. It would be desirable for such guidelines to be fairly flexible so as to cover the wide range of agreements that may be involved. For example, on duration of agreements, the five-year limit which is normally applied in Argentina and India may not always be adequate for absorption of sophisticated technical processes. On the other hand, a duration of ten years or more for relatively simple technologies may not be at all necessary. A rigid approach on the question of phased domestic manufacture may also not be appropriate, as this is dependant on domestic manufacturing capacity and quality and price of various inputs. In respect of technology payments, regulatory agencies could usefully define certain norms such as the prescription of the base for royalty calculations which could then be fairly universally applied. This would perhaps be more useful than prescribing a maximum percentage for royalty payments as is the practice in Argentina and Mexico. Considerable care needs to be exercised on the question of patents and trademarks, which are complex subjects which have not been covered in this paper. It is important nevertheless to point out that any patent and trademark protection must be adjusted within the overall policy framework, which aims at industrial growth and the use of patented processes to this end. Where this does not occur or where this right is misused to impose restrictive conditions and limitations, governmental authorities must step in. The trends in the USA point to the minimum direction of policy that needs to be applied in developing countries in this regard. Another critical question is that of the nature and cost of foreign technical services which are often incorporated into license agreements. It is necessary, in such cases, to take into account the level and availability of local technical expertise, particularly detailed engineering services. The growth of such technical services is an important objective in itself and domestic engineering services and personnel should be associated as far as possible in the implementation stages. An important related question is the extent of foreign capital participation accompanying the technology. There is a close relationship between the two, ranging from parent-subsidiary links to those of minority foreign holdings in joint ventures. The extent of foreign capital participation should also find reflection in the terms and

payments for technology and the guidelines should bring out the intrinsic relationship between the two, wherever substantial foreign capital participation is involved. The regulatory funcion should also take into account the impact of a particular technology agreement not only on the licensee but also on the economy, as there are certain aspects where the interests of an existing or prospective licensee may not concide with the wider socio-economic interest of the economy.

17. - While the negative aspects of regulatory control have received considerable attention in many developing countries and consequently may lead to avoidance of pitfalls and shortcomings in license agreements in the past, an issue which is perhaps even more important as that of ensuring that inflow of technology in required sectors does, in fact take place. This promotional aspect of acquisition of technology needs to be given very great emphasis in developing countries. An essential pre-requisite, is adequate knowledge of availability of domestic technology in various sectors, together with continuous review of the principal production and technological gaps likely to develop in the economy. An assessment of alternative technologies which may be available also needs to be made, along with the selection of the most appropriate available technology.

While this task needs largely to be left to prospective licensees, institutional assistance can be very useful. Assistance in this regard can be channelised through more than one agency and need not necessarily be confined to the agency which is responsible for scrutiny and approval of technology contracts. The securing of appropriate technology often involves vigorous promotional efforts and Investment Centres in industrialised countries constitute one means usefully utilised by some Asian countries for promoting investment and technology inflow in desired sectors.

18. - Regulatory control of technology licensing in developing countries needs, therefore, to be viewed from a dual perspective. On the one hand, institutional control should ensure that restrictive licensor provisions, which are adverse to the interests of licensees and the economy should be avoided or minimised as far as possible. On the other, positive institutional assistance is necessary to promote the inflow of appropriate and essential technology to cover major technological and production gaps. It is only through a judicious and pragmatic combination of both these aspects that licensing of foreign technology can serve as a really effective instrument for technological growth in developing countries.



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