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SOURCES OF ERROR IN THE MANAGEMENT OF BUSINESS [*]

A contribution to the theory of Etatism

- CONTENTS :** I — Attainments and shortcomings of private initiative.
II — The «quantity-problem» as source of errors.
III — The cost problem as source of errors.
IV — The shifting of costs as source of erroneous calculation.
V — Time and space in the calculation of private business.
VI — The problem of «circuitous returns».
VII — Further sources of error in calculations of private business..
VIII — Final conclusions.

I. — ATTAINMENTS AND SHORTCOMINGS OF PRIVATE INITIATIVE

In the 19 th century, private enterprises has reached attainments which up till then no other era and no other form of economy could show. To private enterprise we owe our technical progress, the opening up of overseas territories, the development of urban and territorial economic units into National economics with uniform law, uniform currency and a uniform custom-frontier. Competition caused the advantages of industrialisation to reach not only the individual but the community. Prices went down, the standard of life

[*] Enlarged inaugural lecture given at the University of Istanbul on Dec.

of the population rose with the reduced cost of manufacturing, although the working-hours were shortened, the working methods were made easier and enormous sums had to be set aside for the extension of traffic installations and big cities, a treble population was more richly provided with commodities than previously. The number of employees was increased, wages rose and hygienic conditions in industry and trade were improved.

If we look at these facts, we understand the belief in progress which animated the contemporaries of this epoch. The political economy of the 19th century was necessarily under the impression that the productive forces which were slumbering in trade and industry had only awaited the freedom which had so long been denied to them in order to unfold at last. That is why it attributed the results solely to the free striving for profits and free competition, in these it saw the two complementary forces which would guarantee the best possible maintenance of the population: on the other hand, monopolization, regimentation and regulation by law of production, consumption or distribution were supposed to divert from the optimum of supplying the human needs.

A few quotations may show with what ardour the theoreticians of the 19th century defended free economy :

Smith explains the collaboration of economic units as follows: «Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage indeed, and not that of the society which he has in view. But the study of his own advantage naturally or rather necessarily leads him to prefer that employment which is most advantageous for the society.. He generally indeed neither intends to promote the public interest, nor knows how much he is promoting it... By directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this as in many other cases led by an invisible hand to promote an end which was no part of his intention... I have never known much good done by those who affected to trade for the public good» (1).

[1] *Adam Smith*. An inquiry into the nature and causes of the wealth of nations 4th ed. 1788 Vol. II page 269. In view of this passage the contention of *Knies* (Die Politische Ökonomie vom geschichtlichen Standpunkt.) that these

Ricardo is of opinion that: «where free competition reigns, the interests of the individual and the society are never in contradiction» (2).

Bastiat says : «the acquisitive urge is that overpowering force of the individual which pushes us from progress to progress, but at the same time towards their exploitation for ourselves only. Competition however is that other, not less stronger force, which captures all progress in order to turn it from the possession of the individual into the common property of all humanity. These two forces can be criticized separately, but in their relation to each other they form the basis of harmony of economic society» (3).

As late as in 1914 **Wieser** writes in the same sense:

«The private order of economy is the only form of a great social economic union which has historically stood the test. The experience of thousand of years furnishes the proof that it ensures a more successful social collaboration than by a general subordination under one central command» (4).

And after the war **Adolf Weber** writes: «As far as human experience reaches and is significant, there is only one principle of order for social economy which holds : competition, i. e. the urge for proceeds put to work in barter» (5).

In his latest book, **Robbins** speaks of the fundamental necessity of international liberalism (6).

In the same way, **Machlup** sides with free economy (7).

To-day, we can no longer share this unrestricted optimism. The result of the free play of economic forces, which had been so warmly recommended to us by the theoreticians, has become unsatisfactory. In industrial as well as in agrarian states, over-production and un-

sentences could not be called from *Adam Smith's* writings, is hard to maintain.

[2] **Ricardo**. The high price of bullion, a proof of the depreciation of bank-notes, 4th Ed. 1811 Page 265

[3] **Bastiat**. Les harmonies économiques, 1850, cited after **Adolf Weber**, Volkswirtschaftslehre, vol. I (Introduction), page 5 -

[4] **F. Wieser**. Theorie der gesellschaftlichen Wirtschaft, Grundriss der Sozial-Ökonomik, I. 1st. ed. (1914) Page 398.

[5] **A. Weber**, Volkswirtschaftslehre, vol. I, p. 168.

[6] **Robbins L.** Economic planning and international order, London 1937 page 211.

[7] **Machlup**. Führer durch die Krisenpolitik 1924

employment show themselves as lasting phenomena, the competitive struggle degenerates into a destructive battle which annihilates the invested capital, lowers business, morals, and causes superfluous expense, which latter could have been applied towards a cheaper regular production.

On the other hand, admissible possibilities of production remain idle because private initiative has been crippled, or sufficient credit cannot be provided. The automatic healing forces in the economic body, which have always vanquished such crises, are too feeble to-day in order to reestablish the balance - or perhaps the patient has become too sensitive for this painful way of crisis-treatment.

The social contrasts are sharpened, the battle fronts of the interested groups become larger, and the problem of modern economics outgrow the domain which private economy can master.

This state of affairs has obliged most states to control, correct and partly even to replace the hitherto free play of the economic forces. In the U. S. A., the mass-unemployment and overproduction have led to the New Deal, in Russia and in Japan, the wish for industrialization was responsible for the switching over to planned economy. In Germany and in Italy the social tension as aftermath of the crisis, in Turkey the predominancy of foreign capital and the lack of private initiative in the country coupled with the necessity of own industries, have engendered these tendencies.

The price controlling laws of 1936 in France, and of 1937 in Switzerland and Belgium were in the first place of politico-financial origin. Finally, rearmament forces the actually still liberal states more towards etatism.

Furthermore, the monopolistic tendencies of the big concerns and the disproportion between their power and their lack of responsibility contribute towards state intervention.

This intervention is no more limited, as before the war, to trade-policy, monetary matters and social institutions, but it extends itself to the regulation of the markets, to the control of credit, to the planning of capital investments and the guiding of consumption.

To-day it has become hardly possible to see in these measures nothing but a trial to reestablish the competitive relations in those places where they had been tampered with by monopolies, trade

restrictions or displacement of authority (8).

The object of this interventionism is much more to guide the decisions in trade and business in a quite specified direction which seems to correspond more to the interests of the community than the road which private business had to take on account of considerations of rentability.

With the facts, the theoretical conceptions have undergone a change too. The economic programs of the conservative as well as the liberal party in England stand in a high degree for «directed economy» (9), as well as the Portuguese Prime Minister Prof. **Oliveira Salazar** (10). The socialistic theoreticians take this stand as a matter of course (11).-

But even authors who have for a long time defended liberal economy against interventionism, have partially changed their view. For instance **Pigou** says : «If we ask ourselves in how far the free play of egoistic private interests contributes towards the common good, we find that this is often not at all the case but that this deficiency can vary very much in its kind or measure» (12).

In **Pigou's** opinion, this shows the incontestable necessity of state-intervention in economy. **Schumpeter** asserts that : «in the social and economic matters of our time a development towards planned economy can be traced which is quite independent from wishes or political tendencies» (13).

A volume «Economie dirigée» edited by **A Siegfried** informs us about the stand taken by French economists (14).-

The German economic literature after 1933 is the reflected

[8] **G. Halm** «Die Konkurrenz» 1929, page 176.

[9] Compare : **Amery**, «The Forward View 1934, and : Britain's Industrial future» 1929.

[10] **O. Salazar** «Discursos» 1935.

[11] **Maurice Dobb**, **Eduard Heimann**, **Emil Lederer**. Compare **Mandelbaum**. «Neuere Literatur zur Planwirtschaft», Zeitschrift für Sozialforschung, IV 1.

[12] - **Pigou** «Economics in practice, London 1935» page 89. - comp. **H. Clay**, the problem of industrial relations, 1929, p. 236 : «The principles of laissez faire are no longer popular.»

[13] **Schumpeter** «Socialistische Möglichkeiten von heute», Archiv für Sozialwissenschaft und Sozialpolitik 1920, page 312.

[14] **André Siegfried**, «Economie dirigée» 1934.

image of German planned - economy. Sombart's last book show to what extreme views it arrives : He does not only affirm a change of economic organization but equally of the ultimate economic goal. Civilization is being suffocated in technical science and abundance of commodities; and in order to save it, one should go back to the ideal of poverty (15).

A very convenient point of view indeed for economists !

Even the science of economic management (which centers in the problem of calculation in private business) pronounces itself in favour of the necessity of governmental economic guidance.

Schmalenbach said already in 1928 on this subjects : «which are the inner reasons, forcing us to separate us from the old, free economy in spite of its extraordinary productivity, and to make our way into a new economy of managed form, about the productivity and efficiency of which we know but little yet ?».

«We are driven into the new economic era not by human beings, but by strong economic forces.. I would be of opinion, that modern economy, as far as the matter of cost is concerned..... the old system of free competition is no more sufficient ... I am convinced that in a not too far away future we shall have to arrive at a state which the guilds represented too : the monopoly-structures of modern economy will receive their monopoly from the State, and on the other hand the state will superintend the observance of the duties, arising from the monopoly.» (16).

What are the causes of this reversal? Did the principle of rentability and the competition on which free economy is based fail, as the opponents of liberalism assert, is private management of business (which follows the striving after profits) no more capable of bringing the production near to the economic optimum ? Consequently, will the direction and volume of production in the futures no longer have to be decided by the owners of factory upon the chances of profit to the entrepreneur, but by the state according

[15] Sombart, «Der deutsche Sozialismus» 1937.

[16] Schmalenbach, «Die Betriebswirtschaftslehre an der Schwelle der neuen Wirtschaftsverfassung» Zeitschrift für handelswiss. Forschung, 1928, page 242, 249.-

to the economic needs of the whole people or according to other points of view?

Every economic activity, in whatever way it will be organized, aims at the realization of a surplus over the cost of production in order to be provided more lavishly with goods. This principle of surplus can be renounced by no economic system, neither by the domestic economy which consumes its own products, nor by the exchange economy which produces for the market, nor by planned economy in which production and consumption are regulated. All these forms of economy have one and the same purpose : the realisation of a surplus. Only the ways in which they try to attain their goal differ.

Every economic system has a method of its own for the controlling of the possibilities of production as to their fertility. In the economy of the primitive stage, and even to-day in the small farms which do not market their goods, production is directly regulated according to the needs of the household and it is not possible to make a comparison in figures between the various branches of activity. In the same way, the program of expenditure in modern state budgets is drawn up at first directly on the basis of the total needs, and the efficiency of the single items (i. e. the budgetary net allowance) is only calculated afterwards. In planned-economy the same method prevails. In free competitive economy, however, every individual calculates at first the cost and the proceeds of his products separately. If a profit is the outcome, the production is considered to be economically justified, and does not need any further legitimation before the community in order to be carried out. If, however, a project will presumably cause a loss to the producer, it is supposed to be economically inadmissible whatever reasons of utility to the public or of a cultural nature would advocate its execution. In economics, the trader's profit is the barometer which indicates the profitability of a projected production to the community. Production conforms itself to this and the calculations of the individual traders are no more grouped together in a general politico-economical balance-sheet.

The question now arises whether this method of surplus-calculation, as applied in private business, really and under all circumstances does lead to an optimal supply of goods, or whether disturbances and displacements can occur which divert the

calculation of profits in private business from the economical maximum of success. Under which conditions does rentability in private business come so near to economic productivity that the errors in the private management of business can be neglected as being insignificant, and under which conditions do both points of view diverge to such an extent that the businessman's decisions as to production need an economic correction, or, in the extreme case, have even to be replaced by state regulation of production so as to correspond to the needs of the community?

It seems to me that this is the essential problem in the present controversion of the theorists about the form of economic life.

II. — THE QUANTITY-PROBLEM AS SOURCE OF ERRORS

There have always existed factors in the producers calculation which deflected the direction and volume of production from the line as traced by political economics. However, in the era of economic expansion of the 19th century they threw so little weight in the scale, and they were so quickly overtaken by the development of events, that they were either not heeded at all, or, in view of the performance of private business, rightly neglected. But since the stagnation of economic expansion, these factors have become sources of errors in calculation; to-day they are of greater importance as they are no more hidden by the general upward tendency and no longer corrected by the trend of affairs which rather intensifies them. These factors forcibly induce the entrepreneur (even when his calculations are subjectively correct and any error in account is excluded) into an erroneous calculation of surplus and thereby into wrong production and investing too much, or by underestimating the proceeds and thereby leaving unexhausted the possibilities of production which exist.

A source of error of such a nature exists in the quantity-problem so named by Zwiedineck. (17).

Suppose a producer to calculate on the basis of the existing market-situation that the purchase of a machine would pay its way. It is true that the factory would produce with the help of this:

[17] - v. Zwiedineck, «Allgemeine Volkswirtschaftslehre», 1932, page 140.

machine, a quantity of goods which would exceed the volume for which an outlet could hitherto be found, but on the other hand the cost of production per unit would decrease and the prices could be reduced, so that according to this calculation, the increased production would be marketable. On the whole, this process of production would still lead to a greater surplus over cost than the old one without machine. But on the same underlying principle as the first manufacturer, nine competitors in the same branch make their calculations and equally introduce the machine. The investment which would have paid its way if it had been made only once, will not do so when increased tenfold. The total production will be raised to such an extent that the projected prices cannot be maintained. When all ten factories work mechanically, the price of the product declines under the cost-limit, and if production is curtailed, the capacity of the machinery is not fully utilized. Consequently, the previously calculated saving of expenses does not materialize, as a correspondingly greater part of the overhead falls to the unit of product when production goes down. Therefore, the double of capital investments which is unavoidable when competition exists, shows at all events to be a source of wrong production.

Even when the individual producer would know about his competitors' intentions to invest, he would not be in a position to abstain from the improvement of his plant. Although he might judge the accumulation of investments to be economically wrong from the general point of view, he would not be able to decide to sacrifice himself for the common good by keeping his factory at a lower grade of efficiency than those of the others.

In a time of economic expansion, as for instance in the 19th century, the quantity-problem hardly appears as a source of errors in the calculations of private industry. Together with the population and the new oversea markets the demand for goods grows quickly into the oversized productional apparatus. The production which has been initially installed on too large a scale reorganizes itself automatically during the course of a few years. Most of the new businesses which were set up in that period were oversized; the development of consumption however overtook them very quickly. Moreover, the first great inventions brought a saving on costs of 50 % and over; therefore, the increase in production could not be so high as to force the prices down below the new cost-limit.

Even if the profits did not always reach the record which had been hoped for, they never sank below the average rate; when symptoms of overproduction came to light, the great span between cost and price represented a sufficient margin for eventually necessary price-reductions. Therefore the quantity-problem could not be noticeable at all under such favorable conditions. The frenzy of foundation and capital investment of all classes of producers was justifiable, with the possible exception of the speculative exaggerations which caused the crisis of 1873.

However, since the upward trend of population came to a standstill around the turn of the century, since the newly industrialized countries turn themselves more and more towards the markets of the European industries and since through the law of declining yield of capital the saving of cost by amelioration of the processes of production becomes continuously smaller, the quantity-problem begins to operate as a perceptible source of overproduction. Today, we are lacking the automatic correction of an oversized production apparatus through increasing demand; the former great margins of profit which constituted a sufficient margin for price-reductions are non-existent, and we miss the continuous increase of overseas markets for the European industries. In this way, overproduction becomes a permanent state of affairs. For this reason, most branches of production have turned to selfhelp and have organized international or national cartels for the regulation of expansion of capacity, thereby eliminating this source of error in private business-management. For instance in 1926 the International Steel Cartel fixed the presumably saleable production volume of the European steel production, and every country received in this connection a certain quota of production. In case the steelworks of one country exceeded their quota, they had to pay a conventional fine of \$4/- per ton of overproduced steel, if on the contrary they did not reach the quota, they received an indemnity of \$2.- for every non-produced ton. Already in the first half year of the convention, Germany paid a fine of 6 million dollars whereas France received an indemnity of \$ 470.000.- This resulted for the German mills in an average additional charge of R. M. 2, 13 per ton, whereas the French mills could book a credit of R. M. 3,37 per ton. Therefore, the artificial difference in cost was RM. 5,50, i. e. approximately 7 % of the price at that time.

It may seem absurd that in an economic system which aims at the greatest possible provision with goods, production is being punished and non-production recompensed. But through the quota-agreement and the indemnity-system the mills which are technically behind are obliged to abandon their intended projects of investment, whereas only the more efficient mills can decide to enlarge their capacity. In this way, the effects of the quantity-problem as the origin of overproduction are weakened or eventually even eliminated. All restriction plans of this kind, the Brussels Sugar Convention, the International Copper Cartel, The Anglo-Dutch Rubber Restriction etc., are first attempts on the side of producers themselves to fix rational limits to excessive expansion of production as caused by competition. In this sense, statesmen belonging to all parties welcomed the International Steel Cartel in 1926. Stresemann expresses his hope for a general public conviction in a near future that in the field of economics too, the nations will advance more by judicious and loyal collaboration than by unrestricted competition. The former French Minister Loucheur demands with the Belgian senator de Brouckère a complementary government control over so huge and powerful combines as the steel-cartel (18).

It is now more than ever doubtful whether such an artificial shifting of costs, even when it eliminates the quantity-problem in steel-production, does not provoke changes in the iron-using industries, which in their turn deflect the latter from the economically optimal production and thereby create new sources of error. Anyhow, these conventions are no stronghold against changing economic situations. A swift boom as well as a strong depression disintegrate them and lead to a struggle for quotas within the cartel, which generally mean the end of the convention. If the joint treasury has too small an income from the fines and consequently the indemnities for shutting down turn out to be too small, the more efficient mills leave because they hope to attain more in the competitive struggle. This was for instance the attitude of the Dutch rubber producers after 1928. In the crisis of 1932, the state tried to establish such cartels compulsorily. The German cartel-tribunal started by increasing the severity of its praxis concerning the pos-

[18] - Berliner Tageblatt, 1926, No. 463, 465.

sibility of denunciation of cartel-agreements. In 1933, a law governing the compulsory cartels was issued, which authorizes the Minister of Economy of the Reich to amalgamate concerns into syndicates, conventions and such like agreements by compulsion, (19).

Since the coming into force of the four years plan of 1936, the authority of the Minister of Economy of the Reich has been extended to the regulation of markets and the control of capital investments. In the United States, the National Recovery Act of June 16th 1933 allows the President to declare the codes of fair competition as binding (Section 3 a). In Japan, such regulations are in force since 1931, in Italy since 1932, in Belgium and Holland since 1935.

There is but one step from empowering the state to form compulsory cartels to a state-controlled production. Of course, in Germany these tactics were caused by other considerations, to wit credit-politics, the supplying with raw materials, the foreign trade and the foreign exchange situation.

III. — THE COST PROBLEM AS SOURCE OF ERRORS

In the same way, under present conditions the cost-problem too causes a permanent uneconomic state if competition remains unregulated. In the conception of classic political economists, competition should necessarily bring out the lowest production costs. Prices fixed themselves at the generally lowest possible level, so that consumers would be supplied with the cheapest products. But in this opinion, state subsidies and protective measures ensure a higher price-level to the weaker concerns in order to keep them capable of living in spite of higher production costs. Therefore, they were supposed to arrest the trend towards cheapest methods of production. The consumer had to bear the additional charge which had to be paid for the protection of the factories with higher costs of production.

This effect of competition undeniably existed in the 19th century and assisted the victorious progress of technics. But nowadays,

[19] - Law on the establishment of compulsory cartels of July 15th 1933 and executive decree of October 6th 1933.

the law of costs of the classic authors does not absolutely come true anymore. Let us take one of the numerous examples which have been set forth in 1928 by the Board of Inquiry into the production and sales conditions of German industry (20).

Till 1926, five linoleum-factories existed in Germany. Each of them produced about 16 different patterns of linoleum, and the switching over of the machine from one pattern to another meant a loss of one day and a half. Every factory had to maintain a complete stock of all 16 kinds, and depending on the localities from which orders were received, one factory was sending linoleum from the very south to the very north of Germany, whereas another was shipping the same linoleum from the very north to the very south, so that it was literally crossing. Apart from the advertising for the use of linoleum as such, every firm had to propagate its special brand, which raised the advertising cost considerably; high provisions had to be paid to traders in order to induce them to carry and to boost a certain brand. All these expenses were necessary in order to be able to compete.

In 1926, the five linoleum-factories amalgamated into a trust. Only by eliminating competition it became possible to establish the production and the marketing on a rational basis. To begin with, the number of patterns was reduced to five, while each one of the five factories specialized in one pattern. The loss of time because of idle machinery was stopped, the number of machines could be reduced and the factory hands could be used more fully. The reduction of the number of patterns had no influence on the consumption; it became apparent that the variety of types had rather made the consumer suspicious, whereas the few standard types of the products of the trust were taken as a guarantee for quality. Whereas before the amalgamation every factory had to keep all 16 kinds in stock, the trust contented itself with one warehouse for all 5 qualities, which reduced the cost of warehousing essentially. Orders were spread over the factories according to the most favorable geographical situation, so that a considerable saving of freight was possible in comparison with the past. The advertising expenses

[20] Untersuchungsausschuss (Board of Inquiry into the Production and sales-conditions of German industry). First sub-committee, third group. Part I. Page 451.

for certain brands were completely eliminated, the advertising-campaign for the use of linoleum as such was directed much more efficiently and with the same means by the Trust. Finally, the traders' discounts were reduced to one fifth; this was possible without doing any harm to consumption, as the retailers could no longer play off one firm against the other. The conditions of delivery and payment were fixed uniformly and consequently the factories had to stand no more losses from absurd sales on the installment plan or repurchase-transactions. Together the saving of expenses which was realized by the Trust in comparison with the former competitive struggle was estimated at 40 % of the total cost, and with all this the linoleum-industry does not represent an extreme case of especially high competition-expenses, it figures rather as an average case. The Committee of inquiry has found far greater effects on the final cost in other branches of industry, first of all in the engineering industry and in the textile industry (21).

It is true that this reduction in expenses has no influence on the price level as long as the managed prices are not subjected to some control or other, but raise the manufacturers' profit and the capital investment activity. Only in those special cases where the expenses are excessively degressive while production is being increased, the concern will lower the selling-prices in order to be able to sell higher quantities and to use the plant to its fullest capacity.

The specialization in production and the typifying of the products, in which great expense-saving possibilities are still latent, cannot be realized yet under the present circumstances and under the prevailing competitive system. The normalization-committee of German industry, which has done much in his field, would not have been able to undertake its work without the support of the big concerns and unions.

As long as new expense-saving inventions were continuously made in the domain of the technique of production, and consumption permanently rose so that the increase in production corresponded to the market situation, competition was the surest means of

[21] Untersuchungs - Ausschuss, 1 st. Sub-Committee, 3 rd Group; Second part, 1st alinea, page 92.

enforcing the lowest level of cost. Since however the expansion has arrived to a standstill and technical innovations appear more sparsely, it has become imperative to arrive at a saving of expenses without an increase of production, and by way of improved efficiency. Here competition not only fails but even forms an obstacle to saving in this way. Only through amalgamation further progress can be made in this direction. The narrower the market becomes, the higher the cost of the competitive struggle rises, and the less remunerative the multiplicity of the types of product will become to which competitors are forcing each other. Under these circumstances the lowest cost is no longer enforced by competition, but by regulation of production and selling. To-day the cost problem is the strongest force which leads to business-amalgamation. Especially in those countries where the excessive price-level endangers either the export or the currency, the reduction of cost cannot be left to the chance, whether the producers will come to an agreement or not, but is being pursued by enforced amalgamation because higher exports are of general economic interest. In this question too, there exists only a gradual and no more fundamental difference between the voluntary concentration of business and the state-planning of production.

IV. — THE SHIFTING OF COSTS AS SOURCE OF ERRONEOUS COST-CALCULATION.

Another source of erroneous cost-calculation in private business lies in the fact that the producer makes the decisions in his business under the assumption that prices and sales remain unchanged, but that these decisions themselves provoke a change in the structure of cost which again alters the market situation.

If for instance the producer introduces labour-saving machinery, the cost of wages will go down and be replaced by amortization and interest charges. The producer has calculated that, with equal prices and equal sales-volume, he will make a greater profit by changing into machine-made production because of the lowering of expenses. However (and the producer could not anticipate this in his calculations) the change in the structure of costs now alters the market situation, so that the assumption that prices and sales-volume

would remain constant, does no longer come true. While up till now the wages had been acting immediately as a demand for mass-consumption commodities, the interest and amortization charges which have come in the place of wage-expenses now are transformed first into credit-balances with the banks or into profits of other concerns, so that they only change into income much later and even then into income for totally different social strata with quite other requirements. Consequently, when many industries are rationalizing at the same time -and free competition always leads to waves of capital investment by fits and starts - the demand for consumption - goods will begin by receding to the extent of the non-paid wages. On the otherhand, a raised consumption of luxury goods will follow later on.

But the rationalization itself has been calculated on the basis of the old market-situation. After completion of the capital investments the rationalized factory already finds a changed market, and at that a deteriorated one, marked by under-consumption of mass made goods. This is why circumstances may prevail especially in the case of an undertaking in the consumption - goods industry, when the precalculated remunerativeness of the new purchases is no longer existant and the rationalization shows itself to be a wrong investment from the start. In private economy this means that the rationalized factory does not work at an increased profit, but at a loss: from the point of view of political economics it means that the unemployment caused by rationalization is not absorbed by greater activity in other fields of production, but becomes a permanent symptom and that therefore the industries which are not being rationalized suffer from the selling crisis too, and are being drawn into the narrower danger-zone of the border-cases. Although the producer's calculations were subjectively correct, these effects of rationalization often appear nowadays.

The underconsumption theories of the 19th century have already pointed out these dangers of rationalization and of accumulation of constant capital; this however was done at a time when these very dangers were hidden by the general upward trend, because, even if at that time the amount of wages sank in comparison with other expenses through the fast increase of constant capital, (it increased in an absolute sense) this was more than set off by the growing number of people employed in the branches of production

which kept on coming into being and by the rising weekly wages of labour; whatever was still lacking in the balance was brought in by the shortened working hours and the bringing down of the prices of consumption-goods; during the era of economic expansion, therefore the danger of under-consumption as a result of rationalization did not exist. On the contrary, the process of industrialization was in its first stages accompanied by a constantly increasing demand for mass made goods. Marx's theory of the industrial reserve army and the pauperization of the masses was never more in contradiction with experience than just in the period for which he was writing (22). His opponents were justified at that time to refer to contrary observations. Even Engels corrected the theory of collapse in so far as to say that the crises of the capitalistic system could only put in an appearance after the exhaustion of all possibilities of expansion (23).

But today, the premise has completely changed. With the standstill of expansion we see for the first time in the wake of rationalization a structural unemployment which cannot possibly disappear any more in a trade boom. In the advanced stage of the process of industrialization in which we live nowadays, the yearly increase of new branches of production (especially of capital goods), which up till now always reabsorbed the unemployment caused by rationalization, has become very small because of technical reasons. Overproduction became a chronic evil in technically advanced countries. Pauperization of the masses and plenty goods has become one of the outstanding paradoxes of capitalistic economy in its present stage of development, which justifies the increasing accusations against this economic system.

Theory has only reluctantly relinquished its preconceived ideas that unemployment could not exist as a permanent phenomenon in competitive economy. First of all it tried to trace the disturbances on the labour-market back to the wage-policy of the trade-unions, the

[22] K. Marx, *Das Kapital*, Vol. I. 2nd ed. 1872 page 459: «The theory of compensation in relation to labour superseded by machinery», and page 653: «Progressive production of a relative overpopulation or industrial reserve army».

[23] F. Engels, *Die Entwicklung des Sozialismus von der Utopie zur Wissenschaft*, 1882.

price-policy of cartels and excessive taxation, so as not to have to charge it to rationalization (24).

To-day, the possibilities of erroneous rationalization are already being conceded, although underrated (25).

This question was treated in the most thorough way by Saitzew (26), and the Trade-Unions. (27).

In the present stage of the industrialization process, rationalization is subject to a second source of erroneous cost-calculation, which was covered as well by the trend during the boom-period, but is actually being felt very heavily as a cause of structural unemployment. The manufacturer counts as cost of rationalization only those expenses which he himself has directly to meet in connection with the capital investments, i. e. amortization and interest-expenses, running expenses and maintenance of the machine, additional insurance, enlarging of the workshop, etc. But he does not count as cost of rationalization the expenses which are indirectly caused by the machine because under the laws now in existence he can shift them to other individuals. They include the relief and care for the labour which has been released by the machine, the losses which other manufacturers sustain by the reduced purchasing power, the expenses which are caused by the re-schooling and the moving of the unemployed, etc. All these items constitute in reality debit-items of rationalization which should be set off by the excess yield of the machines. However, they are not taken up as such in the calculation of the rationalizing manufacturer and taken care of by him, but the state has to defray them and passes them on to the community by way of taxation. In those countries, where the taxes and social insurance-premiums are calculated on the scale of wages, the un-

[24] *Adolf Weber*, Allgemeine Volkswirtschaftslehre, page 122.- *Marshall* Principles of economics, I. page 126.

[25] *Moeller, H.* Rationalisierung und Arbeitslosigkeit, Weltwirtschaftliches Archiv, 1931, page 387; *Zwiedineck*, Die Arbeitslosigkeit und das Gesetz der zeitlichen Einkommensfolge, Weltwirtsch. Archiv 1931, vol. 2; *Heimann*, Soziale Theorie des Kapitalismus 1929.

[26] *Saitzew*, Die Arbeitslosigkeit der Gegenwart I page 55. Publications of the «Verein für Sozialpolitik» vol. 183. I.

[27] Grundlagen und Richtlinien gewerkschaftlicher Rationalisierungspolitik, Wien 1929.

burdening of the rationalization by genuine expenses is still greater, and the industry working with a relatively high amount of fixed capital receives in this way another premium over the industry which employed a relatively great number of hands.

For this reason technical improvements and extension of plants often appear already remunerative in the calculations of private business when they are far from it in terms of political economy. The manufacturer proceeds to their execution in anticipation of raising the profits, but the final economic result of the rationalization means higher relief expenses for the Government, higher tax-burdens, decreased demand, overcapacity of the factories, all of them items which put the producer in a worse position than before. It has in no way dawned upon private business management that this development has been caused by itself. - Already Pigou has pointed out a special case of such disharmony, where private profits are counterbalanced by raised governmental expenses (28).

As long as the labour which was released by machinery had continually been reabsorbed by the upward trend, and as long as the taxburden only represented a small part of the manufacturing cost, the fiscal shifting of genuine rationalization-expenses from the manufacturer to the community had only small importance. This item caused only a very insignificant deviation from the economic optimum. To-day however when production in the industrial countries is being pre-charged already with public levies to the extent of 20-30% or more the part of rationalization-expenses which can be shifted to someone else has grown considerably. Therefore the ensuing over-estimation of admissible production-possibilities on the part of private business makes itself more strongly felt.

It would take us too far to enter into the numerous, economically unwarranted fusions, closing down and new establishments or enlargements of industries which are moreover caused by the particular repartition of this tax-burden. The exemption of new buildings from certain taxes formed another inducement to exaggerated building activities, the laws in encouragement of capital investments created another premium for rationalization, the turnover taxes favoured economically unfounded amalgamations of consecutive pha-

[28] *Pigou*, *Economics in practice*, 1935, p. 83. *Pigou* quotes the alcohol industry which forces the state to increase its expenses for public safety.

ses of production in those cases where they had not been equally apportioned to all stages of production. The strained autonomous fiscal right of the cities led to the migration of industries to localities which were not favourable either from the point of view of raw materials and transport, nor from a demographic point of view, etc.. This repartition of taxation, seen from an economic standpoint, caused an increase in the cost of production, although it yielded an apparent gain to the private manufacturer because of the saving of taxes. Economically spoken large amounts of money were wasted because of the absurd policy of taxation.

We are therefore now entitled to demand that under the given circumstances rationalization should not only justify itself by the profit and loss account of individual manufacturers; this alone no longer suffices in order to prove its economic productiveness. The thing is rather to prove its success in the framework of economy as a whole. The rationalized factories have either to counterbalance the non-payment of wages as caused by machinery by a decrease in the prices of their products, or they have to enable the re-engagement of those people whom the machines had put out of work; this by shortening the working hours without decreasing the weekly wages. Or at least, they have to increase the wages in order to raise the wage-part in the general cost again to its former percentage. Under these conditions, the change of the structure of costs and the deterioration of the market situation as a result of rationalization could be avoided. Even in the 19th century the shortening of working hours, increasing of wages and reduction of prices (of course not consciously applied) were conditional to the non-appearance of unemployment in the wake of rationalization. Furthermore, the yield of the machine would have equally to cover the more remote rationalization-expenses which accompany the migration and the re-schooling of the unemployed and the displacement of centres of consumption as caused by the fusions. (29).

The American and German trade-unions have been engaged in a thorough examination of these problems (30).

In the same way, the onesided repartition of the fiscal bur-

[29] *Saitzew*, op. cit. p. 56.

[30] «Grundlagen der gewerkschaftlichen Rationalisierungspolitik», edited by AFAB WIEN 1929.

den, which leads production into the economically wrong path would have to be counterbalanced. In many countries, taxation is not looked upon anymore from the purely fiscal standpoint but taken as an excellent instrument of economic policy.

Lehmann has proposed to begin by no longer charging the wage-amount with the contributions for social insurance as done heretofore, but by charging the capital-intensity of the enterprise (31).

To this effect, he recommends to incorporate these contributions into the property tax, the trading-tax or into the turnover-tax. If these contributions, amounting to an average of 20 % of the wages, are assessed independently from the higher or lower cost of wages of the factory, for instance on its output, they would no longer form a stimulus to exaggerated rationalization; they would be «neutralized» as it were. Thereby, the cost-calculation in private business would regain part of its natural basis.

V. — TIME AND SPACE IN THE CALCULATION OF PRIVATE BUSINESS.

The aforesaid consideration induce the manufacturer to over-estimate the possibilities of production and to extend the capacity of the plants beyond measure. Alongside of this, however, other considerations exert an influence in the opposite direction. The proceeds can be under-estimated and consequently some possibilities of production can be left unexhausted, although they would be economically admissible. That is why the productive forces which are existant in our economy do no longer attain full development with the help of private initiative alone.

As long as technical progress was keeping time with the first epoch of industrialization, the business men have always calculated for the immediate future only. They were forced to make high profits in a short time and to amortize their plants in the shortest delay, as every year brought new inventions which overtook the existing installations in their stride and depreciated them. Every year threw new, better and cheaper goods on the market which

[31] Lehmann, in the «Zeitschrift für Sozialversicherung» 1929.

were hitherto existing. Therefore, the manufacturers were not at all in a position to provide for the continuous progress and extension of their factories, perhaps to educate specialists, equip laboratories, etc... because such longsighted arrangements would not have been worth while in view of the speedy development of the technique of production. In general the tendency prevailed to work the productive forces to exhaustion; nobody worried about the further development of technical science, the industrial inspectorates and building departments were put to great trouble in trying to limit the worst outgrowths of this loose exploitation as for instance in urban construction.

Since then, business has completely altered its standpoint. Profits are only being partly distributed and kept at a moderate level, with the assistance of the accumulated reserves, arrangements are built up which can only pay for themselves in a distant future: business-concerns organize institutions for market-and trade-cycle-research, they establish schools in order to make sure of a supply of specialists in the next generation, they construct houses or flats for the workers in order to attach the trained labour to the factory, they improve hygienic conditions in the factories, they spend large amounts on the prevention of accidents, and they equally promote general scientific and cultural aims outside of the business. The object is less to arrive at quick profits at the cost of a continual development than to stabilize and perfect the business in the long run, even at the sacrifice of present profits (32).

The revolution in the way in which costs are usually calculated was preceded by a structural alteration of joint stock-companies. The influence of shareholders who are only keenly alive to high dividends was weakened in and the major decisions were more and more left to the leading organs of the company, to the management (33).

This put the objective interests of the business above the momentary dividend-interest (34).

[32] Compare the findings of the «Untersuchungs-Ausschuss», 1st sub-committee 3rd group, Vol. I Page 383.

[33] Compare Wiedenfeld, «Gewerbepolitik» p. 10.- Board of Inquiry, as before page 50.

[34] Passow, «Der Strukturwandel der Aktiengesellschaft im Lichte der

Now did the industries which create and promote such institutions of public utility abandon the principle of remunerativeness? In no way, since the technique of production has become comparatively stable and the sales-volume has grown relatively constant, «loose-farming» for a quick profit, but at the cost of substance of industry has proved itself to be less advantageous than anticipatory care for the continuous development of business, even when this implies heavy expenses for the moment. Anticipatory calculation for greater periods has become compulsory. Factories which have brought up a stock of skilled workers are better off in the long run than those which have shunned these expenses and are now continually working under the average effect with their unskilled labour. The increase in the percentage of skilled workers and specialists during later years enlarges this difference in yield.

German industry has created with its own means the «Dinta-Institute» in Gelsenkirchen, which examines the suitability of any workman to specified jobs and does the training. Already after 8 years of its existence, the institute succeeded in reducing the former number of accidents in the supervised factories by 35 % because it recommended the right man in the right place. The saving which the factories thereby obtain is greater than the expenses of the Institute. Consequently, we can speak of the remunerativeness of this establishment in the real sense of the word, which however is only arrived at when we calculate over a fairly long period.

This example shows that private management leads to various results according to the longer or shorter span of time for which it calculates the remunerativeness of an arrangement. When the tendency of development calls for quick profits, establishments like the «Dinta-Institute» appear inadmissible, but when the development has become more steady, particular institutions of this kind afford still greater possibilities for the reduction of expenses than those which could be obtained at the present stage of industrialization in the field of technics.

This also holds good for the sphere over which cost-calculation in private business extends itself. In the beginning of industrialization the manufacturer only calculated the yield of a new pur-

Wirtschafts-Enquete» 1930; *Flechtheim*, «Vom Aktienrecht in den Vereinigten Staaten» Zeitschrift für ausländisches und internationales Privatrecht, 1929.

chase for his own business. The effects of his technical innovation on neighbouring branches of production did not interest him. However, as soon as the same manufacturer, for technical or for reasons of sale-policy, takes a participation in firms of these neighbouring branches of production, he is forced to adapt his policy of production and price-policy equally to these branches. Because now it is no longer the remunerativeness of one isolated factory alone which is decisive for him; his profits are now constituted by the total yields of several enterprises in various fields of production. Therefore, it can be easily possible that the higher profits in one industry lead to so great a decrease in the results of the others, that the total yield of the complex becomes smaller. In this case, the business manager who is interested in several enterprises will refrain from measures, which he ought to have taken from the point of view of an isolated enterprise. The opposite can happen too.

This consideration will influence the decisions in regards to concern-policy. Not infrequently factories are being kept at work which by themselves should be shut down as they do not yield a return, and the concern closes down other works which by themselves could be kept working as they are profitable. The management of the concern does not judge these cases by the standard of remunerativeness of one isolated factory, but by the sum total of profits from all participations. Industry concerns have clearly shown by their policy of production in how far the decisions of the concern-management can differ from those of the isolated manufacturer in a same economic position.

The points of view and the tasks of the concern-policy constantly outgrow the sphere of private business and extend in many respects into the sphere of political economy. (35).

The contrasts which necessarily appear between the separate stages of production are weakened and counterbalanced within the concern. The further the concern's participations spread, the more its profit and loss account has to take wider and wider interests into consideration. And this certainly forms the weakness of the concern in comparison to the isolated business. For instance, in case of a swift crumbling down of the trade cycle, the isolated business shows itself to be more mobile in its decisions, because it

[35] *Tschierschky*, «Kartellpolitik» 1930, page 61.

is not being hampered by having to consider other branches of production.

Therefore, time and space, in the sense of the span of time and the range for which calculations are being made, perform a decisive part in the calculation of results in private business. At the same price and cost level, a long sighted calculation (and for a greater business complex) arrives at other results than a calculation for short spans of time and for a single business.

In the era of economic expansion, it was economically justified to calculate for the shortest possible spans of time and for the smallest possible economic circle. When, however, expansion came to a standstill, the periods had to be stretched and the business-complex had to be enlarged in order to choose an economically correct basis for calculation. The hitherto customary exhaustion of productive forces leads to larger losses in future, and private business-management thereby reaches its limits of efficiency. In view of the fact that a private business cannot take precautionary measures for decades to come and cannot involve its interests in the economics of the whole community these tasks devolves to the economic policy of the state. For politico-economical reasons, the state forces the business-man by numerous prescriptions in the field of commercial and administrative law as well as social policy, of market regulation and cartel legislation, legislation concerning competition etc., to take into consideration the more distant branches of production and to anticipate measures for the future development of his industry. In this way, the state intervenes more and more in the autonomous decisions of the private business-man and corrects them in the economic interest of the community.

VI. — THE PROBLEM OF «CIRCUITOUS RETURNS.»

The tendency towards business concentration is based on one more consideration, which deserves close attention as a source of error in private business-management : the item which one may conveniently call «circuitous efficiency». The facts of the case are as follows :

Let us assume the existence of a project to create an important thoroughfare. The road is not efficient in the sense of yielding

a profit to the construction company, and therefore, from the point of view of private business-efficiency, it should not be constructed. But on the other hand, such an artery of traffic would raise the profits of the farming industry in the neighbourhood, as it would be able to bring its products more cheaply to the market; it would raise the value of the land and permit a more intense cultivation; it would enliven the automobile industry and the numerous affiliated industries, it would promote tourists' traffic and the connected hotel-industry, investments in this field would be made possible, and tax receipts would increase etc. All these joined profits of the more distant branches of industry would certainly suffice to cover the construction-cost and maintenance of the road. Economically it appears to be remunerative, it would yield income in excess of the initial cost, although from the point of view of private business it would not be so because of the impossibility of training this surplus into a profit. The investment of capital in road-construction is therefore justified on principle as well, only the income does not go to the construction-firm but to others, who did not participate in the investments; and as in private business this income is not being attributed to the invested capital, private business-calculation simply does not take it into account. If the road-construction-company would participate in all businesses which would profit by the road, i. e. if it would receive the more distant income itself, the road would be considered to be efficient from the point of view of private business as well. Whether in the system of private business any enterprise is being valued as remunerative does therefore not only depend on the cost and the income, but equally on the distribution of this income. Without a change of economic conditions, a mere change in the relations of property (for example the amalgamation of several firms) can by itself open new perspectives of profit or close existing ones. In the era of economic expansion, sufficient possibilities of production were always offering themselves to the producer which were directly profitable to him. From time to time it even happened that capital as well as labour were barely sufficient in order to carry out all these directly profitable projects. There was therefore no reason neither from a social nor an economic point of view, to start on projects of merely indirect returns with the help of public funds, unless very important public works as water-supply, schools, hospitals, roads, etc., were concerned. Howe-

ver, since unemployment became a permanent feature and since private capital does not longer find enough directly profitable possibilities of investment in order to absorb all classes of population in the productive process, it becomes necessary to draw on this reserve of production which has been neglected up till now. In investments of only indirect returns we have one of the biggest stores by the utilisation of which we can vanquish the present standstill of capital investments in private business (36).

The calculation in private business not being in a position to consider the projects with mere «circuitous» returns, investments of this kind remains strictly limited to the Government. A few recent experiments of which liberal political economy had predicted a quick end, show us how great this store of still untried possibilities of indirectly efficient investments is.

The principal spheres for such investments are : traffic, housing and urban construction, public utilities (gas, electricity, water), installations for long distance heating, etc.,

The theoretical result that this is efficiency in the real sense of the word, which however could not manifest itself because of the special repartition of yield in the private organization of production, is being confirmed by the non-appearance of a financial collapse in industry as a result of such investments for «work creating» purposes, the collapse of which had been prophesied by liberal theory. It is true that the circuitous returns of such installations are not to be calculated in exact figures as the results are spread over unnumbered private businesses and persons and do not appear separately in their profit and loss accounts as a result of a specific investment. It will never be possible to distinguish how much of the greater profits of an agricultural enterprise is due to the construction of the road and how much to the situation of the market.

[36] The argument which Keynes finally gives for this phenomenon in his book «The general theory of employment, interest and money» 1936, traces the lack of capital investments back to monetary causes. We came across this explanation of the crises in books by other authors as well. But in this connection, it overlooks the central significance which the problem of efficiency has equally in the theory of money (compare my «Neuen Wege des Geldwesens und Zahlungsverkehrs» 1934) and therefore it does not penetrate into the very core of the question.

The circuitous returns manifest itself solely in a general economic revival, from the degree of which we can make our conclusions. The most important clues for this are the following symptoms : when the money-market stiffens, when prices rise, when raw materials and labour tighten, this is a sign that the limits of circuitously efficient investments have been exceeded and that at no point, within the body economics the capital invested any longer gives a corresponding increased yield from which it could flow back. Herewith, the store of circuitously efficient investments is exhausted. When however the money market is excessively liquid, when prices are depressed, unemployment takes a permanent character and all branches of production show overproduction and accumulation of stocks, we can draw the conclusion that the limit of circuitously remunerative investments has not yet been reached, and that numerous possibilities of investment exist which could lead to an increase of the social product.

The theory of economics has dealt with this problem of circuitous remunerativeness at an early date but did not pay enough attention to it or has interpreted it erroneously. **L. v. Stein** and **Schäffle** mentioned already the «productivity of immaterial goods» as order of law, organization of education etc.. and thereby broached part of the problem of circuitous remunerativeness (37).-

Sax has tried in his theory of public economies to subject the circuitous remunerativeness to the same laws of limits of productivity as the efficiency of private business (38).

Wieser too demands that the state should invest only in those cases where it can obtain a higher yield from the capital than private industry (39).

These tests, however, are difficult to apply because of the mathematical incalculability of the circuitous remunerativeness, so that it cannot be compared with the efficiency of private business.-

[37] **L. v. Stein**, «Lehrbuch der Nationalökonomie, 3rd ed. 1887 p. 268, **Schäffle** «Die gesellschaftliche Theorie der menschlichen Wirtschaft, 2nd ed. p. 154.

[38] **Sax, E.**, «Grundlegung der theoretischen Staatswirtschaft», 1887, as well as **de Vitti de Marco**.

[39] **Wieser**, «Theorie der gesellschaftlichen Wirtschaft», Grundriss der Sozialökonomik I (1st ed. 1914, p. 416/423).

Cassel has tried a novel solution of the problem by distinguishing between individual needs, which have the power to set the production in private industry going, and needs of a collectivity as for instance the desire for schools, which either are not expressed or the expression of which needs lacks the force of stimulating private production. To supply the former is the task of private enterprises, whereas he sees the supply of the latter as a domain of the state (40).

It is clear that this distinction only wants to burden the state with such economic activity as is renounced by private entrepreneurs because of the lack of chances to make a profit.

But cost theorists represent this state of affairs as if there are two entirely different points at issue. For instance they describe a road as being productive but not remunerative, and believe that they can find a contradistinction between productivity and remunerativeness, investments of public utility and investments which strive for profits (41).-

However, the point in question always means one and the same efficiency, both in the case of private and public investments. In both cases the point is to obtain a surplus over the cost of production, only these surpluses are calculated in a different way. Calculation in private enterprise does not only demand that the capital as well as the profits flow back and become in some way again available at any given point of the political economy from the revenue of any given enterprise; but in addition it demands that it reverts in the form of revenue to exactly the same firm which has spent it. Therefore in order to declare an investment being admissible, it not only demands the realization of surpluses, but equally that these surpluses are distributed in a certain way. This is why in the system of business economy, possibilities of production remain unused, although they would yield a surplus over the expense, only because on the ground of the given legal order and the existing conditions with regard to property,

[40] Cassel, «Theoretische Sozialökonomie», 5th ed., page 59.

[41] A complete compilation of the numerous definitions of «remunerativeness» and «productivity» is given by P. Arndt in the book «Rentabilität, Kritik der Lehre vom Unternehmervergewinn» 1935, whose conclusions however are in no way shared here.-

the yield does not go to the investing enterprise but to others.-

In case of a fusion of several firms of different branches of production, the method of calculation already changes because the concern calculates the profits from all participations in a cumulative way, so that it includes in these calculations the circuitous returns of an investment which exerts an influence in the other parts of the concern. If our whole political economy would be united in one universal concern, the total circuitous returns of any investment could be drawn into the profit-account. However, this goal is being reached in an organizationally simpler way if the state takes care of these investments of circuitous efficiency and finances them by covering the expenses from raised tax receipts. Consequently, a fundamental contrast between direct and indirect efficiency of investments does not exist, but only an organizational difference in the calculation, which by the concentration of business itself becomes constantly smaller. As to the actual phase of the stagnant process of industrialization, the question can be raised if the lack of directly remunerative investments, i. e. remunerative for private business can continue to abstain from exploring the possibilities of production which possess circuitous remunerativeness, an abstention which is solely due to the fact that the existing distribution of the yield does not warrant their exploitation by private business? Have not all countries been gradually forced to exploit these possibilities of production by way of active investment of public funds in order to the structural hitches in our economic business-system? Does not already the mere number of unemployed and the lack of directly profitable projects of production force us to exploit the admissible possibilities of production to a greater extent (with the help of more thorough methods) than could be done on the basis of private business-calculation?

As long as plenty of directly remunerative projects were, on hand, there was no reason to do so, but to-day we are forced to utilise this method in order to master the continuous phenomena of crisis. This is one of the essential reasons of present etatism.

It is true that we have clearly to bear in mind that this road leads to the supersedure of private business-initiative, to the controlling of private business-management and to constantly stronger intervention of the state in the distribution of profits. Tendencies

in this direction have already become visible in the legislation concerning stocks in the German Reich, in the «codes of fair competition» in the United States, in the corporation-laws in Italy, etc.

Furthermore, the state will have to select the projects of investment from other points of view than hitherto. Establishments for procuring employment in the sense of keeping labour busy in whatever way do not offer any guarantee that investments of the greatest circuitous returns will always be chosen. Up till now we have no standard for measuring the degree of circuitous returns of an investment.

Finally, in this way the credit-policy is forcibly being put on another basis too. If the yield of large investments can only be realized in a distant future, the additionally created purchasing power for consumption goods has in the meantime to be kept away from the market and to be neutralized as otherwise an inflationary rise in prices must be caused. Therefore this method unavoidably brings in its train a chain of planning measures in every field of economic life, including governed consumption. This is the reason why many countries can only decide to take such steps under the pressure of extreme emergencies and first of all exhaust all other expedients of a more conservative business-cycles-policy.-

VII. — FURTHER SOURCES OF ERROR IN CALCULATIONS OF PRIVATE BUSINESS

Apart from the aforesaid items, nowadays another serie of factors exert a restraining influence on the development of production, so that the volume of production which would be admissible on the principle of profit is not attained. In view of the unemployment the economics of the state must needs pay attention to these sources of error in order to eliminate them.

An essay by **Büchner** informs us exhaustively about the factors of this nature in industrial economy (42).-

Schmalenbach too has pointed out the internal problems of cost in industry and shown their relation to the general economic

[42] *Büchner*, «Verlustquellen der Unternehmung», *Mitteilungen aus dem handelswissenschaftlichen Seminar der Universität Zürich*, vol. 55, 1933.

development (43).

Furthermore, a large part is being played by the increasing of the giant concerns. When the profits exceed a certain height, they are no longer distributed, but invested in the own business. Therefore the quotations of the shares do no longer express the actual yield; the credit-market lacks part of the supply of capital, and consequently the rate of interest is formed under a falsified premise. The investments which were created by way of selffinancing are no longer subjected to the laws of the average rate of profit.

The same influence is equally exerted by the excessively raised rates of bank-interest for certain kinds of credit. In the ruling position which the big banking institutes occupy on the capital market, they are in a situation to keep the margin of interest between the discount rate, resp. the deposit-rates and the lending rates so high that even with a small volume of business during the depression, their overhead expenses are covered and the losses on participations are partly set off. Therefore, the discount-rate of the issue-bank has no more the effort of regulating the bank-rates; this essential instrument of conservative business-cycle-policy is paralyzed. This puts an end to capital investment-activities and especially to the building market and the storing of goods, where the rate of interest plays an essential part. The private endeavour of the banks to attain only a small amelioration in their balance-sheet can consequently bring great losses to the economic activity. The private management of banks lacks any standard by which to estimate the distant effects of their policy concerning the rates of interest, and to compare their profit to the public loss which it implies.

In present industry, the branches of production which manufacture goods for special urgent needs occupy a monopoly-like situation in comparison with the manufacturing of luxuries. When the purchasing power of income goes down, food-industry and the trade in articles of food barely feel a lessening of demand or a price-pressure as urgently needed commodities continue to be bought as before at any price. On the other, hand, those industries which produce less urgently needed commodities or luxuries have to bear the whole decrease in demand. The more the commodity-

industry exploits this favoured position in the market and keeps up the prices, the more difficult will become the situation of the luxuries-industry which will have to bear the brunt of the fluctuations of demand alone. The insensibility against fluctuations of demand of certain branches of production which works like a monopoly-situation, thereby becomes an impulse which can make the crisis more acute. When stronger concerns hold up the prices, more businesses of other branches sink below the limit of efficiency than would be warranted by the crisis itself. Therefore, most governments have been themselves forced to supervise the prices of the most important commodities.

With the stagnation in economic expansion, the profit chances of most branches of production have decreased. **Ricardo's** law of diminishing profit-rates, and **Schumpeter's** theory that profits of entrepreneurs can only be realized in times of expansion but disappear in stationary economy (44), seems to find confirmation if only in their tendency. Moreover, the item of uncertainty is considerably greater to-day than before, because nowadays the tendencies to correct oversized installations by the growing needs of an increasing population has disappeared. Consequently, the entrepreneurs incorporate for greater coefficients of security in their calculations and claim far higher margins of profit than they used to do before. Nowadays, low margins of profit of a few percent over the rate of interest, which sufficed in former days to set production going, are no longer capable of engendering any investment-activity. Of course, the coefficients of security which are sufficient vary in single branches of industry. Building companies and textile-industry even to-day still calculate with fractions of a percentage of efficiency which is decisive for the production. But in engineering and mining, in chemical and pharmaceutical industry, in all branches where a long duration of the production or a large share of standing capital has to be taken into account, only greater margins of profit are capable of awakening an investing activity. Consequently, all those possibilities of production which are only just above the limit of profit remain unexploited, although they would be economically admissible. This causes unemployment

[44] *Schumpeter*, «Theorie der wirtschaftlichen Entwicklung», 3rd ed. page 252.

to rise above the level implied by the economical situation, demand is below the normal level, the living standard of the population continues to go down. In several countries, the governments have decided to subsidize such enterprises, lying on the brink of profit in order to reduce unemployment. For example, contributions of 10 % towards house-repairs and subdivision of dwellings, towards renovation of shops and flats, towards the installation of bath-rooms, etc., were given.

In order to set the investment activity going, the amount sufficed which were formerly given as a dole to the newly engaged construction labour. Thus, in Austria in 1935, a total expenditure of 3 million schilling for house-repairs, subdivision of dwellings, purchase of wood-burning filling stoves, bathroom installations, renovation of portals, etc., caused an additional turnover of altogether 120 million Schilling. This sum would have sufficed only for the maintenance of 3000 unemployed, but in this way it resulted in an additional employment of 20,000 workmen in the building trade, so that the final effect of these contributions did not constitute a charge but on the contrary a considerable relief for the state-budget. Paralyzed private initiative keeps the volume of production under the economic optimum which could be attained on the principle of surplus, because it has to fix to high minimum margins of profit. It is the task of governmental economics to eliminate these restrictions, as has made also the «Industrial development Corporation» in London.

A serious source of error in private business-management lies in the fact that the single entrepreneur is not in a position to take the regular fluctuations of conjuncture into account in his calculations (45). - Even if he would have reliable trade prognostics at his disposal, he would not be able to hold on to them. If during a boom he goes easy on investments, he leaves the field to his competitors without a fight and falls back to the rear while the economic purpose of this sacrifice of not letting the production-capacity boundlessly expand itself, would not be attained. Even in the case of exact insight in the danger of over-capacity (which becomes apparent during the next conjunctural reaction), the sin-

[45] See for the principle *Morgenstern*, «Wirtschaftsprognose», 1927, *Pigou*, aforementioned, p. 84.

gle entrepreneur cannot go against the stream. The investments of the boom-years 1926-1928 have proved themselves to be erroneous calculations of the highest degree when the sudden change came, and have contributed to intensify the crises. (46).

The cartel-offices and industrial organizations have repeatedly tried to consider the business cycles in their investment policy. For this purpose, they tried to withdraw the extension of industrial plans from the decision of the single entrepreneur. But it has been shown that these organizations themselves are much too fragile in the course of events to influence the decisions of production of the firms in the sense of a premeditated trade-cycle-policy. When the cartel desires to carry out plans of restriction during the period of boom, newly arising outsiders blow up these plans. This f. e. happened with regard to the regulation of British rubber-production in 1927, which did not achieve anything because the Dutch plantations expanded in proportion to the British producers who kept to the restrictions-plans. The rising prices during an upward trend are too big a stimulus for enlarging production; the warning voice of a foreseeing trade-cycle policy of the federations could not make itself heard. Therefore, private business management, even when concentrated in cartels and federations, proves to be incapable of taking into account the changing economic situations in its calculations. Only the state disposes to greater possibilities in this direction because of its power.

Altogether, these sources of erroneous calculations result in considerable weaknesses of private business-management for the present phase of development of the process of industrialization. The gap between the profit-account of private business and economic productivity which had nearly closed up during the decades of upward trend, is nowadays again greater than ever before. The objection that the sources of error in private business-management which we have reviewed constitute indeed only insignificant deviation from the optimum of economic development, especially when we include in our comparison the great performance of private initiative, does not seem to me to be quite sound. Already the high percentage of structural unemployment in the industrial

[46] F. Schmidt, *Die Industrie - Konjunktur, - ein Rechenfehler*, 1927, considers the business cycles as a consequence of the «quantity - problem».

countries proves the contrary. But even if we want to consider this phenomenon as insignificant, it is not the objective arguments which decide this question in daily life, but the sociological fact that these drawbacks have revolutionized great classes of the population against the liberal economic order, and that therefore the further continuance of this economic system has been undermined in the opinion of the masses. That is why it is no use to dispute the importance of the sources of error in order to decide upon the question whether a reform is necessary. For under the pressure of the sociological reactions the reform has already started, even when political economics are still groping unsteadily in the new field and are accompanied by failures. Today only very few extreme, unreal schools of economic theory are blind to this historical fact. But their call «back to free economy» dies away without an echo. (47).

VIII. — FINAL CONCLUSIONS.

The foregoing examination has produced the following result: under the present condition of a downward trend, the fact that decisions are taken by the individual entrepreneur on the basis of the calculation of profit for the isolated enterprise, causes a substantial deviation from the economic maximum of productivity, which consists in the realization of the greatest possible surplus over the cost of production in the body economic. We have met cases, in which an intended production is efficient according to the calculation of profit in private business, whereas from the point of view of economics it would mean a decrease in productivity. On the other

[47] This point of view is still being consistently represented to-day by *Mises*, *Rougier* and *Machlup* only. With certain restrictions, *Robbins*, *Ad. Weber*, *Morgenstern*, *Röpke*, take a nearby standpoint. These authors see the object of state-intervention in a re-establishment of the conditions for the functioning of competitive economy. They misunderstand however that interventionism is a secular phenomenon which can be traced back finally to the retrograde movement of population, to the exhaustion of technical combinations and to the increasing industrialization of oversea-countries. Economics cannot turn the wheel back : They have rather to adapt the organization of economy to the new conditions of productivity.

hand, we have met opposite cases too, in which the calculation of private business turns down projects as being lossy, though their extension would result in an increase of the total surpluses. These errors in calculation by private entrepreneurs are in no way caused by a subjective mistake of the responsible manager, but by the method of the private entrepreneur to calculate the surplus, i. e. finally by the organization of business under the present system of capitalism. In the era of economic expansion, it was possible to neglect these errors because they were insignificant and compensated by the general development. Since, however, the expansion has come to a standstill, they come into view with a constantly growing clearness and cause grave hitches in the supplying of the general economic needs, in the present phase of development they render the expediency and the efficiency of the capitalistic economic order extremely dubious.

The domain for which the single entrepreneur establishes his calculations is too small for judging the distant economic effects of the measure he takes, the period for which he calculates is too short for him to estimate the reactions of his decisions on the profit of his business in a more remote future. The basis on which the profit is calculated is being shifted by every measure taken from the side of demand, so that investments, after their completion, meet other market-situations than those which are assumed in the calculation. The trade - cycles cannot be considered in the calculation of profit. The circuitous returns are unaccessible to the individual entrepreneur because they reach farther than the domain of his property. However, the profit calculation of the entrepreneur cannot disregard the circumstances of property and distribution; a result which does not accrue to the entrepreneur himself but goes to others is not counted as a profit.

I should like to illustrate the significance of these errors by a comparison from the technique of geometrical construction : when we have to prolong a line of 1 cm. length over a stretch of 10 cm. this task will succeed without a major deviation even if we only dispose of the primitive help of a rule. But when I am obliged to prolong the line of 1 cm. with the same primitive means to 1 km, considerable constructional errors will originate, the short rule being a too unexact instrument, and the small deviations over such a long stretch appearing in a greater dimension.

This rule is likewise the case in the calculation in private business. As long as the calculations are made only for short periods and for an isolated business, the profit-calculation of the single entrepreneur suffices for the ascertaining of the objects of production in a correct way, even from an economic point of view. The small deviations do not have any weight and are corrected by the upward trend. But if on the contrary the trend forces the entrepreneur to calculate for a more distant future and for a bigger business-complex in order to utilize the admissible possibilities of production in an exact way, (already necessarily so because of the rising unemployment) the primitive instruments of the private surplus - calculation which were used up till now fail. The inexactitudes appear in an oversized projection on the economic plane and develop into palpable sources of error in the management of economy.

Under these circumstances, we see ourselves obliged to correct the construction which we made with the primitive means of the rule, or to choose more exact constructional instruments.

The tendencies towards business-concentration, the increasing state-reglementation and economic-activity of governments are experiments for the correction of deviations between the economic decisions of private business and the general economic optimum.

In establishing this fact, we separate ourselves in principle from the theory of the 19th century and its present epigons, who are seeing in the surplus-calculation of the private entrepreneur the surest instrument of finding out the admissible possibilities of production, and who condemn the intervention of the state as a primary cause of the present economic disturbances. Undoubtedly, there is no need to contest that the private surplus-calculation was the safest guarantee for the development of the productive forces during the period of expansion. But since this era has come to an end, this method has become insufficient. Private business management, which takes the entrepreneurs profit of any project as a line of conduct for its decisions, is getting into constantly greater difficulties and meets greater perturbations in supplying the needs of the consumer. On the whole, these difficulties render the system of liberal economy more and more dubious.

These are the critical results of the foregoing study.

What are the practical inferences which can be deducted from

these facts for the questions concerning a reform of our economic order, for the present economic policy and for the problem of planned economy?

First of all, the opinion is unfounded, that because of the indicated errors of private management of enterprises it would be necessary to eliminate private initiative completely and to replace it by the state engaging itself in all branches of production as sole entrepreneur. It can become necessary, but in the present phase of the development of capitalism in many countries, the private initiative continues to remain one of the most important motive powers of production, even when it is in need of correction and completion in the interest of the community. Moreover, we do not at present possess a guarantee that the economic activity of the state will not lead to a greater erroneous management of production, especially when the transition from competitive economy to planned economy is taking place quickly and in all fields at the same time, as we have seen this in Central Europe in 1918. Schmalenbach's mistake, that a bad, even a pronounced clumsily organized economy would be superior to liberal economy (48) is to be found already in Engels (49). As an absolute doctrine of policy it can become dangerous.

To-day, we still have large domains of economic managements in which in the next future initiative and competition of entrepreneurs are necessary and cannot be replaced at all by the state. Everywhere, where the opening up of new markets, the adoption of new methods of production or the introduction of new products are concerned, the initiative of the private entrepreneur is easily superior to public enterprise. Agriculture of the most countries still is entirely organized on lines of private undertaking in spite of the enlarged cooperative system; furthermore, in many cases, the distributional apparatus of the retail-trade still functions better and cheaper in the hands of private persons than in those of the state. It is true that alongside of this the field of managed economy is increasing nowadays. This is particularly the case in those branches

[48] Schmalenbach, «Zeitschrift f. handelswissenschaftliche Forschung», Juni 1938, p. 249.

[49] Engels, «Aus dem literarischen Nachlass von Marx and Engels», 3rd ed. 1920, p. 458.

of production, in which initiative and competition of entrepreneurs lead to failure; in which the striving after profits leads to the adoption of wrong business-methods because of the exhaustion of normal methods. Furthermore, we can consider as having grown up to public management those branches of industry which live only thanks to government-orders, or the significance and responsibility of which for economy as a whole have become so great that they cannot be left to their fate without damage. The same is true of those branches of industry, the further expansion of which is no longer desirable, so that competition in a narrowing space raises the costs, destroys capital, presses down wages and stops the supplying of the consumer.

The armament industries of the great countries live nowadays mostly on government orders. The credit-establishments have nearly every-where arrived at such an importance to economy as a whole, that their credit-and interest policy can no longer be left to the consideration of profit of the banks alone : a crash of such institutions threatens the whole economic structure so that practically the state bears the risk of the management because it has to help in a moment of danger. In the same situation are the insurance companies.

But this risk cannot be borne by the state when it cannot exert any influence on the management. In the insurance-business, more or less all possible kinds of transactions have been perfected. New ideas, like the single premium-transactions, border swindling, competition among the insurance companies render the organization and the acquisition more expensive. By the transition to compulsory insurance, as for instance against liability, damage by fire, and cattle insurance, etc. the private insurance company loses its justification because compulsory transactions should not be built up on profit. In transport trade, competition of private undertakings makes freight more expensive. All these lines of business were formerly regarded as spheres of private entrepreneurs. They have competitively conquered their place in economy by private initiative. But with the stagnation of expansion, they have developed into spheres of public-management which are ripe to be taken over by the state. Furthermore, the public utility organizations of the big cities, the pharmaceutical industry and others belong in this category.

Whether the property of these establishments itself is transferred to the state, or whether the business-activities of these establishments are regulated and limited by law, is more or less a question of organization with a view to the highest obtainable efficiency. In some countries, for instance, the bank of issue is a state institution, in others a private limited liability company, the statutes of which are prescribed by law. In both cases, the same object has been arrived at, i. e. to prevent the decisions of the management of the bank to be taken purely from the point of view of profit and to subject them to general economic considerations.

On the other hand, it should be avoided to turn too many private undertakings into public management. An upward trend of the trade - cycle does not seldom lead to a contrary tendency. Thus, the German Reich, after the stabilization of the currency, has resold numerous factories which were formerly owned by the Reich to private firms, although it is true that in the crisis of 1931 they have reverted again to the Reich by way of measures of subsidy. Some Italian towns have first taken into their own hands the telephons-companies in order to reprivatize them again after a short time. The new economic policy since 1921 to 1925 in Russia too gives an example.

A separate problem arises owing to the experiment of several states to free their industry from foreign participations where this seems expedient in the interest of the consumers or of rearmament. The possible damages to the countries credit and the advantages of such an elimination of the foreign holders have to be carefully weighed against each other. Secondly, the question arises as to how and from which points of view the institutions which are under influence or the management of the state should be conducted. Do the lines of conduct of publicly owned enterprises differ fundamentally from those of private business management? Does the problem of efficiency no longer play a part, have the laws of profit and loss had their day as we can read here and there, and which principles are now decisive for the direction and the volume of production?

As we have seen, the principle of surplus is likewise valid as a rule both for private and for publicly conducted enterprises. It is only the method of calculation of the surplus which differs. Different decisions as to volume and direction of production are rea-

ched according to whether one values as a surplus for instance only the profit which results to the business-unit itself or equally the more distant profits which are created at other points of the economic process as consequence of an investment. Now if the first method does not lead to a further increase of the social product and to a rising of the living standard of the masses, the second method is employed in order to exhaust the possibilities of production in a higher degree.

In opposition to this, very often we find representatives of the opinion that the task of investments by the Government would merely be to raise the purchasing power in order to stop the selling crisis and to set business-activity of entrepreneurs going again. In the years 1931/32, the efforts of the Governments in countering the crises were pictured as the initial spark-ignition of an explosion-motor.

This is a fatal mistake. If it would only be a question of the creation of purchasing-power, it would be incomprehensible why the same goal could not be attained by raising the dole as well as by creating employment. If the state spends money on investments from which it does no more flow back in the form of surplus-revenue to any point in the economic system so as to be available again, this creation of employment leads to a decrease of the social product, to an inflationistic increase of prices and to a lesser supplying of the total needs of the population.

Another opinion which one encounters is, that the projects for creation of work should be chosen in such a manner that as high a percentage as possible of the expenditure transforms itself directly into cost of wages. Consequently, those investments which mean as many wages as possible are preferable. Of course, this point of view too is erroneous, because the decisive question here is not how many workers will be newly employed, but the circuitous returns of a new project. Seen from this angle, a project of distance-heating which foresees only 40 % in cost of wages can be more successful as a means of creating employment than perhaps the constructions of streets with little usefulness though this may mean 80 % in wages. For the savings in the households bring back the invested capital, whereas it would be lost in the construction of the street.

Thirdly : One of the greatest disadvantages of the calcula-

tion of surplus for public investments lies in the fact that the circuitous returns cannot be calculated exactly in figures, but that they can only be estimated from general symptoms. It is true that the immense literature on the problem of the creation of work does contain attempts to calculate how many workmen can be employed in industry of consumption goods when a certain number receives employment through public works. The plan by Woytinsky-Tarde-Bade of 1931 represents the opinion that for every additionally engaged workman, two and a half indirectly more-employed workmen find a place in private economy, that thereby the saving in unemployment-support is more than what is needed for the new investment, and that the increased tax-receipts even mean a profit for the budget of the Government although the expenditure for investment-purposes is raised (50). All these considerations are utopian. The circuitous efficiency which is decisive for the success of public works can only be judged afterwards by the development of the money market, of the prices and by the scarcity of raw-materials, but not in anticipation. Here lies a danger point which was lacking in the calculation in liberal economy with its anticipative method.

In the fourth place, it was erroneous to see the only way out of erroneous production in public-management of industry as this was done so often from Marx's time till well after the war. The erroneous management of private economy can be corrected in most cases (with the exception of the examples indicated) much more safely by attempts of the state to guide entrepreneurs initiative in the economically right direction. This has the advantage not to kill initiative of the entrepreneur and not to suffocate economy completely in the red tape of bureaucratism. The chief domains of such state-regulations are at present : the contrroll of prices in order to prevent the exploitation of the consumers, the contrroll of companies and cartels, market-regulations and regulations concerning competition, the promotion of cooperative societies in agriculture, trade, settlement etc., subsidies for house-building, city planning, supervision of the credit-institutions, regulating the rates of interest, reform of the bankruptcy and insolvency laws, the

[50] Comp. my critical considerations to the plan in: *Jahrbücher für Nationalökonomie und Statistik* 1932

whole of foreign trade and financial traffic between states, social and labour-legislation etc. In this connection, fiscal policy as an instrument of economic policy gains a special significance.

We cannot enter into details here about the expediency and the success of the various measures of this kind. The dangers which are to be encountered on this road are very great. But they can be avoided, and economic research can substantially contribute towards the intelligent building up of etatism, whereas the difficulties in which liberal economy has landed to-day, do not leave a way out. And this is the advantage which etatism has at present over the free play of economic forces, at least as long as the general economic development follows the downward trend. To be sure, if a change in the trend would happen, we would find ourselves overnight in the old forms of liberal, untrammelled economy, and the opponents of etatism would be as numerous as its adherents are to-day.

Thus, like the swinging of a pendulum, our ideologies accompany the facts in the march of time.

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