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West Germany

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INTRODUCTION

Concept and Measurement of Growth¹

Generally when speaking of economic growth, we think of an increase in real production. Thus, economic growth in this paper shall be expressed as an increase in national product at constant prices. In using this concept of growth we ignore some important index problems and simplify other matters. Nevertheless, while our absolute values might be doubtful, their trend should not be too far from reality.

Apart from this simple interpretation of economic growth as the difference in real product of any two successive periods, some other concepts of growth should be noted. Since higher production caused by an increase in the labor force does not necessarily increase per capita output, some economists define economic growth as the increase in production relative to the volume of labor or size of population.² This comes very close to making the productivity of

NOTE: This study covers the Federal Republic of Germany only. It includes the Saar after 1960 but excludes West Berlin. Any exceptions are noted.

For conversion purposes, 1 deutsche mark = 25 U.S. cents, or DM 4.0 = \$1.

¹The topic has been treated in detail in recent years. See for example, G. Warren Nutter, "On Measuring Economic Growth," *The Journal of Political Economy*, Vol. LXV, 1957, pp. 51-63; Gottfried Bombach, "Quantitative und monetäre Aspekte des Wirtschaftswachstums," *Schriften des Vereins für Socialpolitik*, Berlin, 1959, pp. 154-230; Boris P. Peseck, "Economic Growth and its Measurement," *Economic Development and Cultural Change*, No. 3, April 1961; Georg Jaszi, "The Measurement of Aggregate Economic Growth: A Review of Key Conceptual and Statistical Issues as Suggested by United States Experience," *The Review of Economics and Statistics*, Vol. XLIII, 1961, pp. 317-332.

²See W. Arthur Lewis, *The Theory of Economic Growth*, London, 1955, p. 9.

labor a standard of measurement, i.e., growth originates in higher labor productivity. A similar view can be adopted with respect to capital, i.e., an increase in production is the result of the increased productivity of capital.

Although both concepts—productivity of labor and productivity of capital—are measures of economic growth, they suffer from the defect that they attribute growth exclusively to one productive factor, i.e., labor or capital. We therefore prefer to use the increase in total real output as a measure of growth.

General Effects of Taxation on Growth

As a rule, an increase in a nation's physical product results either from more labor, more capital, better techniques (or the adaptation of more knowledge), or a combination of these factors, with natural resources treated as a constant. The effects of taxation on economic growth, therefore, can be analyzed in terms of its influence on labor supply, on capital formation, and on technological change or increased knowledge. Thus our study is confined primarily to the following fields: effects of taxation on the incentive to work, on the desire and ability to invest (or to save), and on the modernizing and rationalizing of production.

Since we are interested in the total product, we must consider the conditions of economic growth for the economy as a whole. This means that total output not only depends on the supply of labor, capital equipment, and the state of knowledge, but also on other conditions such as the mobility of production factors, the degree of competition, the optimal allocation of resources, etc. Thus we have to see if tax policy contributes to higher factor mobility and if it either helps or hinders resources from being more effectively allocated.

Finally, taxation can contribute to growth by its influence on total demand, thus expanding economic activity. This does not however, encompass all that can be achieved through tax policy. Special levies and exemptions can also be used to direct demand, and consequently production, towards goods which can be manufactured under conditions of increasing returns (particularly in the case of large-scale production). This may stimulate more rapid

growth than would result from a general increase in demand. Even if taxes are not specifically levied to achieve such effects, they nevertheless occur. This was particularly true of Western Germany's economic expansion during the first years after the war.

Our study analyzes the effects of taxation in Western Germany during the last fifteen years. We concentrate our interest on: (a) how taxation influences factor supply (labor, capital, knowledge), (b) how taxation influences factor mobility and the optimal allocation of resources, (c) how taxation influences total demand, and how certain categories of demand stimulate growth. Tax measures which stimulate economic growth are classified in a later section of this paper as measures for increasing the supply of labor and capital; measures for improving allocation of resources; and measures for stabilization of economic activity and growth.

Before dealing with these questions, some explanation of the West German tax structure is necessary.

STRUCTURE AND EXTENT OF TAXATION

Types and Relative Importance of Taxes

The present tax system of West Germany is not based on a single clear-cut principle, but is primarily the inheritance of history and political processes. Contrary to the view that taxes can tap only three sources, and thus should be limited to three main categories—income taxes, net wealth taxes, and consumption taxes, the German revenue system draws on a large number of sources. This can be seen if we examine briefly the number as well as the composition of its different types of levies.

We can identify no less than fifty different levies, although the twelve or fourteen most important ones normally produce about 90 per cent of total revenue while some three dozen minor ones yield only 10 per cent (see Table 1). The majority of these German imposts consist of so-called "miniature taxes" because one-half of all imposts brought in only about 2 per cent of total receipts within the last ten years.

The composition of the German tax structure, too, does not reflect

TABLE 1
Percentage of Tax Revenues Derived from Major and Minor Taxes

	1950-52	1955-57	1960-62
Major taxes ^a	88	89	91
Minor taxes ^b	12	11	9

SOURCE: *Statistisches Jahrbuch für die Bundesrepublik Deutschland*, 1954, 1959, 1962, 1963.

^a These taxes consist of (1) assessed income tax, (2) wage tax, (3) corporate income tax, (4) turnover tax (including turnover compensation tax), (5) enterprise tax, (6) tobacco tax, (7) equalization-of-burdens capital levy, (8) real estate tax, (9) customs duties, (10) gasoline tax, (11) Berlin Emergency Levy (for 1950-52), (12) automobile tax (for 1955-57 and 1960-62), (13) property tax (for 1955-57 and 1960-62), (14) liquor tax (for 1950-52).

^b Mainly excises and taxes on transfers.

the features of a modern revenue system. Only one of the three main categories, i.e., income taxation, can be called solid. It consists of taxes on total personal income and on corporate profits, which produced 28 and 9 per cent, respectively, of total tax revenues during the years 1960-62. Net wealth, as a second possible source of tax revenue, is tapped by several smaller levies, such as the real estate tax yielding 2 per cent of total tax revenues, a tax on net wealth yielding another 2 per cent, and a levy for the equalization of burdens,³ yielding 3 per cent. Although the last is a supplementary levy on wealth, it nevertheless cannot be viewed as a normal type of tax, since the revenues are kept outside the federal budget and are earmarked for special purposes.

The third category, taxes on consumer spending, is even more dispersed. In fact, it is split up into more than a dozen separate taxes on commodities or services, collected principally at the level of production. This is true for the larger as well as for the smaller taxes. The former include the tobacco tax which yields 5 per cent of total tax revenues, the gasoline tax which yields 4 per cent, the

³ In order to equalize, to some extent at least, the damage and burden caused by the war and its consequences, all property above a certain minimum value has been charged at 50 per cent of its value as of the day of the currency reform (June 20, 1948). This sort of public mortgage on private property together with some similar liabilities has to be paid to the equalization fund in quarterly installments within twenty-five years, ending in 1979. The fund distributes the money to persons who suffered losses or damage in the war.

automobile owner tax yielding 2 per cent, and the liquor and coffee taxes each of which yield 1 per cent. Customs duties, which account for 4 per cent of total revenue, may also be included among consumption taxes.

Outside of these three major categories are found a number of taxes which are more or less peculiar to West Germany. The more important of these, the turnover tax and the tax on enterprises, will be discussed briefly.

The turnover tax actually functions as a general tax on spending, but it is not a spending tax and can be classified as an excise only with reservations. Now accounting for nearly one-fourth (23 per cent) of total tax revenue, it rivals in importance the personal income tax. This most essential source of income for the federal budget is collected from nearly all types of transactions, at all levels of production or trade, at a flat rate of 4 per cent. Exemptions and reductions are in effect only for basic materials and foodstuffs. In order to make the charge uniform and to prevent tax avoidance, a similar duty is levied on transport (1 per cent of total tax revenue).

No attempt has ever been made to defend the turnover tax, either on grounds of equity or social desirability. It was introduced toward the end of the First World War for the single purpose of raising revenue in the simplest, most comprehensive, and inexpensive way. It, therefore, is collected at all stages of production, leaving to the manufacturers and tradesmen the decision as to what amount of the charge will be passed on and what the final burden for the consumer will be. Since neither the proportion of the tax shifted nor the number of transactions which are liable to tax can be foreseen, nobody knows the exact amount of tax borne by the consumer of any specific commodity.

Unfortunately, this is not the only major tax which does not belong to the above-mentioned threefold basis of a rational tax system. Ranking in importance behind personal income and turnover taxes, but coming before the corporate profits tax, is a local tax on enterprises (10 per cent of total tax revenues). It can be compared neither with a personal tax on income nor with a proper tax on wealth since it is levied on both invested capital (including long-term liabilities) and net return. Furthermore, since the subject of

taxation is not a person but a firm, there is no provision for personal allowances, etc. Every type of private enterprise, with the exception of some publicly owned establishments, is liable to taxation. However, initial tax exemptions were raised considerably in 1961 so that now many small shops are tax free.

We see, then, that the tax system of the Federal Republic of Germany is a composite of a considerable number of taxes, different in type and dissimilar in weight. Taxes on income together with the turnover tax and the municipal tax on industry and trade constitute the predominant sources of public revenue. The last two levies, in particular, differentiate the German tax system from that of most other highly industrialized countries. Only in France and to a certain extent in Austria do we find tax systems that come close to resembling that of West Germany.

Central, State, and Local Taxes

The present tax structure is, of course, the result of constitutional arrangements that have their roots in political history. Under the federal tripartite structure of the German State, legislative jurisdiction in fiscal matters is divided between the federal government and the states, with most of the taxes coming under the system of concurrent legislation. By tradition, and as a matter of principle, the normal excises, including customs duties, have been assigned to the central government; personal taxes, as well as taxes on wealth and wealth transfers, have accrued to the states, leaving taxes on real estate and on enterprises—aside from some minor local taxes—to the local governments. The present division of taxes between the three levels of public authority, on the basis of 1962 tax revenues, is shown in Table A-2, below.

In general, this has been the state of affairs, notwithstanding some marginal modifications. For instance, in order to connect the federal budget to the personal income tax and the corporate profits tax, the yields of these important levies have been split between the central and state governments. Furthermore, through access to state revenues, the local governments now also share in the receipts from these taxes.

The division of total tax resources according to constitutional provisions results in a distribution of tax revenues among the federal, state, and local governments in a ratio of 4 : 2 : 1. This proportion has remained fairly constant during the last decade despite a rapid and unequal growth in both the national product and the main tax bases. Since 1960, however, the 4 : 2 : 1 proportion has gradually shifted at the expense of the federal budget and in favor of the states. This has occurred chiefly because progressive rates caused the income tax yield, nearly two-thirds of which accrue to the states, to grow more rapidly than the yields from other large imposts, i.e., the turnover tax in the federal sector or the enterprise tax in the local budgets.

Naturally, each level of government insists on retaining its own tax sources. Since the assortment of minor taxes is divided almost equally among them, it is difficult to streamline the tax system and to abolish even such miniature taxes as the tax on salt (a federal tax), the tax on bills of exchange (a state tax), or the tax on hunting (a local tax), even though each of these taxes has contributed less than 0.1 per cent of total tax income during the last five years.

Extent and Burden of Taxation

The complex tax structure outlined above is a result not only of tradition but also of the strains and emergencies experienced at all three levels of government over the last half century. The present tax system, with its relatively high burden on German taxpayers, goes back to the time of the First World War. No substantial lifting of the wartime tax burden was possible during the twenties; it survived both the Great Depression and the Third Reich. Again, the last war and its aftermath made it impossible to ease the burden. A moderate amount of relief has come only during the last decade. Even now, the strain has not been relaxed in relation to the social product, but some relief has resulted from a rapid increase in personal incomes, which has made it possible for the state to lower rates without reducing the ratio of taxes to total product. (See Table 2.)

In spite of the over-all pressure caused by a great many taxes, ex-

TABLE 2
Tax Burden in Western Germany

	1937-38	1950-52	1955-57	1960-62
GNP (billion RM or DM)	53.8	354.0	595.5	929.6
Tax revenues (billion RM or DM)	10.0 ^a	78.3	134.1	223.2
Tax revenues as percentage of GNP	18.6	22.1	22.5	24.0

SOURCE: *Statistische Jahrbücher, Statistisches Handbuch von Deutschland, Berlin in Zahlen*, and *Wirtschaft und Statistik*, passim.

^a Estimated by the author.

tremely high rates among individual taxes occurred only during the four years immediately following the war. During those years the steepness of the progression in personal and corporate income taxes, together with prohibitive excises on tobacco, liquor, coffee, and tea, exceeded by far anything that had been known in Germany before.⁴

Since the currency reform of 1948, these rates have been continuously reduced to a more normal level, and for the past ten years, none of them could be called excessive. Yet the burden expressed as a percentage of the national product is still considerably higher than that of other nations (see Table 3).

During this period, the multiplicity of taxes has permitted such a wide distribution of the load that neither income taxes nor wealth taxes have had to be imposed at excessive rates. The considerable use of indirect taxes has also helped to spread the burden in such a manner that specific oppression was avoided. In this respect, the general turnover tax has played a decisive role because "in addition to all its other virtues the turnover tax possesses a key one which is highly important to production: its burden adjusts to all the joints, cracks, and corners of the entire economy like soft cement and so does not hinder production in any way."⁵

Despite the many objections that can be raised to this particular

⁴ Further details on income taxation in that period are given in Table A-3.

⁵ Joseph A. Schumpeter, "Wen trifft die Umsatzsteuer," *Der Deutsche Volkswirt*, No. 7, 1928, p. 208.

TABLE 3
Taxes and Social Insurance Contributions as a Percentage
of GNP in Selected Countries

Year	Ger- many ^{a,b}	France	Italy	Nether- lands	Sweden ^a	U.K. ^a	U.S.A.
TOTAL TAXES AND SOCIAL INSURANCE							
1956	31.2	30.0	28.2 ^a	28.3	30.2	29.4	25.2
1957	31.5	29.2	28.6	30.8	32.1	28.9	25.3
1958	31.9	30.4	29.5	29.7	31.2	29.6	24.9
1959	32.7	31.4	30.3	29.6	31.6	29.3	25.9
TAXES EXCLUDING SOCIAL INSURANCE							
1956	23.4	22.5	20.1 ^a	23.7	27.6	26.3	22.2
1957	22.6	21.5	20.3	23.2	29.5	25.9	22.0
1958	22.6	22.5	20.7	21.8	28.3	25.9	21.5
1959	23.4	23.1	21.2	21.9	28.8	25.6	22.3

SOURCE: *Finanzbericht*, Bundesministerium der Finanzen, Bonn, 1961, 1962, 1963.

^a Figures are based on budget years which do not correspond to calendar years.

^b Including West Berlin.

tax, including the fact that it certainly induces a rise in the general price level, no heavy load seems to be felt—though possibly it exists—by the consumer.⁶ Actually, if we concentrate only on goods subject to turnover taxation, i.e., if we exclude agriculture, mining, power generation, public and private services, etc., the total remaining product (more than two-thirds of GNP) has been taxed constantly at 8 or 9 per cent⁷ of its market price since 1952 by this sort of general excise.

Tax receipts do not always measure the full extent to which public revenues draw funds from the private sector, particularly in those countries where social benefits are financed by social insurance contributions. In order to avoid the uneasy distinction be-

⁶ Interviews with 1,986 persons, representative of the whole population, showed in 1960 that indirect taxes in most cases were underestimated and sometimes not recognized at all. See: Steuern und Staatsausgaben in der öffentlichen Meinung der Bundesrepublik," *Forschungsberichte des Landes Nordrhein-Westfalen*, No. 877, Köln-Opladen, 1960.

⁷ Including the tax on transport which by character and origin is a descendant of the turnover tax.

tween tax-financed and self-financed social benefits, we therefore prefer a consolidated statement. It appears that the Federal Republic of Germany regularly drains off more than 31 per cent of private resources. In this it can scarcely be surpassed by any other nation (see Table 3).

PERIODS OF GROWTH AND CONSEQUENCES FOR TAX POLICY IN WESTERN GERMANY

The expansion of total production, though never interrupted since 1945, has been homogeneous in neither structure nor time. The comeback of the German economy can be divided into four periods: (a) the period of collapse, lasting from 1945 to the currency reform of June 20, 1948; (b) the period of revitalization, lasting from the currency reform to the end of 1951; (c) the period of normalization, lasting from 1952 to approximately 1957; and (d) the period of overemployment, beginning 1957-58.

The Period of Collapse

This particular period cannot be called normal in any sense. At its outset the opposite of a growth policy was put into effect by the Potsdam agreement and the legislation of the Allied Control Council. Plans for the dismantling and restriction of industry and production were elaborated and partly carried out. Germany as a whole was broken into four parts, substantially isolated. Only the American and British zones of occupation were effectively rejoined into a common economic area at the beginning of 1947. In addition, restrictions on industrial production were gradually diminished so that at least viability could be ensured.

Industrial production in the combined area of the two zones (figures for the French or Russian zones of occupation are not available) was at a level of 33 per cent in 1946, and 39 per cent in 1947, of the 1936 level. The physical destruction of industrial capacity towards the end of the war is assumed to have been relatively small, but the war's effect on productivity was immense; traffic and communication, particularly, were put out of action. The low produc-

tion of those years had to supply a population which, as a result of the influx of refugees and expellees from the eastern territories, was augmented by about six million people.

The monetary chaos of repressed inflation contributed in its way to the desolation of the economy. A more or less complete system of rationing and control was imposed to keep commodities within the channels of legal production and distribution. However, an increasing stream of commodities flowed into the black market where, in the case of essentials, actual prices often were fifty times higher than official ones. Even then, other goods were preferred to money as a means of exchange. Since legal tender could no longer serve as a common means of exchange and as a standard of value, the basis of rational accounting was destroyed and production lost its orientation.⁸

The Period of Revitalization

The attitude of the Western Allies, in particular that of the United States and Great Britain, soon changed. Since restrictions on production and dismantling of plants obviously contradicted the aims of the Marshall Plan, they could no longer be continued.⁹ As a primary condition for revitalization of industrial production these barriers to growth were removed.

The restoration of free exchange was a second step toward rebuilding the economy. This was achieved by the currency reform and the subsequent removal of price controls, as well as by the removal of rationing of most commodities (exceptions existed initially for essential foodstuffs and some basic raw materials such as coal, steel, etc.). A third step in reconstruction was foreign aid and the resuscitation of foreign trade.

The rate of growth during the period under consideration was by far the most extraordinary in German economic history. Immediately after currency reform, industrial production rose by 37 per

⁸ In this connection as well as for many other details on the economic situation in Germany between 1945 and 1948 see Gustav Stolper, *German Realities*, New York, 1948.

⁹ Actually dismantling was continued until 1951 but played no important role in total production. So did some restrictions on certain kinds of production; for instance, shipbuilding, aluminum manufacturing, and others.

TABLE 4
Annual Rate of Growth
(per cent)

Year	Over-All Production		Industrial Production Indexes	
	1936 Prices	1954 Prices	1936=100	1950=100
1949	n.a.	n.a.	42.3	n.a.
1950	16.8	n.a.	25.8	n.a.
1951	15.1	10.9	19.3	18.0
1952	6.5	9.0	7.1	6.8
1953		7.9		10.3
1954		7.2		11.5
1955		12.0		14.8
1956		7.0		7.9
1957		5.8		5.2
1958		3.3		3.0
1959		6.9		7.7
1960		8.8		11.2
1961		5.4 ^a		5.2
1962		4.2 ^a		4.6
1963		3.2 ^a		3.6

SOURCE: Calculated from Table A-1, columns 2, 3, 8, and 9.

^a Including West Berlin.

cent within a half year and continued to grow at extremely high but gradually falling rates: 42 per cent in 1949, 26 per cent in 1950, and 19 per cent in 1951 (see Table 4).

Obviously, this high rate of growth could not be attributed solely to new capital formation; it was also caused by the reactivation of already existing machinery. What industry needed most in order to being production again were spare parts, raw materials, and fresh effort. This is demonstrated by the extremely low values of the marginal capital-output ratio that prevailed through 1951, by the rapid increase in labor productivity until it reached its prewar level in about 1951, and by the fact that improved productivity and increased labor activity were not accompanied by a decline in employment (see Table A-1).

The period of revitalization differs from other periods in that it displayed an extremely high rate of growth which did not depend on any external stimulation of the demand for final goods.¹⁰ Immediately after currency reform, consumers did not hesitate to buy whatever they wanted, and they wanted nearly everything. Therefore, the main problem was not to increase consumption—the usual means of promoting economic activity—but to supply more capital for production. It follows that financial policy had to support investment and to favor the rebuilding of plants and any other measures to enlarge production. We shall see in the following section how taxation actually contributed to the goal.

The Period of Normalization

After the restoration of plants and equipment, the West German economy began a period of consolidation. Production continued to grow, but less rapidly. Expansion of output required more new plants, but these could be built only by investment of a much greater amount of capital than before.

The resulting need for more investment funds became one of the most difficult problems of the period of normalization. Since there was no lack of over-all demand, the shortage of investment funds was the main limiting factor in the economy. Because of the surge of consumer demand, the rate of private saving was low, and the bulk of aggregate investment consequently had to be financed either from undistributed profits or from public sources, or both. Actually more than three-quarters of total gross savings accrued from business and public budgets.

During the period considered here, savings of private persons, though considerably larger than in the previous period, were still

¹⁰ This view contradicts the opinion of some distinguished economists who recommended in 1950 and 1951 a policy of deficit spending in order to stimulate production and to diminish unemployment. See, for example, A. H. Hansen and R. A. Musgrave, "Deutschlands Finanzprobleme," *Bericht der ECA-Kommission zum Studium der Finanzprobleme in Deutschland*, vorgelegt am 24. September 1951, p. 222. Since we are not convinced that unemployment during those years was due to underconsumption or idle capital, we conclude that the demand-pull method of raising production was not adequate. However, this controversy about the character and reasons for unemployment in Germany after the currency reform, of course, needs more detailed study.

far below what was considered normal in prewar years, or the levels actually attained in subsequent years. As shown in Table A-6, private saving contributed hardly more than one-fourth of all savings, whereas undistributed profits generally amounted to nearly one-third of gross aggregate savings.

One of the main achievements toward the end of the period of normalization was full employment. A trend toward increasing unemployment from 1948 to 1950, as a consequence of currency reform, was reversed immediately after 1950. By 1957, the rate of unemployment (monthly average of unemployed persons as percentage of total labor force) had dropped below 4 per cent and unfilled positions were equal to one-third of the total number of unemployed.

These circumstances, and the stronger position of the trade unions to which they contributed, led to a sudden reduction in working hours in industry, from 48.2 hours per week in 1956 to 46.5 hours in 1957. This was the beginning of a movement towards still shorter weekly hours (see Table A-1). At the same time, wage rates began to rise more rapidly than in any year since currency reform and so did total social transfer payments from government to private persons (from one year to the next the latter rose by no less than 26 per cent).¹¹ Presumably as a consequence of these changes, prices also began to rise—with some time lag—more rapidly than in any year since the Korea boom. In 1958, the cost-of-living index increased by about 3 per cent, while the rate of growth shrank to 3 per cent. In short, the years of rapid growth were over. The era of effort and strain had come to an end and the era of convenience had begun.¹²

The most important problem of this period from the standpoint of economic growth centered in the capital shortage noted above. Fiscal policy sought to alleviate this scarcity first, by encouraging both private investment and private saving, and second, by providing more capital from public sources. The first of these policies called for selective tax reduction, while the second required contin-

¹¹ Figures in this and the subsequent paragraph are taken from the "Monthly Report" of the Deutsche Bundesbank, Vol. 15, No. 5 (May), 1963.

¹² The growth of foreign travel in the balance-of-payments statistics might serve as an indicator for the change from the era of effort to the era of convenience. According to balance-of-payment statistics, the outlays of German travellers in foreign countries increased by 49 per cent from 1957 to 1958.

ued large scale collection of public revenues to augment public savings. What actually happened can be called a compromise between the two alternatives.

The Period of Overemployment

During the most recent period, the growth rate has been more moderate. Whereas, from 1952 to 1956, over-all production increased at an average rate of 8 per cent per year, from 1957 to 1963 it increased at a rate of 5 per cent only. This latter figure reflects rates ranging from 3 to 9 per cent, while the former reflects rates ranging from 7 to 12 per cent (see Table 4).

The economic climate has changed from one of unemployment to one which is characterized by an excess demand for labor, with more vacancies than applicants during the summer and fall months each year. This situation became more pronounced when the influx of between 200,000 and 300,000 people per year from the Soviet Zone of Germany was brought to an end in 1961 by the erection of the wall between East and West Berlin. During the subsequent period, about three-quarters of a million workers from less developed European regions—primarily from Italy, Spain, Greece, etc.—migrated to Germany in response to employment opportunities and higher wage rates.

It has often been argued that rapid economic growth in Germany has resulted from huge profits, and that the extraordinarily high rates of over-all investment have been based on relatively low wages and salaries. As a matter of fact, wage rates lagged behind profits up to 1956-57. After that, wages rose somewhat faster than the increase in labor productivity, the share of profits in national income dropped abruptly, and the percentage of undistributed profits in total net savings declined steadily from 36 per cent in 1958 to 23 per cent in 1962 (see Table A-6). Thus, enterprises had to finance investments more and more by borrowing, i.e., by means of loans and credits from the capital market—a method which was neither appropriate nor desirable before.

Despite this retardation of growth and diminution in profits which, in turn, might have lessened the propensity to invest, the hitherto prevailing large share of gross total investment in GNP did

not decline. Surprisingly enough, the proportion even rose slightly, from an average of 24 per cent in 1953-57 to an average of 26 per cent in 1958-62. This is above the level of investment in industrial countries like France, Italy, Sweden, United Kingdom, or the United States (Japan, the Netherlands, and Norway, on the other hand, show similar or even higher rates). However, an increasing part of yearly capital increments went for public use, i.e., for such purposes as construction of buildings, roads, and bridges. This might explain the further upward trend of the marginal capital-output ratio which, in turn, meant a decline in the efficiency of new capital investment relative to current production, as measured by physical output.

Although private households regularly saved more from year to year, their share of total savings increased little during the period under consideration (see Table A-6). Since capital efficiency declined simultaneously (as shown above), an increase in the rate of savings and investment was necessary to maintain a given rate of growth, other conditions remaining constant.

Consequently, since voluntary private savings lagged behind requirements, and since attractive income tax exemptions already were in effect for savings, additional capital could come only from public sources, i.e., from taxes or from abroad. Actually, public planning has taken this direction, although it has perhaps not been the result of a consciously planned tax policy. That the public sector saved more absolutely and relatively can be seen from Table A-6.

Concluding Remarks

As pointed out in the previous section, at no time since 1948 has production and economic growth suffered from a lack of over-all demand; i.e., rapid growth did not require the stimulation of demand. Hence the speed of economic growth was chiefly determined by the rate at which the supply of labor and capital was increasing or by improvements in their quality.

Although a policy promoting investment appears to have been desirable during most of this period—and actually was in effect—it had to be modified to conform to the conditions prevailing in the several periods of economic expansion. Therefore, the analysis of tax

provisions in the following section has been made against the background of the several stages and conditions of economic expansion.

TAX MEASURES AFFECTING ECONOMIC GROWTH

Measures for Increasing the Supply of Labor and Capital

THE PERIOD OF PROHIBITIVE TAXATION¹³

From the end of the war until the currency reform in June 1948, no tax provisions existed for the promotion of private investment or private saving. High personal income tax rates, which were a holdover from the wartime years, were raised by 25 per cent in 1945, and were made steeply progressive the following year. At the same time, the corporate income tax was increased by 20 per cent. In effect, these percentages understate the rigor of the new tax laws, since most of the previous allowances were cancelled as well. The taxes on net wealth and on inheritances were also increased. The rates of some of the most important indirect taxes, such as the turnover tax and the automobile tax, rose as much as 50 per cent, whereas taxes on tobacco, beer, liquor, and matches were doubled or tripled.

It would appear, at least on paper, that Germany was one of the most heavily taxed countries in the world during this period. Up to the middle of 1948, a 50 per cent marginal tax rate on personal income became applicable as soon as income passed the 2,400 Reichsmark level (about \$600), and a 95 per cent rate was applicable to income exceeding 60,000 Reichsmarks (about \$15,000). But since many black market transactions were unreported, these rates were not very effective except in causing a record amount of tax evasion.¹⁴ If this had not happened, the combined taxes on income and property might have equalled or exceeded total income.

The high tax rates of those years were necessitated by

¹³The taxes mentioned here were introduced by the laws of the Allied Control Council: number 12 (income tax and corporation profit tax), number 13 (net wealth tax), number 14 (automobile tax), number 15 (turnover tax), number 17 (inheritance tax).

¹⁴According to estimates of public officials, evasion of income taxes may have been about half of total tax liabilities, see "Grundsätzliches zur Steuerreform," in *Handelsblatt*, No. 16, 1948, p. 16.

reparations¹⁵ and to combat inflation. Although high taxes were introduced for both purposes, they cannot be considered as having been an effective remedy against the paralysis induced by the excess supply of money, which was approximately fifteen or twenty times greater than the actual amount needed for transactions.

It is generally accepted that the rigorous taxation of the early postwar years impeded economic growth, but it was consistent with the spirit of the Potsdam Agreement of 1945 and with the initial goals of all the victorious powers. However, when American and British policy with respect to Germany underwent a remarkable change in 1947, that country's tax structure no longer matched the economic and political aims of these two powers. They nevertheless hesitated to disrupt the uniformity of taxation, currency, and other common economic laws which still were in force in the four zones of occupation; it was not until June 1948, when the economic unity of Germany had already been broken up by the currency reform, that the three Western Allies enacted new tax laws with lower tax rates.

MEASURES DESIGNED TO STIMULATE INVESTMENT

When the period of revitalization began in the middle of 1948, confiscatory income taxes had to be reduced in order to increase the incentives of business and labor, as well as their ability to save. Thus, in conjunction with the currency reform, new income tax laws were promulgated by the Military Government. Other taxes, such as those on net wealth, tobacco, and automobiles were also reduced.

Yet the lower income tax rates could be called "excessive" if they are compared with those of other countries, or with prewar rates in Germany. For example, income tax assessments started at DM 750 per year (about \$190), with a marginal rate of 12 per cent. The psychological breaking point, which is said to be reached when more than half of the total income must be paid out in taxes, began at DM 25,000 (about \$6,250), while the marginal 50 per cent rate took effect with an income of DM 9,000 (about \$2,250).

¹⁵ Actually, in the Russian and French zones of occupation as contrasted with the American and British zones, tax revenues were used in matters of restitution.

Nevertheless, it was this "excessive" taxation which contributed in a decisive way to rapid economic growth. Whereas the income tax law of 1946 did not provide any allowances for investment, the new law permitted the deduction from taxable income of half of undistributed profits up to a maximum of 10 per cent of total profits.¹⁶ Actually, about DM 800 million were thus exempt from taxation in 1949 and 1950 (see Table 5). Under the then prevailing high income tax rates, this could have resulted in tax savings of about half of this amount. In addition, special depreciation allowances for certain types of real investments were introduced in 1948, thus providing further opportunities for businessmen to avoid high income taxation. But in order to take advantage of these tax saving opportunities, entrepreneurs were forced to invest in their own enterprise regardless of what type of business they owned.

This crude method of encouraging investment was deemed appropriate since a general shortage of capital existed throughout the economy. At a time when any investment promised to be profitable, the propensity to invest was extremely high and most profits were reinvested. Whether tax exemptions promoted additional capital formation or were superfluous depended on: (a) what proportion of the taxed profits would have been invested anyway, and (b) how much of the total profit was produced by the incentive effect of tax exemption.

The answer to (a) is relatively easy to find. Since tax exemptions allowed tax-free reinvestment of 10 or 15 per cent of total profits—which in most cases probably was below the actual fraction which would have been invested anyway—they provided an extra premium for investment which, in itself, seemed to be profitable. An answer to (b) is difficult to provide and can no longer be tested. Nevertheless, we may conclude that the tax exemptions for investment certainly led to lower effective income tax rates during the period of revitalization and in turn provided additional means for investment.¹⁷

¹⁶ In 1949 and 1950, this was increased to 15 per cent.

¹⁷ It should be noted that in 1948 most German authorities requested lower rates than those promulgated by Allied Military Government. However, the only way to bring these excessively high rates down was to introduce tax exemptions. See Klaus Heinzl, "Die einkommen- und körperschaftsteuerlichen

The same effect, i.e., reduction of tax burden on undistributed profits, was achieved by the option given to sole proprietorships to choose between payment of the income tax or the corporate profit tax (which in the meantime had been lowered from 60 to 50 per cent). Income tax rates for sole proprietorships, which rose above 50 per cent as soon as the 25,000 mark level was reached, could be avoided by exercise of this option. Thus, tax-induced conversion of smaller firms into corporations may have been prevented. In any event, this provision encouraged private investment.

No general exemptions for undisturbed profits were provided in the case of the corporate income tax. Measures similar to those prevailing for personal income taxes appear to have been thought unnecessary because, up to the beginning of the fifties, most stock companies did not distribute profits at all. However, the more special exemptions were equally applicable to both corporations and individuals. For example, in the case of both the assessed income tax and the corporate profit tax, certain types of investment necessary to reconstruction could be deducted from taxable income in limited annual amounts. Specifically, these provisions took the form of depreciation allowances and other exemptions: (1) for the replacement of machinery and equipment¹⁸ (§7a EStG), (2) for newly constructed dwellings, including housing loans (§7b, 7c EStG), (3) for newly built ships (§7d EStG), (4) for new industrial, commercial, and agricultural plants and equipment (§7e EStG).¹⁹

It certainly would have been rather surprising if entrepreneurs had not made use of these opportunities to avoid extremely high tax rates. In fact, it can be seen from special income statistics for 1950 that, despite the high tax rates which still took more than half of the total income of a single person as soon as it exceeded DM 61,500, incomes between DM 50,000 and 100,000 were actually taxed only at 51 per cent on the average²⁰. Even incomes of single persons

Sondermassnahmen zur Förderung der betriebsinternen Kapitalbildung in der Bundesrepublik Deutschland seit der Währungsreform" (Manuscript soon to be published), Part B, Section I, Subsection 2a.

¹⁸ For 1948 only machinery and equipment which had been lost in the war or as its result. Since 1949, all replaced machinery and equipment.

¹⁹ Provisions (3) and (4) have been in effect since 1949 only.

²⁰ See *Statistisches Jahrbuch 1954*, p. 424.

TABLE 5
Investments Subject to Tax Exemptions in 1949 and 1950

Type of Investment	Amount Spent (million DM)	
	1949	1950
Deductions from taxable income for undistributed profits	332.5	500.3
Invested amounts permitted under corporate profits tax	126.6	174.9
Investments subject to special depreciation	693.8	894.3
Total	1,152.9	1,569.5
Amounts of total financed from tax exemptions	400-500	600-700

SOURCE: *Wirtschaft und Statistik 1953*, No. 4, p. 177 and *Statistik der Bundesrepublik Deutschland*, Vol. 125, pp. 39, 66, 126.

ranging from DM 250,000 to 500,000 were not taxed more than 55 per cent on the average, though under the rate schedule 75 per cent should have been paid on an income of DM 250,000 and another 95 per cent for each increment. The main factor responsible for this weakening of nominal tax rates was the exemption for investment. Between DM 1.1 and 1.5 billion were spent by private and corporate investors on items subject to these tax exemptions in 1949 and 1950 (see Table 5).

Unfortunately, we do not have exact figures for the total amount of income exempted from taxation, except for undistributed profits. However, according to our estimates, the total tax savings resulting from these measures may have exceeded DM 400 million in 1949 and DM 600 million in 1950. This represented approximately 15 per cent of private investment in those years. For various reasons, some sectors of the economy, such as agriculture, transport, and services, could not take as much advantage of these exemptions as did manufacturing industries. The importance of the exemptions to manufacturing industries, therefore, was certainly much greater than is indicated by the above-mentioned percentage.

The principal lesson to be derived from these German experi-

ments to stimulate investment through taxation during the first phase of reconstruction may now be summarized. Because of, not despite, extremely great tax pressures, entrepreneurs were virtually compelled by tax saving opportunities to invest at very high rates. In fact, the tax savings were greater and the tax exemptions therefore more effective the higher the rates to which individual businessmen were subjected. Possibly, under the given conditions, these entrepreneurs might have invested at a high rate anyway, i.e., even without any tax incentives. However, without the special exemptions they would have been deprived of some of their capacity to invest. Doubtless the increase in production would not have been as rapid as it actually was with the assistance of the tax exemption.

OTHER TAX MEASURES TO ENCOURAGE SAVING AND INVESTMENT

The measures to promote investment (discussed above) worked mainly in favor of the entrepreneurs. They were able to rebuild their factories and other establishments and to increase production rapidly in all fields. Under the conditions then prevailing, this was probably the most direct way of speeding economic growth in a free market economy. But, as a consequence, businessmen were the principal beneficiaries of tax adjustments which discriminated against consumers, i.e., mainly workers and employees, not to speak of the recipients of social benefits. In fact, since the lower income groups had virtually no possibility of saving in the first years after currency reform, any promotion of private capital formation would have favored the higher income classes. Paradoxically, steep progressive income taxation during this period had the effect of increasing rather than reducing income inequalities.

To preserve the principle of equity in taxation, other tax saving opportunities were provided for the private saver, but the propensity to consume after a decade of want was so high that private households initially could make but little use of them. Moreover, since inflation had twice, within one generation, cost the German people nearly all monetary forms of net wealth, money as a store of value was still suspect. Consequently, the propensity to save grew slowly and could not be animated to any extent by tax stimulation.

In the years immediately following 1948, private capital formation had to continue to rely on savings in kind, i.e., real investment. Tax incentives, even when they were intended to promote personal savings, were still much more effective if directed to the entrepreneurial class. Later, when the rapid increase of production and income stimulated confidence in the new currency, savings in monetary form became more and more important. Tax policy tried to take advantage of this.

By 1951, a great many of the tax concessions which had been granted earlier to entrepreneurs had been withdrawn. The government clearly believed that the first period of reconstruction had ended, and that there was no longer any need for tax concessions to stimulate production and investment generally.²¹ Further encouragement could be given to investment only in those branches of industry which had suffered from particular handicaps as the result of war or dismantling, and to facilities which should be rebuilt soonest in the common interest. This applied especially to dwellings, about 30 per cent of which had been destroyed or made unserviceable, as well as to ships and shipyards which had been completely dismantled or used for reparations to other countries. Most of the provisions of this type were extended until the end of 1958 for refugees and expelled persons.

Because of an initial postwar shortage of between five and six million dwellings, which has still not been made good, generous depreciation allowances for newly constructed flats and houses are still in effect, though modified in many ways. The advances for reconstruction of shipyards had a much shorter life, and were stopped in 1954 to avoid overcapacity. The special tax incentives for new ships were maintained until the middle of 1958.

Total taxes saved under those limited types of tax privileges are shown in Table A-5. Since 1949, roughly three-quarters of a billion DM have been saved annually by special tax allowances. Up to 1954, these amounts increased continuously, and generally exceed 1 billion DM annually. Since then, tax deductions have declined

²¹ The deduction for undistributed profits was discontinued after 1950; the special depreciation allowances on new plant and the replacement of machinery and equipment were discontinued in 1951.

TABLE 6

Comparison of Depreciation Rates Allowed for Purposes of Income Taxation Under Declining-Balance and Straight-Line Methods, 1952-63

Average Life (years)	Declining-Balance Method				Straight-Line Method
	1952	1953-57	1958-60	1960-63	
4-10	22.57 ^a	28.31 ^a	25.0	20.0	10.0
12	20.22	25.09	20.83	16.66	8.33
15	17.59	21.57	16.67	13.32	6.66
20	14.59	17.65	12.5 (15.0) ^b	10.0	5.0
25	12.55	15.04	10.0 (12.0) ^b	8.0	4.0
30	11.07	13.18	8.33 (11.67) ^b	6.66	3.33
40	9.03	10.63	6.25 (8.75) ^b	5.0	2.5

SOURCE: *Finanzbericht*, 1961, p. 140, and Klaus Heinzl, "Die einkommen," pp. 219, 223.

^a This rate is applicable for ten-year average life only; special allowances for a shorter average life do not exist.

^b Special rate applicable for movable fixed assets only.

gradually to under half a billion in 1961. These figures include only specific tax deductions; i.e., they exclude taxes temporarily withheld by virtue of high initial depreciation allowances.²²

Naturally, high depreciation allowances also result in increasing investment. This was particularly true during the period of revitalization, when capital was extremely scarce and grey interest rates were about twice as high as the official ones—between 10 and 20 per cent or higher. When the generous allowances for depreciation on all sorts of investments were suspended in 1951, it was feared that this might cause a too abrupt retardation in the necessary modernization of the economy. Consequently, the straight-line method of depreciation, which had been used before the war, was replaced by the declining-balance method, provided that the taxpayer could show that the latter method was more appropriate to his actual situation than the former one.

²² Table A-5, cols. 1, 2, and 4 actually include depreciation allowances. However, under conditions and interest rates prevailing at that time, even a delay of tax payment for about ten years materialized into a full tax reduction. Similar considerations can be applied to cols. 5, 6, and 8.

The depreciation rates that were applicable from 1952 to 1963 are shown in Table 6. Depreciation rates currently in use are, in general, twice as high as straight-line rates. The present practice is no longer viewed as a sort of special allowance, but as a normal and reasonable settlement for the future.

Another special tax measure influenced investment and production remarkably in the export industries. The recovery of German external trade was not as miraculous as it seemed some years later. On the contrary, when the European Payments Union was established in the middle of 1950, Germany, as a member, ran into a very severe deficit within a few months. It thereby endangered the mechanism of the Payments Union to such an extent that the OEEC insisted on the submission of a "detailed program indicating the measures it had taken and intends to take in order to overcome the present critical position of the balance of payments."²³

Since the balance-of-payments deficit could not be overcome by import restrictions, which in turn might have had a deteriorating effect on other countries, the appropriate policy was to increase exports. However, a twofold obstacle appeared to stand in the way of a rapid improvement in exports. The first was a booming domestic market during the Korean crisis, which created so much excess demand that business firms did not need to go abroad to increase sales. The second was the handicap imposed on German exporters by the loss of all foreign subsidiaries, properties, registered trademarks, patents and licenses,²⁴ as well as a part of the firm's experience, market position and goodwill. As a result, German foreign trade had to begin from scratch after an interruption of nearly ten years. This situation called for the granting of special export privileges.

Two main export incentives were introduced in 1951. The first took the form of a tax-free reserve equal to a fixed percentage of the individual firm's export turnover (3.0 to 3.5 per cent in the case of producers). This reserve, which had to be liquidated in ten equal yearly instalments, was meant to encourage the risking of expenses incurred in developing new markets. The second export incentive

²³ OEEC Document C (50) 341 as of November 27, 1950, p. 1.

²⁴ All kinds of foreign property were confiscated, or at least sequestered, for restitution.

took the form of a deduction from taxable income equal to from 1 to 10 per cent of export-derived income.

These measures undoubtedly helped to funnel more production into exports, and strengthened the exporting firm's ability to invest by reducing its income or corporate profits taxes. Other tax concessions reinforced this effect. For example, lower income taxes commonly were accompanied by a reduction in the Berlin Emergency Levy, which was collected as a supplement to the income and corporate profits taxes. A similar, though less close connection, existed between taxable income and the base for the enterprise tax, i.e., in the case of the tax-free reserve, the enterprise tax was either deferred or reduced.

Originally, it had been intended to drop these measures in 1953 when the balance of payments improved impressively. In the meantime, agreement had been reached on the German foreign debt (London Debt Agreement of 1952), which called for annual payments to creditor countries and to Israel of between 0.8 and 1.0 billion DM, not to mention other restitution claims.²⁵ As these claims and debts had to be paid in foreign exchange, and since exchange reserves amounted to only 3 billion DM at the end of 1952, the government decided to delay suspension of export incentives. In addition, similar or supplementary export incentives were employed in some of the other competing countries. An agreement between the United Kingdom and Germany in May 1954, and a formal resolution in the European Council, finally repealed these export privileges as of the end of 1955.

These measures proved also to be especially beneficial to persons in the upper income brackets. Therefore, big firms and high-income recipients were particularly anxious to export in order to escape high taxation, and to gain thereby more capital for investment. Needless to say, this again violated the principle of equal taxation, and intensified—as did most of the other tax promotions already considered—the trend toward concentration of income and wealth in the hands of big business and persons with high income.

Because data on export incentives exist only for 1954, we have

²⁵ The figures are taken from *Geschäftsbericht der Bank deutscher Länder für das Jahr 1952*, pp. 82-84.

TABLE 7
Income Tax Savings from Export Promotion^a
(million DM)

	1951 ^b	1952	1953	1954	1955	1951-55	1951-55
Total visible exports ^c	8,048	16,894	18,477	21,938	25,580	90,937	
	INCOME ADJUSTMENTS						TAXES SAVED
Tax-free reserves with respect to:							
Personal income tax	19	40	44	52	61	216	80
Corporation income tax	50	105	114	136	158	563	220
Total	69	145	158	188	219	779	300
Special deductions with respect to:							
Personal income tax	25	53	58	69	80	285	150
Corporation income tax	76	159	174	206	240	855	480
Total	101	212	232	275	320	1,140	630
Total tax privileges	170	357	390	463	539	1,919	930

Source: Figures for exports are taken from Monthly Reports of the Deutsche Bundesbank. All other figures are estimated under the assumption that proportions of tax-free reserves, special deductions as well as taxes saved have been similar to those prevailing in 1954. Figures for 1954 are drawn from *Statistisches Jahrbuch 1960*, p. 437.

^a All taxes on income, including Berlin Emergency Levy.

^b July through December only.

^c Including West Berlin.

tried to estimate the amounts for the other years. This has been done by assuming that the known ratio of tax allowances to total exports in the year 1954 could be applied to other years. This procedure seems reasonable in as much as the tax provisions fixed the allowed incentives as a percentage of turnover in foreign trade. If we proceed on this assumption we get the following results: (a) though both incentives could be used simultaneously, the taxpayers preferred the privilege with a definite tax reduction, i.e., they distrusted the tax-free reserve which had to be liquidated and the gains from which might prove to be illusory in cases of rising incomes and steeper tax progression; (b) the resulting total tax withheld from 1951 through 1955 amounted to at least 850 million DM and at most 1 billion DM.

Tax privileges were also granted to promote certain basic industries. When price controls were generally abandoned at the time of the currency reform, certain essential products were still kept under control. Specifically, coal, iron, steel, electricity, gas, etc., and essential foods. As a result, coal mines, ironworks, steelmills, power plants, etc., were not able to earn enough to maintain investment at the rate required by the growth of over-all production. As early as 1950, the low output of these particular branches of industry were retarding the rapid growth of industrial production. Coal, iron, steel, and electricity were in short supply.

To overcome these bottlenecks, a program was worked out in which, among other measures, these particular industries were permitted to take substantially accelerated depreciation allowances. Within three years after the investment outlay, half of the amounts invested in machinery and equipment and 30 per cent of investment in plant could be written off, in addition to normal depreciation. This was applicable to all amounts invested from 1952 through 1955, provided that the amounts so written off were reinvested. These measures were expected to release 2.2 billion DM for additional investment (see Table A-8, col. 3).

However, it is believed that actually nearly 3 billion DM²⁶ were invested as a direct result of the tax benefits given these industries. Since these amounts were not liable to the corporate profits tax, the

²⁶ The author's own rough estimates have been confirmed by the cautious guesswork of Klaus Heinzel, "Die einkommenund," p. 213.

Berlin Emergency Levy and the enterprise tax, total taxes saved may have totaled nearly 2 billion DM.²⁷ In addition, present estimates of the Federal Finance Ministry show total savings of 1,730 million DM (see Table A-5, col. 6) for taxes on income alone by these basic industries.

Obviously, these measures helped not only to overcome bottlenecks but also produced huge orders for manufacturers of capital goods. This, in turn, called for more coal, iron, steel, and electricity, and seemed to confirm the urgency of investment in the basic goods industry. It is commonly thought²⁸ that the tax privileges for these branches reinforced the 1954-55 boom which resulted in an unprecedented increase in industrial production and rate of growth for the whole economy.

Two years later, when the substantial investments made under these tax incentives began to make their full contribution to the output of these basic industries, overcapacity in coal mining, iron ore mining, and steel production became apparent. Thus, the lowest postwar rate of over-all economic growth, which was recorded in 1958, may have been to some degree a reaction to the acceleration effect of investment aid in 1955.

In 1958, another special depreciation allowance for coal and iron ore mining was put into effect—similar to those which had ended a year earlier. Most of its advantages were limited to investment made up to the end of 1963, except for lignite mining for which privileges had ended three years earlier. The government was motivated by the fact that coal prices had been under control for about forty years, and the coal mines were thus prevented from realizing profits similar to those of other branches of industry. Furthermore, the government felt it necessary to maintain the nation's main energy resource.

These tax measures to promote investment, which in most cases fulfilled government hopes, tended to make the distribution of tax

²⁷ The following rates would have been applied in 1952 through 1954: corporate profits tax, 60 per cent (for undistributed profits); Berlin Emergency Levy, 4 per cent; enterprise tax, 11 per cent (Hebesatz 220 per cent). In 1955 undistributed corporate profits were taxed at 45 per cent. We thus can take an average of roughly 70 per cent for the four years together.

²⁸ See, for example, Monthly Report of the Bank deutscher Länder, December 1954, pp. 5, 24.

TABLE 8
 Amounts of Savings Deductible from Taxable Income
 (DM per year)

Regulations for Persons Under 50 Years of Age ^a	Single Person	Married Couple	Each Child
1959 to date			
Initial maximum deductible	1,100	2,200	500
Maximum of increment half deductible	1,100	2,200	500
Total amount deductible	1,650	3,300	750
1949-54, initial maximum deductible	800	1,200	400
1955, initial maximum deductible	800	1,600	500
1956-58, initial maximum deductible	1,000	2,000	500

^a For persons over 50, twice the amounts given were deductible in the 1959 regulations, and at least twice the amounts given in the regulations for earlier years.

burdens less equitable. This, of course, was because tax savings for investment normally cannot be made accessible to wage and salary earners. Partly for equity reasons, therefore, and partly to increase capital formation, a multitude of tax incentives for savings were developed.

The demand for capital throughout the early postwar period always exceeded the volume of savings available at prevailing interest rates. Therefore, at least until 1958, increases in saving were essential to capital formation. Tax incentives for saving simply were another means of promoting economic growth until the end of the period of normalization, if not longer. In later years, the government deliberately encouraged saving to promote a broader distribution of wealth, particularly among low income groups, regardless of the encouragement this may have given to further economic growth.

Several types of savings promoted by tax incentives can be distinguished: (a) savings for insurance, (b) savings earmarked for construction of dwellings, (c) direct savings accounts, and (d) saving by acquisition of securities. All these types of savings have been, and some still are, partly deductible from taxable income in a limited

TABLE 9
Amount and Type of Tax-Privileged Savings, 1950-63^a
(million DM)

End of Year	Savings Deposits with Banks ^b		Security Deposits Entitled to Premiums (4)	Savings Deposits with Building and Loan Associations (5)	Yearly Housing Premiums Received by the Taxpayer ^c (6)	
	Total (1)	Carrying Tax Privileges (2)				Entitled to Premiums (3)
1950	4,111	279				
1951	5,088	612				
1952	7,581	972				
1953	11,547	1,532		1,426		
1954	17,225	2,318		2,180		
1955	19,708	2,525		3,019		
1956	22,659	2,917		3,840		
1957	27,678	3,785		4,856	209	
1958	33,989	4,157		6,015	350	
1959	41,376	4,045	558	87	7,490	339
1960	49,262	3,216	1,409	169	9,355	419
1961	55,767	159	2,554	393	11,283	477
1962	64,028	57	3,972	554	13,072	513
1963	74,956	36	6,026	798	15,071	563

SOURCE: Monthly Reports of the Deutsche Bundesbank.

^a Including West Berlin.

^b From 1950 to 1954 total savings deposits, from 1955 on total private savings deposits.

^c Does not include premiums credited to the account of the saver.

amount per person. However, whereas an initial sum may be deducted entirely from the tax base, additional amounts are entitled to only half of this allowance. The limited amounts deductible from income are shown in Table 8.

In general, tax-exempt savings could not be withdrawn for at least three years, except in 1955 when this time limit was increased to ten years. Since this new provision quickly retarded the previous rate of growth of tax-exempt savings (see Table 9), it was hastily

abolished in 1956. Three years later (in 1959), tax exemptions for savings accounts and securities (items (c) and (d) above) were suspended. However, in addition to the previous method of tax relief by deduction from taxable income, a new regulation provided premiums to private savers from public funds. This regulation, still in force in 1964, applies only to savings accounts and to savings for the acquisition of special types of securities. The premium on this kind of saving amounts to 20 per cent of savings not withdrawn for five years. This premium applies to not more than 600 DM per year for a single person and 1,200 DM per married couple, which means that 120 DM per person can be earned annually under the premium regulation. These amounts may be doubled for persons more than 50 years of age.

There is a common feeling that tax-privileged savings have not increased capital to any considerable extent. Indeed, savings promoted by tax incentives did not reach more than 17 per cent of yearly incremental savings, even in the best period. The larger part of this accretion might have been saved anyway, so it might be said that tax exemptions or premiums were in most cases a kind of extra pay to the savers. Apart from the government's intent to distribute wealth especially in favor of lower income groups, these measures have been a rather costly instrument for the creation of more savings, particularly in a period where capital can no longer be considered scarce. According to our estimates, the sum of total premiums and tax reductions for privileged savings exceeded 1 billion deutsche marks in each of the last three years (see Table 10).

Measures Influencing Factor Mobility and the Allocation of Resources

ALLOCATION EFFECTS OF PARTICULAR TAXES

As long as taxes are an equivalent of user prices they compensate for the cost which can be attributed to the taxpayer. Unfortunately, we do not know the social and private costs of the individual taxpayer, and taxes are not assessed in accordance with user prices. Whether maladjustment or improvement of the allocation of resources results in individual cases cannot be determined.

TABLE 10
 Costs of Tax Incentives for Saving, 1959-62^a
 (million DM)

Year	Premiums			Tax Reductions on Other Savings ^b	Total Costs ^b
	For Savings Accounts	For Housing	Total		
1959	124	419	543	328	871
1960	181	477	658	418	1,076
1961	267	513	780	510	1,290
1962	314	563	877	550	1,427

SOURCE: Figures not estimated are taken from Monthly Report of the Deutsche Bundesbank, Vol. 15, No. 8, August 1963, pp. 50, 80, or from information supplied by the Federal Finance Ministry.

^a Including West Berlin.

^b Author's estimated tax reductions for savings paid into housing and loan associations.

Nevertheless, some over-all effects of taxes on the allocation of resources can be established unequivocally. This is particularly true with respect to income tax incentives or disincentives, as well as to the allocation effects of indirect taxes.

Doubtless the rigorous income tax rates in effect up to June 1948 weakened incentives to work and discouraged more than they favored an optimal use of factors of production. Even within the following two and one-half years, income tax progression was steep enough to produce considerable disincentive effects. However, the removal of all obstacles to production had cleared the way for the tremendous efforts which the population was willing to make in order to overcome poverty. This was particularly true of self-employed workers and wage earners, whereas entrepreneurs easily escaped the effect of high tax rates during those first years. As we have seen, special allowances for investment had the effect of rewarding those who increased their plant capacities because of the substantial tax savings.

In later years, when the situation became more normal and the average number of hours worked each week declined (see Table A-1, col. 15), it was felt that taxation might prevent workers from

working overtime, despite considerably lower income tax rates. This was especially likely after 1954 when the lower tax rate on overtime pay which had previously been in effect was suspended. In any case, it appears that the willingness to earn more money by working more hours declined steadily after 1955 even though income tax rates were again reduced in 1958.

Notwithstanding the contradictory conclusions which have been reached with respect to the behavior of businessmen, there is little evidence that income taxation did limit the economic activity of entrepreneurs to any perceptible degree. Hard work still is considered a virtue in itself among business executives and members of their staffs. This attitude was also found among workers up to the middle of the last decade. However, since the beginning of the period of overemployment, complaints about decreasing "*Arbeitsmoral*" have been heard. Income taxes may have had some disincentive effects during this period.

Another possible obstacle to optimum resource allocation is found in the enterprise tax. According to German textbook tradition, the enterprise tax effects the allocation of resources through the geographic location of firms. Since this tax normally constitutes a big item in the profit and loss statement of each firm, it is said that the location, particularly of new firms, will be made so as to avoid high enterprise tax rates. Since local authorities are free to fix tax rates autonomously, they may use low rates to attract firms. A good deal of research has been devoted to this question. It reveals that other factors consistently outweigh the effect of the enterprise tax.²⁹ Moreover, since the local authorities cannot promise that prevailing tax rates will not be changed in the future, it would be rather risky for firms to place too much weight on low enterprise tax rates in deciding where to locate.

Taxes on transfers undoubtedly distort resource allocation. Since taxes of this type are levied on transactions, they tend to impede the free exchange of goods and services. Though most of the older forms of transfer tax have disappeared, and their relative importance has declined from 10 per cent of total tax receipts in 1913-14

²⁹ See Norbert Kloten, "Standortwirkungen kommunaler Besteuerungsformen," *Schriften des Vereins für Socialpolitik*, Berlin, 1964, pp. 136-148.

to less than 2 per cent in 1962, they have been replaced by the turnover tax, the specific disadvantages of which, from the standpoint of resource allocation, are much more extensive.

Because the turnover tax, including the tax on transport, is a tax on transfers, it has, in fact, become a tax on the division of labor. The present 4 per cent flat rate levied on most transactions is like a customs duty raised at the door of each undertaking. In order to avoid this 4 per cent levy, entrepreneurs can try to produce their own raw materials, semifinished goods, etc., which they otherwise would have to buy; or, the manufacturers may take over the resale of their products in order to avoid successive cumulative taxes.

Obviously, the turnover tax creates an environment favorable to industrial concentration and big business. At the same time, it may impede specialization and prevent the optimal allocation of resources. The undesirable effect of this tax with respect to resource allocation would of course be magnified within the European community. For these and other reasons, the obsolete German type of turnover tax will probably be replaced by the French type of value-added tax.

TAX MEASURES TO IMPROVE ALLOCATION OF RESOURCES AND LOCATION OF INDUSTRIES

One of the main obstacles to the achievement of full employment during the first two periods after currency reform was the shortage of dwellings. Whereas refugees and bombed-out persons had to be lodged in the country, the opportunities for gainful employment were found primarily in the cities and suburbs. Therefore, the problem of reducing unemployment and raising both production and the standard of living was primarily one of increasing the supply of dwellings in industrial neighborhoods.

As a matter of fact, the construction of dwellings turned out to be the main weapon used against unemployment. This was not only because of the pump-priming effect of construction on total spending, but also because housing construction in the cities made it possible to move workers from districts where they could not find jobs to other areas where they were needed. Actually, there has been no serious unemployment in the Ruhr and in the large cities. Indeed,

miners and some other special types of workers were even in short supply. However, in the agricultural areas like Schleswig-Holstein, unemployment was at one time a severe problem.

Special tax provisions could and did contribute to the solution of this problem. A number of allowances for construction of new houses and dwellings, some of which have already been mentioned, and a variety of other measures were spread through the tax code. Although the most effective ones were found in the income tax law, the exemption of newly built houses from real estate tax (a local tax) and the favored status given them under the levy for the equalization of burdens also encouraged home building. Finally, where interest on fixed interest bearing securities was exempt or tax privileged, this could indirectly stimulate the construction of new dwellings.

Instead of elaborating on all these measures, we shall merely call attention to the tax savings that resulted from these provisions from 1949 through 1959 (see Table A-7). Beginning with 1952, these tax savings amounted to more than half a billion DM, and after 1957 to more than a billion DM annually. A total of about 8 billion DM was provided over this ten-year period for the construction of dwellings.

Apart from the encouragement given to the construction of new dwellings, the tax laws have also helped to channel resources to desired goals in other fields. We have already noted the measures adopted to aid the reconstruction of shipyards and ships and the incentives provided for the reconstruction of dwellings. We have also reviewed the tax incentives designed to reactivate the export industry and to expand the capacity of the basic goods industry.

Agriculture has been another field in which production-stimulating tax privileges have been granted, although the problems there are quite different from those in other branches of the economy. German agriculture has not been able to match the high standards of modern farming which have been set in such countries as Denmark, The Netherlands, and the United States. Tremendous efforts have been directed toward the improvement of production and the increase of productivity, but, since farmers commonly do not pay high taxes, and in many cases pay no taxes on income,

turnover, or enterprise at all, tax incentives cannot be expected to have a significant effect on their investment or production decisions. As a result, financial policy with respect to agriculture normally takes the form of subsidies.

A good many special tax privileges have been granted to persons who suffered losses as the result of war and expulsion. These have been embodied chiefly in the equalization-of-burdens legislation, as well as in additional income tax exemptions. At first sight, these measures might appear to have done little more than redistribute income and wealth. However, the influx of about 11 million refugees, which initially placed a tremendous burden on the society, later proved to be a major capital asset, since among them were about 5 million very able, hardworking, and well-trained people. Part of the over-all economic growth in Western Germany must be attributed to this increase in human capital.

In the beginning it was not certain that this compulsory immigration could be channeled into desirable directions, but tax measures helped to absorb this exasperated mass of expropriated people into a society which for a time was not very stable. Apart from measures designed to raise the standard of living, several tax privileges promoted the establishment of new firms and provided the means for acquiring small properties (house, farm, shop, workshop, etc.). Actually, by means of this initial assistance, many refugees succeeded in a relatively short time in establishing entirely new branches of industry and trade in Western Germany—particularly in the field of optics, textiles, glass works. Others became effective and embarrassing competitors to conservative and slow-moving old firms.

It can be shown that the financial transactions necessary for equalization of burdens did not retard capital formation as much as was originally feared. Since the equalization-of-burdens levy had to be paid by owners of net wealth in kind (i.e., real capital) to expropriated persons, it had been assumed that this levy would involve transfers from persons with a high propensity to save to persons with a high propensity to consume, and would thus reduce current capital formation. However, nearly half of the total sum spent under the equalization-of-burdens law has been invested or saved by the recipients. As shown in Table 11, out of a total of 46.2

TABLE 11
 Receipts and Expenditures Under Equalization-of-Burdens Regulation
 1949-1962^a
 (billion DM)

	Equalization of Burdens		Total
	Under Immediate Assistance Regulation Sept. 1949- Aug. 1952	Under Final Regulation Sept. 1952- Dec. 1962	
Receipts			
Equalization-of-burden levy	6.3	22.5	28.8
Loans and contributions from public sector		11.8	11.8
Other current receipts	0.3	3.4	3.7
Incurred debts (+) or cash sur- plus (-)	-0.4	+2.3	+1.9
Total receipts required	6.2	40.0	46.2
Expenditures			
Maintenance assistance	2.1	9.1	11.2
Compensation payments	0.6	16.9	17.5
Integration assistance	3.3	13.0	16.3
Housing	2.4	8.6	11.0
Industry	0.5	1.8	2.3
Agriculture	0.2	1.6	1.8
Other	0.2	0.9	1.1
Other expenditures	0.0	1.2	1.2
Total expenditures	6.0	40.2	46.2

SOURCE: Monthly Report of the Deutsche Bundesbank, Vol. 15, No. 2, February 1963, p. 15.

^a Including West Berlin.

billion DM received between 1949 and 1962, around 16 billion was invested in houses, equipment, plants, and so on.

Presumably, the larger part of this amount went to new investment while the remainder was utilized to acquire existing property.

On the other hand, a considerable part of the 17.5 billion DM paid as compensation also may have contributed to financing capital formation. Since these payments were made to offset losses of net wealth, they surely have been reinvested at high rates. Thus, it appears that about half of the equalization-of-burdens payments may have augmented total investment,³⁰ not to mention the favorable effect it may have had on the integration of capable men into society.

Another example of how taxation helped to solve structural problems is found in the development of the capital market. As we have already seen, there was an extraordinary shortage of capital from 1948 to 1957 and around three-quarters of total savings during this period were regularly created by business and government sectors. In neither of these cases was capital actually supplied to the market. Profits were reinvested, and the surpluses of the public sector were used to finance public projects. The only exceptions were fractional amounts accruing from distributed profits and the surpluses of some public bodies, particularly the social insurance organizations.

Consequently, the capital market was rather sterile. In fact it almost did not exist during the period of revitalization, and its resuscitation was difficult during the next phase of development—up to 1957. The gap between supply and demand could not be bridged because official interest rates for long-term credit were kept down to between 6 and 8 per cent—a rate far below that justified by actual market conditions. Moreover, official interest rates for medium-term current account credit were 2 to 4 per cent above the level of official long-term rates.

These circumstances, and the fact that distributed profits were subject to a 60 per cent tax until 1952, made it attractive for corporations to retain and reinvest their profits. Therefore, dividends were kept quite low until this rate was reduced to a minimum of 35.3 per cent in 1957. It should be noted that, except for the Berlin Emergency Levy, the recipient of dividends had to pay income taxes on his dividends as well—normally at a flat rate of 25 per cent.

³⁰ Figures or estimates on the possible reduction of saving and investment resulting from the equalization-of-burdens levy do not exist.

Initially, then, the government fostered the withholding of profits. Measures to revive the capital market in that early period were confined to the promotion of private savings and to tax exemptions for certain types of fixed interest bearing securities. With the interest on these securities exempt from tax, their yields were reduced from about 7 or 8 to 5 or 6 per cent. This sort of tax exemption could not increase savings to any significant extent, although in 1953 and 1954 nearly all newly issued bonds were of this type. In fact, banks and other financial institutions like insurance companies which acquired these securities in large proportions were the principal beneficiaries from the exemptions.³¹ It is unnecessary to add that this was not the result intended by the legislators, and consequently this approach to a revival of the capital market was dropped in 1955.

As soon as the process of normalization was complete, the problem resolved itself. Private households began to save considerably more from their increased income. Thus, the rate of savings out of disposable income by private households made an extraordinary jump from 6 to 8 per cent in 1957 and reached a more or less steady level of around 9 per cent in the following years.³² At the same time, the long-term interest rate dropped to a fairly normal level of 5.5 per cent without any government intervention. At this point, moreover, the offer of an incentive for the withholding of profits no longer appeared to be necessary, or justified as a matter of principle. The problem of the optimal allocation of resources became in any event more important than the high level of internal investment and production. This made essential the direction of capital to its most efficient use, which meant that profits should be distributed in order to insure selection of the highest yield. The selective role of the capital market had been nullified until 1957, not only by the existing shortage of capital but also by high tax rates on distributed profits. Therefore, the government's decision to lower the tax rate on distributed corporate profits from 30 to 15 per cent—which in effect still meant a minimum of 24 per cent (see Table A-3)—marked one of the main steps toward more selective investment.

³¹ See *Geschäftsbericht der Bank deutscher Länder für das Jahr 1955*, pp. 62-63.

³² Figures are taken from Monthly Report of the Deutsche Bundesbank, Vol. 15, No. 2 (February 1963), p. 11.

TABLE 12

Dividends, Yields, and Issues of Fixed Interest Bearing Bonds and Shares^a

Period	Average Yields (per cent)			Bonds and Shares Issued (billion DM)		
	Average Dividends (per cent) (1)	Manipu- lated	Free	Long- Term Bonds (4)	Shares (5)	Total (6)
		Yields of Mortgage Bonds (2)	Market Yields of Industrial Bonds (3)			
1948-50 ^b	1.7 ^c			1.5	0.1	1.6
1951-52	2.6			2.3	0.4	2.7
1953	3.0			2.9 ^d	0.3	3.2
1954	4.8	5.3		4.7 ^d	0.4	5.1
1955	6.3	5.1		3.7 ^d	1.5	5.2
1956	7.5	5.5		2.6 ^d	1.8	4.4
1957	8.6	6.6		4.2	1.6	5.8
1958	9.3	6.4	6.7	8.1	1.1	9.2
1959	10.6	5.8	5.8	10.0	1.4	11.4
1960	11.8	6.3	6.2	5.4	1.9	7.3
1961	13.2	6.0	5.9	9.6	2.2	11.8
1962	13.7	6.0	6.0	11.9	1.5	13.4
1963	13.4	6.1	6.0	16.6	1.0	17.6

SOURCE: Monthly Reports of the Deutsche Bundesbank.

^a Including West Berlin from 1954 on, and Saar territory from 1959 on.^b For second half of 1948 only.^c For 1950 only.^d Bonds due to investment-aid regulation in given totals were as follows: 1953, DM 0.2 billion; 1954, DM 0.4 billion; 1955, DM 0.6 billion.

As a result of this measure, an increase in average dividends (see Table 12, col. 1) as well as a decline in the percentage of self-financed investments may be noted. This, in turn, resulted in a rapid increase in capital formation by private persons and households (see Table A-6).

MEASURES TO PROMOTE DEVELOPMENT OF GEOGRAPHICALLY HANDICAPPED REGIONS

Because of the partition of Germany after the war, towns, districts, and harbors were cut off from their hinterland by artificial

boundaries. Thus, most regions close to the iron curtain were denied the benefits of an economic development similar to that which took place in the more central parts of Western Germany. For instance, seaports like Lübeck and, initially, Hamburg suffered to some degree from these completely new political obstacles. Therefore, special tax provisions were enacted for the benefit of persons and firms in the area close to the zone border (*Zonenrandgebiete*). This certainly helped these regions to adjust to the pattern of the West German economy, and greater utilization of available resources may have resulted.

This is even more true in the case of West Berlin, which was completely cut off from its surroundings when the partition of the area began in 1948. This western isle within the eastern territory, which formerly drew most of its revenues from the services it rendered as the capital of the old Reich, lost its main basis of existence and the market for its services. Without help from Western Germany and from Marshall Plan aid it probably could not have survived. Although the money provided to and invested in West Berlin seemed to be permanently lost for a long time, the city has now completely changed its economic structure and has become an efficient part of the economy of West Germany. Nevertheless, a great deal of tax incentive is still necessary in order to attract business and to compensate for the political risk which otherwise would deter entrepreneurs from maintaining or establishing industries one hundred miles behind the Iron Curtain.

Influence of Taxes on Total Demand and Economic Stability

In the determination of whether the public sector actually has contributed to economic stability, we define the latter as a fairly constant rate of growth which, theoretically as well as empirically, could occur only if both inflationary and deflationary tendencies are avoided. It may be noted that, except for the extraordinary circumstances which prevailed until 1952, the highly inflationary years (1958, 1961, 1962) were also years with lower rates of growth.

The inflationary or deflationary gap occurring each year is considered to be the difference between the annual increase of GNP at

current prices and the increase at constant prices. The difference can easily be computed if we apply the annual percentage increase of GNP at constant prices to GNP at current prices (see Table 13).²⁸

Of course, there may be some defects in our calculation of the total inflationary gap. Yet, if the national income statistics are at all reliable for over-all production and price movements, we may rely upon our computation. The data used to calculate cash surplus or deficits (to indicate the net balance of demand of the public sector) are also deficient. The main deficiencies are to be found in the different effects which public expenditures may have on domestic demand depending on their point of impact. For instance, it makes a big difference whether public expenditures are made abroad or in the home market. But since money spent abroad might lead to higher demand for exports, we have used statistics for cash surplus or deficits as they are.

The question is, did fiscal policy help to prevent or to encourage inflationary gaps? As figures in Table 13 show, inflationary gaps prevailed from 1950 to 1962, except for 1953 and 1954. Public authorities on the whole retarded rather than augmented extensive inflationary tendencies up to 1956, but in the following three years, particularly in 1959, the public sector contributed to, or even caused to some degree, over-all excess demand. This development was interrupted only in 1960 and 1961, but even then, the public sector did not decisively counter the inflationary trend and in 1962 it fostered inflation once more.

This attitude of indifference toward inflation becomes even more apparent if we go into detail. Here we have to differentiate between social insurance bodies and local authorities on the one hand, and the states and central government on the other. Obviously the first two are not responsible for a policy of economic stabilization. Social insurance bodies constantly tried and succeeded in building up re-

²⁸ For example, the annual increase of GNP at constant prices from 1961 to 1962 amounts to 4.2 per cent (see Table 4). If this percentage increase is applied to GNP in 1961 at current prices (326.2 billion DM), the absolute increase in GNP from 1961 to 1962 at constant prices of 1961 would amount to 13.7 billion DM, whereas it actually rose by 28.6 billion DM. The difference, i.e., 14.9 billion as calculated in Table 14, must be the result of excess demand which we called the inflationary gap.

TABLE 13
Annual Inflationary Gap and Net Balance of Demand from Public Sector,^a 1950-63
(billion DM)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960 ^b	1961	1962 ^a	1963
Over-all inflationary gap	+11.3	+6.4	+6.4	-0.4	+0.1	+3.7	+6.0	+6.2	+8.4	+3.4	+6.8	+13.3	+14.9	+10.7
Net balance of demand ^a														
Central government ^a	-1.1	0.0	+0.6	+1.0	+0.8	+1.8	+1.4	-2.4	-0.6	-5.4	-1.5	+0.2	-1.9	-3.7
State government	-0.2	0.0	+0.3	+0.2	-0.2	-0.8	-0.5	-0.8	-1.3	+0.1	+1.6	+1.7	+0.2	-0.7
Local authorities	-0.1	-0.1	-0.2	-0.5	-0.6	-0.8	-1.2	-0.7	-1.0	-0.4	-0.3	-0.8	-0.8	-1.2
Social insurance	+0.5	+0.5	+0.2	+0.6	+0.6	+0.2	+0.9	+0.4	+0.4	+1.1	+1.3	+1.3	+0.8	+0.6
Net balance of total public sector	-0.9	+0.4	+0.9	+1.3	+0.6	+0.4	+0.6	-3.5	-2.5	-4.6	+1.1	+2.4	-1.7	-5.0

SOURCE: *Geschäftsbericht der Deutschen Bundesbank* 1963, p. 57; Preliminary results.

1962, p. 65; 1958, p. 15; 1956, p. 69; 1955, p. 70. Additional information from Deutsche Bundesbank. ^a Cash surplus (+) = demand deficit; cash deficit (-) = excess formation from Deutsche Bundesbank.

^a Including West Berlin.

^b Including Saar territory.

^a Demand deficit.

^b Including equalization-of-burdens fund.

serves which actually helped to reduce inflationary forces, but not because of a conscious anticyclical policy. With the local authorities it was the other way around, since they spent excessively, but, again, without being responsible for a policy of stabilization. The states did not feel any very great responsibility for the maintenance of over-all demand. On the whole, they profited most from ever-growing taxes on income and so, generally, were in a much more affluent position than the federal government. Thus, it may be seen that the desirable effect of cash surpluses during recent years did not result from an anti-inflationary policy.

What about the central government? Though full responsibility rests upon this level of public authority, it is not possible to confirm a consequent anticyclical policy even here. The favorable effects of the cash balance up to 1956 must be interpreted principally as the result of thriftiness and rapidly growing tax receipts, a reflection of the growth of national income, i.e., primarily income and turnover taxes. That there was no hesitation to spend a part of the accrued funds at the wrong moment can be shown by the fact that, despite strong inflationary pressure in 1957, a deficit of more than 2 billion deutsche marks was incurred in that year. From then on, the central government never managed to control inflationary tendencies by budgetary measures; on the contrary, it accepted deficits nearly every year. It is not much consolation that the extraordinarily high cash deficit which occurred in 1959 might have had a less inflationary effect because of the large amounts spent abroad.

A special section on "possibilities and limitations of anticyclical budgetary policy" in the Finance Ministry's Annual Report³⁴ points out that the government considers the budget to be a means of promoting economic stability. But it stresses, at the same time, that theoretical devices cannot help much because of political obstacles. For instance, neither public expenditures nor taxes in most cases can be arbitrarily increased or reduced. Moreover, the report contends that the multiple public sectors and the three levels of government normally cannot be coordinated. It suggests that budgetary techniques should be modernized in order to improve the possibili-

³⁴ See *Finanzbericht 1961*, pp. 85-93.

ties of anticyclical budgetary policy, and concludes that a policy of stabilization rests primarily on the highly flexible tax system which is said to exist in the Federal Republic of Germany.

However, some reservations must be made with respect to the reliability of tax flexibility. First, only those taxes controlled by the central government can be considered, because responsibility for economic stabilization rests at this level. Second, deficits and surpluses do not result merely from the anticyclical fluctuation of taxes—as we have already seen—but depend also on governmental decision. Third, only the turnover tax, the tax on transport, and the wage tax can be considered as adequate and efficient means of built-in stabilization, whereas the assessed income tax and the corporate profits tax do not immediately reflect current trends.

Indeed, under present conditions, neither the assessed income tax nor the corporate profits tax can be used as automatic stabilizers. This is because these taxes are paid in quarterly instalments on the basis of the previous year's income. Whereas taxpayers normally reduce their instalments if they anticipate a reduction in income, they seldom increase payments for the opposite reason. Moreover, in past years tax bills have frequently been submitted with a delay of more than one year, so that tax liabilities lagged behind sufficiently to exaggerate the cycle instead of minimize it.

Desirable flexibility involving the instantaneous reaction of tax liabilities, therefore, must be based on a much closer adjustment of tax payments to the movements of income. It may be noted that such a state of affairs had been reached in 1948 and 1949 when quarterly instalments were paid on the basis of a quarterly balance sheet. However, in 1950 the previous system of paying income tax instalments in advance, on the basis of previous tax bills, was restored.

APPENDIX

TABLE A-1
Basic Data on Economic Development and Growth in Western Germany
(billion DM)

Year	G N P			Total Investment		Marginal Capital-Output Ratio ^a		Index of Industrial Production	
	Current Prices (1)	Constant Prices		1936 Prices (4)	1954 Prices (5)	(6)	(7)	1936 = 100 (8)	1954 = 100 (9)
		1936 (2)	1954 (3)						
1948 ^b	36.4	20.7		3.77				70.1	
1949	81.7	47.0		8.33		0.143		89.8	
1950	97.9	54.9	112.9	10.76	25.70	1.055		113.0	100
1951	119.5	63.2	125.2	13.58	26.46	1.296	2.089	134.8	118
1952	136.6	67.3	136.5	13.04	29.44	3.312	2.342	144.4	126
1953	147.1		147.3	14.56	30.58		2.726		139
1954	157.9		157.9		35.60		2.885		155
1955	180.4		176.9		44.97		1.874		178
1956	198.8		189.3		46.24		3.627		192
1957	216.3		200.2		47.68		4.242		202
1958	231.5		206.8		48.66		7.224		208
1959	250.9		221.0		55.06		3.427		224
1960	279.8		240.4		64.56		2.838		249
	296.9 ^c		254.9 ^c		68.19 ^c				
1961	326.2		268.6		71.13		4.977 ^c		262
1962	354.8 ^d		279.8 ^d		73.20 ^d		6.351 ^d		274
1963	376.8 ^d		288.8 ^d		74.60 ^d		8.133 ^d		284

SOURCE: *Statistisches Jahrbuch* (annual), *Wirtschaft und Statistik*, and *Arbeits- und sozialstatistische Mitteilungen*.

^a With time lag of one year. Computed as the proportion of annual total investment to annual increase of GNP at constant prices. Col. 6 results from cols. 2 and 4; col. 7 results from cols. 3 and 5.

^b Second half only, except for col. 15.

^c Including West Berlin from 1960 on.

^d Preliminary results.

TABLE A-1 (concluded)

Labor Productivity in Industry		Average Total Employment	Average Unemployment	Average Employment	Weekly Hours in Industry	Years
1936=100	1950=100	(thousands)	(thousands)	(thousands)	(15)	
(10)	(11)	(12)	(13)	(14)		
71.6		13,460 ^o	604 ^o	3,433 ^t	42.4 ^f	1948
82.3		13,524 ^o	1,263 ^o	4,414	46.5 ^f	1949
92.8	100	13,827	1,580	4,797	48.4	1950
102.6	108	14,556	1,432	5,332	47.8	1951
107.5	112	14,995	1,379	5,518	47.8	1952
	119	15,583	1,259	5,551	48.1	1953
	126	16,286	1,221	6,062	48.7	1954
	134	17,175	928	6,576	48.9	1955
	139	18,056	761	6,991	48.2	1956
	150	18,611	662	7,221	46.5	1957
	158	18,840	683	7,453 ^g	45.7	1958
	171	19,748 ^g	480 ^g	7,477 ^g	45.6	1959
	184	20,184	238	7,776	45.6	1960
	194	20,661	161	8,002	45.5	1961
	208	21,097	142	8,037	44.9	1962
	221	21,458	174	7,971	44.7	1963

Including West Berlin.

Territory of the combined area (*Vereinigtes Wirtschaftsgebiet*).

Including Saar territory.

TABLE A-2
 Return to Different Levels of Government of Main Types
 of Taxes and Appropriations, 1962
 (billion DM)

Types of Tax	Level of Government			
	Federal	State	Local	Total
Federal and state taxes				
Taxes on income and profits	11.9	22.1		34.0
Wage tax	4.3	8.0		12.3
Assessed income tax, ^a etc.	4.8	8.9		13.7
Corporation profits tax	2.8	5.2		8.0
Other personal taxes				
Taxes on net wealth and property	2.1	2.2		4.3
Equalization of burden levy ^b	2.1			2.1
Tax on net wealth		1.9		1.9
Turnover tax ^c	19.2			19.2
Excises				
Tobacco tax	4.1			4.1
Gasoline tax	3.7			3.7
Liquor tax	1.2			1.2
Taxes on transfers and transports	0.8	3.1		3.9
Automobile tax		1.9		1.9
Customs	3.3			3.3
Local taxes				
Enterprise tax			8.8	8.8
Real estate tax			1.8	1.8
Others			0.6	0.6
Total	47.5	28.2	11.2	86.9

SOURCE: *Finanzbericht*, 1963, pp. 40-41. Taxes do not include special appropriations of state and local authorities. Figures are preliminary and include West Berlin.

^a Including tax on capital returns.

^b Not part of the federal budget but part of the special equalization fund.

^c Including turnover-equalization tax.

TABLE A-3

Basic Data on Individual Personal Income Tax and Corporate Profits Tax
(RM or DM per year)

Period	Personal Income Tax ^a				Rates of Corporate Profits Tax ^a			
	Income Free of Taxes (Subsistence Level)	Income at Which Marginal Rate Reaches or Exceeds 50 Per Cent	Income at Which Total Tax Equals 50 Per Cent	Highest Marginal Rate		Rate for Undistr. Profits	Distributed Profits	
				Rate	Reached at Income		Nominal Rate	Effective Minimum Rate
1946-June 1948	600	2,401	14,200	95	60,000	35-65	35-65	35
July 1948-1949	750	9,001	25,000	95	250,000	50	50	50
1950	750	20,001	61,500	95	250,000	50	50	50
1951-52	750	20,001	61,500	95	250,000	60	60	60
1953	750	36,001	82,800	82.25	220,000	60	30	42.86
1954	800	45,001	110,000	80	220,000	60	30	42.86
1955-57	900	125,001	341,000	63.45	605,001	45	30	35.3
Since 1958	1,710	78,420	376,033	53	110,040	51 ^b	15 ^b	23.44 ^b

Source: Tax laws.

^a Excluding the Berlin Emergency Levy, levied from 1949 to 1957 at progressive rates up to 4 per cent of income.

^b Smaller corporations whose net wealth does not exceed DM 5 million are liable to a nominal flat rate of 26.5 per cent of distributed profits, an effective minimum rate of 30.3 per cent. Un-

distributed profits are liable to the following progressive rates (per cent): 39 on the first DM 10,000; 44 on the following DM 10,000; 49 on the additional DM 10,000; 54 on the additional DM 10,000; 59 on the additional DM 10,000; 49 on all additional DM income.

TABLE A-4

Income and Property Tax Receipts and Average Rate of Tax, 1949-63

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
National income (A)															
(bill. DM) ^a	76.2	92.1	104.3	112.5	121.6	139.5	154.4	168.0	179.9	194.6	226.2	247.8	268.5	283.0	
Taxes from income															
(bill. DM)															
Assessed income tax	2.7	2.1	2.3	4.0	4.9	4.5	4.4	4.7	5.9	5.5	7.2	9.0	10.8	12.2	13.4
Wage tax	2.1	1.8	2.8	3.6	3.7	3.9	4.4	5.4	5.3	5.9	5.9	8.1	10.4	12.3	13.9
Corporate income tax	1.5	1.5	2.3	2.8	3.0	3.1	3.1	3.6	4.5	5.2	5.1	6.5	7.5	7.8	7.7
Other income taxes	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.8	0.8	1.0	1.1	1.3
Berlin Emergency Levy	0.3	0.3	0.5	0.7	0.9	1.0	1.2	1.3	0.5	0.2	0.2	0.1	—	—	—
Total (B)	6.6	5.7	8.0	11.2	12.7	12.8	13.4	15.4	16.7	17.3	19.2	24.5	29.7	33.4	36.3
Taxes from property															
(bill. DM)															
Tax on net wealth	0.1	0.1	0.1	0.2	0.4	0.6	0.5	0.8	0.8	0.9	1.1	1.1	1.4	1.8	1.6
Real estate tax	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.9	1.9
Enterprise tax	1.1	1.2	2.0	2.6	3.1	3.4	3.7	4.2	5.0	5.3	6.5	7.4	8.2	8.7	9.0
Total (C)	2.3	2.4	3.3	4.0	4.8	5.3	5.6	6.4	7.3	7.7	9.2	10.1	11.3	12.4	12.5
Total of B and C	8.1	11.3	15.2	17.5	18.1	19.0	21.8	24.0	25.0	28.4	34.6	41.0	45.8	48.8	
Average rate of income tax ^b (per cent)	7.5	8.7	10.8	11.3	10.5	9.6	10.1	9.9	9.6	9.9	10.8	11.9	12.4	12.8	
Average rate of tax on income and property ^c (per cent)	10.6	12.3	14.6	15.6	14.9	13.6	14.2	14.3	13.9	14.6	15.3	16.5	17.1	17.2	

SOURCE: *Statistisches Jahrbuch* (annual), and *Wirtschaft und Statistik* that originating in the public sector. Tax and national income figures include West Berlin.

^a National income at factor cost in current prices exclusive of

^b B divided by A times 100. ^c B and C divided by A times 100.

TABLE A-5

Amounts of Income Taxes Saved by Special Allowances for Depreciation and Investment^a
(million DM)

Year	Depreciation Allow. for Machinery and Equipment	Depreciation Allow. for Newly Constructed Dwellings	Exemptions for Housing Loans	Exemptions for Ships and Shipyards	Depreciation Allow. for Factory Buildings and Plants	Exemptions for Un-distributed Profits ^b	Tax Deductions for Exports ^{b,c}	Total ^b
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1949	320 ^b	20	105	5 ^b	30	200		680
1950	300 ^b	40	160	30 ^b	45	200		775
1951	165	50	180	320	15		110	840
1952	80	70	200	340	10	150	130	990
1953	25	100	220	300	5	300	130	1,090
1954	30	140	230	380	5	430	170	1,395
1955	30	180	120	120	5	450	160	1,075
1956	35	250	80	120	5	400	15	905
1957	40	345	25	100	5	15	15	530
1958	45	400	20	90	5	15	15	575
1959	15	450	20	75	5	10	10	575
1960		450	20	30	5	10	10	515
1961		420	20	10	5	10	10	465
Total	1,085	2,915	1,400	1,920	145	1,730	700	10,410

SOURCE: Estimates of the Federal Finance Ministry, except for

those noted as author's estimates, and figures of cols. 2 and 3 which are published in *Finanzbericht*, 1961, pp. 110-111.

^a Includes income and corporate profits taxes, as well as Berlin Emergency Levy. Figures include West Berlin.

^b Estimated by the author on basis of income tax statistics for 1950.

^c Excluding tax deductions for tax free reserves.

TABLE A-6

Shares of Aggregate Savings by Institutional Sectors

Sectors	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
CURRENT SAVING (BILLION DM)													
Private households	2.0	2.3	4.4	5.4	6.7	6.9	7.0	10.9	12.8	14.2	15.1	17.4	19.0
Enterprises (undistr. profits)	5.0	8.7	7.7	5.3	5.3	10.9	10.5	10.4	14.5	15.2	18.3	15.7	13.3
Government (surplus on current account)	3.4	6.1	7.8	10.6	11.6	14.3	16.2	14.7	12.9	16.6	22.8	26.8	27.8
Net capital transfer of foreign countries and West Berlin	1.6	1.0	0.1	-0.0	0.2	-0.1	-0.1	-0.3	-0.3	-1.0	-1.1	-2.6	-1.2
Total	12.0	18.1	20.0	21.3	23.8	32.0	33.6	35.7	39.9	44.8	55.2	57.4	58.9
CURRENT SAVING (PER CENT)													
Private households	16.8	12.8	21.9	25.4	28.1	21.4	20.8	30.4	32.0	31.6	27.4	30.3	32.3
Enterprises (undistr. profits)	41.7	47.9	38.6	24.9	22.3	34.1	31.4	29.2	36.3	33.8	33.3	27.4	22.5
Government (surplus on current account)	28.4	33.6	38.8	49.8	48.8	44.6	48.2	41.2	32.4	36.9	41.4	46.8	47.2
Net capital transfer of foreign countries and West Berlin	13.1	5.7	0.7	-0.1	0.8	-0.2	-0.4	-0.8	-0.8	-2.3	-2.0	-4.5	-2.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SAVING INCLUDING CAPITAL TRANSFER (BILLION DM)													
Private households	2.0	2.3	4.4	6.1	8.0	7.4	7.4	11.2	11.6	12.8	14.3	16.4	17.4
Enterprises (undistr. profits)	4.9	8.5	7.5	5.1	5.1	10.5	9.9	10.4	18.6	18.9	22.4	20.4	19.4
Government	5.1	7.3	8.0	10.2	10.7	14.2	16.3	14.2	9.7	13.1	18.4	20.5	22.1
Total	12.0	18.1	20.0	21.3	23.8	32.0	33.6	35.7	39.9	44.8	55.2	57.4	58.9
SAVING INCLUDING CAPITAL TRANSFER (PER CENT)													
Private households	16.8	12.8	22.1	28.6	33.7	23.0	21.9	31.3	29.2	28.6	25.9	28.6	29.6
Enterprises	40.9	46.8	37.7	23.7	21.3	32.7	29.6	29.0	46.5	42.2	40.7	35.6	32.9
Government	42.3	40.4	40.2	47.7	45.0	44.3	48.5	39.7	24.3	29.1	33.4	35.8	37.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Monthly Report of the Deutsche Bundesbank, Vol. 11, No. 6, June 1959, p. 6; and Vol. 16, No. 5, May 1963, p. 5.

TABLE A-7

Taxes Saved by Exemptions for Construction of Dwellings, 1949-59

(million DM)

Type of Exemption	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	Total
1. General personal allowances (according to §10, section 1, no. 3 of income tax law)	90	165	145	175	215	250	270	275	320	285	345	2,535
2. Exemption for housing loans, (according to §7c of income tax law)	105	160	180	200	220	230	120	80	25	20	20	1,360
3. Special depreciation allowances for newly built dwellings (according to §7b of income tax law)	20	40	50	70	100	140	180	250	345	400	450	2,045
4. Exemptions from real estate tax	n.a.	n.a.	30	55	85	120	160	200	250	295	340	1,535
5. Tax exemptions for special interest-bearing bonds (according to §3, section 1, no. 1 of income tax law)	n.a.	n.a.	n.a.	n.a.	45	90	85	85	85	100	100	590
6. Other exemptions	—	10	15	20	20	25	30	30	30	35	35	250
Total	215	375	420	520	685	855	845	920	1,055	1,135	1,290	8,315

SOURCE: *Finanzbericht*, 1961, pp. 110-111. The figures include West Berlin.

TABLE A-8
Financial Program for Investment Aid
(million DM)

Branch of Industry	Amount	Planned Total Investment Financed by		
	of Total Investment Planned (1)	Investment Aid Funds (2)	Proprietary Capital ^a (3)	Other Means (4)
Coal mining	1,597	228	930	439
Iron and steel	1,264	297	532	435
Electric power plants	1,387	242	610	535
Other utilities	447	183	155	109
Construction of railway carriages	50	50		
Total	4,745	1,000	2,227	1,518

SOURCE: Kuratorium für das Industriekreditbank-Sondervermögen, Investitionshilfe (ed.). *Gesamtbericht über die Durchführung der Investitionshilfe und Jahresbericht für das vierte Geschäftsjahr (1. Juli 1954-30. Juni 1955)*, Anhang, Tabelle 6.

^a Primarily from tax exemptions provided by investment aid regulation.

COMMENT

FRITZ NEUMARK, UNIVERSITY OF FRANKFURT

I find myself in nearly complete agreement with Häuser's exposition of his subject, as well as with his critical appraisal of German tax policy during the last fifteen years. But fortunately, there is always the small reservation of "nearly." In other words, when trying very hard, I may be able to make some minor points which can be considered as criticisms or as amendments.

First of all, however, I would like to say that to my mind, Häuser has succeeded very well indeed in giving a lively and correct picture of the problems at hand. The distinction of four periods of German postwar economic development—namely, those of collapse, of revival, of normalization (if there is such a thing as normalization),

and of overemployment—helps to point out very neatly the different economic and fiscal problems Germany had to face.

Further, while studying tax measures affecting economic growth, the author has carefully avoided the danger of entangling himself in the numerous details of legal provisions and fiscal techniques so characteristic of Germany's postwar fiscal policy.

Finally, I agree with most of his judgements on the results of this policy which, from the point of view of economic growth, were doubtless very remarkable indeed, whereas with regard to economic stability, they deserve rather poor marks.

But even those financial devices which helped to overcome the extraordinary shortage of capital during the first five or six years after the war are shown by Häuser to be far from without faults and disadvantages; these latter are often neglected, I think, by blind admirers of the too much quoted "German economic miracle."

One of the drawbacks of German financial policy is the extremely complicated shape of its fiscal legislation and techniques; another, and perhaps the most serious one, is the fact that it resulted in a distribution of tax burdens and, consequently, of income and wealth which is not consistent with the generally recognized principles of fiscal equity and social welfare.

As to the first point, laws on income tax, corporation tax, and last but not least, turnover tax, with their numerous special provisions, exceptions, differentials, and so on, have become so difficult to understand that, just as in the U.S., most taxpayers, including professors of public finance and fiscal policy, who want to draw the maximum advantage from these provisions or, for that matter, simply to file a 100 per cent correct tax return, have to rely on highly specialized tax consultants. Inasmuch as demand tends to engender corresponding supply, this has caused a considerable rise in the number of tax consultants. In an economy where, at least for the last six years or so, there has been overemployment rather than underemployment, such a use of highly skilled manpower can hardly be said to correspond to the need for optimal allocation of resources. In addition, I think it raises the social costs of the taxation process.

Further, since only taxpayers in the higher income brackets have

thought it worthwhile to engage the rather expensive services of tax consultants and have had, at the same time, the necessary means to do so, less well-to-do people—mostly those belonging to what is called “small business” or the liberal professions—can be supposed to have overlooked and, therefore, lost some if not all the fiscal privileges they might have been entitled to claim.

Evidently, these last remarks are of some relevance also for my second point, the importance of which, however, is much more far reaching.

In view of the fatal shortage of capital which faced the German economy during the early and possibly also the later postwar period, tax policy probably could not but consider the promotion of capital formation as its main, if not its sole, aim as far as economic considerations are concerned.

Aside from foreign aid, there are three sources of capital disposable for investment purposes: (1) government savings, (2) savings of private households, (3) savings of private enterprises.

Since, from the point of view of a market economy system, a high rate of government saving is not desirable (and I should mention that even during the last six years, this rate still averaged about 40 per cent of total current saving in Germany), German public policy was aimed at raising the share of the private sector. However, at least until 1953, private household savings were very small, so that this aim could be attained only by measures tending to further self-financing of enterprises.

In fact, undistributed profits of enterprises represented more than 40 per cent of total capital formation during the first three normal postwar years and, though fluctuating very strongly, still about 30 per cent between 1953 and 1960. To a very large extent, this result was due to preferential tax treatment in the form of deduction of that part of profits used for investment, depreciation allowances, etc.; that is, measures inducing what is called by Häuser quite adequately “forced investments.” These provisions succeeded in offsetting a large part of the impact of excessively high tax rates existing at those times.

Häuser even points out, and I quite agree with him, that in a paradoxical way, it was excessive tax rates (combined with lavish

investment credits, depreciation allowances, etc.) which contributed to rapid economic growth; but though this statement is correct, it should not be generalized.

In any event, the positive over-all impact of tax policy on capital formation must not lead us to overlook the fact that the larger part of newly created capital remained in the hands of the entrepreneur class, thereby raising the degree of inequality in the distribution of net wealth. It would be an exaggeration to maintain that this result was absolutely inevitable.

To a certain extent, it is doubtless true that if one wants to raise the total of private savings, one has to give preferential treatment to the receivers of high incomes who, according to empirical studies, have a much greater propensity to save than people in the lower income brackets. However, the rather small saving ratio in the lower, and perhaps even the middle, income brackets, which could be observed in Germany during the first two postwar stages, was, to my mind, due less to such factors, mentioned by Häuser, as "the surge of consumer demand" or "suspicion of money as a store of value" because of experiences with two galloping inflations, than to the very simple fact that the disposable income of the working class was extremely low in that period. That it was the objective incapacity to save rather than an unwillingness which was responsible for the meager contribution of private households to capital formation was proved by the fact that there was a remarkable increase in saving after 1953 and particularly since 1957. The absolute amount of private household saving quadrupled in the last decade and its share in total savings rose from less than a quarter to about one-third. All this shows that in spite of all bitter experience of inflations, lost wars, and so on, the German population still is rather thrifty and will save whenever the level of income allows it.

Now, it would be unjust to maintain that German tax policy did nothing in favor of small income receivers. In fact, as explained in Häuser's paper, quite a few tax provisions tended to encourage household savings. However, it is rather doubtful whether these measures were adequate.

In this respect, I share Häuser's opinion that, for instance, deduction of savings from the income tax base and possibly also the

premiums given by the government to holders of savings accounts did not give rise to additional savings on an appreciable scale, but rather to a change in forms of saving.

One of the most doubtful measures taken to promote the establishment of a so-called "normal" or sound capital market was the partial or total exemption from income tax of interest on certain bonds.

At the time this measure was taken, I called it a "perverse" one in terms of the principle of ability to pay: the higher the income, the greater the possibility to profit from this measure, and, due to the progressiveness of the rates, the larger the advantage to be derived from it.

In several respects, the findings of Häuser are confirmed by a book, *Fiscal Policy and the Formation of Private Net Wealth*, by Dr. Alois Oberhauser, a young professor at Freiburg University. The statistical data in this study show that the bulk of all fiscal advantages went to relatively wealthy individuals, whereas the majority of the working class and other people subject to tax withholding did not, or rather could not, make adequate use of those provisions.

For example, in 1954, only about a third of the taxpayers with incomes of 6,000 marks or less were able to profit from tax preferentials relating to insurance premiums, savings, and so on, and the amount of the sums they were allowed to deduct under these headings averaged around 600 marks. As against this, more than 90 per cent of receivers of income above 16,000 marks made use of these provisions. In the highest income bracket, deductions amounted on an average to more than 115,000 marks.

Even granted that, for early postwar economic and fiscal policy, considerations of justice and equity had to give way to the then paramount necessity of furthering capital formation, one may ask whether, since 1957, it would not have been possible and advisable to attempt a certain correction of the distributional results of the preceding tax policy. There are, to my mind, two possibilities—at least two. One possible way would have been a transformation of the existing tax on net wealth by replacing its present proportional rate by moderately progressive rates. Another way would have been a reform of inheritance taxation. With respect to this latter tax I

would like to mention that, in most cases, its effective burden in Germany is among the lowest in the world. The reason is not so much that German inheritance tax rates are comparatively low, but rather the fact that the personal exemption in the great majority of cases, where the heir is a husband or wife with offspring, amounts to 250,000 DM—a very high sum by German standards. So far, however, any attempt to arrive at more effective inheritance taxation, e.g., by introducing an estate duty with low exemptions, had been frustrated because of the dogma in ultraconservative circles that such a tax, aside from reducing capital formation, would destroy the family, the most important cell of social life. It seems that in Germany, even a socialist minister of finance would not be able to put into force an inheritance tax along the lines adopted long ago in the U. K. by liberal or even conservative governments.

At any rate, the present rather steep progressivity of income tax together with a tax on net wealth has not succeeded in providing a reasonable redistribution of wealth and income, although this is an alleged target of German economic and financial policy.

Aside from the effects of income and corporation tax differentials mentioned in Häuser's paper, the present form of turnover tax also has contributed to a progressive concentration of firms and private wealth. According to Häuser, this tax, as well as that on transportation, may be said to be "a tax on the division of labor." To a certain extent, this statement is doubtless true, but I think one should not exaggerate its real effect. If I understand Häuser correctly, he does not consider such a tax an element of a rational tax system, since it is neither a spending tax nor an excise. Though I am perfectly aware of the deficiencies of the German type of turnover tax, I believe, nevertheless, that a general sales tax or a consumption-tax type of net value-added tax is a useful, if not a necessary, element of a modern tax system. The tax system today has to ensure revenue of such a magnitude that income taxation—even when combined with some excise duties and transfer taxes—could not do the whole job by itself.

Before concluding, I would like to raise the following two points: first, I cannot quite agree with Häuser's opinion that the over-all tax burden in Germany "is still considerably higher compared with

other nations." At the most, this may be true if one lumps together taxes proper and social security contributions, although even then, the differences between the German "burden" (expressed as a percentage of GNP) and that of, say, France and Sweden are not "considerable" but rather small (cf. Table 3 of the paper). I would also question Häuser's statement that a 32 per cent share of taxes and social security contributions, as it exists in Germany, means "the draining off" of the same percentage of "private resources." More important, however, is that Häuser does not explicitly point out (although I am sure that in this respect, we are in full agreement) the necessity to consider not only tax payments made to the Treasury but also payments made out of tax revenue—in other words, tax-financed public expenditure. This, of course, is a truism but, apparently, one cannot too often emphasize the fact that the real macroeconomic burden of taxation—if any—results from an economically irrational use of tax revenue rather than from the tax collecting process as such. It follows that the popular comparisons of national tax "burdens" in terms of percentages of GNP are misleading.

My second and final point relates to a problem of fiscal policy. No doubt, Häuser is entirely right when accusing German financial policy of "indifference toward inflation" and deploring the lack of consciously taken anticyclical measures. I also agree with his criticism of the official view that under given political conditions, possibilities of an anticyclical budgetary policy are very restricted. At present, only that part of the income tax which—not quite correctly—is referred to as "wage tax" and, to a lesser extent, the turnover tax are rather strong built-in stabilizers, whereas the so-called assessed income tax and corporation tax are not. The reason for this divergence is mainly due to differences with respect to collection methods. To make the corporation tax and individual income tax (aside from withholding on wages) respond to cyclical fluctuations of economic activity more strongly and more quickly, payments on account of these taxes, as Häuser points out, should be much more closely adjusted to income and profit movements. This may require some amendments of existing laws in order to make corporation taxes and income taxes other than wage taxes payable in quarterly instalments. Later on, payments could be corrected by either re-

funds or a final payment. However, under the existing legal provisions, it would be possible to adapt instalment payments to major changes in current or expected income. In this connection, Häuser writes: "Whereas taxpayers normally reduce their instalments if they anticipate a reduction in income, they seldom increase payments for the reverse reason." To this statement I would like to make the following objections: first, taxpayers cannot reduce (or increase) their liabilities by themselves but only after receiving the consent of tax authorities; secondly, if it is quite understandable that in the event of decreasing profits, the initiative in getting a downward-adjustment of tax liabilities rests with the taxpayer, it should be equally natural that in case of growing income, the tax collecting agencies take the initiative to increase tax instalments. Apparently, this is not done, or not to a sufficient extent, in Germany, but the income tax act provides the possibility of such a procedure. Therefore, even under existing law, the lagging of tax payments in times of inflationary pressure could, at least partly, be corrected—it should be, since it is not only disadvantageous in terms of fiscal policy, but is also a source of great injustice to those who have to pay their taxes without delay.

I would like to conclude by adding that, in my opinion, the present built-in flexibility of the German tax system could, and should, be complemented by a flexible tax policy proper. In other words, government should be given the discretionary power to raise or to lower, within certain legally fixed limits, withholding rates and instalments on account of assessed income tax and corporation tax. The necessity for an effective fiscal policy of providing such a procedure is evident; these days it is demonstrated anew by the course of events arising from the tax-cut proposals of the present U.S. administration.

PAUL SENF, UNIVERSITY OF THE SAAR

I agree in general with Häuser's report. It is not possible in this short time to go into detail, but I should like to make some general remarks.

It was certainly no easy task to prepare a report on taxation and economic growth in Western Germany. Häuser had mainly to overcome the difficulty that, as is shown, many tax provisions seemed to favor economic growth but there existed no conscious tax policy to this end. He had, therefore, to find out whether the various tax measures actually did foster economic growth—and to what extent, and with what efficiency. These remarks are intended to show the enormous difficulties Häuser had to overcome in his analysis, and the difficulty of finding concepts and measures of growth.

As is shown in the report, the German Tax system is a composite of a great number of taxes, different in type and dissimilar in weight and, I should like to add, contradictory in their aims and their effects. It must also be added that, during the period analyzed, there was a remarkable change in the whole tax structure.

The largest portion of total tax revenues, including social security contributions from the so-called "inland sector," have come from the turnover taxes in varying proportions: in 1950, 22.5 per cent, and in 1959, 23.9 per cent. The next highest portion came from consumption taxes during the 1950's, but their share sank from 18.3 per cent in 1950 to 9 per cent in 1959. Similarly, the equalization-of-burdens capital levy sank from 11.2 per cent in 1950 to 4 per cent in 1959. There were only slight changes in the share of the wage tax, which was 9.4 per cent in 1950 and 10.2 per cent in 1959, and the personal income tax, which rose from 10.4 per cent in 1950 to 13.4 per cent in 1959.

It may be interesting to note also the development of transfers of taxes and social insurance contributions from the private households and enterprise sectors to the government sector from 1950 to 1959. The portion contributed by the enterprise sector as a percentage of total public revenues, including social insurance contributions, sank from 53.9 per cent in 1950 to 49 per cent in 1961. The share of private households rose from 45.7 per cent in 1950 to 48.7 per cent in 1961. We can say that, in 1961, both portions are nearly equal. Or, expressed in other terms, if we take 1950 as 100, the transfers from enterprises rose to 345 points, and the transfers from private households rose to 400 points.

The development of transfers from the state to the enterprise and private household sectors, although not our main concern here, is noteworthy, as perhaps some conclusions can be drawn from it. The portion of transfers from the state to enterprises, in the form of subsidies and investment aids, as a percentage of the total transfers paid by the state, rose from 7.4 per cent in 1950 to 11.2 per cent in 1961. Transfers from the state to the private household sector were 85.2 per cent in 1950 and 77.3 per cent in 1961.

Whereas the transfers paid by enterprises declined in 1950 to 1961, the transfers received by them rose. In the private household sector, the movement was in the opposite direction. The change of the relative weight of some important taxes, as can be seen from the above figures, also influenced the division of total tax resources among federal, state, and local governments.

Even if this change was not very important in its quantitative aspect, it nevertheless influenced many tax decisions, if only politically, because each level of government tried to retain its tax sources. To find out under such conditions what taxes have had what growth effects, and what growth effect the tax system as a whole has had, is, to my mind, only possible in the sense that the analyst tries to find some tendencies; I think that Häuser did not try to do more.

Although, as I said, there was no conscious tax policy for economic growth in Germany, perhaps it would be helpful to review briefly the main factors which, in fact, influenced Western German tax policy after the war. The financial needs of the public sector were extraordinarily high. There was no capital market, and, therefore, no possibility of loan financing. The tax capacity was low. The German authorities had to take over a prohibitive tax system which was introduced by the Allies; therefore they had initially only a limited possibility of influencing tax policy effectively.

Through the intervention of the Allies, Western Germany became a federation, a factor of decisive influence on future tax policy. The tax policy of the last few years has been influenced by a multiplicity of factors, among which causes and effects cannot always be isolated. Of the main factors, the following should be cited: (1) the Korean crisis and the changing concept of defense pol-

icy as regards Western Germany; (2) the beginning of the transfer of functions from the states to the federation; (3) the high rate of growth of the economy, and the strong influence of lobbies.

Under the influence of these factors, I think the main feature of German tax policy was the continuous lowering of the tariffs and the tax rates, especially of the income and net wealth taxes, but also of some consumption taxes—and this despite the fact that budgetary receipts mainly rested on taxes. These measures were not part of a general tax reform, but the result of a differentiation among tariffs, numerous exemptions, and special allowances (as Häuser shows), with the main aim being to weaken the nominal tax rates of what had become a repressive tax system. Later, some of these measures were abolished along with the general reduction of income taxes, but the timing and nature of the measures show that they were mainly politically motivated, and were supported by the progressive increase of tax revenues.

The build-in flexibility of the principal taxes were, according to one calculation, the following: for the wage tax, 2.31 (1955-60); for the assessed income tax, 2.47 (1955-60); for the enterprise tax, 1.93 (1953-59); for the turnover tax, 0.98 (1952-60); and for the corporation tax, 1.90 (1953-59).

The highly progressive character of the main taxes and the high growth rates of the gross national product made possible this enormous weakening of the nominal rates, especially of the income taxes and taxes on profits. I think it is necessary to point out this fact because otherwise one could get the impression that, as Häuser showed, there was really a tax policy in Western Germany during the several periods of growth, which was in accordance with the necessities of these periods. In this respect, I believe that Häuser interprets the tax policy during these periods more as it should have been than as it was.

A study of all tax laws since 1950 shows that the main aim of nearly all reforms was the relief of the German economy. The only real reform in income tax rates in 1958 was caused by a decision of the Constitutional Court at Karlsruhe by which some kind of income splitting was introduced. But this was a "forced" reform and not based upon economic reasoning.

I should like to guard against leaving the impression that tax measures, in my opinion, did not effect economic growth. I generally agree with the statements of Häuser, although I am not so optimistic as regards the real effects.

As regards special measures to promote savings, Häuser clearly shows that those adopted have been a very costly experiment without having had any considerable effect upon saving. Neither did they have the intended distributional effects.

As to the turnover tax and its effects, Häuser stresses mainly the concentration effect of this tax, and its favoring of big business. But the question remains, whether this tax initiates big business or whether big business only has a financial advantage by the tax. I think that this problem is a little overstressed in our discussions; the impediment to the optimal allocation of resources is the main problem.

As regards tax allowances for construction of new houses and buildings, I should like to add that, besides the sum of 8 billion DM from tax exemptions, 43 billion had been spent up to 1959 out of the budgets of the several levels of government.

Häuser demonstrates, finally, that there was no effective anticyclical budgetary policy at all—with one exception; I agree with this. In this connection, I should like to put some final questions. If there was no stabilization policy, and, as regards tax policy there existed no growth concept and conscious growth policy, what then were the real factors which influenced German economic development, and have the cited tax measures really had a decisive influence or not?

As I said before, I am not as optimistic as Häuser concerning the effectiveness of these tax measures. They certainly furthered, for example, investment in the private sector, but can one say that this always was done in the right way from the economic point of view (e.g., in the shipbuilding industry)? I think the difficulty in saying more about this lies in the fact that we cannot, in a clear, analytical, and empirical way, find out what effects these special measures really have had, and therefore we cannot draw any valid conclusions as regards the influence of these measures upon economic growth. Besides the statistical difficulties, one cause of this dilemma

may be that in Western Germany conformity exists neither within the tax system as a whole, nor as between tax policy within the framework of this system, on the one hand, and the so-called social market economy and economic policy on the other.

In my opinion, economic growth in Germany was more influenced by the expenditure side of the budget than by the revenue side. But this should not be discussed here.