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Index of the Net Value of Industrial Production

Grouping of Commodities

Considerations on the Census Programme 1960

**Seasonal and other Recurrent Influences on Short-Term
Economic Indicators**

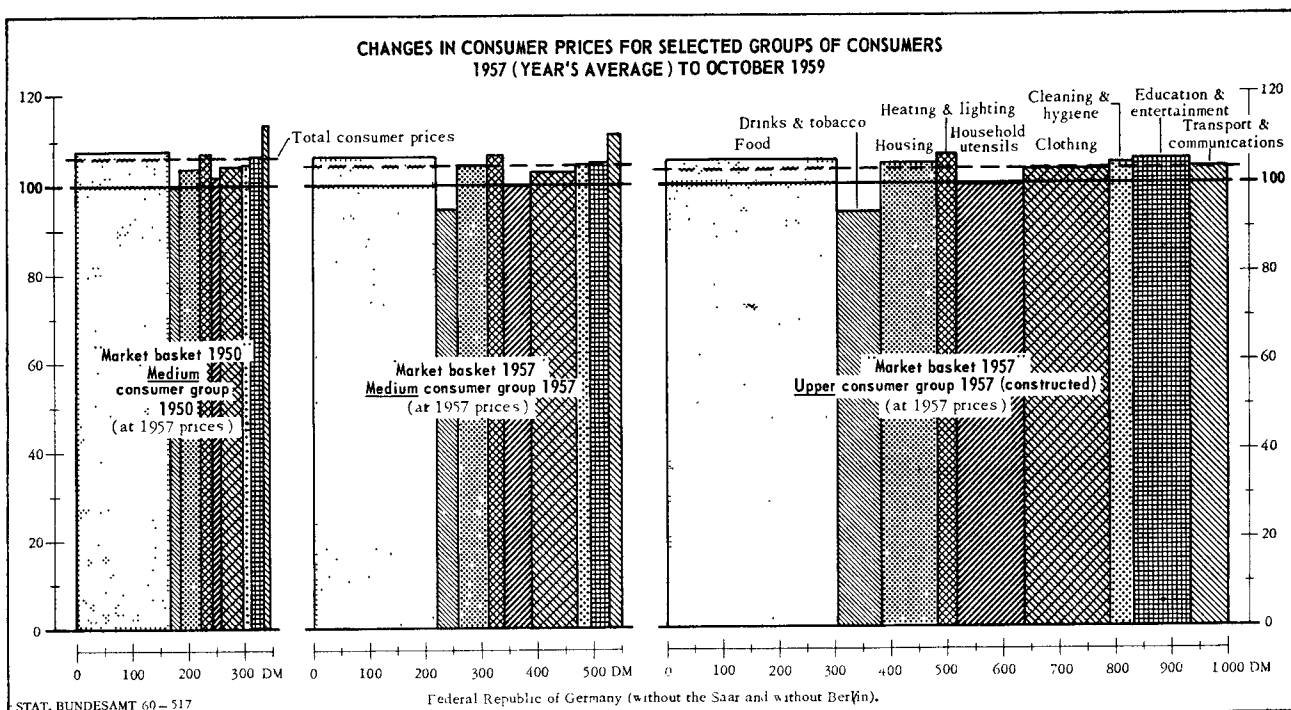
The Statistical Unit in Economic Statistics

German Sample Surveys

**Statistics on Gainfully Active Persons
and on Employment Cases**

Number and Structure of Households and Families

New Index of Construction Prices



As regards the INDIVIDUAL DEMAND GROUPS, it may be said that on the whole the tendencies of development are similar. As for the expenditure on foodstuffs, the price increase is strongest for the relatively smallest "market basket", and the other structure of the "market basket" 1957 has led to smaller price increases than for all three "market baskets" according to the 1950 consumption structures.

Regarding the expenditure on housing, the reverse is true: at the 1957 consumption conditions the price increase is more marked than at the consumption conditions in 1950. As for the expenditure on clothing, education and en-

tertainment, the increase in the prices of the relevant commodities contained in the 1957 "market basket" remains clearly below the increase in the prices of the corresponding commodities contained in the "market basket" of 1950.

In future, the calculations for the above mentioned household types with 1957 as the base will be published currently by the Federal Statistical Office, until a decision has been reached on a general conversion of the price indices to another base year and another consumption structure.

Dr. Gerhard Fürst

THE GENUINE MEANING OF THE GERMAN CONSUMER PRICE INDEX

The present discussions centering around the development of prices and the development of wages and salaries, in other words the development of incomes accruing to employees, have induced the Federal Statistical Office to examine anew the knowledge provided by the instruments which it supplied for the purpose of measuring the development of consumer prices. Because of the many misleading interpretations it still appears necessary to warn all interested circles against neglecting the necessary reservations when using the available measuring instruments for purposes for which they have not been constructed.

The general public does frequently not realize that the question, to which extent consumer prices have risen, can never be answered unobjectionably, though it appears so simple at a first sight. In all cases, the statistician should ask the counter-question: "For which consumer goods do you want to know the development of prices?" "Consumption" is not an unambiguous and inflexible term, but it is widely differentiated according to the personal consumption habits, the mode of living, the level of income, etc. of the various social classes. Apart from this it changes currently, which is due to influences of many different kinds. But an actual development of prices can only be shown for commodities of the same type, the same quantity and the same quality, and these are the very criteria, which are not available in cases of a continuous growth of the economy, a currently growing and changing production and a current rise of the income and consumption levels resulting therefrom. This holds true for consumption by the total population, the value of which is reflected in the statistical recording of "private consumption", as well as for consumption by selected strata of consumers.

Undoubtedly, it appears most appropriate to base any general macro-economic information on the stability of the currency or the so-called depreciation of currency upon the DEVELOPMENT OF THE PRICES OF ALL COMMODITIES AND SERVICES WHICH IN THE COURSE OF ONE

YEAR WERE CONSUMED OR INVESTED IN THE ECONOMY, or, expressed in a brief and simplified way, upon the expenditure side of the national product. This is the aim which has since long been envisaged by the Federal Statistical Office. However, the comprehensively inclusive calculations of this type, which could be made so far, can only be regarded as a makeshift, for to date there has been an entire absence of statistics which are detailed enough for enabling a classification of total "private consumption" by commodities, which in view of the consumption problem¹⁾ forms the most important part of the expenditure side of the national product. This is another reason why endeavours have since long been made at the Federal Statistical Office to establish a comprehensively inclusive consumption sample for all strata of the population. A relevant draft law is at present dealt with in the parliamentary course of business.

In default of the above mentioned records, we had so far to satisfy ourselves at the Federal Statistical Office with showing the development of CONSUMER PRICES FOR SELECTED CONSUMER GROUPS. For some time, the official price indices²⁾ have been computed for a "medium" consumer group, which forms the center in the statistical recording, and for a "lower" and an "upper" consumer group. These computations were started from the income and consumption conditions in the base year 1950, and this practice has been continued to date. Whether and in which way the knowledge provided by the results of these computations is influenced by this practice of maintaining the same computation method over a period comprising 10 years will be discussed later in this study.

Consumption by private consumers depends in the first line upon the SIZE AND COMPOSITION OF THEIR HOUSEHOLDS and upon the INCOME LEVELS

1) See also: "Das Sozialprodukt in den Jahren 1950 bis 1959" by H. Bartels/K.-H. Raabe/O. Schörry in "Wirtschaft und Statistik", 12th Year, No. 1, January 1960. - 2) See "Der neue Preisindex für die Lebenshaltung" by G. Fürst/P. Deneffe in "Wirtschaft und Statistik", 4th Year, No. 10, October 1952, p. 329 ff.

OF THEIR FAMILIES. In accord with the practice followed in relevant calculations at the former Reich Statistical Office, which were based on a wage earner's 5-person household, the computation of the present official index of consumer prices has been based on a 4-person household of a dependently employed person, in which only the head of household is employed full-time, and in which there live two children, one of whom is under 15 years old. But this household or family type only accounts for a relatively small part of the German households. The 1 % supplementary survey to housing statistics 1957³⁾ has shown that only about one tenth of all family households of dependently employed persons falls to the type of the 4-person household with only one income recipient (irrespective of the number and age of the children). Apart from this, it has become recognizable from the statistics in question that approximately one sixth of the households of dependently employed persons is consistent with the household type embracing 2 children (a cross-classification by the number of income recipients is not possible). These data on the household type alone indicate that the price index computed cannot, as it stands, be regarded as valid for the total of all households. Another factor restricting the knowledge provided by the index is the fact that within the household type itself, which has been used as a basis, allowance has only been made for a small income group. When the index was constructed, data on the income pyramid of specified household types, and particularly on the family incomes which are important with a view to consumption, were not available. Some information on the net income of families has meanwhile been provided by the above mentioned 1 % supplementary survey 1957. This information suggests that approximately four tenths of the households of dependently employed persons falling to the household type under consideration have an income which is widely consistent with the consumption expenditure of the "index households". But nevertheless may we assume that the knowledge provided by the index of consumer prices covers a wider

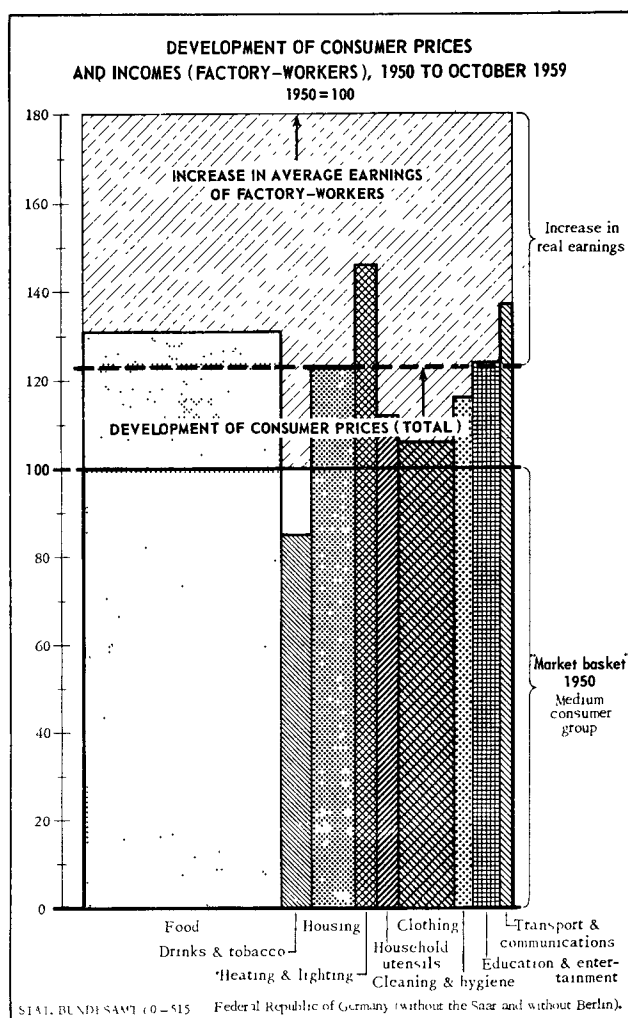
range than may be expected on so small a basis. Also in case that the number of income recipients is greater while the number of household members or the level of income remains much the same, or also for households with the same income level but of a different size, the consumption structure will correspond to the selected household type to an extent wide enough for measuring also the conditions in these "neighbouring" household types by the price index in question.

All in all it must be said that owing to the fact that the HOUSEHOLD TYPE and its LEVEL OF INCOME HAD TO BE DETERMINED ARBITRARILY the calculations concerned have only a very small basis. The counter-question, which suggests itself, namely why at the Federal Statistical Office there are not computed any price indices for other household types and income levels can only be answered by referring to the fact that apart from the general income and consumption sample mentioned before there is an entire absence of records which show how the consumption of these other household types is composed according to types of goods, quantities and qualities. Because of the great socio-political importance which is attributed to the price index it is not possible to compute different price indices on the basis of a constructed or estimated family budget. If this were done, either the employers or the employed would certainly and correctly raise the objection that such estimates can easily be manipulated so as to prove a "desired" development of prices. Accordingly, governmental statistics which are not to measure vagaries, but should and must measure facts, are forced to base the urgently required calculations of the actual development of consumer prices upon unassailable statistical data on the actual consumption expenditure. The repeatedly mentioned income and consumption sample appears indispensable for this purpose, for without a usable compass which reliably indicates the movements of prices it will be difficult in any case to find the right course through the heaving waves of prices and wages in the ocean of the national economy. The costs of the compass - which have so far been saved - are out of all proportion to the costs which would have to be defrayed by the national economy if the employers and employed, the enterprises and associa-

3) See also: "Die Arbeitnehmer- und Rentnerhaushalte nach der Höhe ihres Haushaltseinkommens" by G. Fürst/K. Horstmann in "Wirtschaft und Statistik", 11th Year, No. 8, August 1959, p. 405 ff.

tions, the government and the Federal Bank chose a wrong course when taking their measures in the fields of economic and monetary policies, because the price picture to hand is insufficient for these purposes.

Even if the problem of selecting adequate household types and income groups has been solved, price statistics have still to cope with the before mentioned dilemma of a STEADILY CHANGING CONSUMPTION, and this particularly if they cover a longer period of time. An isolated recording of the development of prices can only be realized by measuring the prices of a specified "market basket", and the commodities which this "market basket" contains must remain the same in respect of their quantity, quality and composition. Accordingly, we can never manage without determining a "market basket", the prices of which we want to measure, and maintaining it over a specified period of time. The practice followed in the computation of most of the price indices is to base them upon the "market basket" of the base year and maintain it unchanged till to the time at which the base is altered and a new "market basket" introduced. This procedure (Laspeyres formula) has also been applied in the price indices published so far by the Federal Statistical Office. In accord with the family budget inquiries conducted at a certain number of households, which according to the composition of families and levels of income in 1950 were consistent with the household type described above, a "market basket" the contents of which correctly reflected the structure of expenditure AT THAT TIME was established. For buying this "market basket" of the so-called medium consumer stratum approximately 300 DM were required in 1950. At that time, this amount of about 300 DM was even slightly above the average earnings of factory-workers, so that it was justified to refer to it as the "market basket" of a medium consumer group. At a 19 % average increase in consumer prices the amount to be paid for the same "market basket" in 1958 was nearly 360 DM. But owing to the general growth of the economy and the steadily increasing national product, which in turn requires rising incomes without which it cannot be produced and sold, the average monthly (gross) earnings of factory-workers have meanwhile risen



from about 275 DM in 1950 to about 460 DM in 1958. In other words, the contents of the "market basket" which corresponds to the PRESENT income of a medium consumer stratum (again measured, say, by the average income of factory-workers) are considerably DIFFERENT from and much RICHER than the contents of the 1950 "market basket". The difference between the "price" of the 1950 "market basket" amounting to about 300 DM, and the price of the 1958 "market basket" with its different and richer contents, which according to the family budget inquiries amounted to 574 DM, is only to a very small extent due to increases in prices. Major part of this difference results from a lasting real increase in incomes.

In part, these interrelations have already been described twice in the journal "Wirtschaft und Statistik"⁴⁾. In the relevant

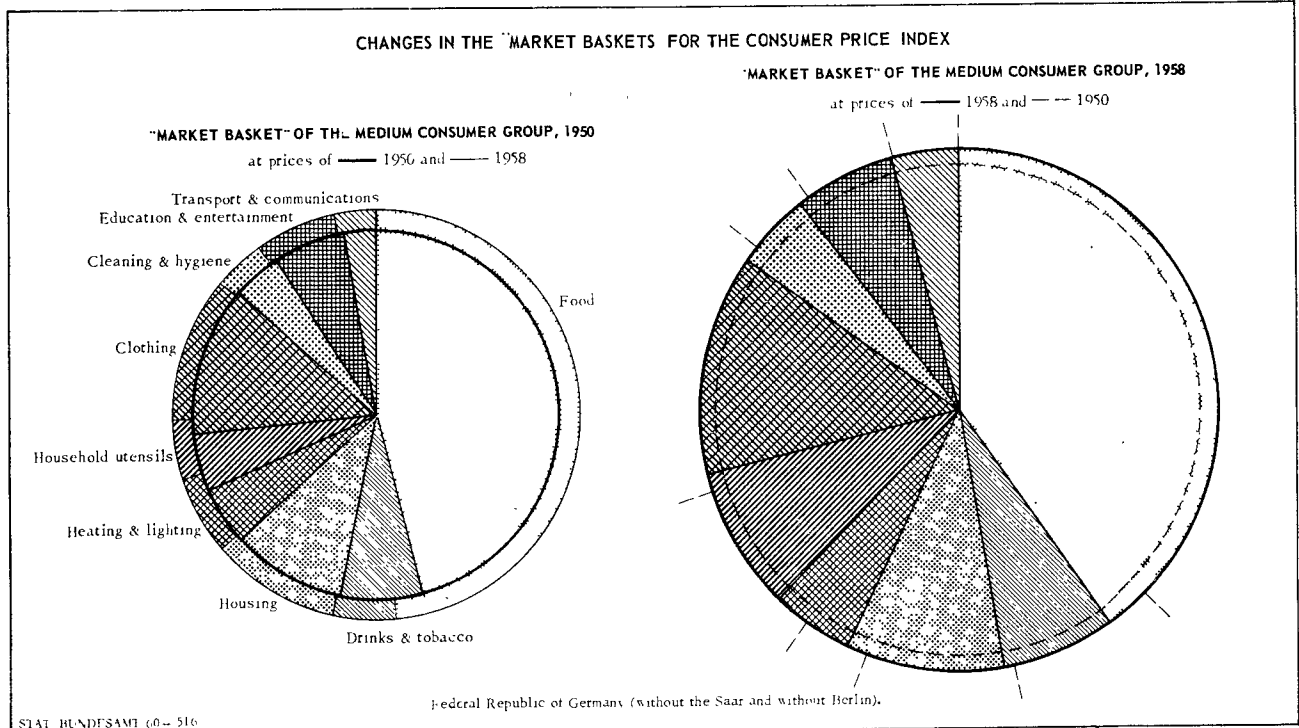
4) See the last of these two articles: "Zum Preisindex für die Lebenshaltung" by P. Deneffe/I. Hiller in "Wirtschaft und Statistik", 10th Year, No. 10, October 1958, p. 545 ff.

articles it was shown that the price difference between 1950 and the present time becomes smaller when the price development is measured by the "market basket" of TO-DAY instead of being based upon the 1950 "market basket", which has so far been the practice. The reasons are easy to recognize. In the smaller "market basket" of 1950, for instance, foodstuffs played a much more important part than they did in the "market basket" of 1958. In 1950, they accounted for 46 % of the total contents (measured by their value), while in 1958 only 39 % of the contents were occupied by foodstuffs, though it is true that despite the decreased proportion the absolute quantity of foodstuffs is to-day considerably larger and their quality considerably better than in 1950. (The absolute amounts were 133 DM in 1950 and 219 DM in 1958.) The experience that the prices of foodstuffs, which still occupy an important place in the total consumer prices, have increased to a wider extent than the prices of other groups of demand, results in the fact that according to the official index with 1950 as the base the price increase is more marked than it would be when the "market basket" of TO-DAY were used as a basis.

It should again be warned against the obviously ineradicable idea that the calculations based on a "market basket" with richer

contents would show a stronger price increase than the calculations based on a "market basket" with poorer contents. Later in this article it will be shown by relevant figures that the reverse of it is true, though this can already be seen from the differences in the calculations made so far for the lower, the medium and the upper consumer strata. The richer are the contents of the "market basket", the smaller are the price changes. This may already be explained by the fact that rising prosperity is accompanied by a decrease in the proportion of the expenditure on foodstuffs which, relatively, have become more expensive and that, in general, consumption additionally turns to the rationally manufactured industrial products the prices of which use to increase to a smaller extent than the prices of foodstuffs, or even tend to decrease. Particularly the durables such as motorcars, refrigerators, washing machines, radio and television sets, electric shavers, etc., but also consumer goods of other kinds such as clothing and household utensils of plastic materials are to-day less expensive than the corresponding commodities of the same quality would have been in 1950 (if then they had already been available).

These examples are only very rough; reality is much more variegated and multiform.



Among foodstuffs, for instance, the prices of meat and fats of a high quality have increased much more strongly than the prices of meat and fats of medium qualities. Finally, foodstuffs are not the only commodities which have taken the lead in following the upward movement of prices; as regards the services, the situation is much the same.

All considerations so far made at the Federal Statistical Office have led to the conclusion that the decision on the NEW COMPUTATION OF PRICE INDICES on a base which comes closer to the actual consumption conditions of to-day must no longer be deferred. The reason why despite the conditions already described for 1957 in the before mentioned article a revision of the price indices has not been made so far lies in the fact that in many contracts and agreements the official price index is used as a measure of the increase in prices. The selection of another "market basket" which comes closer to reality must necessarily cause an interruption of the present price series, which may in turn embarrass the prevailing legal conditions. Thus it is understandable that such a trenchant cut is not made before it can no longer be avoided. It is true that in practice it is advantageous to have available one single and uninterrupted series on which contractual agreements can be based, but whether such a series is actually "just" to all parties concerned is quite another thing. However, these considerations to the prevailing legal conditions must by no means result in a misleading interpretation of the macro-economic picture of the price development. The present price index is correct, if it is used for obtaining that information which it actually provides, namely on how the price of a specified "market basket" has changed from 1950, when this basket was fixed for a 4-person family of a dependently employed person at a certain income level; with certain restrictions the basket in question may also have been valid for a larger sphere. However, the interest in this information decreases step by step if a "market basket" with much richer contents is at the disposal of the majority of the population. Added to this is the experience that in the short-term observation greater interest is taken in the development of the prices of those commodities

which are bought and consumed TO-DAY than in the development of the prices of commodities which used to be bought FORMERLY.

The question concerning the revision of the index of consumer prices will only be indicated within the scope of this article. It will be considered in detail at the meeting of the Advisory Committee at the Federal Statistical Office to be held in May, for when choosing a new base year for the price indices account must also be taken of the indices of other economic facts, so that these questions must be considered for all statistics together. The method used with the present price index with 1950 as the base was fixed in close cooperation with the employers and employed, who both consented to it, and it is a remarkable success that in recent years serious objections have not been raised to the method followed in the official measuring of prices. This is why the Federal Statistical Office does not want to make any changes without the consent of the Advisory Committee, which the legislator established for its assistance, and which in addition to the representatives of many agencies interested in statistics also includes the representatives of the trade unions and employers' associations.

But nevertheless has it been found adequate at the Federal Statistical Office, to concrete the general considerations referred to above by some calculations. Accordingly, the DEVELOPMENT OF CONSUMER PRICES will be given below for various types of consumers according to both the 1950 and the 1957 "market basket". The year 1957 was selected, as these figures can be used for recording the development of prices in the last two years. Thus, the year 1957 should not be regarded as the suggested new base year. For this purpose the years 1958 or 1959 appear more appropriate because of the relatively unimportant changes in prices and wages, or 1960 might also appear appropriate as the new base because of the incorporation of the Saar. But this problem will, as already mentioned, be dealt with at the meeting of the Advisory Committee.

The following table shows clearly that the INCREASE IN THE TOTAL OF CONSUMER PRICES GETS RELATIVELY SMALLER THE HIGHER THE MONTH-

The Development of Consumer Prices at Different Consumption Conditions
from 1957 to October 1959

"Market baskets" ¹⁾ Consumer groups	Monthly consumption expenditure		Total consumer prices	of which in the demand groups									
				food	drinks & tobacco	housing	heating & lighting	household utensils	clothing	cleaning & hygiene	education & entertainment	transport & communications	
	1950	1957											
	DM												according to the position in October 1959 (year's average 1957 = 100)
Consumption conditions 1950													
lower	175	210	107.0	108.7	96.2	103.7	108.7	102.5	104.4	106.3	105.8	113.2	
medium	300	345	106.2	107.8	99.7	103.7	107.1	101.9	104.3	104.7	106.7	113.4	
upper	525	600	105.2	107.4	97.5	103.8	106.5	101.2	103.6	104.2	106.4	109.7	
Consumption conditions 1957													
medium	-	550	104.3	106.4	94.5	104.4	106.7	99.8	102.9	104.6	105.0	111.3	
upper	-	1 000	103.2	105.3	93.7	104.6	106.5	99.6	103.1	104.6	105.4	103.7	

1) According to the results of the family budget inquiries; for the group with a consumption expenditure of 1,000.- DM per month according to a model pattern of a household in the upper group in accord with the general observations in the field of consumption.

LY CONSUMPTION EXPENDITURE becomes. The rise in the total of consumer prices from 1957 (year's average) to October 1959⁵⁾ ranges between 7.0 % for the household type with the smallest expenditure and 3.2 % for the household type with the relatively highest consumption expenditure. Since 1957, consumption has become relatively most expensive in the "lower" consumer group, in other words in a household which in 1950 had to spend approximately 175 DM on its "market basket" (and approximately 205 DM in 1957). As regards the increase in consumer prices in the "medium" consumer stratum of 1950 (with a consumption expenditure of 300 DM in 1950 and 345 DM in 1957), which has so far been given priority in governmental price statistics, it was 6.2 %. For the group referred to as the "upper" consumer stratum in 1950 (with a consumption expenditure of 525 DM in 1950 and 600 DM in 1957) the price increase was 5.2 %.

If we start from the "market baskets" of 1957 which owing to the general growth of the economy and the higher income levels resulting therefrom have richer contents, it becomes obvious that the group which according to the PRESENT conditions should be termed the "medium" consumer stratum has only experienced a price increase of 4.3 %. This result is interesting insofar as it illustrates that the consumers have turned to other commodities. The absolute amount of the total expenditure of the "upper" consumer stratum of 1950 is in 1957 (about 600 DM) even slightly above that of the "medium" consumer stratum of 1957 (550 DM). Accordingly, the experience that for this medium stratum the prices have risen to a smaller extent is not due to the level of income, but can only be attributed to the fact that the 1957 consumption is composed in another way than that reflected by the results of the current adjustments of the 1950 consumption conditions of the upper consumer stratum. Another reason which may be referred to in this connexion is the experience that the buyers turned to those commodities which were actually worth their money.

5) The month of October 1959 was selected because of the special price conditions which were experienced in the market for foodstuffs in November and December 1959 and for reasons of working techniques.