

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Office Corresponden

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Го	Chairman Eccles	Subject:			
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In connection with your Treasury meeting.

CURRENT COMMENTS

Excess reserves

In the week ending March 31 member bank reserve balances, increased and reserve requirements declined substantially, with a resulting increase in excess reserves of \$130,000,000 to a total of \$1,400,000,000. The increase in reserve balances was attributable to a decline of \$90,000,000 in nonmember and foreign deposits, offset in part by a \$30,000,000 increase in Treasury balances with the Reserve banks. The decline in reserve requirements over the week reflected withdrawals of deposits from Chicago banks prior to the property tax date of April 1. At this time depositors of Chicago banks generally buy Government securities from their banks in order to decrease tax liabilities. This decline in requirements is temporary and a substantial increase may be expected during the next week.

During the current statement week ending April 7, little change is anticipated in excess reserves. The expected increase in reserve requirements will probably be about offset by net disbursements from Treasury deposits with Reserve banks and a further decline in nonmember deposits.

In the period between now and May 1, it appears that excess reserves will increase further as the Treasury reduces its balances with Reserve banks, which on March 31 were unusually high. Assuming no substantial change in Reserve bank credit or in the Treasury gold policy, excess reserves may be as high as \$700,000,000 after the final increase in reserve requirements goes into effect.

Bond market

The decline in Treasury bond prices from Tuesday to Thursday of last week resulted in an increase in average yields on long-term issues to 2.79 percent, which is 0.57 percent above the low level of December 7. This is the most substantial increase in yields on Treasury bonds which has occurred since the decline of 1931-1932, when there was an increase in average yields of about 1.30 percent. Prices of Treasury notes also showed a downward tendency through April 1, and the yield on notes maturing in 3-5 years increased to 1.63 percent, as compared with the December low of 0.92 percent. Since April 1, however, Government security prices have advanced, and at Saturday's close yields were slightly lower.

Prices of corporate bonds traded on the New York Stock Exchange declined last week by about a point on the average. On Friday the average yield on highest-grade bonds, as indicated by the Moody Aaa average, was 3.43 percent. This is to be compared with 3.37 percent a week before and a low of 3.07 percent in January, and is the highest since December 1935. All groups shared in last week's recession, which more than offset the mild rally that had occurred in the preceding week. Prices of municipal bonds also declined. The volume of bond transactions on the Exchange was not large.

During the recent decline in the bond market the spread between the yield on Treasury bonds and on high-grade corporate bonds has narrowed. For the year 1936 as a whole the spread averaged 0.77 percent and in 1935 the average was 0.90. During the reaction in corporate bonds in January and February of this year the spread widened to 0.94 percent, but as a result of the recent substantial decline in Treasury bonds it narrowed to 0.60 percent on April 1.

Stock market

Activity in the stock market diminished somewhat further during the week ending April 3, with average daily sales -- about 1,340,000 shares -- in the smallest volume since last September. The general level of stock prices declined slightly for the week. There were pronounced fluctuations during the week in the prices of industrial issues, reflecting in part irregularity in commodity markets.

Borrowings of member firms of the New York Stock Exchange, which as reported by the Exchange include borrowings by dealers as well as by brokers, increased during March by \$84,000,000 to a new high level since 1931.

Average prices of British stocks in London showed little change for the week. Facilities in London for carrying over American stocks from one fortnightly settlement to the next, which are commonly arranged by jobbers in securities, have been sharply curtailed. This amounts in effect to making it necessary for speculators in American stocks in London, where margin requirements have not been customary, to finance their positions through banks or other money-lenders and to provide such margin as the lender may require. It is reported that the action of the jobbers in curtailing these carryover facilities may have been informally inspired by official or semi-official suggestion as a measure of restraint on speculation. Foreign buying of American stocks

Foreign buying of American stocks during the three days ending Monday somewhat more than offset net sales on the three preceding days. For the week as a whole, however, the French, British, and Swiss were slightly on the selling side, in that order of importance, while the Dutch and "all other" were net buyers.

Recent gold movements

In the week ending April 3 monetary gold stock increased \$33,000,000. Gold engaged for shipment or in transit amounts to \$82,000,000, of which \$60,000,000 was engaged last week. The bulk of this
gold has been engaged in London, but a substantial amount is believed
to represent Russian shipments. About \$25,000,000 of gold has already
been imported from England for Russian account. It is reported that
official Russian balances are being accumulated in this market, presumably in anticipation of credit repayments or merchandise purchases.

Capital issues for March 1937

Although uncertain conditions in the bond market resulted in the postponement of a substantial amount of new security issues originally scheduled for March, capital issues for the month were only slightly below the February total. Issues as tabulated in the daily letters from the New York bank amounted to about \$380,000,000. Figures published by the Commercial and Financial Chronicle are usually somewhat higher than the New York bank figures. The \$130,000,000 Philadelphia Electric Company issue was the largest for the month, and because of it, public utilities continued to be the most important group. Most of the new financing occurred during the second week of the month, when the Philadelphia Electric Company issue was offered; with the exception of that week, offerings have been small since the third week of February.

The March volume, although smaller than in other recent months, was somewhat larger than the volume of issues in four months of 1936:

February, July, August, and November. The total for March 1936, with which comparisons are currently being made, was the second largest monthly total for last year.

Purchases of U.S.Government obligations by life insurance companies

Life insurance companies have purchased a substantial amount of U. S. Government obligations since the beginning of this year and particularly during the last three weeks of March, according to reports of the investment purchases of the leading companies. Purchases this year have been considerably larger than average purchases in 1936, excluding those periods in which new Treasury issues were offered for cash.

Purchases of Governments by the life insurance companies during the period January 3-March 27 total \$425,000;000, a weekly average of \$35,000,-000. About 40 percent of these purchases occurred in the three weeks ending March 27 when purchases averaged about \$56,000,000 a week. It is not known to what extent acquisition of Governments in these recent weeks were for the purpose of replacing other issues, including the special Treasury bills maturing in March and Treasury notes retired on March 15.

Comparison of the rate of purchases with 1936 indicates that life insurance companies have been buying in larger amounts than they usually do when there are no new Treasury offerings for cash. Average weekly purchases in 1936 exclusive of periods of new issues for cash were \$19,000,000, or only about half of the weekly average for 1937. In the months March, June, September, and December 1936, new Treasury offerings for cash aggregated \$3,600,000,000 and life insurance company purchases totaled \$720,000,000.

Life insurance companies have a large volume of additional funds with which to buy Governments. At the end of 1936, the cash balances of 49 companies, which account for more than 90 percent of the assets of all life

insurance companies, were between \$800,000,000 and \$900,000,000. These were chiefly idle funds awaiting use. In pre-depression years when the assets of these companies were somewhat smaller they usually had about \$100,000,000 of cash. Cash balances have accumulated for the most part since 1932.

• At the end of 1936 these 49 companies held \$3,500,000,000 of U. S. Government obligations, most of which have been acquired since 1932. Total reported assets of the leading companies have increased by \$4,000,000,000 during this period and about 80 percent of the increase is represented by increased holdings of Governments, including guaranteed obligations. In 1933 and 1934 there were some exchanges of farm and home mortgages for fully guaranteed bonds, but purchases of Governments were largely for the purpose of increasing total investments. In 1935 and 1936 purchases of Governments at an annual average of \$1,500,000,000 were nearly twice as large as in the two preceding years, but about 40 percent of the total was used to replace other Governments in their portfolios.

SUMMARY OF THE THIRD MEMORANDUM ON THE PROSPECTS FOR THE DURABLE GOODS INDUSTRIES

by George Terborgh

Passenger Automobiles

I Background

This memorandum is an analysis of the trends and prospects of the domestic passenger automobile market, rather than of the automobile industry itself. While the domestic sale of passenger cars and parts accounts for the bulk of the industry's value output (roughly 75 percent of the total in 1936) the sale of trucks and other commercial vehicles, together with export sales, represents a sizable volume of activity not covered in the discussion.

Although traffic surveys indicate that at least half the mileage run by passenger cars is for "business" rather than "pleasure", they are classed for the purpose of these durable goods studies as a consumers' good. As such they are of outstanding importance, being by far the largest single component of this category after housing has been accounted for. During the years 1925-29 the purchase and repair of automobiles averaged around \$1/\$\$3,700,000,000 a year. This represented about a quarter of the total of purchase and repair expenditures for durable consumers goods of all kinds. Effects of durability

Although automobiles are, in comparison with housing, relatively short lived (averaging 7 or 8 years as against 50-100) they clearly displayed

^{1/} Excluding, of course, purchases of used cars.

during the depression the distinctive economic characteristics of a durable good, chief of which is the separability of the community's consumption of the good from the current output of new units. While the sale of new cars showed a maximum decline from 1929 of 72 percent (on a calendar year basis), in no depression year did the average number of cars in use or the average mileage run per car fall significantly below the 1929 level. This is shown in the accompanying table.

	Number of Cars Sold (000)	Cars in Usc (Av. for year) (000)	Mileage Run (Av. per car)
1919	1,500	6,100	6,288
1921	1,390	8,280	6,080
1923	3,430	11,330	6,464
1925	3,198	15,088	6,896
1927	2,792	17,850	7,760
1929	4,073	19,738	8,752
1930	2,745	20,487	8,864
1931	1,986	20,398	9,056
1932	1,137	19,909	8,672
1933	1,541	19,648	8,864
1934	1,941	19,839	9,472
1935	2,808	20,374	9,728
1936	3,450	21,253	10,304

Changes in unconsumed mileage

The depression caused a great many people who would ordinarily have purchased new cars to postpone the transaction, usually through driving longer the cars they already had. Those who were accustomed to purchase and wear out used cars (cars are soldom worn out by their original owners) drove their vehicles longer before consigning them to the scrap heap. The result was a marked increase in the average age of cars in use, and a reduction in their unconsumed mileage. Between the end of 1929 and the end of 1934 the estimated total mileage remaining in the stock of cars in use fell from 900 to 775 billions, while the average remaining mileage per car

declined from 44,000 to 39,000, and the average remaining life from 4.6 1/ to 3.7 years.

The recovery in the sale of new cars which began in 1933 had reached a point by 1935 at which the potential mileage added to the existing supply began to exceed the current mileage consumption. At the present time total mileage in stock is apparently above 1929, while the average per car in use is almost back to that level. Average remaining life per car still falls short, however, by about 17 percent.

This substantial restoration of the unconsumed mileage per car, despite the increased average age of the supply in use, may be attributed in part to the fact that the potential mileage of the new cars sold since 1929 has been constantly improving, and in part to the fact that the depression checked for a few years the growth in the average annual per-car mileage. Because the original mileage potential of the present stock of cars averaged much higher than that of the cars in use in 1929, their average remaining mileage can approximate, as it does, the 1929 average, even though their average consumed mileage is much higher.

^{1/} The relatively greater decline in the average remaining life per car than in the average unconsumed mileage is attributable to the rising trend of annual per-car mileage after 1934. The remaining mileage of 1934 has been (and will be) drawn off at a faster rate than was the unconsumed mileage of 1929.

The real effect of the depression on unconsumed mileage is better indicated by reference to formerly prevailing trends than by reference to the absolute amount of the decline. Had the rate of growth of 1925-29 been continued through 1934 there would have been over 1,900 billion car miles in stock instead of 775 billions. While this rate of increase would almost certainly not have been sustained even in prosperity, it is evident that the absolute decline of 14 percent from 1929-34 gives a totally inadequate idea of the consequences of the depression, the true measure of which must be in terms of the expansion foregone.

The rapid growth in car ownership and unconsumed mileage prior to 1929 was itself an important factor in the ability of the public to curtail its purchase of cars during the depression. Just as a growing population has a relatively disproportionate number of young people as compared with a stable one, a growing stock of cars tends to be overweighted with younger units. In the seven years preceding 1930 the number of cars in use rose 100 percent. Such a rapid expansion resulted in a stock at the end of 1929 with about two-thirds of the original mileage still remaining. This, of course, made it possible to run out more mileage than could have been obtained if the age distribution had been "normal" (this term denoting the distribution prevailing in a stock of cars that has remained stationary in size).

In the case of housing, whore exceptional longevity has thus far prevented the volume of scrapping from attaining significant proportions, the production of new units depends largely on a continued growth in the total number of units in use. With a comparatively short-lived good like automobiles, on the other hand, replacement domand is of major importance. In the period 1925-29, 64 percent of the domestic sales were required to offset retirements, while during the depression the proportion was of course much higher. From 1930-35, inclusive, 12 million new units were sold without raising the supply of cars in use at the end of the period appreciably above that obtaining at the beginning. This represents an average sale of 2 million cars a year, or 60 percent of the average for the prosperous pre-depression years 1925-29.

^{1/} This statement does not imply that new cars are bought for replacement by those who scrap old cars. It refers morely to the proportion of the new car sales required to maintain a constant number of cars in use.

Substantial as was the retirement of automobiles during the depression, it fell far short of the amount that would have prevailed had former scrappage rates been maintained. If the average age of cars junked had remained the same as in 1929, subsequent retirements would have been 6 million greater than actually occurred. The average retirement age increased, however, from 6.55 years in 1929 to 8.25 years in 1936.

This rise of 1.7 years in the average age of cars scrapped is attributable principally to two factors. (1) The cessation of the rapid pre-depression increase in annual per-car mileage enabled the continuing improvement in the physical durability of cars to outrun the increase in the rate of mileage consumption, thus permitting a longer useful life. (2) The used car market was firm during the downswing of the depression, and has been exceptionally strong in the recovery period. This has operated to retard scrappage, since in a strong market cars survive longer before their resale value falls below their junk value.

II Prospects

It is usually assumed that curtailment of scrappage during the depression has created a correspondingly large "backlog" that will be eliminated, with the return of prosperity, by a period of exceptionally heavy retirements.

This is by no means a foregone conclusion. It is quite possible that the

I/ The strong used-car market was due partly to a deflection into it of demand that would have gone in prosperous periods into the new-car market, and partly to a reduced flow of used cars into the market because of the low volume of trade-ins for new cars. Before the depression these trade-ins used to exceed scrappage by an average of perhaps 500,000 cars a year, but after 1929 there was a long period when they fell short of scrappage.

lengthened average retirement age may remain more or less permanently, or that the shortening of the average may proceed only part of the way back to the 1929 level. If the recently attained average proves stable, there is, of course, no reason to expect a period of abnormal scrappage in the future. If the average shortens, but remains above 1929, the excess scrappage accompanying the process will fall short of the "backlog" computed on the assumption that the former average retirement age will be restored.

I am inclined to believe that for the next five years, at least, cars will continue to be scrapped at an average age not greatly different from that of the past three years, namely, 8 to 8.25 years. This is for two reasons: (1) the increase in the durability of cars, and (2) the prospect for continued strength in the lower strata of the used-car market.

Reference has already been made to the fact that while the depression did not retard the improvement in the durability of cars it did slow up the increase in the rate at which mileage was consumed and tended, therefore, to lengthen the average useful life. There is no way of telling definitely to what extent the increase in the average retirement age since 1929 has been due to a more rapid gain in durability than in mileage consumption, and to what extent it has resulted from the use of cars to a more advanced stage of delapidation, but it seems likely that the durability factor is of greater importance. Since the growth in annual per-car mileage will probably slow up during the next five years, and since cars have been and still are improving in durability it seems reasonable to conclude that if the average retirement age is reduced in this period it will have to be largely because

^{1/} The last 3 years of the 'twenties saw a fairly stable average retirement age, despite a continuation of the rapid growth in annual mileage consumption per car.

of a tendency to scrap at an earlier stage of deterioration than has recently characterized junked cars.

When we turn to the latter possibility, however, we encounter the prospect that prices in the lower strata of the used-car market will be strong for several years. Even assuming that the recent average retirement age continues, the number of cars over seven years of age will decline from over 7 millions in 1936 to 4 millions in 1941. This constant shrinkage in the available supply of aged vehicles should tend to support their prices and to militate against their retirement at earlier stages of deterioration.

If the average retirement ago remains at the 1936 level of 8.25 years, total scrappage in the period 1937—141 should approximate 12.5 million cars. If it recedes to 7.5 years, scrappage should amount to about 14.3 millions. While indications appear to favor the first of these alternatives, it is probably wise in a situation so full of imponderables, to consider the range between them as a sufficiently definite forecast. On this basis, then, we may conclude that the "scrappage backlog" actually "made up" in the next five years may be negligible, but should in any event be less than 1.8 million cars.

Extension of car ownership

Contrary to popular impression, the ownership of cars extended in 1929 only to one half the families and unattached individuals in the country. While this ratio declined slightly during the depression, it has since been restored practically to the former level. Since the market among the upper income groups has been pretty well saturated (apparently 80-90 percent of the families and unattached individuals with \$3,000 a year and over own cars) future gains in the prevalence of ownership will depend largely on a further penetration into the low-income market. This process becomes increasingly difficult the further it goes.

Whether the average employed person in the low income groups will be financially better able to own and operate a car in the next few years than he was in 1929 it is difficult to say. Some of the considerations pro and con may be summarized as follows: (1) The widespread shortening of working hours in industry and the curtailment of agricultural output per farmer have apparently offset most of the gains in technology and efficiency since 1929. so that the average production of all employed workers -- and consequently their average real purchasing power -- has not shown any significant increase. This suggests that if the low income groups are to raise materially above 1929 the fraction of their total expenditures going for automobiles it must be by curtailing below the level of that year some other types of consumption. This situation will of course be changed if during the next few years there is an increase in per-worker production and purchasing power, whether from lengthening of working hours, increased agricultural production, or other causes. (2) The declining supply of aged cars which is in prospect for the next five years (see above), and the probable firmness of prices in the lower ranges of the used-car market, will tend to make acquisition costs for the poorer sections of the population relatively high. (3) Motor vehicle taxes are approximately 50 percent higher per car than in 1929, and show no signs of declining. (4) The high housing costs in prospect for the next few years, except for those who already own homes, will probably absorb a larger fraction of family incomes than in 1929, and will to some extent militate against the use of cars by the low income groups.

^{1/} To some slight extent this may be offset by lower financing charges. On new cars and on high-grade used cars these have been drastically reduced from the 1929 level, but the reduction has been very much less marked in the case of low-grade used cars of the kind bought by the low income groups.

Against these considerations must be offset the fact that certain operating costs may be materially below 1929. The cost of gasoline, apart from taxes, is down substantially, though of course there is no assurance that it will remain so. Also, the increased durability of cars attaining advanced age in the next few years will probably result in reduced repair and depreciation costs per mile.

It is so difficult to appraise these and other factors that no definite conclusion can be reached. There is no doubt, however, that regardless of the theoretical financial ability of the low income groups to own cars, as compared with 1929, their desire to do so, and their willingness to sacrifice other consumption to that end, is considerably greater. The years since then have further entrenched the automobile in popular esteem, even though they have not actually increased the prevalence of ownership, and there is every prospect that the continuance of rocovery will mark new highs in this respect. The strengthened position of the automobile is illustrated by the extreme tenacity with which ownership was maintained during the depression, by the fact that the average car was driven nearly 20 percent farther in 1936 than in 1929, and by the added fact that the percentage of families and unattached individuals owning cars is almost back to former highs despite the large unemployment which still prevails. After a study of former trends and other relevant data, I have concluded that, given prosperity in the meantime, ownership should extend by the end of 1941 to 55 or 56 percent of the families and unattached individuals in the country. This compares with 49.4 percent at present.

If the extension of ownership is to 55 percent, the indicated increase in cars in use is 4,450,000. If it is to 56 percent the increase becomes 4,950,000.

Probable domestic market, 1937-41.

By combining the assumptions as to scrappage (above, p.7) with the assumptions just cited for the increase in ownership during the next five years, it is possible to compute a range within which the sale of new cars should fall. This runs from 17,000,000 to 19,250,000, depending on the combination of assumptions used, or an average annual sale of 3,400,000 to 3,850,000.

Taking the central area of this range as the most reasonable estimate of the market, say 3,600,000 to 3,700,000 units a year, we discover that it is only moderately higher than the 1936 performance of 3,450,000. Evidently the prospects for the automobile industry differ very markedly from those for housing, where the average rate of activity during the period promises to be from 2 to 3 times that of 1936. In the one case recovery is almost complete; in the other it is just getting under way.

Granted that the domestic market should absorb an average of 3.6 or 3.7 million cars annually for the next five years, the question remains as to the probable distribution of these sales within the period. The indications appear to favor somewhat heavier marketings in the first half than in the second.

This expectation rests in part on the probability that scrappage will be heavier in the first half, thus supporting a larger replacement demand, but chiefly on the prospect that the first half will see a virtual completion of the process of "freshening up" the car supply which has been going on

^{1/} Normal scrappage expectancy at the present average retirement age is 6,720,000 cars in the first half, as against 5,850,000 in the second.

during recovery. The number of cars under three years of age has already risen to 8.2 millions from a low of 4.4 millions in 1934, and with two more years of good sales should reach about 10.5 millions. This is a million higher than prevailed in the late 'twenties, though it is approximately the same in relation to population. When this stage is reached, one stimulus to new-car demand will be removed. It seems likely that sales will reach a level during the remainder of the "freshening-up" period that will not be sustainable thereafter.

While there is thus a prospect for some let-down in new-car sales during the second half of the next five-year period, there is no reason to expect any drastic reduction. Moreover, a moderate recession occurring at that time will probably coincide with a rising phase in the construction industry, and in several other categories of durable goods. Far from being a matter for concern, this should help in some degree to mitigate the concentration of durable goods activity in later years when the heavier types are in their peak phase. From this standpoint, it is fortunate that the repair of depression deficiencies in the automobile field is so well along and will be so soon completed.

It should be distinctly stated that this forecast for the next five years is predicated on continued prosperity during the period. If the recovery now under way can be kept orderly, if a rising spiral of costs and prices can be avoided, such a continuation of prosperity seems to me a reasonable expectation. If, however, recovery follows an inflationary course it may well come to an end earlier. No satisfactory long-range forecast of the automobile market is possible in that case.

^{1/} This calculation arbitrarily assumes a sale of 3.75 millions a year for the next two years.

More remote prospects

Eventually, of course, the sale of automobiles will fluctuate around a level approximating the volume of scrappage. That stage is, however, many years removed. The adult population will continue to grow for several decades, though at a diminishing rate, and the prevalence of car ownership will probably increase, during prosperous periods, for a long time.

After 1941, annual scrappage should rise rapidly for several years, and the growth of replacement demand should at least offset the diminution in the rate of increase in adult population and the slowing down in the extension of car ownership. Theoretically, if general business conditions remained fairly stable, a gradual adjustment could be made to a market governed almost wholly by replacement demand. A transition of that character was under way in the 'twenties. Scrappage rose from about 950,000 in 1923 to 2.4 millions in 1928, while the annual increase in cars in use fell in the same period from 2.5 millions to about 900,000, a substantial offset. The sale of automobiles in this interval described a slightly irregular but generally level plateau.

The successful consummation of a similar transition in the future might appear to augur continuing stability in automobile sales, except for the effects of depression induced by weakness in other sectors of the economy, but the experience of 1929 indicates that even after such a period it is possible for automobiles to undergo a violent, if short-lived, boom which results in an overseld condition and which makes them a contributory factor in the inauguration of a depression.

After describing a plateau from 1923 to 1928, domestic passenger car sales at retail jumped in 1929 to a level 19 percent above the highest previous year. At the same time, dealer inventories of both new and used

cars increased. This spurt in buying seems to have been associated with the stock market boom and the general speculative enthusiasm of 1929. Hundreds of thousands of individuals, banking on paper riches, or using speculative profits withdrawn from the market, bought new cars earlier than they otherwise would have done. A part of 1930's sales were anticipated.

This extraordinary domand could last at most no longer than the speculative boom. Two months after the stock market crash the sale of cars had fallen 20 percent (seasonally adjusted). It receded again with exceptional rapidity in 1930 after the collapse of the spring "come-back" boom of that year. Moreover, because of the dealer inventory situation vehicles had to be worked off on a contracting market when the high expectations of early 1929 turned out to be illusory. This caused a curtailment of automobile production in the early stages of the depression even more drastic than the decline in retail sales.

That the sale of automobiles could have suddenly vaulted to a level clearly untenable after having been for six preceding years on a sound basis, is warning that an abrupt shift from a strong to a weak position may happen again under similar circumstances. The industry may again be one of the leaders of the retreat into depression. This will depend on whether the next depression is preceded by a general speculative boom and by overspending predicated on its continuance.

Regardless of the role of the automobile industry as a factor in initiating the next depression, it will inevitably prove an important factor
in aggravating it. Since it cannot be prevented from joining the retreat,
the most that can be hoped is that it will not lead it.