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SUMMARY OF THE SECOND MEMORANDUM ON THE PROSPECTS FOR THE

DURABLE GOODS INDUSTRIES

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HOUSING

Introduction.

Certain difficulties beset a discussion of housing, or anything else connected with real estate, in terms of national averages and totals. There is no national housing market comparable with the market for securities or commodities, since housing is, in the nature of the case, a local utility dependent on local demand. That it can be discussed at all in national terms is because of the fact that housing markets, though local, are not economically isolated, but on the contrary respond similarly in the great majority of cases to general economic developments such as war, inflation, depression, and recovery. It must be kept in mind, however, that descriptive generalizations for the country as a whole can do no more than reflect the preponderant movement or condition, ignoring the exceptions which are invariably present.

One or two further introductory explanations are in order. The discussion which follows relates exclusively to non-farm housing. The adjective "non-farm" will not be constantly reiterated, it being understood that both the text and the statistics imply this limitation throughout. Secondly, the figures cited are almost without exception estimates, and are to be read as such.

Importance of housing.

There can be no question that we have in housing one of the most im-

portant of all durable goods. Expenditures for new construction and repairs in this field averaged over 5 billion dollars annually during the residential building boom of 1923-1928, a figure which represents roughly 35 per cent of the total for consumers' durable goods, and 15 per cent of the total for all durable goods, in the same period. While the relative importance of housing over a long period is somewhat less (these percentages averaged 29 and 12, respectively, over the past 18 years) it remains even on this basis a major component of the durable goods output.

The significance of residential construction from the standpoint of business fluctuations is greater than these relative magnitudes suggest, since it is subject to swings in activity more extreme than those which characterize the output of durable goods as a whole. During the low year of the depression, house building and repair operations were only 15 per cent of the previous high, as contrasted with 45 per cent for the output of all other durable goods.

The consequences of durability.

One reason for the extreme amplitude of fluctuation in housing activity is the extraordinary durability of the product. New dwellings have an average life expectancy of somewhere between 50 and 100 years. Since the supply of residential structures in use in this country has been expanding continually since the beginning, a comparatively small fraction of the present stock is of advanced age (only 8 per cent of the housing in 64 cities covered by the Real Property Inventory in 1933 was over 50 years old) and the volume of old-age retirements is therefore relatively insignificant. The

annual demolition and wreckage from all causes, including wind, fire, and flood, have averaged in recent years much less than one half of one per cent of the amount of housing in use. This means that even with a complete suspension of new construction the existing supply of facilities contracts at an almost imperceptible rate, making possible a practically undiminished total consumption for several years.

There is another consequence of this extreme durability that should be noted. Since replacement demand is so insignificant, the market for new housing depends chiefly on a continued expansion in residential occupancy. (In the 'twenties replacement accounted for about 10 per cent of the new construction). During the past 17 years, for which estimates are available, the growth of non-farm occupancy in the United States averaged 2.1 per cent annually, but there were two years (1931 and 1932) when there was an actual shrinkage and one year (1923) when the growth was as high as 4.2 per cent, or twice the period average. Fluctuations in total volume of occupancy are relatively small, but fluctuations in the rate at which this volume grows are large. Since it is the rate of growth which controls the volume of new building activity (except for the comparatively insignificant replacement demand) construction tends to display a responsive instability.

Timing of movements.

A review of housing construction since 1919 shows a movement with turning points differing quite widely from those recorded by most types of durable goods production, and by business activity in general. Thus residential building turned down in the middle of 1919, a year ahead of the break in business, and began rising early in 1921, several months ahead of

the general recovery. Its next downturn came late in 1925, four years ahead of general recession, and the succeeding upturn appeared about the beginning of 1935, almost two years after the business revival set in. It is apparent that housing construction has been in an exceptional degree a law unto itself.

This is due not only to the fact that the demand for new housing moves in cycles differing from those which characterize most goods, but also to the fact that readjustments of supply to demand in this field proceed so slowly, and with such inertia, that they are likely to over-compensate, and to give rise to swings in production that are at times out of phase with the swings of business in general.

Maladjustments of supply and demand in housing, as evidenced by an excess or deficiency of vacant dwellings, affect the output of new units largely in an indirect manner, through their effect on the rents and values of existing properties. Readjustments in sale and rental values are generally sluggish. Not only do rates on new leases respond with considerable inertia to changes in vacancy situations, but because of the fact that most rental contracts run for a year at a fixed return the average rates actually being paid and received lag well behind new lease rates.^{1/} As for movements in the selling prices of residential properties, these require typically a period of incubation before they gather force and velocity. Readjustments in both rents and values can therefore lag so far behind changes in vacancy situations that housing surpluses or shortages accumulate before new con-

^{1/} This lag is aggravated, in upward movements, by the tendency of renewal rates to advance more slowly than rates on new contracts.

struction is sufficiently curtailed or stimulated, as the case may be, to check the accumulation.

Experience in the previous building boom.

The World War occasioned a drastic curtailment of residential building, the volume for 1917 and 1918 being only about half that of the two preceding years. Housing shortages, which were confined during the period of hostilities largely to special war situations, became fairly general with demobilization of the military forces, and under the stimulus of rising rents and residential property values a sharp recovery in construction developed. This was cut short after a few months by the skyrocketing of building costs.^{1/} After the middle of 1919 activity dropped as rapidly as it had previously risen. As a result, the year 1920 saw a housing output comparable with the low level of 1917 and 1918.

The collapse of commodity prices in the fall of 1920 brought a marked reduction in building costs. Thus facilitated, and furthered by advancing rents and values for existing residential structures, construction revived again in 1921, but by that time the housing shortage had become acute. The general business recovery which followed the depression of that year was accompanied by an exceptionally rapid growth in non-farm residential occupancy, so that despite a truly spectacular upswing in residential construction no significant general alleviation of the housing shortage was achieved

^{1/} A decline in the availability of mortgage money should be mentioned. It appears from fragmentary data that building money became decidedly scarce, partly because of rising long-term money rates generally, but chiefly because lenders became increasingly distrustful of the permanence of the high construction costs then prevalent.

until 1924.^{1/} By that time rental and sale values for existing residential property had reached so high a level that the incentive to build was intense, and construction activity was of boom proportions.

After 1923 there was a fairly steady decline in the annual growth of non-farm occupancy. From a high of 800,000 dwelling units in that year, it receded to a level of about 450,000 in 1928 and 1929. So intense was the building incentive developed by the prolonged housing shortage, however, and so great was the momentum of the boom, that construction mounted until 1925. Because of the decline in the growth of occupancy, this high level of output resulted in a rapid accumulation of vacancies in the existing supply of housing. While activity receded slightly after 1925, the decline in output in the next three years was less rapid than the decline in the annual addition to occupancy, so that the growth of vacancies continued. By 1928, these had reached a high level.

The slowness of this recession in building activity is worthy of particular notice. While the rise in vacancies which began in 1924 was followed after a few months by a decline in rental rates on new leases, it was a couple of years before this produced any significant decline in the average rate on all leases outstanding, and at least as long before there was any marked softening of residential property values. By the time these declining tendencies appeared, the profit margins per unit obtained generally by contractors and developers had become so wide (a con-

^{1/} The unusually rapid expansion of non-farm occupancy in 1922 and 1923 may be laid to the following factors: (1) heavy net migration from farms to cities, towns, and villages; (2) heavy immigration from foreign countries; (3) high marriage rates; (4) undoubling of families forced to share living accommodations during the war and subsequent depression.

sequence of course, of the prolonged housing shortage) that they could be narrowed materially with but little effect on the volume of construction. By this time also, the building boom had developed lender confidence, not to mention new financing expedients such as real estate bonds, so that the availability of construction loans was actually increasing during the period when an excessive vacancy supply was being accumulated. Notwithstanding the fact, therefore, that the contractors' construction costs did not decline, sales of new housing were fairly well maintained for two or three years in the face of falling rents and values for existing properties by a more or less continuous shrinkage of the unit profit margins of the producers of housing, and by the aid of thinner equities demanded of buyers.^{1/}

This process obviously could not go on forever. The weight of the growing volume of vacancies accelerated the cheapening of existing residential facilities competitive with new construction, while a further chiseling of profit margins by contractors and developers became less and less compatible with the maintenance of the former rate of activity. As the prices required to move new housing declined, more and more situations developed in which construction was curtailed or suspended. A critical stage in the process was reached in 1929. Partly because of a tightening of the mortgage market then under way, but chiefly because of overbuilding, construction activity in the residential field entered an acute slump, which, incidentally, was in full swing before the break in the general economic situation in the fall of the year.

^{1/} The ability of producers to sell new housing at declining prices was probably increased somewhat during this period by a softening of the prices of vacant land.

The decade of the 'twenties thus presents an interesting and instructive example of the course of a building boom. Generated by an acute housing shortage, the boom gathered a momentum which carried it along until a surplus had accumulated. The impact of this surplus eventually sent building activity into a tailspin.

Had the general economic situation remained strong after 1929, a moderate period of curtailed housing output might have absorbed excess vacancies and rectified the situation, but this corrective process had hardly begun when the slump in business supervened. To the depression the weakness in the housing situation was a serious aggravation, while the reflex effect of the depression on housing was to make a bad situation worse.

Housing during the depression.

The most important effect of the depression on housing was to suspend for several years the growth in occupancy on which, as we have seen, most of the demand for new construction depends. Because of the migration of population from urban communities to farms, the cessation of net immigration from abroad, the curtailment in the number of marriages, and the doubling up of families on account of reduced incomes, the total of non-farm occupancy actually declined during the worst part of the depression and remained until 1934 below the 1929 figure. Even now it exceeds 1929 by only 1,500,000 to 1,600,000 dwelling units, as compared with a gain of at least 3,000,000 units to be expected except for the depression.

This increase in the present occupancy over 1929 has been accommodated in part by a growth in the housing supply in the interval, which,

despite the drastic curtailment of building, has amounted to 800,000 to 900,000 dwelling units. In part it has been accomodated by an absorption of some of the large supply of vacancies existing at the beginning of the period. Although the number of vacant units increased from 1929 to 1933 by something like 700,000, the reduction since then has been approximately twice as great. At the present time the supply is about 400,000 to 500,000 dwelling units below the level indicated by a long-term average vacancy ratio.

The decrease in vacancies which began in 1933 was followed early in 1934 by an upturn in rental rates on new leases. It was at least a year later, however, before there was any significant advance in the average of rents on outstanding leases or in property values. New construction did not begin to revive before 1935. The tendency for building to give a delayed reaction to vacancy situations has been evidenced again in this movement. The housing shortage, as measured by the supply of vacancies, was more acute in 1936 than in 1925, when 900,000 dwelling units were produced, yet the 1936 output has been less than a third of that amount. Realignment in rents and values have clearly not proceeded fast enough to keep building in step with the growth of occupancy. Just as in the 'twenties we passed from a shortage to a surplus of housing because of the delayed response of building to the underlying supply and demand situation, we have already passed in the 'thirties from a surplus to a shortage, and for the same reason.

Building prospects during the next five years.

Without going here into questions of method and procedure (which are

discussed in the full memorandum) I shall merely summarize the results of an analysis of the probable housing market during the next five years. The estimates are based on the assumption that the period will be prosperous:

Components of the Five-Year Housing Market

1. Increase in households	
(a) From currently accruing natural increase	2,400,000
(b) From reduction of the depression marriage backlog	300,000
(c) From undoubling of families	300,000
(d) From net reduction in farm households	200,000
Total increase in households	3,200,000
2. Replacement of dwelling units demolished during the period	400,000
3. Elimination of present housing shortage	500,000
Total housing market in dwelling units	4,100,000
Average market per year	820,000

The prospect may be summarized a little more fully in three propositions. (1) If building averages 800,000 units a year for the next five years, the period should close with a reasonably comfortable housing situation. (2) If construction averages 700,000 units annually the period should close with a shortage comparable in magnitude with the present shortage. (3) If the average is 600,000 units, the shortage at the end of the period promises to be very acute, comparable, let us say, with the worst period after the World War.

In view of the fact that the five years start at a relatively low level of construction (250,000-300,000 units in 1936) the attainment of a rate of 800,000 units a year cannot be expected until we are well into the period, and the achievement of that rate as an average for the period

as a whole would call, therefore, for an output of at least a million units a year in its later stages. While this is not impossible (it is only 10 per cent higher than the 1925 peak) it seems to me doubtful that it will come soon enough, if it comes at all, to produce an average of 800,000 for the five years. The inference is, therefore, that there will be some housing shortage remaining at the end of the period.

One reason for this doubt is the danger that as construction activity increases there will develop shortages of skilled labor, and of certain classes of building materials, that will retard further expansion. Such a limitation of the output of new housing, if it becomes effective, will be reflected partly in higher labor and material costs and partly in higher unit profit margins for contractors and developers, but in any event the final cost of the product to buyers will tend to rise sufficiently to equate demand with the limited supply being produced. It seems likely that it will require prices for new housing materially higher than those now prevailing to mobilize enough productive activity to offset demolitions and occupancy expansion during the next few years, to say nothing of eliminating the shortage now existing. I am inclined to believe that barring unexpected developments in pre-fabrication, government subsidies, or other alleviations of the situation, supply and demand will be equated during the next five years by a volume of construction which averages between 600,000 and 800,000 dwelling units a year, with 700,000 as likely a guess as any. This would represent an average expenditure at pre-depression building cost levels (including repair activity) of 4.5 to 5

billions of dollars annually. Higher cost levels would of course increase this figure.

There seems no doubt, in any event, that the current housing shortage will become considerably worse before it begins to be generally alleviated. Even with the most rapid pick-up in construction for which we have any reason to hope, the prospect is for a worsening of the situation for at least a year, and the probabilities appear to favor a period nearer two years than one. The shortage seems destined to become decidedly acute in many places during this stage. The attainment of reasonably comfortable housing conditions is, of course, much more remote than the beginning of improvement, since progress will at first be slow.

More remote prospects.

For the next few years the housing market will experience an exceptional concentration of demand. Superimposed on the regular demand arising from the currently accruing natural increase in households and the replacement of structures currently demolished will be a special and temporary demand attributable to the after-effects of the depression. This special demand appears to total something like 1,500,000 dwelling units, as follows:

Accumulated housing shortage at the end of 1936	500,000
Delayed marriages likely to be contracted in the future	300,000
Probable undoubling of families still doubled because of the depression	300,000
Probable net decrease in farm families ^{1/}	200,000

If, as seems probable, these special demands will become effective

^{1/} There is no satisfactory way of estimating this item. The assumption here is that the net decrease in farm families during the next few years will be half of the increase attributable to the depression. This seems a conservative supposition.

during the first few years of prosperity, the building of housing will be stimulated to a level that cannot be maintained once they have been satisfied. The regular demand thereafter, barring an unprecedented increase in demolitions and replacements, will probably be around 600,000 dwelling units a year. If during the period when general and special demand operate concurrently construction activity is stepped up to say a million units a year, a subsequent let-down will be inevitable.

Historical analogies are seldom close, and no one can rightly be very confident of inferences drawn from earlier situations, but it seems to me nevertheless that there is enough similarity between conditions prevailing at the beginning of the last building boom and those obtaining today to justify a tentative expectation that the forthcoming boom will repeat, in a general way, the pattern of the preceding one.

If this expectation is justified, we may look forward to a protracted housing shortage, accompanied by rising rents and values, with the latter culminating at very high levels when building activity at last overtakes the current growth in occupancy (plus demolitions). By that time construction costs will be high, along with land values and contractor-developer profit margins, and the momentum of the building boom will carry it forward despite a decline in the growth of occupancy and the accumulation of vacancies. By that time also, lenders will be full of confidence. The most liberal loans will be made at the top of the market, or even during the early stages of the recession in values. The sale of new housing will be supported against the growing competition of existing structures by a narrowing of the wide profit margins previously obtained by contractors

and developers, and by excessive credit. In the end the process will enter its critical stage when new housing can be sold only at prices which severely restrict output and when lenders become disturbed by the adverse trend of developments. A fairly abrupt contraction of activity will then ensue.

This pattern of developments is not presented as a definite forecast, but merely as a basis for orienting our expectations at the moment. Constant rechecking and revision of these expectations will be necessary as time goes on. It is quite possible that some of the incipient developments of the current housing situation, such as pre-fabrication and mass production, or government leadership in the mortgage market, may later become sufficiently controlling to alter the pattern, or that the course of business activity in general may provide a background for housing construction so different from that of the Twenties that a radically modified pattern results. Just now, however, I see no reason to reject the pattern of the preceding housing boom as a tentative guide to the future.

If governmental authority is to be invoked to prevent the accumulation of a housing surplus and a subsequent reaction some years from now, it seems to me that control over the supply of mortgage funds for new construction is the most promising approach. This would have to be much more intimate and direct than the blanket and general control over money rates now within the power of the Reserve Board.

It is one thing to prevent the development of housing surpluses, and quite another to stabilize the volume of residential construction.

Even if it were possible to tie construction activity closely to the current growth in occupancy (plus current replacements) we would still have building booms and depressions. The growth of occupancy, as we have seen, is extremely irregular, and promises to remain so as long as the economy is subject to periodic business depressions. The prevention of a housing surplus several years hence - which is about the most that we can even hope for from regulatory control - will not prevent a boom and recession in the meantime. It can only make the recession prompt, gradual, and orderly.