

THE CRITICAL TESTS OF THE SOUNDNESS 36
OF REAL ESTATE LOANS IN
TODAY'S MARKET

Address Before
Louisiana Bankers Association
Group Meetings
October 21 to 26, 1946

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Today, after the expenditure of \$337 billion for war resulted in a tremendous upthrust in the national income from the \$71 billion level of 1939 to over \$160 billion annually during the past three years, we wonder whether the factors that have borne us upward will continue or whether they will suddenly subside. Nearly all of us have more money in our pockets or in our bank accounts than in 1940.

The amount paid in wages and salaries increased from \$48 billion in 1939 to over \$116 billion in 1944, 1945 and 1946. The net income of farmers increased from \$5 billion in 1939 to from \$14 to \$15 billion annually in the last four years. We have accumulated over \$160 billion in savings, of which 62 percent is concentrated in the 30 percent with the highest incomes.

As a result of the tremendous infusion of money generated by war financing, the net incomes and capital values of most types of properties have greatly increased in the past five years. The prices of houses have doubled. Farms are selling at 77 percent above pre-war figures, as an average for the United States. Stores, office buildings and hotels have frequently doubled in value, and even apartment buildings under rigid O.P.A. rent control have increased more than 50 percent in price since Pearl Harbor. The \$64 question now is: Can these present values be sustained and are the loans based on them sound? Do we look

forward from our present elevation to a plateau of values extending forward into the 1950's or do we stand on the brink of a precipice, over which we are about to plunge?

We have the painful analogy of the break in farm prices a little over a year after World War I, followed by the tremendous wave of foreclosures of farm lands. There was likewise a serious business depression from 1920 to 1921. Does the sharp September break in the stock market after an almost continuous 41 month rise, forecast a business depression next year? What tests may be applied to loans now to determine their margin of safety in the event of a decline in prices or values?

I would like to suggest that four fundamental principles be used in combination to determine the stability of values of any type of farm or urban real estate or any other type of security for that matter. Those four basic factors are:

1. The stability of the gross income.
2. The trend of operating costs or production costs.
3. The operating ratio or the percentage of the operating costs or production costs to the total gross income.
4. The price or capital value of the property under examination.

Let us consider each of these factors in turn:

1. The Stability of the Gross Income. The principle here is that the soundness of the value or loan based on the value is greatly increased if the prospects indicate a stable or increasing gross income for the property, unless rising operating costs are indicated. To illustrate this principle let us consider the gross income prospects for two types of property: Farms and urban apartment buildings.

The gross income of farms is derived from multiplying two factors, the crop yield, which is affected by the weather, and the prices of the crop. Farm prices have more than doubled since 1939, and the physical yields of leading cereal crops have reached record levels for the past four years, so that the gross yield of farms in the past four years in the United States generally has been the highest on record, increasing from \$10 billion in 1938 to over \$24 billion in 1945.

There are such world-wide shortages of food and textiles that the current large crops will doubtless be absorbed at relatively high prices but after this backlog of demand is met there may be some recession in farm prices. A level of crop prices, considerably higher than pre-war, however, will probably be sustained by the higher level of national income and wages and by the greater domestic consumption resulting from higher wage levels. But farm prices fluctuate with the national income, so they would be vulnerable to any post-war depression which lowers employment and payrolls. Consequently, in analyzing the value of any farm, we should consider the effect on the value of any appreciable drop in price or the yield of the crop raised on that farm, whether it be cotton, sugar, rice, wheat, corn or oranges. Is there a cushion or safety factor to protect the security of farm mortgages? This depends on the operating ratios and the existing selling prices of farms. These we shall consider later.

In possible contrast with farm prices, the gross income of apartment buildings, under O.P.A. rent ceilings, will undoubtedly remain stable during the next decade. It might advance sharply if rent control is abolished. This stability of apartment incomes follows the fact that new apartment buildings will cost over 50 percent more to construct than

existing ones with rents considerably higher than the ceiling rents on existing buildings. Hence old buildings will not suffer from the competition of new buildings with the same or only slightly higher rents.

Existing apartment buildings will remain 100 percent occupied for many years to come, if ceilings are retained, because most families will not move out of quarters for which they pay - say \$50 a month - into a new apartment unit of the same size for which \$80 or \$90 is charged. If rent ceilings are removed, and rents in existing apartment buildings are allowed to rise appreciably so that a great volume of new apartment construction is encouraged, vacancies will increase in the older apartments but the decline in income due to lesser occupancy will be offset by greater income derived from the higher rents.

Prospects for the stability of the gross income of office buildings and hotels are likewise very good because no new office buildings or hotels will be erected until the rents rise to the point where it pays to erect new buildings at costs over 50 percent higher than pre-war.

The great source of risk for loans on office buildings, hotels and apartment buildings in the past has been overbuilding. Here the apparent stable gross income is undermined by constant additions to the supply of space until the double effect of falling rents and increasing vacancies produces a sharp drop in net income. Thus, an office building of 100,000 square feet of rentable area built in 1925 in a certain city, and rented at \$3 a square foot, with operating costs of \$1.50 a square foot and vacancies of only 5 percent, would have a gross income of \$285,000 and a net income of \$135,000. This building was erected then at a cost of \$500,000 for the building and \$500,000 for the land or a

total of \$1,000,000 and financed by a first mortgage bond issue of \$600,000 at 5 percent. The net income of \$135,000 covers the \$30,000 interest requirements 4.5 times, and the loan appears unusually safe.

While there was sufficient demand in the particular city to take up all the offices in this one building there was not enough demand to fill another building of the same size. Nevertheless, under the lure of high rents and the high net return on the first building, another office structure is erected. As a result of this building in excess of the demand and also of a general business depression which causes firms to economize on office space, vacancies in the two buildings increase to 25 percent and rents fall from \$3 a square foot for 95 percent occupancy to \$1.50 a square foot for the 75 percent of the space occupied. Meanwhile operating costs drop only slightly to \$1.25 a square foot. The gross income on the first office building falls from \$380,000 to \$112,500, which fails by \$12,500 to cover operating costs. The net income is reduced from \$135,000 to a minus \$12,500, leaving less than nothing for interest or amortization on the mortgage.

The building is foreclosed and the bonds on the building themselves are sold at a great discount. This hypothetical case in fact is an exact portrayal of what actually happened when most of the office buildings in the United States were foreclosed after 1929, when average vacancies rose to 27.6 percent, office rents fell 50 percent and the average price of \$1,000 office building bonds dropped to \$286 by 1939.

I want to emphasize, however, that the present gross income of existing apartments, office buildings and hotels will not fall in the next few years as it did after 1929, because existing buildings can

be duplicated only at much higher costs. Hence, since rents in the new buildings will be much higher than in the old ones, the older structures will hold their tenants because they can offer them cheaper rents.

2. The Trend of Operating Costs. Even if the gross income is maintained, a rise in operating costs can lower net income or even eliminate it altogether. This is illustrated in the case of the railroads of America. The gross income of the railroads in the year ending July 1946 was double that of the year 1939, yet as a result of the rise in operating costs their net income for the last twelve months was only half that of 1939.

The traffic volume for the year ending July 1946 was 8 percent greater than in 1941 but the net income was only one-tenth as much as in 1941: \$47 million in the last year compared with \$500 million in 1941. The gross income of the railroads has declined from the war peak as a result of the fall in the volume of freight and passenger traffic, while operating expenses have risen as a result of higher wages and materials costs. The slight increase of 6 percent in freight rates has not offset the falling physical volume of traffic and the higher operating costs. As a result, the net income of the railroads has declined sharply, and the value of their stocks and junior bonds likewise suffered a severe decline.

Rising costs of production, caused by higher wages and a drop in the efficiency of labor have cut into profit margins where the prices of the finished goods are held down by O.P.A. ceilings or by refusal of consumers to pay a price high enough to cover the costs.

Those types of properties or securities in which production is highly mechanized are at an advantage in combating higher production cost trends compared with industries using handicraft methods. Thus mechanized agricultural operations on large farms show smaller increases in costs than those on small farms using much hand labor. The cost of single family homes has doubled in many cases since 1940 because primitive hand methods still are used detrimentally. In every industry where labor or material costs are rising rapidly, future gross income is being jeopardized. Even if prices are allowed to rise to cover the higher costs, the market is constantly narrowed by reducing the number of consumers able to pay the higher price.

3. The Operating Ratio. Other things being equal, the higher the operating ratio or the greater the proportion of operating costs to total gross income, the smaller is the margin of safety protecting any loan. Thus in the case of apartment buildings in New York City where the operating expenses, including taxes, consume 65 to 70 percent of the gross income, there need be only a little decline in rents, a little increase in vacancies, or a little rise in operating costs to wipe out most of the net income available for debt service. We have already pointed out that the prospects for a decline in gross income on apartments are negligible in the next five years. The apartment net income, therefore, will be chiefly impaired only by a slow rise in operating costs, and by the expense of deferred repairs and maintenance.

One great advantage in the case of many types of farms, on the other hand, is that the operating ratio is at present low. In the past

three years, average farm operating expenses for the entire United States have been only 50 percent of the gross income. This allows a considerable margin to cover a fall in farm prices or a reduction in physical crops. There are of course, great differences in operating ratios between different types of farms, but I would like to cite an example of citrus groves in Florida of which I have made a recent study.

The yields and the prices of Florida oranges, grapefruit and tangerines have been relatively high since the war. The average gross income on all citrus groves reporting to the Florida State Department of Agriculture was \$500 an acre, the operating cost \$150 an acre and the net return \$350 an acre. An average orange grove would yield 200 boxes of oranges selling for \$2.50 a box on the trees or \$500 and all the costs of cultivating, fertilizing and spraying would be \$150 an acre. Here the operating ratio is only 30 percent, and even if prices of oranges fell 50 percent or to \$1.25 a box, there would still be a gross return of \$250, and a net return of \$100 an acre. If, instead of a fall in prices, hurricanes or freezes reduced the orange crop 50 percent, the net income would still be \$100 an acre, if prices remained the same. Suppose, however, that operating costs are \$250 an acre, due to higher costs for irrigation, spraying and frost protection — as in California — while the gross return is still \$500 an acre. The operating ratio is here 50 percent instead of 30 percent, and if prices or the value of the crop falls 50 percent, the net income is reduced to zero. A combination of low prices and low yields of any crop would likewise drastically reduce net incomes based on both high yields and high prices. A very large safety factor is necessary in those areas of fluctuating climate

where a period of wet years with bumper crops at high prices may be followed by a succession of drouths.

4. The Price or Value of the Property. Even if all the first three factors are favorable for mortgage safety, a situation of extreme danger may be created if an unusually high earning rate is capitalized and reflected in selling prices. Thus, suppose that an orange grove with a net income of \$360 today is sold now on a 6 percent capitalization basis or at \$6,000 an acre, and that a loan of 50 percent of this amount is made. The net income of \$360 would cover the interest requirements of \$150 or 5 percent on \$3,000 by a ratio of over 2 to 1. Suppose that the price of oranges drops 50 percent so that the gross returns are reduced to \$250 and the net income to \$100. Then the returns are insufficient to cover interest charges and the loan is in risk of default.

If as is actually the case, the Florida orange groves with net incomes of \$350 an acre are selling for no more than \$2,000 an acre and loans are made at \$1,000 an acre or less, there is sufficient cushion to absorb even an abnormally large decline in the price or in the crop.

It is true of farm lands generally that the present selling prices of the farms do not capitalize the present high earnings. Prior to the collapse of 1920, farms were selling on the average at 8 times the net income of farmers from farming. In 1945 farms were selling at only 3.4 times net earnings. On this basis farm prices or gross income would have to decline 50 percent or farm land prices would have to double above the present levels before farm loans would be as risky as in 1920.

Farmers generally have not been indulging in wild speculation; they have reduced the farm debt from nearly \$14 billion in 1923 to \$7 billion in

1945, while their net income rose from \$3 billion in 1933 to nearly \$15 billion in 1945. Even with a drastic fall in farm prices, farm loans on most productive farms would still be secure. There is very little chance that another debacle in farm land values such as took place in 1920 will occur in the next few years.

The stability of real estate values and of all other types of property should thus be tested by considering all of the four cardinal principles I have discussed, because the strength in one factor may offset the weakness in another. For example, even if farm prices decline, production costs of mechanized farms can be held fairly stable, the operating ratio now is favorable and the capitalized value represents a low multiple of net earnings. On the other hand, in the case of apartment buildings where the gross income is held down by O.P.A., the operating costs are tending to rise, the operating ratio is fairly high and the capitalized value somewhat high. There is practically no possibility of a decline in gross income and some chance of a considerable rise.

The most favorable combination for a safe and secure loan would be a mortgage on property with an assured stable or rising gross income, fixed or declining operating costs, a low operating ratio, and a low multiple used in capitalizing net earnings into value or price. Such an ideal combination can seldom be found.

On the other hand the most risky loan and the most unstable value is that of a property in which the gross income is about to decline sharply, the operating costs are fixed or rising, the operating ratio is high and the selling price represents a capitalization of peak earnings or an overcapitalization of future earnings. Such were the loans

made on office buildings and large apartment buildings in the 1920's but there are practically none in this category today.

Home loans have had a good record in the past. The most dangerous real estate loans today, however, are those being made at a high percentage of the current prices of single family homes that sell even at a premium above today's inflated reproduction costs due to the extreme scarcity of living quarters. A recent study made for the Joint Legislative Committee of the State of New York disclosed that only 4 percent of the employed veterans can afford the minimum new house erected in New York today which costs \$10,000. Houses sold beyond the means of the purchaser must inevitably decline in price when materials become more available and labor becomes more efficient. Of course, in the case of down payments on houses bought on G. I. credit, the chief loss will not be borne by the lending institution, but it may be suffered ultimately either by the veterans or the taxpayers.

The outlook for stability in most forms of property income is good for the next five years, I believe, because of the enormous unsatisfied demand for goods, particularly automobiles and houses. Yet our success in maintaining prosperity and a high level of income for the whole nation depends upon the same factors as those which protect the safety of any investment - greater efficiency of production and lower operating costs. If costs of production continue to mount as a result of strikes, delays, low volume of output, and a decline in labor efficiency, prices will rise to a point where most consumers simply cannot afford to buy the goods. The margins out of which interest, debt reduction and profits are paid will be squeezed out by mounting costs, so

that property values will fall, and the whole productive mechanism of our country will be stalled by buyers' strikes and declining employment due to reduced demand.

If the \$160 billion income of 1944 to 1946 inclusive can be maintained during the next few years without any further increases in prices, we will all share the benefits of full employment and a high level of buying power. This will insure stability of property income and the soundness of most loans made under current conditions. To secure this goal of maintaining our existing level of 58 million employment - the highest ever known - we need only a reasonable degree of team-work and something resembling the cooperation that won the war. With the vast unsatisfied demand for goods, with \$160 billion of savings, a tremendous plant capacity, a super-abundant supply of raw materials and mechanical power, a highly skilled labor force, we need only the will to work to guarantee prosperity for a decade to come. If we cannot get that simple honest willingness of everyone to play ball and if we break up into discordant factions, then we can starve in the midst of plenty. Our fortunes are dependent upon a machine which produces a copious flow of goods and services for all of us, when we each do our part, but which slows down or stops running altogether when any member of the team deserts his post.

It seems probable that after the removal of price controls, and after a shakedown in costs due to a recovery from our post-war let-down in efficiency, our economy will be sufficiently stabilized within a year to carry forward production at peak levels for four or five years.

After 1951 or 1952, however, many of the deferred demands for durable goods - except housing - will be satisfied and we will enter a period in which the number of young people reaching marriageable age will fall off drastically due to the low birth rates of the 1930's. Then the major post-war depression will be due, which will be all the more severe if in the meantime, we have had speculation and rising prices. This depression is, however, by no means inevitable and there will be time to safeguard ourselves against it after we have had several years of high level production. Certainly, some of the factors which produced the deep troughs of the 1930's, overbuilding of homes and offices, and excessive speculation in vacant urban sites and stocks are now conspicuously absent.

At the rate we are now going, we will not be able to catch up with our housing needs for ten years or until after 1956. With the backlog of demand for automobiles, even with factories operating at a peak capacity of 6,000,000 cars a year, we can't catch up until 1952. Nevertheless, since real estate loans are frequently made for periods of from 10 to 25 years, it is the policy of wisdom to require substantial amortization in the good years ahead, so that loans may be carried safely through any adverse conditions that might prevail in the middle 1950's.
