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Income Participations on Mortgage Loans by Major Financial Institutions, 1966–1974

ABSTRACT: Real estate financing techniques for income-producing properties underwent substantial changes during 1966–1970. Many large institutional investors shifted from their traditional role as first-mortgage lenders on a fixed interest rate basis to insistence, in addition, on participating in the income of the property being financed, taking either a percent of the income stream from the property (in addition to the fixed interest rate) or an ownership position in the property itself. ¶ In this study I examine the time pattern of income participation use, the events and conditions surrounding the development of participation mortgages, the factors determining the choice between a fixed interest and a participation financing, the trade-off between rate and participation, the reasonableness of lender expectations, and lenders' and developers' attitudes toward participations in 1975. The study is based on more than sixty interviews with mortgage officers of life insurance companies, real estate investment trusts, and savings banks, as well as with mortgage bankers, real estate developers, and government and trade association officials. ¶ Inflation contributed to the sharp increase in the use of income participations during 1968–1970 in two ways. First, concern over mounting inflation prompted many institutional lenders to shift away from fixed interest rate

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investments and toward participations in income streams in the hope that the latter would be increased by inflation. Second, inflation, through its impact on the general level of interest rates, resulted in disintermediation in the traditional mortgage lending institutions. By 1974, conditions had changed significantly, and with the change came a sharp decrease in the use of participations. The bargaining power of lenders was less than in 1969–1970. Perhaps more important, lenders were less enthusiastic about participations and less willing to make the necessary interest rate concessions to secure them.

In this study, I examine some of the forces that contributed to the sharp increase—and equally rapid decline—in the use of income and equity participations by large institutional investors during 1966–1974. As indicated in the tabulation below, the study is based on more than sixty interviews with individuals and institutions involved in mortgage lending:

	Number of Institutions	Number of Interviews
Bank trust departments	3	3
Life insurance companies	12	29
Mortgage bankers	3	3
Mutual savings banks	4	5
Real estate developers	7	8
Real estate investment trusts	4	4
Regulatory authorities, associations, other	11	11
	44	63

The focus of the study is on the investing activities of life insurance companies, as they were the largest and most important institutional force in the market. As one large mortgage banker observed in an interview:

> The life insurance companies were the leaders in the use of income participations. The savings banks were late in doing income participations, but then came in with participations structured on the same basis as those of the life insurance companies. And the commercial banks and bank-administered pension funds were not important factors in commercial mortgage lending during 1969–1970.

A solid understanding of life insurance company participations could only be gained, however, by also studying the investment activities of other traditional mortgage lenders. For this reason, interviews were conducted with a broad cross section of institutional lenders. Detailed personal interviews were required because of the complexity of the issues involved. Three sets of interviews were conducted with several of the life insurance lending officers—in 1972, 1973, and 1975—to follow changes in their

attitudes as business conditions changed and lenders gained experience with mortgages based on participations.

The information gathered in these interviews was supplemented by a careful study of current literature in the field, internal policy papers of some lenders, and reports on individual mortgage loans, as well as by computer simulations of the performance of variously structured income participations under different economic conditions. I was also able to compare and check my own results with those of a study based on extensive field interviews conducted in 1970 by Mundy (1971). His interview results, generated early in the history of income participations, provided a very useful check on the statements I obtained from the people I interviewed some two to four years later.

TYPES OF PARTICIPATION AGREEMENT[1]

The structure of participations ran the gamut from a very simple percent participation in the gross income of a project to some very complex arrangements involving ownership of equity in certain projects by the lending institutions themselves. In all participation agreements, the lender participated in either the income, ownership, or capital gains of the properties financed. The form of participation used depended basically on the bargaining position of the lender and the borrower. Other influential factors included the type of property to be financed, the size of the mortgage commitment, the equity needs and financial strength of the borrower, the urgency of the project to the developer, the length of the relationship between the two parties, the availability of mortgage money, and more basic considerations such as state usury laws and tax status.

The following discussion focuses on participations in which the lender received as contingent interest a set percentage of the income flow of the project. Contingent interest participations accounted for 61 percent of all nonfarm mortgage and real estate commitments with variable income or equity features made by life insurance companies during January 1968–June 1969 (see Table 1).[2]

Percent of Gross Income

In percent-of-gross participations, a set portion of the gross receipts of the income-producing property was paid to the lender, in addition to the contract rate of interest. The share was normally 2 to 4 percent.

While percent of gross appealed to lenders because of its analytical and administrative simplicity, it was very troublesome to borrowers for three

TABLE 1 **Nonfarm Mortgage and Real Estate Commitments Containing Variable Income or Equity Features, by Type of Property, January 1968–June 1969 (56 life insurance companies)**

Variable Income or Equity Feature	Multifamily Residential	Commercial	Industrial	Institutional	Complex	Total
			Millions of Dollars			
Contingent interest	$1,296	$1,123	$ 28	$23	$105	$2,574
Purchase of land, leaseback, and leasehold mortgages	77	178	16	—	15	285
Mortgages with warrants or stock	5	65	2	2	32	105
Purchase-leaseback or purchase-installment saleback	18	60	15	3	1	97
Sole developer of real estate	12	34	1	—	56	104
Joint lender-developer of real estate	105	224	25	5	50	408
Other (with variable income or equity features)	38	223	5	5	—	271
Combinations of features	145	162	17	—	55	379
Total	$1,696	$2,068	$109	$36	$312	$4,222

	Percent Distribution					
Contingent interest	76.4%	54.3%	25.7%	63.9%	33.7%	61.0%
Purchase of land, leaseback, and leasehold mortgages	4.5	8.6	14.7	—	4.8	6.7
Mortgages with warrants or stock	0.2	3.1	1.8	5.5	10.3	2.5
Purchase-leaseback or purchase-installment saleback	1.1	2.9	13.8	8.3	0.3	2.3
Sole developer of real estate	0.7	1.6	0.9	—	17.9	2.5
Joint lender-developer of real estate	6.2	10.8	22.9	13.9	16.0	9.7
Other (with variable income or equity features)	2.2	10.8	4.6	13.9	—	6.4
Combinations of features	8.5	7.8	15.6	—	17.6	9.0
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SOURCE: LIAA (1970).

reasons. First, a percent-of-gross participation sometimes resulted in a lower maximum allowable first-mortgage loan than would have been the case in a straight interest mortgage, the actual difference depending on the *internal* appraisal practices of the lending institution.[3] Some institutions required that the cash flow stream to be capitalized be calculated *after* deduction of the outflow associated with the payment of the participation. This was only true of percent-of-gross participations and reflected the high degree of certainty of their payment. Clearly, a decrease in the stream to be capitalized resulted in a lower capitalized value, all other things being equal, and the impact on a thinly capitalized developer would be substantial. For example, consider an apartment complex with an expected cash flow of $719,000 per year after deduction of all cash operating costs but before deducting financing costs. The developer is faced with a choice between a thirty-year mortgage at a straight interest rate of 9½ percent or at a fixed rate of 9 percent plus a 4 percent participation in the gross income of the property. Gross income is estimated at $1,041,000 and cash operating costs at $322,000. With the straight interest mortgage, the capitalized value of the property would be $7,072,000;[4] with the participation, the capitalized value would be only $6,658,000, since the cash flow is reduced to $677,000 when the cost of the participation is deducted. The difference in the equity investment required of the developer is substantial: $311,000, assuming a first-mortgage loan of 75 percent of the appraised value.

There were two factors that could offset some of the adverse impact of participations of the kind described, namely, the tendency of income participation loans to be slightly longer in term and the possibility of setting the capitalization rate on the basis of the interest rate on the specific financing for that property. For example, it was not unusual for the developer to be confronted with a choice between a thirty-year straight mortgage at 9½ percent and a *thirty-two-year* mortgage at 9 percent plus a 4 percent participation in gross revenue. As discussed later in this report, some companies would set the capitalization rate on the basis of the thirty-two-year mortgage at 9 percent, if that financing alternative were available. This greatly reduces the adverse impact of the participation on the maximum allowable loan and, therefore, the required equity investment by the developer. In the case above, for example, if the mortgage term is thirty-two years, rather than thirty, the capitalized value with the participation is $7,049,000: the cash flow is $677,000, as before, but the capitalization rate is 0.096096. The difference in capitalization values is then only $23,000, and the equity difference, assuming a first-mortgage loan of 75 percent of the appraised value, is $17,000.

A second reason for the aversion of developers to percent-of-gross participation was the financial burden it placed on a property. Typically,

the lender required that contingent interest be paid out of any cash flow generated by the project, regardless of whether there was sufficient cash flow to meet all cash outlays. The total annual debt burden for a mortgage containing a percent-of-gross participation usually exceeded the annual debt burden for a straight interest mortgage *even after* adjustment for the slightly longer term and lower interest rate the former might have. For example, assume that the apartment complex described above is financed with a $5.25 million mortgage. The total debt burden in the first year would be $533,823 for a thirty-year straight interest mortgage. It would be $546,144 (including the expected outflow for the income participation) for a thirty-two-year mortgage with a 9 percent interest rate and a 4 percent participation in the gross income. The difference of $12,321 in the outflows represents a 1.2 percent difference in tolerable vacancy rates and therefore is significant to the developer.

Finally, developers were concerned that percent-of-gross participations could damage the financial health of projects if the rate of inflation was high. At a time when increases in rents might be necessary to offset sharply rising costs, part of the rent increase would be diverted because of the participation. This represented a further risk to developers (although the risk imposed by the participation was clearly less than the risk that rent controls would prevent rent increases). Developers were also troubled by the possibility of a lender earning a very high return on a property that was in difficulty. Thus, while 9 of 18 respondents specifically asked felt that percent of gross was the lenders' favored form of income participation, rather than percent of the increase in gross (7 respondents) or of defined net income (2), none of them thought the first form was favored by borrowers. Instead, 9 each thought borrowers favored one of the other two forms.[5]

Percent of Net Income

Participations may be in the form of a payment to the lender of a set percent of the net income of the project. In a typical arrangement the lender might require 20 to 40 percent of the net income as contingent interest. Percent of net income was often more acceptable to the developer than other participation forms because it reduced the fixed debt burden and let the balance vary with the capacity of the project to pay it. As one insurance company officer phrased it, "If you're sharing the net, a developer isn't paying it unless he's earning it."[6] Furthermore, percent-of-net participations had no adverse impact on the valuation of the property for lending purposes. Since the expected outlay for participation was both highly uncertain and a residual claim on the flows, appraisers did *not* deduct it from the stream to be capitalized. In fact, on a percent-of-net

mortgage, the capitalized value of a property could be *increased* if the capitalization rate was based on the terms of financing for the specific property and if concessions were made on either the term of the mortgage or the fixed interest rate.

However, percent of net presented major problems to lenders. First, it was very time consuming and expensive to administer and collect. A borrower could inflate certain expenses on the income statement and decrease the net profit figure, which was the basis for the participation.

Several techniques were used by lenders to guard against ballooning of expenses by developers. One approach was to define the participation as "a percent of 'definable' net income," whereby expenses were usually limited to taxes and insurance as paid, plus a fixed percent of the gross income as an allowance for operating charges. Alternatively, the lender might itemize certain expenses such as management fees, painting and repairs, and others, and insist that those expenses could not exceed an agreed amount. Finally, some lenders who did not define net income rigorously insisted on auditing the major bills of the borrower to ensure that expenses were reasonable. All these techniques involved additional administrative costs, however.

Second, the skills and orientation necessary to analyze and monitor returns from net-income participations were different from those of most mortgage lenders. Percent of gross, by contrast, was easier to calculate and to monitor and less subject to dispute.[7]

Percent of Gross Income over Some Base Revenue Level

In a participation in gross income over a fixed base revenue level, a project was required to achieve a specified level of operating performance before the developer paid a share of the gross income as additional interest. For example, a lender might make a mortgage loan on a project and ask for 20 percent of the rental income above 95 percent of the building's "scheduled" income. The latter might be defined as, say, the revenue realized with 100 percent occupancy at original rental rates.

Income participations of the kind just described did not lower the appraised value of the property or the maximum first-mortgage loan, since no deduction was made for the expected value of the participation. In fact, the valuation might be higher than with a straight interest loan if inclusion of the participation resulted in an interest rate concession or a lengthening of the term of the mortgage and the capitalization rate used to value the property was based on the actual interest rate of the specific project.

In periods of high inflation, however, the favorable impact on valuation was offset by other risks to the developer. In such periods, rental increases often were needed to offset increases in cash operating expenses. If the

developer were required to give up a relatively large share of the increased rental income as additional interest, the financial health of the property would be threatened. Consequently, this form of participation was often arranged to apply only to rental increases exceeding increases in taxes and certain other enumerated expenses. In this form, it represented an acceptable compromise for lenders and borrowers. For the developer, it had either a neutral or a beneficial impact on the maximum allowable first-mortgage loan and it converted part of the debt burden into a form that varied with the capacity of the project to pay it. For the lender, it provided an opportunity to participate in the success of the project. It should be recognized, however, that inclusion of the cost offset provision made the value of the participation very uncertain and more expensive to administer and collect. On the negative side, the concession on the fixed interest rate in return for the participation hurt the net new-money rate, which was important in the competition by life insurance companies for pension business.

INSTITUTIONAL USE OF INCOME PARTICIPATIONS

Among the major types of financial institution, life insurance companies were by far the most active and, because of their size, the most important users of income and equity participations. While only 3 percent of their new commitments in 1964 on *income-producing* properties involved participations, the proportion reached 62 percent in the first half of 1969 and an estimated 70 to 75 percent during the first half of 1970 (Table 2). Their use of participations then subsided as quickly as it had arisen, accounting for an estimated 5 to 10 percent of new commitments in 1973 and 1974.[8]

The pattern for mutual savings banks was similar in timing, although less dramatic in intensity and dollar volume, and reflected primarily the lending activities of a few large New York banks.[9] These institutions adopted mortgage lending policies that closely paralleled those of large life insurance companies, with heavy emphasis on loans to income-producing properties and a strong interest in income participations. For the savings bank industry as a whole, outstanding mortgage commitments that included an income or equity participation totaled $451 million as of September 30, 1970—or roughly 10 percent of the industry's total outstanding commitments. Of that $451 million, $443 million represented income participation loans, and $8 million, equity participations. The comparable figures for income and equity participation loans held were $256 million, $234 million, and $22 million (NAMSD 1971, p. 1).

While the total of $451 million is large in an absolute sense, it is dwarfed

TABLE 2 New Commitments for Nonfarm Mortgages and Real Estate (56 life insurance companies)

Year	Income-bearing Property: With Variable Income or Equity Features	Income-bearing Property: All Other	Income-bearing Property: Total	1–4 Family	Total Mortgage and Real Estate Commitments
			Millions of Dollars		
1964	$ 158	$5,228	$5,386	$3,400	$8,786
1965	236	5,854	6,090	3,138	9,228
1966	358	4,662	5,020	2,161	7,181
1967	549	5,260	5,809	1,389	7,198
1968	1,863	4,788	6,651	1,150	7,801
1969[a]	2,359	1,448	3,807	404	4,211
			Percent Distribution		
1964	3%	97%	100%		
1965	4	96	100		
1966	7	93	100		
1967	10	90	100		
1968	28	72	100		
1969[a]	62	38	100		

SOURCE: LIAA (1970, p. 4). The fifty-six companies from which data were received accounted for 80 percent of the total assets of all life insurance companies in the United States at year-end 1968.

[a]January–June only.

by the estimated totals for the life insurance industry. As of September 30, 1970, total outstanding commitments of reporting life insurance companies on mortgage loans to nonfarm income-producing properties amounted to $8 billion (LIAA, n.d.). Since reporting companies accounted for only 78 percent of the assets of all U.S. life insurance companies, a reasonable estimate of total outstanding commitments on those properties might be $10 billion, of which an estimated $5 billion to $6 billion represented outstanding commitments that included some form of income participation.[10]

Real estate investment trusts (REITs) were also very active users of income participations. A survey of the portfolios of seven long-term-mortgage REITs showed that 98 of the 108 mortgages they held at year-end 1970 included income participations. However, since the aggregate size of mortgage REITs during 1969–1970 was small, they are of secondary importance in understanding this phenomenon.[11]

TABLE 3 **Life Insurance Purchases in U.S. Life Insurance Companies, 1950–1974 (millions of dollars)**

Year	Ordinary	Group	Industrial	Total
1950	$ 18,260	$ 6,237	$5,492	$ 29,989
1960	56,183	15,328	6,906	78,417
1970	138,356	52,139	6,612	197,107
1972	156,859	59,953	7,394	224,206
1974	199,239	85,865	6,657	291,761

SOURCE: *Spectator Year Book* (Institute of Life Insurance) and Life Insurance Agency Management Association. Servicemen's group life insurance is excluded.

THE UNDERLYING ECONOMIC AND INSTITUTIONAL CONDITIONS

In the period 1969–1970 there was a convergence of tight monetary conditions, a strong real estate market, a shift toward aggressive performance investing, and an increasing concern among lenders over inflation. Each by itself was probably not strong enough to power any dramatic shift in real estate financing patterns. In combination, however, they provided the necessary impetus.

Pressures on Life Insurance Companies for Investment Performance

The life insurance industry was fairly successful in its marketing of protection during the post-World War II period. The share of disposable personal income spent on premium and annuity payments held relatively steady at 3.8 percent,[12] as sales of life insurance increased steadily (Table 3).

Many executives in the life insurance industry were not satisfied, however. While sales of protection had reached ever higher levels, the industry held a declining share of the savings market. At year-end 1968 private life insurance and insured pension reserves accounted for only 7.7 percent of total financial assets held by individuals in the United States. This represented a substantial decline from the 11.7 percent share in 1950.

Of particular concern was the rapid growth of private noninsured pension reserves and of investment company shares. In 1950 these two forms of investment by households totaled $10 billion—or less than 20 percent of the $55 billion held as private life insurance reserves and insured pension reserves. By 1968 investment company shares and private noninsured pension reserves had reached $154 billion—almost 104 percent of the total size of private life insurance reserves and insured pension reserves (Table 4).

TABLE 4 Financial Assets Held by Individuals in the United States, 1945–1968 (billions of dollars)

	1945	1950	1955	1960	1965	1968
Total financial assets	$388	$469	$735	$1,001	$1,496	$1,942
Private life insurance reserves	36	49	63	79	99	113
Private insured pension reserves	3	6	11	19	27	35
Total	39	55	74	98	126	148
Share of total financial assets	10.0%	11.7%	10.1%	9.8%	8.4%	7.7%
Investment company shares	$1	$3	$8	$17	$35	$53
Private noninsured pension reserves	3	7	18	38	74	101

SOURCE: Board of Governors of the Federal Reserve System (1973).

The explanation for the declining share of the savings market seemed clear. Both individuals and corporate pension fund managers were aware that the average annual return from common stocks since World War II was 13 to 14 percent.[13] They expected, therefore, that the return from a well-managed portfolio of such stock would exceed that from the savings component of cash value life insurance or insured pension reserves.[14] Puder (1970, p. 50) observed that:

> Many of those people who desire the protection offered by a life insurance policy, but who are leery of the value of returns they might receive in the future, are shunning the ordinary cash value life policies and buying term insurance. In recent years, the American public's attitude toward insurance has gradually shifted in favor of term (payable only in the event of death) rather than cash value insurance (requiring higher premiums and payable both in the event of death and at stated surrender values).

Increasing numbers of Americans bought term insurance and invested the difference in premium amounts between term and cash value in common stocks. For the insurance industry, the trend toward term insurance meant the generation of fewer reserves or investible funds per premium dollar paid (Schott 1969, p. 3).

The response of the life insurance industry to these pressures involved both the development of new products and the adoption of more aggressive investment policies. A number of life insurance companies created and mass-merchandised their own mutual fund shares in an attempt to give their agents a means of countering the arguments and concerns of a customer cool on life insurance and entranced by the stock market (Rose 1968). Variable annuities were offered in response to fears about inflation, and legislation enacted in several states in 1962 authorized life insurance companies to set up separate equity accounts for the funding of pension plans.[15]

In addition to new products, the industry also sought out new ways to increase investment returns. It would be inaccurate to view the shift toward income and equity participations and common stocks in 1965–1970 as an isolated attempt to invest funds more profitably. It should be considered as part of a series of moves by the industry to improve yields and, thereby, its competitive position—moves that included the following for many life insurance companies:

1. A shift away from U.S. government securities. Holdings of these had been increased during the Great Depression and World War II. The industry was a net seller of U.S. Treasury securities in twenty-five out of the twenty-eight years 1947–1974, with the bulk of its sales completed by the mid-1950s. While total industry holdings of financial assets more than quadrupled—from $47 billion in 1947 to $255 billion in 1974—

holdings of U.S. government securities declined from $22 billion to less than $4 billion.

2. A move early in the 1950s toward lower-quality, less liquid, but higher-yielding private placements (Shapiro and Wolf 1973).

3. An increased emphasis on commercial mortgages during the 1960s, with a corresponding cutback in one-to-four-family mortgages, in which yields were relatively low. In every year from 1947 to 1960 more life insurance investible funds went into such mortgages than into commercial mortgages. Beginning in 1961, this relationship has been reversed. In fact, holdings of one-to-four-family mortgages by the life insurance industry have fallen from $26 billion in 1961 to $18 billion in 1974. In sharp contrast, the industry's holdings of commercial mortgages have risen from $19 billion to $59 billion.

4. A shift out of low-interest bonds and into high-interest bonds in the 1960s to the extent that the capital positions of the companies could absorb the realized losses.

5. Attempts during the second half of the 1960s to capitalize on management forecasts of interest rates by varying forward commitment positions (See Lintner, Piper, Fortune 1975).

Institutional Interest in Equities

Inclusion of income participations was also consistent with a general shift by institutional investors toward aggressive equity investing. Institutional interest in common stocks had been strong throughout the 1960s. From 1955 to 1969, the percent of total assets invested in corporate stocks by the major types of financial institutions was either stable or had increased (see Table 5). The trend was spurred by the performance of stocks after World War II and the adoption by investors of the concept of total return (dividend income plus capital appreciation). The quickening pace of inflation was also widely used in 1965–1968 as a major justification for increased investment of institutional funds in common stocks. It was argued that stock investments should be increased still further precisely because inflationary pressures were inexorably building and the added inflation would enhance equity values (Lintner 1973).[16]

The complexion of equity investing changed significantly, however, during the second half of the 1960s. The quest for above-average performance led many institutional investors to shift away from the slow-growing, high-quality stocks toward those of smaller, higher-growth companies. Portfolio trading increased sharply,[17] and some lessening of quality standards was experienced in both the common stock and the private placement activities of some institutions. Fourthly, the majority of life insurance

TABLE 5 Percent of Total Assets of Financial Institutions Invested in Corporate Stocks, Year End, 1955–1969

	1955	1960	1965	1969
Private uninsured pension funds	33%	43%	55%	59%
State and local government retirement funds	1	2	5	11
Life insurance companies	4	5	5	7
Fire and casualty companies	33	34	39	35
Open-end investment companies	87	87	87	86
Bank common trust funds[a]	49	52	44	48
Personal trust funds administered by banks and trust companies[a]	57	65	68	68

SOURCE: Board of Governors of the Federal Reserve System (1973), Goldsmith, ed. (1973).
[a]Common stocks only.

companies (as well as many bank pension departments) negotiated conversion privileges and warrants on many privately placed debt financings (see Piper and Arnold 1976). To be in straight interest bonds was seen by many as evidence of an archaic and inadequate investment philosophy. The general investing climate encouraged institutional investors to trade off a little on the fixed rate or quality for an equity feature (Belliveau 1969).[18]

The Profitability of Real Estate

Institutional investors did not confine their quest for above-average returns to just common stocks and equity features on debt issues. Life insurance companies had long invested 3 to 4 percent of their funds in real estate. For example, in the late 1940s, they had entered the field of leaseback financing as a method of providing 100 percent financing to developers and industrial tenants. However, the life insurance companies frequently forfeited all inflation protection and capital appreciation potential by granting the lessees options for long-term reduced rent renewal or repurchase that bore no relationship to the value of the property at the time the option would be exercised. Very few life insurance companies seemed influenced during this period by the possibilities of inflation; their primary concern was to find enough investment opportunities (Ricks 1964).[19]

Attitudes of life insurance lenders began to change early in the 1960s. They became less liberal in granting renewal and repurchase options and insisted that if they were to take 100 percent of the real estate risk they ought to receive most of the benefit of any appreciation in capital or rental value. Additionally, repurchase options were granted on the basis of market-like values (Rose Jr. 1968, p. 47). In part this insistence stemmed from research findings that equity investing in real estate had been highly

profitable in the past. David (1963) reported average annual returns of 21–29 percent for four different samples of real estate.[20] These reports seemingly confirmed what mortgage lenders had suspected, namely, that they had borne most of the risk by providing 100 percent financing and the developers had made all the money.

Equity investing also was a seemingly easy way for lenders to extend their traditional patterns of loan-making. They had established mortgage departments skilled in appraising income-producing properties and in monitoring the construction phase of development. There was seemingly little difference between the techniques necessary for successful mortgage lending and those required for either joint venturing or income sharing on mortgage loans. And the timing seemed excellent. The need for space of all types seemed strong, as evidenced by the low vacancy rates in 1968 and 1969: In 1968, vacancies plus bad debts as proportions of gross total income ranged between 3.4 and 4.1 percent for unfurnished residential housing of various kinds and between 5.1 and 7.3 percent for furnished ones; for 1969, the figures were 2.8 to 4.0 percent for unfurnished categories and 4.1 to 6.4 percent for furnished ones. By contrast, the range for unfurnished rates in 1962 was 4.3–5.9 percent; for furnished, 7.7–9.6. For a national sample of office buildings, the occupancy rate had firmed to 97.1 percent by 1969, after declining from 98.9 percent in 1946 and to 95.2 percent in 1964.[21]

Real Estate Returns and Inflation

The interest in real estate investments was heightened by the sharp decline in the stock market throughout 1969 which transformed the conventional wisdom from a belief that inflation was good for common stocks to a strong conviction that stock prices would suffer under continued inflationary conditions.[22] Stocks appeared to have failed as a hedge against inflation, and participations in real estate seemed to offer the last remaining hope.

This hope had a seemingly solid historical basis. Rents for all types of properties had been increasing strongly since the end of World War II, and, as shown by Mundy (1971), income participations seemed to offer the prospect of substantial returns. Mundy studied the actual operating results of seventeen new income-producing properties during the second half of the 1960s and concluded that life insurance companies could have increased their rates of return to levels significantly higher than those on fixed return mortgage loans by entering into participation mortgages. He summarizes:

> In almost all cases the "3 percent of gross" participation meets the criterion of achieving at least 50 basis points in the first full year of operations. . . . In addition, the "percentage of the gross" income kicker shows a tendency to meet

the second criterion, which is the achievement of 70 to 100 basis points in the third to fifth years.

Of the 17 total projects, 10 meet the yield criterion of 70 to 100 basis points in the third to fifth years [if the participation is structured as 20 percent of the gross income in excess of 95 percent of scheduled rents].[23]

Several additional factors contributed to institutional interest in participations. First, the lenders were receiving very high interest rates—at least on an historical basis—even after some small concession to get the participation. "Doing kickers was made a little bit easier by the fact that the rate was still very attractive on an historical basis." Second, some loan officers and loan committees seemed excited about the possibility of income participations and insisted on them almost blindly. (The following quotations and all later ones not attributed to a specific source are based on interviews conducted for this study.)

> "A number of lenders didn't think out why they wanted an income participation. It was a fad that they just wanted to follow."
>
> "There was pressure from top management to do kickers since others were doing them and there was a belief that life insurance companies have made millionaires out of a number of developers by providing 100 percent financing."
>
> "We were under pressure to match the performance of the securities department, which was negotiating equity kickers into many debt private placements, by including income participations on our mortgage loans."

Third, some lenders felt compelled to follow competitors into extensive use of income participations out of fear that they would otherwise suffer severe competitive disadvantage should participations prove valuable. Finally, income participations represented an opportunity to institutions to expand their "equity" investments in real estate without violating stringent statutory restrictions on the maximum percent of assets that could be invested in real estate.

Tight Money Conditions

The ability of real estate lenders to insist on income and equity participations in 1969–1970 also reflected a major shift in bargaining power.[24] During the preceding fifteen years life insurance companies had been concerned that there would not be enough attractive investment opportunities. There is some evidence that both loan-to-value ratios and loan maturities on income property mortgage loans were increased between

TABLE 6 Net Acquisition of Financial Assets by Selected Financial Institutions, 1961–1973 (millions of dollars)

	1961–1965[a]	1966	1967	1968	1969
Mutual savings banks	3,532	2,750	5,383	4,608	3,054
Savings and loan assns.	11,621	4,594	9,743	9,709	9,335[b]
Commercial banks	22,302	20,337	39,839	43,519	13,620
Life insurance companies[c]	6,796	6,806	7,738	8,533	6,695

	1970	1971	1972	1973
Mutual savings banks	4,716	10,374	11,012	5,962
Savings and loan assns.	14,107	29,840	37,104	29,231
Commercial banks	37,961	56,570	77,271	88,611
Life insurance companies[c]	7,697	11,680	14,066	14,416

SOURCE: Board of Governors of the Federal Reserve System (1973).
[a]Annual averages.
[b]Includes $4 billion in advances from the Federal Home Loan Bank.
[c]Life insurance company figures are net of policy loans.

1954 and 1965 as lenders competed for attractive investments (Shipp 1969).[25]

The situation had changed dramatically by 1969, as a tight monetary policy and strong demand for funds resulted in high interest rates and disintermediation. Hardest hit were the traditional mortgage lenders—the savings banks, savings and loan associations, commercial banks, and life insurance companies (Table 6).

The pressure on the savings banks, savings and loan associations, and life insurance companies was in fact even more severe than suggested by the data in Table 6. Many financial institutions anticipated higher levels of investible funds for 1969 and based their forward commitments in 1967 and 1968 on those anticipations. The unexpected and sharp decline in their investible funds resulted in excessively high commitment positions in 1969 and prompted those lenders to substantially reduce their new commitment levels until the end of June 1970. The data in Table 7 show the magnitude of the reduction in new commitments by reporting life insurance companies.

Furthermore, the financing needs of all sectors of the economy were very strong, partly because inflationary pressures had raised the cost of plant, buildings, and equipment and encouraged some acceleration of building plans. Real estate developers were reluctant to shelve projects, as construction costs were rising at an annual rate of 10 percent, development opportunities seemed attractive, and they were eager to keep their development teams together. At the same time, a permanent takeout commit-

TABLE 7 Forward Investment Commitments of Reporting Life Insurance Companies, 1968–1971 (dollars in millions)

Quarter Ended	Outstanding Commitments (1)	Annual Cash Flow (2)	Ratio: (1)÷(2) (3)	Quarterly Totals of New Commitments		
				Securities (4)	Mortgages (5)	Total (6)
1968 Sept. 30	$13,627	$13,109	104%	$1,215	$1,949	$3,163
Dec. 31	13,542	13,343	102	1,495	2,239	3,734
1969 Mar. 31	13,817	13,367	103	1,057	2,302	3,359
June 30	14,202	12,160	117	997	2,346	3,344
Sept. 30	14,348	11,940	120	973	1,807	2,779
Dec. 31	13,804	10,829	128	883	1,233	2,116
1970 Mar. 31	12,962	10,577	123	593	1,316	1,909
June 30	12,536	10,657	118	742	1,559	2,300
Sept. 30	12,484	11,481	109	734	1,334	2,069
Dec. 31	11,391	11,936	95	1,023	1,476	2,500
1971 Mar. 31	11,728	14,049	84	1,467	1,850	3,317
June 30	12,763	14,908	86	1,528	2,700	4,228
Sept. 30	13,561	15,716	86	1,690	2,468	4,157
Dec. 31	13,286	16,903	79	2,182	2,102	4,284

SOURCE: Life Insurance Association of America, "Forward Investment Commitments of Reporting Life Insurance Companies," mimeographed (privately circulated), various reports. The reporting companies accounted for 78 percent of industry assets at year-end 1971. The annual cash flow is the amount available for investment after policy loans, and for these relationships it is net of separate account inflows. The annual total of cash flow reflects the actual amount invested in the past two quarters plus company estimates for the next two quarters.

ment was still a precondition to securing construction financing.[26] Developers had very few alternatives in 1969–1970 to securing commitments for permanent financing from the traditional sources and, while they were unhappy with income participations, their concern was overridden by their need to line up financing. Lenders observed:

> "We could be very hard-nosed about insistence on an income participation. Developers were under great pressure to keep their teams together. Demand for space was strong in 1969–1970 and they were unwilling to risk missing a major project opportunity."

> "A developer might negotiate with a life company for up to a year before the commitment was made. He couldn't afford to quibble about rate at the last moment when the idea of a kicker was raised. At a minimum, this could result in a significant delay during which time building costs could rise substantially. At worst, it could result in an inability to ever do the deal. The developer simply doesn't have much flexibility at this point if money is tight."

The bargaining seesaw became heavily weighted in favor of the lender and, according to one real estate officer at a major life insurance company, "in today's market [1970] we can make just about any deal we care to."

DIFFERENCES BETWEEN FIXED INTEREST AND PARTICIPATION MORTGAGES

By 1969 the great majority of large life insurance companies and real estate investment trusts that invested in long-term mortgages were writing at least some of their loans with income participations. However, lenders varied greatly in their use of participations (Table 8). In part, this reflected differences among lenders in their interest in income participations. A few lenders were slow in recognizing their strengthened bargaining position; others doubted the value of participations and were willing to offer developers a choice between a participation loan or one based on a higher fixed interest rate (most developers chose the latter). However, the field interviews indicated that there were also systematic differences between participation and straight interest loans in terms of the kind of developer and project involved in each, independent of lender attitudes.

Straight interest loans tended to be of somewhat higher quality than those with an income participation. Ten of eighteen respondents indicated that a small but significant quality difference existed, especially during the first ten months of 1969.[27] Strong developers were able to avoid a partici-

TABLE 8 **Distribution of 56 Life Insurance Companies by Percentage of Total New Commitments with Variable Income or Equity Features, 1964–1969 (number of companies)**

Percent of Total New Commitments with Variable Features	1964	1965	1966	1967	1968	First Half, 1969
None	42	42	39	30	13	7
0.1– 4.9	8	8	6	10	6	1
5.0– 9.9	—	1	5	7	1	4
10.0–19.9	3	2	2	3	9	2
20.0–29.9	—	—	1	2	15	5
30.0–39.9	1	1	—	—	5	4
40.0–49.9			1	—	2	7
50.0–59.9				1	1	8
60.0–69.9				1	1	4
70.0–79.9					2	8
80.0–89.9					—	4
90.0 and over					1	2
Not available	2	2	2	2	—	—
	56	56	56	56	56	56

SOURCE: LIAA (1970).

pation by virtue of their proven abilities, attractiveness to lenders, and access to alternative financing sources. In fact, several lenders who insisted on income participations reported a loss of some strong developers as a result.

It would be incorrect to conclude, however, that the overall quality of first-mortgage lending by life insurance companies and savings banks deteriorated during the period. While there were quality differences between the two sorts of loan, their overall quality may very well have increased. This view is borne out by statements of respondents on this question directly and by examination of their methods of rationing credit.

"Income participations were not usually a way to make loans that were unacceptable on a fixed interest rate basis."

"Loans with income participations involved somewhat weaker developers than those financed on a straight coupon [fixed interest] basis. However, we always loaned to these developers but used to recognize their slightly lower quality by asking for a higher coupon. In 1969–1970 we decided to ask for a kicker instead."

The interview evidence also indicated that one of the first actions by lenders as money tightened was to raise their quality standards and to

eliminate marginal loans. Interestingly, they also cut back on very-high-quality loans—often backed by credit leases—which were acquired primarily when the supply of investible funds exceeded that of somewhat lower-quality, higher-yielding loans (see Fortune 1973). While a number of those interviewed indicated that they refused mortgage deals on which no worthwhile participation was available, only one believed that his institution had sacrificed its normal quality standards. All remaining lenders *first* tightened lending standards and *then* (as the money supply shrank further) eliminated deals in which a participation would be of little value. The tabulation below shows the sequence of actions taken by the sample of insurance companies and mutual savings banks in rationing credit. The figures show the number of respondents taking the specified action.

Action By Lenders	First Move	Second Move	Third Move	Fourth Move
Tighten quality standards	6	1	0	0
Eliminate highest quality loans	7	1	0	0
Eliminate new customers	3	4	4	0
Eliminate loans where no worthwhile participation possible	1	5	0	2

A number of fixed interest loans were made because the prospects for rent increases were poor or the loan was so small that the administrative costs of a participation would exceed its value. In some cases such as properties on fixed net credit leases, there was no chance of rent increases; in others, such as farm loans, there was difficulty in trying to structure the participation terms.

STRUCTURE OF INCOME PARTICIPATION LOANS

The stated terms of a mortgage deal reflect the simultaneous negotiation of eight considerations: the interest rate, the form and amount of income participation, the payout term, the loan-to-value ratio, the valuation placed on the property, the prepayment provisions and penalties, personal guarantees of the mortgage or lease by a financially strong individual, and mortgage call provisions that can be executed by the lender at prespecified dates throughout the term of the loan. This section is limited to a discussion of the differences between fixed rate loans and participation loans with respect to six of these considerations.

Prepayment Provisions and Penalties

As interest rates rose to new heights, lenders grew increasingly interested in locking borrowers into loan agreements for long periods of time. The concern of lenders was reflected in both their efforts to ensure takedown of the permanent financing upon completion of the property (irrespective of any decline in interest rates that might occur after negotiation of the forward commitment) and the lengthening periods during which prepayment of the permanent financing was prohibited. By 1969, the "closed" period, during which prepayment was prohibited, had reached 10–15 years (versus roughly 5–7 years in the early 1960s), and the prepayment penalty in the first year after that period had reached 5–6 percent (versus 3–5 percent in the early 1960s). The conditions were the same for both fixed rate and participation mortgages.

Valuation

Lenders stated that appraisal standards were as rigorous for participation as for fixed rate mortgages and that the valuation placed on a property was not a subject of negotiation. However, eight of the respondents indicated that the rate used to capitalize the income stream from a property was related to the fixed interest rate set on the mortgage for that property. Thus, a property financed by a fixed rate loan would be appraised at a lower value than if it were financed by a participation loan at a lower fixed rate. This was true, of course, only for a participation structured as a percent of either defined net or the increase in gross income. A percent-of-gross participation reduces the income stream to be capitalized and may result in either a higher or a lower valuation, depending on the specifics of the loan agreement.

Loan-to-Value Ratio

Only one lender stated that it had stretched the loan-to-value ratio as a means of securing income participations. The others indicated that they operated close to, but not beyond, the maximum percent allowed by the state regulatory authorities on both fixed rate and participation mortgages.

Payout Term

The interviews did indicate some stretching of the payout term of the mortgage in return for an income participation. This represented a valuable concession to the developer, as it reduced the annual debt service that the property had to support. The amount of stretching out was not great, however, with one or two years the usual length (13 respondents); one

indicated a three- to four-year extension, and eight claimed there was no difference in treatment. An increase of two years in the payout term (from twenty years to twenty-two years) on a mortgage written at 8 percent would reduce the annual pretax debt burden by 4 percent.

Fixed Interest Rate

Many of the lenders indicated they were able to get the going interest rate and an income participation by making a concession on the payout term. However, it was usually necessary to accept a lower fixed interest rate than would have been available on a mortgage of the same lengthened term written on a fixed rate basis. The concession on rate in return for a participation averaged about one-quarter percent, with a maximum of three-fifths percent on a few loans by one lender. Thirteen of the respondents stated that the concession was usually one-eighth to one-quarter percent, while another six stated that it ranged between one-quarter and one-half percent.

The willingness of lenders to trade off more fixed rate for a larger income participation was limited by four primary factors. First, lenders felt very uncertain about the likely value of the participation, especially percent of net or of the increase in gross over some base. While all lenders pushed for participations, their risk aversion sharply limited their willingness to forgo the certainty of interest for an uncertain return from a participation. Second, several life insurance lenders cited some pressure from their group and pension people if the interest rate concession went much beyond one-quarter percent, as it then had a significant competitive impact on the company's net new-money rate. One respondent explained: "I tried to get the company to give up more than one-quarter percentage point of coupon to try to get a more significant kicker, but there was too much concern with giving up current income. Also, there were a lot of people in the organization who didn't feel that the kickers would, in fact, work out." Third, lenders were concerned that a larger participation in the income stream would adversely affect the incentives of the developer. Finally, market forces typically prevented a lender from securing a participation higher than that being insisted upon by other lenders.

The percent participation secured by lenders varied according to the type of property and the bargaining strength of the developer. The expected value of the participation bore a fairly consistent relationship, however, to the amount of fixed interest forgone. Sixteen of the nineteen respondents stated that the participation was expected to increase the yield on the mortgage by an amount two to two and a half times the amount of straight interest forgone (one respondent thought the increased yield amounted to three times forgone interest, and two expected no increase);[28] that is, the

decision to write a mortgage at a fixed interest rate of 8¾ percent plus a participation, instead of 9 percent and no participation, was based on the expectation that participation would raise the return to 9¼–9⅜ percent over the holding period. This translates into an expected additional return of 50–65 basis points—an amount consistent with Mundy's findings based on interviews in 1970.[29] It should be recognized, however, that the majority of the lenders either made no estimate of the value of the participation on a specific property or had little confidence in the estimate. This lowers somewhat the confidence in the stated payoff schedule.

Lenders saw the 2-to-1 payoff schedule as a reasonable compensation for the uncertain return on income participations. Clearly, the relationship between the fixed rate forgone and the expected value of the participation should vary substantially according to the type of participation, since, for example, participation in gross income is considerably less risky than a participation in defined net. What is less clear is whether the trade-offs were made, in fact, on the basis of explicit analysis. It is known that some lenders and smaller developers frequently failed to carry out any careful analysis and balancing of risk and return in setting the payoff schedule.

EFFECTIVENESS OF INCOME PARTICIPATIONS AS A HEDGE ON INFLATION

The strong trend during 1967–1970 toward inclusion of an income participation in mortgage loans raises several questions:

1. What level of return is likely from each kind of income participation?
2. How responsive are the returns from the various kinds of participation to the rate of inflation, lags in rent increases, and differences in the closed period of the mortgage?
3. What is the implication of usury laws for the optimal structure of the participation?
4. How certain is the return from the various income participations?

A set of simulations was run both to estimate the value of income participations and to compare the effectiveness of various kinds of participations as hedges against inflation. The simulations were based on data for a large apartment complex in Houston, Texas, on which a life insurance lender had provided a $5¼ million first mortgage loan and for which estimates of first-year rents and operating costs were available.[30] The effectiveness of each type of participation was estimated first on the

favorable assumption that constant annual inflation was the same for both rents and operating costs.[11] Lags and differences in the rates of inflation were then introduced into the analysis. However, for a participation in gross income over a fixed base level, no offset was made for increases in cash operating costs.

Returns if Rents and Cash Operating Costs Inflate at the Same Rate

The income participations translate into a substantial increase in the internal rate of return from the mortgage loan, even at the fairly moderate inflation rate of 3 percent per year (see Table 10, below). The additional return from a participation of 2 percent of gross rentals or 20 percent of the increase in gross rentals is 44–50 basis points, assuming that the inflation rate is 3 percent and that the loan has ten years to go to prepayment. This is consistent with the expressed belief of lenders that they acquired a participation worth approximately 50 basis points by forgoing 25 basis points of fixed interest rate.

Responsiveness of Various Kinds of Participation to Inflation

Percent-of-gross participations are much less responsive to the rate of inflation than the two other forms. As shown in Table 10, below, the additional return from a participation of 2 percent of gross income is 40 basis points, assuming no inflation and a fifteen-year period before repayment. The additional return increases to 71 basis points if the annual rate of inflation is 9 percent. In contrast, the additional return from a participation of 20 percent of the increase in gross income over first-year scheduled rents is zero if there is no inflation, but rises to 290 basis points if rents rise 9 percent per year, since the lender receives 20 percent of the increase in that form of participation. The indication of the findings is that the choice of income participation form should be influenced by the inflation rate forecast.

Importance of the Closed Period for Various Kinds of Participation

The length of the closed period is very important for all mortgages written in times of high interest rates, but especially for those that include a participation in net income or in the increase in gross. The additional return rises from 50 basis points to 78 at an annual inflation rate of 3 percent if the mortgage remains in effect for fifteen years rather than just ten. At an inflation rate of 9 percent per year, the value of the additional

five years is even more substantial: the additional yield rises from 173 basis points to 290.

In contrast, the additional return from a participation in gross income rises from 57 basis points to only 71 when the closed period is lengthened from ten years to fifteen and the annual inflation rate is 9 percent.

Vulnerability of Various Kinds of Participation to Usury Laws

Under conditions of high inflation, some of the return from income participations may not be realizable by years 10–15 because its receipt would violate usury laws in some states. It is clear that income from participations is considered to be interest under the usury laws. Furthermore, the usury test is based on an annual calculation of total interest received in a particular year divided by the amount of the loan outstanding during that year. No spreading of the income participation over the life of the loan is allowed. It may be advantageous, therefore, to consider alternative methods of structuring the loan (ground leases or percent-of-gross participations). For example, at an annual inflation rate of 6 percent, the true return from a mortgage written on the Houston project at an interest rate of 8⅞ percent plus a 4 percent participation in gross income will be the same as that from a mortgage written at the same interest rate but with a 20 percent participation in the increase in gross income (see Table 9). However, at year 10, the accounting return calculated for usury purposes will be only 10.3 percent for the 4-percent-of-gross participation versus 11.78 percent for a participation in the increase in gross. If state usury laws impose a ceiling of 11 percent, it is clearly advantageous to structure the participation as a percent of gross.

TABLE 9 Annual Accounting Return on Variable Income Mortgages as Calculated under Usury Laws[a]

Annual Rate of Inflation	2% of Gross		20% of Increase in Gross		20% of Defined Net	
	Year 10	Year 15	Year 10	Year 15	Year 10	Year 15
0%	9.30%	9.35%	8.88%	8.88%	9.55%	9.64%
3	9.42	9.60	10.16	11.32	10.42	11.29
6	9.59	9.95	11.78	14.89	11.51	13.69
9	9.79	10.47	13.81	20.05	12.88	17.17

[a]Calculated by dividing the total interest received in a particular year (including the assumed interest rate of 8⅞ percent) by the amount of the loan outstanding during that year. It is assumed that rents and operating costs rise at the same annual rate, beginning in year 1.

Impact of Lags on Returns from Various Kinds of Participation

Lags in the responsiveness of rents to inflation have a significant impact on the likely returns on the income participation. The lags can result from either delays in renting all the space, or rent concessions made in the first 3–5 years, or leases that run for more than one year. To test the sensitivity of returns to these lags, it was assumed that rents did not increase during the first five years but that they then rose in year 6 by the assumed rate of inflation compounded for five years. Rents were then assumed to stay at that level throughout years 6–10 (under new five-year leases) but were once again increased in year 11.

The impact of the lags on the added returns from the income participations is substantial, especially for increase in gross. For example, the added return from a participation of 20 percent of the increase in gross, assuming a 6 percent annual rate of inflation, with ten years remaining before prepayment and no lags in rent increases, is 107 basis points. The return falls to only 55 basis points when the five-year lag in rent increases is introduced (see Table 10).

TABLE 10 Increase in Effective Annual Internal Rate of Return from an Income Participation (basis points; figures in parentheses show increase assuming five-year lags in rent increases)

Annual Rate of Inflation[a]	Years before Prepayment					
	10	15	10	15	10	15
	2% of Gross		20% of Increase in Gross		20% of Defined Net[b]	
0%	38	40	0	0	62	63
	(38)	(40)	(0)	(0)		
3	44	48	50	78	94	116
	(41)	(45)	(25)	(60)		
6	50	58	107	174	134	182
	(44)	(54)	(55)	(135)		
9	57	71	173	290	179	261
	(47)	(64)	(88)	(227)		

[a]Inflation is the annual rate at which rents and cash operating costs are assumed to increase. For the figures in parentheses, however, the rate of increase is for gross income. For the others, it is assumed that rents and operating costs rise at the same rate, beginning in year 1.
[b]Net income is defined as gross income less operating costs, taxes, insurance, and the debt burden.

In addition, there are changes in the relative returns from participations in gross compared with increase in gross. If there are no lags in rents and ten years remain before prepayment, increase in gross provides the higher expected return if inflation is 3 percent per year or more. However, if the inflation rate is 3 percent or less, introduction of five-year lags in rent increases makes participation in total gross more attractive. The return from each kind of participation is also influenced strongly by the percent of the project's total rents that is set contractually at a fixed level on a long-term basis. If all rents and operating costs rise at 6 percent per year, the increase in the effective annual internal rate of return from a participation of three percent of gross income is 73 basis points; for a participation of 20 percent of the increase in gross income, it is 107 basis points; for 20 percent of net income, it is 135 basis points. If all operating costs but only half the rents rise at the 6 percent rate, the comparable figures (in basis points) are 65, 50, and 95.

Riskiness of Various Kinds of Income Participation

Participations in gross income are much more certain than the two other types we have been discussing. A 5 percent shortfall of gross income from its scheduled level reduces the return from participation in gross by the same 5 percent.[32] In contrast, a similar 5 percent shortfall would totally eliminate the return from a participation structured as a percent of gross income in excess of 95 percent of scheduled rents. A participation in defined net income obviously is less certain than percent of gross, but it is less clearly riskier than participation in gross income over some specified base level. Since the breakeven point in terms of defined net is usually less than 95 percent of scheduled rents, a 5 percent rent shortfall would not eliminate the return from a percent-of-net participation. However, uncertainty concerning the level of construction and operating costs increases the risk.

To obtain a better estimate of the comparative riskiness of different types of participation, Monte Carlo simulations were run, using the Houston project data. Distributions, rather than point estimates, were used as input for the following variables: annual inflation rate of revenues, 3–9 percent; annual inflation rate of costs, 3–9 percent; vacancy rate, 2–8 percent; initial operating costs, $300,000–$344,000; and scheduled gross revenues, $1,011,072–$1,071,072. For each variable it was assumed that the actual figure would never be less than the low figure or greater than the high one. The chance that the actual figure would be less than the midpoint of the range was assumed to be 0.5. Prepayment of the mortgage was assumed to occur at the end of the tenth year.

The simulations demonstrated that the return from a percent-of-gross participation is the most certain and the return from a participation of 20

percent of net, the least. For the former, the mean increase in the effective annual internal rate of return was 50 basis points with a standard deviation of 2 points; the corresponding figures for the latter were 134 and 14 (for a participation of 20 percent of the increase in gross, the figures are 107 and 11). In fact, the uncertainty of the additional return from the net income participation is understated because the risk that construction costs may be higher than forecast has been ignored. A 10 percent cost overrun, for example, lowers the expected return from that participation from 134 basis points to only 104. The decrease reflects an increase in interest costs as the result of financing the cost overrun with a ground lease. Inclusion of a cost offset provision similarly decreases the mean return from a participation in gross income over a fixed base level and increases the standard deviation.

Income Participations Attached to Ground Leases

As discussed earlier, the impact of an income participation on the total return from a mortgage tends to increase substantially as the duration of the closed period lengthens. Also pointed out were the limitations placed on the return by usury laws. In some states, the permitted return during 1968–1970 was insufficient to justify mortgage lending activities. A method of financing used to cope with these two problems was the purchase of a land, leaseback, and leasehold mortgage. Under that arrangement, the real estate was split into a fee (the land) and a leasehold estate (the building). The lender purchased the fee and leased the land back to the developer (a ground lease). The lender then made a mortgage loan on the leasehold estate.[33]

The term of the ground lease was usually for 25–50 years, tending toward the latter, and sometimes included renewal options for up to 75 years. In recent years, many lenders have tried to avoid granting renewal options as they tend to work against the lender. If the property attains high economic value, the developer can renew at a predetermined price which in all probability is less than the true value of the property. However, if the value of the property remains below the predetermined price, the lease will not be renewed. In recognition of this problem, some renewal rents are based on the appraised value of the property at the time of renewal. Similar reasoning underlies the current reluctance of lenders to include a repurchase option *in the contract*, although all are willing to discuss repurchase at a subsequent date.

On a land-leaseback-leasehold mortgage, the lender was often able to realize a higher fixed return on investment as a concession for providing a higher than usual percent of the financing.[34] Another benefit to the lender was that contingent interest payments continued as additional ground rent even after termination of the leasehold mortgage. The impact on the total

return from an income participation that runs for thirty years as part of a ground lease rather than ten or fifteen years as part of a first mortgage is substantial, especially if rents are rising rapidly (Table 11).[35] For example, if rents increase at an annual rate of 6 percent, the total return from a mortgage financed by a fixed interest rate of 8⅞ percent plus 20 percent of the increase in gross income over scheduled rents is 10.62 percent if the participation runs for fifteen years and 12.64 percent if the participation runs for thirty years.

An additional advantage to the lender of land-leasebacks is the opportunity to avoid the limitations imposed by usury laws. Some states set ceilings on mortgages at levels as low as 6 percent. In the 1969–1970 period of tight money and high interest rates, mortgage investment at those levels could not be made. Even in states that had a 10 percent maximum usury rate, a mortgage return composed of a fixed rate of 9½ percent plus 20 percent of the increase in gross income could exceed the maximum allowable return within only a few years. This problem could often be avoided by attaching the income participation to the ground lease rather than to the first mortgage. The additional return from the income participation was thereby considered a part of the ground rent, and the latter was not subject to usury tests.

LENDER ATTITUDES ON INCOME PARTICIPATIONS DURING 1971–1974

Use during 1971–1973

The sharp decline in the incidence of income participations since 1970 raises questions as to its cause and its implications for the future structure of mortgage financings. In 1969–1970 the majority of new mortgage commitments by the large life insurance companies included some form of income participation attached either to the mortgage or to a ground lease. By early 1973 the proportion had fallen to perhaps 10 percent. A similar pattern is shown in a series developed by the Roy Wenzlick Research Corporation (*The Real Estate Analyst*), based on reports from over sixty major institutional lenders. The peak year for the four kinds of property described—shopping centers, medical and office buildings, industrial buildings, and apartments—was 1970, when the share of mortgages that contained participations was, respectively, 29, 42, 28, and 79 percent. For 1969, the corresponding figures were 32, 15, 9, and 27 percent, and for 1971, 54, 23, 4, and 30 percent. One year later, in 1972, the respective shares had fallen to 2, 4, 0, and 4 percent. (In 1967, no participations were written, except on shopping centers, for which the share was 1 percent.)

The decline in the use of income participations in 1971–1973 did not

TABLE 11 Total Return from Variable Income Mortgage (8⅞ percent fixed rate plus income participation)

Rate of Rent Increase	Years before Prepayment								
	10	15	30[a]	10	15	30[a]	10	15	30[a]
	2% of Gross			20% of Increase in Gross			20% of Defined Net		
0%	9.25%	9.27%	9.32%	8.88%	8.88%	8.88%	9.50%	9.51%	9.60%
3	9.31	9.35	9.50	9.37	9.65	10.51	9.82	10.04	10.70
6	9.37	9.45	9.78	9.95	10.62	12.64	10.22	10.70	12.20
9	9.44	9.58	10.22	10.61	11.78	15.20	10.67	11.49	14.15

[a]The simulations assume that the first-mortgage loan is outstanding for the full thirty years. In fact, it is probable that the first mortgage will be refinanced after 10–15 years. This would increase the impact on total return of a participation which is attached to the ground lease and therefore continues to generate income through year 30.

result from a major change in lender attitudes. Lenders continued in that period to be very interested in income participations, as evidenced by the following statements:

"If inflation continues at a 5–7 percent annual rate, we will go into more deals with income participations."

"Income participations have worked out quite well and we certainly will get them wherever possible. Real estate and income participations on mortgages are much more certain hedges on inflation than are common stocks."

The decline is largely explained by changes in the structure and tightness of the capital markets. The disappointing recovery from the 1970 recession prompted the monetary authorities to accelerate markedly the growth rate of the money supply (M_1) during the first half of 1971. The combination of an easier monetary policy and a sluggish economy precipitated a sharp decline in short-term interest rates. Yields on three-month Treasury bills fell from 8 percent in January 1970 to less than 4 percent by March 1971. This spurred a massive flow of deposits into the thrift institutions and significantly reduced the dollar volume of new policy loans of life insurance companies. The net acquisition of financial assets at these traditional mortgage lending institutions more than doubled in 1971 from the 1969 rate, as shown in Table 6, and the concern of mortgage lenders quickly shifted to finding enough investments for the unexpectedly high level of investible funds. Income participations were one of the first features to disappear as lenders competed for attractive investments by eliminating a feature that was distasteful to developers.

"We didn't write as many participations into mortgage loans in 1971 as in the prior two years due to our great eagerness to put investible funds to work in permanent investments."

"Today [1972], we cannot get an income participation—everyone in the lending field has lots of cash."

The emergence and rapid growth of REITs also influenced the basic structure of mortgage lending. It would take us far afield to analyze all the forces that lay behind the formation and subsequent rapid expansion of many REITs in 1970–1973. Indeed, it is clear that all REITs were not driven by the same forces. It is also clear that there was a major increase in total industry assets (from $2 billion at the end of 1969 to $14.2 billion at the end of 1971);[36] that the rapid growth was sometimes motivated by concerns (e.g., management fees and stock options) that were inconsistent with sound mortgage lending practice; and that the loan terms offered devel-

opers by some REITs made it difficult for other mortgage lenders to secure income participations. Specifically, REITs, in their quest for rapid asset growth, were willing to provide construction loans without requiring that the developer first arrange for permanent financing. Approximately half the construction loans made by REITs during this period were believed done on that basis. That action gave developers additional time to arrange permanent financing either, they hoped, at a lower rate or without an income participation, or both.

Use During 1974

Compared to the 1971–1973 period, prevailing conditions in 1974 seemed more conducive to the use of income participations. Investment performance pressures remained strong. The rate of inflation accelerated, and expectations as to the likely level of future inflation were revised sharply upward. The REIT industry, which was wracked by loan delinquencies, lost the confidence of its suppliers of finance and made virtually no new commitments. In addition, *general* conditions in the capital markets tightened, with a resultant shift of bargaining power toward the lenders. However, interviews with twelve life insurance companies showed that, on average, only 5 to 10 percent of new mortgage commitments in 1974 included an income participation. The continued low use of income participations can be attributed to two factors. First, while general conditions in the capital markets were tight in 1974, many real estate departments of institutional mortgage lenders experienced far less of a crunch than in 1969–1970. In part, this reflected the limited supply of acceptable real estate deals. Lender standards of acceptability and their perceptions of the riskiness of real estate loans increased during 1974.

Second, by 1974 a number of mortgage lenders were reviewing the wisdom of pressing for income participations. The administrative time and cost required to collect the contingent interest had been far greater for some lenders than originally anticipated, a problem that prompted one loan officer to remark: "We would trade all our income participations negotiated in 1968–1970 for an additional one-quarter of a percent on the interest rate. The projects have worked out reasonably well, but the cost and time spent on trying to collect the participations have been far greater than originally forecast." The majority of the respondents stated that it was often difficult to obtain the required financial statements from the borrower. A typical statement made by a life insurance company officer indicated that the borrower would generally do, or agree to, practically anything that was asked of him up until the time he got the money, but that

once he got the money, it was often very difficult to obtain the financial information.

The dampened interest of some mortgage lenders in income participations also reflected the disfavor into which aggressive equity investing had fallen. In many institutions, a number of the attempts at aggressive investing had either failed or been only moderately successful. The great majority of warrants and conversion privileges negotiated on private debt placements during 1967–1969 had been unprofitable (Piper and Arnold 1976). On balance, participations in net income of real estate projects had been unsuccessful. Participations in gross income or in the increase in gross over a fixed base had worked out reasonably well, but the amount of time necessary for them to generate significant additional return had been longer and the monitoring and collection problems had been far greater than anticipated.[37]

Finally, doubts developed among some lenders about the relationship between the rate of inflation and real estate economics. The unexpected surge in the rate of inflation during the first half of the 1970s contributed importantly to the poor health of many real estate projects, with the extent of the damage dependent upon the stage of the project's development at the time of the surge. The most vulnerable projects were those in the early stages of development that had been started without a prior arrangement for long-term mortgage financing on a fixed rate basis.[38] The costs for those projects—for construction, interim financing, permanent financing, and operations—were all higher than forecast. There were also marketing, legal, and political constraints on the ability of the project directors to raise rents. Long-term leases negotiated at fixed rates in the period before the unexpected surge in inflation could not be renegotiated. Rent controls frequently prevented a full pass-through of increased costs even where that was contractually possible, and high vacancy rates in some markets held rents below full costs. Less vulnerable were projects under construction that had firm commitments for permanent financing at a reasonable fixed rate. However, cost overruns during construction, higher-than-forecast operating costs, and lags in rent increases still cut into the project's health. The strong belief of the 1969–1970 period that returns from real estate would benefit from inflation was challenged by the experience of 1971–1974, at least for projects caught by inflation during the construction phase.[39]

While some lenders indicated continued interest in 1974 in securing an income participation, they were typically unwilling to grant the concession on interest rate necessary to gain acceptance by the developer. This is perhaps not overly surprising. Participations in gross or in the increase in gross over a base level create problems for both the developer and the lender that are benefits to neither. For example, participations hurt the net

new-money rate of lenders, force both sides to incur additional administrative costs, increase the debt burden on the developer, and may limit the maximum size of the first-mortgage loan (see the section on "Types of Participation Agreement," above). The damage done to the developer must be offset by an interest rate concession in excess of that warranted by the greater uncertainty of participations relative to additional fixed interest. However, most lenders were unwilling to make the additional concessions on rate in 1974, as they recognized the adverse impact of participations on their own administrative costs and the net new-money rate. Also, their forecasts of the likely value of participations were tempered by their experience with participations negotiated in 1969–1970, the poor health of the real estate industry, and the major shift in orientation of their own investment strategies.

The possibility of negotiating a participation in the increase in gross over a base level, with an offset for increases in cash operating costs, seems better. As discussed earlier, a participation of this form reduces the annual debt burden and may increase the size of the maximum allowable first-mortgage loan. Its disadvantages are its impact on the net new-money rate and the additional administrative costs it entails. Apparently, the advantages were more than offset by a combination of these disadvantages plus the high risk aversion of lenders compared to developers, and lenders' conservative forecasts of the value of participations. Participations structured in this form are highly uncertain and may not have been valued as highly by the lenders as by the borrowers. This is in marked contrast to 1968–1970, when the enthusiasm of lenders for participations and their ability to negotiate historically attractive interest rates—even after a concession in return for the participation—resulted in very little careful analysis of the participation's value.

SUMMARY

Real estate financing techniques for income-producing properties underwent substantial change during 1966–1970. Many large institutional investors moved away from their traditional role as first-mortgage lenders on a fixed interest rate basis to insistence on participating in the income of the property being financed.

Life insurance companies were by far the most active and, because of their size, the most important of the major types of financial institution using income participations. While only 3 percent of their new commitments on income-producing properties in 1964 included income or equity participations, the proportion reached 62 percent in the first half of 1969

and an estimated 70–75 percent during the first half of 1970. The incidence of income and equity participations on mortgage commitments by life insurance companies then subsided as quickly as it had arisen, accounting for an estimated 5–10 percent of new commitments in 1973 and 1974.

The increased use of income participations resulted from a convergence of institutional interest in equities of all types, institutional concern over rising inflation, strong real estate markets, and the belief that real estate rents would be responsive to inflation. Simulations seemed to substantiate the potential of income participations, especially if the rate of inflation was high.

Several additional factors contributed to institutional interest in participations. First, the lenders were receiving very high interest rates—at least on an historical basis—even after some small concession to get the participation. Second, some lenders felt compelled to follow competitors into extensive use of income participations out of fear that they would otherwise suffer severe competitive disadvantage should participations prove valuable. Third, income participations represented an opportunity for lenders to expand their equity investments in real estate without violating stringent statutory restrictions on the maximum percent of assets that could be invested in real estate.

Borrowers resisted income participations, in part because the forms of participation that were most appealing to lenders often caused significant problems to developers. Their resistance became less effective during 1969–1970 as conditions in the capital markets tightened. Inflation, through its impact on the general level of interest rates, resulted in disintermediation in the traditional mortgage lending institutions. Life insurance companies experienced a substantial increase in policy loans, and the growth of savings bank deposits was slower than forecast. The combination of strong competing corporate demand for funds, heavy forward commitment positions, and a supply of investible funds below the amount forecast required lenders to reduce new mortgage commitments. At the same time, real estate financing needs were strong, and REITs had not yet begun making permanent mortgage loans. As a result, there was a strong shift in bargaining power toward the lender, and that increased bargaining power was used, in part, to secure income participations.

It is not clear, however, that lenders' bargaining power was best used to secure a participation. Participations created a number of problems for parties on each side of the transaction—problems that were not benefits to the other side. Participations were not perfect substitutes (even after risk adjustment) for fixed interest rates, and their popularity during 1968–1970 seems related to lender enthusiasm for equities, lender belief that real estate ownership was very profitable and that many developers had be-

come rich while lenders took the risk, and lender ability to secure historically high interest rates, even after some concession (usually one-eighth to one-half percent) for the participation. Very few lenders analyzed participations carefully; they felt strongly that participations were attractive and sought them aggressively, often without careful analysis of their worth or of alternative methods of structuring the loan.

By 1974, conditions had changed significantly, and with the change came a sharp decrease in the use of participations. The bargaining power of lenders was less than in 1969–1970. Perhaps more important, lenders were less enthusiastic about participations and less willing, for several reasons, to make the necessary interest rate concessions to secure them. First, the administrative time and cost required to collect the contingent interest had been far greater for some lenders than originally anticipated. Second, aggressive equity investing had fallen into disfavor in a number of institutions. Third, while participations either in gross income or in the increase in gross over a fixed base level had worked out reasonably well, the time period necessary for them to generate significant additional return had been longer than anticipated. Finally, doubts developed among some lenders as to the relationship between the rate of inflation and real estate economics. The strong belief of the 1969–1970 period that returns from real estate would benefit from inflation was challenged by the experience of 1971–1974, at least for projects caught by inflation during their construction phase.

NOTES

1. The discussion of the various types of participation agreements is based in part on Mundy (1971). The characterization of lender and borrower attitudes is based on the results of my field work.
2. As shown in Table 5, 40 percent of all nonfarm mortgage and real estate commitments made by life insurance companies on income properties during the calendar year 1968 and the first half of 1969 included some form of income or equity participation. It follows, therefore, that 24 percent (0.61 × 0.40) of all commitments on income properties during that period included a contingent interest participation.
3. The presence of an income participation has no impact on the appraised value of the property under standard appraisal practices. However internal appraisal practices of some institutions may differ from that standard.
4. The capitalization rate necessary to repay a thirty-year mortgage at 9½ percent is 0.101681. This is somewhat of an oversimplification of the factors that are considered in setting a capitalization rate, but it is adequate for this analysis because the purpose here is to show the *differences* that result from alternative methods of structuring the financing.
5. The findings reported here and elsewhere in this article are based on field interviews with twelve life insurance companies, three mortgage banking firms, four mutual savings banks, and seven developers. The difference between the number of actual respondents

and the number of firms interviewed reflects a lack of adequate interviewing time. The interviews with the other institutions listed at the beginning of this article, while not directed specifically at the issues covered here, did not yield any contradictory evidence.

6. "Loan 'Kickers'," *Wall Street Journal*, July 15, 1969, p. 1.
7. In addition, real estate investment trusts that structure participations as a percent of net forfeit their special tax status.
8. The figures for 1973 and 1974 are based on our field interviews with twelve life insurance companies and three mortgage bankers.
9. Some institutions made little use of participations for statutory reasons. For example, federally chartered savings and loan associations were prohibited by law from engaging in income participations.
10. The lag between the date of commitment and the date of takedown on mortgage loans to income-producing properties is roughly twenty-four months, the exact length depending on the type of property (see Lintner, Piper, Fortune 1975). I estimate that the $10 billion of outstanding commitments on nonfarm, income-producing properties as of September 30, 1970 were made largely from mid-1968 to September 30, 1970, a period when life insurance companies were negotiating income participations on anywhere from 28 percent (1968) to 70–75 percent (first half of 1970) of such loans.
11. The aggregate balance sheet value of REIT mortgages for the final quarter of each year 1968–1971 and for June 1972 (in millions of dollars) was as follows (Schulkin, 1972, p. 9):

	1968 IV	1969 IV	1970 IV	1971 IV	June 1972
Long-term conventional first mortgages	$26	$ 26	$ 97	$ 569	$1,041
Second-, short- and intermediate-term mortgages	3	85	404	765	865
	$29	$111	$501	$1,334	$1,906

The majority of long-term-mortgage REITs were organized during 1970 and therefore had no impact on the availability and terms of mortgage finance during much of the period investigated here. Unfortunately, it is not possible to translate year-end holdings of mortgages by REITs into forward commitments during each period since a significant percent of the holdings resulted from the purchase of existing mortgages. See Hitchcock (1973).

12. Premium and annuity factors as shares of disposable personal income ranged between 3.6 percent and 4.0 percent between 1950 and 1972, and were 3.6 percent in 1974 [U.S. Department of Commerce and *Spectator Year Book* (New York: Institute of Life Insurance)].
13. Figures are based on Moody's composite stock index and include both dividend income and capital gains during the period 1946–1965. See also Fisher and Lorie (1968).
14. Life insurance companies are severely restricted in their use of common stock for investing in general account reserves.
15. Since that time total assets held by U.S. life insurance companies in separate accounts has reached $10 billion, with over 80 percent invested in common stocks as of year-end 1973.
16. According to Lintner (1973), similar arguments were made in the mid-1950s for equity investments.
17. The respective turnover rates of stockholdings in general and in separate accounts of a sample of life insurance companies rose from 7.5 and 2.5 percent during 1965 to 16.1

and 30.5 percent during 1969 (see Institutional Investor Study Report 1971, vol. 2, p. 758).

18. Extensive field interviews by Piper and Arnold (1976) confirmed the strength of these pressures.
19. Ricks found that four of the fourteen life insurance companies interviewed were reducing their investment real estate holdings as of 1964; eight were acquiring investment real estate but with terms more similar to those of a loan; only two were aggressively acquiring real estate with strong equity positions. Interestingly, Ricks found that out of ten university endowment funds whose managers were actively seeking real estate investment four expressed substantial interest in the impact of inflation on the residual value.
20. Other studies indicating the attractiveness of returns on equity investment in real estate include Hayes and Harlan (1967) and Wendt and Wong (1965). It should be observed that the tax shelter was a major component of the rate of return on real estate investment as computed by Wendt and Wong.
21. Institute of Real Estate Management, *Apartment Building Experience Exchange of Rental Income and Operating Expense Data*, annual issues; and Building Owners and Managers Association International, *Office Building Experience Exchange Report*, annual issues.
22. For a historical perspective on investor attitudes on the relationship of inflation and stock prices, see Lintner (1973).
23. The additional return was calculated by dividing the income from the participation in a particular year by the amount of principal outstanding during that year. For information on rent increases during the 1960s, see the sources cited in footnote 21.
24. The interview evidence clearly shows that income participations were usually required by the lenders. All twenty-four lending institutions, developers, and mortgage bankers that responded to the question stated that income participations were resisted by most developers and sought after by the lenders.
25. Shipp collected and compared monthly data on rates and terms on income property mortgage loans authorized by fifteen large life insurance companies. The increase in loan-to-value ratios and loan maturities continued until 1968, when they tended to stabilize (see Fisher and Opper 1973).
26. Graham (1969, pp. 29–30) reports that "some lenders showed a willingness to make construction loans where no firm long-term mortgage commitments existed. This was done only in those cases where the sponsors had superior financial strength, had demonstrated their ability to market their product, and where the property enjoyed a prime location."
27. All respondents cited the speech delivered in October 1969 by McChesney Martin, Chairman of the Federal Reserve Board, as a key turning point, after which (and until mid-1970) even strong developers were forced typically to give an income participation.
28. Typically, the expected value was based on annual rent increases of 3 to 4 percent.
29. Mundy reported that lenders tried to structure income participations to yield an additional 70 to 100 basis points (100 basis points = 1 percentage point) on an annual accounting basis by the third to fifth year. (The annual accounting basis relates the income from the participation in a specific year to the amount of principal outstanding in that year.)
30. The conclusions drawn from the Houston simulations were found to be consistent with those based on a set of simulations run on a shopping center in Colorado to test the applicability of the earlier results.
31. This assumption clearly is not reasonable for income properties under long-term lease arrangements, although such contractual lags are easily accommodated in the calculations. A more serious concern are the economic and political relationships among

inflation, construction costs, operating costs, and rents. As discussed in a later section, substantial additional research is needed in this area.

32. A percent-of-gross participation is, of course, of little value if the shortfall of gross income threatens the health of the project and results either in default or renegotiation of the terms of the deal.
33. During 1969–1970, most life insurance lenders provided the first-mortgage financing for the leasehold estate as well as the ground lease. Lenders stated that the terms of the first mortgages on leaseholds alone did not differ significantly from those on which the lenders provided a standard first mortgage on the entire property except that the interest rate of the former was typically one-quarter to one-half percent higher. It was also felt that the quality of the project and developer did not differ significantly in the two kinds of loan.
34. The developer can secure financing equal to roughly 85–90 percent of the appraised value if the ground lease is subordinated to the leasehold mortgage. Insurance companies also are allowed two other means of accomplishing the same end. The first is a "basket clause" loan, in which an insurance company can invest up to 4 percent of its general account admitted assets in investments that do not otherwise qualify (in a statutory sense) for investment. The second is a "high credit lease," through which the law allows more than 75–80 percent financing if the property is to be occupied principally by a tenant whose credit standing is of the highest quality.
35. The property will usually be refinanced after ten to fifteen years, since the outstanding mortgage is then low in relationship to the then value of the property.
36. For a discussion of the effect of real estate investment trusts on the supply of mortgage funds, see Korobow and Gelson (1971, pp. 188–195).
37. This conclusion was substantiated in a private study by Harold McKenna, senior vice president of Cabot, Cabot & Forbes Land Trust. On the basis of interviews with fifteen life insurance companies in early 1974, McKenna determined that twelve of the companies had had good experience with their income participations on mortgage loans. The five savings banks interviewed had been considerably less successful, although the low payoff from their participations seemed to reflect a weak collection effort.
38. A number of REIT construction loans were made without a prior arrangement for permanent financing or were made on a standby basis at rates that the project could not support.
39. The adverse impact of inflation on net-income participations was aggravated by vacancy rates that were frequently higher than originally forecast. In part, the overbuilding in 1969–1972 reflected the combined effects of imperfect information about the building plans of other developers, cyclical variations in the demand for new space, and the acceleration of some building plans to lessen the impact of continued cost increases. However, there is also some evidence that the extent of overbuilding was aggravated by a breakdown of the reward and control systems that influenced the actions of some developers and lenders. Their actions, in turn, produced projects that were not economically viable and that at the same time undermined entire real estate markets. Some developers, unencumbered by personnel or parent company guarantees and eager to keep their development teams together, proceeded with projects that had, at best, marginal prospects. The opportunity to take a development fee equal to 4 to 5 percent of the project's cost, irrespective of the project's performance once completed, was attractive.

    The ability of those developers to proceed with economically unsound projects was facilitated by the actions of some lenders who were also motivated by short-run considerations or who did not understand the economics of the projects. Many real

estate investment trusts, for example, apparently scrambled for growth when they should have been more careful about their loans. Their basis for compensation, which was typically related to total assets managed, further encouraged some of them to finance weak projects. The impact of these decisions was transmitted throughout the real estate markets; it was reflected in rents and vacancy rates, and adversely affected projects and income participations of all types.

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