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ALTERNATIVE MORTGAGE INSTRUMENTS: AUTHORIZING AND IMPLEMENTING PRICE LEVEL ADJUSTED MORTGAGES

The residential real estate market is in the midst of a slump, in part because of inflated sales prices and interest rates. Standard mortgage instruments ("SMIs"), and other traditional financing techniques, were not designed for today's inflationary economy. These techniques reduce the availability of real estate financing, and thus real estate sales, by causing a mismatch between household income and the real cost of mortgage obligations, an often insuperable barrier during the early years of the debt. These problems have spurred reconsideration of residential financing methods to make home ownership more attainable.

An important solution has been increased use of alternative mortgage instruments ("AMIs") to more closely match income and debt.⁵ One such instrument may prove particularly helpful to households anticipating steadily increasing disposable income: the price level adjusted

20%, to 426,000 units. Id.

^{1.} In 1980, housing starts totaled only 1.30 million units, a 26% decline from the 1.75 million starts recorded in 1979. FED. HOME LOAN BANK BOARD, FED. HOME LOAN BANK BOARD JOURNAL, ANNUAL REPORT 1980, at 21 (1981). Excluding custom-built or mobile homes, 1980 new home sales totaled 531,000 units, a 25% decrease from the 1979 level of 709,000 units. *Id.* Existing-home sales declined by 23%, from 3.75 million units in 1979 to 2.88 million units in 1980. *Id.* In 1981, total housing starts decreased an additional 15%, to 1.10 million units. U.S. DEP'T OF COMMERCE, SURVEY OF CURRENT BUSINESS S-7 (May 1982). New home sales decreased by

^{2.} From 1977 to 1981 median sales prices for new homes rose more than 41%, from \$48,800 to \$68,900. In that same period average sales prices rose more than 53%, from \$54,200 to \$83,000. U.S. DEP'T OF COMMERCE & U.S. DEP'T OF HOUSING & URBAN DEVELOPMENT, CONSTRUCTION REPORTS: NEW ONE-FAMILY HOUSES SOLD AND FOR SALE 7 (Apr. 1982).

^{3.} Mortgage interest rates have reached unprecedented levels in recent years. The average contract interest rate on conventional first mortgage loans for the purchase of new single-family homes rose more than 60%, from 8.8% in 1977 to 14.1% in mid-1981. UNITED STATES DEP'T OF COMMERCE, 1981 STATISTICAL ABSTRACT OF THE UNITED STATES 772 (1981).

As these interest rates and sales prices increase, fewer first-time home purchasers can qualify for mortgage financing. See, e.g., The Outlook For Housing And The Thrifts, 1980: Hearing Before The Joint Economic Comm., 96th Cong., 1st Sess. 37 (1979) (statement of Herman Smith) [hereinafter cited as Outlook for Housing]; N.Y. Times, Oct. 4, 1981, § 3, at 1, col. 1.

^{4.} Traditional mortgage financing components, such as those used with SMIs, discussed more fully *infra* notes 12-18 and accompanying text, use identical monthly payments over the life of the loan. Many households, however, have substantially increasing disposable income during that period, thus causing the unfortunate "mismatch effect." See *infra* text following note 18.

^{5.} AMIs allow for modifications in certain features of SMIs to provide flexibility to borrowers and increase mortgage availability. See infra notes 19-23 and accompanying text.

mortgage, or "PLAM." By eliminating an inflation factor built into most mortgage instruments, the PLAM brings mortgage payments by upwardly mobile households more in line with their income; early payments are relatively low while later payments track increasing household income.

Of the institutions authorized to make mortgage funds available,⁷ only federally-chartered and a small minority of state-chartered savings and loan associations are presently authorized to make PLAM loans.⁸ This is due, in part, to a variety of legal and underwriting prob-

At the end of the fourth quarter of 1981, the amount of mortgage debt on one-to-four family dwellings (in billions of dollars and percent of total national mortgage debt) was:

Major Financial Institutions	691.4 (67.7%)		
Savings and loan associations	433.3		
Commercial banks	172.5		
Mutual savings banks	68.2		
Life insurance companies	17.4		
Federal Agencies, Mortgage Pools, and Others	330.1 (32.3%)		

FEDERAL RESERVE BD., FED. RESERVE BULL. A41 (May 1982).

8. The Federal Home Loan Bank Board has authorized member associations to issue PLAMs. 47 Fed. Reg. 36,618 (1982). Several state-chartered lenders are authorized to make any loans within the power of a federally chartered savings and loan association. See ARIZ. REV. STAT. ANN. § 6-448(3) (West 1974) (insured or guaranteed loans may be made in accordance with the applicable federal savings and loan association rules and regulations); CAL. CIV. CODE § 1916.12 (West Supp. 1982) (effective December 31, 1983) (state financial institution mortgage lending authority equivalent to federal financial institution authority); Colo. Rev. Stat. § 11-41-119(4) (Bradford Supp. 1981) (state-chartered savings and loan association may make any type of loan for any purpose that a federal savings and loan association may be authorized to make); IDAHO CODE § 26-1934 (1977) (state-chartered savings and loan association may make any loan a federally chartered savings and loan association is authorized to make); ILL. REV. STAT. ch. 17, § 3138(c) (1981) (loans insured or guaranteed wholly or in part may be made in accordance with applicable federal savings and loan association law); MISS. CODE ANN. § 81-12-49(r) (Harrison, Law. Co-op. Supp. 1982) (state savings and loan associations have the same lending powers as federal associations, as may be prescribed by state regulation); Mo. Rev. Stat. § 369.144(7) (Vernon Supp. 1982) (director of division of savings and loan association supervision may promulgate regulations enabling state savings and loan associations to make any loan that a federallychartered savings and loan association may make); N.D. CENT. CODE § 7-02-14 (Smith Supp. 1981) (state savings and loan associations with accounts insured by the Federal Savings & Loan Insurance Corporation may make loans on the same terms as federal associations); UTAH CODE ANN. § 7-7-5.1 (1971) (state-chartered savings and loan associations authorized to make the same loans as federal associations). Because state authorization may hinge on federal insurance or guarantees and no federal agency presently has authority to insure PLAMs, several of these states may not yet utilize PLAMs.

^{6.} An "inflation premium" must be added to any interest rate so that the lender can preserve the value of future mortgage payments. See infra note 16 and accompanying text.

^{7.} Major financial institutions such as savings and loan associations, commercial banks, and other thrift institutions have been the primary source of conventional mortgage funds for owner-occupied housing and pay interest on deposit accounts to attract funds for mortgage lending. See M. Madison & J. Dwyer, The Law of Real Estate Finance §§ 2.01-2.02[5] (1981); United States Dep't of Commerce, 1980 Statistical Abstract of the United States 478; United States Dep't of Commerce, Historical Statistics of the United States: Colonial Times to 1970, at 647-48 (1975).

lems that may outweigh the theoretical advantages of PLAM financing. This Note evaluates these legal and underwriting problems and proposes legal measures to accommodate PLAM financing. Part I discusses the development and advantages of the PLAM. Part II analyzes the legal and practical underwriting objections to PLAM financing, including interest regulations, tax ramifications, and commercial desirability. Part II also suggests reform in various state banking statutes and lending practices to enhance the attractiveness and feasibility of this new mortgage instrument. This Note concludes that authorization of price level adjusted mortgages would be an important addition to the present array of mortgage financing instruments.

I. THE PRICE LEVEL ADJUSTED MORTGAGE

The PLAM has been widely discussed in residential finance literature.⁹ PLAMs have been used in South American, European, and Middle Eastern countries where high annual inflation rates are common.¹⁰ Although the Federal Home Loan Bank Board has recently authorized federally-chartered savings and loan associations to offer PLAMs,¹¹ the move toward PLAM financing has been slow. This section will show why the acceptance of PLAM financing would be advantageous for many households and how PLAM financing works.

A. Development of the PLAM

The price level adjusted mortgage, like most AMIs, developed in response to a variety of shortcomings in the standard mortgage instrument. SMIs have a long fixed term, an unvarying nominal interest rate, and full amortization.¹² The borrower thus repays the SMI with level payments over the entire term. The SMI was designed to operate in a stable, inflation-free environment with little risk of long term devalua-

^{9.} See, e.g., Cassidy, Price-Level Adjusted Mortgages Versus Other Mortgage Instruments, 14 Fed. Home Loan Bank Board J. 3 (Jan. 1981); Cowan & Foley, New Trends in Residential Mortgage Finance, 13 Real Prop., Prob. & Tr. J. 1075, 1085-87, 1093 (1978); Hyer & Kearl, Legal Impediments to Mortgage Innovation, 6 Real Est. L.J. 211, 216-38 (1978). See generally 1-3 Alternative Mortgage Instruments Research Study (D. Kaplan ed. 1977) [hereinafter cited as AMIRS]; Lessard & Modigliani, Inflation and the Housing Market: Problems and Potential Solutions, in New Mortgage Designs for Stable Housing in an Inflationary Economy 33-37, 41-44 (1975) [hereinafter cited as New Mortgage Designs].

^{10.} See Anderson & Lessard, Price-Level-Adjusted Mortgages in Brazil, New Mortgage Designs, supra at 115; Cukierman, Price-Level-Adjusted Mortgages in Israel, id. at 159; Kouri, The Financing of Housing in Finland With Special Reference to the Application of the Index Clause, id. at 143.

^{11.} See supra note 8.

^{12.} See Hyer & Keari, supra note 9, at 212; Cowan & Foley, supra note 9, at 1078.

tion of mortgage payments.¹³ Quite unexpectedly, modern price inflation and high, inflated interest rates have turned these SMIs into barriers to home-ownership.

Because financing costs constitute the greatest home-ownership expense,¹⁴ interest charges in particular bar many potential buyers from entering the housing market, especially during periods of high inflation.¹⁵ In establishing mortgage interest rates, SMI lenders include an "inflation premium," equal to an estimate of future inflation, to protect the value of future payments.¹⁶ If this premium is too high — as it

^{15.} There is a significant correlation between the annual inflation rate and housing starts, partly because of increased housing costs, partly because of decreased consumer borrowing power which in turn further depresses the housing market. See supra note 3 and accompanying text. This is particularly noticeable in the years 1974-76 and since 1978.

Year	Total Housing Starts	Average Percentage		
	(thousands of units)	Consumer Price Index		
		Increase		
1965	1509.7	1.7		
1966	1295.6	2.9		
1967	1221.9	2.8		
1968	1545.4	4.2		
1969	1499.5	5.4		
1970	1469.0	5.9		
1971	2084.5	4.3		
1972	2378.5	3.3		
1973	2057.5	6.2		
1974	1352.5	11.0		
1975	1171.4	9.1		
1976	1549.7	5.8		
1977	1988.8	6.5		
1978	2020.3	7.7		
1979	1750.0	11.3		

Outlook for Housing, supra note 3, at 42; see also Fed. Home Loan Bank Board, supra note 1, at 22.

^{13.} See Kaplan, Marcis & Cassidy, AMIRS: An Overview and Summary, in 1 AMIRS, supra note 9, at 2; see also Cohn & Fischer, Alternative Mortgage Designs, in New Mortgage Designs, supra note 9, at 53-62.

^{14.} The interest payments alone on a 30-year, \$50,000 SMI at 8½% come to over \$88,000. At 17%, the interest comes to more than \$205,000, or 413% of the initial mortgage debt.

^{16.} Interest payments over the mortgage term compensate the lender for providing the initial mortgage principal advance, so the lender's expectation about the future cost of money and potential rates of return is an important factor in determining long-term interest rates. Thus, in a world of no present or anticipated inflation, lenders would charge only the rate of return they desire on the principal amount, a "real" rate of interest. If, however, the lender anticipates a future inflationary economy which proportionately devalues the expected "real" return, the lender will include some inflation "insurance" to offset potential devaluation. Recent inflationary trends, see supra note 15, have caused lenders to charge a high "nominal" interest rate that includes not only a real rate of return but a substantial "inflation premium" as well to protect the purchasing power of future mortgage payments. See Sharplin, Real-Dollar Mortgages Will Solve the Housing Crisis, 11 Real Est. Rev. 50, 51-52 (Winter 1982); see also Cassidy, supra note 9, at 3; Hyer & Kearl, supra note 9, at 215; Nosari & Lewis, How Usury Laws Affect Real Estate Development, 9 Real Est. L.J. 30 (1980); Comment, The New Mortgages: A Func-

might be in an unstable inflationary economy — the borrower is even less able to afford mortgage costs than in an inflation-free setting.

The standard mortgage instrument itself further exacerbates the effect of high, inflated interest rates on new home ownership. Borrowers generally have preferred SMIs with equal monthly payments over the entire loan term because sustained inflation makes later payments relatively "cheaper." Because the inflation premium must protect the lender over the entire term, however, payments in the early years include interest charges far in excess of actual inflationary devaluation, thus causing a payment "tilt." In financial terms, these overcompensating early payments do not increase the "real" cost of the mortgage over the entire term because inflation devalues later payments. Nevertheless, for a household with modest income, but expectations of future income increases, this equal-payment plan has the unfortunate mismatch effect of forcing households to expend far more in early years than inflation demands, often creating a burden too onerous to bear. Conversely, later inflation-devalued payments fall at the time when these households could afford greater, not lesser, amounts for housing.

Recent innovations in federal and state real estate finance have produced a variety of alternative mortgage instruments capable of alleviating

$$\% RD = 1 - \frac{100\%}{(1 + i)^n}$$

The following chart illustrates the rate at which the real mortgage debt is retired under an SMI assuming various inflation rates:

		Inflatio	n rate		
		5%	8%	10%	15%
Years Elapsed	5	21.65%	31.94%	37.91%	50.28%
*	10	38.61%	53.68%	61.45%	75.28%
	15	51.90%	68.48%	76.06%	87.71%
	20	62.31%	78.55%	85.49%	93.89%
	30	100%	100%	100%	100%

tional Legal Analysis, 10 FLA. St. U.L. Rev. 95, 97 (1982). When inflation was quite low, nominal rates almost matched real rates and a stable financing market persisted. See von Furstenberg, Stabilization and Financial Innovation, in 5 Occasional Papers in Housing and Community Affairs 5, 10 (1979). Recent fluctuations in the inflation rate have severely disrupted this stability. Id.

^{17.} Because the SMI is repaid with fixed-rate, level payments, initial payments must be increased to offset the declining value of payments over the mortgage term thus creating a "financing gap" (real cost less payments). Using an example of a 30-year, \$50,000 mortgage with a 4% real interest rate, the value of payments in the last year of amortization in an inflation-free environment equals the real value of initial payments — \$239. If the lender adds a 10% inflation premium, however, the monthly payments jump to \$592 yet the present value of the final \$592 payment is only \$37. Cassidy, supra note 9, at 6. In addition, if the inflation rate exceeds 10% in this example, later payments have even lower present value. See Hyer & Kearl, supra note 9, at 215-16; Lessard & Modigliani, supra note 9, at 15-20; Tucker, The Variable-Rate Graduated-Payment Mortgage, 4 Real Est. Rev. 71, 72-73 (Spring 1975).

^{18.} New home buyers thus retire a disproportionate share of mortgage debt in the early years. The tilting effect can be quantified by calculating the percentage of real debt remaining (% RD), where i = inflation rate and n = years of term elapsed:

some of the SMI mismatch of debt and income.¹⁹ AMIs may permit adjustment to the interest rate,²⁰ payment schedule,²¹ term,²² or mortgage principal.²³ The PLAM alters the mortgage principal and provides a way for the upwardly mobile borrower to avoid the onerous early-years financing "tilt" while at the same time ensuring the lender compensation for the actual effects of inflation. Unlike SMI and AMI

19. A variety of AMIs have been authorized by the federal government. See 47 Fed. Reg. 36,618 (1982) (Federal Home Loan Bank Board authorization of new instruments keyed to inflation); id. at 36,612 (FHLBB general authorization to make adjustments to the interest rate, payment, loan balance, or term); see also 46 Fed. Reg. 24,152 (1981) (authorizing national banks to provide adjustable interest rate mortgages under regulations issued by the Comptroller of the Currency). Many states have authorized some or all of the possible AMIs. See, e.g., statutes cited supra note 8 (state may utilize any instrument authorized by federal regulation); CAL. CIV. CODE §§ 1916.5-.10 (West Supp. 1982) (authority to provide adjustable-payment, adjustable-rate, and renegotiable-rate mortgage loans); Colo. Rev. Stat. § 11-41-115(5) (Supp. 1981) (reverse annuity mortgage authorization); La. Rev. Stat. Ann. § 9:3504C (West Supp. 1982) (graduated payment mortgage authorization); MINN. STAT. Ann. § 47.20 (Subd. 4b) (West Supp. 1982) (shared appreciation mortgage authorization); Pa. Stat. Ann. tit. 7, § 505(f) (Purdon Supp. 1982-83) (variable rate mortgage authorization).

AMIs have become increasingly popular, with 75% of a recently surveyed lender's group offering adjustable mortgage loans. See Zabrenski & Olin, Characteristics of Adjustable Mortgage Loans 1 (1982) (citing a Federal Home Loan Bank Board survey of large associations). Fully 70% of the total number of mortgages issued by the surveyed associations during January 1982 were adjustable mortgage loans. Id. For a discussion of the historical development of AMIs, see Iezman, Alternative Mortgage Instruments: Their Effect on Residential Financing, 10 Real Est. L.J. 3 (1981); Levin & Roberts, Future Forms of Financing — Lending Devices Addressed to Inflation and Tight Money, in Financing Real Estate During the Inflationary 80s, at 31 (B. Strum ed. 1981) [hereinafter cited as Financing Real Estate]; Walleser, Balancing the Interest: The Changing Complexion of Home Mortgage Financing in America, 31 Drake L. Rev. 1, 16-36 (1981); Comment, supra note 16, at 102-13.

20. Under a variable-rate mortgage, the interest rate is tied to a base or index reflecting changes in the market rate of interest. Mortgage payments may be adjusted periodically by increasing or decreasing the loan term and/or the monthly payment though the frequency and magnitude of adjustments or total adjustments over the loan term may be restricted by regulation. See generally Draper, Alternative Mortgage Instruments, in Mortgages and Alternative Mortgage Instruments 323-27 (R. Sweat ed. 1981) [hereinafter cited as Alternative Instruments]; lezman, supra note 19, at 6-8; Sweat, Mortgages and Alternative Mortgage Instruments, Alternative Instruments, supra, at 19-20.

The renegotiable rate mortgage is generally issued for a single long term and secures a series of short-term loans of three to five years. Interest rate adjustments occur at the end of each short-term loan period. The loan is automatically renewable and must be retired in equal installments during the loan period which fully amortizes the debt over the longer mortgage term. See generally Draper, supra, at 327-29; Iezman, supra note 19, at 12-17; Sweat, supra, at 23.

- 21. Under a graduated payment mortgage, scheduled payments begin at a level lower than a comparable fixed-term mortgage instrument and gradually rise to a constant level exceeding the fixed-term mortgage amount sufficient to amortize the remaining principal balance and unpaid interest. Although monthly payments vary during early amortization years, the principal, interest rate, and mortgage term are fixed at loan origination. See generally Draper, supra note 20, at 329-34; Iezman, supra note 19, at 8-10; Sweat, supra note 20, at 25-26.
- 22. The Federal Home Loan Bank Board, for example, has authorized lenders to provide instruments adjusting the loan term in accordance with interest rate fluctuations. 47 Fed. Reg. 36,618 (1982).
- 23. The same regulation authorizing term variation allows for manipulation of the mortgage principal. See id. The PLAM is the most obvious example.

lenders, the PLAM lender advances funds at a constant real interest rate that does not include an inflation premium.²⁴ Inflation compensation, if any, comes through periodic adjustments of the outstanding principal balance.²⁵

B. Mechanics of the PLAM

The PLAM, like most AMIs, attempts to eliminate inaccurate inflation estimates and the tilting effect. It does this by adapting the features of many AMIs to the income potential of upwardly mobile households. For instance, most AMIs do not remove completely the tilting effect; notwithstanding periodic adjustments of the interest rate or mortgage payment, there often remains some inflation premium in nominal interest rates. The PLAM eliminates all interest rate inflation premiums by setting a "real" rate of return. This has the salutary effect of eliminating the payment tilt and substantially reducing initial mortgage payments. Moreover, the inflation premium not only hurt borrowers when it was set too high, but lenders when it was set too low. Removing this factor assures the lender a predictable rate of return.

The inflation factor does not, of course, disappear; inflation still devalues "real" interest payments that must somehow be compensated. To do this, the PLAM adjusts the underlying principal according to

^{24.} Cassidy, supra note 9, at 3.

⁵ Id

^{26.} Id. at 6-7. A majority of surveyed associations priced adjustable mortgage loans within ½ to 1% of fixed rate mortgages; 13% offered the same rate for both. See ZABRENSKI & OLIN, supra note 19, at 2.

^{27.} Using a \$50,000 SMI with a 14% nominal interest rate (4% real rate of return, 10% inflation), the sum of monthly payments during the first year of amortization would be \$7,104. The sum of monthly PLAM payments over that same year (4% real interest rate) would be \$2,868.

Initial PLAM note payments will also be significantly less than graduated-payment mortgage or variable rate mortgage payments during inflationary periods. See Cassidy, supra note 9, at 6-10. Variable-rate mortgages, for example, operate on the assumption that lenders will lend at lower initial rates because they are assured of the current rate of interest on money. See Levin & Roberts, supra note 19, at 32; Strum, Economics of Variable Rate Mortgages, in FINANCING REAL ESTATE, supra note 19, at 25. Rates have not decreased substantially, however, because rates are reduced to short-term commitment rates which often equal or exceed long-term rates. Sharplin, supra note 16, at 54. Although early graduated-payment mortgage payments are decreased and later payments are increased relative to an SMI, the graduated-payment mortgage interest rate is fixed. Consequently, the fixed-rate mortgage includes an inflation premium which generates artificially high payments to be distributed over the loan term. Id. at 53.

^{28.} Inflation-induced interest rates have not yielded anticipated returns for lenders. While the actual return on averaged loans from 1950-59 at 5.02% nominal rates was 3.51%, the 6.58% nominal SMI rate from 1960-69 yielded only a 2.15% return rate. In addition, from 1970-75, with an average SMI rate of 9.34%, lenders earned only a 1.73% real rate of return. See Levin & Roberts, supra note 19, at 31-32. The PLAM, in contrast, would protect the lender's expected real rate of return by adjusting the mortgage debt according to actual inflation changes. See infra note 29 and accompanying text.

actual changes in an inflation index.²⁹ Thus, a ten percent increase in inflation will cause the principal to increase by ten percent before payments are determined at a real interest rate. The real interest rate remains constant, but mortgage payments will change as the fixed interest rate is applied to an adjusted principal base. In addition, the amortization term is adjusted yearly, giving a balloon effect to later payments.³⁰ Although the PLAM payments will be relatively higher than SMI payments during later amortization years,³¹ the PLAM borrower should then be more capable of bearing the increased outlay. By removing the SMI tilting effect and the devaluation benefit arising in later years, the PLAM simulates mortgage financing in a world of no inflation where the *real* value of each payment over the mortgage term is equal.

II. OBSTACLES TO PLAM FINANCING

The PLAM must overcome many obstacles to be accepted in the mortgage finance community. Questions about interest regulation, tax consequences, default rates, and more must be answered to the satisfaction of the lending community before PLAMs can receive serious consideration. This section explores PLAM criticisms in detail, and explains how alleged flaws can be cured.

A. Legal Considerations

Federal and state-chartered lenders are subject to a panoply of statutes and regulations now effectively barring legal use of PLAMs. Federal tax laws also have a profound impact on the acceptability of PLAM financing, as does commercial negotiability of the PLAM note.

1. Negative amortization— Negative amortization arises when a financing charge causes the accrued interest to exceed the monthly payment due.³² Any unpaid accrued interest adds to the principal, with interest computed on the increased principal amount, and is reamortized over the shorter, remaining term.³³ In effect, the PLAM's principal balance increases as mortgage payments are made, though only during early years.³⁴ Negative amortization occurs during early PLAM pay-

^{29.} Hyer & Kearl, supra note 9, at 218.

^{30.} Using the 30-year, \$50,000 mortgage with a 4% real interest rate, *supra* note 17, a 10% inflation rate would cause a payment of \$34,802 in year 29, and \$44,470 in the final year 30. See Cassidy, *supra* note 9, at 4.

^{31.} See id. at 5.

^{32.} Tucker, supra note 17, at 77.

^{33.} See Hyer & Kearl, supra note 9, at 226-28; Comment, supra note 16, at 118-19.

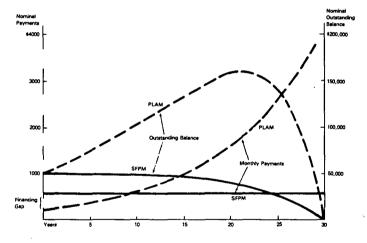
^{34.} Taking as an example a 30-year, \$50,000 PLAM at a 4% real rate of interest and 10%

ment years because PLAM payments at a real interest rate do not fully cover annual principal adjustments plus accrued interest on the adjusted principal balance due.

a. Interest on interest— Various state statutes affect the practice of negative amortization, including regulation of compound interest,³⁵ interest on interest,³⁶ and additions to principal.³⁷ Although the Federal Homes Loan Bank Board and the Comptroller of the Currency have issued rules preempting state laws that prohibit interest on interest,³⁸ some state-chartered institutions might remain liable on these laws.³⁹ PLAMs could also violate public policy prohibitions of compound interest.⁴⁰

This potential liability can be remedied, however, by statutory or regulatory reform. State legislatures or banking agencies could authorize

annual inflation, the outstanding balance at the end of the first year would be \$54,031; the outstanding balance would rise to almost \$160,000 in the twentieth year; it would then drop slowly for several years, followed by a precipitous payoff in the last two to three years, see supra note 30 and accompanying text. See Cassidy, supra note 9, at 4. This trend can be seen in the following figure (which also compares a standard fixed rate mortgage, or SFPM):



Id. at 5.

- 35. See, e.g., MINN. STAT. ANN. § 334.01 (West 1981); N.D. CENT. CODE § 47-14-09 (Smith Supp. 1981); N.Y. BANKING LAW § 352(c) (McKinney Supp. 1981); Wis. STAT. ANN. § 138.05(1)(c) (West 1974 & Supp. 1982); IDAHO CODE § 28-22-106 (1980); HAWAII REV. STAT. §§ 478-7, 8(d) (1976 & Supp. 1980).
- 36. LA. REV. STAT. ANN. § 1939 (West Supp. 1982); MICH. COMP. LAWS § 438.101 (1978); N.D. CENT. CODE § 47-14-09 (Smith Supp. 1981).
- 37. See, e.g., Mont. Code Ann. § 31-1-109 (1981); Wis. Stat. Ann. § 138.05(1)(c) (West 1974).
 - 38. See 46 Fed. Reg. 24,151-24,152 (1981); 46 Fed. Reg. 18,939, 18,944 (1981).
- 39. See, e.g., MINN. STAT. ANN. § 334.01 (West 1981); N.D. CENT. CODE § 47-14-09 (Smith Supp. 1981); N.Y. BANKING LAW § 352(c) (McKinney 1971).
- 40. See Hyer & Kearl, supra note 9, at 227; see also R. Kratovil, Modern Mortgage Law and Practice 90 (1975).

state-chartered lenders to make any loan within the powers of a federally-regulated institution; the federal preemption could then apply. Alternatively, legislatures could explicitly exempt AMIs from compound interest regulation.⁴¹

b. Loan-to-value ratios— Negative amortization may also violate federal and state loan-to-value ratios⁴² designed to keep borrowers from overextending themselves. The outstanding principal balance due on a PLAM might increase beyond statutory ceilings when housing price changes lag behind change in the PLAM inflation index. Even without a statutory loan-to-value restriction, lenders might avoid mortgages obligating borrowers to repay amounts greatly exceeding the market value of the realty securing repayment.⁴³

The lender's security interest could be protected by requiring a reserve fund for loan payments once the debt exceeds the loan-to-value limit.⁴⁴ Alternatively, the borrower could be forced to purchase mortgage insurance on any excess over the loan-to-value restriction.⁴⁵ Statutory restrictions should therefore be applied only where borrowers fail to alternatively secure amounts exceeding the statutory ceiling.

c. Delayed equity accumulation— Negative amortization also has a more practical drawback: delayed equity. Instead of developing equity by the end of the third or fourth year as in most SMIs and some AMIs, the PLAM's negative amortization, and consequent increase in principal balance due, postpones equity accumulation. The early payments thus look more like expensive rent due to the absence of equity benefits.

One way to avoid this practical drawback, or at least minimize the length of negative amortization periods, is to shorten the term of the PLAM note.⁴⁸ Earlier equity accumulation, however, demands higher

^{41.} See, e.g., Colo. Rev. Stat. § 11-41-115(5) (1981); Ind. Code Ann. § 28-1-21.5-7 (West 1980).

^{42.} See, e.g., 47 Fed. Reg. 36,615 (1982) (noting the recently codified 125% limitation on the ratio of the loan balance to the original appraised value of the security property); ALASKA STAT. § 06.05.207(a)(4) (1981) (loan amount may not exceed 90% of appraised value of the real estate security); N.D. CENT. CODE § 6-03-05 (1975) (real estate loan may not exceed 90% of the appraised value of the real estate security).

^{43.} Generally principal adjustments will not jeopardize the security interest because housing prices should also increase in response to inflation. If an oversupply of housing exists in a local market, however, real estate prices may increase at a lower relative rate, possibly leading to a debt that could not be fully recovered from the proceeds in a forced sale.

^{44.} See, e.g., Or. Rev. Stat. § 722.326(1) (1981).

^{45.} See 47 Fed. Reg. 36,615 (1982).

^{46. &}quot;Equity" is used in this Note to mean the fair market value that may be realized less the remaining mortgage debt.

^{47.} See supra note 33. Unless housing price increases exceed upward principal adjustments, the borrower actually owes *more* than the original principal due during early, negative amortization years.

^{48.} Assuming a 30-year, \$50,000 PLAM at a 3% real interest rate with 5% annual inflation, negative amortization occurs through the fifteenth year of the mortgage term. The principal balance

monthly payments.⁴⁹ Equity accumulation may also be increased by reducing the lender's real rate of return,⁵⁰ especially in conjunction with term reduction.⁵¹ Lenders may, however, balk at financing the borrower's accelerated equity with a lower rate of return. Another solution is a higher downpayment, thus speeding equity accumulation by increasing the initial equity cushion and reducing mortgage payments overall.

2. Usury—Because principal adjustments are charges in the nature of interest,⁵² state usury restrictions on interest could apply to PLAMs. In 1980, however, Congress preempted state interest-rate limitations on a variety of federally related real property credit transactions.⁵³ The states have until early 1983 to decide whether to opt out of the federal scheme.⁵⁴ Because most first-mortgage loans on residential real property are federally related loans,⁵⁵ the risk of usury violations exists only

will not fall below the original mortgage amount until the beginning of the twenty-fourth year. If the PLAM term is reduced to 20 years, however, negative amortization occurs only through the fifth year, and the principal balance due falls below the original principal amount by the beginning of the ninth year of amortization.

- 49. Using the example in note 48, the annual payment in the first year of the 30-year PLAM is \$2,679. Under the 20-year PLAM, the first annual payment increases to \$3,529. Increased first-year payments under the 20-year PLAM are still less than the \$4,403 necessary in the first year of a 30-year, \$50,000 SMI at a comparable 8%.
- 50. The negative amortization period in note 48 increases from 15 years to 17 years when the real interest rate is increased to 5%.
- 51. Negative amortization in note 50 can be cut from 17 years to 8 years by making a 30-year note only a 20-year note, and dropping the real return from 5% to 3%.
 - 52. See infra notes 58-69 and accompanying text.
- 53. Depository Institutions Deregulation and Monetary Control Act of 1980, Pub. L. No. 96-221, 94 Stat. 132, 161 (codified at 12 U.S.C. § 1735f-7 (1980)) [hereinafter cited as Monetary Control Act]. Federally-related loans include any loan: (1) made by any lender whose deposits or accounts are insured by any federal agency; (2) made by any lender regulated by any federal agency; (3) made by any lender approved by the Department of Housing and Urban Development for participation in any mortgage insurance program; (4) made in whole or in part by the Department of Housing and Urban Development and insured, guaranteed, supplemented, or assisted in any way by the federal government; (5) eligible for purchase by the Federal National Mortgage Association, Government National Mortgage Association or Federal Home Loan Mortgage Corporation; or (6) made in whole or in part by certain large real estate lenders that regularly extend credit payable by agreement in more than four installments. 12 C.F.R. § 590.2(b) (1982).

The Monetary Control Act preempts any state regulation of the amount of interest, finance charges or any other charges on any loan, mortgage, credit sale or advance which is secured by a first lien on residential real property, a purchase money lien on stock in a residential cooperative housing corporation or a first lien on a residential manufactured home. *Id.* § 590.2.

- 54. Monetary Control Act, § 501(b)(2) (1980). Colorado, Hawaii, Iowa, Kansas, Massachusetts, Minnesota, Nevada, Puerto Rico, South Carolina, and Wisconsin have overridden the preemption. [1981] Consumer Cred. Guide (CCH) ¶ 510 (1982).
- 55. By the end of 1971, for example, 2,049 (37%) of the nation's 5,544 savings and loan associations were federally chartered and thereby regulated by the Federal Home Loan Bank Board. Of the state-chartered associations, 2,222 were subject to federal regulation by virtue of Federal Savings and Loan Insurance Corporation membership. Together, federal and insured state-chartered associations held 96.9% of all savings and loan association assets. J. White,

in states opting out of the federal preemption. Moreover, even absent the usury preemption, federally chartered savings and loan association PLAMs are exempt from usury laws because Federal Home Loan Bank Board regulation preempts all state laws restricting member use of adjustable mortgage loans.⁵⁶

Even for PLAMs that remain subject to usury limitations, many may not be necessarily usurious. For example, the real interest rate plus the principal adjustments may not exceed the usury ceiling. In addition, even if interest charges in later years exceed the maximum permissible annual level, most states will allow an otherwise authorized loan if interest payments averaged over the entire mortgage term stay within usury limits.⁵⁷

3. Tax treatment of principal adjustments— PLAMs could prove to be unpopular if borrowers cannot keep the residential mortgage interest deduction from federal income tax⁵⁸ now available with SMIs and most AMIs.⁵⁹ If principal adjustments used in PLAMs are not considered deductible interest charges, the PLAM borrower will be unable to deduct the inflation adjustment, a considerable loss during negative amortization periods.⁶⁰ Because the Internal Revenue Code and Regulations do not define interest⁶¹ it cannot be certain that PLAM principal adjustments qualify as a deductible expense. Nevertheless, federal courts generally define interest as the compensation allowed by law or fixed by parties for the use or forbearance of money.⁶² PLAM principal adjustments should qualify because they indemnify the lender against inflationary loss and compensate the lender for the use of the

Banking Law 43 (1976). These associations would be subject to the federally related loan definitions. 12 C.F.R. § 590.2(b)(1), (2) (1982). A substantial number of national and state commercial banks, nondeposit trust companies, and mutual savings banks are also subject to federal regulation and insurance protection and thereby governed by the Monetary Control Act. For example, by the end of 1980, 96.3% of the nation's banks were insured by the Federal Deposit Insurance Corporation. Fed. Deposit Ins. Corp., 1980 Annual Report 222 (1981). This figure includes 9,336 insured state-chartered banks not members of the Federal Reserve System. *Id.*

Loans that are not made by federally assisted insured or regulated lenders would likely be considered federally related loans under the broad language extending the Monetary Control Act to any entity that regularly extends, or arranges for the extension of, credit payable by agreement in more than four installments, subject to a few exceptions. 12 C.F.R. § 590.2(b)(6) (1982).

- 56. Adjustable Mortgage Loan Instruments, 46 Fed. Reg. 24,148, 24,152 (1981).
- 57. See, e.g., Barnes v. Huck, 97 Idaho 173, 540 P.2d 1352 (1975); Podell, The Application of Usury Laws to Modern Real Estate Transactions, 1 REAL EST. L.J. 136, 144-45 (1972).
 - 58. I.R.C. § 163(a) (1981); Treas. Reg. § 1-163-1(b) (CCH 1957).
 - 59. See, e.g., Hyer & Kearl, supra note 9, at 237.
 - 60. See supra note 33.
 - 61. See Treas. Reg. § 1.61-7(a) (CCH 1957).
- 62. See, e.g., Old Colony R.R. Co. v. Comm'r, 284 U.S. 552 (1932) (bond premium received by corporation from bondholders is income); Kena, Inc. v. Comm'r, 44 B.T.A. 217 (1941) (amount received pursuant to contract covering loan of a principal sum and measured by percentage of profits earned by debtor constitutes interest); Fall River Elec. Light Co. v. Comm'r, 23 B.T.A. 168 (1931) (bond premium constitutes taxable income).

mortgage principal.63

Several tax accounting problems arise under negative amortization. During periods of negative amortization, the amount of accrued interest exceeding payment in a given year will be added to the principal, but IRS regulations provide that a taxpayer using the cash receipts and disbursements method of accounting must take into account allowable deductions for the taxable year "in which paid." Interest in excess of loan repayments would not be deductible in that tax year; interest, though incurred, is not "paid", 5 and increasing a debt to satisfy an interest liability is not considered payment of interest.

The Tax Court and Internal Revenue Service have held that, absent a bona fide agreement to the contrary, partial payments under the cash method apply first to reduce interest due and then reduce principal.⁶⁷ Although the PLAM borrower is entitled to the same deduction benefits as the SMI borrower, the PLAM borrower must carry-over and deduct interest payments incurred, but not yet paid, in subsequent tax years.

Tax accounting for lenders is also complicated by negative amortization. A lender on the accrual method of accounting must report interest income in the tax year that the lender accrues the right to the interest, 68 regardless of the amount actually paid by the borrower in that tax year. 69 Consequently, the accrual-basis lender would be required to pay income taxes not on the cash actually received, but on

^{63.} See, e.g., Arthur R. Jones Syndicate v. Comm'r, 23 F.2d 833, (7th Cir. 1927) (payments of amounts as interest are deductible regardless of name given the payments); Rev. Rul. 69-188, 1969-1 C.B. 54, as amended by Rev. Rul. 69-582, 1969-2 C.B. 29 (to qualify as interest for tax purposes, a payment must be compensation for the use or forebearance of money, regardless of whether the payment is labelled as interest); cf. Hyer & Kearl, supra note 9, at 238-39 n.103 (suggesting that a revenue ruling be gotten before proceeding on PLAMs).

^{64.} Treas. Reg. § 1.461-1(a)(1) (CCH 1957).

^{65.} Recent opinions have narrowly construed the terms "paid" or "payment" for purposes of an interest deduction. In Don E. Williams, Co. v. Comm'r, 429 U.S. 569 (1977), the Supreme Court held that an accrual-basis corporate taxpayer that delivered fully secured promissory notes to trustees of a qualified employees' profit-sharing trust was not entitled to I.R.C. § 404(a) deductions. Although the notes had value and qualified as income to a seller-recipient, the notes remained only a promise by the maker to pay and did not constitute an outlay of cash or property. Id. at 578-79, 582-83. See also Battlestein v. IRS, 611 F.2d 1033 (5th Cir. 1980) (holding that future advances of interest made by the lender when the borrower owed interest payments in that same amount would not constitute I.R.C. § 163(a) interest payment).

^{66.} See Kanter, The Interest Deduction: When and How Does It Work, 26 INST. ON FED. TAX'N 87, 90 (1968). For other authority holding that a cash-basis taxpayer is not treated as having paid interest where payment is made with his own note, see Hart v. Comm'r, 54 F.2d 848 (1st Cir. 1932); Rev. Rul. 70-647, 1970-2 C.B. 38; Rev. Rul. 77-134, 1977-1 C.B. 132. See also Englard v. Comm'nr, 34 T.C. 617, 621 (1960) (no deduction allowed where interest is paid by an increase in the original principal).

^{67.} In re Maxine Dev. Co., Inc. [1963] 32 T.C.M. (P-H) ¶ 63,300; Rev. Rul. 63-57, 1963-1 C.B. 103; Rev. Rul. 70-647, 1970-2 C.B. 38; Rev. Rul. 77-134, 1977-1 C.B. 132.

^{68. &}quot;Under an accrual method of accounting, income is includible in gross income when all the events have occurred which fix the right to receive such income and the amount thereof can be determined with reasonable accuracy." Treas. Reg. § 1.451-1(a) (CCH 1957).

^{69.} Rev. Rul. 77-135, 1977-1 C.B. 132.

the increased (i.e., inflated) value of the mortgage asset. In the rare case of a lender on the cash receipts and disbursements method of accounting, interest would be reported as income in the year payments are actually received.

4. Negotiability— The primary lender's ability to market the long-term PLAM instrument to investors will influence lender participation in PLAM financing. A viable secondary mortgage market⁷⁰ enables primary lenders to replenish mortgage capital by selling mortgage loans at a profit to investors shortly after mortgage origination and recycling those mortgage sale proceeds to new borrowers.⁷¹ Without a viable secondary market for PLAMs, however, lenders would turn to other, more negotiable mortgage instruments.

A viable secondary mortgage market depends upon PLAM notes being negotiable. If they are not, the secondary purchaser cannot become a holder in due course⁷² and take the note free of certain defenses,⁷³ but rather would take subject to personal defenses available to the borrower against the original lender.⁷⁴ The lack of holder in due course status will make it difficult for the primary lender to profitably dispose of the PLAM note in the secondary market.⁷⁵

The negotiability of PLAM instruments depends upon their being in writing and containing "an unconditional promise or order to pay a sum certain in money." The variable principal provision in a PLAM promissory note arguably fails to satisfy the sum certain requirement.

^{70.} The secondary mortgage market has existed for over forty years. Thrift institutions use the secondary market to sell debt instruments to other thrift institutions, pension funds, life insurance companies and various trusts. The Federal National Mortgage Association ("FNMA") was established as a government corporation in 1938 to create a market for federally-assisted housing-program mortgage instruments. In 1968, FNMA was split into two separate corporations: the FNMA continued as a privately owned and managed corporation, and the Government National Mortgage Association ("GNMA") was created within the Department of Housing and Urban Development to purchase federally-insured or guaranteed mortgages and purchase conventional loans during economic emergencies to stimulate housing construction. GNMA is also authorized to conduct a mortgage-backed securities program under which the Association guarantees securities based on a pool of mortgages held by the primary lender. In 1970, Congress established the Federal Home Loan Mortgage Corporation to create a secondary mortgage market for conventional loans. See FED. Home Loan Bank Board, The Secondary Mortgage Market 1-2 (n.d.).

^{71.} Id. at 1; Plant & Jannuzzi, Secondary Market Aspects of AMIs, in 2 AMIRS, supra note 9, at XI-1 (1977).

^{72.} U.C.C. § 3-302.

^{73.} *Id.* § 3-305(2).

^{74.} Id. § 3-306 (breach of warranty, fraud in the inducement, or any other defense not listed in § 3-305(2)).

^{75.} See, e.g., Hyer & Kearl, supra note 9, at 231-32; Ege, Legal Implications of AMI's, in 3 AMIRS, supra note 9, at XX-61-62 (1977); Hirschberg, Value Clauses: Forms of Contractual Protection Against Changes of Values of Money, 79 Com. L.J. 350, 352 (1974).

^{76.} U.C.C. § 3-104(1)(b).

^{77.} See, e.g., Comment, supra note 16, at 121; Hyer & Kearl, supra note 9, at 231; Cowan & Foley, supra note 9, at 1086.

Comment 1 to U.C.C. § 3-106 requires that a "sum certain" must result from a computation

Nevertheless, though on its face the indexed note may not provide mathematical certainty, PLAM inflation clauses do provide adequate commercial certainty because future payments have the same "real" value as initial payments.⁷⁸

Even if they do not satisfy the sum certain requirement, PLAMs may be made negotiable by contract. ⁷⁹ Notwithstanding U.C.C. comments forbidding turning a non-negotiable instrument into a negotiable instrument by contract, ⁸⁰ where parties have indicated a clear intent and a particular purpose to confer negotiability on a note, courts may rule in favor of negotiability. ⁸¹ States can avoid this negotiability problem by enacting legislation either expressly conferring negotiability on indexed mortgage instruments or permitting parties to agree to negotiability. ⁸²

Thrift institutions could entirely avoid the negotiability problems of the PLAM note merely by issuing PLAM-backed securities.⁸³ PLAM primary lenders might issue straight pass-through securities paying a proportionate share of principal and interest collected, minus servicing fees and other costs.⁸⁴ The negotiability issue is avoided because the secondary-market investor purchases a newly created and more readily transferable security, not the non-negotiable PLAM note.

that can be made from the instrument itself without reference to an outside source. Therefore, reliance on a price index outside the PLAM note to determine mortgage payments would seem to violate the sum certain requirement. Some courts have thus held that variable interest mortgages are non-negotiable. W. HAWKLAND, COMMERCIAL PAPER 23 (1979). These cases should be analagous for PLAMs, because principal adjustments are charges in the nature of interest.

^{78.} See Hirschberg, supra note 75, at 352; see also Hauser, The Use of Index Clauses in Private Loans: A Comparative Study, 7 Am. J. COMP. L. 350, 356-57 (1958). See generally Dawson & Coultrap, Contracting By Reference To Price Indices, 33 MICH. L. REV. 685, 698-99 (1935).

^{79.} See, e.g., Dawson & Coultrap, supra note 78, at 698-99; Hauser, supra note 78, at 357-58; Hyer & Kearl, supra note 9, at 231-32.

^{80.} U.C.C. § 3-104 comment 2 (1979).

^{81.} Hauser, supra note 78, at 358; see also Dawson & Coultrap, supra note 78, at 698-99. The U.C.C. comments leave open the possibility that some writings might be made negotiable by judicial decision. U.C.C. § 3-104 comment 1 (1978). Some commentators doubt, however, that negotiability can be conferred merely by expressing an intent to that effect. See, e.g., Nussbaum, Multiple Currency and Index Clauses, 84 U. PA. L. REV. 569, 594 (1936).

^{82.} Hauser, supra note 78, at 358; see also Dawson & Coultrap, supra note 78, at 698. The U.C.C. comments also leave open the possibility that some writings may be made negotiable by statute. U.C.C. § 3-104 comment 1 (1978). State courts might permit otherwise non-negotiable instruments to become negotiable where the underlying instrument meets statutory requirements or falls within some statutory exception. See, e.g., Brazos River Authority v. Carr, 405 S.W.2d 689, 695 (Tex. 1966).

^{83.} See Comment, supra note 16, at 121. The Government National Mortgage Association, for example, is authorized "to guarantee the timely payment of principal of and interest on securities . . . based on and backed by a trust or pool . . . of mortgages . . . insured by the Federal Housing Administration or the Farmers' Home Administration, or insured or guaranteed by the Veterans Administration." 24 C.F.R. § 390.1 (1981).

^{84.} Id. § 390.5(a).

Lenders could also maintain a secondary market by guaranteeing investors against any loss attributable to the absence of holder in due course status.⁸⁵ Alternatively, the borrowers could execute a waiver or estoppel certificate providing the benefits of holder in due course status in favor of a subsequent purchaser.⁸⁶

5. Lien priority— A mortgage represents a lien on real property in favor of the mortgage lender enabling the lender upon the borrower's default to sell the realty and apply the proceeds to the debt.⁸⁷ Lien priority is important because senior liens take first out of any forced-sale proceeds.⁸⁸

Under an SMI, the lien equals the amount of the initial principal advance. Because the outstanding debt falls continually from the first payment, the initial lien always exceeds the value of the debt, thus giving the lienholder complete priority to forced-sale proceeds. Under a PLAM, however, the outstanding debt increases over a substantial portion of the loan term due to negative amortization. The lender may thus incur the risk that the lien on the original principal will not cover the increasing mortgage asset. Consequently, the lender's claim to the security beyond the initial advance amount might be subordinate, at least in part, to the claims of an intervening lienor.⁸⁹

The priority problem arises because the PLAM could be viewed as an agreement to enter periodically into subsequent agreements to determine the borrower's outstanding obligation. If each extension is viewed separately, intervening credit agreements with third parties would achieve lien priority over any renegotiated increases unless the PLAM was perfected after each renegotiation before the third party records. The better view of priority status, however, considers principal adjustments to be future advances secured by the PLAM.

^{85.} Hyer & Kearl, supra note 9, at 233-34.

^{86.} See id. at 234; Comment, supra note 16, at 121.

^{87.} See G. Nelson & D. Whitman, Real Estate Transfer, Finance, and Development 90 (2d ed. 1981); see also W. Bryant, Mortgage Lending: Fundamentals And Practices 218-19 (1962).

^{88.} G. OSBORNE, G. Nelson & D. Whitman, Real Estate Finance Law 92 (1979) [hereinafter cited as G. OSBORNE].

^{89.} In the hypothetical PLAM, supra note 48, the original lien would be for \$50,000, the principal amount. If in the eighth year, when the principal stands at \$60,064, the borrower obtained a loan from a second creditor, that loan arguably has priority as to the excess over \$50,000 secured by the first lien. Should the borrower default on both obligations in the tenth year, when the principal stands at \$61,818, the mortgage lender might need all the proceeds to cover the debt but would have priority only in the first \$50,000:

^{90.} Hyer & Kearl, supra note 9, at 234.

^{91.} Id. at 234-35; see also Barnett, Alternative Mortgage Instruments: How To Maintain Secured Lender Status, 96 Banking L.J. 6, 23 (1979).

^{92.} See G. OSBORNE, supra note 88, at 756; Barnett, supra note 91, at 24; Ege, supra note 75, at XX-19; Hyer & Kearl, supra note 9, at 235.

ively states the amount of the initial advance and that future indeterminate advances are also secured.⁹³

Specific state future-advance statutes may, however, further complicate PLAM financing by requiring a definitive statement in the mortgage instrument of the amount to be advanced. Because annual principal adjustments are unpredictable, the lender could not definitively state the amount of the PLAM advance. PLAM financing would also be impaired in jurisdictions extending priority only to the extent that the aggregate outstanding obligation does not exceed the amount of the original indebtedness. Moreover, several states require future advances to be made within a time period exceeded by the PLAM term. These difficulties could be remedied by amending future-advance statutes to provide that any adjustable mortgage loan providing additions to either principal or interest shall be superior to any subsequent loan to the borrower for any other purpose.

B. Underwriting Considerations of PLAM Financing

Even reforming every legal barrier to PLAM financing will not make PLAMs viable mortgage instruments if practical underwriting difficulties

^{93.} G. OSBORNE, supra note 88, at 757. In most states a properly recorded obligatory future advance, mandated by the mortgage instrument, gives the lender first priority from the date of the instrument regardless of the mortgage lender's actual or constructive notice of an intervening lienor. Id.; Comment, Mortgages to Secure Future Advances: Problems of Priority and the Doctrine of Economic Necessity, 46 Miss. L.J. 433, 437 (1975). When the advance is merely optional, however, such as where disbursements are made at the discretion of the lender, intervening liens attain priority in a majority of states if the mortgage lender has actual knowledge of the intervening lien but makes the advance anyway. G. OSBORNE, supra note 88, at 759; Barnett, supra note 91, at 25; Comment, supra, at 437. A substantial number of jurisdictions give priority to intervening lienors when the mortgage lender has mere constructive knowledge of the intervening lien and makes the disbursement anyway. Barnett, supra note 91, at 25; Comment, supra, at 437-38.

Nevertheless, a significant number of jurisdictions have rejected this common law approach and given original mortgage priority even to optional advances. See, e.g., Del. Code Ann. tit. 25, § 2118(a) (Supp. 1980); Fla. Stat. Ann. § 697.04(1) (Harrison Supp. 1981); Hawaii Rev. Stat. § 407-83 (Supp. 1980); Me. Rev. Stat. Ann. tit. 9B, § 436 (1980); Md. Real Prop. Code Ann. § 7-102(b) (1981); Neb. Rev. Stat. §§ 76-238.01 (1981); N.M. Stat. Ann. § 48-7-9 (1978); S.C. Code Ann. § 29-3-50 (Law. Co-op. 1976). PLAM lenders would, however, be better protected if they made all principal adjustments obligatory rather than optional.

^{94.} See, e.g., Kan. Stat. Ann. § 58-2336 (1976); Me. Rev. Stat. Ann. tit. 9B, § 436 (1980); Minn. Stat. Ann. § 51A.38 (West. Supp. 1982); Mont. Code Ann. § 71-1-206(1) (1981); Neb. Rev. Stat. § 76-238.01 (1981); N.M. Stat. Ann. § 48-7-9 (1978).

^{95.} See, e.g., Cal. Civ. Code § 3136 (West 1974); N.H. Rev. Stat. Ann. § 479:4 (1968); S.C. Code Ann. § 29-3-50 (Law. Co-op. 1976); Vt. Stat. Ann. tit. 8, § 1207 (1970).

^{96.} See, e.g., DEL. CODE ANN. tit. 25, § 2118 (1980) (within 5 years); FLA. STAT. ANN. § 697.04(1) (Harrison Supp. 1981) (within 20 years); Mo. ANN. STAT. § 443.055(2) (Vernon Supp. 1982) (within 10 years).

^{97.} See Hawaii Rev. Stat. § 407-83 (Supp. 1980); Ind. Code Ann. § 28-1-21.5 -.7 (West 1980).

cannot be ameliorated. Certain commercial risks must be minimized before PLAMs will receive widespread application.

1. Increased risk of delinquency and foreclosure— The PLAM lender, like the SMI lender, will not approve a loan without assurances that the borrower will have sufficient income over the mortgage term to repay the loan. If the PLAM borrower's ability to repay does not increase with increased PLAM payments, the risk of default will increase. If the borrower's income does not keep pace with inflation, inflation-compensating principal adjustments will increase the real cost of the PLAM loan, and impose an ever-greater financial burden on the borrower. This increased risk of loss could discourage primary and secondary market interest in PLAMs. Because a borrower with insignificant equity has little to lose in the event of default, delayed equity accumulation during negative amortization may exacerbate the risk of default and foreclosure.

The PLAM contract can, however, provide for adjustments where household income does not increase with inflation. For instance, PLAM adjustments could be set at some fraction of the change of the inflation index, 100 though the lender would likely require a higher contract interest rate, including a moderate inflation premium. 101 The PLAM term could also be increased to decrease monthly payments, 102 though this would mean increasing negative amortization, reducing equity accumulation, and requiring a greater payback over the entire loan term.

2. Risky asset-to-liability ratios— Thrift institutions operate as financial intermediaries in mortgage markets, directing funds from household and institutional savers to mortgage borrowers. ¹⁰³ Thrift institution real estate profits roughly equal the amount by which the return on mortgage assets paid to the lender exceed the amounts paid by the lender to depositors. ¹⁰⁴ Because most mortgage funds come from short-term rate-sensitive deposit accounts, ¹⁰⁵ lenders run the risk of a maturity mismatch when monthly mortgage asset earnings fall short of monthly

^{98.} See Follain & Struyk, Homeownership Effects of Alternative Mortgage Instruments, in 3 AMIRS, supra note 9, at XIV-9; see also Tucker, supra note 17, at 76. The annual rate of income increase need not, however, equal the annual inflation increase. Because principal adjustments occur at the end of a given year and are based on inflation changes during the preceding year, the borrower has two years of adjusted income to compensate for each principal adjustment. Cassidy, supra note 9, at 10.

^{99.} Conversely, if inflation affects all prices and incomes equally, the real rate of interest to the borrower remains unchanged. See Swain, Alternative Mortgage Instruments and Mortgage Defaults, in 2 AMIRS, supra note 9, at IX-23.

^{100.} Cassidy, supra note 9, at 6, 10.

^{101.} Id. at 6.

^{102.} Id. at 10. See also supra note 48 and accompanying text.

^{103.} See Hyer & Kearl, supra note 9, at 212-13.

^{104.} Id.

^{105.} Id.

deposit liabilities.¹⁰⁶ To attract and retain loanable funds thrift institutions must increase deposit account rates, but the then-necessary increased return on mortgage assets can be obtained only on new loans or existing renegotiable and variable rate mortgages.¹⁰⁷ As a result, lenders are forced to seek particularly high rates on new loans to subsidize older fixed-rate mortgage portfolios.¹⁰⁸

PLAM lenders could encounter unusually risky debt-to-asset ratios during initial amortization periods if mortgage capital is raised through nominal interest deposit accounts; early real rate mortgage payments to the lender will surely be less than account rates that must be paid to the short-term depositors. 109 The lender's initial cash flow problem can be remedied, however, by establishing price level adjusted deposit accounts ("PLADs"). 110 PLAD certificate of deposit or savings account holders would be guaranteed a real rate of return on their investment. As with the PLAM, the PLAD deposit principal would be adjusted periodically according to changes in an inflation index. 111

PLADs should be attractive to household and institutional investors.¹¹² A PLAD would offer small savers a hedge against price level changes during periods of substantial inflation. PLADs might be particularly

^{106.} During the post-1965 inflation period, mortgage lending was seriously disrupted as lenders were increasingly unable to attract and retain savings deposits due to the development and successful marketing of alternative savings instruments paying relatively higher yields. See DEP'T OF THE TREASURY, THE REPORT OF THE INTERAGENCY TASK FORCE ON THRIFT INSTITUTIONS 3-4 (Committee Print 1980); see also DEP'T OF TREASURY, DEPOSIT INTEREST RATE CEILINGS AND HOUSING CREDIT: THE REPORT OF THE PRESIDENT'S INTERAGENCY TASK FORCE ON REGULATION Q 61-97 (1979). Institutions were further hampered because sizable portions of their investment portfolios contained old mortgage assets at interest rates far lower than the prevailing cost of raising money in the open market. See THE REPORT OF THE PRESIDENT'S COMMISSION ON FINANCIAL STRUCTURE & REGULATION 18 (1971); Usury Lending Limits: Hearings on S. 1988 Before the Senate Committee on Banking, Housing and Urban Affairs, 96th Cong., 1st Sess. 21 (1979) (statement of John Heimann); Outlook for Housing, supra note 3, at 23 (statement of Saul Clamen). Institutions obtained a large portion of loan funds through short-run rate-sensitive deposits, but loaned to mortgagors over a long term. This led to a maturity mismatch because liabilities were not adequately covered by assets.

^{107.} See M. MADISON & J. DWYER, supra note 7, § 2.01[i][b], at 2-4 n.6.

^{108.} Levin & Roberts, supra note 19, at 31.

^{109.} Consider a \$50,000 deposit liability used to provide a \$50,000 30-year PLAM. The lender will receive \$2,678.55 at the conclusion of the first year of amortization at a 3% real interest rate and 5% inflation. Any deposit account paying more than 5.36% during this period would generate a net loss to the lender. The average cost of funds for the nation's federally-chartered savings and loan associations in 1980, however, was more than 8.9%. Fed. Home Loan Bank Board, supra note 1, at 107. The average return on all mortgages for this period was over 9.3%. Id. at 108.

^{110.} See Lessard & Modigliani, supra note 9, at 36; Sharplin, supra note 16, at 55-56; see also Cohn & Fischer, supra note 13, at 41-52.

^{111.} Due to the gradual phase-out of controls fixing the maximum amount of interest paid by financial institutions, Monetary Control Act, *supra* note 53, § 202(b), unrestricted PLAD savings accounts could be available effective March 31, 1986.

^{112.} See Cohn & Fischer, supra note 13, at 51; Lessard & Modigliani, supra note 9, at 36.

appropriate for trusts, corporate pension funds, and profit-sharing funds that have a long investment horizon and a need for inflation protection.

CONCLUSION

State and federally regulated real estate mortgage lenders offer a variety of alternative mortgage instruments to correct the effects of high, inflated interest rates on homeowners. The price level adjusted mortgage offers a limited group of upwardly mobile purchasers, not otherwise able to afford initial mortgage payments, an opportunity to buy a home. When various banking statutes and conventional lending practices are modified as suggested in this Note, PLAMs will be available to fill an important home financing need.

—Joel J. Goldberg