

VANDERBILT *Ave.* ASSET MANAGEMENT

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Option Arms

Option Arm Mortgages emerged somewhat innocuously in 1995 as a monthly cash-flow management tool offered by California mortgage originators. Even though Option Arms were used predominantly on the West Coast, their use spread to all parts of the country especially Florida, Nevada and Arizona. Option Arms developed into an affordability product for the public in 2004. As home prices began to climb, lenders offered borrowers innovative products to allow real estate ownership and the potential to take advantage of future rising home prices. Option Arms grew to eventually become a significant portion of the overall Non-Agency market-- \$750 billion of Option Arms were originated from 2004 through 2007. Unfortunately, this was emblematic of a perverse incentive structure common to an industry that promoted increased risk taking. With little-to-no regulatory oversight, Option Arms certainly were a factor as the housing bubble reached extremes.

The significant retrenchment in housing seen in those metropolitan areas where Option Arm lending was most prevalent is unlikely to abate. The problems surrounding Option Arms are likely to remain front-page news. The majority of Option Arm borrowers will find it difficult to meet the minimum requirements necessary to participate in the government programs aimed at solving the housing crisis.

Background:

The majority of Option Arms are mortgages indexed to the one month MTA (12 month moving average of the one year constant maturity U.S. Treasury rate) or are indexed to LIBOR ("London Inter-Bank Offered Rate") as 3/1, 5/1, 7/1 or 10/1. The Option Arms indexed to LIBOR typically have an adjustable-rate mortgage (ARM) with an initial three-year, five-year, seven-year or ten-year fixed-interest rate. After this initial period, the interest rate begins to adjust on an annual basis according to an index plus a margin.

Option Arms are a type of adjustable rate mortgage that gives borrowers four payment options each month. The most popular choice has been the minimum payment option which allows borrowers to make monthly mortgage payments that do not cover the full interest charged on the loan. This results in a growing loan balance which is termed "negative amortization." Option Arm mortgages are allowed to negatively amortize (the loan balance is allowed to increase) anywhere up to 110% to 125% of the original balance, however, 115% is the most commonly used limit.

Unlike a typical mortgage, where a borrower's principal balance decreases monthly, an Option Arm borrower will ultimately have a mortgage that does not pay down if the minimum payment is used consistently. Once the negative amortization limit is reached,

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the borrower needs to either refinance into another mortgage or “recast” the loan where the minimum payment option is no longer available. If the borrower recasts the loan and does not refinance then the new monthly payment increases by at least 50% from the original minimum payment.

Typical Monthly Payment Options:

1. **Minimum Payment:** The minimum payment is set using an initial interest rate of 1% to 3% which is less than the full interest rate needed for the loan’s principal to amortize. The interest rate on the loan is reset monthly; however, the minimum monthly payment is recalculated annually resulting in a mismatch. Increases in the minimum payment are limited to 7.5% per year up to the fifth year. Once the mortgage reaches the 115% Cap (maximum amount allowed to be added to the balance of the mortgage) by the fifth year or earlier, then the loan is reset and begins to pay based on a 25 year amortization at its monthly indexed rate
2. **30 Year Amortizing Payment (full accrual rate payment)** which is calculated using the underlying index rate plus a margin
3. **Interest Only Payment (avoids Negative Amortization)** the borrower pays interest only for the first five years; however, the principal does not decrease. After the fifth year, the loan is reset and begins to pay based on a 25 year amortization at its monthly indexed rate
4. **15 year Amortizing Payment (Accelerated payment)** uses a 15 year amortization schedule

Structural Features:

Option Arms are structured either as a Senior Subordinate Structure (“Senior Sub”) or as an Excess Spread/Overcollateralization (“XS/OC”). In general these structures allow the use of overcollateralization to protect senior tranches (“AAA Bonds”) from a certain level of loss. Furthermore, the structures do not permit any principal to be distributed to lower rated bonds unless the deal is performing well and after a certain period of time.

Senior Sub structures: the subordinated bonds (“subs”) are locked-out from prepayments for 10 years (but receive scheduled principal) if credit enhancement levels do not reach 2x original subordination and triggers are not passed. At the expiration of the lock-out period, a shifting interest schedule applies where the subs receive pro-rata share of prepayments (30%,40%,60%,80%,100%). However, if during the first three years, the credit enhancement is 2x original subordination and triggers are passed, 50% of pro-rata prepayments can be released to the subs. After three years, 100% of prepayments can be released to the subs if the credit enhancement is 2x original subordination.

XS/OC structures: the subs are locked out from any principal payments for three years. After three years, prepayments are released to the subs if credit enhancement levels have built up to 2.5x the initial target and triggers are passed. After six years, subs receive prepayments if credit enhancement is 2x original credit enhancement.

Option Arm borrowers typically have better credit characteristics than their Alternative (“Alt A”) mortgage counterparts as Option Arm loans have higher FICO credit scores and in general tend to have less than 80% Loan to Value (“LTV”). However, the borrowers look “payment constrained” due to a high share of cash out refinancings and high exposure to the California market. Furthermore, Option Arm borrowers tend to have more income variability and many have been relying more on future incomes than borrowers of traditional Arms.

Currently, Option Arms make up approximately 7% of outstanding mortgages. Option Arms became popular because they offered borrowers the lowest paying option available in the mortgage market. Option Arms limited payment shocks during the first five years due to yearly caps. Out of the four payment options available roughly 95% of borrowers pay the minimum payment. Although the minimum payment option allows borrowers significant flexibility, the combination of home price depreciation and negative amortization on the loans has proven to be a very poor combination for the borrower.

Approximately 60% of all Option Arms were originated in California, 10% in Florida and 5% in Nevada—states with significant home price depreciation. The likelihood that these borrowers can refinance into a new Option Arm or a fixed rate mortgage will prove to be very difficult in today’s tighter mortgage underwriting environment. Since the bulk of Option Arms are due to reset in 2009 through 2011, this event would put additional pressure on the mortgage market for any recovery. Going forward losses on Option Arms will be much higher than originally expected for two reasons: the combination of the borrower’s choice of the minimum payment option (loan balance increases) and the rapid decrease of home prices, both of which have caused borrowers to have negative equity in their homes.

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Emad is the Managing Partner and Chief Executive Officer of Vanderbilt Avenue Asset Management LLC. Vanderbilt's client base includes Multi-national Corporations, Public Funds, Foundations/Endowments, and Taft Hartley accounts.

Previously, Emad was Chairman of Institutional Business at Pioneer Investments. Pioneer investments has more than \$300 Billion in assets under management. The parent of Pioneer, UniCredit S.p.A., is the largest bank in Italy and the second largest bank in Europe. Pioneer had purchased Vanderbilt Capital Advisors, of which Emad was the founder and Chief Executive Officer.

Emad has had numerous articles published in professional and academic journals such as The Journal of Forecasting, The American Economist and The Journal of Fixed Income. He is a Board member of The National Investment Company. Emad was a member of the Board of Advisors of the Pacific Institute, The Advisory Committee of Fulcrum Global Partners, The Chief Executive Officers Club and formerly a board member of The Foreign Policy Association. He also served on the Board of Directors of the University of Albany Foundation, NextGen Healthcare Inc., The Park Avenue Bank, AA Bank and The New Providence Fund and Associates LP.

Emad is an FINRA Arbitrator. He is also a member of the National Association for Business Economists and The Economic Club of New York. Emad served as an adjunct professor at the University of Kansas and St. John's University.

Emad holds a Bachelor of Science from the University of Albany, and a M.A. and Ph.D. in Economics from the University of Kansas.