VANDERBILT AVENUE ASSET MANAGEMENT, LLC

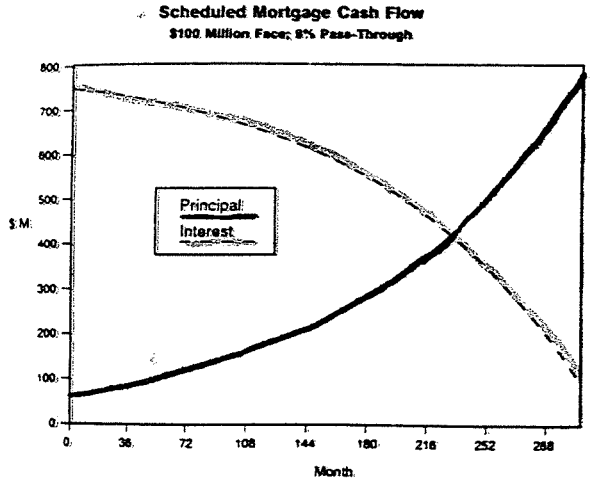
INTEREST-ONLY AND PRINCIPAL-ONLY SECURITIES

Interest-Only (IO) and Principal-Only (PO) securities (Strips) are created by separating the principal and interest payments of a mortgage pool, and directing them individually to separate securities. The Interest-Only security receives interest payments and the Principal-Only security receives principal payments.

The market for Mortgage-Backed security strips began in 1986, when the Federal National Mortgage Association (FNMA) issued securities that divided principal and interest into disproportionate parts. Since then, issues from FNMA, FHLMC, and private institutions have become completely separated into principal and interest, with IOs and POs receiving 100% of their respective cash flows. The market currently contains more than 200 issues equaling approximately $ 35 billion.

IOs and POs derive their return profiles from the sensitivity of their cash flows to changes in prepayment rates, maturities and the coupons of the underlying collateral. This sensitivity is directly related to the drastically different nature of their cash flows. While monthly payments remain constant in a pool of fixed-rate mortgages, the interest and principal portions of the cash flow are markedly different. Initially, interest payments dominate the cash flow. Over time, principal becomes the larger portion of the constant payment.

Figure 1



THE PERFORMANCE OF IOs AND POs

The prices of mortgage strips are determined by the timing and the amount of future cash flows. A PO is fundamentally a zero coupon bond with a principal return pattern determined not only by amortization but also by prepayments. Therefore, it will never have a negative nominal yield-to-maturity. However, the

price of an IO is determined by the present value of its expected interest cash flows. Since there is no principal balance to return, an IO could produce a negative return since both the timing and the amount of cashflow is uncertain.

Duration and Convexity

A fundamental aspect of mortgage strips is that when rates rise, IO prices will increase sharply while PO prices fall. This is because the value of an IO will benefit more from the increase in cash flows from slower prepayment rates than it will be hurt by higher discount factors in a rising rate environment. This causes IO prices to move in the same direction as interest rates, or in the opposite direction of typical fixed-income securities. Therefore IOs have large negative durations. In a falling rate environment, PO prices will rise sharply while IO prices fall. Here, POs receive the benefit of both faster prepayments and lower discount factors. Therefore, PO prices will move inversely with interest rates and produce large positive durations.

Furthermore, returns will change more in one direction of interest rate moves than in the other. In general, for equal interest rate changes around the prevailing market rate, PO prices will rise faster in market rallies than they will fall during market declines. This is because prepayments are extremely beneficial to POs and will exist to some degree even in very high rate environments. This asymmetrical price change represents positive convexity. Conversely, IOs will have larger price declines in market rallies versus appreciation in similar sell-offs. This is due to the extremely negative impact of prepayments on IOs, and represents negative convexity.

Prepayments

Prepayments effect the performance of IOs and POs in opposite ways. If there are no prepayments, the maximum amount of interest will be passed through to the holder of the IO producing the highest possible cash flows. This is because the interest each month is a function of the balance of the outstanding mortgage pool. For POs, which are priced at discounts to par, faster prepayments will return the holder's principal sooner, producing higher returns. Prepayments are influenced by housing turnover and refinancing activity. Housing turnover tends to rise in a growing economy as people change jobs and/or trade up to more expensive homes. Refinancing activity is related to interest rates.

The coupon of the underlying collateral pool plays an important role in the performance of mortgage strips because of its relationship to prepayments. The importance lies not only in the absolute speed, but also in the magnitude of change for a given interest rate scenario.

* Current Coupons (and slight premiums)

  IOs backed by current coupon mortgages (equal to the prevailing rate to homeowners) have no real incentive to refinance. Therefore, in a rising rate environment, prepayments would not decline substantially. However, prepayments would increase dramatically in a market rally. Therefore, IO values would not benefit greatly from a rise in rates, but would be severely diminished in a falling rate environment.

  The increase in prepayments from a market rally would greatly enhance the value of the PO. Its downside risk is that the initially slow prepayment speed continues.

* Discount Coupons

  IOs backed by discount collateral have less downside potential than their current coupon counterparts. Only a very large decline in rates would have a material impact on prepayments. However, the discount collateral implies that prepayments will never slow much either. Discount IOs, therefore, command lower yields than current coupon IOs.

  POs backed by discount collateral will have slow, stable prepayments and longer repayment periods. This reduces upside potential and increases the required yields versus current coupon POs.

* Premium Coupons

  IOs backed by premium collateral will have significant upside potential. The high prepayments associated with this collateral can slow dramatically as rates move higher. The risk is a further increase in prepayments. Since it is currently economical to refinance, individuals who can and want to refinance are already doing so; thus, reducing the probability of an increase in prepayments. This will lower the required yield versus a current coupon IO.

  POs, which would already be experiencing fast prepayments, risk a decline in those prepayments if rates rise. Additionally, the upside is limited since this is already a positive environment for these POs. Consequently, required yields will be higher than current coupon POs.

The timing of both refinancings and housing activity must also be considered because of the time between loan application and closing. An increase or decline of either

of these variables would not be realized for 60 to 90 days at which time the new loans would close and the outstanding ones would be prepaid.

The table below illustrates how the total returns of IOs and POs will be effected by a change in the current interest rate environment. Similar duration Treasury securities have also been included to show the convexity of these instruments.

TOTAL RETURNS OF SELECTED SECURITIES

		INTEREST RATE CHANGE (AND CORRESPONDING PROJECTED PREPAYMENT FOR COLLATERAL COUPON)						
ISSUE	DURATION	-150	-100	-50	0	50	100	150
30 YEAR TREASURY	11.25	27.02	20.09	13.81	8.09	2.89	-1.86	-6.21
TREASURY STRIP 2/04	11.82	27.56	20.81	14.42	8.38	2.68	-2.72	-7.83
FNMA TR 55 PO (8.5% CPN)	11.73	33.92	22.65	12.83	7.03	1.74	-3.23	-8.02
TREASURY STRIP 5/09	17.17	38.90	28.12	18.19	9.04	0.61	-7.17	-14.33
FNMA TR 87 PO (10.0% CPN)	17.18	24.88	21.88	16.98	9.34	-1.68	-9.44	-14.20
FNMA TR 7 IO (8.5% CPN)	-6.26	-33.69	-10.69	4.57	9.18	12.30	14.61	16.35
FNMA TR 2 IO (10.0% CPN)	-32.61	-49.75	-37.53	-21.46	1.14	24.72	36.98	41.60

APPLICATIONS

Because of their unusual return characteristics, mortgage strips can be utilized in a variety of investment strategies.

- POs can be used as alternatives to Treasury strips of similar duration to gain positive convexity.
- IOs and POs can be combined to create synthetic collateral, that may outperform standard mortgage-backed securities under most interest rate scenarios.
- IOs can be used to hedge portfolios against increases in interest rates.
- IOs and POs allow investors to make leveraged investments based on their prepayment expectations.

CONCLUSION

IO and PO strips are instruments which can be used by fixed income investors to implement many types of investment strategies. The complexity of these securities allows astute investors to add value to portfolios, or implement arbitrage strategies when pricing anomalies occur in the marketplace. At Vanderbilt Avenue Asset Management, we have been using IO and PO strips in our portfolios with consistently good results. We have both the mortgage expertise and the analytical tools necessary to capture the additional relative value provide by these and other derivative mortgage securities.