

State of the ARM Market

The ARM sector has cheapened significantly in the past couple of months, finally bottoming out last week as a positive tone returned to spread product in general. Some of the recent cheapening has been justified, and risks do still exist. However, there are sectors of the ARM market that have been oversold and offer good value at current levels. In this article, we highlight the following risks to the ARM market:

- index uncertainty,
- supply risk,
- sponsorship concerns,
- prepayment risk, and
- cap valuations.

In addition, we point out the following relative value opportunities in the ARM market:

- discount pools,
- prepay-protected premiums,
- low cap pools, and
- COFI.

Index Uncertainty

In February, the Treasury announced that it would be changing the one-year bill issuance cycle from monthly to quarterly. In addition, the Treasury announced that it may consider eliminating the year bill altogether. This helped cause ARMs to cheapen for three reasons:

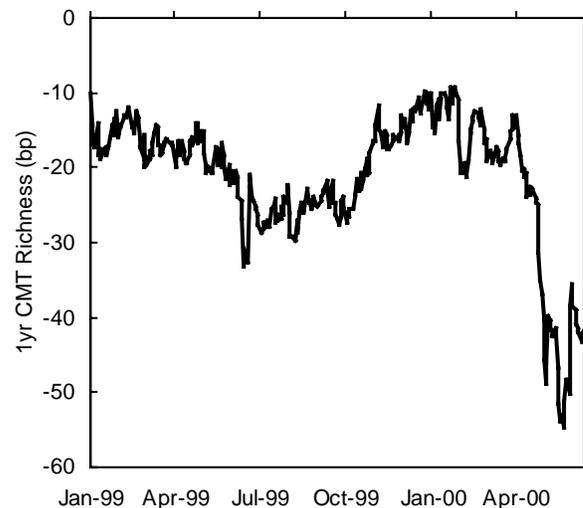
- (1) *richness of the year bill*, which caused ARM coupons to be held at low levels,
- (2) *TED spread expansion*, which caused ARMs to look rich versus LIBOR, and
- (3) *general index uncertainty*, which caused uncertainty in valuation and lack of sponsorship for the sector.

This issue has not yet been resolved, but we believe the outcome could potentially be modestly positive for ARMs. There is a distinct possibility that the one-year CMT rate could be pushed higher if old two-year notes are used in the computation, or if the less rich six-month bill is used. If the Treasury announces it will not eliminate the year bill, the richness of the year bill should be mitigated (the year bill is approximately 40 bp rich versus our fitted curve now, as shown in the graph at right). (See

“Uncertainty in One-Year CMT and the ARM Market” in the May 5, 2000, issue of *Mortgage Market Comment*, and “Revisiting One-Year CMT and the ARMs Market” in the May 26, 2000, issue for more detail.¹)

H.15 One-Year CMT Has Richened

H.15 1yr CMT less fitted 1yr Tsy yield



However, we feel there are a couple of considerations that partially offset the upside. First, one-year CMT could continue to richen prior to resolution of the year bill issue, which could take some time (this is a government decision, after all!). Second, the trend of Treasury buybacks/reduced borrowing needs may continue to widen spreads across the curve. Investors in the ARM market, unlike many other products, cannot simply ignore Treasuries and use swaps as the new benchmark, because ARMs are explicitly linked to U.S. Treasuries. So the index uncertainty is a real risk.

Supply Risk

Two types of supply have contributed to the recent widening in ARMs:

- (1) new issue supply, and
- (2) bank portfolio selling (and related rumors).

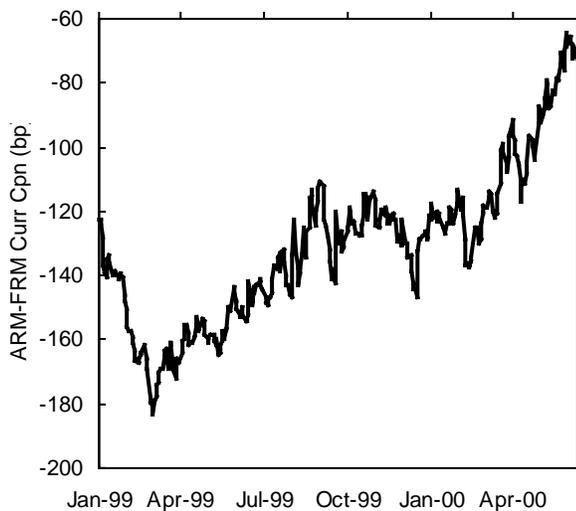
¹ These articles are available on the *GS Financial WorkbenchSM* at the following Web address:

https://www.gs.com/fi/research/db/GetArchive.gscgi/MM_ARMs

In the first quarter, the primary mortgage curve steepened because short mortgage rates (on ARMs and balloons) were slow to respond to the rapid backup in market rates. This provided significant incentive for borrowers to reach down the curve for teaser rates in ARMs. As bank funding levels have crept up, banks have begun to offer higher ARM rates — and fewer teasers — thus flattening the mortgage rate curve.

The supply of ARMs is still relatively high, but it seems that the rate of increase may be waning. For instance, according to the MBA's Application Survey, traditional one-year CMT ARMs and hybrids have been roughly 40–50% of application volume. GNMA ARMs have posted just over \$6 billion in supply year-to-date. Our forecasts are lower for the second half of the year, reflecting the drop in the application index (now around 300, versus 600 for much of February through March). The inverted yield curve has narrowed GNMA borrower incentives to choose ARMs (see graph below).

The Mortgage Primary Rate Curve Has Flattened GNMA ARM curr cpn yield less FN 30yr curr cpn yield



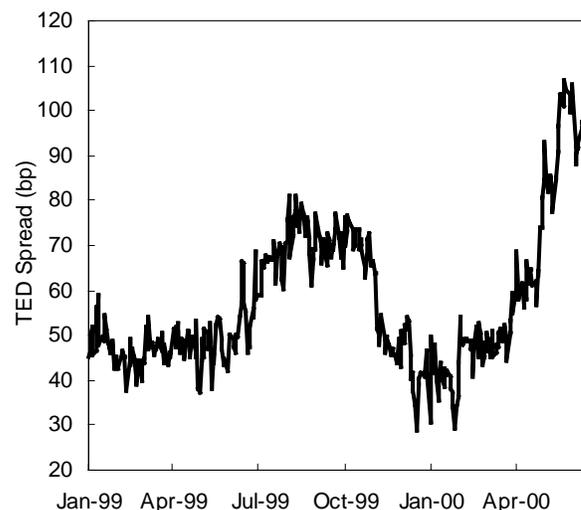
Bank portfolio selling continues to worry ARM investors; some of it has come to fruition, but much has been rumor. Most of the worry is in the hybrid sector, as production has been the highest there, and many banks have retained this production in portfolio at levels that are now significantly underwater. Since par is often the target, a significant rally would be necessary to get back to the levels where most of what the banks are carrying on balance sheet would be eligible. On the other hand, banks could sell a

portfolio of premium ARMs (fully indexed seasoned conventionals) and hybrids to reach a weighted average price of par. Or some banks may feel that their stock price has been depressed more than their securities portfolio, and therefore they may sell hybrids in order to buy back stock. At the moment, it's unclear whether the bank portfolio supply will enter the market, but it remains a risk.

Sponsorship Concerns

The traditional buyers of ARMs are banks, and they have been on the sidelines for most of the past year. Strong loan demand, an inverted Treasury curve, Fed tightening, lack of paydowns to reinvest, and equity analyst criticism are all reasons why banks are not adding to their securities portfolios. The absence of support has allowed ARMs to cheapen dramatically, and there has recently been new inquiry as money managers hear that the market has reached "distressed" levels. That said, the ARM market has clearly suffered from lack of bank sponsorship, and as long as the TED spread is wide (as shown in the graph below) and there is ambiguity in the index, it will be difficult to get new investors to enter the market. In the last week, the tone has improved with the hope that the Fed is done tightening, at least for the moment. This may be enough to bring back some sponsorship. However, the banks still have other issues to resolve before we expect them to exhibit strong buying.

The TED Spread Has Widened Substantially H.15 1yr CMT less 1yr LIBOR



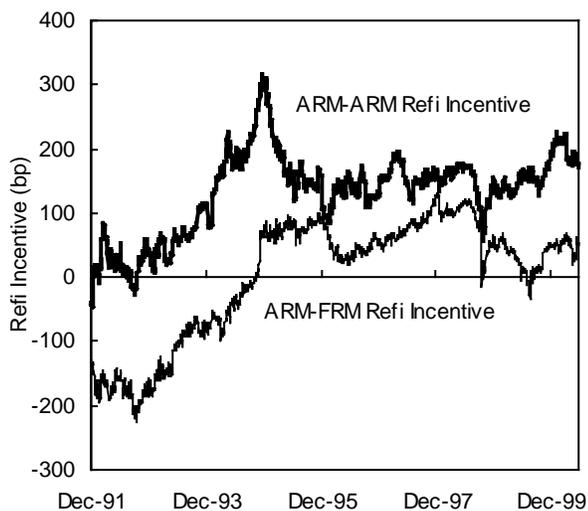
Prepayment Risk

Fully indexed WACs may be resetting up as high as $6.25\% + 2.75\% = 9.00\%$. New 30-year fixed rate mortgages are being originated around 8.25–8.75%, and 50 bp of refi incentive may be enough to motivate some ARM borrowers to lock in a fixed rate. However, we maintain that the absolute level of rates dominates the yield curve effect (except in instances where low rates and a flat yield curve occur simultaneously — as during 1998, when ARM speeds accelerated dramatically). Borrowers are just not that enthusiastic about locking in a 30-year 8.5% rate as they were in 1998 when they could lock in 30-year fixed rates at 6.5%.

The main concern now is ARM-to-ARM refinancings. A 5/1 8% hybrid might look compelling, or teasers that are even lower. In fact, refinancing incentives are up, as shown in the graph below. However, as mentioned above, ARM/teaser rates are creeping up, so while the incentive is high, it may be diminishing. Last month's speeds came in slightly faster (1–2% CPR for FNMAs and GNMAAs), and Conventionals are now bumping up against 20% CPR, with GNMAAs in the upper-teens. Summer seasonals will also contribute to faster speeds going forward. Thus, increased prepayment rates are clearly a risk at this point.

Refi Incentives for Fully Indexed Conventional ARMs

H.15 1yr CMT + 2.75% less primary ARM and FRM rates



Cap Valuations

Low cap ARMs have suffered recently, as investors tend to overvalue lower caps. That is, lower cap securities tend to be mispriced, as investor demand for these products wanes — especially during a period of prolonged Fed tightening. The result is an implied skew in the embedded caps in the mortgage market, and this skew does not exist to the same extent in the derivatives market. The result is valuations on low cap securities that are simply too cheap.

For instance, seasoned, fully indexed GNMA ARMs with 9.5% caps are currently trading roughly 15 bp wider on a LIBOR OAS basis (based on a two-factor model) relative to 10.5% cap GNMA ARMs originated in the same month. As another example, consider FH 970046, 281 WAM CD ARM with a 9.39% lifetime cap, and priced at 100 BEYDM to a 25% CPR. Uncapping this CD ARM would cost about 33 bp per year, leaving roughly LIBOR + 57 bp uncapped. There would still be some residual prepayment-related option cost, but we're skeptical that this option cost would be 57 bp. Thus, low cap ARMs offer value, as any renewed sponsorship of ARMs has been focused on more generic, higher cap securities.

Relative Value Recommendations

The cheapening in the ARMs sector still leaves us somewhat cautious overall, as risks remain. There are some pockets of value within the sector, however, including:

- **Discount securities.** Given the potential for an increase in ARM speeds owing to faster refinancings, and the upcoming fast summer seasonals, discount ARM pools could provide attractive yields.
- **Prepay-protected premiums.** Fully indexed pools will be resetting up to attractive coupon levels, but prepay protection may be essential in the current inverted yield curve environment. Some sources of prepay protection include reperforming GNMA pools, geographic concentration, and seasoned pools.
- **Low Cap Pools.** Low caps are overvalued, leading to very cheap cap-adjusted yields. (See the discussion above.)
- **COFI Pools.** Most of the risks listed above apply only slightly (or not at all) to COFI. COFI pools have no CMT risk, little supply risk, stable

prepays, and superior convexity. The main risk with COFI is index risk. At the moment, the trend for the index is pretty clear, because of its lagging nature, and we project 5–8 bp increases per month through at least year-end. COFI ARMs are currently trading about $\frac{1}{2}$ standard deviation cheap, based on our empirical rich/cheap model.

Special thanks to Sara Vogel and Ian McDonald for their contributions to this article.