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CPI or Fed Funds futures?

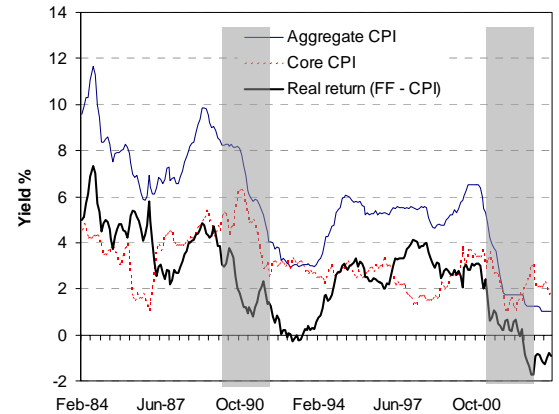
Why did the Chicago Mercantile Exchange launch CPI futures when the Chicago Board of Trade already has a relatively liquid market in Fed Funds futures? Though the two contracts don't represent precisely the same risk there is a link between them since FOMC decisions about the discount rate are heavily influenced by realized inflation. There is, however, a more urgent tactical reason to favor Fed Funds futures over the newly launched CME product, which is the expected return to positive real rates for overnight money. A brief exploration of the interplay between CPI and Fed Funds is enough to lead to a powerful conclusion; unless there is a need to create a perfect match between the outright and hedge instruments, Fed Funds futures may consistently outperform CPI futures over the course of the next rate cycle.

If the '90's signal the shape of things to come, then the next move in the rate cycle will be a shift to positive real returns on overnight funds. Figure 1 illustrates the effective Fed Funds rate and year-over-year CPI over the past twenty years. Overlaid in grey are the two periods of recession, according to the National Bureau of Economic Research. A drop in the real rate marked the start of both recessions. In each case the real rate fell from an average of around 2.25% to zero or slightly negative after the recession ended. Right now, we are in a period of negative real rates with CPI running at 1.90%, while the discount rate is at 1.00%. If history repeats itself, then we aren't far from another return to positive real rates and a sharp rise in Fed Funds relative to CPI.

This is great news from the perspective of an issuer with CPI linked liabilities. LIBOR and Fed Funds and other short-term rates may spike while CPI only drifts higher. For an investor who might be interested in using CPI futures as an inflation overlay for fixed rate bonds, it appears as if Fed Funds (and Fed Funds futures) make more sense from a practical perspective since the Fed has responded to realized inflation by hiking the discount rate very sharply. If our analysis is correct, a short strip of Fed Funds futures may have a higher return over the coming years than a corresponding position in CPI futures. How likely is it that CPI (and CPI futures) spike faster than the Fed (and Fed Funds futures) can respond?

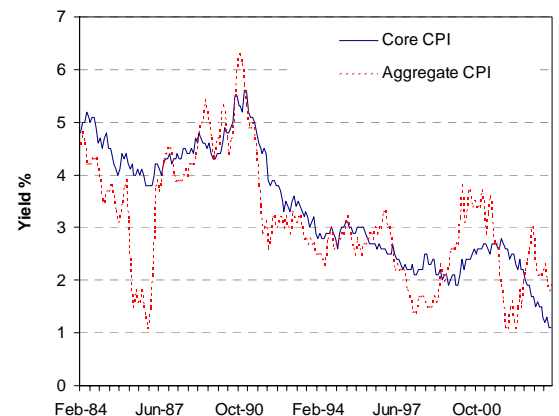
Figure 2 illustrates year-over-year changes to headline and core CPI. By construction the headline number is more volatile than the core, but over the period depicted the core number drove the long run average. It's clear that headline CPI over the past fourteen years has been trending lower and is now at 1.90%, while the core is just 1.10%. If the past repeats itself, headline CPI may return to the average rate implied by the core, which would also hurt long CPI futures positions relative to long Fed Funds futures positions. Based on these two metrics (the return to positive real rates and convergence between headline and core CPI), investors who are seeking inflation protection would be better served by Fed Funds futures. Though not directly linked, there are substantive tactical reasons to prefer Fed Funds to CPI futures, even if fixed income traders find themselves with the improbable problem of significant inflation.

Figure 1. Fed Funds vs. CPI inflation.



Source: Bureau of Labor Statistics, Federal Reserve.

Figure 2. Inflation: Aggregate vs. core CPI.



Source: Bureau of Labor Statistics.

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