Florida TaxWatch Center for Competitive Florida ECONOMIC COMMENTARY #20 August/September 2007
A monthly look at Florida's Economy, made possible by Washington Mutual

Global Financial Fragility and the Florida Economy

Global financial markets have been wracked by turmoil in recent weeks. What does all of this volatility mean for the Florida economy, which continues to slow in the face of the housing market recession? What do Wall Street's problems suggest for Main Street, Florida? Has Florida played a role in this global flux? Though definitive answers remain elusive, we will try to shed some light on the topic in this special, in-depth issue of Economic Commentary. We will return to more succinct coverage of pressing economic topics with our October issue.

August, the month when many people turn their attention to vacations, was anything but a holiday for domestic and international financial market participants. The upheaval started in Europe and the U.S. in the markets for mortgage-backed securities (MBS) and collateralized debt obligation (CDO), and quickly spread to other bond markets, as well as credit markets, stock markets, money markets and currency markets around the world.

Origins of the Upheaval

Greed and fear are often claimed to be the dominant motivations on Wall St. The statement is true but trite; it doesn't help us understand what is occurring other than innocuous comments to the effect "fear has replaced greed" or vice-versa. The proverbial onion ought to be peeled at least a few more layers to better comprehend recent developments.

Layer 1: Financial Innovation and Securitization

Arguably, the waves of technological innovation that have swept the world and altered our lives have been nowhere more significant than in the national and global financial sectors. Plain vanilla stocks, bonds and cash have been transformed into an almost innumerable, dazzling and often bewildering array of new financial instruments. For example, the market for financial derivative contracts, whose value is derived from the worth of an underlying stock, bond or security, has soared in size from $6 trillion in 1990 to roughly $380 trillion in 2006, as investors have sought the risk mitigation as well as speculative potential from an ever- expanding number of financial derivative contracts.

Securitization may be the most notable star in the galaxy of financial innovations. Assets are securitized when financial institutions sell their loans to one another, rather than keeping them on their books/balance sheets. The financial institution purchasing the loans which may be hundreds of thousands of loans, with total face value in the billions of dollars, then bundles them into new financial instruments called asset-backed securities (ABS), and sells pieces of the ABS to investors. The pieces may be straightforward, relatively easy to understand and value, and traded in high volumes on liquid markets. However, they may also be extremely complex to comprehend and value, and traded on thin markets. Over the years home mortgages, auto loans, credit card receivables, student loans and even recording royalties — such as those of David Bowie and the Rolling Stones — have been securitized.

Home mortgages comprise the largest type of ABS. According to the Federal Reserve, of the $10.4 trillion of home mortgage debt outstanding in the first quarter of 2007, about $6.7 trillion or 64 percent was securitized in an alphabet soup of ABS including Collateralized Mortgage Obligations (CMO), Mortgage Backed Securities (MBS), Collateralized Debt Obligations (CDO), and Collateralized Loan Obligations (CLO) to name but a few. U.S. government agencies and U.S. government sponsored enterprises, another alphabet soup including the Federal Housing Administration (FHA), Federal National Mortgage Association or Fannie Mae (FNMA), Federal Home Loan Mortgage Corporation or Freddie Mac (FHNMC) and Government National Mortgage Association or Ginnie Mae (GNMA) have issued about $4.1 trillion of mortgage ABS. Private sector firms, often affiliated with a larger financial institution, have issued roughly $2.6 trillion of mortgage ABS.

Layer 2: Enter Sub-Prime, Alternative A Mortgages, and Financially Inexperienced Borrowers

Helping households at the lower ends of the economic scale realize the American dream of home ownership is a noble goal. Lending institutions, however, might be understandably hesitant providing mortgages to households with spotty credit histories and uncertain ability to repay, especially if mortgages and the associated credit risk remained on their books. In contrast, consider the following scenario: (a) lending institutions shift credit risk by securitizing high-risk mortgages; (b) fees received by lending institutions and interest rates obtained by investors reflect higher risk; (c) higher risk mortgages are sprinkled in ABS along with lower-risk mortgages.

The above scenario would expand the incentives to make high-risk mortgage loans; the higher risk and higher returns would be shifted to investors who had an appetite and understanding of the risk; and in concept everyone would win. But not enough higher-risk borrowers, motivated by the prospects of homeownership in an environment of low interest rates and sharp increases in housing prices, were able to act to make this scenario a reality.

Sub-prime mortgages for households are the counterpart to the 1980s innovation of high yield bonds (also known as 'junk bonds') for corporations. Households and firms previously shut out of the mortgage and corporate bond markets found, in these new financial instruments, access to loans at lower costs than were previously available.

As was the widely publicized case with high yield bonds, abuses have also been undoubtedly present in the sub-prime mortgage market. Clearly, a non-trivial number of borrowers — though the number is unknown -- lacked the necessary financial acumen and/or experience to accurately assess the full costs and potential consequences of the loans they were obtaining. Moreover, the unrealistic assumptions of continued low interest rates and rapid appreciation in housing prices provided borrowers a false sense of security that the worst case scenarios on their mortgage loans would never come to pass. *Caveat Emptor*, "buyer beware", was seemingly disregarded by many borrowers.

Household Mortgage Debt and Mortgage Debt 'Ownership:' 2002 and First Quarter, 2007 (Trillions of dollars)

	Q1:2007	2002	$ Change	% Change
Household Mortgage Debt[A]	**$10.0 T**	**$6.2 T**	**+ $3.8 T**	**62%**
Conventional Debt[B]	$7.7 T	$5.3T	+ $2.4 T	45%
Alternate A Debt	$0.9 T	$0.4 T	+ $0.5 T	125%
Sub Prime Debt	$1.4 T	$0.5 T	+ $0.9 T	180%
Household Mortgage 'Ownership[C]	**$10.0 T**	**$6.2 T**		
Banks, S&Ls, Credit Unions	$ 3.5 T	$2.5 T	+ $1.0 T	40%
Agency & Govt. Sponsored Mgt. Pools	$3.0 T	$2.4 T	+ $0.6 T	25%
Private Asset Backed Securities	$1.9 T	$0.6 T	+ $1.3 T	217%
Other Lenders	$1.6 T	$0.7 T	+ $0.9 T	129%

Sources:
A. Board of Governors of the Federal Reserve, Flow of Funds Accounts of the United States, Table L217. June, 2007.
B. Based on: "The Subprime Mortgage Market." Remarks of Chairman Ben S. Bernanke at the Federal Reserve Bank of Chicago 43rd Annual Conference on Banking Structure and Competition. Chicago, Illinois. May 17, 2007.
C. Mortgage ownership data derived from Table L217, above.

Anatomy of a Crisis

The table titled "Household Mortgage Debt and Mortgage Debt 'Ownership'" presents information on household mortgage debt outstanding as well as estimates of mortgage debt ownership for 2002 (about the time home prices started their rapid rise) and the first quarter 2007. Several features stand out:

- Household mortgage debt soared in recent years, rising by almost $4 trillion.
- Subprime debt outstanding almost tripled in recent years, expanding by about $900 billion or 180 percent.
- Mortgages purchased by private financial institutions and then packaged and sold as ABS increased by about $1.3 trillion or 217 percent.

It appears, from the data in the Table, that a substantial portion of subprime mortgages were securitized as parts of ABS. Perplexing questions facing regulators and financial market participants include who exactly purchased these ABS, and how much they own. The answers may be global institutional investors concentrated in Europe, Asia and the U.S. seeking higher returns and, presumably, willing to accept higher risk.

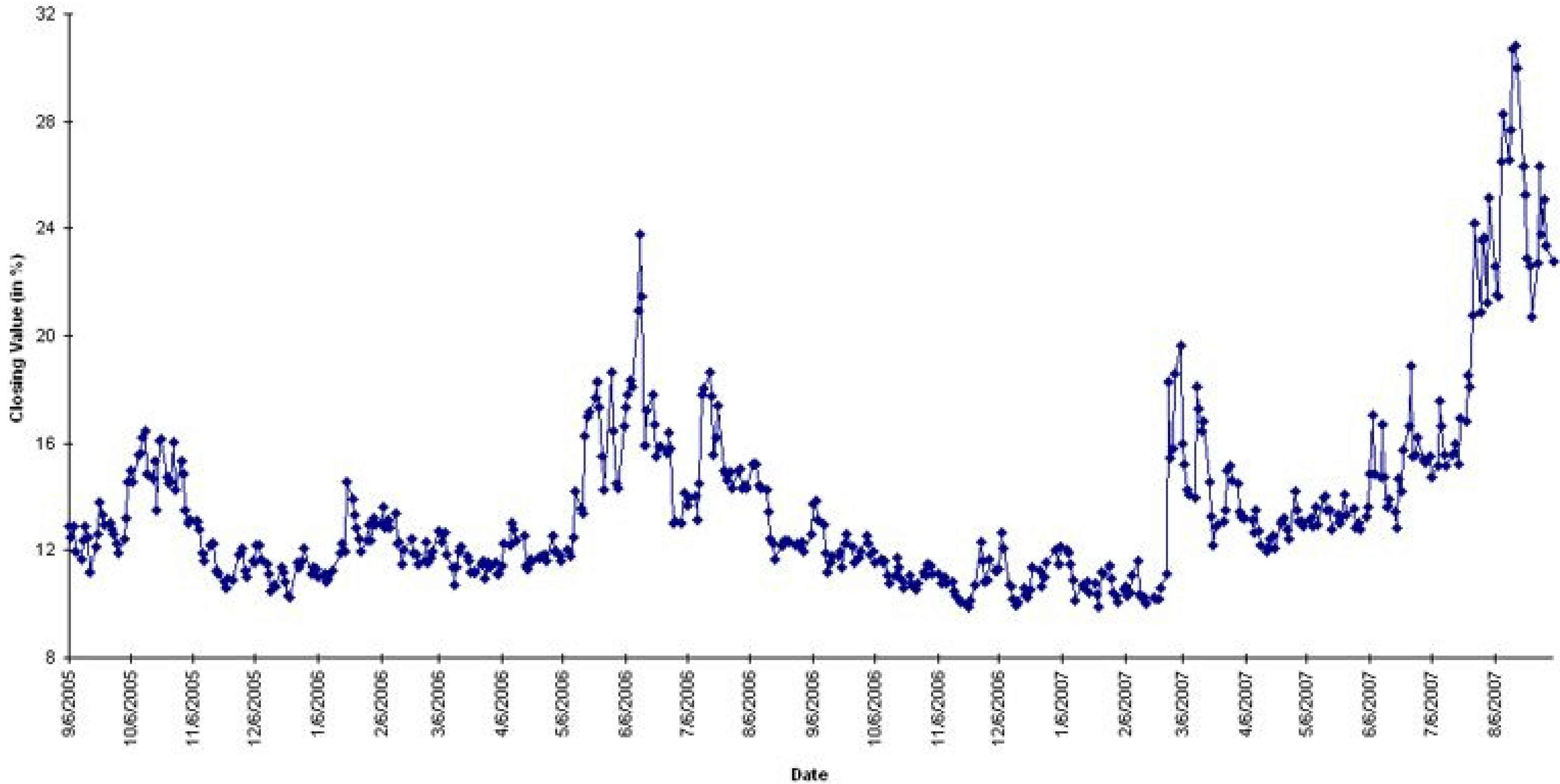
Scope of the Problem

Higher risks have now become reality. Home foreclosures surged 93 percent between July 2006 and July 2007. Estimates are that as of June 2007, 13.5 percent of all subprime mortgages with an adjustable interest rate were in serious delinquency, compared to roughly 1 percent of conventional mortgages. As approximately 60 percent of the $1.4 trillion in subprime mortgages have an adjustable interest rate, the serious delinquency/default rate and loss on ABS is presently in the neighborhood of $11.3 billion -- and growing.

Early August announcements of sizable losses on ABS by U.S. and European financial institutions were the initial signs of the subsequent financial market turmoil. Shortly thereafter the European Central Bank (ECB) and U.S. Federal Reserve announced they had

injected massive amounts of liquidity/reserves into their respective financial systems. The Federal Reserve initially increased reserves in the U.S. financial system, on a temporary basis, by roughly $24 billion or more than 50 percent.

The substantial liquidity/reserve injections by the ECB and Federal Reserve signaled that liquidity and credit problems were not narrowly contained, but instead were spreading rapidly. Without these reserve injections, key interest rates, such as the federal funds rate, would have spiked sharply as financial institutions scrambled to meet their legally mandated reserve requirements.



The ensuing financial market contagion can be seen in Charts 1 and 2. Chart 1 depicts the daily Chicago Board Options Exchange (CBOE) Volatility Index (VIX) during the last year. The VIX is a measure, expressed as a percent, of the expected riskiness of the S? 500 stock market index over 30-day horizons. Risks in this broad measure of large company stock prices more than doubled between mid-

July and early August and remains at a very high level.

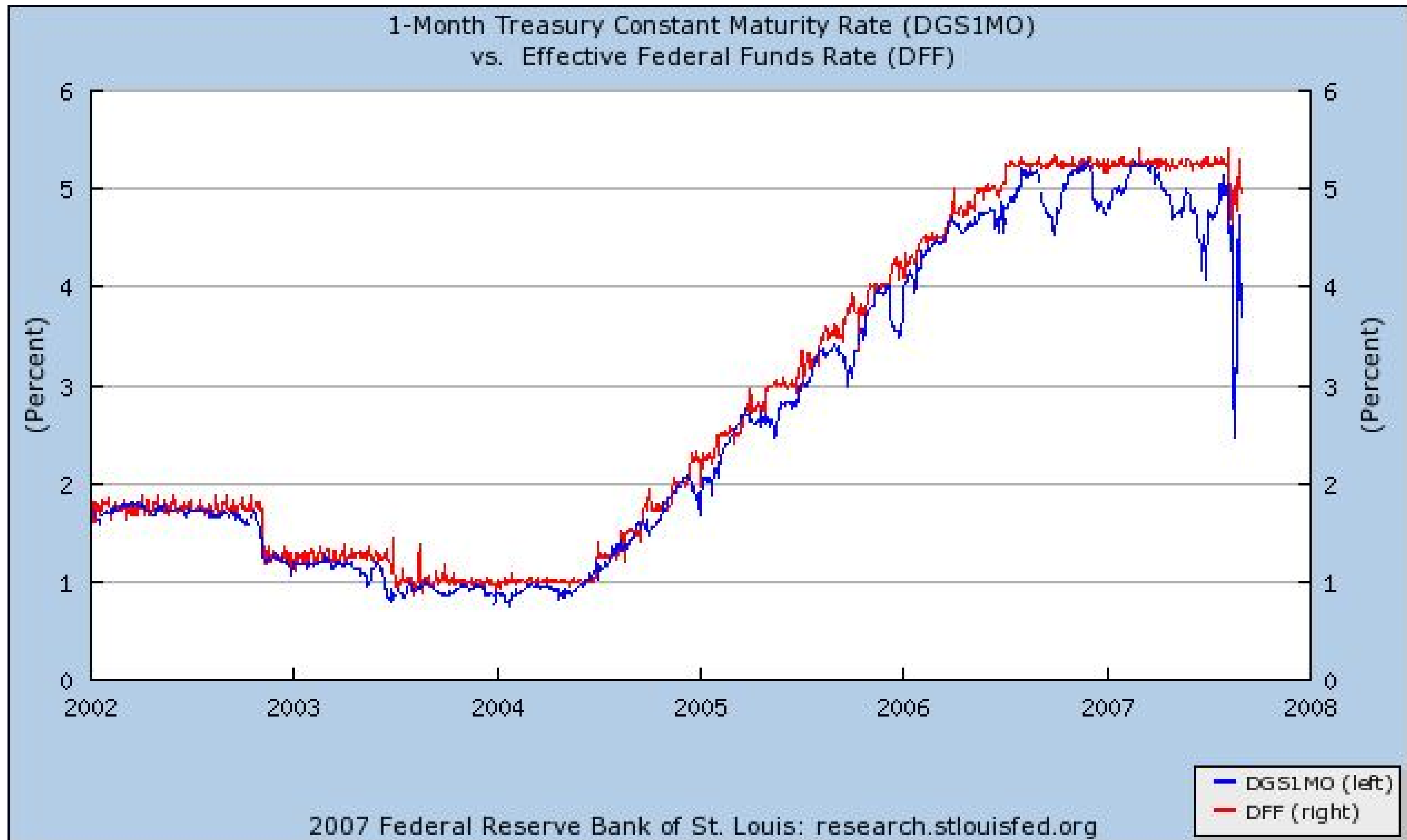


Chart 2 illustrates yields on one-month maturity Treasury bills and the federal funds interest rate -- the overnight inter-bank borrowing and lending rate controlled by the Federal Reserve. Generally, the Treasury bill rate closely tracks the federal funds rate. However, as investors rushed to safety by buying Treasury bills in August, the yield on these bills plunged by about 200 basis points (2 percentage points) compared to the federal funds rate, and the spread remains unusually high.

As investors re-evaluated their appetites for risk, the arcane asset-backed commercial paper market froze. This market, where companies issue and buy short-term debt, had become the favored financing device for so-called Structured Investment Vehicles -- subsidiaries of financial institutions that raise funds on a short-term basis and use the proceeds to invest in securities like ABS. The ABS are then used as collateral for borrowings in the commercial paper market. But with the market frozen, maturing commercial paper could not be renewed, requiring parent financial institutions to fill the obligations.

It was in this void that the Federal Reserve radically changed its Discount Rate policy. Since 2003, the discount rate -- the interest rate the Federal Reserve charges on short-term loans to member financial institutions -- had been set as a penalty rate one full percentage

point above the federal funds rate. Moreover, borrowing from the Federal Reserve was interpreted as a sign of weakness.

All of this changed when the Federal Reserve cut the discount rate by ½ percentage point to 5.75 percent, extended the length of borrowing from one to thirty days, allowed a wider range of permissible collateral including ABS, and signaled that borrowings would be viewed as a sign of strength. Borrowings from the Federal Reserve's discount window have since soared six fold from a weekly average of about $.25 billion to approximately $1.6 billion.

Implications for Florida

RealtyTrac.com reports the absolute number of foreclosures in Florida to be the second highest in the nation, and up 78 percent from July 2006. Scaled by the number of households, Florida's foreclosure rate is seventh highest in nation and 1.6 times the national average. In a related vein, Fortune magazine reported that for 2005, about 30 percent of all new mortgages made in Florida were of the subprime variety. These statistics, while not definitive, strongly suggest Florida's housing recession will deepen in the coming months and extend throughout 2008. Moreover, as the housing recession worsens, the associated job losses in home construction and related industries will expand. Downward pressures on housing prices will intensify, and these pressures will dampen consumer spending.

Even if the Federal Reserve cuts the key federal funds interest rate later this month, it will provide little immediate relief to homeowners strapped with subprime loans. Most of these loans are re-priced based on the cumulative change in interest rates rather than the most recent change. Additionally, borrowers and especially subprime borrowers seeking to refinance mortgages will find substantially more stringent lending standards than in 2005 - 2006.

Governor Crist's budget recommendations, released earlier this month, provide a small bright spot on the horizon for both mortgage markets and for the construction sector. Crist has asked the legislature to appropriate $50 million taken from the state's cash reserves to the Florida Housing Finance Corporation, to help first-time home buyers and low- to moderate-income Floridians with the purchase of a home. He also authorized expediting both the I95 Express Project, which will add additional toll lanes in Southwest Florida, and 10 separate ports improvement projects in the interest of stimulating the state’s economy.

Global and national financial market turmoil will remain an additional threat to economic growth in the U.S. and, unfortunately, especially to Florida. While the turmoil may fade in the coming months the combination of rising foreclosures, tighter lending standards, and falling housing prices will further constrain growth in the state's economy and make the prospects of recession greater.

By Stephen O. Morrell, Ph.D., Florida TaxWatch Senior Research Fellow and Professor of Economics and Finance, Andreas School of Business, Barry University, Miami Shores.

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Victoria Zepp, Executive Director, 850-212-5794, vzepp@floridataxwatch.org

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