WESTWOOD CAPITAL, LLC

RESEARCH

May 19, 2008

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Reading the Entrails

Highlights

- After a series of "it could have been worse" corporate announcements this earnings season, we are left reading the entrails of an economy still critically wracked with disease. Leading indicators—including loans to borrowers with questionable credit, the value of certain homes, default rates on consumer and residential loans, and the share price performance of financial and real estate businesses—have been the "canaries in the coal mine" of what will be a more broadly felt contraction.

- How do we know the present crisis is not limited to the sub-prime lending sector, which has produced nearly all losses recognized to date? What has convinced us that the impending hits to the lagging indicators will be severe enough to overcome the U.S. economy's inherent resiliency and the recent pickup in exports?

- Using an apocryphal American, suburban family and a "middle of the fairway" metropolitan area (Minneapolis), Westwood illustrates two issues that provide answers to the above questions:

  - The mainstream impact of the housing and debt crises on ordinary "prime borrower" American families, in terms of typical behavior during the boom years and the pressures caused by the dramatic change in economic fundamentals; and
  - The lagging nature of many aspects of the current decline, which bode poorly for the balance of this year and 2009.

- Extrapolating from a variety of data, we present conclusions regarding the need for the consumption and savings patterns of Americans to realign with the nation's ability to produce, and the difficulties inherent in the coming return to equilibrium.

Overview

After a series of "it could have been worse" corporate announcements this earnings season, we are left reading the entrails of an economy still critically wracked with disease. Some have taken to comparing what happened during the year's first quarter to what many experts say is impending, pronouncing the still-maturing crisis to be behind us. More sober observers appreciate that the debt-induced cancer of overly exuberant asset inflation is only starting to metastasize.

We have consistently noted that calling this ongoing downturn a "sub-prime crisis" is a misnomer at best. To the contrary, the problem that has overcome the economy is rooted in the nearly $7 trillion of new residential real estate and consumer debt created during the first six years of this decade—only a small portion of which could be categorized as sub-prime. Simply put, this level of debt creation was unprecedented, more than doubling the homeowner and consumer debt that existed in early 2000.

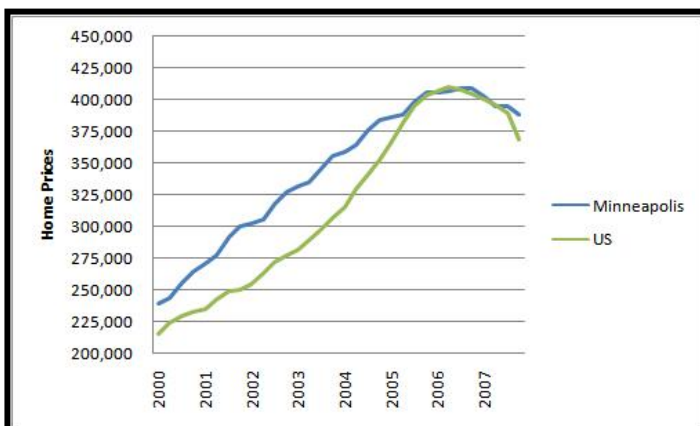
The extension of this mountain of debt was enabled by a prolonged period during which the Federal Reserve Bank maintained its target Fed Funds rate at or below the rate of inflation. The Fed's policy went well beyond offsetting the economic shock that followed the technology stock bubble crash in 2000 and the horrific impact of 9/11; it engineered a new, and quite dangerous, asset inflation bubble in residential real estate, as well as in the value of businesses and commercial real estate assets acquired with billions of dollars of leveraged acquisition loans and commercial real estate mortgages.

Historically speaking, asset and financial bubbles do not necessarily burst; they typically deflate—slowly, but inexorably, spreading throughout entire sectors and economies. Leading indicators—including loans to borrowers with questionable credit, the value of certain homes, default rates on consumer and residential loans, and the share price performance of financial and real estate businesses—have been the "canaries in the coal mine" of what will be a more broadly felt contraction. But as is typical (think back to the 1987 market crash), many of the economic areas and indicators ultimately affected will signal this impact on only a lagging basis. In the current downturn, such indicators include:

- Consumer spending
- Unemployment
- Non-export manufacturing
- Commercial real estate
- Commodity prices

While the above already reflect economic dislocation to a degree, we believe the worst is by no means behind us. The downwardly spiraling impact of these laggards on the leading indicators (such as housing and finance) will force further deterioration until a new, deleveraged economic equilibrium is achieved.

Where to Go for Answers to Critical Questions



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The answers can be found in Minnesota.

Statistically, the housing crisis' impact in Minnesota, according to the Case-Shiller Index of home prices in 20 metropolitan statistical areas (MSAs), is about 20% below the national average increase in home prices. The Minneapolis MSA saw home prices increase by 71.1% from January 2000 to their peak in September 2006, while the national increase averaged 89%. But as national housing prices started from a lower level in 2000, U.S. and Minneapolis MSA values topped out at around the same numbers, at roughly the same time. Median household income growth, as in most of the country, was negligible during this decade. In short, while not the poster child for the housing bubble (that would be the Miami MSA, where home prices inflated by more than 180% from January 2000 to December 2006), Minneapolis can be considered a reasonable proving ground for its eventual impact. Regional home prices have already declined by 14.5% from their peak through February 2008, and the price decline is accelerating on an annualized basis, paralleling the national averages.

Introducing our Protagonists – Mike and Minnie Sota

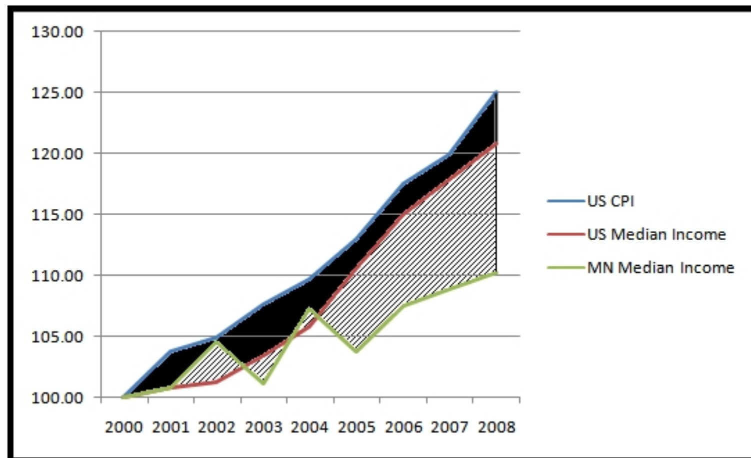
To evaluate the lagging impact of the housing and mortgage crises on the economy as a whole, we have avoided considering sub-prime borrowers and have instead focused on the apocryphal family of Mike and Minnie Sota, who reside in suburban Minneapolis. The Sotas and their two children live in a house purchased in September 2002 (the bubble's midpoint), valued in the 75th percentile of regional homes. The family is firmly in the middle class. They paid $327,000 for their home and financed it with a 15% down payment of $49,000 and a fixed-rate, 30-year mortgage loan for $278,000 at 6.59% interest, including mortgage insurance.

Mike and Minnie used all but $5,000 of their savings to come up with the down payment and, like the average American family with credit cards at the time, had an $8,700 outstanding credit card balance on a credit line of $15,000. They stretched to buy the home of their dreams, but their children—ages 2 and 5 in 2002—needed the space, and the Sotas had received a small gift from their parents to help with the down payment. In taking a fixed-rate, 30-year loan at an attractive interest rate, they comfortably assumed they would benefit from stable costs, modest increases in their combined annual incomes (totaling just shy of $100,000) and the continuing home price appreciation that seemed inevitable. They budgeted carefully, and their planning worked well in 2002. They were "prime" borrowers—the mainstay of the mortgage lending industry—with total housing costs equaling 30% of their gross income. Their mortgage loan was sold in due course to FreddieMac, having been deemed deserving of the U.S. government's implicit guarantee.

The Sota's buy their Dream Home - Sept. 2002	
Cost of Home	327,431
Down Payment(15%)	49,115
30 year Mortgage	278,316
Interest Rate	6.59%
Monthly Housing Costs	
Mortgage	1,776
Real Estate Taxes	250
Maintenance	208
Utilities	250
Total Monthly Costs	2,484
Annual Housing Costs	29,808
Annual Gross Income	99,359
Housing Costs as % of Gross Income	30.00%

The Sotas lived modestly. Their greatest non-housing-related costs were food ($7,800/year) and child care ($5,900). Mike's employer was generous in subsidizing most of their healthcare premiums, although less than in previous years; healthcare, including premiums, deductibles and uninsured expenses, cost the family about $3,200 a year. Gas

and utilities were still reasonably priced, with energy taking $5,600 of the annual family budget. Clothing expenditures were a light $2,000 per year, and the Sotas allowed themselves $2,750 per annum for vacations, gifts and charitable giving.



In 2003, Minnie's employer reduced her overtime hours, and the family's income declined by $3,300 (exactly tracking, percentage-wise, Minnesota's decrease in median household income that year—as do all income fluctuations in this scenario, with the exception of estimates for 2007 and 2008). With inflation over the prior year, the family needed to plug a $4,100 budget gap by occasionally drawing on their credit cards.

They were gratified, however, to see the investment in their home increasing in value. Their incomes recovered, and then some, in 2004. But continuing inflation left the family short by $2,200, which they again made up through credit card borrowing.

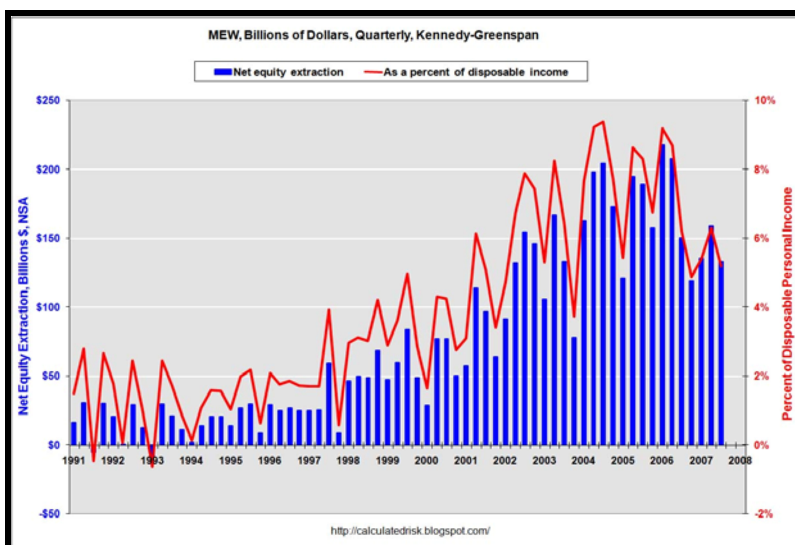
Debt Man Knocking

Toward the end of 2004, the Sotas became increasingly aware of their home's rising value. Their equity had more than doubled in two years, and they were besieged by lender offers of home equity lines of credit (HELOCs). With more than $117,000 in home equity at year's end, they arranged for a $50,000 home equity loan to help pay down their credit card balances and provide additional funds for delayed purchases. They drew down $25,000 of their HELOC, paid off nearly $15,000 in credit card balances, and bought $4,000 in new furniture and a $2,000 flat-screen television. For Christmas, Mike spent $1,000 on earrings Minnie loved, and the family even had a bit of cash left over.

With no outstanding credit card balances and $25,000 remaining on their HELOC, the Sotas felt very comfortable. While inflation through 2005 and slightly less disposable income led to a $5,600 gap in the family budget, the Sotas remained unfazed when their original home equity nearly tripled to $145,000. The home for which they paid $327,000 in 2002 was worth more than $410,000 only three years later, and it seemed values would continue to rise.

The Sotas' income increased by 3.7% in 2006, and they were feeling grand. They used their HELOC to plug the 2005 gap, and Mike bought the $15,000 bass boat he had been eyeing for years. Interest charges on the HELOC were lower than the payments they had previously made on their credit card balances; while they continued to spend more than they earned (by about $5,300 in 2006), they felt confident that further home appreciation and salary increases would see them through. With $10,000 remaining on their HELOC and no credit card balances to speak of, the family appeared to be doing well.

Breaking Open the Piggy Bank: The US Home as ATM



From 2004 to 2006, Americans took almost $700 billion per annum of net equity out of their homes through borrowing and spent as much as 50% of it on consumables. The most highly regarded study on mortgage equity withdrawals (MEW) is "Estimates of Home Mortgage Originations, Repayments, and Debt On One-to-Four-Family Residences," by Prof. James Kennedy and none other than Alan Greenspan (Federal Reserve Board FEDS working paper No. 2005-41); Kennedy has been updating his numbers on an ongoing basis, as set forth in the adjacent graph.

In addition to the wealth effect resulting from the housing bubble, Kennedy has concluded that MEW, at its peak, constituted as much as 8% of all disposable personal income and a correspondingly higher percentage of non-housing spending.

The Beginning of the End

And then came 2007. As we will see with the Sotas, while MEW substantially decreased nationwide in 2007, it still amounted to well over $100 billion per quarter, and its effect is only now being scrubbed out of the 2008 economy's performance—one of the major causes of the decline in consumer spending.

While the Sotas' 2007 income slightly exceeded the prior year's, rapidly rising inflation and their increased HELOC balance began to take their toll. More critically, by early 2007, the Sotas realized home prices had stalled in the Minneapolis area and were even rumored to be declining. While they had no choice but to tap their HELOC once again to plug the hole in their family spending (they drew down $5,000), the kids were dying for a trip to Disney World, and they spent $2,000 of their HELOC draw to accommodate this demand.

By fall, the Sotas started to read about the crises in the housing and credit markets that was building during the latter half of 2007, and they became concerned. Nonetheless, they found it quite difficult to cut back on the lifestyle to which they had become accustomed (by no means excessive relative to middle-class standards of the decade). But 2007 left them with a $6,500 shortfall; as when they obtained their home equity line, the Sotas were about to be forced to hit their credit cards, as they had exhausted all but $5,000 of their HELOC.

By the beginning of 2008, their home was worth $362,000, and the remaining equity in it had declined. After reducing their first mortgage's balance to $253,000 (from the original $278,000), but adding the $50,000 HELOC balance (the last of which was taken down early this year), the Sotas' net

equity was back to $54,000—only slightly more than their original investment of $49,000. They, of course, had no ability to obtain any more credit against their home, and the only way the Sotas could meet their obligations by early 2008 was through additional credit card borrowings.

By February, the Sotas' house had fallen in value to $350,000—down 14.5% from its peak value, and still falling at a pace of 3.4% from the month prior. That it will eventually fall another 5.5% from peak value (for an aggregate decline of 20%) and be worth less than the Sotas originally paid for it is practically a foregone conclusion. If the local market falls by 25% from peak values, the Sotas—prime borrowers who did all the "right" things in buying their dream home—will be underwater relative to their total mortgage debt. And at the current pace, this could occur by fall.

Losing the Inflation and Consumption Battle - The Sota's Family Income and Expenses

	2002	2003	2004	2005	2006	2007	Projected 2008
Gross Income	**99,359**	**96,087**	**102,055**	**98,619**	**102,250**	**102,866**	**103,592**
Payroll and Income Taxes	(32,396)	(31,200)	(33,523)	(31,709)	(32,774)	(32,959)	(33,190)
Disposible Income	**66,963**	**64,887**	**68,533**	**66,911**	**69,476**	**69,907**	**70,402**
Housing ex. HELOC	26,808	26,890	26,929	26,995	27,228	27,311	27,405
HELOC Interest	0	0	0	2,250	3,600	4,050	4,500
Utilities	3,000	3,321	3,550	4,139	4,847	4,988	5,856
Credit Card Payments	2,418	3,573	4,186	1,554	0	0	1,828
Auto Lease Payments	4,800	4,982	4,997	5,322	5,578	5,667	6,137
Healthcare Premiums	2,400	2,520	2,646	2,778	2,917	3,063	3,216
Unreimbursed Healthcare	800	840	882	926	972	1,021	1,072
Food	7,800	7,917	8,194	8,407	8,601	8,790	9,212
Clothing	2,000	1,964	1,923	1,919	1,898	1,915	1,909
Childcare	5,900	6,030	6,126	6,218	6,367	6,514	6,709
Life and Auto Insurance	1,250	1,291	1,311	1,343	1,385	1,427	1,474
Gas	2,600	2,878	3,077	3,588	4,201	4,323	5,075
Meals and Entertainment	3,900	4,029	4,089	4,191	4,321	4,451	4,598
Gifts	500	517	524	537	554	571	589
Charity	250	250	250	250	250	250	250
Vacations	2,000	2,022	2,044	2,059	2,081	2,102	2,119
Total Expenses	**66,425**	**69,024**	**70,729**	**72,477**	**74,801**	**76,441**	**81,949**
Savings (Deficit)	**538**	**(4,137)**	**(2,196)**	**(5,567)**	**(5,325)**	**(6,534)**	**(11,547)**
Cumulative Change in Gross Income	-	-3.29%	2.71%	-0.75%	2.91%	3.53%	4.26%
Cumulative Change in Expenses ex HELOC and Credit Cards	-	2.25%	3.96%	7.29%	11.24%	13.10%	18.14%

Impact on Spending and Lifestyle

Of course, the Sotas, who have a reasonably priced mortgage and started this cycle with a respectable equity cushion, are unlikely to become victims of foreclosure; they will struggle on, making their mortgage payments as they should. But let's look back at their spending levels and what they must do to make ends meet. At their current pace, with inflation in food and energy taking an even heftier bite of their income (which increased only about 8% from 2001 through today), the family will fall short by some $11,500 if they maintain their historic level of consumption (excluding the special purchases for which they used their home equity). This will exhaust their remaining credit card borrowing power and leave them with precious little remaining liquidity.

If the Sotas fail to modify their spending habits over the next few months, they will most certainly have to do so later this year. If they don't retrench sooner, they will increase their credit

card payments by an additional $2,500 per year, on top of the $11,500 spending deficit they currently face. And at some impending point, all nonurgent spending—in sectors like apparel, travel, gifts, summer programs, some food and possibly even healthcare—will cease. Of course, there will be no more debt-financed purchases of TVs, jewelry, boats and furniture.

Easy Come, Easy Go - The Sota's Scorecard for the Housing and Credit Bubbles							
	2002	2003	2004	2005	2006	2007	2008
Home Equity before HELOC	49,115	57,046	86,855	117,352	145,192	141,419	104,968
HELOC Balance	0	0	0	25,000	40,000	45,000	50,000
Home Equity after HELOC	49,115	57,046	86,855	92,352	105,192	96,419	54,968
Credit Card Balances	8,658	12,796	14,991	5,567	0	0	6,547
Cash on Hand	5,000	5,000	5,000	8,009	8,009	5,474	5,474
Other Property	0	0	0	5,000	20,000	20,000	20,000
Approximate Net Worth	45,456	49,251	76,863	99,793	133,201	121,893	73,895

Based on our model, the Sotas may have to cut back on non-housing, non-healthcare-related spending by a full 25% this year (over 2005–2007 figures) to balance their household budget. Such a reduction doesn’t take into account their inability to spend roughly $8,000 a year from HELOC draws to which they no longer have access. In total, our apocryphal family will need to scale back spending patterns by $19,500 a year (versus 2005–2007 spending), or they will hit the wall financially. The Sotas will, of course, receive some help this year from their share of the one-time $1,800 handout ($600 per adult, plus $300 per child), courtesy of President Bush and Congress. But this will offset a mere 10% of the hit to the economy caused by a reduction in the Sotas' previous levels of spending.

Moving Beyond One Family: The Broader Impact

Extrapolating what we believe to be a model of a typical, “prime,” middle-class family caught up in the housing and credit crises, covering the general U.S. economy requires consideration of the following:

- There are about 55 million U.S. homes with mortgages—about 67% of all owner-occupied homes and just under 50% of all American households (factoring in renters). Of these, 20% with sub-prime or Alt-A loans are likely in far worse shape than the Sotas. While there are also several million homeowners with considerable savings and other means to get through this period without substantially cutting back on spending, we believe they are a significant minority given the overall population’s decimated savings rate.

- The Minneapolis MSA, on which we have focused, is meant to be conservatively representative of the U.S. housing and credit bubbles’ average impact. Of the 20 MSAs surveyed by Case-Shiller, 11 were more acutely impacted by the bubble economy than was Minneapolis, with huge metropolitan areas like New York, Los Angeles, San Francisco, Miami and Washington, DC, seeing housing bubbles of 100% to 180% from 2000 to 2006. Arguably, the impact the Sotas felt would be more severe in areas with bigger housing bubbles. This is offset somewhat by the Minneapolis MSA’s lower growth in median household income, as compared to the nation as a whole, so homeowners in the more bubbly MSAs likely saw higher-than-average growth in gross income (though still negative, in real terms).

- If the Sota model represents a fair average of the 55 million U.S. mortgagors, which we believe it does, anticipated cutbacks in consumer spending could potentially approximate $1 trillion in U.S. non-housing-related annual consumer spending. Between 2000 and 2006, such spending averaged about $4 trillion per year, so, adjusting for a few factors, the full force of this retrenchment could be a nearly 20% decline in non-housing consumer spending (ignoring inflation)—a devastating result we certainly hope to avoid, but even half of which will deliver a severe recession. It is important to remember that consumer spending constitutes 70% of the U.S. gross domestic product.

This report is an attempt to assess the impact of future economic elements that have yet to show more than modest declines. It is clear to us that consumer spending will be vastly curtailed as the housing and mortgage crises continue, exacerbated by substantial increases in food and fuel costs. In fact, as demonstrated here, consumer spending must decrease even if home prices were to stabilize or increase slightly. Corporate earnings—especially for companies with a primarily domestic customer base—will continue to face great pressure, which by year's end will take a much more serious toll on employment than we have experienced to date. What little is left of the non-export-oriented domestic manufacturing sector will shrink further, and the demand for commercial real estate—particularly retail and hospitality-leisure properties—will slacken considerably (effecting its own mortgage crisis). Commodity prices will remain volatile, while demand in developing parts of the world will continue to increase and consumption in the world's largest economy will eventually decline, creating inevitable (although possibly short-term) price anomalies.

Conclusion

The housing and mortgage crises will likely erase $1 trillion of mortgages'/mortgage securities' balances. The lagging impacts detailed here will see a knock-on of another several hundred billion at the risk of a multiyear downward spiral. And what is painfully clear is that the foregoing is not at all priced into the equity markets.

When the history of the first six years of this decade is eventually written with sufficient hindsight, we believe economists will conclude that the ephemeral prosperity of the 2000s was merely a bubble floating on an ocean of "easy-money" debt. The decade's legacy will reflect only two years in ten during which prevailing "real" interest rates exceeded the rate of inflation. Even Prof. Friedman would be horrified.

Today, the only U.S. sovereign obligation with an interest rate in excess of inflation is the 30-year Treasury bond. The U.S. economy cannot be resilient and well if the only way it survives is through nearly continuous infusions of free or nearly free money.

Former Federal Reserve Chairman Paul Volcker, who history will likely record as the most accomplished chair since the country came off the gold standard, spoke in April to the Economic Club of New York. In his remarks assailing the misguided policy and regulatory environment that created the housing and credit bubbles, he noted that "the excesses of the market are surely being penalized….the transient pleasures of extreme leveraging have been exposed. By force of circumstances, the nation's spending and consumption are being brought in line with our capacity to produce."

Knowing what lies ahead apparently gives Volcker considerable pause. He is well aware that the only things “behind us,” at this juncture, are our naiveté and some serious policy errors.

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