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CAMBRIDGE ASSOCIATES LLC

U.S. MARKET COMMENTARY

THE DÉNOUEMENT BEGINS

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Seth Hurwitz
Jessica Diedzic

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A Changed Landscape

The U.S. investment environment has undergone a sea change in the last six months. The S&P 500's steady if uninspiring 5.5% return in 2007[1] obscures the tumult that marked the second half of the year. Whereas the first part of 2007 was marked by easy credit, low volatility, and narrow spreads, the story over the next six months was the puncture of the housing bubble, illiquidity, high volatility, blown-out spreads, and, of course, the start of the inevitable litigation seeking redress for losses. While the endgame for U.S. equities is of course uncertain, it seems clear that tough times are ahead.

At the start of 2007 we viewed U.S. equities as overvalued even though the S&P 500's trailing price-earnings (P/E) ratio was only slightly above its long-term mean. Our reasoning was based on the fact that the trailing P/E ratio (as opposed to normalized ratios, which told a different story) primarily reflected a belief that already inflated earnings would continue to grow at an exceptionally high rate rather than revert to historical trendline levels. Subsequent events have only reinforced our belief that U.S. equities are overvalued. For example, after having topped 12% for 14 consecutive quarters, operating earnings growth for S&P 500 stocks dipped to slightly under 10% in each of the first two quarters. In the third quarter, earnings growth *was negative* for the first time since the beginning of 2002, and an 8.3% drop is estimated for the fourth quarter. For the year, operating earnings growth is estimated at only 2.3%.

Despite the sharp decline in earnings growth, P/E ratios are little changed from levels at the start of the year. The trailing P/E ratio has risen 6.0% to 18.4, about twice the level of operating earnings growth, but remains within 1 standard deviation of its long-term average (Table A). While the normalized real P/E ratio of the S&P 500, which smoothes out multi-year earnings, fell to 25.4 from 26.9, its lowest level since June 2006, it is still 1.3 standard deviations above its long-term average (Table B). Real earnings also remain well above their historical trendline (Table C). As for small caps, the real normalized P/E ratio for the Russell 2000® remains high (32.9) even though it has dropped to less than 1 standard deviation above its long-term mean (Table D).

In short, valuations appear high given the fact that the United States has apparently entered the downside of the corporate profit cycle and faces a possible recession. While we continue to believe that there are pockets of value, such as high-quality and mega-cap stocks within U.S. equities, as a whole we still consider the asset class overvalued.

[1] Other than for purposes of comparison we focus on large caps in this commentary. U.S. small caps performed very poorly in 2007, with the Russell 2000® Index returning -1.6%.

Performance Drivers

Drivers in 2007

U.S. equities posted positive returns in 2007 for the fifth consecutive year, but there were some significant changes in the pattern of returns. Not only did growth and large caps outperform, the extent of the reversal was striking. Whereas value had outperformed growth for seven consecutive years—during which time the average annual compound return (AACR) of value stocks in the Russell 3000® was 12.9 percentage points greater than that of growth stocks in the index—Russell 3000® growth stocks outperformed their value counterparts by 12.4 percentage points in 2007.[2]

Large-cap outperformance was significant as well, although not to the same degree as growth. After having underperformed the Russell 2000® every year but one from 1999 through 2006, with an AACR that was 5.6 percentage points lower than that of small caps, the Russell 1000® outperformed the small-cap index by 7.3 percentage points in 2007.

Operating earnings per share are estimated to have grown 2.3% over the past year, compared with 15.8% in 2006. Although earnings in seven of the ten economic sectors are expected to be less than forecast at the start of 2007, the decline in operating earnings growth is primarily attributable to financials and consumer discretionary stocks. Operating earnings per share in these sectors are estimated to have fallen by 16% and 3%, respectively, from 2006 levels, but have grown by at least 4% in all other economic sectors.

Future Drivers

Of course, regardless of what happens in 2008 with respect to operating earnings growth, investors could benefit if valuation multiples expand. Indeed, some analysts believe continued easing by the Fed will lead to an expansion of multiples. However, it would be a stretch to assume that any such expansion is sustainable at a time when the credit crunch will likely continue to drive up the cost of capital. Moreover, expansion would appear less likely during an economic slowdown.

Consensus estimates are for operating earnings to grow a robust 14.7% in 2008. Since September estimates have risen significantly, as expectations for 2007 were lowered (Table E). It is harder than usual to place much stock in these notoriously unreliable estimates. For starters, the assumption that earnings will increase in seven sectors and remain flat in another two at this late stage of the economic and earnings cycle is questionable. And given that write-downs related to subprime debt appear far from over (more on this later) and that the credit squeeze is impacting deal and lending activity, the idea that operating earnings per share for the financial sector will grow by 18.7% (with earnings of diversified financials alone growing by 30.3%) and account for 29.4% of 2008 operating earnings growth seems to be wishful thinking. The fact that

[2] From 2000 to 2006, value outperformed growth by 12.7 percentage points and 16.4 percentage points in the Russell 1000® and Russell 2000® indices, respectively. In 2007, growth outperformed value by 12.0 percentage points and 16.8 percentage points in the Russell 1000® and Russell 2000® indices, respectively.

consensus estimates for *2007* earnings growth in financials dropped 8.5 percentage points (to -15.6% from -7.1%) *in the last month alone* (from November 30 to December 28) is not reassuring.

As for other expected drivers, operating earnings per share of information technology stocks, which now constitute almost as large a share of the S&P 500 as do financials, are estimated to grow 18.7% (compared with 17.3% in 2007) and to contribute 15.7% of overall earnings growth. However, this estimate assumes continued strong demand for technology from financial firms, which may not ensue if the financial sector continues to struggle. Interestingly, net insider sales in the tech industry rose sharply in October and November. Meanwhile, operating earnings per share of consumer discretionary stocks are estimated to increase by 21.2% and contribute 10.8% of total earnings growth. Again, this looks overly rosy given where we seem to be in the economic cycle.

Housing and Financials: The Big Question Marks

Any chance of hitting the projected earnings growth numbers appears contingent upon avoiding a recession and resolving the housing and financial crises.

Housing

House prices had been dropping well before 2007 began. Although the homebuilding sector returned -4.1% for the first five months of the year, the rout did not begin until the summer, when the subprime crisis gathered full force. From June through November the S&P Homebuilders Index returned -47.2%.

The magnitude of the retreat reflected not just an anticipated slowdown in homebuilding, but the shakiness of the new debt structures and vehicles that had been created to originate, package, distribute, and account for the mortgages that fueled the housing boom. Accordingly, while valuations on lower-rated subprime mortgage-backed securities had already dropped precipitously when the markets hit a rough spell in February, the value of *all* tranches of subprime debt fell dramatically once the summer began (as far as anyone could tell, since most of it now appeared untradeable!) as investors struggled to understand just who held what debt and how much it was worth. The tranche of the ABX Index that measured the value of AAA-rated bonds made up of subprime mortgages issued in the second half of 2006 did not trade below $99 (per $100 dollar face amount) until July 2007. It now trades at $86.84. The AA-rated tranche can be had for $62.15 while BBB-rated debt (investment grade!) is worth $20.49—*one-fifth* of its face amount.

Returns on investments in single-family homes, which had already been decelerating for well over a year, dropped into negative territory (on a year-over-year basis) by January 2007 (Table F). Median home prices fell in 2007 for the first time since the Great Depression. The percentage of vacant homes for sale is at a record high and rates on an estimated $500 billion of mortgages are scheduled to reset in 2008. Given the tightness in the credit markets and the clear need to unwind the excesses of the housing bubble it is difficult to be optimistic about the housing sector as we look ahead to 2008. The *Financial Times* reported in mid-

December that derivatives trading on the Residential Property Index implied a further 8.2% drop in prices next year and many observers expect continued price declines in 2009 as well.

The Financial Sector

The reasoning behind the rosy scenario for financials (estimated operating earnings growth of 18.7%) seems strained. While just how much bad debt is out there, who owns it, and what the markdown will be remains vague, it has been clear since mid-year that the major U.S. financial institutions are highly exposed, both directly and through structured investment vehicles (SIVs) created to take this debt off their balance sheets. The cost of protection on debt issued by these banks blew out during the second half of the year (Table G) and various banks have already announced multi-billion-dollar write-downs, most notably Citigroup and Morgan Stanley.[3]

Whether or not subprime mortgage–related write-offs will reach the hundreds of billions predicted by many observers (a range of $200 billion to $400 billion worldwide is a common estimate),[4] the workout for U.S. financial institutions appears to have quite some room to run. This seems evident by the banks' own reluctance to lend each other short-term money, which has led the Fed to take extraordinary measures (also taken by the European central banks) to ensure that funds are available in the interbank market.

U.S. financial firms are in fact struggling with capital issues, as evidenced by their issuance of a record amount of equity in the second half of 2007. U.S. investment banks alone received $18.7 billion in investments from Asian and Middle Eastern sovereign wealth funds during the last five weeks of the year (Table H). As for future business profits, the mortgage and high-yield markets are moribund and the structured and securitized products industry is under siege. Meanwhile, the mergers and acquisitions market, despite hitting a record $1.57 trillion in 2007, was 41.4% smaller in the second half of the year than in the first six months as a result of the credit crunch. The P/E ratio of financial firms included in the S&P 500 has dropped to 11.4 from 14.3 a year ago.

In fact, the private equity firms and hedge funds whose fund raising and activity provided such a boost to the market now face their own period of reckoning. The low volatility and easy credit that made these firms' models so compelling just a year ago have vanished. Thus, the VIX, a measure of the volatility of S&P 500 options that averaged 13.2 from January through June 2007 (only a shade higher than its 2006 average), was 21.8 during the second half of 2007, comparable to levels seen in early 2003 (Table I). With credit tighter, the record $44 billion leveraged buyout of TXU in early 2006—let alone the talk at the time of $100 billion deals—seems like something that happened ages ago; a J.P. Morgan analyst opined recently that we are unlikely to see even a $10 billion public to private transaction in 2008. Unlike banks, private equity

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[3] Citigroup wrote down $6.5 billion in the third quarter and estimated in November that it would write down another $8 billion to $11 billion in the fourth quarter. Morgan Stanley will write off at least $9.4 billion in the fourth quarter, a figure that includes $1.2 billion of write-downs related to European nonconforming loans, commercial mortgage-backed securities, ALT-A, and nonperforming and other loans.

[4] It is worth noting that non-U.S. institutions, particularly in Europe, are exposed to U.S. subprime mortgages. According to the January 2, 2008, *Financial Times*, "Wall Street banks and other financial institutions have written off some $100bn of losses in a matter of months."

firms do not have reserves, making them especially vulnerable to defaults. A number of firms have backed out of deals and the industry as a whole will be tested in next couple of years, with potentially negative implications for the public equity markets.

Broader Concerns

Despite annualized GDP growth of 4.9% in the third quarter, the U.S. economy appears to be slowing. Problems in the housing and financial markets must be viewed in this broader context. Falling home prices threaten to put a serious crimp in the spending habits of that seemingly perpetual optimist, the American consumer. Homeowners' inability to borrow easily on the basis of their major asset would likely have a major impact on consumption, which accounts for 72% of U.S. GDP. That assumes, of course, that credit is even available. Spreads have blown out as a result of the reversal of formerly lax attitudes toward risk. The Fed is so concerned that it has lowered target rates by 100 basis points since August despite the fact that inflation is rising.[5]

Public angst is such that the Bush administration and Congress are seeking ways to ameliorate conditions in the financial and housing markets. While the Treasury's proposal to set up a new vehicle to hold SIVs appears dead, plans to freeze mortgage rates and resets are still being bruited about. The various proposals may serve to lessen the serious risks in the economy in the short term, but they do raise moral hazard issues and could potentially introduce inequities into the system and/or delay a full workout of past excesses, causing longer-term problems for the economy and the public equity market.

Conclusion

Where does all this leave us *vis-à-vis* U.S. equities? Well, sort of between a rock and a hard place. We continue to consider U.S. equities overvalued. The U.S. appears to be on the downside of an earnings cycle, with slower economic growth and the distinct possibility of recession. Indeed, mortgage activity is so depressed that Markit, which created the ABX Index used to value subprime debt, has announced a three-month postponement of the roll of the index due to the fact that only five deals in the second half of 2007 qualified for inclusion. The repricing of debt across all credit markets, meanwhile, indicates that the debt crisis is not confined to subprime. Indeed, many would argue that subprime is just the tip of the iceberg and that there could be even larger write-offs in other debt markets. There is palpable fear, for example, of a spillover into commercial property. Not surprisingly, therefore, we are skeptical about bullish consensus earnings estimates for 2008, particularly with respect to financials. It is also worth mentioning that the pressures on the U.S. dollar magnify risk for unhedged non-U.S. investors.

[5] Indeed, consumer prices were up 4.3% in November 2007 compared with a year earlier, the largest 12-month increase since 2004–05. A University of Michigan survey in December 2007 showed that U.S. consumers have a 3.5% inflation expectation for 2008. Treasury Inflation-Protected Securities prices, however, imply a rate of 2.3% for the next five years, which is unchanged from a year ago.

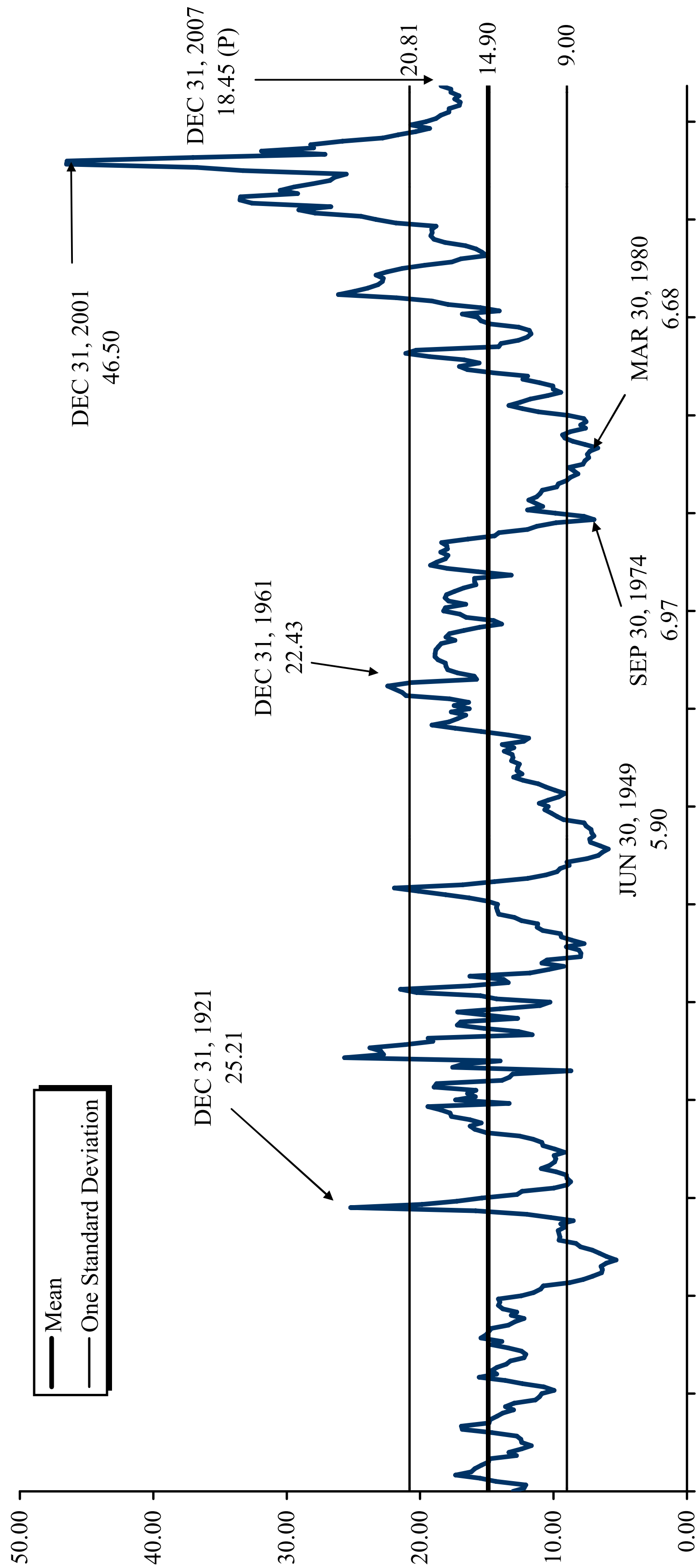
On the other hand, we do not advocate a substantial tactical underweight to U.S. equities, as we believe most other equity markets, and asset classes in general, are overvalued as well. Moreover, we tend to believe that markets today are *more* rather than less tied together, meaning that markets outside the United States will suffer should the U.S. economy go into recession, as seems increasingly likely. In addition, we continue to adhere to the view that there are tactical opportunities within U.S. equities. We note that during the difficult second half of 2007 investors sought safety in larger stocks, particularly large-cap growth, and affirm our oft-discussed preference for high-quality and mega-cap stocks.[6]

[6] See, for example, our August 2006 and March 2007 Market Commentaries, respectively, *The Unloved Mega-Caps* and *It's Getting Late—Risks Are Rising*.

Table A

S&P 500 PRICE-EARNINGS RATIOS

March 31, 1900 – December 31, 2007



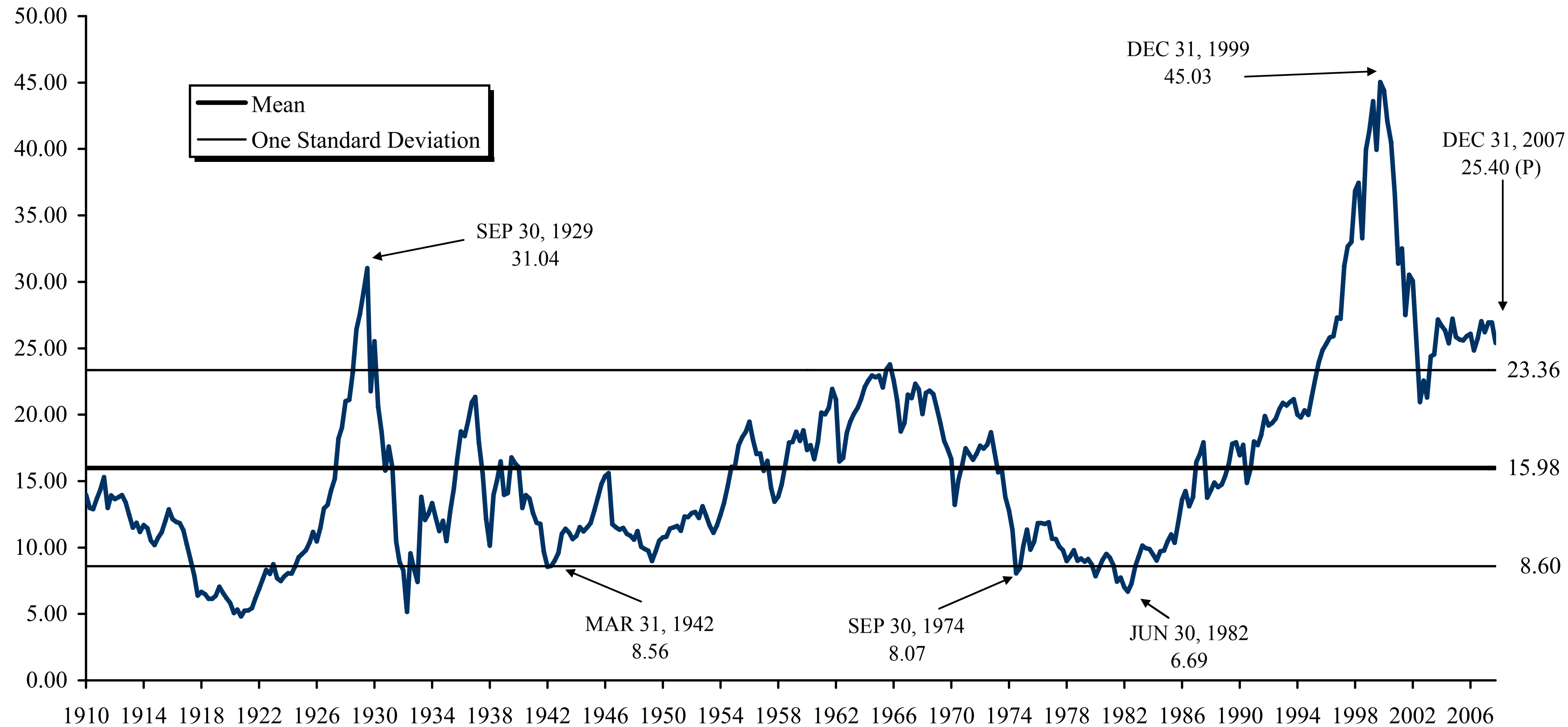
Sources: Calculated from data provided by Standard & Poor's, Standard & Poor's Compustat, and *The Wall Street Journal.*

Notes: (P) Preliminary. Graph represents quarterly data through December 31, 2007.

Table B

S&P 500 NORMALIZED REAL PRICE-EARNINGS RATIOS

March 31, 1910 – December 31, 2007



Sources: Calculated from data provided by Standard & Poor's, Standard & Poor's Compustat, U.S. Department of Labor - Bureau of Labor Statistics, and *The Wall Street Journal.*

Notes: (P) Preliminary. Normalized real price-earnings ratios for the S&P 500 are calculated by dividing the current index value by the annualized average real earnings for the trailing ten years. CPI-U data are through November 30, 2007. Graph represents quarterly data through December 31, 2007.

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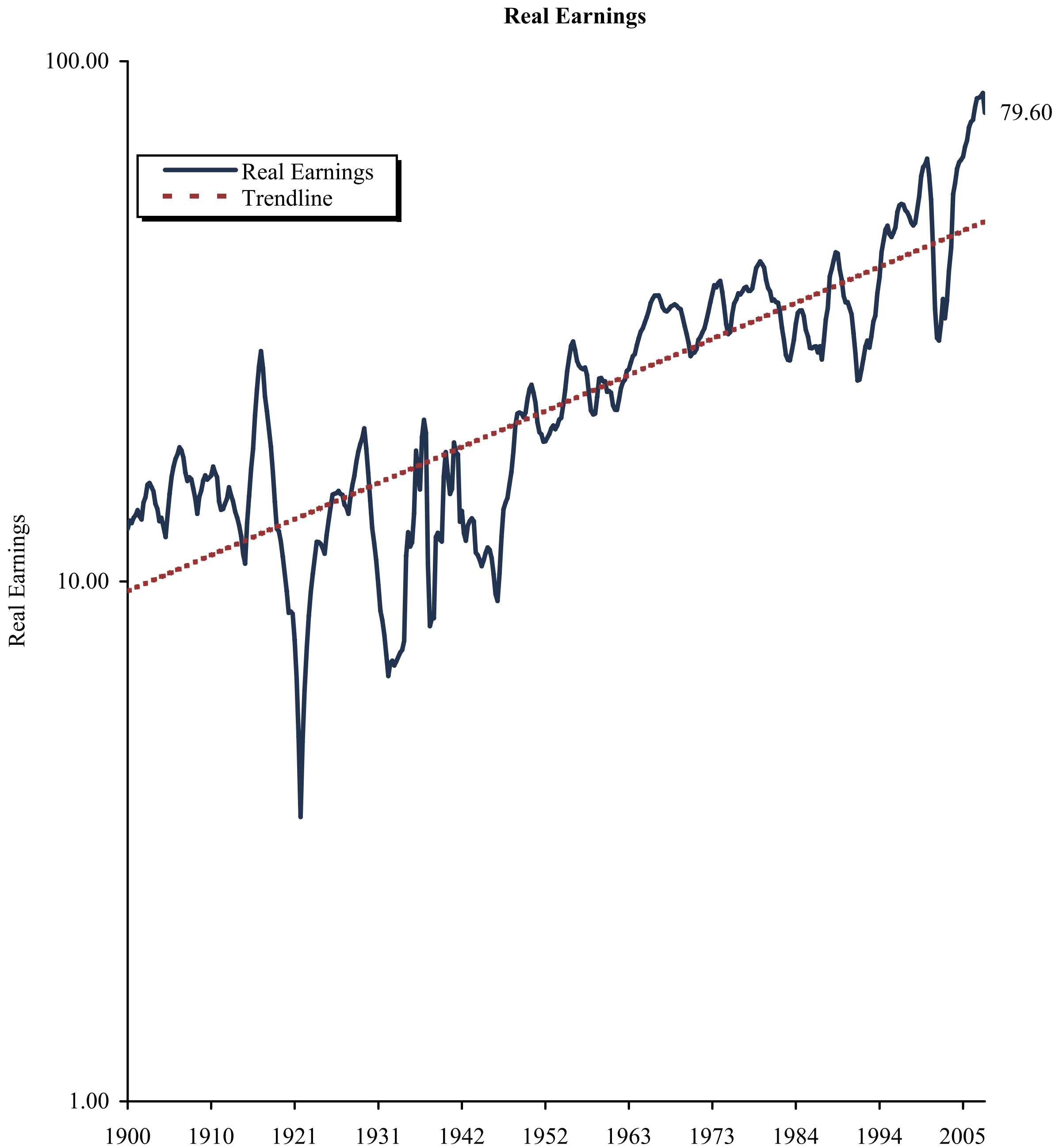
Table C

S&P 500 REAL EARNINGS SINCE 1900



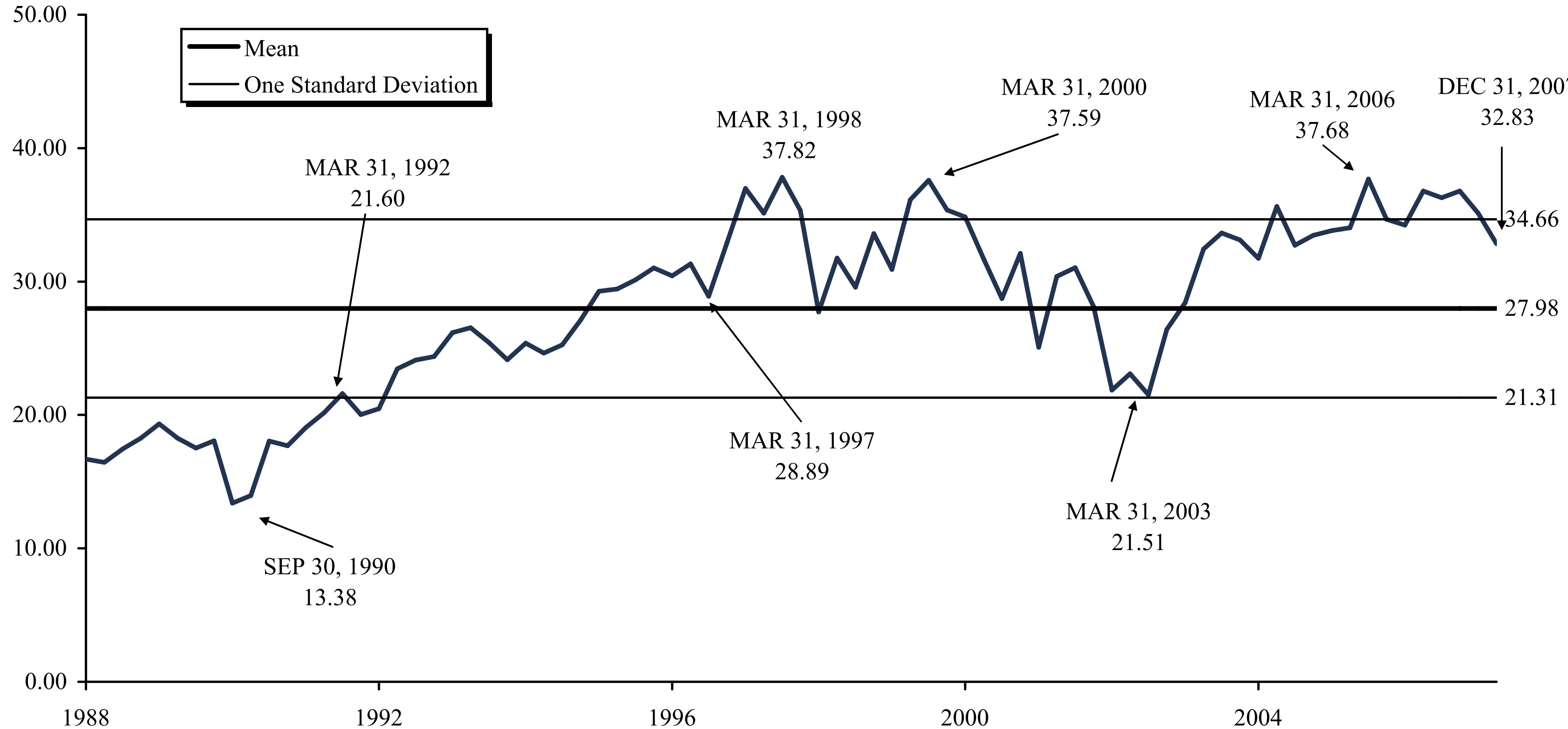
Sources: Calculated from data provided by Standard & Poor's, Standard & Poor's Compustat, U.S. Department of Labor - Bureau of Labor Statistics, and *The Wall Street Journal.*

Notes: Graphs for real earnings and price levels are shown in logarithmic scales. Real price levels are calculated based on November 30, 2007 dollars. Data are through December 31, 2007, and are preliminary.

Table D

RUSSELL 2000® NORMALIZED REAL PRICE-EARNINGS RATIOS

September 30, 1988 – December 31, 2007



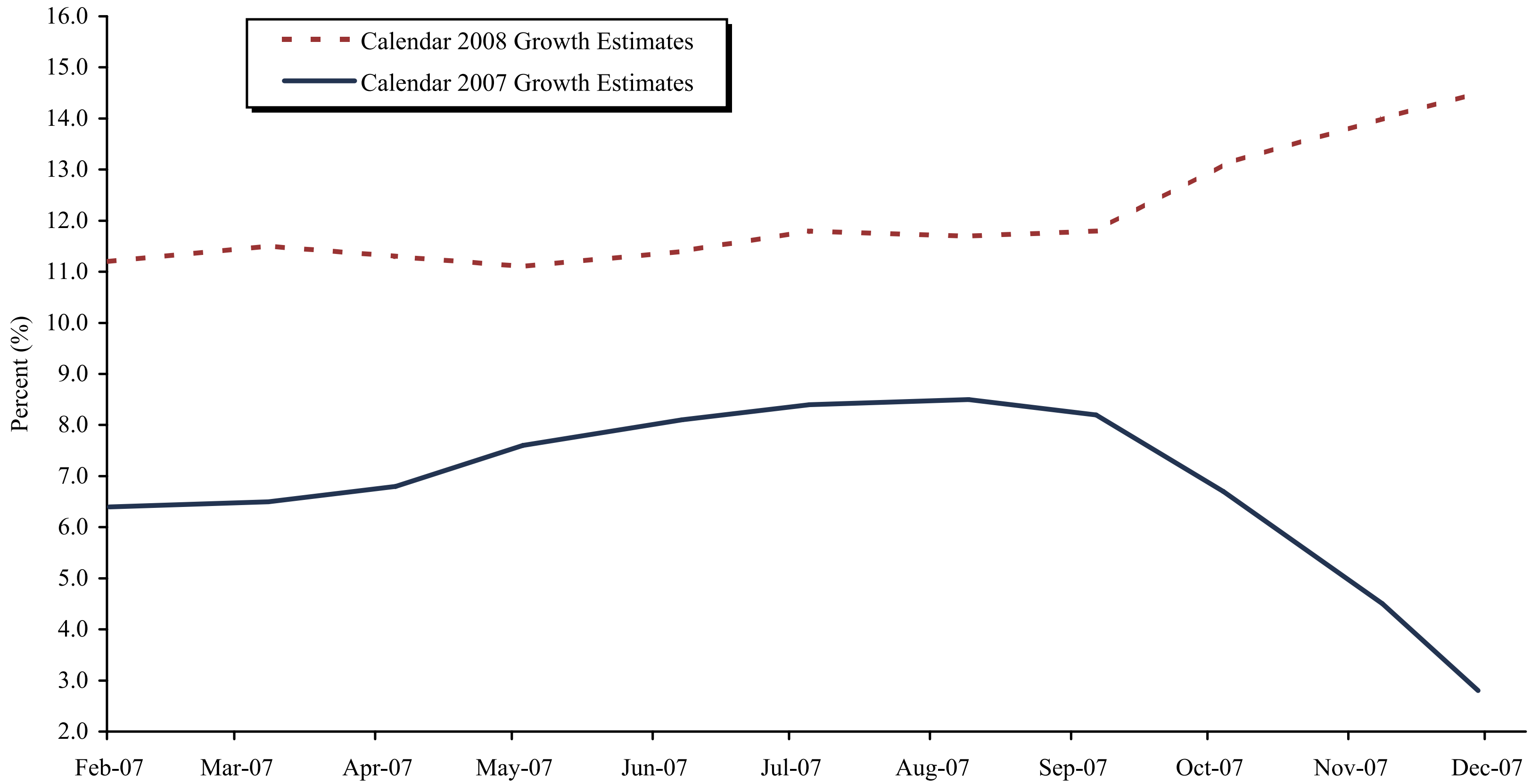
Sources: Frank Russell Company and Thomson Datastream.

Notes: Graph represents quarterly data through December 31, 2007. Normalized real price-earnings ratios for the Russell 2000® are calculated by dividing the current index price by the annualized average real earnings for the trailing ten years. CPI-U data are through November 30, 2007.

Table E

ANALYSTS' CHANGING EARNINGS GROWTH EXPECTATIONS FOR THE S&P 500

2007–08



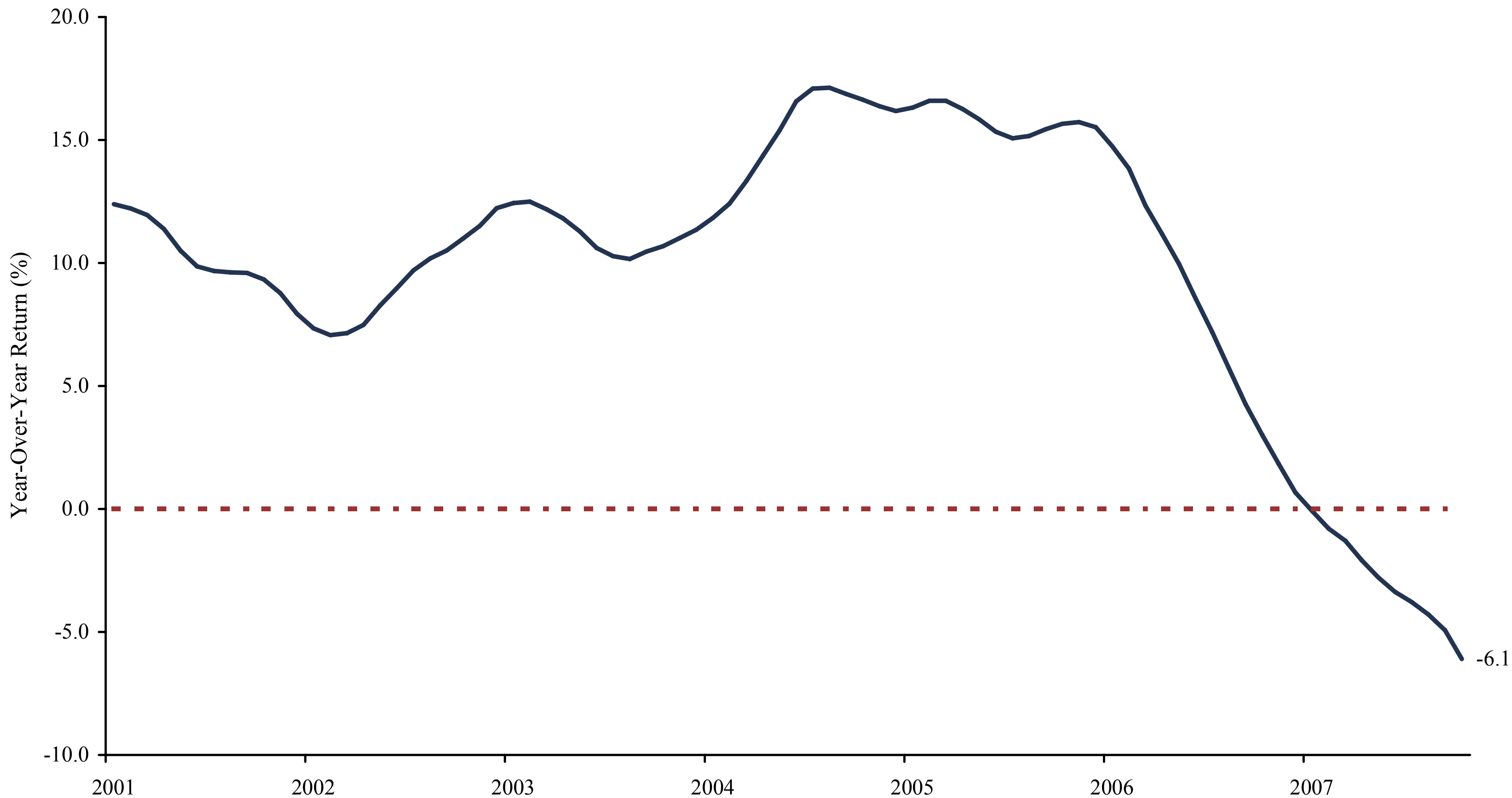
Sources: FactSet Research Systems, Morgan Stanley Research, and Thomson Financial.

Notes: Growth expectations are based on month-end, or near month-end consensus estimates. Data are bottom-up estimates of year-over-year growth in earnings, on a calendar year basis.

Table F

S&P/CASE-SHILLER COMPOSITE 20 INDEX

January 1, 2001 – October 31, 2007

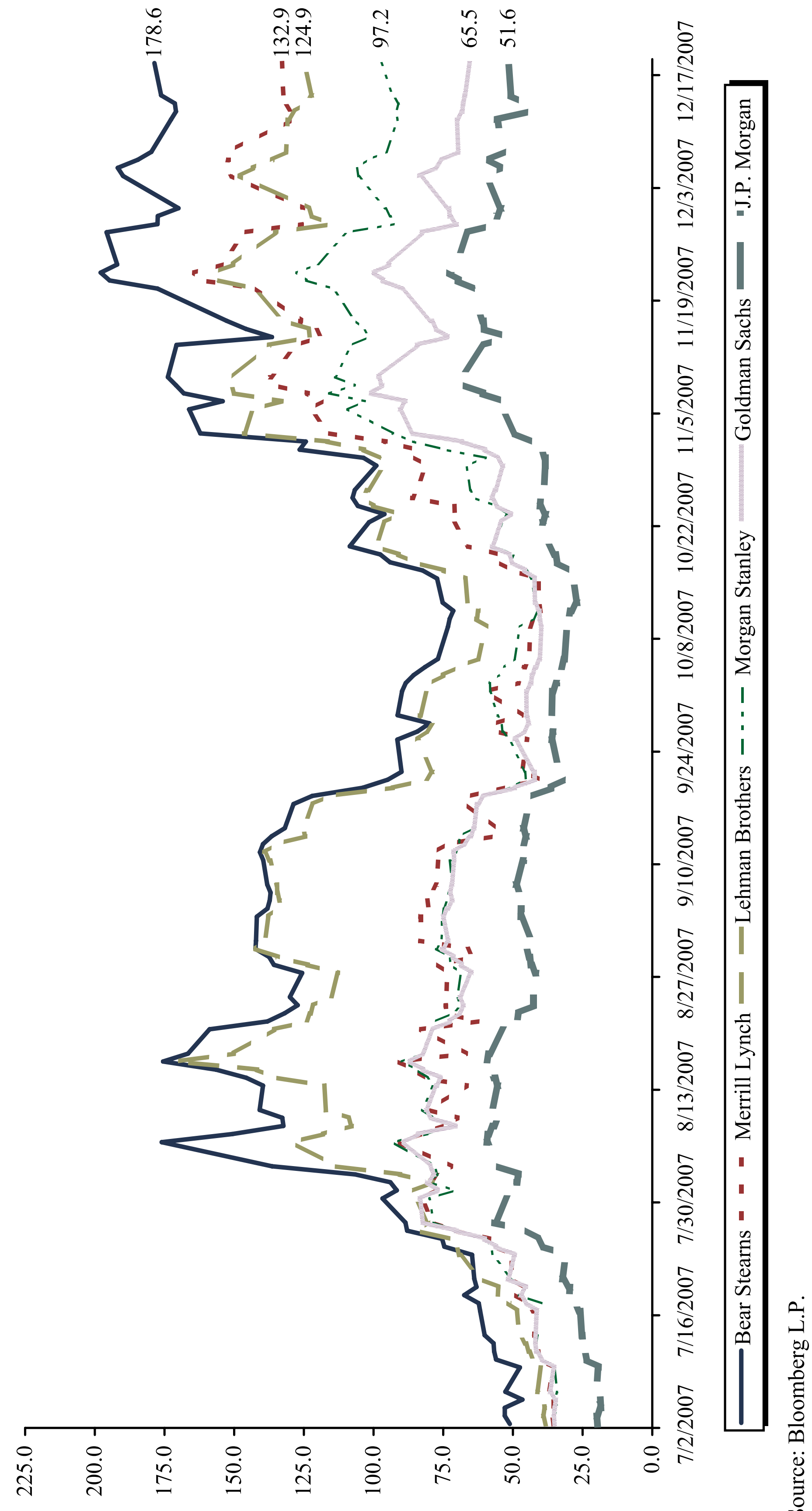


Sources: MacroMarkets LLC and Standard & Poor's.

Table G

MAJOR INVESTMENT BANKS - FIVE-YEAR CREDIT DEFAULT SWAP SPREADS

July 2, 2007 – December 18, 2007



Source: Bloomberg L.P.

Table H

SOVEREIGN WEALTH FUND INVESTMENTS IN WESTERN FINANCIAL INSTITUTIONS IN 2007

Announcement Date	Acquiror	Target	Deal Value $ (m)	Target Nation
3/7/2007	Temasek Holdings (Pte) Ltd	Standard Chartered plc	1,415.6	United Kingdom
5/2/2007	Dubai International Capital LLC	HSBC Holdings plc	N/A	United Kingdom
5/21/2007	China Investment Corp	Blackstone Group LP	3,000.0	United States
7/23/2007	Temasek Holdings (Pte) Ltd	Barclays plc	2,328.2	United Kingdom
7/23/2007	Temasek Holdings (Pte) Ltd	Barclays plc	2,005.0	United Kingdom
9/20/2007	Mubadala Development Co	Carlyle Group Inc	1,350.0	United States
9/20/2007	Qatar Investment Authority	London Stock Exchange plc - LSE Group	1,273.9	United Kingdom
9/20/2007	Qatar Investment Authority	OMX AB	473.8	Sweden
9/24/2007	Qatar Investment Authority	London Stock Exchange plc - LSE Group	290.1	United Kingdom
10/30/2007	Dubai International Capital LLC	Och-Ziff Capital Management Group	1,260.0	United States
11/27/2007	Abu Dhabi Investment Authority	Citigroup Inc	7,500.0	United States
12/10/2007	Govt of Singapore Investment Corp Pte Ltd and Undisclosed Acquiror	UBS AG	11,518.7	Switzerland
12/19/2007	China Investment Corp	Morgan Stanley & Co Inc	5,000.0	United States
12/24/2007	Temasek Holdings (Pte) Ltd and Davis Selected Advisors LP	Merrill Lynch & Co Inc	6,200.0	United States
12/24/2007	Kuwait Investment Authority	Caisse Nationale des Caisses d'Epargne et de Prévoyance - CNCEP	N/A	France
		TOTAL	**43,615.3**	

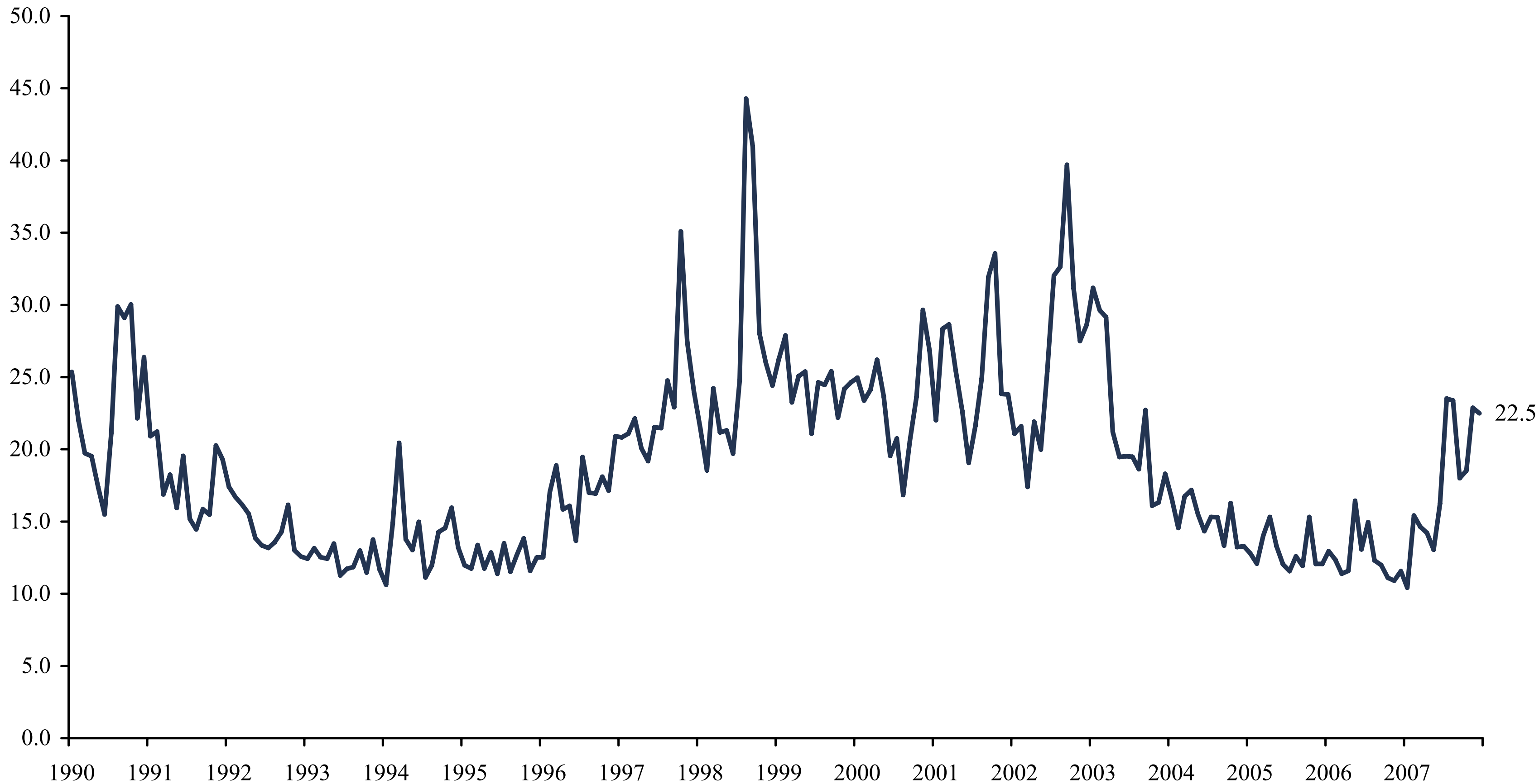
Source: Dealogic.

Note: In the last five weeks of 2007, U.S. investment banks received $18.7 billion in investments from Asian and Middle Eastern sovereign wealth funds, which is represented by shading.

Table I

VIX INDEX

January 31, 1990 – December 31, 2007



Source: Bloomberg L.P.

Notes: The VIX Index tracks the implied historical volatility of the S&P 500 Index. Graph represents monthly data through December 31, 2007.