# Mortgage Meltdown Reveals Importance of Financial Literacy Education

*Ronald P. Volpe, Ph.D., CFP®*
*Professor of Finance*
*Youngstown State University*

*Kathleen Mumaw, CMA, MBA*
*Assistant Professor of Accounting and Finance*
*Youngstown State University*

Abstract

This paper examines how a combination of financial illiteracy and loose lending standards during the real estate boom of 2001-2006, made consumers vulnerable to mortgages that were not in their best interest. It also discusses the use of subprime mortgages as a financing method during this period. The resulting economic consequences have not been pleasant and a renewed national attention has been drawn to America's financial illiteracy. Governmental and private organizations have responded by making available a plethora of educational materials, programs and national conferences for financial literacy education. Several of these resources are reviewed in this paper. Financial service professionals and business educators should avail themselves of these excellent materials to improve the financial literacy of consumers.



In a short span of 8 years the U.S. has experienced two major stock market declines and recessions. The stock market decline and recession of 2000-2002 was related to excessive investment and subsequent speculation in Internet related companies. The economic and financial correction of 2000-2002 saw a drop of 45% in the S&P 500 Index and an economy that was in a recession from March to November of 2001 (Browning, 2009). In the 2000-2002 collapse investors became enamored by visions of instant wealth from investing in speculative dot.com Internet companies that had little or no growth prospects for the future. Some examples of failed companies include: Pets.com, The Globe.com, Quepasa.com, eGreetings.com, eToys.com. The stock prices of those companies that survived were bid up to unrealistic levels and subsequently crashed. Microsoft, Dell, Yahoo, Intel, and Oracle are

examples of companies whose stock prices are still 50% to 75% or more below their peak 2000 prices.

The economic downturn and stock market decline of 2007-2009 was the result of overinvestment and speculation in real estate. This period saw the S&P 500 Index decline 57% from a high of 1565 in October 2007 to a low of 666 in March 2009. The corresponding recession began in December 2007 and is currently thought to have ended in the third quarter of 2009. Both periods of economic and financial distress resulted from the abandonment of sound investing and lending principles in favor of reckless investment and financing practices by individuals and institutions.

Periods of financial recklessness always lead to attempts at finding the root causes so that they can be avoided in the future. Many of the participants in the real estate purchase/financing food chain (real estate buyer, real estate salesperson, appraisers, mortgage broker, mortgage lender, central banking system, investment banks, rating agencies, securities investors) can share blame for the outcome. The focus of this paper is on individual borrowers and how their lack of financial sophistication combined with the abandonment of sound lending standards by financial institutions led to financial decisions with disastrous consequences. It discusses the importance of subprime mortgages as a financing vehicle in the 2001-2006 real estate boom-bust cycle. It also highlights the national attention given to the topic of financial illiteracy by Federal Reserve Board officials, testimony at Senate committee hearings, and a Presidential Advisory Council, as a result of the subprime mortgage meltdown. These initiatives have resulted in a wide range of educational materials, training programs, and national conferences targeted at facilitating the financial education process.

## Subprime Mortgage Market

Traditionally the purchase of real estate required a 20% down-payment and proof of income. However, in this new era of real estate finance, underwriting standards were drastically compromised. Subprime loans were made to buyers with weak or blemished payment records. They were characterized by interest rates that exceeded prime-loan rates, had high fees, and prepayment penalties that made it difficult and costly for borrowers to refinance. Their credit profile was inferior to a prime borrower and had a history with a much lower FICO credit score and higher loan-to-value and debt-to-income ratios. This led to the introduction of new financing vehicles such as low-documentation, no-documentation, liar and NINJA (no income no job no assets) loans. Many subprime loans had features of both fixed-rate mortgages (FRMs) and adjustable-rate mortgages (ARMs). These loans offered the borrower a lower initial fixed interest rate, but were typically adjusted during the life of the mortgage resulting in higher mortgage payments as interest rates increased.

©2010, IARFC All rights of reproduction in any form reserved.

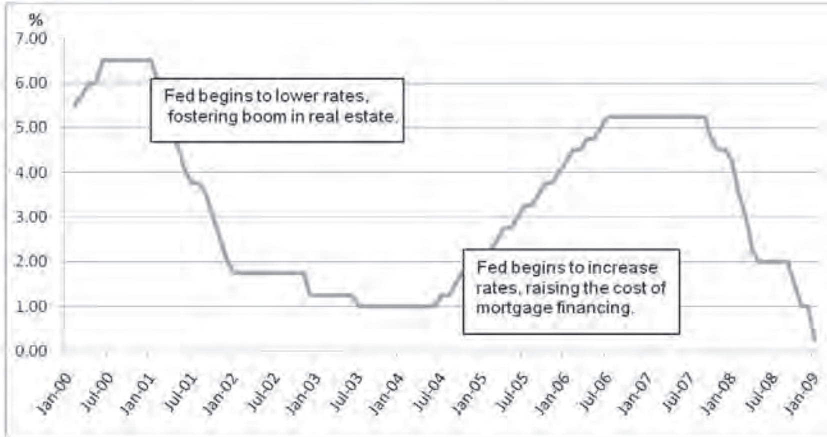
It was not uncommon for subprime borrowers to be offered interest-only mortgages (IOs) and negative-amortization mortgages (NegAms). The interest-only mortgage did not require a monthly principal payment, only the payment of interest. Upon expiration of the interest-only period, the borrower was required to make a large one-time payment to reduce the principal and continue with regular monthly payments. In a NegAm mortgage, the balance the borrower owed to the lender increased each period because the borrower made less than the full payment of interest and principal. Monetary incentives for the mortgage industry coupled with questionable lending practices resulted in many borrowers being granted loans they did not understand and were beyond their financial capacity to repay.

Increasing the rate of home ownership has always been viewed as producing desirable social outcomes. According to former Federal Reserve Board Vice-Chairman Ferguson, "Homeownership is one of the cornerstones of wealth creation and is generally associated with a range of socially desirable outcomes including better schools, less crime, and neighborhood stability" (2005). Groundwork for expansion of subprime lending in the real estate market was laid in previous decades. The Community Reinvestment Act (CRA) of 1977 required banks to extend more credit in communities where they operated, specifically to lower income minority borrowers with little or no credit (Gramlich, 2007). This regulatory change greatly expanded the number of individuals who could qualify for a mortgage by creating a subprime category for those not qualifying for prime loans.

Growth in the overall mortgage market was also fueled by activity at the Government Sponsored Enterprises (GSEs) of Fannie Mae and Freddie Mac. In return for government tax breaks and federal subsidies, Fannie Mae and Freddie Mac purchased mortgages from lending institutions. Acting on mandates from The Department of Housing and Urban Development, then the overseer of the GSEs, increased efforts were made to provide so called "affordable housing" to low-income and underserved factions of the U.S. population through the purchase of subprime securities. In 2003 Fannie Mae and Freddie Mac purchased $81 billion or 49% of the total subprime mortgage-backed-securities (MBS). Comparable figures in 2004 were $171 billion or 44% which continued to supply capital to the lending market (Leonnig, 2008). While GSEs primarily serviced the needs of deposit taking institutions, independent mortgage companies also found willing buyers of MBS and over 80% of subprime mortgages were securitized in 2005 and 2006 (Schumer & Maloney, 2007).

The Federal Reserve was also instrumental in fostering the boom in real estate. The U.S. Federal Funds target interest rate was lowered from 6.5% to 1% between 2001 and 2004 as shown in Figure 1. This reduced the cost of borrowing and made financing a home considerably more affordable. Further growth was also made possible by the application of technological innovations which made it easier for lenders to evaluate and process loans.

**Figure 1**
**U.S. Federal Funds Target Interest Rate**



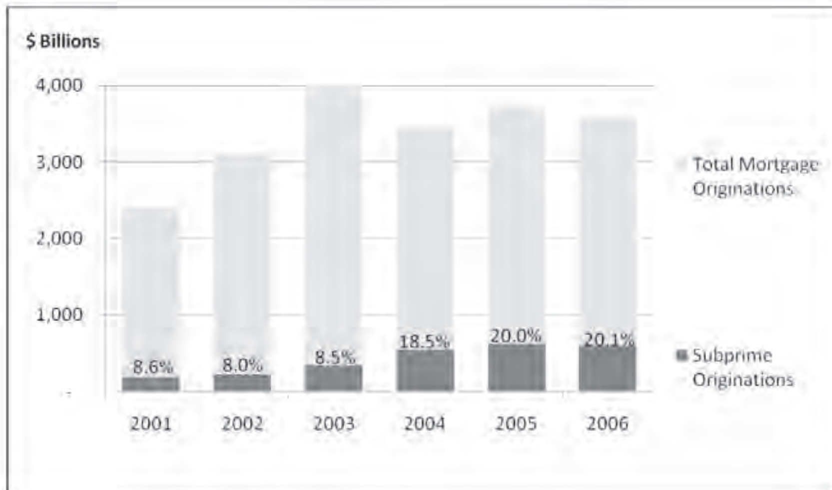

Source: Federal Reserve Bank of New York

Ownership in real estate was further stimulated by the popular media showcasing cover stories such as "Home $weet Home," "Why We're Going Gaga Over Real Estate," and "Will Your House Make You Rich?" (*Time*, 2005). Investing in real estate in 2001-2006 was as fashionable as dot.com investing on NASDAQ from 1995-1999. America's obsession with real estate led individuals into mortgage contracts that were not in their best interest.

Total mortgage originations climbed to approximately $4 trillion in 2003. The volume of subprime mortgage originations expanded from $190 billion in 2001 to $625 billion in 2005. Figure 2 illustrates that in 2005 and 2006 subprime mortgages represented 20% of total mortgage originations, up from 8.6% in 2001. The percentage of U.S. households owning homes peaked at approximately 69% in the 2004-2006 period, up from 64% in 1994. The average prices of new and existing homes set record highs in 2006 of $302,000 and $268,000 respectively. The relationship between subprime lending and the increases experienced in homeownership rates was highlighted in a speech by Federal Reserve Chairman Ben Bernanke (2007) who stated, "The expansion of subprime mortgage lending has made homeownership possible for households that in the past might not have qualified for a mortgage and has thereby contributed to the rise in the homeownership rate since the mid-1990s."

©2010, IARFC All rights of reproduction in any form reserved.

**Figure 2**
**Total Mortgage Originations and Subprime Originations**




Source: (Inside Mortgage Finance, The 2007 Mortgage Market Statistical Annual, Top Subprime Mortgage Market Players & Key Data (2006) as found in Schumer & Maloney (2007, October).



## American Dream Downsized

In 2006 housing prices reached unsustainable levels relative to household incomes, price-rent ratios and other economic indicators. An increase in the Federal Funds Rate from 1% to 5.25% in 2004-2006 by the Federal Reserve raised the cost of mortgage financing (Figure 1). The housing market began to decline in many parts of the U.S. and subprime mortgage holders with ARMs saw dramatic increases in their monthly payments. In a 2007 speech at the Consumer Bankers Association Fair Lending Conference, Federal Reserve Board Governor Randall S. Kroszner indicated, "…the typical subprime mortgage experiencing a first reset had… an increase of 25% to 30% in the monthly payments. This increase translates into an additional monthly debt obligation of $350."

The national homeownership rate has declined from 69% in 2006 to 67.3% in December 2009 and the average price of a new home declined from $302,000 in December 2006 to $255,000 in January 2010 (U.S. Census Bureau, 2010). The average price of existing homes fell from a high of $268,000 in 2006 to $212,000 as of January 2010 (National Association of Realtors, 2010). The

dream of home ownership has been downsized, abandoned, or foreclosed for many individuals. There has been a dramatic increase in the number of foreclosure filings and property repossessions. In 2008, foreclosure filings increased 81% and more than 2.3 million American homeowners faced foreclosure proceedings. According to RealtyTrac, a foreclosure listing firm, "… more than 860,000 properties were actually repossessed by lenders, more than double the 2007 level" (Zibel, 2009).

Cleveland, Ohio is an example of a city suffering extreme damages from the foreclosure epidemic. The city has experienced 10,000 foreclosures in the last two years and the county treasurer estimates that 15,000 or 1 in 13 houses are vacant. According to FDIC estimates, each foreclosure costs a bank an average of $50,000. In 2000, the Cleveland county treasurer and other public officials went to the Federal Reserve Bank of Cleveland to raise objections to the predatory lending practices that were causing people to lose their homes. In efforts to stop abuses, the city of Cleveland tried to pass an ordinance that would require prospective borrowers to get pre-mortgage counseling. The banking industry responded by threatening to stop making loans in the city. The devastation found in Cleveland is shared with other cities such as Atlanta, Chicago, Denver, Las Vegas and Minneapolis where some neighborhoods have at least one of every five homes vacant (Kotlowitz, 2009).

## Financial Illiteracy and Consumer Vulnerability

The real estate boom-bust cycle once again illustrates the importance for consumers to understand the basics of personal finance. The perception that real estate values would continue to spiral upward into infinity gave prospective homeowners visions of increasing wealth. Low interest rates and the widespread use of non-traditional mortgage products such as hybrid ARMs, IOs, NegAms, liar loans, no-doc and low-doc loans, and NINJA (no income no job no assets) loans provided individuals with the opportunity to purchase a home they could not previously afford. Homebuyers were deluded into a false sense of security and were vulnerable to abusive and high-risk lending practices. Unfortunately, this period of prosperity in the real estate market masked the reckless nature of the borrowing and lending transactions of individuals and financial institutions.

Warnings from Federal Reserve officials of consumer vulnerability to substandard lending practices in credit markets began to surface as early as 2001. In a speech titled "The Importance of Financial Literacy", former Federal Reserve Chairman Greenspan (2001) commented, "…financial literacy education may help to prevent vulnerable consumers from becoming entangled in some types of financially devastating credit arrangements… abusive lending practices that target specific…segments of the population… can result in unaffordable payments, equity stripping and foreclosure."

©2010, IARFC All rights of reproduction in any form reserved.

Further emphasizing the need for consumers to understand complex financial arrangements, former Federal Reserve Board Governor Edward M. Gramlich in remarks at the 2002 Financial Teacher Training Workshop at the University of Illinois indicated:

> *Protection for consumers against fraud and abuse is another concern that underscores the need for [financial] education. With the proliferation of subprime housing markets…consumers have increased opportunities for taking out home equity loans. However, some lenders have used unscrupulous practices and products to prey upon vulnerable populations. Consumer education alone may not be the sole answer to predatory lending, but it is certainly an essential part of the solution.*

In a meeting of the Financial Literacy and Education Commission, Gramlich (2004) again spoke to the need for improved consumer financial literacy when he advised, "an increasingly complex global financial system requires consumers to have a strong working knowledge of financial concepts. To highlight the importance of financial education…the Federal Reserve System launched a national public campaign that began in May 2003."

As activity in the subprime market reached record levels in 2005-2006, further warnings of financial instability were echoed by Federal Reserve Board Vice-Chairman Roger W. Ferguson Jr. at a 2005 Central Bank Research Conference on Risk Management and Systemic Risk. He cautioned:

> *…with new products and institutions comes the potential for new risks to financial stability…we have seen a proliferation of new lending products in the United States, including home-equity lines of credit, interest-only and even negative-amortization mortgages and subprime mortgages and consumer loans.*

These warnings proved to be prophetic when in 2006 Ameriquest, then the largest subprime lender, "coughed up $325 million to settle charges that it misled borrowers and falsified loan documents" (Reckard, 2009). Countrywide Financial Corporation, one of the top 5 subprime mortgage lenders in 2005, was also considered a leader in lending innovation. As the housing market started to collapse in 2006-2007 the company "… became a symbol of loose lending practices, aggressive salesmanship and risky mortgages…" (Miller, 2009).

## Financial Illiteracy Draws National Attention

Given the numerous financial decisions (banking and investment services, mortgages, auto loans, credit cards, etc.) individuals must make throughout a lifetime and the vast array of products and services offered by the financial services industry, it is apparent that individuals often enter into financial transactions that are not in their best economic interest. The events of 2000-2002 and 2007-2009 have drawn national attention to America's financial illiteracy. The testimony from Federal Reserve officials, Senate committee hearings and formation of the Financial Education and Literacy Commission (2003) and the President's Advisory Council on Financial Literacy (2008) are all efforts to remedy America's financial illiteracy epidemic.

In a speech titled "Economic Development and Financial Literacy," former Federal Reserve Chairman Greenspan (2002) addressed the importance of financial literacy. "Financial education can equip consumers with the fundamental knowledge required to choose among the myriad of products and providers in the financial services industry. It can also…maximize their longer-term [economic] well-being."

Treasury Secretary Paul H. O'Neill (2002) in a Keynote Address to the Jump$tart Coalition for Personal Financial Literacy remarked on the desire of Americans to accumulate wealth and the importance of youth financial education as follows:

> *Financial independence is a goal all Americans share. Yet many Americans…never learn the basics of personal finance—the tools necessary to build financial independence for themselves and their families….Financial literacy is an essential tool to make that hope a reality. Financial education and financial responsibility must be woven into what we teach our children from the time they are very small.*

In remarks titled "Reflections on Financial Literacy" before the National Council on Economic Education (2002), Federal Reserve Vice-Chairman Ferguson underscored the importance of financial literacy and the role of the Federal Reserve in promoting financial education. He emphasized:

> *…understanding of economics and finance is crucial for individuals in a market economy. Knowledgeable and astute consumers promote competition among providers, which benefits us all.*
> *The Federal Reserve has a special interest in economic and financial education and has for many years conducted*

©2010, IARFC All rights of reproduction in any form reserved.

> *teacher training and worked...to encourage programs aimed particularly at students, educators and consumers.*

In response to the 2000-2002 stock market decline, the Federal government initiated several programs to address America's financial illiteracy. On May 7, 2002 the Treasury Department announced the creation of the Office of Financial Education. In the press release Treasury Secretary Paul O'Neill indicated, "The Office of Financial Education will play a key role in coordinating Treasury's efforts to improve the financial skills of all Americans. The Office will develop a long-term, multifaceted approach to expanding our nation's money management skills" (Treasury Department, 2002). U.S. Treasurer Rosario Marin commented that, "The creation of this office is a tremendous step forward for the cause of financial literacy" (Treasury Department, 2002).

In 2003, Congress established the Financial Literacy and Education Commission in recognition of the importance of financial education. Twenty federal agencies are represented on this Commission including the Department of Education, Federal Deposit Insurance Corporation, Federal Reserve Board, and Office of the Comptroller of the Currency. The purpose of the commission is "… to encourage collaboration and coordination of government and private-sector efforts to promote financial literacy" (Bies, 2005). The Treasury Department continued work in this area by issuing in 2006 "Taking Ownership of the Future: The National Strategy for Financial Literacy" which detailed efforts to improve financial education in America. The Strategy document also provided examples of financial education programs available to help Americans derive benefits by becoming more financially literate. These include establishment of the mymoney.gov website and the 1-888-MyMoney information line (U.S. Department of the Treasury, 2006).

In testimony at a 2007 hearing on the "Federal Government Role in Empowering Americans to Make Informed Financial Decisions," Shelia Bair, Chair of the Federal Deposit Insurance Corporation, commented, "Recent problems in the subprime mortgage market illustrate how increasingly complex products can lead to poor product choices for consumers who do not fully understand them" (U.S. Senate Committee on Homeland Security and Governmental Affairs, 2007). She concluded her testimony with the following remarks:

> *The FDIC considers financial education to be an essential component of our activities on vital issues facing consumers, markets and communities today. Not only is financial literacy essential to evaluate the multitude of choices available to consumers, but this knowledge serves to protect informed consumers from bad products and scams. A consumer who knows the right questions to ask, under-*

> *stands economic fundamentals and has the confidence to challenge products and practices that seem 'too good to be true' is a regulator's best weapon in consumer protection (U.S. Senate Committee on Homeland Security and Governmental Affairs, 2007).*

Another contribution made at the April 30, 2007 hearing came from Deputy Assistant Secretary for Financial Education Dan Iannicola who stated, "The Department of Treasury supports the expansion of financial education through its own work and through its leadership of a multi-agency commission" (U.S. Senate Committee on Homeland Security and Governmental Affairs, 2007). Further support was expressed by Robert Duval, president and chief executive officer of the National Council on Economic Education as follows, "Teaching sound economics and personal finance, and making it stick, is not only vital to an individual's success and well being, but will ultimately contribute to ensuring a strong national economy and a more prosperous future for our country" (U.S. Senate Committee on Homeland Security and Governmental Affairs, 2007).

The 2003 creation of the Financial Literacy and Education Commission also resulted in the development of annual financial literacy and education summits which bring leading experts together to discuss best practices in financial education. One of the strongest cases for financial education was made by Federal Reserve Board Governor Frederic S. Mishkin at the 2008 National Summit on Economics and Financial Literacy when he affirmed:

> *There can hardly be a better time to make the case for economic and financial literacy than right now. We face a downturn in our housing industry fueled, at least in part, by unwise mortgage borrowing and, at times, abusive lending practices. Improving consumers' knowledge of the home mortgage process will better equip them to avoid unsuitable mortgages in the future. ...one of the most effective ways to help consumers is to empower them with information.*

In another major attempt to remedy the epidemic of America's consumer financial illiteracy, Executive Order 13455 by President George W. Bush on January 22, 2008 created a 16-member President's Advisory Council on Financial Literacy. This blue-ribbon panel of academics, business and government officials was lead by Charles R. Schwab, Founder, Chairman and CEO of The Charles Schwab Corporation. The task for the Council was "...to improve financial literacy among all Americans [and] ...established, for the first time, that it is the policy of the Federal government to encourage financial

©2010, IARFC All rights of reproduction in any form reserved.

literacy among the American people" (President's Advisory Council on Financial Literacy, 2008).

The Council's first report to the President dated January 6, 2009 comments on the current financial and credit crisis as follows, "... it is undeniable that financial illiteracy is one of the root causes. Far too many Americans signed loan agreements they did not understand...many Americans do not have...basic financial skills" (President's Advisory Council on Financial Literacy, 2008).

Included in the report are 12 key accomplishments of the Council in 2008. Among them was a first-ever nationally administered high school financial literacy exam called the National Financial Literacy Challenge. The 35-question multiple-choice exam on a variety of personal finance topics was taken by 46,369 high school students from April 28 through May 16, 2008. The Council's report states, "While the exam was a success, the average score was 56%—another indicator that more rigorous financial education is needed in our schools" (President's Advisory Council, 2008). The average score of the Financial Literacy Challenge offered November 3 through December 12, 2008 to 75,502 high school students from across the country was 52% (State of Wisconsin Department of Financial Institutions, 2009).

In another initiative the Council endorsed a financial literacy curriculum titled "Money Math: Lessons for Life". The 86-page curriculum for middle school students has been downloaded more than a combined 368,000 times from the Treasury's website (http://www.treasurydirect.gov/indiv/tools/tools_moneymath.htm) and the mymoney.gov website (President's Advisory Council, 2008).

In addition to the accomplishments, the President's Advisory Council made 15 recommendations to improve the financial literacy of Americans. Among them was the following standardized definition of financial education:

> *The process by which people improve the understanding of financial products, services and concepts, so they are empowered to make informed choices, avoid pitfalls, know where to go for help and take other actions to improve their present and long-term financial well-being (President's Advisory Council, 2008).*

The President's Advisory Council also defined financial literacy as "the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being" (President's Advisory Council, 2008). The significance of recommending common definitions for financial education and financial literacy is reflected in the Council's admonition for state and local governments, non-profits, and the private sector to adopt the

definitions "…so that programmatic decisions are based on a common understanding of the terms" (President's Advisory Council, 2008).

The Council's final recommendation was in the area of youth financial literacy and was simple in its eloquence.

> *…financial education truly must be a lifelong endeavor—and it's never too early to start. Basic literacy skills, including financial literacy, are the building blocks of development and self-sufficiency, which need to be established in the early years of children's lives to impact their future development (President's Advisory Council, 2008, p.19).*

In a joint news conference with the Jump$tart Coalition for Personal Financial Literacy, Federal Reserve Chairman Bernanke (2008) presented a strong case for increasing middle and high-school financial literacy education requirements and its economic benefits.

> *Financial literacy and consumer education…makes the financial marketplace effective and efficient, and equips consumers to make tough yet smart financial decisions. Today, only eight states across the U.S. require personal finance before middle or high-school graduation. I believe more states should consider making personal finance a requirement for all students who seek a high school diploma. I am personally convinced that improving education is vital to the future of our economy…and I strongly believe that promoting financial literacy, in particular, must be a high priority.*

Unfortunately, the reality of the financial literacy educational experience for students is probably best described by Mark Zandi, chief economist and co-founder of Moody's Economy.com, in his 2009 book titled *Financial Shock: A 360º Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis.*

> *It is both bizarre and tragic that American high schools today are more likely to offer students cooking classes than personal finance courses. Such courses should be required—period. A meaningful investment in the financial acumen of young people would pay enormous dividends by reducing the likelihood that future households will take out bad mortgages… (p.237).*

©2010, IARFC All rights of reproduction in any form reserved.

## Conclusion

The amount of wealth destruction from the subprime mortgage meltdown has taken a substantial financial toll across a broad cross-section of Americans. A recent forecast by Moody's Economy.com indicates "some 1.7 million U.S. households will lose their homes in foreclosure this year" (Hagerty & Simon, 2009). Trillions have been lost in stock market wealth and over 8 million individuals have lost their jobs since the recession began in December 2007.

Much of the decline in wealth and the economic insecurity faced by many Americans can be attributed to the unwise and reckless borrowing decisions of individuals and a lending environment characterized by lax, and sometimes abusive and predatory lending practices. There has been a renewed commitment on many levels by numerous organizations to improve the level of financial literacy in America. These events have brought about a realization of the importance of consumer financial literacy in making sound economic decisions.

Unlike the paucity of educational materials available in the 1990s, there is currently a wealth of outstanding financial literacy educational information provided by many organizations. The Federal Reserve provides access to many publications, interactive education programs, and teacher education workshops throughout the system (federalreserveeducation.org). The Federal Deposit Insurance Corporation has created a 10-module "Money Smart Training Program" (http://www.fdic.gov/consumers/consumer/moneysmart/overview.html). The Jump$tart Coalition for Financial Literacy website (http://www.jumpstart.org/links.cfm) provides access to the websites of many governmental, non-profit and private organizations that provide educational materials. The "Money Math: Lessons for Life" financial literacy curriculum for middle-school students is available at the mymoney.gov website. The President's Advisory Council on Financial Literacy "2008 Annual Report to the President" (http://www.treasury.gov/ offices /domestic-finance/financial-institution/fin-education/council/) and the Treasury Department's "Taking Ownership of the Future: The National Strategy for Financial Literacy" (http://www.mymoney.gov/pdfs/QuickRefGuide.pdf) are all required reading for anyone with an interest in financial literacy education.

The resurgence of attention to America's financial illiteracy is an enormous benefit to all. Integrating financial literacy into educational programs for consumers is much easier than in the past because of the wide array of quality educational materials that are available. Educators should seize the opportunity and do their part to improve the financial literacy of their students both as consumers and future participants in the financial services industry.

Practitioners also can greatly benefit from the use of these resources. They provide an abundance of information that is professionally prepared and readily available. The use of this information by practitioners in community education programs is encouraged. In doing so, they can be recognized as authoritative providers of financial literacy information. The resulting goodwill may well lead to an expanded client base.

## References

Bernanke, B. S. (2008, April 9). *The importance of financial education and the national Jump$tart coalition survey.* Remarks at the Jump$tart Coalition for Personal Financial Literacy and the Federal Reserve Board joint news conference, Washington, D.C. Retrieved May 27, 2009 from http://www.federalreserve.gov/newsevents/speech/bernanke20080409a.htm

Bernanke, B. S. (2007, May 17). *The subprime mortgage market.* Speech at the Federal Reserve Bank of Chicago's 43rd Annual Conference on Bank Structure and Competition, Chicago, Illinois. (The Development of the Subprime Mortgage Market section). Retrieved May 27, 2009 from http://www.federalreserve.gov/newsevents/speech/bernanke20070517a.htm

Bies, S. S. (2005, April 18). *The economy and managing personal finances.* Remarks at the Canisius College Richard J. Wehle School of Business Community Business Luncheon, Buffalo, New York. (Managing Personal Finances section). Retrieved May 27, 2009 from http://www.federalreserve.gov/boarddocs/speeches/2005/20050418/default.htm

Browning, E. S. (2009, January 5). *Rebound wrinkle: Recession.* Retrieved January 6, 2009 from http://online.wsj.com/article/SB123110449873552059.html

Federal Reserve Bank of New York. (2009). *Historical changes of the target federal funds and discount rates.* Retrieved April 6, 2009 from http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html

Ferguson, R. W. (2005, November 18). *Recent changes in household finances and home lending.* Remarks to the monthly meeting of the Epsilon Boule Fraternity for African-American Leaders, Washington, D.C. (Changes in Homeownership section). Retrieved May 27, 2009 from http://www.federalreserve.gov/boarddocs/speeches/2005/20051129/default.htm

©2010, IARFC All rights of reproduction in any form reserved.

Ferguson, R. W. (2005, November 8). *Financial regulation: Seeking the middle way.* Remarks to the Fourth Joint Central Bank Research Conference on Risk Management and Systemic Risk, Frankfurt, Germany. (Financial Regulation: Seeking the Middle Way section). Retrieved May 27, 2009 from http://www.federalreserve.gov/boarddocs/speeches/2005/20051128/default.htm

Ferguson, R. W. (2002, May 13). *Reflections on financial literacy.* Remarks before the National Council on Economic Education, Washington, D.C. (The Benefits of Education and The Work of the Federal Reserve sections). Retrieved May 27, 2009 from http://www.federalreserve.gov/boarddocs/speeches/2002/20020513/default.htm

Gramlich, E. M. (2007). *Subprime mortgages America's latest boom and bust.* Washington, D.C.: Urban Institute Press.

Gramlich, E. M. (2004, May 20). *Workplace financial education.* Remarks at the second meeting of the Financial Literacy and Education Commission, Washington, D.C. Retrieved April 13, 2009 from http://www.federalreserve.gov/boarddocs/speeches/2004/20040520/default.htm

Gramlich, E. M. (2002, May 2). *Financial literacy.* Remarks at the Financial Literacy Teacher Training Workshop, University of Illinois at Chicago, Chicago, Illinois. (Emergence of Financial Literacy as an Issue section). Retrieved November 11, 2008 from http://www.federalreserve.gov/boarddocs/speeches/2002/20020502/default.htm

Greenspan, A. (2002, January 10). *Economic development and financial literacy.* Remarks at the Ninth Annual Economic Development Summit, The Greenlining Institute, Oakland, California. Retrieved June 1, 2009 from http://www.federalreserve.gov/boarddocs/speeches/2002/20020110/default.htm

Greenspan, A. (2001, October 26). *The importance of financial education and literacy.* Remarks before the National Council on Economic Education, Chicago, Illinois. Retrieved June 1, 2009 from http:/www.federalreserve.gov/boarddocs/speeches/2001/20011026/default.htm

Hagerty, J. R. & Simon, R. (2009, May 21). Activist financier 'terrorizes' bankers in foreclosure fight. *The Wall Street Journal*, pp: A1, A2.

Kotlowitz, A. (2009, March 8). All boarded up. *The New York Times Magazine*, 30-32.

Kroszner, R. S. (2007, November 5). *The challenges facing subprime mortgage borrowers.* Speech at Consumer Bankers Association 2007, Fair Lending Conference, Washington, D.C. (Sources of the Recent Problem section). Retrieved November 14, 2007 from http://www.federalreserve.gov/newsevents/speech/kroszner20071105a.htm

Leonnig, C. D. (2008, June 10). *How HUD mortgage policy fed the crisis, subprime loans labeled 'affordable'.* Retrieved April 3, 2009 from http://www.washingtonpost.com/wp-dyn/content/article/2008/06/09/AR2008060902626.html

Miller, J. (2009, April 2). *Countrywide settles subprime suit.* Retrieved April 3, 2009 from http://online.wsj.com/article/SB123870769965184019.html

Mishkin, F. S. (2008, February 27). *The importance of economic education and financial literacy.* Remarks at the Third National Summit on Economic and Financial Literacy, Washington, D.C. Retrieved May 2, 2009 from http://www.federalreserve.gov/newsevents/speech/mishkin20080227a.htm

National Association of Realtors®. (2010). *Single-family existing-home sales and prices.* Retrieved March 1, 2010 from http://www.realtor.org/research/research/ehsdata

O'Neill, P. H. (2002, April 23). *Keynote address to jumpstart coalition for personal financial literacy*, Washington, D.C. Retrieved June 15, 2009 from http://www.treas.gov/press/releases/po3035.htm

President's Advisory Council on Financial Literacy. *2008 annual report to the president*. Charles R. Schwab, Chairman. Retrieved April 6, 2009 from http://www.treas.gov/offices/domestic-finance/financial-institution/fin-education/docs/PACFL_ANNUAL_REPORT_1-16-09.pdf

Reckard, E. S. (2009, March 29). Ameriquest, a study in weak oversight. *Pittsburgh Tribune-Review,* pp. E1, E2.

Schumer, E. C. & Maloney, B. C. (2007, October). *The sub-prime lending crisis: The economic impact on wealth, property values and tax revenue and how we got here.* (p. 18). Retrieved April 6, 2009 from http://jec.senate.govindex.cfm?FuseAction=Reports.Reports&ContentRecord_id=C6627BB2-7E9C-9AF9-7AC7-32B94D398D27

State of Wisconsin Department of Financial Institutions. (2009, April 2). *Wisconsin leads nation with five national financial literacy challenge winners.* Press Release. Retrieved November 22, 2009 from http://www.wdfi.org/newsroom/press/2009FiveNationalFinLitChallengeWinners.htm

Time. (2005, June 13). *Home sweet home*. Vol. 165 (24), cover.

Treasury Department Office of Public Affairs. (2002, May 7). *Treasury department announces office of financial education.* Press release. Retrieved May 9, 2002 from http://www.ustreas.gov/press/releases/po3079.htm

©2010, IARFC All rights of reproduction in any form reserved.

U.S. Census Bureau. (2010). *Median and average sales prices of new homes sold in united states.* Retrieved March 1, 2010 from http://www.census.gov/const.uspricemon.pdf

U.S. Department of the Treasury. (2006). *Taking ownership of the future.* Retrieved May 27, 2009 from http://www.mymoney.gov/pdfs/QuickRefGuide.pdf

U.S. Senate Committee on Homeland Security and Governmental Affairs. (2007, April 30). *The federal government's role in empowering americans to make informed financial decisions.* Retrieved April 6, 2009 from http://hsgac.senate.gov/public/index.cfm?Fuseaction=Hearings.Detail&HearingID=5b121636-9f11-46cd-9c62-56dca76a9078

Zandi, M. M. (2009). *Financial shock: A 360º look at the subprime mortgage implosion, and how to avoid the next financial crisis.* Pearson Education Inc. as FT Press, Upper Saddle River, NJ. p. 237.

Zibel, A. (2009, January 15). *US foreclosure filings up 81 percent in 2008.* Retrieved June 15, 2009 from http://abcnews.go.com/Business/Economy/wireStory?id=6651274



Contact Information: Ronald P. Volpe, Professor of Finance, Williamson College of Business Administration, Youngstown State University, Youngstown, Ohio 44555, Telephone: 330-941-1872; Email: ronvolpe@comcast.net; Kathleen E. Mumaw, Assistant Professor of Accounting and Finance, Williamson College of Business Administration, Youngstown State University, Youngstown, Ohio 44555, Telephone: 330-941-3199; Email: kemumaw@ysu.edu

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

www.manaraa.com