Housing In the New Millennium:
A Home Without Equity Is Just a Rental With Debt

PORTFOLIO MANAGER'S SUMMARY

This report assesses the prospects of the U.S. housing/mortgage sector over the next several years. Based on our analysis, we believe there are elements in place for the housing sector to continue to experience growth well above GDP. However, we believe there are risks that can materially distort the growth prospects of the sector. Specifically, it appears that a large portion of the housing sector’s growth in the 1990’s came from the easing of the credit underwriting process. Such easing includes:

- The drastic reduction of minimum down payment levels from 20% to 0%
- A focused effort to target the “low income” borrower
- The reduction in private mortgage insurance requirements on high loan to value mortgages
- The increasing use of software to streamline the origination process and modify/recast delinquent loans in order to keep them classified as ‘current’
- Changes in the appraisal process which has led to widespread over-appraisal/over-valuation problems

If these trends remain in place, it is likely that the home purchase boom of the past decade will continue unabated. Despite the increasingly more difficult economic environment, it may be possible for lenders to further ease credit standards and more fully exploit less penetrated markets. Recently targeted populations that have historically been denied homeownership opportunities have offered the mortgage industry novel hurdles to overcome. Industry participants in combination with eased regulatory standards and the support of the GSEs (Government Sponsored Enterprises) have overcome many of them.

If there is an economic disruption that causes a marked rise in unemployment, the negative impact on the housing market could be quite large. These impacts come in several forms. They include a reduction in the demand for homeownership, a decline in real estate prices and increased foreclosure expenses.
These impacts would be exacerbated by the increasing debt burden of the U.S. consumer and the reduction of home equity available in the home.

Although we have yet to see any materially negative consequences of the relaxation of credit standards, we believe the risk of credit relaxation and leverage can’t be ignored. **Importantly, a relatively new method of loan forgiveness can temporarily alter the perception of credit health in the housing sector.** In an effort to keep homeowners in the home and reduce foreclosure expenses, holders of mortgage assets are currently recasting or modifying troubled loans. Such policy initiatives may for a time distort the relevancy of delinquency and foreclosure statistics. However, a protracted housing slowdown could eventually cause modifications to become uneconomic and, thus, credit quality statistics would likely become relevant once again. The virtuous circle of increasing homeownership due to greater leverage has the potential to become a vicious cycle of lower home prices due to an accelerating rate of foreclosures.

**TABLE OF CONTENTS**

I. Homeownership Rates- A Look Into The Past

II. The Easing Of Credit Standards-A Major Catalyst To The Nineties Housing Boom

III. A Bull Case Argument For Duplicating The 1990’s

IV. A Discussion About The Consumer- A Major Risk To The Bull Case Argument

V. Rising Charge-offs And The Role Of Modifications In The Mortgage Market

VI. Conclusion
HOMEOWNERSHIP RATES- A LOOK INTO THE PAST

“The best may be yet to come. We begin the year 2000 with homeownership rates at a new high of 67 percent. With the favorable economic and demographic projections, we’re in a position to hit 70 percent by the end of this decade, with over ten million new homeowners. To get there, we have to keep bending financial markets to serve the families buying the homes you build.” - Frank Raines, Chairman/CEO Fannie Mae

Assuming Mr. Raines’ forecast of homeownership rates is correct, the housing/mortgage sector should produce another decade of stellar growth. Based on our analysis of the housing/mortgage sector, there are elements in place to produce another decade of above GDP growth. Before we accept Mr. Raines’ forecast, we believe it is necessary to determine 1) how we are going to achieve these growth projections and 2) the risks associated with achieving these growth objectives. Our concern lies in Mr. Raines comment regarding the “bending” of financial markets. This “bending” has materially altered the process of underwriting a mortgage. To fully understand the term a brief history of the housing/mortgage sector is required.

In contrast to the resurgence in the U.S. economy, homeownership rates were flat for the entire decade of the 1980’s. The homeownership rate had peaked at a historic high of 65.6 percent in 1980 from which it drifted back to 64.1 percent by 1991. Housing prices have risen faster than real wages since the 1970’s and have made homeownership less ‘affordable’ to prospective buyers. Real prices for median priced homes increased 41% between 1960 and 1989.

The majority of lower income and younger households were shut out of the housing market. Homeownership for low-income families with children fell by almost a third (from 39% to 27%). Homeownership among moderate-income households declined by 10%. Among families under 35, traditionally the largest segment of first-time homebuyers, ownership had also fallen dramatically, from 45% in 1980 to less than 38% in 1991. Flat savings rates, flat real wages, an increase in inflation adjusted cost of a down payment and rising debt to liquid assets made the
amount of money required for down payment increasingly prohibitive.²

At the end of the 80’s housing affordability problems and the low savings rates were projected to ease as the US population aged. In “Toward The Year 2000”, written in the late 1980’s, the Mortgage Bankers Association of America (MBA) expected that, “As the bulge in the US population grows older, it will shift from credit using non saving young people to credit supplying net savers. This could prove a powerful shift that lowers demand for consumer durables and housing, slows credit growth relative to employment and income, and raises the national savings rate”. Ironically, the MBA’s projection could have not been more incorrect. In 1989 consumer debt to liquid assets was 60%; by 1999 that debt would be almost 96%.

Between 1990 and 1992 the Fed Funds rate declined by 400 basis points, stimulating banks to lend capital. Lower rates invited the largest residential mortgage refinancing ‘boom’ America had, until that point, ever witnessed. Refinancing originations, which had averaged $114.2BB annually between 1986 and 1991, grew to $429BB in 1992 and $560BB in 1993. While these were record levels of refinancing, by the end of 1998 the levels of refinancing would reach $751BB.

The 1992 and 1993 ‘refi’ wave encouraged existing homeowners to reallocate ‘trapped’ home-equity. Mortgage refinancing served as a tonic for the U.S economy by allowing homeowners to more greatly diversify their assets among different classes (i.e. fixed income, stocks). Refinancing lowered the homeowner’s monthly payments by reducing or extinguishing higher interest consumer debt and replacing it with lower interest and longer duration mortgage debt. Without any increase in income or reduction in total debt, consumers were enabled to increase their spending patterns.

Despite the dramatic reduction in interest rates, improvement in consumer asset diversification and reduction in high interest debt, homeownership levels barely budged. The decline in rates did not alter the fact that lenders were wary of extending credit to both the “credit poor” and the “poor credit”. Where the lender did lend to this prospective buyer, monthly mortgage payments, due to higher interest rates and fees, were still prohibitively high. In inflation-adjusted dollars the money required for a 10% down payment on a typical home had risen from $11,560 in 1978 to
$12,000 in 1988 (and to $12,450 in 1998). For many Americans, homeownership, long a symbol of the “American dream”, seemed to have become unattainable.

In an effort to restore the promises of the “American dream”, the Clinton Administration embarked on a major initiative to increase homeownership. In 1993, the Census Bureau recommended ways to do so. Lowering down payment requirements and increasing available down payment subsidies were suggested. In early 1994, HUD Secretary Henry Cisneros met with leaders of major national organizations from the housing industry. By early fall, the Clinton Administration, along with over 50 public and private organizations agreed on ‘working groups’, a basic framework and the core objectives of what they named the “National Homeownership Strategy”. The creators of the strategy of the National Partners in Homeownership (‘NPH’) include, among others: HUD, Federal Deposit Insurance Company, Fannie Mae, Freddie Mac, the Mortgage Bankers Association, the American Institute of Architects, America’s Community Bankers, the U.S. Dept. of Treasury and the National Association of Realtors. Their primary goal was “reaching all-time high national homeownership levels by the end of the century”. This was to be achieved by “making homeownership more affordable, expanding creative financing, simplifying the home buying process, reducing transaction costs, changing conventional methods of design and building less expensive houses, among other means”. It was almost unprecedented for regulators to partner this closely with those that they have been charged to regulate.

Reversing major trends, homeownership began to rise in 1995 and continued to rise through the late 1990’s. Existing home sales grew from 27.5 million units in the 1970’s to 29.8 million units in the 1980’s and ended the 1990’s at 40 million units. New home sales grew from 6.5 million units in the 1970’s to 6.1 million units in the 1980’s and ended the 1990’s at 7.0 million. By 2000, US homeownership exceeded 67%.
II THE EASING OF CREDIT STANDARDS-A MAJOR CATALYST TO THE NINETIES HOUSING BOOM

The reduction in mortgage rates and unemployment rates played a large part in the growth of the housing sector. However, the preceding discussion of the 1990’s contradicts the argument that interest rates and unemployment were the sole reasons for record homeownership levels. Clearly, the change in government policy had an effect on homeowner rates. While the underlying initiatives of the NPH were broad in content, the main theme of the NPH’s initiatives were the relaxation of credit standards. Below we discuss the major changes in the credit underwriting
process that transpired in the 1990’s. While many of these initiatives were not explicitly discussed in the NPH Strategy, the overall tone of that strategy helped to facilitate the relaxation of standards.

Traditionally, homebuyers were required to put a significant amount of money “down” as payment for a home. Traditionally this amount was usually 20% of the home’s “value”. Down payments assured lenders that buyers had enough of a personal investment in the property to repay the debt. Homeownership in the United States had always been something for which people saved. Homes are the largest investment that most families will ever make. Home equity has long been considered a “forced savings plan” because the principal payments are retained as equity in what used to be a relatively illiquid asset. Wealth is created when the constant dollar value of the homeowner’s equity exceeds any decline in home value. As refinancing became easier, the ‘forced savings plan’ effect diminished. Ironically, while it became easier for existing homeowners to liquidate home equity, the requirement that potential ‘homebuyers’ have equity to put into a home diminished.

The requirement that homebuyers make significant down payments was eliminated in the 1990’s. The NPH urged and approved increasingly larger reductions in requirements. “The partnership should support continued federal and state funding of targeted homeownership subsidies for households that would not otherwise be able to purchase homes. Notwithstanding the growing number of high loan-to-value mortgage products available today, many households, particularly low- and moderate- income families, will need subsidies to supplement down payment and closing funds or to reduce the monthly obligation on a home purchase mortgage”. 5

“In 1989 only 7 percent of home mortgages were made with less than 10 percent down payment. By August 1994, low down payment mortgage loans had increased to 29 percent”.6 This trend continued unabated throughout the 1990’s so by 1999, over 50 % of mortgages had down payments of less than 10%. In 1976 the average down payment by first time homebuyers was 18%, by 1999 that down payment had fallen to 12.6%.7 In 1999, more than 5% of all residential mortgages had no equity or had negative home-equity.8 Eliminating down payment barriers has created a homeownership option for Americans who previously were forced to rent, due to savings or credit issues.

<table>
<thead>
<tr>
<th>Down Payment Requirements</th>
<th>Have Dropped to Record Low Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditionally, homebuyers were required to put a significant amount of money “down” as payment for a home. Traditionally this amount was usually 20% of the home’s “value”. Down payments assured lenders that buyers had enough of a personal investment in the property to repay the debt. Homeownership in the United States had always been something for which people saved. Homes are the largest investment that most families will ever make. Home equity has long been considered a “forced savings plan” because the principal payments are retained as equity in what used to be a relatively illiquid asset. Wealth is created when the constant dollar value of the homeowner’s equity exceeds any decline in home value. As refinancing became easier, the ‘forced savings plan’ effect diminished. Ironically, while it became easier for existing homeowners to liquidate home equity, the requirement that potential ‘homebuyers’ have equity to put into a home diminished.</td>
<td></td>
</tr>
</tbody>
</table>
Over the past decade Fannie Mae and Freddie Mac have reduced required down payments on loans that they purchase in the secondary market. Those requirements have declined from 10% to 5% to 3% and in the past few months Fannie Mae announced that it would follow Freddie Mac’s recent move into the 0% down payment mortgage market. Although they are buying low down payment loans, those loans must be insured with ‘private mortgage insurance’ (PMI). On homes with PMI, even the closing costs can now be borrowed through unsecured loans, gifts or subsidies. This means that not only can the buyer put zero dollars down to purchase a new house but also that the mortgage can finance the closing costs.

PMI is a method by which non federally guaranteed (FHA or VA) homebuyers can, with monthly insurance premium payments, forgo the 20% down payment requirement. Just as the government insures the FHA or VA lender on FHA or VA in the event of default, PMI protects the lender if a conventional borrower defaults. Generally, to be considered for PMI, a homebuyer must make a down payment of 3-5% of a home’s value. Fannie and Freddie, recognizing the “near certainty of losses on most foreclosures”, have required PMI on mortgages with loan to value (LTV) ratios higher than 80%. The insurance has generally covered the top 20 to 30% of the potential claim amount of the loan or the portion of the loan that is greater than 70% of the value of the property. With the decline of down payments, the PMI companies have enjoyed a great decade of strong growth.

The total size of the US mortgage insurance market at the end of 1999 was $600BB. The PMI companies had approximately 52% or $312BB of mortgage insurance outstanding with $10.8BB of capital in reserve. These reserves act, in part, to support the top 20-30% of the $2.5 trillion of conventional mortgage balances of Fannie Mae and Freddie Mac. Fannie Mae and Freddie Mac have combined balance sheets with $41BB of core equity capital. US taxpayers, through a direct (not implied) government guarantee, insure the other $278BB. The PMI industry’s role in the mortgage market has been increased due to their effect on efforts to increase homeownership while also lowering the monthly cost to buyers. To further reduce monthly costs the GSEs appear to have chosen to increasingly purchase bulk/wholesale PMI insurance. These wholesale insurance policy sales may impair the margins of the PMI companies. This has short and longer-term
implications. By buying PMI on a wholesale basis, the cost of that insurance may not be fully disclosed to the homebuyer. Longer term, the financial stability of the PMI companies may be negatively impacted as their margins decline.

Recently, Congress amended a 1998 Act, which requires the cancellation of PMI insurance on mortgages once the loan balance shrinks to 78% of the LTV. Fannie and Freddie have adopted guidelines allowing cancellation at the request of the homeowner if the homeowner has had the mortgage loan for over two years and if current appraisal shows that the loan amount represents no more than 75% of that appraised value. If the loan has been held for more than 5 years cancellation occurs at 80%. The current appraised value of the property, the key issue in loan to value determination, is influenced by judgments of appreciation. The appraisal process has gone through dramatic changes that we detail later in this report.

Fannie and Freddie have gone further in reducing PMI requirements for borrowers whose loans are originated utilizing their automated underwriting software (AU software). They will reduce the monthly PMI cost to buyers who agree to a higher interest rate on the loan or agrees to extra fees upon closing. In other words, they will reduce the monthly costs in exchange for potentially higher total costs spread over the life of the loan. Not only does this reduce the monthly cash requirement but also, by building the insurance or alternative risk into the interest rate, it shifts the cost burden onto US taxpayer either directly, through interest deductions, or indirectly, by increased systemic risk.

Automated Underwriting Software Redefines the Underwriting Process

While the policy of easing PMI requirements on loans originated through AU software may seem like a good idea, the jury is still out on the software itself. The software dramatically changes the traditional process of origination as well as the traditional documentation requirements. Claims of the software’s increased efficiency and effectiveness have yet to be tested in a slowing economy. In fact the systems have been approved even though they were stress-tested using only a limited number and breadth of economic scenarios. For borrowers with ‘good credit’, a variably defined term, the software allows higher debt to income levels than does traditional underwriting. Therefore, the size of the loan is relatively larger. According to a regional operations manager for Chase Manhattan Mortgage “where three months of bank statements and pay-check stubs are required for conventional underwriting, only one month is typically required
by the automated system”. MICA, the association of the mortgage insurance companies has also highlighted the changes which AU has allowed: “A record of prompt utility bill and rent payments can be substituted for the traditional credit report to verify a potential borrower’s willingness to pay a mortgage loan”.

A July 2000 article in the Christian Science Monitor stated, “Borrowers are being approved for loans that they would have been turned down for just a year or two ago”. In the article Frank Raines, Chairman of Fannie Mae, is quoted as saying that “by analyzing the credit assessments done by Desktop Underwriter, we found that lower income families have credit histories that are just as strong as wealthier families…This allowed us to finance loans with down payments as low as 3 percent, and expand our purchase of these loans by almost 40 times during the 1990’s”. While Mr. Raines credit history statement may be correct, the risk and economic stability profiles of the lower income borrower are historically not as strong. These lower income markets have become an ever-larger part of the conventional and FHA/VA origination market.

Automated underwriting software has also been the subject of inquiries by both the Department of Justice and HUD. Their primary concerns relate to questions of racial profiling or discrimination. In June of 2000, the DOJ commented that AU systems might have negative bias toward minority applicants and urged developers of those systems to ‘fine-tune their instruments” to prevent negative bias. While discrimination issues have been lodged against the GSEs AU systems, other critics have raised valid concern that the incentives offered, to both borrowers and lenders, in exchange for the use of Freddie and Fannie Mae’s systems, decrease the competitiveness of other AU systems and enforce a de-facto anti-competitive duopoly.

As we have mentioned, the appraisal and appraised value of the home is arguably the most important element of the home loan origination process. In a proper appraisal, value is based on a number of factors. Value is not defined merely as the price a buyer is willing to pay. Traditionally the appraisal is a six step process which includes: definition of the problem, preliminary survey and appraisal plan, data collection and analysis, application of the three approaches to value, reconciliation of value indications, final estimate of defined value.
We have spoken with real estate-appraisers, fraud appraisers and national appraisal organizations and have been told, almost unanimously, that the changes in the appraisal process, over the past decade, have jeopardized the soundness of the process and skewed real estate prices. Of the approximately 85,000 real estate appraisers in the country, roughly 40,000 appraisers are members of professional societies with ongoing educational requirements, standards and ethical codes. The remaining 45,000 are unaffiliated and subject only to varying state licensing requirements. Many or most regional markets have moved away from the traditional practice of randomly assigned appraisers chosen from organized blind pools. With the elimination of the objectivity that blind pool appraisers brought to the process, the process deteriorated. Today, appraisers are, generally, hand picked by agents and brokers and are compensated for each appraisal. The system of checks and balances that the appraisal process was created to secure has become fraught with conflicts of interest.

Both real estate agent and mortgage brokers are compensated for “closing the deal”. In the purchase of a home, the seller pays the agent a fee, generally a percentage of the sales price. Therefore, the agent has incentive to increase the sale price of the home. Similarly, in the refinancing of a mortgage, the homeowner pays the mortgage broker an origination fee, generally a percentage of the refinanced mortgage. The broker has incentive to increase the appraised value of the home, thereby allowing the homeowner to extract more equity from the home. Almost all of the appraisers with whom we spoke stated that they have felt pressure to “hit the bid”. Those who are unwilling to succumb to these pressures face the risk of lost business. Unfortunately for the honest appraiser, there always seems to be an appraiser willing to ‘hit that bid’. The professional societies within the appraisal industry have sought help from federal regulators but have neither the lobbying dollars to advocate change nor the voice to stimulate it. Over-appraisal distorts value and undermines the integrity of the loan even before it is originated. It also reduces the ability of servicers to estimate default rates and losses in a declining real estate markets.

Over-appraisal creates a false market and risks increasing the debt of both homebuyers and refinancing homeowners. This economic risk is magnified in the event of a layoff or other adverse economic shock. Real estate price declines would make it even more difficult for the “owner” to access trapped home equity. Industry experts estimate that mortgage fraud may represent a $120 billion a year industry. HUD’s 1999/2000 internal audit of single family FHA loan production found that
56% of defaulted loans in their study had significant underwriting deficiencies that were not detected by HUD or the contractor. Those deficiencies included fraud, excessive ratios, source or adequacy of funds issues, improper income analysis and/or debt or credit issues. \(^{16}\) Because this data is from already defaulted loans, it is fair to assume that these loans were written prior to the 1998 refi boom. It also seems fair to assume that we risk similar underwriting issues, on a larger scale, as these later vintage loans season. According to the Foundation for Real Estate Appraisers, significant slowing of the economy combined with aging and unreliable comparable sales will trigger problems on appraisals done using the “market approach”. \(^{17}\)

How have the holders of these questionable mortgages addressed these concerns? Fannie Mae, as one holder, recently introduced its Master Appraisal Process. This is intended to reduce the cost and time to origination of single-family new home loans by reducing the requirement that individual property appraisals be performed on each property in a project or subdivision. This process also reduces the impact of human judgment, claims to reduce costs by up to 75% and also creates new income opportunities for Fannie.

There has been, during the past few years, increases to the “technology fees” that the GSEs charge. We are not sure whether these fees relate only to AU system costs or also embed the reduction in appraisal fees. This begs the question: “How much are they reducing the system-wide costs of homeownership?”. While the automated appraisal process may be efficient, is it effective or prudent? Wouldn’t it be more prudent and in the long term less costly to strengthen the independence of appraisers? Why hasn’t the objectivity of appraisers been protected? Firstly, the appraiser has become a cheaper, de-facto, source of insurance than PMI. It is increasingly common for the same lender who pushed the appraiser to “hit the number” to turn around and sue the appraiser in an attempt to recover losses if or when a loan does go bad. In fact, it has been estimated that as much as 75% of civil suits against appraisers are filed by lenders. \(^{18}\) Secondly, weakening the appraisal process allows the GSEs to claim that, by automating it, they are benefiting the system. Critics of Fannie and Freddie argue that, because of the law of large numbers, it will become more difficult to increase homeownership at recent rates. Therefore, they argue, the GSEs are trying to “creep” into as many new businesses as possible while reducing underwriting standards. By reducing underwriting standards it becomes difficult to distinguish between those who...
cannot afford homeownership and those who have been deterred from homeownership.

Ironically, research conducted by Freddie Mac has concluded, “that low down-payment loans pose legitimate concerns for lenders because they are known to trigger greater losses than loans with a larger equity cushion.” The research also showed that delinquencies and defaults mount when several underwriting standards are eased at the same time. Put simply, a homeowner with little or no equity has less reason to maintain his/her obligations.

IV

A BULL CASE ARGUMENT FOR DUPLICATING THE 1990’s

According to OFHEO’s, (Office of Federal Housing Enterprise Oversight) fourth quarter report to Congress, housing prices rose 30.5% between 1995 and the fourth quarter of 2000. Between Q1 2000 and Q1 2001, average US home prices increased by 8.8%. Regulatory and practical changes have already affected the industry and seduced more than just the marginal buyer to ownership. We have reduced the monthly cost of ownership already by relaxing down payment requirements, loan-to-value ratios, debt-to-income limits, private mortgage requirements, appraisal processes, underwriting processes and delinquency and foreclosure procedures.

With homeownership and real estate prices, in most markets, at record levels, can we continue to go higher? Despite weakening economic environment, it may be possible for lenders to further ease credit standards and more fully exploit less penetrated markets. We expect further attempts at easing of credit standards because increasing homeownership and rising home prices are the key ingredients for industry growth. While the NPH has met its targeted goal, the popularity of Government subsidy of homeownership seems to offer new goals to shoot for. With housing prices still rising faster than either real wages (a trend since the 1970’s) or real disposable income (since 1997), further reductions to the barriers of homeownership have begun. As evidence that the industry’s good times are likely to continue, consider that America’s Community Bankers are lobbying the Office of Thrift Supervision to go further than they have proposed in reducing capital requirements on mortgage loans. They want the OTS to create a new risk weighting for highly collateralized real estate loans. With further easing of Fed Funds
rates and easing of underwriting and capital standards, is it possible to increase homeownership from current levels?

While Census projections predict the population growth rate to decline as the baby-boomers age, it is likely that the industry may be able to, for a time, continue to expand the homeownership market as a percentage of the total housing market. The number of households should grow at approximately 1.1-1.2 million annually over the next decade.\(^2\) Traditional homeownership populations have leveled off and, as in the past decade, newer markets must be relied on for larger portions of industry growth. Citizen and alien immigrant populations, lower income populations, the credit-impaired, credit-poor populations and other groups, have become major drivers of growth in the industry. Immigrant populations are, going forward, projected to be one quarter of the total new homeowner market.

These populations have offered the mortgage industry novel hurdles to overcome. Industry participants in combination with eased regulatory standards and the support of the GSEs have overcome many of them. Members of many immigrant populations do not have bank accounts, money for down payments or closing costs. The NPH participants have established assistance programs, often of forgivable loans, which can help put these populations into homes. Income documentation of ‘off the books’ employees has traditionally been an obstacle to homeownership but several models have evolved to overcome these hurdles. The requirement that applicants for homeownership have two years of documented work experience has also been alleviated as lenders and secondary market mortgage players have recognized that it may be ‘hard to verify two years of stable employment’. It may be difficult to verify two years of work history because many of these populations ‘job hop’ for higher wages or ‘return to their home countries for extended periods.’ Lenders have created a variety of means to appreciate the economic status of potential borrowers. Although many job and income issues have been overcome, these borrowers’ lack of credit and credit problems may have created obstacles. The partnership continues to work to overcome many of these issues and further the creation of ‘nontraditional credit history’.\(^2\)

“For several years, the secondary market has recognized and employed nontraditional credit. By verifying records of regular monthly payments, a credit history can be developed for a borrower who, by purchasing consumer goods with cash, establishes a kind of credit history that ordinarily does not appear in a credit report”.\(^2\) While most lenders prefer to see that the
borrower has, at least contributed to rent and has not been delinquent on those payments for 12-24 months, they do not necessarily require that those borrowers have been named on the rental agreement.24

In 1999, the Congress enacted the “First-time Homebuyer Affordability Act of 1999”. The premise of the Act is that “it is desirable to make funds available from individual retirement plans to encourage first-time homeownership”. This legislation reduces the difficulty a potential buyer may have in financing a down payment, but with risks. In the event of a decline in real estate values or in the event of a foreclosure, some or all of that borrower’s retirement asset may be lost. HUD analysis has concluded that at least 600,000 households over the next 5 years “would benefit from withdrawing funds from their retirement accounts for a first-time down payment option”.25

In 2000, Congress enacted “The American Homeownership and Economic Opportunity Act of 2000”. Title I of the Act is termed “REMOVAL OF BARRIERS TO HOUSING AFFORDABILITY”. Among the bill’s provisions is one that allows families receiving federal rental assistance to accumulate up to a year’s worth of that assistance toward the down payment, appraisal and closing costs of a home. President George W. Bush, based on public comments, seems to have agreed with the previous administration that low-income families should be allowed to apply rental vouchers toward down payments.26

Recently, the industry has engaged in a troubling innovation: the increased acceptance of ‘seller contributions’ as a means for cash constrained buyers to purchase homes. Increasing application of these ‘contributions’ could further support the growth in the housing markets. “To improve on a buyer’s ability to purchase a home, sellers can contribute to the buyer’s cash on hand for settlement costs. Under such an arrangement, the seller and the buyer agree to increase the sales price of a home, with the seller “gifting” the added amount back to the buyer. Although the financing requirements for the buyer remain the same, the mortgage becomes more affordable [as it lowers the loan-to-(appraised) value]. For seller contributions to work, the arrangement cannot be done behind the lenders back and the appraiser must concur with the higher home price.”27 We have heard more industry players recommend that regulators allow these ‘seller contributions’ to help fund not only the settlement costs but also the down payments.
With all that has been done in the past decade to improve homeownership rates, there are many people that believe that the work has only just begun. In January 2001, Congress created the Millennial Housing Commission. This commission was created to “start formulating solutions in America’s housing market.” According to Co-Chair and former Congresswoman Susan Molinari, “there are over 28 million American households, from all walks of life, working families, middle income people, the elderly, the handicapped and others, who do not have access to decent, affordable housing. The current housing system doesn’t work for these people. We’ve been charged by Congress to recommend legislation at all levels of government can help foster affordable housing.”

V

A DISCUSSION ABOUT THE U.S. CONSUMER- A MAJOR RISK TO THE BULL ARGUMENT

For the most part, the preceding bull case argument ignores the byproduct of relaxing credit standards to increase homeownership. Specifically, the relaxation of credit underwriting standards, coupled with the willingness to spend, has created a significant debt burden on the U.S. consumer.

For most of the 1990’s the average US consumer was willing to spend in excess of his/her income growth. Based on statistics provided by the Federal Reserve, compared to the 1980’s, consumer-spending growth increased by 3.28% (CAGR), well above the 2.59% (CAGR) increase in disposable income. The surge in spending reduced the U.S. consumer savings rate to modern lows: The personal savings rate of the US consumer turned negative for the first time since the 1950’s. While the savings rate does not include unearned income or capital gains, those gains are diminished by declines in real estate and equity markets. While unrealized gains may disappear, debts do not. On an absolute basis, at decade end, consumer debt exceeded $6.9 trillion, or approximately $66,500 per U.S. household. Below we chart key debt measures for the past several decades.
In the major media, the surge in consumer debt has taken a back seat to the “surplus” in the federal budget and ‘pay down’ of government debt. That lack of media attention does not alter the fact that consumer debt is the larger and faster growing debt market. Unlike the federal government, consumers don’t have the ability to print money to pay off their debts. In other words, these debts must be paid back.

Some would argue that the increase in absolute consumer debt is not the correct barometer to gauge the health of the consumer. Instead, they would argue a better barometer would be to look at required monthly debt and interest payments (mortgage payments, minimum credit card payments, auto payments) as a percentage of disposable income. Despite the absolute growth in consumer debt, Federal Reserve Board figures state that the percentage of disposable income required to satisfy a consumer’s minimum monthly debt burden has been relatively constant for the past twenty years, never exceeding 15% of disposable income.
However, there are important shortcomings in the Federal Reserve Data. The Federal Reserve data includes only the minimum required payment for credit card loans, not the monthly interest owed on such loans. That minimum payment is the due number at the top of a credit card bill. Currently that number is around 2% of the total outstanding balance. Even if we accept the slight glitch in the Federal Reserve’s calculation, monthly mortgage payments comprise approximately 32% of the average new homebuyer’s monthly after-tax income, up from 24% of after-tax income in 1976. With consumer spending exceeding disposable income for some time, how can there have been no visible increase in the debt service burden?

Lower interest rates and strong employment trends have increased a consumer’s ability to hold debt without materially affecting his monthly budget. In theory, it makes sense that consumers should lever themselves in a period where their cost of debt capital is below the return they can obtain on assets. The logical extension of this argument would be that debt extinguishments should not occur during economic expansion but should occur only at that expansion’s peak. While theoretically attractive practically impossible. Assuming the recent cycle of economic growth reasserts itself and asset returns exceed a consumer’s cost of debt capital, that consumer’s ability to manage his/her current levels of debt will continue and perhaps increase. The appreciation of real estate would facilitate the ability to continue to tap equity.

A debt burdened U.S. consumer is a risk to the housing sector. In and of itself, a high debt burden is not a major concern.
unless it is coupled with a slowdown in the U.S. economy. Unfortunately, we believe it is unwise to simply shrug off the current state of the U.S. economy as a respite in a growth cycle. Rapid declines in equity valuations and the unfulfilled promise of a ‘new economic paradigm’ are beginning to take their toll. Potentially, the equity market declines can alter consumer expectations of achieving returns on assets in excess of their cost of debt capital. With the recent increase in unemployment insurance claims, the virtual shutdown of the Internet economy and a tougher job market, the ability for non-homeowners to purchase a home should be getting more difficult. An increase in unemployment, coupled with a potential slowdown in the demand for housing, increases the risk of higher foreclosure expenses.

We believe that the consumer will put up a fight to maintain the lifestyle that the recent economic environment had allowed. For example, in order to maintain a particular lifestyle, consumers are currently drawing down their home-equity. Just as public corporations are able to tap into the market value of their stock to purchase other assets, homeowners can tap into the value of their home and extract cash. Rising real estate prices have increased the equity value of the home (the denominator of the LTV ratio), providing consumers with what appeared to be a bottomless reserve of consumable equity. With the continuous decline in interest rates, homeowners, in increasing and unprecedented numbers, “cashed out” equity from their homes. According to a study by Dirken and Ellihousen, by 1999 47% of homeowners had refinanced their homes at least once. This is in stark contrast to the 8% who had refinanced at least once by 1977. According to data provided by the Mortgage Banker’s Association and Federal Housing Finance Board, the dollar volume of mortgage refinancing in the 1990’s ($3.37 trillion) exceeded the dollar volume of ALL mortgage originations in the 1980’s ($2.93 trillion).

While mortgage refinancing allows consumers to take advantage of lower rates and reduce monthly payments, there are negative consequences of mortgage refinancing. More often than not, refi’s extend the duration of mortgage debt. When homeowners extract equity from their homes, the absolute amount of debt they owe to creditors increases, as does the LTV of their mortgage debt.
To understand the potential, future economic consequences of the past decades consumption largess, it is crucial to analyze the different types of the ‘refinancer’. According to a November 2000 study at the University of Chicago Graduate School of Economics, there are two distinct types of refinancer.\(^{31}\) The TYPE I refinancer seeks to take advantage of low interest rates and increase their wealth position by reallocating ‘trapped’ equity into a more diverse asset portfolio. The second type, TYPE II, refinances almost without regard to interest rates in an effort to smooth consumption during negative income or expenditure shocks. A TYPE II refinancer is more likely to extract or cash-out equity from the home and use that cash to fund consumer expenditures. According to this Hurst study, consumers who are motivated to refinance for consumption smoothing purposes have little to no liquid assets and typically use 60% of the equity extracted for consumption purposes.

TYPE I behavior was the dominant behavior during the refinance boom of 1992-93 and to a slightly lesser extent, the refinance boom of 1998. During those refinance booms; consumers were fairly liquid, well-employed and enjoyed increasing returns in other assets (pensions, 401K).

Currently, refinancing offers the potential to increase the absolute debt burden of the average U.S. household without materially reducing other consumer debts (credit cards, auto loans) with higher costs of debt capital. Historically, the most beneficial economic result of mortgage refinance waves (in a declining interest rate environment) is the reduction of higher cost consumer debt, either as a percentage of disposable income or an absolute basis. If the current mortgage-refinancing wave includes a larger percentage of TYPE II (consumption smoothing) refis, it is likely that the resultant reduction of monthly mortgage payments and extracted cash will not be applied toward the reduction of higher cost consumer debt.

According to Freddie Mac more than 75% of homeowners who refinanced in the last three months of 2000 took out mortgages that were at least 5% higher than the ones that they retired. In contrast, only 50% of refinancing in 1998 removed in excess of 5% and 33% did so in the refinancing boom of 1993. In 1998, the median amount of cashed-out equity was 11% versus 6% in 1993. Accordingly, the major economic benefits associated with a mortgage refinance wave may become reduced or eliminated. As shown below, the refinance boom of 1992 reduced the ratio of higher cost consumer debt (i.e., credit cards, auto loans) to disposable income. The refinance boom of 1998 slowed the
growth rate of the ratio of higher cost consumer debt to disposable income. Each refinance boom seems to be reducing the long-term economic benefits of refinance booms. Assuming that the percentage of TYPE II refinancing increases in the current and future refinance booms we believe that the economic benefit of refinancing will continue to decline and become a detriment to our economic health.

Source: Federal Reserve and Graham Fisher & Co. calc.

“This spending stimulus may not be without limits. Unlike public debt where repayment obligations have only diffuse and uncertain limits on private decision makers, the accumulation of private debt comes home to roost quickly in the form of higher repayment risk and the exhaustion of collateralized marketable assets as security. Borrowers are then forced to resort to higher cost, non-collateralized sources, such as 100% plus equity mortgages to fund any other future consumption shocks. These borrowers then have the added cash flow burden of debt service costs.”32
If we were to simply look at the current amount of mortgage debt outstanding in relation to the current value of real estate, it would appear that we have a lot of dry powder left. This method would assume that everyone had mortgages (and of equal size).

Source: Federal Reserve data.

We have chosen to look at the issue differently. According to our calculations, using Census and Federal Reserve data, since 1985 the number of unencumbered homes has declined from 47% to 37%. Since 1990, the percentage of conventional mortgage originations with LTVs over 90% has increased from 8% to over 22%.

Source: Federal Housing Finance Board

Clearly there isn’t enough data to positively determine how close we are to the breaking point, but it appears that newer mortgage
holders are significantly closer to the breaking point than the average indicates. Seventy-seven percent of all primary mortgages outstanding have been originated since 1990. This seventy-seven percent includes new mortgages that are as a result of refinancing. The increasing frequency of refinancing waves and the increasing proportion of refinancing that include the withdrawal of equity in excess of the value of the existing mortgage is notable. During the first quarter of 2000, 79% of Freddie Mac-owned loans were refinanced with loans that were at least 5 percent larger than their original mortgage, compared to 57% during the first quarter of 1999.

If real estate prices begin to decline, or unemployment rises, the ability to tap into the home for additional equity will be substantially reduced. According to 1999 Census data, of the 38.8 million owners with one or more regular mortgages, over 5% had no equity or negative equity. Another 7% had less than 10% equity. In other words, declining real estate valuations would reduce the ability of the Federal Reserve to stimulate the economy with lower interest rates. Not surprisingly, mortgage delinquencies peaked in the early 1980’s, right after a period of recession and a surge in low down payment (LTV’s greater than 90%) loans.

Market participants see the aggregate loan to value of the US residential real estate market, at less than 50%, as a sign of the market’s health. This aggregate value actually serves to obfuscate many of the risks. Aggregate LTV’s are calculated by dividing total residential mortgage debt by the ‘value’ of all residential real estate. This number is skewed by real estate without encumbrance. Although unencumbered real estate could be used to tap equity in the form of cash, homeowners with little to no financial encumbrances typically do not consider home equity a consumption tool. Our calculations suggest that the LTVs on homes with mortgage debt are 25% above these aggregate LTVs. Aggregate LTV methodology also fails to account for the more than 30% of households that rent apartments within multifamily units and therefore have no extractable home equity. These factors deflate aggregate LTV ratios. Secondly, they relate to the average LTV of US real estate, not the median. Accordingly, they do not necessarily reflect the debt burden of the ‘average’ U.S. consumer. Third, aggregate calculations do not provide a snapshot of the leverage of more recent homebuyers who appear to have significantly less ‘consumable’ equity in the home. The major refinancing waves of 1992-93, 1998 and 2001 have drained successively more of the US homeowner’s equity, both in dollar amounts and mortgage percentage. Much of this consumer
leverage is the result of the eased standards supported by the “National Homeownership Strategy”. The leverage was, in many respects, part of the plan and was required in order to fulfill their goals.

One can argue that our analysis ignores interest rates and the positive affect declining rates can have on the demand for new/existing homes. Near term, we expect that declining rates, coupled with easing standards, may spur demand in the housing market. Declining rates reduce the monthly payment of owning a home. This is the main reason why the housing market remains buoyant. Despite growing concern of a slower economy and rising unemployment, the volume of homes being built remains strong. Such strength can be seen in the number of homes in inventory. Driven by lower rates, the number of homes available for purchase has increased to 1.6 million homes. “The exhaustion of home equity may limit the monetary stimulus of successive reduction in home mortgage rates”.33 As less equity exists in the home, homeowners seeking to refinance will again be forced to rely on sub-prime lenders.

The probability that real estate prices will decline over the next few years is too large to ignore. If real estate prices decline, the homeowner’s ability to draw on his or her home equity to smooth consumption will also decline. It has been empirically proven that such collateral constraints have limited the ability to refinance in states where real estate markets were depressed.34 As goes the consumer’s ability to spend, so goes the economy. As consumers lose the ability to cash out home equity, the Federal Reserve loses the ability to stimulate consumer spending with lower rates. “Mr. Market” may have realized this when he chose not to rally the stock market after the recent rate cuts.

Regardless of further declines in interest rates, it is going to be difficult to significantly grow the percentage of homeownership above the levels we have witnessed during the past five years. It is important to layer the “law of large numbers” on top of our economic outlook. Equity prices, at these high levels reflect “consensus” view that a further decline in interest rates will increase housing activity. These views must be questioned.
VI  

RISING CHARGEOFFS AND THE ROLE OF MODIFICATIONS IN THE MORTGAGE MARKET

Relaxations in credit standards coupled with a slowdown in the U.S. economy have increased charge-off risks. Even so, delinquency and foreclosure rates have been benign. Because there is no way to retrospectively recall a loan or means to cure a poorly written one, the industry has increasingly relied on changes to foreclosure practices that distort the delinquency data and reduces the transparency with which foreclosure risk is measured.

Recently, HUD highlighted the systemic problems which, should be increasing delinquency and foreclosure rates:

“Procedures and practices pertaining to HUD’s single family loan origination program have undergone considerable change in the last decade and particularly in the last five years. The changes have been both programmatic and organizational, including significant changes in loan underwriting requirements and the transfer of virtually all aspects of single family production and program monitoring from HUD staff to lenders and contractors under the oversight of HUD’s homeownership centers. We found substantial problems with HUD’s controls over the quality of both the underwriting (Finding 1) and appraisal (Finding 3) procedures of direct endorsement lenders. We found that in 70, (46 percent), of the 151 cases we reviewed, substantial underwriting errors were not detected by the post-endorsement technical review process and 32 cases (21 percent) with significant fraud indicators were not identified. Additionally, even when significant problems were noted during the technical review process, little, if any, corrective action was taken.”

While “direct endorsement lenders” issue FHA loans, we believe that the same trends can be seen in the “conventional” market.

Mortgage Loan 'Modification'/Recasting'- a Long Term Risk

While high employment and low interest rates are the primary contributors to the strength in mortgage credit performance, surprising initiatives brought forth by the holders of mortgage assets also warrant credit. The decade, as we have discussed, brought increased reliance on AU software and appraisal software. In an effort to keep people in their homes, prevent foreclosure
expenses and allow lenders to avoid taking charges, the industry has begun to use software to modify or recast delinquent loans.

In fact, the two public housing GSEs are paying lenders ‘incentives’ to ‘recast loans’. Curious about these systems, we embarked on a series of discussions with industry officials. We asked an executive at one of the large servicers, about the initiative. He responded that the GSEs:

“Strongly encourage lenders to work with the delinquent borrowers and modify their loan terms, as opposed to the traditional collection and foreclosure practices. These modifications can take the form of “capitalizing” the delinquent payments (generally not all…they would like to see the borrower bring cash in to the modification, but do not require it) in the loan balance, re-amortizing the loan over 30 years, and often lowering the rate, if market rates are lower. We are paid a fee to handle this modification/cover our costs of $200 to $300. In addition by ‘eliminating’ these delinquencies the lender/servicer can maintain a Tier 1 rating with (the GSEs) and Tier 1 lenders/servicers receive a bonus annually based on their loan volume sold to (the GSEs)…. The real issue it seems to me is whether or not the GSEs report these loans as current or troubled/modified in their SEC filings…we are required by them to report them as current…The other issue is that some lenders have been extremely aggressive in modifying loans (even 30 day delinquents) and some have not, distorting delinquency and loan quality comparisons from lender to lender.”

The executive did not realize that the GSEs are not required to file any financial documents with the SEC due to their government agency status. It is also our understanding that there is no reporting of modification data to investors. The lenders/servicers, besides receiving bonuses, are reporting as current, loans that in the past would have been reported as delinquent. They have also, necessarily, reduced the number of foreclosures at a rate greater than the reduction in delinquencies. In an effort to clarify some of the issues surrounding and intent of the change in policy we spoke with an economist at one of the GSEs. The dialog was as follows:

Q: I understand that there is a declining interest in moving to foreclosure, is this policy driven by the government, originators or the GSEs?
A: People have recognized that there is more money to be made by optimally working out a servicing plan or determining when and how to move, we are giving our
originators software that is similar to our underwriting software. We have a historical database of people who have gotten into trouble and can use that data to determine the likelihood of payment.

Q: When you determine that a workout or ‘mod’ is advantageous to foreclosure do the loans go from ‘delinquent’ to ‘current’ in your reporting?
A: Yes (pause), well, I should say I’m 90% sure. I am not sure of what we are saying on that.

Q: Do you see the frequency of the mod alternative as significant? In other words, is it a statistically significant number of delinquencies that can be modified as opposed to moved to foreclosure?
A: Yes, it is a very significant number. We believe that it is a large number and believe that our REO experience could be a guide. I think we mentioned something in our annual report that you can use as a guide. I am not sure what we have disclosed, or can, in terms of an actual number.

Q: Should we see, all things being equal (such as employments, markets, etc.) foreclosures decline?
A: Yes

Q: With a major change like this, we will become less able to analyze the historic delinquency and foreclosure data. Doesn’t it become less of an apple to apples comparison?
A: Yes, you need events.

Fannie Mae’s “Home-Saver Solution” software, which was introduced to the market in 1997 and has been increasingly marketed aggressively to servicers/lenders, is already distorting the foreclosure numbers. The number of loans, since 1997, which were in pre-foreclosure and then ‘worked-out’ (not foreclosed) has increased from 35% to 42% to 51% to 2000’s 53%.

FHA loans, backed directly by the government, have had even more stunning results. In the summer of 1997 FHA opened it’s National Loss Mitigation Center. The program became fully operational in February of 1998. By the end of 1998 they had ‘helped’ 11,000 homeowners avoid foreclosure. According to HUD testimony from 1999, the program was on track to help 20,000 homeowners avoid foreclosure. When we spoke with the Department of Examination and Oversight at OFHEO and asked if the “modification software” had ever been ‘stress tested’ by regulators, we were told that they are only responsible to test for ‘capital adequacy’. We suggested that if software based on flawed assumptions or narrow economic forecast outlooks was
used to modify loans, by the time that the flaws showed in the numbers it would be too late. We were later told by an industry source that OFHEO has said publicly that it would look at the software but has said “off the record” that they would not likely be able to do so. OFHEO has a relatively small $20 million budget which is quite limited when attempting to regulate the housing GSEs).

The increase in modifications and the lack of detailed recording and reporting of these ‘mods’ makes assessing the market risks to the mortgage-backed securities holders difficult. We know of no available, public, data tracking “relapse” rates and are unsure if this data exists at all. There are also no reports of the size of lender/servicers “current” mortgages, which may have been or may be “non-performing” by traditional standards. Aggressive employment of “mods” and inducements to modify loans may have significant and, as yet, unrecognized implications. (NOTE: We later found in Freddie Mac’s Bulletin 98-9, that the lender/servicer is only required to record, let alone report to the GSE, that the loan was modified if the ‘mod’ is $15k or more, the original term of the loan is extended by 7 years or more or that the interest rate is increased.)

Peter G. Miller’s “Loan Modification Secrets Uncovered“ suggested that “modifying a mortgage rather than refinancing can put big money in your pocket and eliminate complex and costly closing rituals. With loan modification you take the mortgage you now have and change the interest rate and payment requirements – just like an ARM. And just like an ARM, a change in rates and payments does not result in the need for a new closing, legal fees, survey, appraisal or taxes”. As more people become aware of the potential to modify loans, modifications will become more common and will eat into the refinancing market-share. The reduction of refinancing may reduce the margins and profitability of primary market originators. This could reduce the financial stability of those originators and make them more reliant on the modification fees and “incentives” paid to them as Tier 1 lenders/servicers. We strongly believe that foreclosures in our current housing structure are a necessary and healthy market event as they move homes from weak hands to stronger ones.

Interventions to prevent foreclosure reduce supply and, therefore, increase home prices. While it may be argued that modifications are a service to the “homeowner”, we have been unable to find data detailing the longer-term relapse rates of modified loans. If those borrowers were to relapse and eventually default the cost to those homeowners would have been lower had they not been
modified in the first place. Given the current economic environment regardless of the efforts by the GSEs to modify problem loans, the probability of increasing foreclosures is high.

V CONCLUSION

The U.S. residential real estate market has seen tremendous growth in the past decade. It appears that much of this growth has come from an easing in underwriting standards, reduction in private mortgage insurance requirements and degrading of the appraisal process. It is likely that if these trends remain in place the home purchase ‘boom’ of the past decade will continue unabated. However, if there is an economic disruption that causes a marked rise in unemployment, the negative impact on the housing market could be quite large. Policy changes that encourage the recasting or modification of troubled loans may for a time distort the relevancy of delinquency and foreclosure statistics. However, a protracted housing slowdown could eventually cause modifications to become uneconomic and, thus, credit quality statistics would likely become relevant once again. The virtuous circle of increasing homeownership through greater leverage has the potential to become a vicious cycle of lower home prices due to an accelerating rate of foreclosures caused by lower savings.

Owning a home has, historically, served an important place in America. A Housing and Urban Development report states that, "Through homeownership a family…invests in an asset that can grow in value and generate financial security,… enables people to have greater control and exercise more responsibility over their living environment,… helps stabilize neighborhoods and strengthen communities…and helps generate jobs and stimulate economic growth". While these assertions, intuitively, seem correct, even the HUD author admits that “the validity of some of these assertions is so widely accepted that economists and social scientists have seldom tested them”. More to the point is the un-asked question: ‘is it homeownership or home-equity which conveys these benefits’.36

---


6 IBID

7 Who’s Buying Homes in America: Chicago Title’s 24th Annual Survey of Recent Home Buyers, Chicago, IL: Chicago Title and Trust Company, 2000

8 What Are The Mortgage Terms, American Housing Survey, US Census Bureau, 1999


19 Harvard University Center for Housing Studies, State of the Nations Housing 2000, Home Page http://www.gsd.harvard.edu/jcenter/Publications/State%20of%20the%20Nation%20Housing%202000/Text/Son00.pdf


21 Harvard University Center for Housing Studies, State of the Nations Housing 2000 Home Page http://www.gsd.harvard.edu/jcenter/Publications/State%20of%20the%20Nation%20Housing%202000/Text/Son00.pdf

22 Schoenholtz Andrew, Stanton Kristen, Reaching the Immigrant Market: Creating Homeownership Opportunities for New Americans, Washington DC, Fannie Mae Foundation, Georgetown University Institute for the Study of Migration, 2001

23 IBID.

24 IBID.


29 IBID.


32 Caplin, Andrew, Charles Freeman and Joseph Tracy, Collateral Damage: Refinancing Constraints and Regional Recessions, Journal of Money, Credit and Banking, 1997 29(4): 496-516.


34 Caplin, Andrew, Charles Freeman and Joseph Tracy, Collateral Damage: Refinancing Constraints and Regional Recessions, Journal of Money, Credit and Banking, 1997 29(4): 496-516.


1- This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Graham Fisher or its subsidiaries or affiliated to any registration or licensing requirement within such jurisdiction. All material presented within this report, unless specifically indicated otherwise, is under copyright to Graham Fisher & Co. (GF&Co). None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, or distributed to any other party, without the prior express written permission of Graham Fisher & Co. (GF&Co).

2- The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or buy or subscribe for securities or financial instruments. GF&Co. has not taken any steps to ensure that the securities referred to in this report are suitable for any particular investor.

3- Information and opinions presented in this report have been obtained or derived from sources believed by GF&Co to be reliable, but GF&Co makes no representation as to their accuracy or completeness and GF&Co accepts no liability for loss arising from the use of the material presented in this report where permitted by law and/or regulation. This report is not to be relied upon in substitution for the exercise of independent judgment. GF&Co may have issued other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Those reports reflect different assumptions, views and analytical methods of the analysts who prepared them.

4- Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgment at its original date of publication by GF&Co and are subject to change. The value and income of any of the securities or financial instruments mentioned in this report can fall as well as rise, and is subject to exchange rate fluctuations that may have a positive or adverse effect on the price or income of such securities or financial instruments. Investors in securities such as ADRs, the values of which are influenced by currency fluctuation, effectively assume this risk.