

Solving the Housing Crisis

Solving the Housing Crisis Housing Could Drop Another 20% in Pricing Buy A Home, Get a Green Card A Real Stimulus Package Las Vegas, La Jolla, and the OC

By John Mauldin

This last Tuesday the *Wall Street Journal* published an op-ed by my friend Gary Shilling and Richard LeFrak. They offer a simple solution for the housing crisis: give foreigners who will come to the US and buy a home resident status (green cards). This is a very important proposal and one that deserves national attention and action. Gary was kind enough to send me two lengthier white papers offering more facts. In this week's letter we are going to look at this proposal in more detail than the small space that an op-ed can offer. And while this letter will be somewhat controversial in some circles, I ask that you read it through, giving me the time to make the case. I will also add a few thoughts as to why this could not only help solve the housing crisis, but help put the nation back into growth mode.

Long-time readers know that I have been growing more and more bearish of late. I have been writing for a long time that we are in for a long period of slow Muddle Through growth as the twin crises of the housing bubble and credit bubbles require time to heal. Today we look at a serious proposal for cutting the time to healing for at least one of those bubbles (housing), and at least keep the other (credit) from getting worse. This is the most serious idea I have seen that could actually make a real positive contribution to the economy and help put us back on a growth path.

I will post Gary's papers and a link to the actual op-ed piece for those who want to do further research, but let me make one point at the beginning that he did not emphasize: the US is already allowing roughly 1 million immigrants a year into the country (which for a variety of reasons I and most serious economists of all stripes believe is a very good thing). We are suggesting that we simply change the nature of what constitutes the conditions for acceptance, so as to jump start the housing industry and the economy. We are not suggesting additional immigrants, although nothing would be wrong with that. I will also post a link for you to send this e-letter to your congressmen and senators.

Let me put up front a few benefits of a program that would allow legal status to immigrants buying a home. Housing values would stabilize and in many cases rise. The massive losses because of bad loans that are being subsidized by US taxpayers would be stemmed, saving many hundreds of billions, if not a trillion or more dollars. The excess inventory of homes would quickly disappear and the millions of jobs that were lost as home construction fell into a deep depression would come back. If housing values rise, many families would be able to refinance their homes at lower rates and have more income left over after paying their mortgages. \$12 billion in commissions would end up in real estate agents' pockets, helping a very battered and bruised group. Hundreds of

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billions will flow into local businesses, as these new immigrants will need to furnish their homes. This could mean as much as a half trillion dollars in sorely needed stimulus in the next few years, without one penny of taxpayer money and actually adding taxes back to governments from local to national. And we are not bringing in 1 million foreigners, we are attracting 1 million mostly middle-class new Americans, which, if we are smart in how we do this, will result in more jobs for all Americans. So let's jump right in and look at the details.

Housing Could Drop Another 20% in Pricing

Let's review the situation as it will be if we do nothing. Shilling shows that we built 6.7 million more homes in this country between 1996-2005 than the normal trend would have projected, partially because we underbuilt the decade before that. New housing starts average about 1.5 million in normal times but have fallen to 500,000 recently, and could fall further as unemployment rises and demand declines. Even so, Shilling estimates that we still have about 2.4 million excess homes.

This compares rather well with estimates by independent analyst John Burns, which I cited in the e-letter early last year. What they both agree on is that it will take at least until 2012 to work through this excess inventory, and that assumes that foreclosures do not increase as housing prices drop.

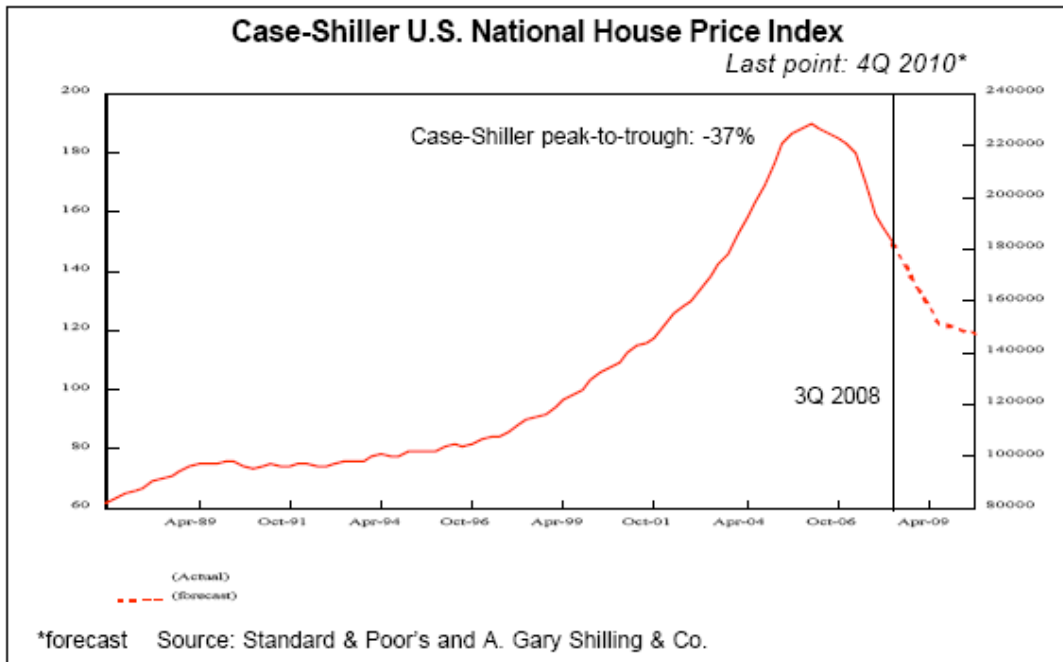
Excess supply of anything means lower and continuously falling prices, and that has certainly been the case in housing. Here is what Shilling writes:

“We believe that if nothing is done to eliminate surplus housing, prices will fall another 20% between now and the end of 2010 for a total peak-to-trough decline of 37% (Chart 1 below). The resulting further negative effects on the economy will be devastating. At that point, almost 25 million homeowners, or almost half the 51 million total with mortgages, will be underwater... That's also a third of the 75 million total homeowners, with the remaining 24 million owning their houses free and clear. It would take a little over \$1 trillion to reduce their mortgages to the value of their houses, compared to \$449 billion for the almost 14 million currently underwater.”

This is not inconsistent with similar projections by other acknowledged experts and independent analysts like John Burns and Professor Robert Shiller of Yale. If nothing happens to stimulate buying, there is a great deal more pain ahead for American homeowners.

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CHART 1



For the great majority of Americans, their homes represent the largest portion of their assets. This is particularly true of Americans of more modest means, who have been hit the hardest. Watching their single biggest asset drop another 20% will be devastating and for many will mean they will not be able to retire as they had planned. More Americans own homes (68%) than own stocks (50%). This helps explain a recent poll which shows more Americans are worried about house prices than about the decline in stock prices.

Falling home prices means that consumers have to save more for retirement, which results in lower consumer spending, which translates into lost jobs and more homeowners coming under stress – a vicious spiral that is increasing unemployment. Realistic estimates of unemployment rising to over 10% within the year abound.

Two years ago I and a few others foresaw the current housing crisis (and an accompanying credit crisis), predicting a protracted recession and a slow, multi-year Middle Through recovery. Sadly, I was right about the housing crisis. Without some intervention, there is little to suggest that the prediction of a long, protracted recovery will not come true.

Lowering rates, as is being discussed in various circles, will help homeowners who can make their payments, but it does nothing to really bite into excessive inventory. Until we reduce the inventory, housing prices in many neighborhoods all across America are going to continue to come under pressure. And as Barry Habib points out, while the Fed may be lowering rates for securitized packages of loans, those low rates are not available to the average home buyer. The cost of packaging and securitization adds considerable cost.

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Shilling discusses the “traditional” options for reducing home inventories, but in the end there is no real solution other than time, or massive amounts (read trillions) in taxpayer money being given to homeowners, which will be very unpopular, as homeowners who were responsible and are paying their mortgages would get no benefits. Waiting another two and a half years for the excessive inventory to sell will keep this country in a very slow or no-growth economy, and devastate the wealth of millions of homeowners.

But there is a solution. There are millions of foreigners throughout the world who would like to come to live in the US. In 2006, there were 1.1 million immigrants allowed into the US, some 63% of whom were allowed in simply because they already had relatives here. Only 13% of visas were granted to people because of their skills. While allowing relatives of current residents to come to the US may be a humane and reasonable policy, it does nothing to assure they bring more than that relationship to help them make their way in the US.

Buy A Home, Get a Green Card

What if we changed the rules for a few years? Starting as soon as possible, we should allow anyone to come into the country who would buy a home. They would be given a temporary visa which would become permanent if they had no problems after, say, five years.

While Gary proposes that they be allowed to borrow against the value of their homes, I lean toward suggesting that initially we take those who buy their homes outright (with a few exceptions). That means they have enough capital to purchase a home to begin with, which probably means they are educated and have skills. In fact, if they have enough cash to buy a home, that means they would have more actual savings than most US citizens. We would be attracting future citizens with the capital to invest in job-creating businesses and/or who have useful skills to assist in the recovery of the US economy.

Of course, there should be some rules that go along with this proposal. Background checks and references should be required. The home could not be rented for a period of time (at least two years), to help reduce the supply of available housing, and could not be resold for at least two years unless another home was purchased. There should be a minimal price, which could be somewhat different for various regions, but \$100,000 would seem to be a good minimum for most areas, with higher minimums in certain areas.

The immigrant should demonstrate the ability to support himself and his family for a period of time (at least one year, preferably two), including the purchase of health insurance. Cash or letters of credit or other guaranteed commitments would be required. Only immediate family members (spouse and children) would be allowed to come with the immigrant. Cousins and siblings must buy their own homes. The permanent visa

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should be contingent on not having gone on welfare or public assistance at any time in the past five years. We are trying to solve a housing problem, not looking to create others.

I would make an exception in having 100% financing for immigrants with advanced degrees or special skills, especially those who did their schooling in the United States. If the US is to remain competitive in an increasingly technological world, we need more scientists and engineers. But getting permission to stay is becoming increasingly difficult. We are seeing a brain drain of those who would like to stay and create new jobs and technologies (and buy houses) here in the US. Shilling and Le Frak write:

“The authors of this report believe that a number of people have given up waiting for those visas or don’t want to put up with the hassle and are leaving the country. This “brain drain” is unfortunate since many of these foreigners are highly productive. In 2006, foreign nationals residing in the U.S. were named as inventors or co-inventors on 25.6% of the 42,019 international patent applications filed from this country, up from 7.6% in 1998. Studies of the authorship of academic papers show the same trend.

“U.S. educational institutions are considered the best in the world by many and are magnets for foreign students, especially at the graduate level. Many of them are inclined to settle and work in this country after completing their studies, if they can obtain permanent resident status.

“The Council of Graduate Schools survey revealed that in the fall of 2007, 241,095 non-U.S. citizens were enrolled in graduate programs. Technological progress and the productivity it generates depends on people educated in biological sciences, engineering and physical sciences, but only 16% of U.S. citizen graduate enrollment was in these three disciplines. In contrast, 55% of total non-U.S. citizen enrollment was in those fields. Conversely, 53% of graduate enrollment by Americans was in education, business and health sciences while those three fields accounted for only 24% of foreign graduate students.”

(There is a great deal more background detail in the second white paper. See link below.)

Much can be learned from similar programs already in place in immigrant-hungry countries such as Canada, Australia, and New Zealand. The United Kingdom has recently added new programs. Many countries realize that in the coming years there is going to be increasing competition for the best and brightest of the world. Again, there are more details in the white papers, but let’s turn to the effects that would result from such a program.

A Real Stimulus Package

First, upon Congressional approval, it would almost immediately stop the seemingly inexorable slide in house prices, as initial demand would be significant. Let’s

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assume one million new immigrants would buy homes. At an average price of almost \$200,000, that would be \$200 billion injected into the economy. And each of those homes has to be furnished, food has to be bought, clothing will be needed, local taxes will be paid. Airplane tickets to research potential areas, hotels needed during the interim period, and other related expenditures would add up. Over two years, this could easily be another \$100 billion.

Couple 1 million new buyers with current US demand, and the excess inventory would be worked through within a year, and possibly faster. This puts a floor under the housing market, and home values could once again to begin to rise in line with a growing economy.

Such a program would have a salutary effect on the value of the dollar, as not only the initial purchases of homes and materials would need to be converted to dollars, but it is likely that immigrants would bring even more capital into the country.

By stemming the fall of home values, it would decrease the likelihood of foreclosures and help homeowners get refinancing at lower rates. Refinancing now is difficult because most lenders want a substantial slice of equity to go along with any new mortgage. If your home value has dropped 20% and is likely to fall another 20%, it is hard to have enough equity to qualify for a new mortgage. Stopping the fall in prices is critically important; and maybe if prices rise in some areas, homeowners will be able to refinance at better rates, giving them more cash each month to save or spend.

As I have written in previous letters, the psyche of the American consumer is permanently scarred. We are on our way back to a savings rates that will look more like 1987 than 2007, when it was almost zero. Just a few decades ago, we saved 7-10%. Consumer spending was only 64% of US GDP in 1987. It was 71% in 2007. It is on its way back to that lower level.

Lower consumer spending will be a drag on growth for years. But bringing in 1 million already middle-class new immigrant families will help make up for a lot of that reduced spending. If you can spend \$200,000 on a home, you are likely skilled at something and well-educated. You will find a job, or create one, as many immigrants do, and then you will add to our total consumer spending.

If you are a real estate agent, you should love this proposal, as it would result in an additional \$12 billion in commissions.

If you are a home builder, what a great way to reduce inventory and get back to the conditions where there is a demand for your product. This would help put back to work those who have lost their jobs in the home construction collapse. Home Depot and Lowe's and local stores? It would help them to increase sales, which leads to more jobs.

We are on the cusp of the Baby Boomers beginning a huge wave of retirement, both in the US and elsewhere in the developed world. There is going to be a need for

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skilled workers to replace those Boomers, as well to provide services to the retirees. Further, the promised Social Security and Medicare expenditures are going to start increasing at a significant rate. We are going to need immigrants to help pay for those benefits. Given the controversy over immigration, we will look back with some irony in ten years when we find we are in a serious competition with other nations to attract skilled immigrants. We should start now. I think the concept is, let's not waste a good crisis.

Let's look at some of the potential critics of this proposal. I was on *Yahoo Tech Ticker* yesterday talking about this, and got a few irate emails and phone calls.

"Why," I was asked, "do I hate American workers? Isn't there enough unemployment? Why do we need more immigrants taking American jobs?" And there was considerable angst about illegal immigrants.

First, I am suggesting we transform the already existing legal immigrant flow, which is going to happen anyway, into a form which helps us solve a major crisis. I am not talking about adding another 1 million immigrants on top of the current legal inflow. Just change the nature of that inflow until the excess housing inventory is settled, and then we can go back to the current program, if that is what is wanted (more on that below).

Second, I am not suggesting we bring in or condone illegal immigrants. That is another issue altogether, for another debate at another time.

If we do nothing, unemployment is going to rise to at least 10%. That is certainly not good for the American worker. Home values are going to continue to fall. That is certainly not good for the American worker. The economy is likely to be stagnant for an extended period of time, which means job growth in a Muddle Through recovery will be slow and stagnant. That is not good for the American worker.

Hundreds of billions more of taxpayer dollars will have to go to banks to keep them solvent as falling home prices and increasing unemployment increase foreclosures. That is not good for the American worker and taxpayer.

And further, I am not talking about bringing 1 million foreigners to this country. I am talking about bringing 1 million future Americans, who want to work hard and live the American dream.

Let me say a few words to those who are opposed to immigration – and I have heard from you. With few exceptions, US citizens reading this have an immigrant in their genealogies. Some of mine go back to the 1600s. Some of mine were not exactly considered welcome. "No Irish and Dogs allowed" read the signs. But immigrants and their children have been the driver for growth in this country for generations. It is hard-working immigrants who leave their homes for the dream of being Americans that have been the backbone of the building of the nation – the hewers and shapers, if you will.

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It is precisely that melting pot of human diversity that is the strength of the American idea. Each new wave of immigrants has been viewed with trepidation or scorn, yet within one generation they have become American. And in turn, their children's children forget that their forebears had to deal with discrimination.

America – the US – is not so much a country as it is an idea, the idea that anyone, regardless of race or religion or gender, can come here and with hard work and determination make their own way. Some end up owning the local deli, and some end up founding Google. Some 25% of Silicon Valley start-ups, I am told, are by immigrants, creating jobs at the bleeding edge of technology. They see the US as a land of opportunity. That is why so many want to come and that is why we can attract a new generation of affluent, self-reliant immigrants who can help us solve a problem that we created.

I can see no downside to changing our immigration policy for a few years. We solve the housing crisis, stabilize home values, bring hundreds of billions in stimulus to the US, and with no taxpayer outlay. For a short time, we substitute one class of immigrant for another, to solve a serious crisis. It is not a matter of immigrants or no immigrants, just which immigrants

So which do you want? 10% unemployment and a decade of lower home values and increasing foreclosures, with a slow, Muddle Through, jobless recovery, or a stable housing market and home construction back to trend?

If you agree with me, I suggest you contact your Congressman. You can go to <http://www.visi.com/juan/congress/> (selected at random from many such sites) and type in your address and get the name of your congressperson and senators. Just tell them you like this idea, and cut and paste the link where you read this into the letter. And tell them to get into gear! I would like to point out that this proposal is not Republican or Democrat, it is just common sense. I hope we can get broad bipartisan support.

The link to the *Wall Street Journal* editorial is:
<http://online.wsj.com/article/SB123725421857750565.html>

The links to the white papers are:

http://www.frontlinethoughts.com/pdf/Housing_Whitepaper_1.pdf

http://www.frontlinethoughts.com/pdf/Housing_Whitepaper_2.pdf

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I expect I will get a few new readers from this letter. Normally, at the end of my regular weekly letter, I make a few personal comments. I write this free weekly letter to my 1 million closest friends, and you can add yourself to the list at www.frontlinethoughts.com. You can find out more about me at www.johnmauldin.com.

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Parts of this letter have been written in New York and Dallas, and as I write this I am on a flight to Las Vegas to speak at a conference on natural resources. I am sure the recent Fed actions will be at the center of conversation. There is not enough space now to comment on that; but I did do a few segments on Yahoo *Tech Ticker* (one of which evidently made the Yahoo home page), which you can listen to at the following links.

Links to the Yahoo segments:

D.C. to America: You Can't Handle the Truth
<http://bit.ly/10rUiF>

Plan to Solve Crisis: Let Immigrants Buy Houses
<http://bit.ly/WOXLq>

Fed Strategy: Spread Economic Pain Over Multiple Years
<http://bit.ly/wgGjA>

I will be in La Jolla for my annual Strategic Investment Conference in two weeks, as well as hosting the Richard Russell Tribute Dinner. The dinner is shaping up to be a big event, with hundreds of attendees and many of the brightest lights in the investment writing world present to honor Richard for 50 years of brilliant commentary.

I really enjoyed my trip to NYC. I had a great steak dinner with Art Cashin, everybody's favorite commentator on CNBC. Breakfast with Tom Romero and then a meeting with Jim Cramer, who I found to be very personable and genuinely likeable. Meetings in the afternoon with business partner Steve Blumenthal, then breakfast the next day with Barry Ritholtz, Yahoo at the NASDAQ, and then a speech at noon, back on the last flight and up writing – and then this plane, which I hope ends up in Las Vegas.

In addition to being with old friends Doug Casey and David Galland (and their posse), I intend to see the inside of the gym and spa. I need it. Tiffani has been gone for two weeks, working on our book, and will get back on Monday; and the new chapter I was supposed to have for her has disappeared in a reboot from this laptop. I am quite distressed, but evidently the book gods decided it needed a major rewrite.

Have a great week, and find a few friends and share some laughs and your adult beverage of choice.

Ok, the computer crashed again, and this letter is going out on Saturday rather Friday night. But I did get to see the Jersey Boys (The Story and Music of Frankie Valli and The Four Seasons) here in Vegas last night. One of the best shows I have seen in years. See it when it comes near you.

And if you are in Las Vegas, eat at Wolfgang Puck's new place, called Cut. One of the best pieces of steak I have inhaled in years. And now it really is time to hit the send button and go attend the conference.

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Your wondering if we can actually get some action analyst,

John Mauldin

Sell Excess House Inventories to Foreigners

Background Paper for WSJ editorial of March 17, 2009

Jan. 20, 2009

The first nationwide major decline in U.S. house prices since the 1930s is having devastating effects on homeowners, financial institutions and the economy. From the peak in the second quarter 2006, the Case-Shiller national house price index is down 21% through the third quarter 2008 (Chart 1). The downward pressure comes mainly from excess inventories, the mortal enemy of prices.

Aftermath of the Boom

The excess inventories are the result of the 1996-2005 residential construction boom when both builders and buyers thought that soaring prices and robust demand would continue indefinitely. Also fueling the exuberance were relatively low mortgage rates, especially on Adjustable Rate Mortgages (Chart 2) that many financially-challenged homebuyers embraced with the expectation that rising house prices would allow them to sell their houses or refinance before significant upward adjustments occurred.

By about 2005, the pool of qualified homebuyers was pretty well exhausted, but the business of mortgage origination and financing was so lucrative for mortgage brokers and lenders that they slashed, essentially eliminated underwriting standards. No documentation and No Income, No Assets (NINA) loans were made with gay abandon because they could easily be securitized and sold to gullible investors who trusted unrealistic double and triple A credit rates. That left originators with little or no further responsibility.

During the 1996-2005 boom, 6.7 million more houses were built in this country than were warranted by the fundamental drivers of housing demand. Our statistical model relates housing starts over the 1960-2008 years to demographics, as measured by the numbers of people in their 20s, their 30s and their 40s—the important first-time homebuyer ages. We also include interest rates since heavy mortgage financing makes interest costs and therefore monthly payments an important determinant of demand.

A 2.4 Million Net Surplus

The 6.7 million excess of houses built during the boom was the difference between what the fundamental factors indicated, as quantified by our model, and actual housing starts. We reduced that figure by 3.9 million to account for under-building in the 1987-1991 years of the savings & loan collapse, but that still left a huge excess inventory of 2.8 million. Note (Chart 3) that housing starts are extremely volatile, but average about 1.5 million per year. So the 2.8 million excess—over and above normal working inventories—is almost two years' total activity. Our analysis indicates that weak housing starts in 2007 and 2008 reduced the excess inventory figure by 400,000, but that still leaves 2.4 million too many houses.

About 2.0 million of that remaining 2.4 million figure is accounted for by the excess of new and existing home inventories over and above their normal levels (Chart 4). Some, however, aren't reported but continue to come out of the woodwork. Speculators who bought multiple houses during the boom but are unable to rent them with positive carries are throwing them on the market. Declining home ownership rates (Chart 5) are adding inventories as many who lose their house to foreclosures move in with roommates or relatives. This reversed the boom-time trend that saw many younger, minority and low-income people become first-

time homeowners as well as the multitudes that wanted to get in on the big financial gains generated by soaring house prices and low downpayments.

This exit from homeownership is intensified by falling prices, which push more and more homeowners underwater with their houses worth less than their mortgages. That encourages delinquency and abandonment of houses, resulting in delinquencies (Chart 6) and foreclosures. Mounting layoffs (Chart 7) as the recession deepens add to the problem as does the collapse in consumer confidence (Chart 8). House inventories also pile up as potential buyers wait for lower prices. This generates a self-feeding cycle as the extra inventories caused by withheld demand depress prices, confirm buyer expectations and encourage them to wait for still-lower prices.

More Price Declines

We believe that if nothing is done to eliminate surplus housing, prices will fall another 20% between now and the end of 2010 for a total peak-to-trough decline of 37% (Chart 1). The resulting further negative effects on the economy will be devastating. At that point, almost 25 million homeowners, or almost half the 51 million total with mortgages, will be underwater, as show by the next to last set of bars in Chart 9. That's also a third of the 75 million total homeowners, with the remaining 24 million owning their houses free and clear. It would take a little over \$1 trillion to reduce their mortgages to the value of their houses, compared to \$449 billion for the almost 14 million currently underwater.

On average, the home equity of any homeowner with a mortgage has fallen from almost 50% in the early 1980s to 25% (Chart 10) and could drop to the 10% to 15% range if house prices fall another 20%. Already, the mortgage equity withdrawal that homeowners have relied on to fund their spending growth has disappeared (Chart 11). Notice that earlier it reached the \$900 billion annual rate, equaling about 10% of consumer spending. The combination of falling house prices and drooping stock prices (Chart 12), which has been driven down largely by housing-related woes, is slashing household net worth. In relation to after-tax income, household net worth, is approaching the low level precipitated by the 2000-2002 stock market collapse (Chart 13).

Furthermore, for all but the wealthiest Americans, the situation is even worse since for most their houses are vastly bigger assets than their stocks. About 50% of Americans own stocks or mutual funds, but 68% of households own their own abodes (Chart 5). Even more important, equity ownership is much more skewed to higher-income households than the value of their homes, as shown in Charts 14 and 15, using data for 2004, the latest available. Notice that the top 10% by income owned 27 times as much in stocks as the bottom 20%, but only 6.4 times as much in home value. It's no wonder that despite the 21% decline in house prices since their second quarter 2006 peak, less than half the 47% drop in the S&P 500 from its October 2007 top, a new Wall Street Journal/NBC News poll found that more Americans are worried about house prices than about the decline in stock prices.

As falling house prices destroy home equity, consumers have no choice but to retrench and slash spending (Chart 16). That, in turn, spawns cuts in production and jobs, which depresses spending and housing prices in a vicious self-feeding cycle. It also continues to wreak havoc on financial institutions and force more government bailouts with all the attendant distortions to the financial structure and economy (Chart 17).

No Easy Job

So, excess house inventories are a major problem and until they are eliminated, consumer spending, financial markets and the U.S. economy will remain under pressure. So will foreign economies, given the vulnerability of many lands to weakening U.S.-bound exports on top of plentiful home-grown problems (Chart 18).

Washington policymakers don't seem to understand that surplus inventories of homes are the root of the problem. They're bailing out financial institutions and now are turning to help homeowners in or close to foreclosure. But foreclosures are the result of excess inventories that depress prices and will persist as long as too many houses remain on the market.

During the loose-lending days of the housing bubble, many people who couldn't afford chicken coops were able to buy four-bedroom houses with virtually no downpayments. Many of their houses are really hidden inventory because they lack the incomes and financial assets to keep their abodes in the face of falling prices.

Any attempts to assist them short of forgiving their mortgages completely are probably of little help, especially when many of those homeowners are underwater or close to it. This is shown clearly by redelinquencies on mortgages that were modified by reducing mortgage rates, extending the repayment periods or other changes by lenders to cut monthly payments. In December, the Comptroller of the Currency released a survey conducted by his office and the Office of Thrift Supervision of mortgage modifications by the 14 largest banks and thrifts that account for over 60% of outstanding mortgages. Six months after modification in the first quarter 2008, 55% of loans were more than 30 days past due, and after eight months it was 60% (Chart 19).

It's doubtful that even the reduction in the interest rate on 30-year fixed rate mortgages from the current 5.0% to 4.5% (Chart 2) that is now being discussed in Washington would help much. Homeowners that are underwater can't refinance to take advantage of lower rates. And qualified buyers who can meet the reinstated standards of 20% down, good credit scores, documented incomes and assets, etc. probably would be no more likely to buy houses at 4.5% than at somewhat higher rates.

Recent rate declines have touched off a wave of refinancing applications and pushed that index to its highest level since June 2003 (Chart 20). But only about 30% of outstanding mortgage debt is likely to be quality for refinancings, according to Fannie Mae. Around 70% of mortgagors don't have good enough credit or sufficient home equity to refinance. So the lower interest rate-induced refinancing boom is helping those who don't need it, not those who do.

Furthermore, the "cramdown" change in the bankruptcy law being considered by Congress might do more overall harm than good. It would allow bankruptcy judges to reduce mortgage principals for primary residences, but that would encourage underwater homeowners to declare bankruptcy and further destabilize the housing market. Also, mortgage rates would probably rise to adjust for the risks to lenders of cramdowns. And what good are cramdowns as house prices continue to fall under the weight of excess inventories and soon put the hapless homeowners back underwater?

Eliminating Excess Housing

So, eliminating excess housing is essential to getting the economy and financial markets to stabilize. How can it be done? One approach is to let the markets take their course. Housing starts (Chart 3) would continue to plummet after homebuilders completed current projects and as many went out of business. This is the assumption underlying our forecast of another 20% decline in house prices between now and the end of 2010.

The problem with this strategy is that by then, half of homeowners with mortgages would be underwater to the tune of \$1 trillion, as discussed earlier (Chart 9). The effects on consumer sentiment, spending and on their interest and ability to buy houses would be devastating and probably drag the economy into a longer, deeper recession than we're forecasting, with enough financial distress to risk a depression. Most homebuilders, even the large, better capitalized ones, would be out of business by then.

Furthermore, shutting down new home construction and letting house prices continue to drop might not actually eliminate excess inventories any time soon. That's because of the resulting severe depressing effects on the economy and financial markets and on the willingness and ability of prospective buyers to purchase those surplus houses. Also, this approach might not be politically acceptable. The resulting extension of the recession into 2010 would no doubt cry out for government action. With half of mortgages underwater, the destruction of the American Dream of homeownership for so many people would probably force Washington to act in some substantial but inefficient and extremely costly manner.

For example, the government might buy up surplus houses and resell them at prices low enough to attract homeowners and investors. But those low prices would force other house prices down, destroying the home equity of those who still had any and driving many homeowners with mortgages further underwater.

Another approach is for the government to buy up and then destroy surplus houses. When oil prices collapsed in the late 1980s, and with that the Oil Patch housing bubble, some apartment buildings in Houston were actually bulldozed. But those were only partially finished, abandoned, vandalized and full of mold. They weren't worth rehabilitating even if the market had been healthy. Sure, today's excess housing stock will tend to deteriorate in time and eventually could be bulldozed. But that would be a poor fate for perfectly habitable houses and an inefficient use of resources.

Foreign Buyers

There is, however, a vast market for America's surplus houses—foreigners who are clambering to achieve resident status in this country and would probably buy houses to reach that goal. Some of these people are already in this country but hesitant to purchase houses because of the uncertainty of their resident status.

A feasible program could require foreigners to buy houses of minimum values, with those prices governed by median prices in the various metropolitan areas. Notice (Chart 21) that even after the collapse in house prices in erstwhile boom areas like Anaheim-Santa Ana, Calif., Los Angeles, San Diego and Miami, they are still well above the national averages. Buyers would be given temporary resident status when they purchase houses and permanent status after, say, five years if they still own their houses and had clean criminal records.

They could trade houses in the interim, but only for houses of the same or greater prices. They wouldn't be required to live full-time in their houses, but they could not rent them. As a result, their purchases would remove excess houses from the market. Foreign buyers could be required to conform to Fannie and Freddie standards for any mortgage loans, such as 20% down, good credit scores and documented and adequate income and assets.

This plan would not only remove surplus houses from the market and arrest the decline in prices. It also would pump money into the economy. If the current excess of 2.4 million houses were purchased at today's median house price of about \$184,000, the inflow from foreigners would be \$88 billion, assuming they put 20% down and borrowed the rest in this country. If they paid cash, the inflow would be \$442 billion. Besides stimulating the domestic economy, this would vastly help the U.S. foreign accounts and support the dollar. The mere announcement of this program would probably go a long way toward stabilizing house prices.

Assets and Skills

Foreigners with the capability to buy houses in the country would tend to be people with meaningful assets and the professional and technical skills needed for middle and higher-income jobs. And the demand for these people is readily apparent from the speed with which the annual quota of H-1B visas is filled.

Immigration has been a politically charged issue in this country for years. The principal fight is over Hispanics, many of them illegal, entering the U.S., usually from Mexico. Sympathizers note that they tend to take the low-level jobs eschewed by Americans, have strong family orientations and pay taxes. Opponents say they take jobs from Americans because they're willing to work cheaply, and that they're illegal and breaking the law.

About 12 million illegal immigrants live in the U.S. Between 2000 and 2007, the foreign-born population grew around 1 million a year. Around 56% of the total are Hispanics and about 80% of them are illegal. The Pew Hispanic Center estimates that the recession slashed the foreign-born population growth in half to 500,000 last year, with Hispanics falling to 358,000 from 558,000 a year in the 2000-2007 era. Illegal arrivals from Mexico ran 150,000 last year and 75,000 from Central America, both down 50% from 2007.

Many of those people work in construction and services such as restaurants and cleaning jobs that have shed workers. Over 20% of foreign-born Hispanics work in construction while 23% are in service jobs. Some of the newly unemployed are returning home while others are dropping out of the labor force or competing with American citizens for low-level jobs. Obviously, this is stirring up resentment, which is already considerable.

Frustrations in Washington

Washington has been repeatedly frustrated in its attempts to curtail illegal immigration. In 1986, Congress granted amnesty to illegals who entered the U.S. before 1982 and had been here continuously, giving 2.7 million the ability to attain legal status. The new law also made it illegal to knowingly hire undocumented aliens under the theory that that would curb their employment prospects and therefore slash the inflow. The law also introduced I-9 forms to insure that prospective employees presented documentary proof of their legal eligibility for jobs.

Enforcement efforts proved to be of little value, however, so illegals continued to flood in. More recently, some fences have been built on the Mexican border and electronic surveillance devices deployed. Federal raids on meat-packing and other businesses that tend to employ illegals have been stepped up, and states such as Arizona, Oklahoma and Rhode Island introduced laws to punish employers of illegals.

In 2007, Washington considered another immigration overhaul. The word “amnesty” was a no-no after the 1986 law’s failure, but changes considered would have given illegals already here the chance to stay, forced employers to verify employee legal status and stepped up border security. Also, those with education, proficiency in English and job skills would have preferred status over relatives of people already in the U.S., a change aimed at curbing “chain migration.” In 2006, 63% of the 1.1 million immigration visas went to relatives of American citizens or legal residents, 13% went to people because of their skills and only 37,000 were issued to those the government said had “first priority” skills including “outstanding professors or researchers.”

No immigration law was enacted in 2007, but the vigor of the debate highlighted an important reality of the American economy. This is a nation of immigrants, an importer of labor, unlike Europe, which has traditionally been a labor exporter. So, except in times of high unemployment, the U.S. has needed foreign labor and has been a relatively easy country to enter, legally or illegally. Think of all those who come on tourist visas, disappear into the population and live out their lives as though they were American citizens. Enforcement of immigration laws has been lax and many rules that would deter illegal immigration aren’t even on the books. As noted earlier, the 2007 attempt to require employers to check the legal status of existing employees as well as new hires failed to become law.

H-1B Visa

This American soft spot for foreigner workers, especially those with skills, is shown by the H-1B visa program. Each year, 65,000 visas are offered for highly skilled foreign workers and an additional 20,000 for immigrants with master’s degrees or doctorates from American colleges and universities. In the first five days of the application period that started April 1 last year, 163,000 petitions were submitted, or over twice the quota. Most of those petitions are backed by employers hungry for people with special expertise such as scientists, engineers or computer programmers. Those employees at the top of the list include Microsoft, Intel, Stanford, Columbia, the National Institutes of Health, McKinsey, Yale and Merrill Lynch. The H-1B visas are issued for three years and can be renewed for a maximum of six years.

The recipients of these visas tend to be young, highly educated and well paid. In its November 2006 special report, the U.S. Citizenship and Immigration Services said that in fiscal 2005, 266,474 petitions were submitted for the quota that year of 65,000. Two-thirds of petitions approved were for people age 25 to 34 (Chart 22). In that year, 45% had bachelor’s degrees, 37% master’s, 5% doctorates, 12% professional degrees and only 1% had less than a bachelor’s degree (Chart 23). Some 43% were in computer-related occupations while 12% were in architecture and engineering and 11% in education (Chart 24). It’s nice to know that even fashion models are skilled enough to deserve H-1B visas! Models also were well paid, making median incomes of \$100,000 in 2005, double the \$50,000 for all H-1B beneficiaries (Chart 25). That number in turn was well above the \$42,160 of all American male jobholders and \$32,285 for females in 2005.

The H-1B visa program shows that there is a huge and unfilled demand in this country for foreigners with high skills and substantial income-earning ability. Most of the people who would like to come in—and U.S. employers want to bring in—would no doubt buy houses. So allowing people to immigrate if they buy houses would also tend to attract well-qualified, productive and readily-employable people. Many of them would probably bring in other investable assets as well.

Although the ongoing severe recession and financial crisis is dampening employment as layoffs spread, the global reach of the turmoil heightens the attractiveness of America to many. Consider the strength of the dollar and of Treasury securities of late. Many foreigners may wish even more than in normal times to migrate to the U.S., the safe haven in a global sea of trouble.

Canada's Program

Canada, another historically labor-short country, has a somewhat similar Immigrant Investor Program that has attracted a number of foreigners. Applicants for this permanent residential program must have at least two years of business experience, a net worth of at least C\$800,000 and enough money to support themselves and their families in Canada. They also must pass medical exams and security and criminal checks, and have a minimum point score that's based on business experience, age, education, language ability in English and/or French (this is Canada) and adaptability to Canada as shown by business exploration trips or other earlier activities in that country.

An immigration candidate is required to invest C\$400,000 with the government that is used for job creation and economic development. This money, without interest, is repaid to the investor after five years. This program is still small but growing, attracting 7,443 principal applicants and their families in 2007 compared to 4,544 in 1998. The total number of economic immigrants to Canada in 2007 was 131,248, including skilled workers, entrepreneurs and their spouses and dependents.

The U.K. just introduced a points system for immigrants that favors highly-skilled people and is modeled after one in Australia. The U.K. system grades prospective immigrants on their education, age and need for their skills and is expected to cut the annual quota by 20% to 800,000. Britain is reacting in part to the recession and rising unemployment as well as to national identity issues as she moves away from a very open immigration policy and towards that of some other European countries.

In contrast, Sweden is opening her doors by allowing companies greater freedom to recruit foreigners of all skill levels. Sweden is responding to current labor shortages and to a rapidly aging population and shrinking labor force that will strain government budgets to provide pensions and health care for retirees in future years.

Global Migration Barometer

With globalization comes migration. Four decades ago, 75 million people lived outside their home country, and now it's 191 million, according to the Economist Intelligence Unit. And it wasn't just people moving from poor countries to rich ones in search of a better life. Almost half moved from developing lands to other developing countries. The Unit ranked 61 developed and emerging countries on a scale of 0 to 100 for their attractiveness, their accessibility and their need for migrants. In attractiveness to migrants (Chart 26), the U.S. ranked No. 1,

based on her being a larger, multicultural economy with relatively high-quality education. Countries at the top of the list are also politically stable democracies with high living standards. Accessibility to migrants depends on ease of entry, integration smoothness, legal status of migrants and public attitudes towards newcomers. In this ranking, the U.S. drops to No. 7. Immigrant-hungry Australia, Canada and New Zealand rank above America.

The third category, the need for immigrants, measured the various countries' need for newcomers to sustain economic growth. This is an important factor for developed countries since almost all have aging populations and looming hordes of retirees. This measure (Chart 26) quantifies the need for more workers beyond the current stock of natives and immigrants and the current net inflow from abroad. Future labor needs can be met by younger, productive immigrants but also by residents retiring later, more working women and other domestic changes in the labor market.

Who Needs Immigrants?

Japan, not surprisingly, ranks at the top of the list for needing immigrants. Her population is aging the fastest of any major country and immigration hardly exists (Chart 27). In fact, there's no such thing as an immigration visa in Japan although some foreigners are allowed in on extended "training assignments." Note that Admiral Perry took his black fleet of American warships to Japan twice in the 1850s to impress on the Shogun that the U.S. was not amused by Japan's welcoming of American shipwrecked sailors by killing them on the beaches. Even today, there are limits on the number of foreigners allowed on Japanese baseball teams, even though baseball is hardly a native sport in Japan.

Other G-7 countries have more net immigration each year in relation to their populations than Japan, but except for population-hungry Canada, the U.S. has the highest (Chart 27). That's in part why America ranks 31st on the need for migrants list (Chart 26). The Economist Intelligence Unit believes that legal and illegal immigrants already absorbed by the U.S. and the ongoing influx will reduce the need for more in future years to support the retiring postwar babies. Also, the concern over illegals entering this country will limit America's zeal to attract newcomers, the Unit believes. Note that Canada ranks even lower than America, at No. 39.

Bring Them In!

America's relatively open immigration policy may make this country better off than many other developed countries in facing the onslaught of retirees, but that's not good enough (Chart 28). There still is a huge need to expand the labor force with productive, skilled people, both current residents and immigrants. The challenge spawned by the aging postwar babies is for there to be enough people still working who are productive enough to produce enough goods and services to provide for their own needs and for those in retirement. Otherwise there will be intergenerational warfare to split an inadequate pie. And newcomers with education skills and language ability that are readily assimilated will probably continue to be much more acceptable by Democrats as well as Republicans than those without.

Without an increased number of highly productive working people who generate payroll taxes, and other changes such as later retirement ages and slowing of the rises in Social Security benefits and Medicare costs,

the future looks grim. The government assumes even lower levels of immigration in the decades ahead than at present, despite a growing economy (Chart 29). Not surprisingly, real GDP, real wages and employment are also assumed to expand relatively slowly by recent standards. And these sobering numbers are realistic unless something is done.

A Consumer Saving Spree

U.S. consumers have been on a borrowing-and-spending binge since the early 1980s, which has collapsed their saving rate (Chart 30) and spiked their borrowing (Chart 31). Their excessive spending has added about 0.75 percentage points to real GDP growth, which has averaged 3.0% per year in the 1982-2008 years. But with stock and house prices both depressed, consumers have no remaining sources of borrowing to support oversized spending and are embarking on a multi-year saving spree as they delever. The need and ability of the postwar babies to save also points to a one percentage point annual rise in the saving rate for years to come. That alone, including the follow-on effects of their subdued spending on the economy, would chop long-term annual GDP growth from 3.0% to 2.0%. The deleveraging of the financial sector will also curtail economic growth here and abroad as securitizations, off-balance sheet vehicles, loose lending practices and other financial excesses of the bubble years disappear due to private sector fear and more government regulation.

With the postwar babies, born in the 1946 to 1964 era, now in their peak earnings years, payments into the Social Security trust funds actually exceed outflows. But in 2017, that pattern is projected to reverse and the excess of expenditures over income will then leap (Chart 32). Notice (Chart 30) that in 2041, the Social Security assets will be exhausted. Interestingly, the government estimates that if immigration averages 1.375 million over the next 75 years vs. the base case of 1.070 million, the present value of expenditures over those years drops by 23%. This emphasizes the importance of immigrants in future years, especially those with education and skills.

As is well known, the projected income shortfall for Medicare hospital insurance is even bigger than Social Security (Chart 34). That trust fund is projected to be broke in 2019 and thereafter the spread between expenditures and income leaps (Chart 35). Similarly, the gap for Medicare supplemental insurance for physicians and drugs mushrooms (Charts 36 and 37) as expenditures leap well beyond the premiums paid by retirees. In total, the present value of unfunded costs of Social Security and Medicare for the next 75 years is \$42.9 trillion. That's three times the current level of GDP of \$14.4 trillion.

Allowing foreigners to buy houses in return for permanent resident status won't instantly eliminate the financial crisis and global recession, which are deteriorating toward the worst since the 1930s. But it could vastly reduce a huge downward driver and impediment to revival—excess house inventories. And in the long run, the skilled and productive foreign workers who would be attracted by this program would be important sources of taxes to fund otherwise exploding shortfalls in Social Security and Medicare benefits for the postwar babies.

CHART 1

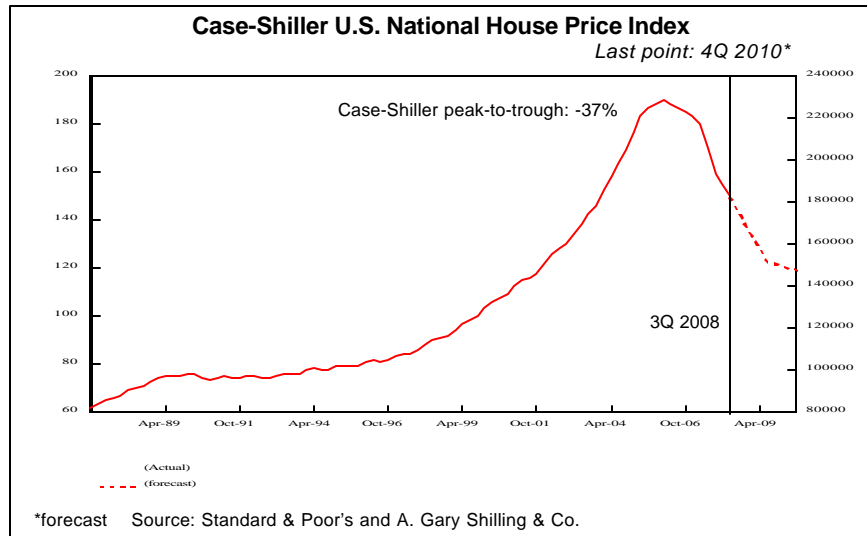


CHART 2

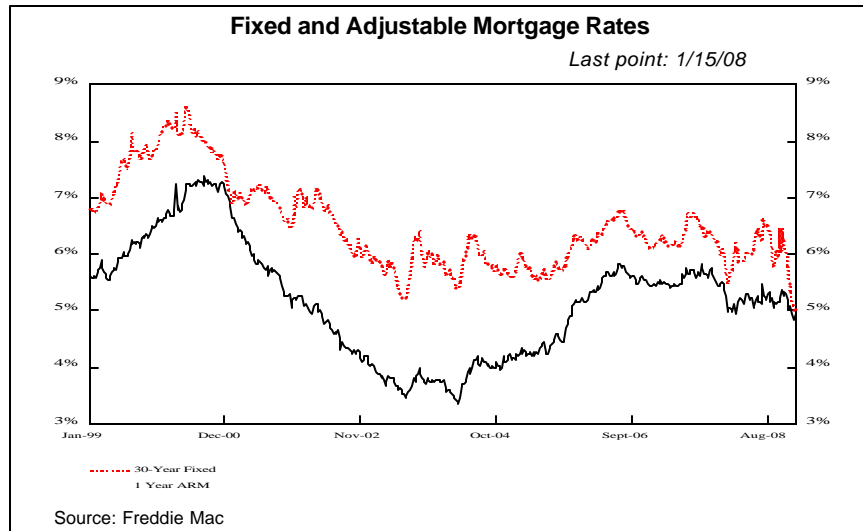


CHART 3

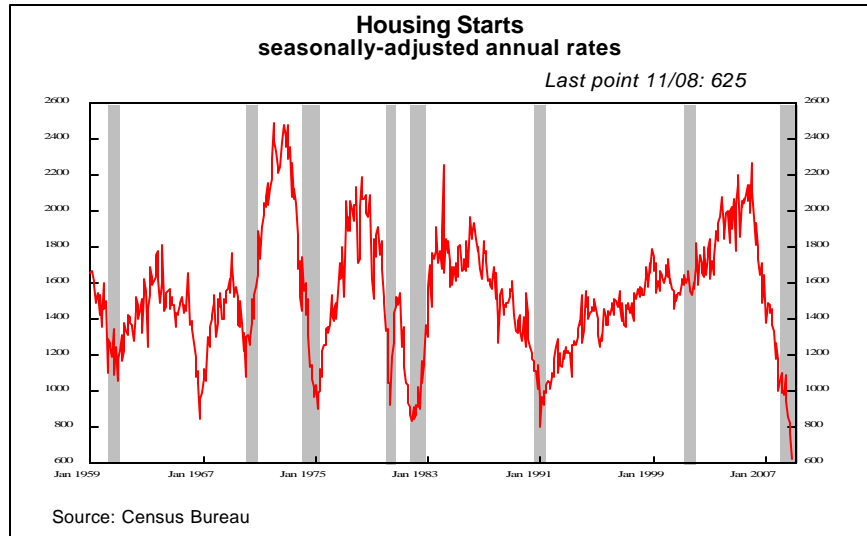


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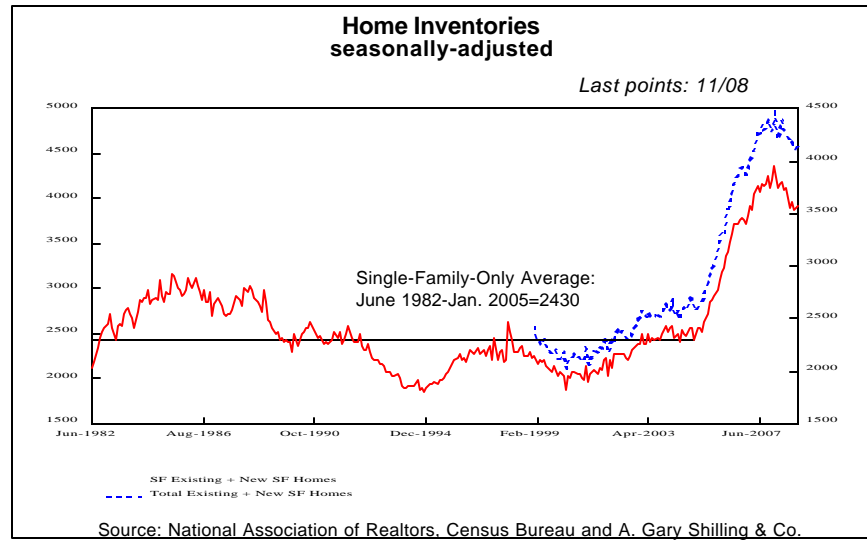


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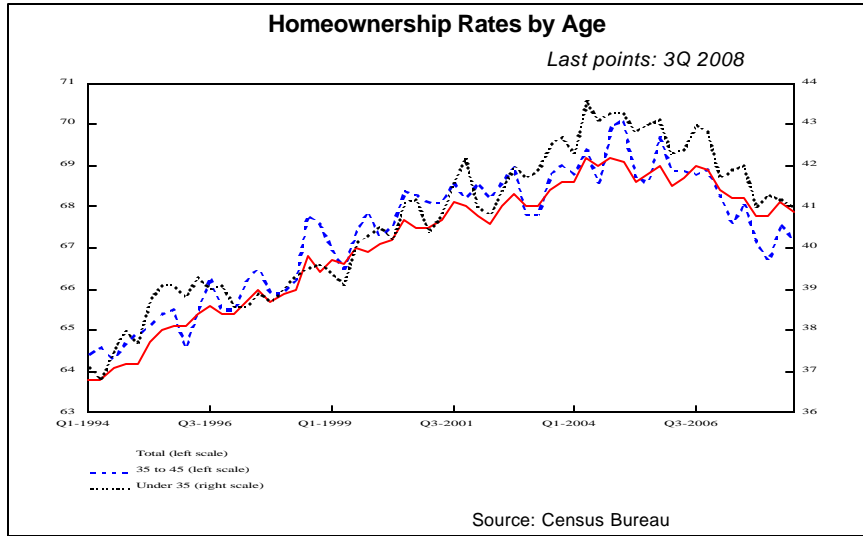


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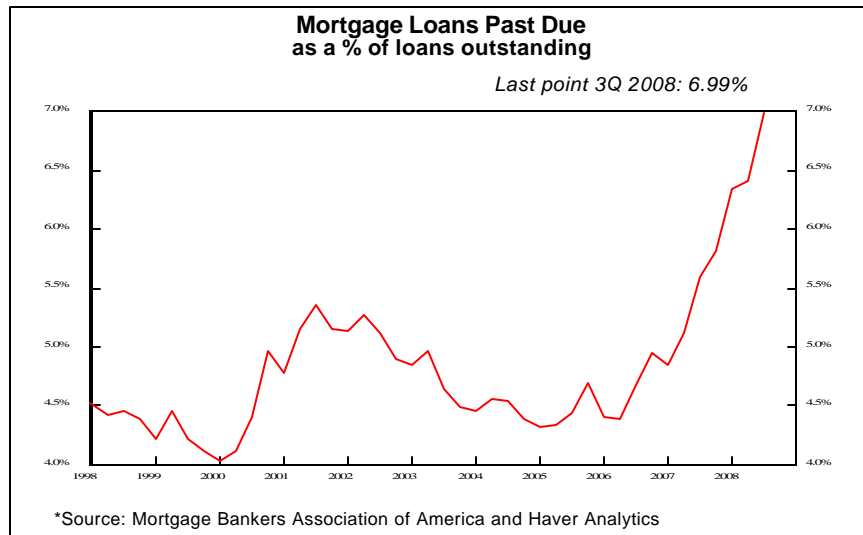


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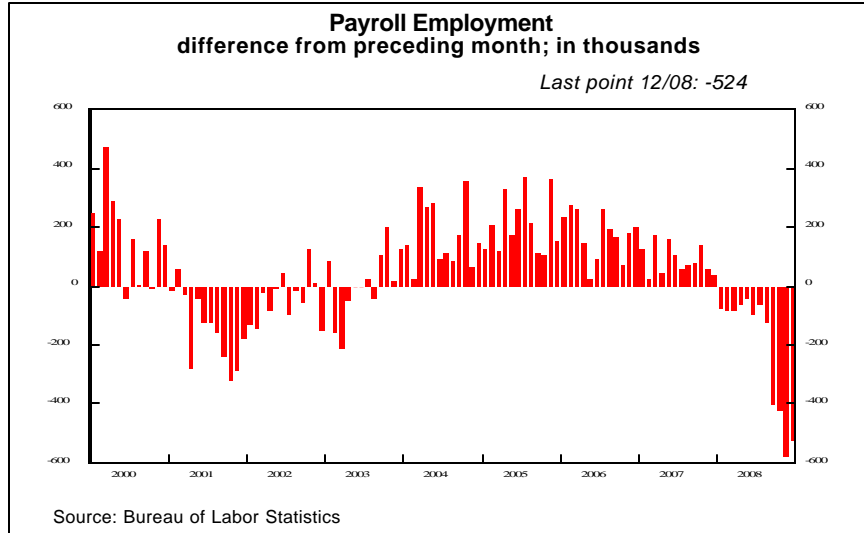


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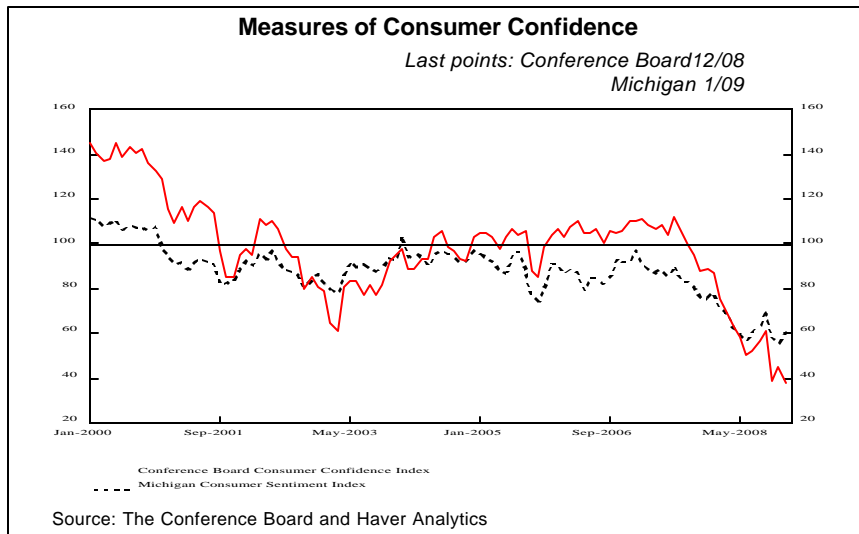


CHART 9

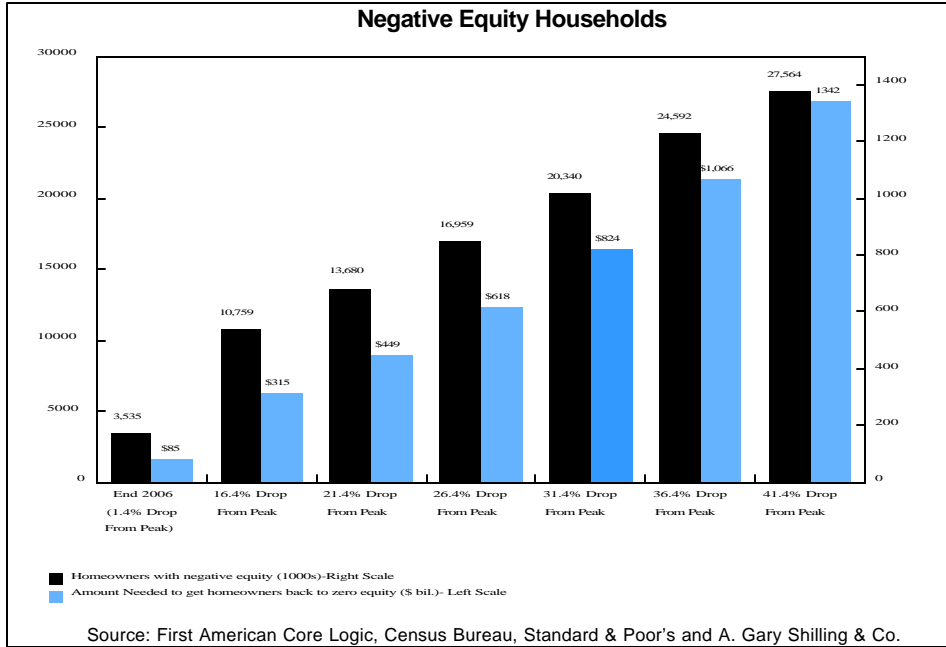


CHART 10

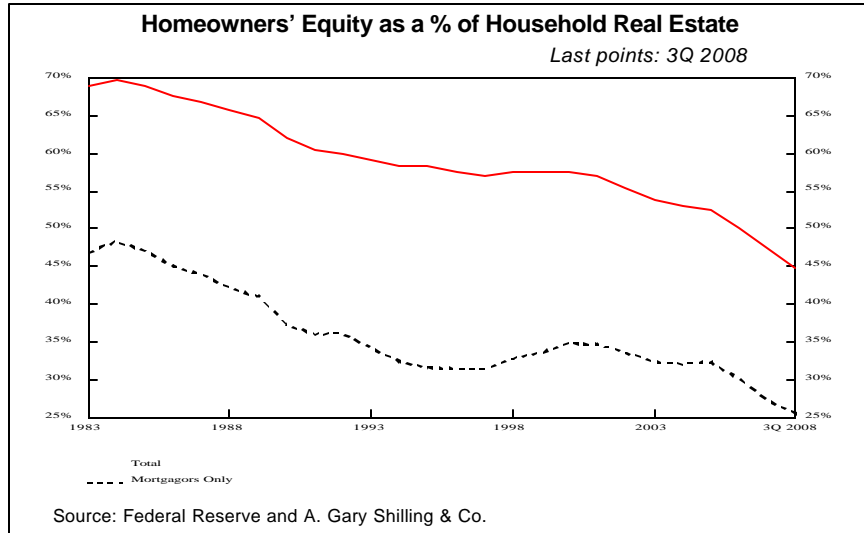


CHART 11

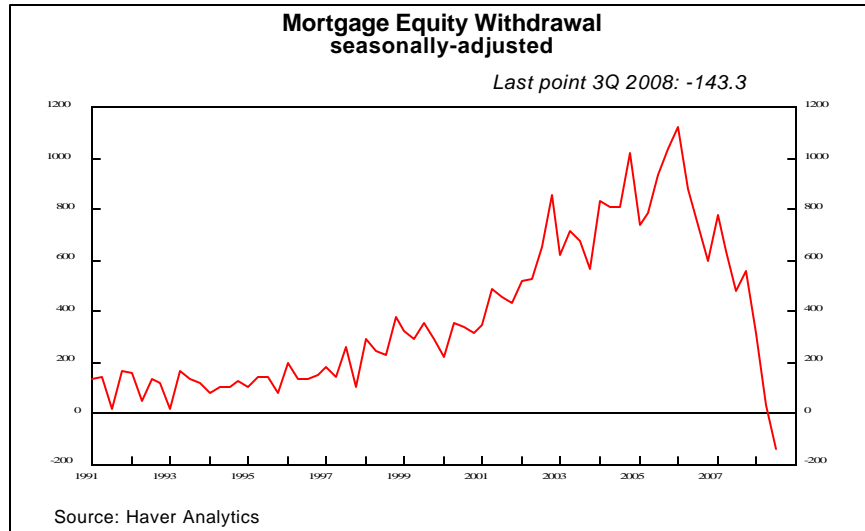


CHART 12

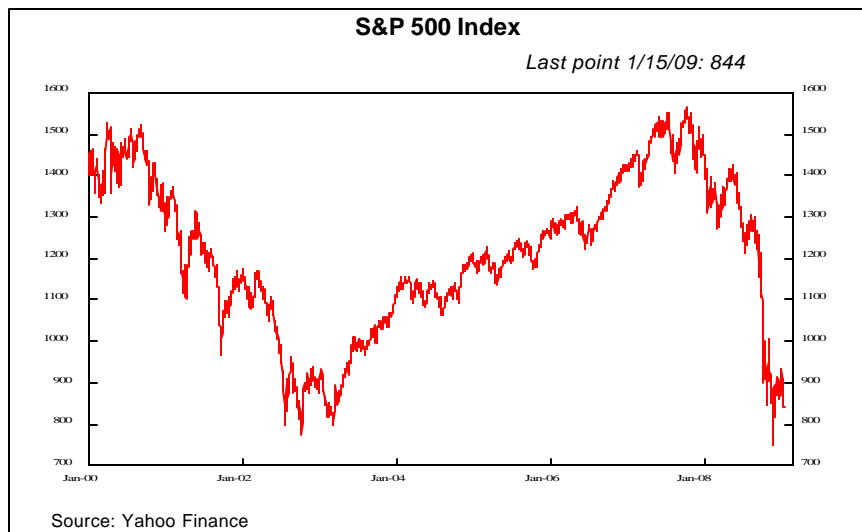
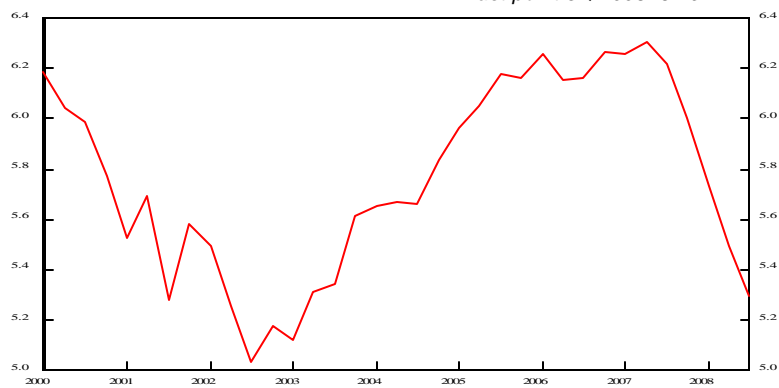


CHART 13

**Household Net Worth
relative to disposable personal income**

Last point 3Q 2008: 5.29



Source: Federal Reserve

CHART 14

Direct and Indirect* Stock Ownership
median values; in thousands of dollars, 2004

	1989	1992	1995	1998	2001	2004
All families	12.5	13.8	18.0	29.0	36.7	32.5
percent of income						
Less than 20	29.3	10.5	4.6	5.8	8.0	7.5
20-39.9	8.8	5.3	7.8	11.6	8.3	10.0
40-59.9	6.8	6.6	7.7	13.9	16.0	15.0
60-79.9	8.5	10.7	15.6	22.0	30.5	26.1
80-89.9	13.9	18.5	30.8	52.2	68.8	55.5
90-100	57.9	62.6	73.9	156.5	263.8	205.0

* Indirect holdings are mutual funds, retirement accounts and other managed assets
Source: Federal Reserve, Survey of Consumer Finance

CHART 15

Ownership of Primary Residence
median values; in thousands of dollars, 2004

	1989	1992	1995	1998	2001	2004
All families	102.6	105.4	110.8	115.9	131.0	160.0
percent of income						
Less than 20	44.0	52.7	55.4	63.8	69.2	70.0
20-39.9	73.3	65.9	80.0	86.9	85.2	100.0
40-59.9	86.5	87.0	92.3	98.5	101.2	135.0
60-79.9	110.0	112.0	117.0	127.5	138.5	175.0
80-89.9	146.6	131.8	147.7	158.8	186.4	225.0
90-100	293.2	237.2	215.4	260.8	319.5	450.0

Source: Federal Reserve, Survey of Consumer Finance

CHART 16

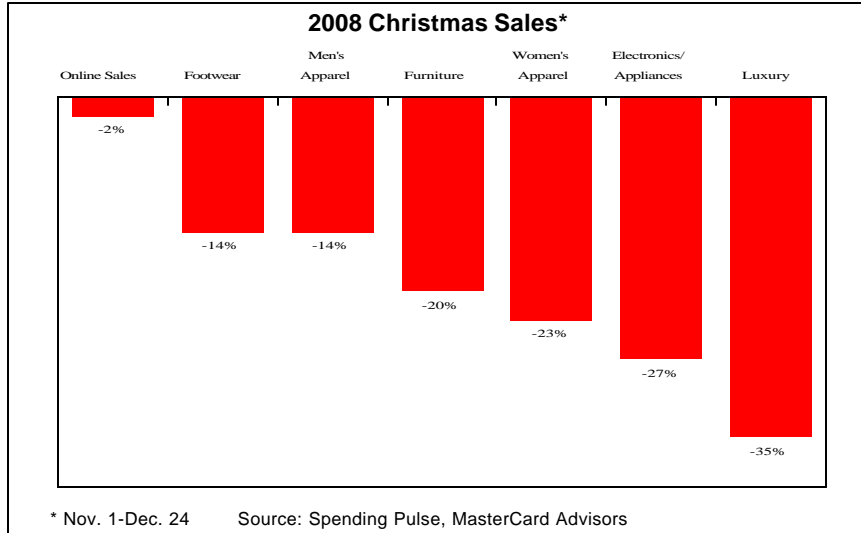


CHART 17

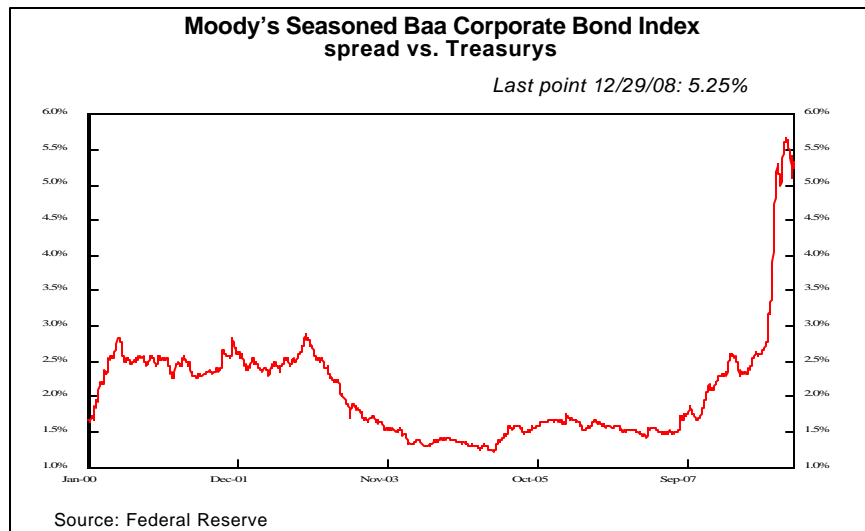


CHART 18

Merchandise Trade Balances in US\$ billions					
	Trade Balance Latest 12 Mos.	Trade Balance Latest 12 Mos.	Trade Balance Latest 12 Mos.		
United States	-853.1		Australia	-5.0	
Japan	56.4	Czech Repub.	4.8	Hong Kong	-28.0
China	278.8	Denmark	6.4	India	-112.3
Britain	-182.6	Hungary	nil	Indonesia	12.1
Canada	52.2	Norway	82.5	Malaysia	42.2
		Poland	-22.8	Singapore	19.7
Euro Area	-38.7	Russia	194.6	South Korea	-14.2
Austria	0.1	Sweden	17.7	Taiwan	3.9
Belgium	7.9	Switzerland	18.2	Thailand	-1.3
France	-82.7	Turkey	-72.7		
Germany	267.2			Argentina	14.1
Greece	-68.9	Egypt	-23.4	Brazil	24.7
Italy	-17.8	Israel	-14.4	Chile	10.2
Netherlands	58.7	Saudi Arabia	150.8	Colombia	2.7
Spain	-153.9	South Africa	-10.6	Mexico	-14.5
				Venezuela	50.2

Source: *The Economist*, 1/10/09

CHART 19

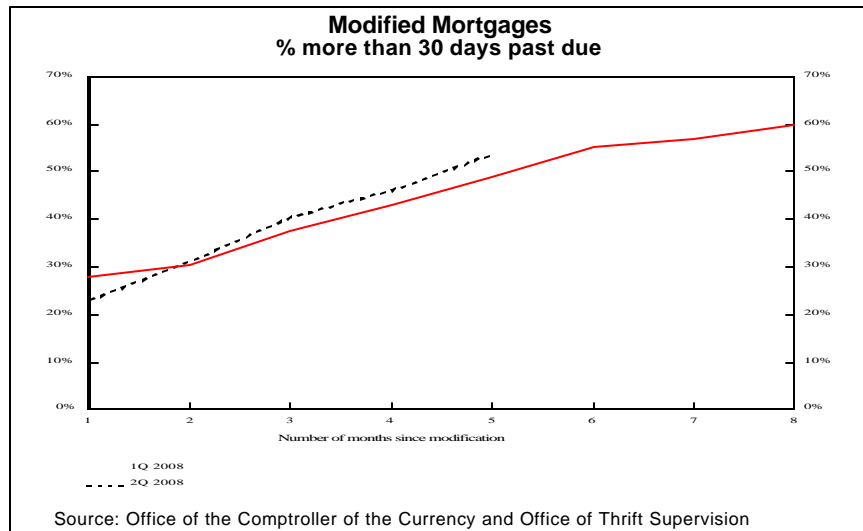


CHART 20

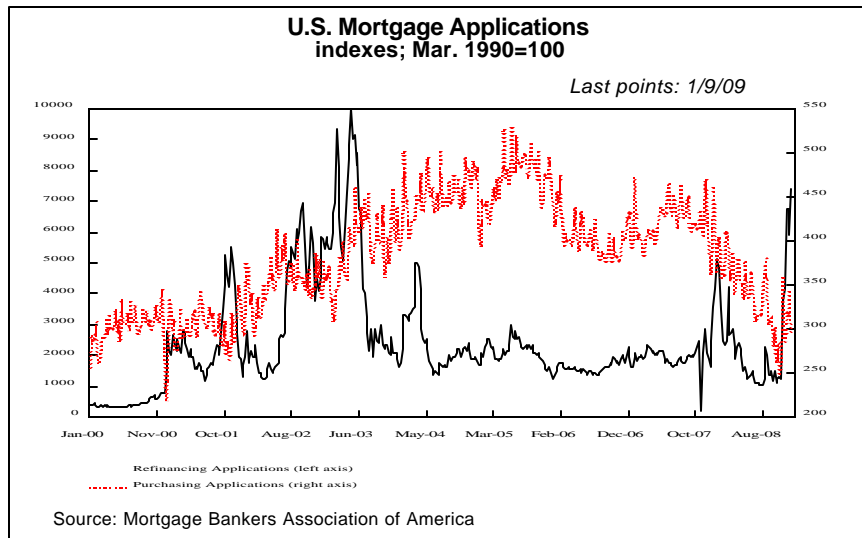


Chart 21
Metropolitan Area House Prices

Metropolitan Area	2007	3Q 2008
U.S.	217.9	200.5
Northeast	288.1	267.7
Midwest	161.4	159.9
South	178.8	174.2
West	342.5	266.3
Akron, OH	119.3	108.1
Albany-Schenectady-Troy, NY	198.9	205.5
Albuquerque, NM	198.5	193.4
Allentown-Bethlehem-Easton, PA-NJ	260.8	245.4
Amarillo, TX	118.4	128.3
Anaheim-Santa Ana, CA (Orange Co.)	699.6	517.3
Appleton, WI	130.0	127.5
Atlanta-Sandy Springs-Marietta, GA	172.0	151.3
Atlantic City, NJ	269.7	248.9
Austin-Round Rock, TX	183.7	190.9
Baltimore-Towson, MD	286.1	279.2
Barnstable Town, MA	384.7	337.5
Baton Rouge, LA	174.4	170.9
Beaumont-Port Arthur, TX	123.0	129.6
Binghamton, NY	111.2	115.5
Birmingham-Hoover, AL	161.3	156.1
Bismarck, ND	152.9	146.3
Bloomington-Normal, IL	154.0	168.4
Boise City-Nampa, ID	206.0	187.3
Boston-Cambridge-Quincy, MA-NH	395.6	373.4
Boulder, CO	376.2	360.9
Bridgeport-Stamford-Norwalk, CT	486.6	470.8
Buffalo-Niagara Falls, NY	104.0	114.2
Canton-Massillon, OH	110.3	98.5
Cape Coral-Fort Myers, FL	252.1	163.3
Cedar Rapids, IA	136.2	135.4
Champaign-Urbana, IL	144.1	146.4
Charleston, WV	122.5	127.7
Charleston-North Charleston, SC	215.4	210.9
Charlotte-Gastonia-Concord, NC-SC	204.3	210.9
Chattanooga, TN-GA	130.9	132.7
Chicago-Naperville-Joliet, IL	276.6	250.8
Cincinnati-Middletown, OH-KY-IN	140.8	136.0
Cleveland-Elyria-Mentor, OH	130.0	116.4
Colorado Springs, CO	217.5	207.9
Columbia, MO	147.1	151.3
Columbia, SC	146.6	147.5
Columbus, OH	147.4	144.0
Corpus Christi, TX	136.5	139.5
Cumberland, MD-WV	109.4	102.5
Dallas-Fort Worth-Arlington, TX	150.9	150.2
Danville, IL	N/A	N/A
Davenport-Moline-Rock Island, IA-IL	108.7	101.8
Dayton, OH	115.6	114.1
Decatur, IL	83.1	93.4
Deltona-Daytona Beach-Ormond Beach, FL	192.3	162.3
Denver-Aurora, CO	245.4	225.1
Des Moines, IA	149.2	155.4

Metropolitan Area	2007	3Q 2008
Detroit-Warren-Livonia, MI	140.3	N/A
Dover, DE	207.5	208.9
Durham, NC	178.4	177.9
Elmira, NY	81.6	105.0
El Paso, TX	131.9	136.4
Erie, PA	98.1	103.3
Eugene-Springfield, OR	239.6	224.7
Fargo, ND-MN	140.9	138.8
Farmington, NM	191.1	193.6
Gary-Hammond, IN	134.2	129.4
Glens Falls, NY	167.6	170.9
Grand Rapids, MI	129.4	108.1
Green Bay, WI	150.7	147.0
Greensboro-High Point, NC	152.0	145.6
Greenville, SC	153.6	156.7
Gulfport-Biloxi, MS	154.5	145.8
Hagerstown-Martinsburg, MD-WV	208.5	181.5
Hartford-W. Hartford-E. Hartford, CT	263.2	249.3
Honolulu, HI	643.5	615.0
Houston-Baytown-Sugar Land, TX	152.5	160.2
Indianapolis, IN	120.5	117.9
Jackson, MS	139.0	135.0
Jacksonville, FL	189.2	175.6
Kalamazoo-Portage, MI	N/A	N/A
Kankakee-Bradley, IL	134.5	140.8
Kansas City, MO-KS	153.3	147.3
Kennewick-Richland-Pasco, WA	169.2	171.0
Kingston, NY	258.4	253.3
Knoxville, TN	156.4	152.0
Lansing-E.Lansing, MI	126.8	102.6
Las Vegas-Paradise, NV	297.7	211.6
Lexington-Fayette,KY	147.5	150.6
Lincoln, NE	137.5	140.1
Little Rock-N. Little Rock, AR	129.1	129.9
Los Angeles-Long Beach-Santa Ana, CA	589.2	391.4
Louisville, KY-IN	137.4	135.4
Madison, WI	226.5	230.8
Manchester-Nashua, NH	N/A	231.5
Memphis, TN-MS-AR	137.2	126.5
Miami-Fort Lauderdale-Miami Beach, FL	365.5	287.8
Milwaukee-Waukesha-West Allis, WI	223.4	216.8
Minneapolis-St. Paul-Bloomington, MN-WI	225.2	205.1
Mobile, AL	136.4	138.7
Montgomery, AL	143.8	135.5
Nashville-Davidson—Murfreesboro, TN	N/A	N/A
New Haven-Milford, CT	286.5	277.7
New Orleans-Metairie-Kenner, LA	160.3	166.8
N.Y.-Northern N.J.-Long Island, NY-NJ-PA	469.7	452.5
New York-Wayne-White Plains, NY-NJ	540.3	525.9
NY: Edison, NJ	380.3	376.5
NY: Nassau-Suffolk, NY	477.2	423.6
NY: Newark-Union, NJ-PA	443.7	451.9
Norwich-New London, CT	267.7	235.4
Ocala, FL	164.6	135.1
Oklahoma City, OK	134.9	132.1

Metropolitan Area	2007	3Q 2008
Omaha, NE-IA	138.0	137.5
Orlando, FL	261.3	213.4
Palm Bay-Melbourne-Titusville, FL	183.6	145.3
Pensacola-Ferry Pass-Brent, FL	165.6	152.4
Peoria, IL	118.6	125.3
Phila.-Camden-Wilmington, PA-NJ-DE-MD	234.9	241.1
Phoenix-Mesa-Scottsdale, AZ	257.4	185.1
Pittsburgh, PA	120.7	122.7
Pittsfield, MA	217.4	205.7
Portland-South Portland-Biddeford, ME	242.7	233.5
Portland-Vancouver-Beaverton, OR-WA	295.2	278.6
Providence-New Bedford-Fall River, RI-MA	286.5	247.5
Raleigh-Cary, NC	224.2	221.9
Reading, PA	154.7	163.5
Reno-Sparks, NV	321.4	253.4
Richmond, VA	233.7	217.9
Riverside-San Bernardino-Ontario, CA	381.4	227.2
Rochester, NY	117.9	123.6
Rockford, IL	119.3	118.2
Sacramento—Arden-Arcade—Roseville, CA	342.7	212.0
Saginaw-Saginaw Township North, MI	82.1	65.8
Saint Louis, MO-IL	145.4	142.7
Salem, OR	228.3	200.0
Salt Lake City, UT	232.0	230.2
San Antonio, TX	153.2	154.4
San Diego-Carlsbad-San Marcos, CA	588.7	377.3
San Francisco-Oakland-Fremont, CA	805.4	615.7
San Jose-Sunnyvale-Santa Clara, CA	836.8	650.0
Sarasota-Bradenton-Venice, FL	310.9	237.4
Seattle-Tacoma-Bellevue, WA	386.9	350.0
Shreveport-Bossier City, LA	135.6	140.2
Sioux Falls, SD	144.5	144.5
South Bend-Mishawaka, IN	90.7	88.0
Spartanburg, SC	128.6	127.7
Spokane, WA	193.8	191.2
Springfield, IL	109.0	110.9
Springfield, MA	211.9	206.5
Springfield, MO	122.6	N/A
Syracuse, NY	121.8	127.3
Tallahassee, FL	179.5	158.6
Tampa-St.Petersburg-Clearwater, FL	214.9	173.4
Toledo, OH	106.6	100.4
Topeka, KS	111.9	111.8
Trenton-Ewing, NJ	307.1	342.5
Tucson, AZ	244.8	199.3
Tulsa, OK	N/A	139.8
Va.Beach-Norfolk-Newport News, VA-NC	245.4	242.2
Wash. DC-Arlington-Alexandria, A-MD-WV	430.8	332.7
Waterloo/Cedar Falls, IA	112.8	115.4
Wichita, KS	115.6	125.3
Worcester, MA	274.6	235.8
Yakima, WA	156.5	154.3
Youngstown-Warren-Boardman, OH-PA	78.9	74.3

Source: National Association of Realtors

Chart 22

H-1B Petitions Approved by Age of Beneficiary: Fiscal Year 2005

Age

Total	267,131	
Age known	266,946	100%
Under 20	136	0.1%
20-24	19,018	7.1%
25-29	90,390	33.9%
30-34	84,664	31.7%
35-39	39,801	14.9%
40-44	18,821	7.1%
45-49	8,047	3.0%
50-54	3,548	1.3%
55-59	1,649	0.6%
60-64	610	0.2%
65 and over	262	0.1%
Age unknown	185	--

Source: U.S. Citizenship and Immigration Services

Chart 23

H-1B Petitions Approved by Level of Education

<u>Level of Education</u>	<u>FY 2005</u>
Education known	100%
Less than a Bachelor's degree	1%
Bachelor's degree	45%
Master's degree	37%
Doctorate degree	5%
Professional degree	12%

Source: U.S. Citizenship and Immigration Services

Chart 24

Percentage of H-1B Petitions Approved by Major Occupation: FY 2005

<u>Occupation</u>	<u>All Beneficiaries FY 2005 %</u>
Total	--
Occupation known	100
Computer-related occupations	43.0
Occupations in architecture, engineering and surveying	12.1
Occupations in education	11.0
Occupations in administrative specializations	9.8
Occupations in medicine and health	6.6
Managers and officials in n.e.c. (not elsewhere classified)	4.0
Occupations in life sciences	3.3
Occupations in mathematics and physical sciences	2.5
Occupations social sciences	2.3
Miscellaneous professional, technical and managerial	2.1
Occupations in art	1.4
Occupations in law and jurisprudence	0.7
Occupations in writing	0.6
Occupations in entertainment and recreation	0.3
Fashion models	0.2
Occupations in museum, library and archival sciences	0.1
Occupations in religion and theology	0.1
Occupation unknown	--

Source: U.S. Citizenship and Immigration Services

Chart 25

Annual Compensation of All H-1B Beneficiaries: FY 2005 \$

<u>Occupation</u>	<u>Total Reported</u>	<u>25th Percentile</u>	<u>Median</u>	<u>75th Percentile</u>
Total	262,130			
Occupations with annual compensation known	259,990	43,000	55,000	73,000
Computer-related occupations	112,817	48,000	60,000	73,000
Occupations in architecture, engineering and surveying	31,574	48,000	60,000	78,000
Occupations in education	28,475	35,000	40,000	52,000
Occupations in administrative specializations	25,270	37,000	48,000	66,000
Occupations in medicine and health	16,284	41,000	52,000	104,000
Managers and officials in n.e.c. (not elsewhere classified)	10,455	42,000	65,000	100,000
Occupations in life sciences	8,749	36,000	42,000	55,000
Occupations in mathematics and physical sciences	6,545	44,000	59,000	77,000
Occupations social sciences	5,903	38,000	53,000	77,000
Miscellaneous professional, technical and managerial	5,450	40,000	60,000	90,000
Occupations in art	3,699	33,000	43,000	60,000
Occupations in law and jurisprudence	1,727	45,000	90,000	135,000
Occupations in writing	1,436	30,000	38,000	50,000
Occupations in entertainment and recreation	648	27,000	35,000	47,000
Fashion models	423	100,000	100,000	130,000
Occupations in museum, library and archival sciences	368	35,000	42,000	60,000
Occupations in religion and theology	167	25,000	32,000	45,000
Occupation unknown	2,140	40,000	48,000	60,000

Source: U.S. Citizenship and Immigration Services

Chart 26
Global Migration Barometer

Attractiveness to Migrants

Rank	Country	Score
1	United States	87.4
2	United Kingdom	85.8
3	Australia	83.8
4	Norway	82.8
5	France	82.3
6	Canada	82.3
7	Switzerland	80.9
7	Sweden	80.7
9	Ireland	80.2
10	Hong Kong	80.0
11	Netherlands	79.4
12	Denmark	78.4
12	Belgium	76.5
14	Germany	76.1
15	Austria	76.0
16	Spain	74.9
17	Italy	74.8
18	Singapore	73.7
19	New Zealand	73.6
20	Finland	73.0
20	Greece	72.4
22	Portugal	71.2
22	Japan	70.7
24	Estonia	65.7
25	Israel	65.5
26	Chile	65.3
27	Korea, Rep. Of	64.9
28	Qatar	64.3
29	Latvia	62.7
29	Czech Republic	62.6
31	Mexico	62.1
32	Lithuania	61.6
33	Slovakia	59.9
34	Kuwait	59.4
34	Hungary	59.0
36	Poland	58.4
37	Malaysia	58.3
38	Costa Rica	58.2
39	United Arab Emirates	58.2
40	Argentina	57.3
41	Kazakhstan	56.6
42	Russian Federation	54.4
43	South Africa	54.4
44	Romania	53.8
45	Turkey	53.7
46	Bulgaria	53.2
47	Brazil	52.7
48	Jordan	52.7
49	Botswana	52.4
50	Peru	49.9
51	Saudi Arabia	49.7
52	China	49.4
53	Ukraine	48.2
54	India	46.8
55	Thailand	46.1
56	Ecuador	44.1
57	Iran	38.6
58	Ghana	38.2
59	Cote D'Ivoire	37.9
60	Nigeria	36.9
61	Venezuela	36.8

Rank	Country	Score
1	Australia	85.0
2	Canada	83.1
3	Singapore	81.9
4	New Zealand	79.4
5	Israel	76.3
6	Portugal	75.0
7	United States	73.1
7	Costa Rica	73.1
9	Sweden	71.9
9	Hong Kong	71.9
11	Belgium	71.3
12	United Kingdom	70.6
12	Spain	70.6
12	Chile	70.6
15	Thailand	68.1
16	Ireland	67.5
16	Finland	67.5
18	Czech Republic	66.9
18	Brazil	66.9
20	Peru	65.6
20	Norway	65.6
22	Switzerland	65.0
22	Slovakia	65.0
24	Poland	64.4
24	Germany	64.4
24	Ecuador	64.4
27	Venezuela	63.8
27	Nigeria	63.8
29	Malaysia	62.5
29	Italy	62.5
29	Hungary	62.5
32	Ukraine	61.9
33	Lithuania	61.3
33	Argentina	61.3
35	Kazakhstan	60.6
36	Mexico	60.0
37	Netherlands	58.8
37	Cote D'Ivoire	58.8
39	Russian Federation	58.1
39	India	58.1
39	China	58.1
39	Austria	58.1
43	Turkey	56.9
43	France	56.9
45	Romania	56.3
45	Botswana	56.3
47	Korea, Rep. Of	55.6
47	Greece	55.6
47	Denmark	55.6
50	Qatar	54.4
51	Jordan	53.8
52	Bulgaria	53.1
53	South Africa	52.5
53	Japan	52.5
55	United Arab Emirates	51.3
55	Latvia	51.3
57	Kuwait	49.4
58	Ghana	47.5
59	Estonia	45.6
60	Saudi Arabia	44.4
61	Iran	43.1

Need for Migrants

Rank	Country	Score
1	Japan	68.5
2	Italy	67.6
3	Portugal	66.7
4	Finland	66.7
5	Czech Republic	65.5
6	Greece	64.4
7	France	63.5
8	Latvia	62.6
9	Belgium	62.4
9	Austria	62.2
11	Hungary	62.2
11	Ukraine	62.1
13	Lithuania	62.0
14	Bulgaria	61.6
15	Germany	61.4
16	Sweden	61.2
17	Netherlands	60.5
18	United Kingdom	60.5
18	Russian Federation	60.4
20	Switzerland	60.3
20	Norway	59.9
22	Spain	59.8
22	Romania	59.4
24	Estonia	58.7
25	Poland	58.7
26	Argentina	57.8
27	Slovakia	56.9
28	United Arab Emirates	56.6
29	Brazil	56.3
30	Qatar	54.9
31	United States	54.8
32	Korea, Rep. Of	54.6
33	Denmark	54.4
34	Hong Kong	54.0
35	Australia	53.3
36	New Zealand	52.9
37	Costa Rica	52.4
38	Venezuela	51.5
39	Canada	51.4
40	China	51.0
41	Thailand	50.4
42	Ecuador	49.8
43	Ireland	48.7
44	Kuwait	48.4
45	Singapore	47.4
46	Mexico	47.3
47	Chile	47.1
48	South Africa	47.0
49	Kazakhstan	46.8
50	Ghana	46.4
51	Iran	45.8
52	Saudi Arabia	45.5
53	Israel	44.2
54	Jordan	44.1
55	Peru	43.0
56	Turkey	42.1
57	Nigeria	42.1
58	Malaysia	41.7
59	Cote D'Ivoire	38.9
60	India	36.1
61	Botswana	35.6

Source: Economist Intelligence Unit

Chart 27

Population and Immigration as of 2008

	Japan	U.K.	Italy	France	Germany	Canada	U.S.
Population (millions)	127	61	58	64	82	33	304
Net migration (thousands)	54*	132	120	95	180	187	1305
Net migration / population ratio	0.04%	0.22%	0.21%	0.15%	0.22%	0.56%	0.43%

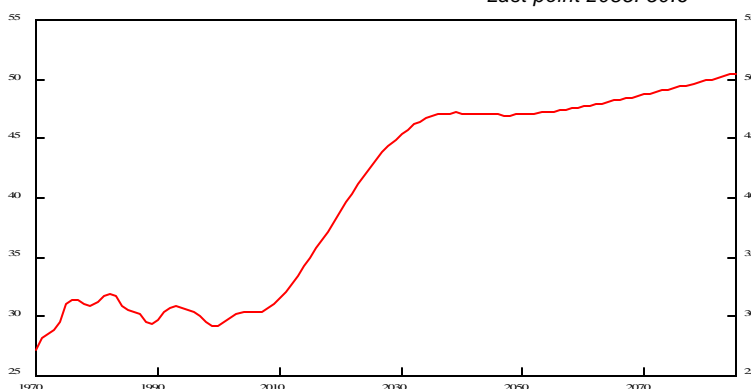
* Based in 2005 United Nations Data

Source: U.S. Census Bureau

CHART 28

Social Security Beneficiaries per 100 covered workers

Last point 2085: 50.6



Source: 2008 OASDI Trustees Report

Chart 29

Government Assumptions for Social Security and Medicare Projections

Year	Net Immigration (millions of persons)	Real GDP (% change)	Real Wage Growth (%)	Total Employment (% change)
2008	1.250	2.3	1.3	0.4
2010	1.195	2.7	1.3	0.9
2020	1.130	2.2	1.1	0.5
2030	1.085	2.1	1.1	0.4
2040	1.050	2.2	1.1	0.5
2050	1.035	2.1	1.1	0.4
2060	1.030	2.1	1.1	0.4
2070	1.025	2.1	1.1	0.4
2080	1.025	2.1	1.1	0.4

Source: Social Security Administration

CHART 30

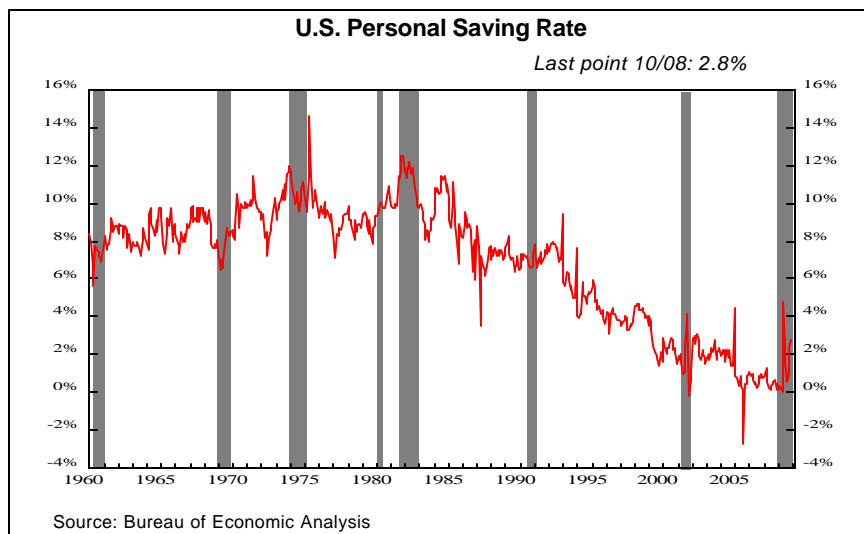


CHART 31

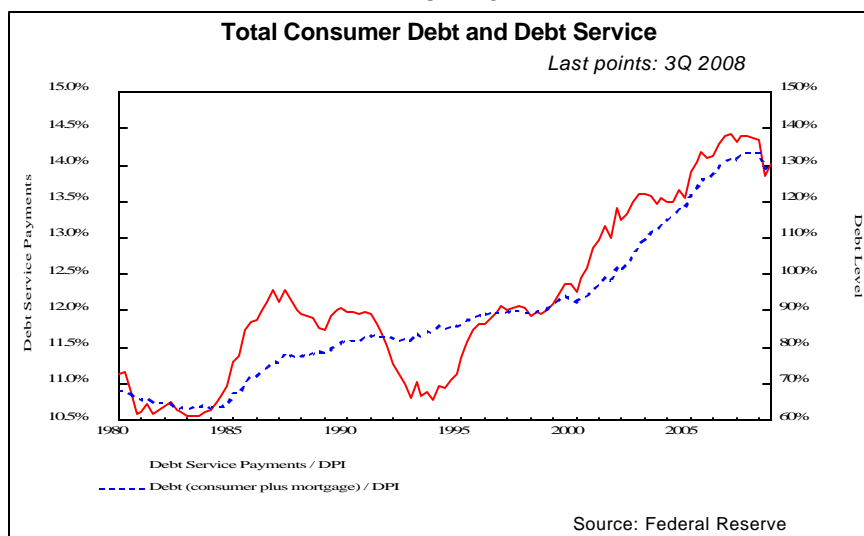


CHART 32

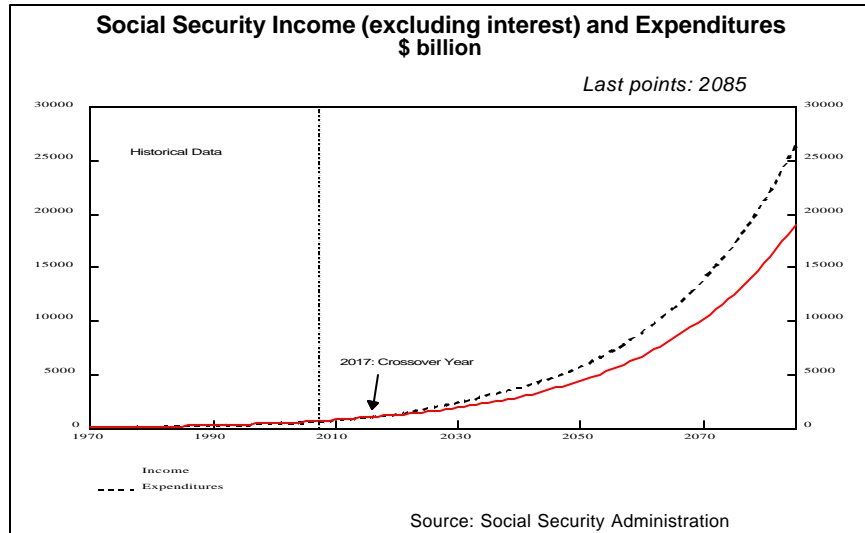


CHART 33

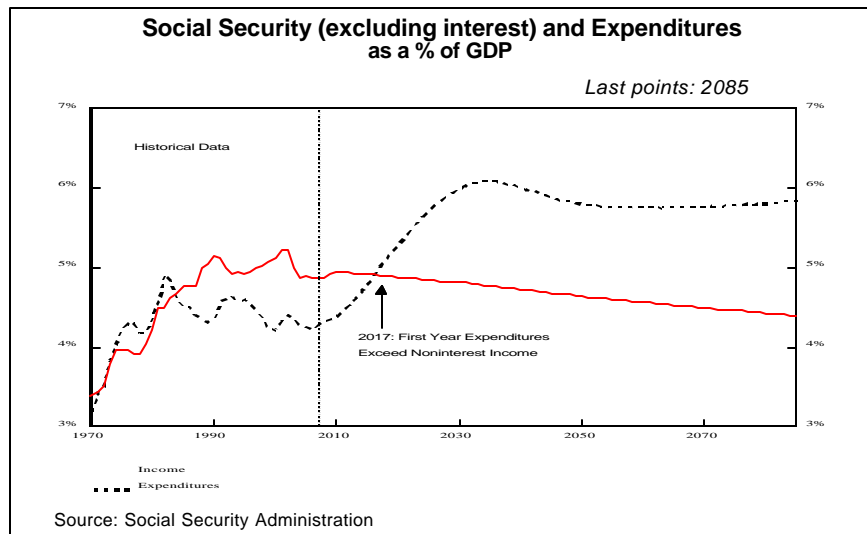


CHART 34

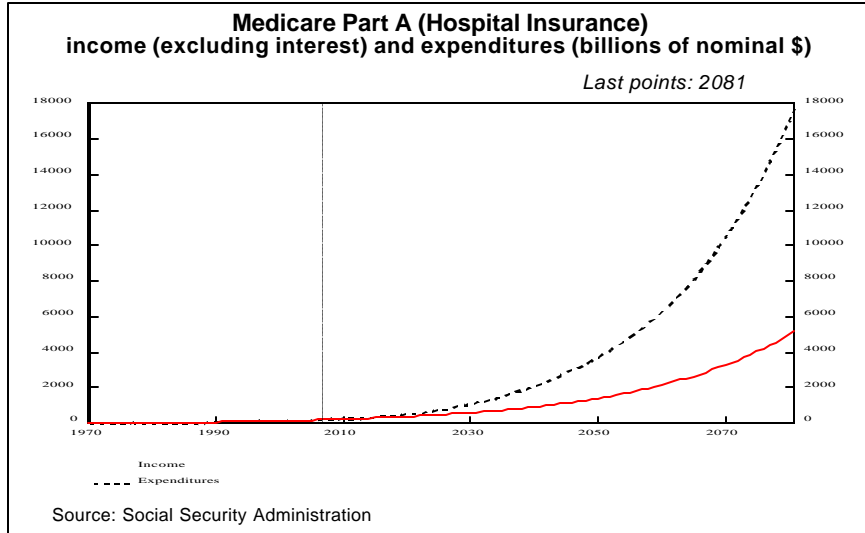


CHART 35

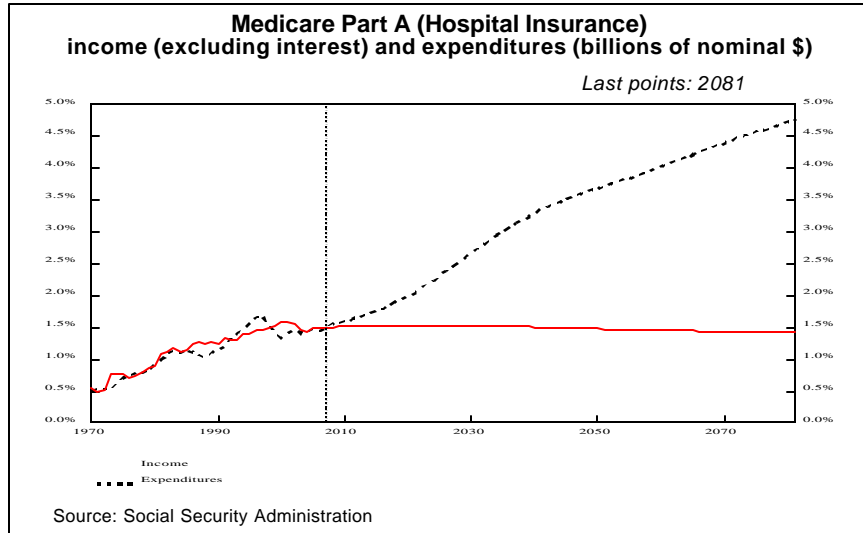


CHART 36

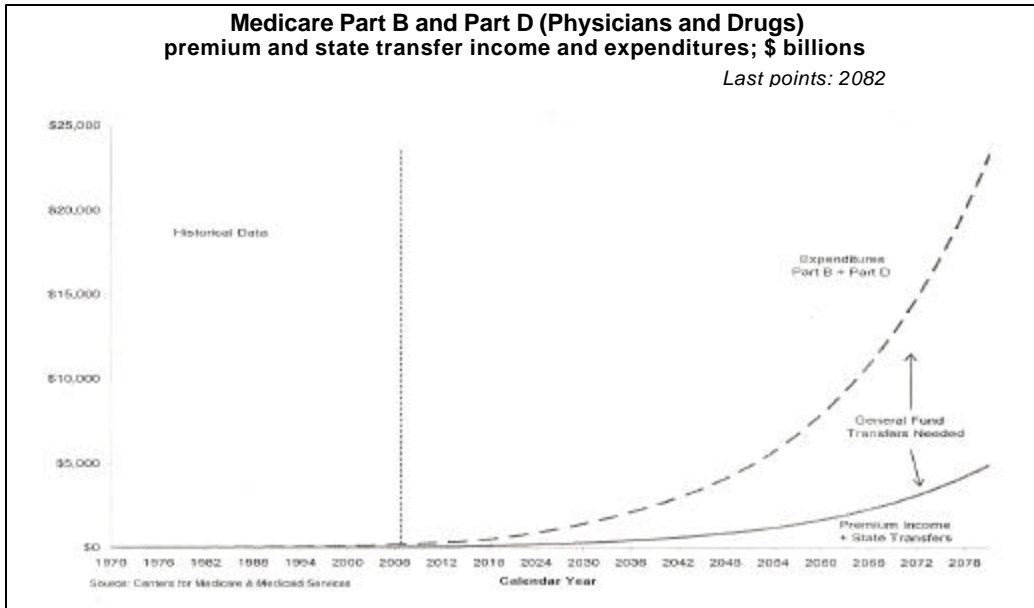
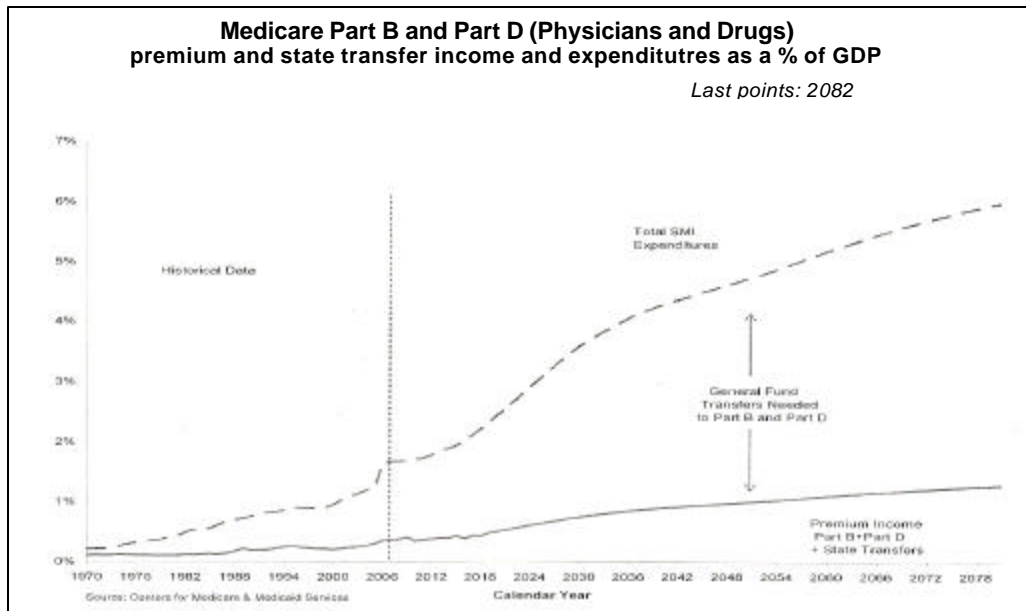


CHART 37



A. Gary Shilling & Co., Inc.

Economic Consultants and Investment Advisors

500 Morris Avenue, Springfield, NJ 07081-1020

Tele: 973-467-0070 / Fax: 973-467-4073

E-mail: insight@agaryshilling.com / www.agaryshilling.com

Memorandum

February 3, 2009

To: Richard LeFrak

Subject: Updates and additional information for Excess House Inventories Special Report

Immigration

Without question, America is attractive to foreigners and has been since colonial times. Many today want to come here because of our political and economic freedom, our capitalistic system that allows people to not only succeed but to enjoy the fruits of their labor and brains, our high level of health care, the American lifestyle and high living standards, etc.

The controversies over immigration have, of course, centered on the huge inflow of legal but mainly illegal Hispanics who lack skills and education but are willing to work for low wages in jobs many natives reject. The recession is eliminating the jobs in construction, food service and other industries that attracted those people. Tighter law enforcement is also having effects. Interestingly, the Obama Administration recently delayed until May 21 the E-verify system, an Internet-based system that enables employers to compare the names and Social Security numbers of new employees with a federal database. An additional rule requiring Form I-9 to verify the identity and authorization to work in the U.S. of newly-hired people will be delayed until April 3. The Obama Administration postponed the Bush era regulations to “permit the new Administration an adequate opportunity to review the rule.”

In any event, few people are entering the U.S. The Census Bureau estimates net immigration in the year ending July 1, 2008 of 888,825, down from 1,037,657 in the year ended July 1, 2007 and 1,204,167 the year before that. These declines reflect the departure of many Hispanics who lost their jobs and those who didn't bother to come to the U.S. due to shrinking employment. Reflecting income declines, Mexicans working in the U.S. sent home 3.6% less money in 2008 than in 2007. Unlike earlier years when most were agricultural laborers, only 5% of Mexican immigrants now work on U.S. farms while 38% are in

construction and manufacturing and 57% in services, according to the Bank of Mexico. The Pew Hispanic Center says that in the four quarters ending last October, 239,000 Hispanics lost their U.S. jobs, with almost 100,000 of those in construction.

Many Hispanics, both legal and illegal, bought houses back in the boom years, and Hispanic homeownership grew by 47% from 4.1 million in 2000 to 6.1 million in 2007, much faster than the 8% overall rise in homeownership. In 2006 alone, mortgages to Hispanics jumped by 29% and the subprime component leaped by 169% compared to a 122% jump for blacks and 110% for whites. Many of the subprime loans to Hispanics were not documented, probably were not understood by the borrowers and are suffering huge delinquencies and defaults as house prices fall and Hispanic incomes disappear.

In U.S. counties where Hispanics account for more than 25% of the population, lenders have foreclosed on 0.67% of homes since Jan. 1, 2006 compared with 0.46% in all counties. A significant part of excess house inventories results from low-income Hispanics in unstable jobs who barely could meet monthly payments in lush times. The answer to surplus houses clearly does not lie in attracting more of these immigrants, but rather those with the education, skills, income and wealth to buy American houses even in difficult times.

EB-5 Visa

The EB-5 visa program is akin to Canada's program that allows immigrants to achieve permanent resident status after five years if they bring in C\$400,000. And, the EB-5 program can be cited as a precedent for giving green cards to foreigners who buy American houses. Each year, 10,000 EB-5 visas are available for foreigners who invest \$1 million in a new enterprise that creates at least 10 full-time jobs and increases exports, improves regional productivity, job creation or increases capital. Only \$500,000 is needed to be invested in a new business in an economically depressed area, and 5,000 of the 10,000 visas are set aside for those areas.

An existing business can be expanded or restructured, but regardless, the immigrant must be actively involved, not just as an investor. The visa includes the entrepreneur's family. If he continuously maintains the business for two years and has a clean record, he and his family can then get permanent resident status.

Wealthy Foreigners

The number of foreigners with substantial assets is huge, and only a tiny fraction of them would need to buy American houses in return for permanent residence to remove a major part of excess inventories. Note that due to uncertainty before the British handover of Hong Kong to China, many residents there

secured resident status in Singapore and elsewhere. There's plenty of uncertainty today in many part of the world to interest wealthy foreigners in U.S. permanent residence for themselves and their families.

Obviously, the global bear market in stocks, the real estate decline and financial turmoil have trimmed the ranks of the well-to-do. Still, Merrill Lynch estimates that in 2007, there were 10.1 million individuals in the world with at least \$1 million in financial assets, excluding collectibles, consumables, consumer durables and primary residences (Chart 1). The addition of physical assets would no doubt expand that number considerably. Of that total, 7.1 million were outside the U.S. with 415,000 in China, 123,000 in India, 136,000 in Russia and 143,000 in Brazil while 3.0 million were Americans. In 2007, the financial assets of those outside North America totaled \$29.0 trillion. Those with over \$30 million in financial assets totaled 103.3 thousand, with 62.1 thousand outside North America. (Chart 1).

The Pool of Skilled And Educated Immigrants

Many foreigners with skills and education are in this country or were earlier while attending U.S. colleges and graduate schools or on temporary work assignments. Lots of them desire permanent resident status and would like to buy homes but are reluctant to do so until their immigration condition is settled.

The Ewing Marion Kauffman Foundation estimates that as of Sept. 30, 2006, 500,040 residents of the U.S. and 59,915 living abroad were waiting for EB-1, EB-2 and EB-3 employment-based visas. With their families, the total is 1,181,505 (Chart 2), and since only about 120,120 of these visas are issued a year, including to family members, that is almost a 10-year backlog.

EB-1 visas are for foreign nationals with extraordinary abilities in the sciences, arts, education, business or athletics as well as outstanding professors or researchers and managers and executives who would be transferred to the U.S. EB-2 visas are given to foreigners with exceptional abilities in the sciences, arts or business, advanced degree professionals and physicians who will practice medicine in underserved areas of the U.S. EB-3 visas are for foreign nationals with bachelor's degrees who don't meet EB-1 or EB-2 qualifications, skilled workers with at least two years of training and experience and unskilled workers (obviously a small category).

The authors of this report believe that a number of people have given up waiting for those visas or don't want to put up with the hassle and are leaving the country. This "brain drain" is unfortunate since many of these foreigners are highly productive. In 2006, foreign nationals residing in the U.S. were named as inventors or co-inventors on 25.6% of the 42,019 international patent applications filed from this country, up from 7.6% in 1998 (Chart 3). Studies of the authorship of academic papers show the same trend.

U.S. educational institutions are considered the best in the world by many and are magnets for foreign

students, especially at the graduate level. Many of them are included to settle and work in this country after completing their studies, if they can obtain permanent resident status.

The Council of Graduate Schools survey revealed that in the fall of 2007, 241,095 non-U.S. citizens were enrolled in graduate programs (Chart 4). Technological progress and the productivity it generates depends on people educated in biological sciences, engineering and physical sciences, but only 16% of U.S. citizen graduate enrollment was in these three disciplines (Chart 5). In contrast, 55% of total non-U.S. citizen enrollment was in those fields. Conversely, 53% of graduate enrollment by Americans was in education, business and health sciences while those three fields accounted for only 24% of foreign graduate students.

Furthermore, the ranks of foreign graduate students are growing. In 1997 to 2007, they grew at a 5% annual rate, compared to 2% for Americans. In those years, enrollment of U.S. citizens in physical sciences and engineering fields rose 1% annually on average but 5% for foreign students in engineering and 4% in physical sciences. The greatest annual growth for U.S. citizens, 4%, was in health sciences, but even there, international graduate student enrollment grew even faster, 6% (Chart 6).

Other data from the National Science Foundation also shows the large number of foreign students enrolled in science, engineering and health graduate programs in U.S. schools (Chart 7). In six years, 2001-2006, first-time, full-time graduate students with temporary visas cumulated to 196,194 in those three fields, with 109,020 in science, 77,096 in engineering and 10,078 in health fields.

At the doctorate level, the number of non-U.S. citizens receiving degrees, especially those with temporary visas, is expanding rapidly (Chart 8). These are people who, having been educated here largely at U.S. expense, should be encouraged to stay here in productive professional capacities. Notice that in 2007, those on temporary visas who received doctorates were more numerous than U.S. citizens in physical sciences and engineering.

Over the last 20 years, the number of U.S. citizens receiving doctorates has remained relatively steady while virtually all of the growth has come from those with temporary visas, according to the National Science Foundation. Their percentage of the total has climbed from 11% in 1977 to 34% in 2007 (Chart 9). This data also shows the dominance of foreigners among recipients of doctorates in the physical sciences and engineering in 2007 (Chart 10). Some 84% of the total doctorates for temporary U.S. residents were in the sciences and engineering. Furthermore, 45% of those temporary visa holders planned to work in industry or be self-employed vs. 17% of U.S. citizens.

The value of U.S. education is also shown by an academic study that compared the earnings of U.S.-born whites, U.S.-born Asian-Americans, U.S.-educated Asian immigrants and foreign-educated Asian immi-

grants. For the first three groups, earnings were essentially the same, but foreign-educated Asian immigrants earned 16% less. So, American education, not nativity or race, is what makes the difference.

Not only are U.S.-educated foreigners prospects for permanent residence but also those with advanced degrees who are educated abroad. And there is a huge pool of those people (Chart 11). According to the OECD, between 1998 and 2006, 1.12 million doctorates were awarded outside the U.S. in other OECD countries compared to 428,828 in the U.S. Some 66,067 were granted in Canada, New Zealand and Australia; 182,634 in Japan and South Korea; and 710,530 in Western Europe.

7. Consumer spending is vulnerable.
 - Has driven this expansion (Charts 25-26)
 - Has relied on MEW (Charts 27-28)
 - Is linked to housing (Charts 29-31)
 - High energy prices also hurt (Chart 32)

8. Consumer spending and sentiment are linked to unemployment (Chart 33).
 - Housing and construction employment lead overall employment (Charts 34-35)
 - Payroll employment growth is slipping and overstated (Charts 36-38)

9. Rising interest rates don't reflect fundamentals but hurt housing and consumers (Charts 39-41).
 - Shift to normal yield curve won't save the business expansion (Chart 42)

10. Likely stock weakness will also hurt (Chart 43).

11. Retail sales are already slipping (Charts 44-45). Could be beginning of debt repayment and saving spree (Charts 46-47).

CHART 1

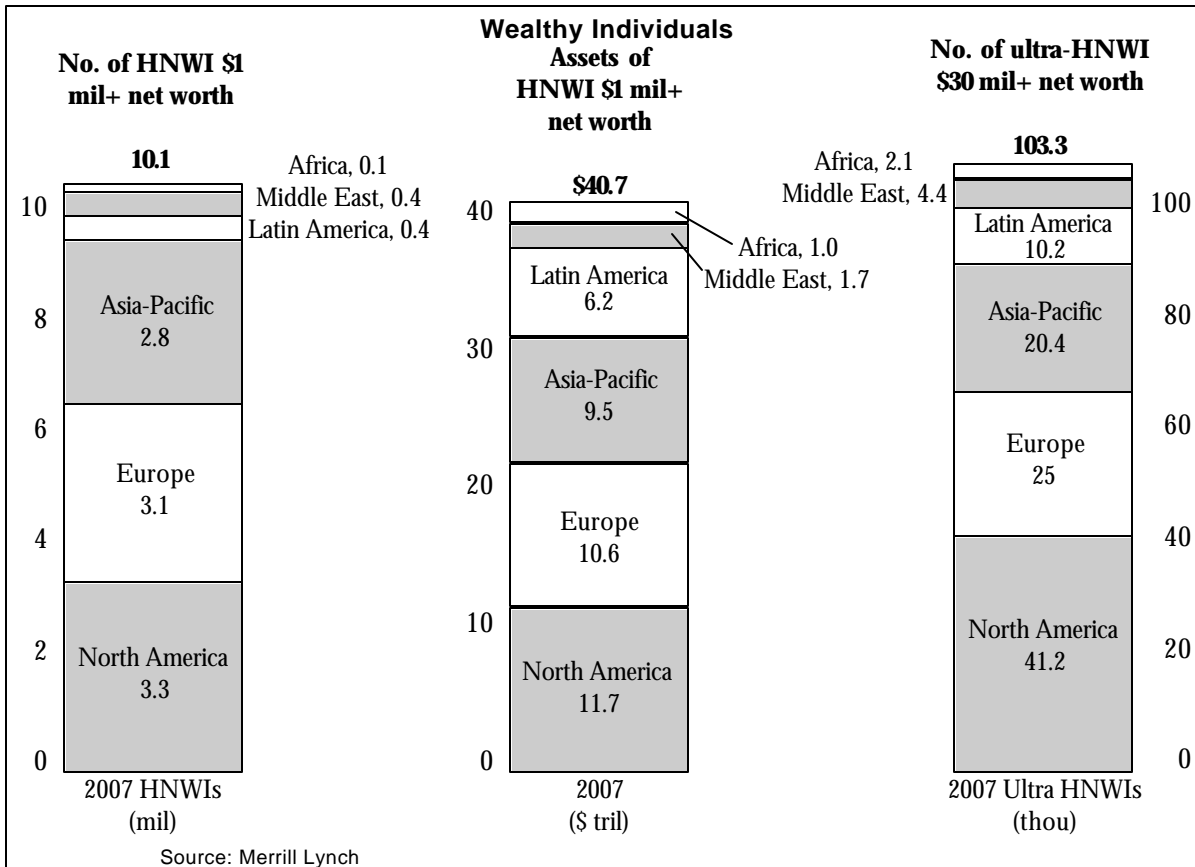


CHART 2

**Estimated Employment-Based Pre-Legal Permanent Resident Population
Sept. 2006**

	Resident in the U.S.	Resident Abroad	Worldwide
Principals	500,040	59,945	559,955
Family members	555,044	66,506	621,550
Total	1,055,084	126,421	1,181,505

Source: Intellectual Property, the Immigration Backlog, and a Reverse Brain-Drain: America's New Immigrant Entrepreneurs, Part III

CHART 3

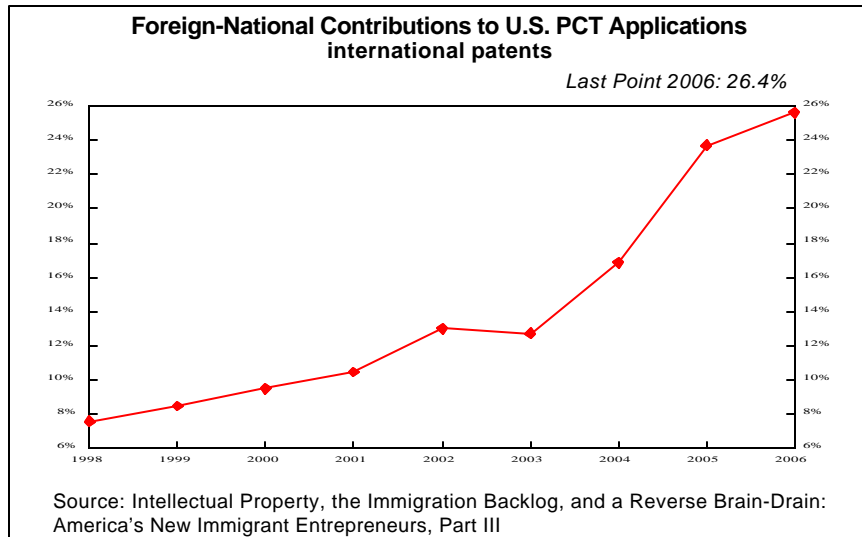


CHART 4

Fall 2007 Graduate Enrollment by Institution Type and Citizenship

<u>Institution Type</u>	<u>Total</u>	<u>US Citizens and Permanent Residents</u>		<u>Non-US Citizen Temporary Residents</u>	
Total	1,698,455	1,276,210	84%	241,095	16%
Public	1,027,654	792,381	84%	156,547	16%
Private	670,791	483,829	85%	84,548	15%
Doctoral/Research Extensive	754,804	531,505	76%	166,153	24%
Public	547,769	398,677	77%	116,305	23%
Private	207,035	132,828	73%	49,848	27%
Doctoral/Research Intensive	291,620	224,496	87%	33,071	13%
Public	168,052	131,960	87%	20,466	13%
Private	123,568	92,536	88%	12,605	12%
Master's & Specialized	652,021	520,209	93%	41,871	7%
Public	311,833	261,744	93%	19,776	7%
Private	340,188	258,465	92%	22,095	8%

Source: CGS/GRE Survey of Graduate Enrollment and Degree

CHART 5

Fall 2007 Graduate Enrollment by Field and Citizenship

<u>Major Field</u>	<u>Total</u>	<u>US Citizens and</u>		<u>Non-US Citizen</u>	
		<u>Permanent Residents</u>		<u>Temporary Residents</u>	
Total	1,698,445	1,276,210	84%	241,095	16%
Biological Sciences	71,183	48,386	73%	17,733	27%
Business	188,823	137,720	82%	29,340	18%
Education	321,433	279,796	97%	9,886	3%
Engineering	112,559	52,529	50%	52,233	50%
Health Sciences	123,615	102,369	92%	9,291	8%
Humanities & Arts	103,769	78,802	86%	13,323	14%
Physical Sciences	103,942	55,623	58%	40,378	42%
Public Administration and Services	60,062	50,713	95%	2,567	5%
Social Sciences	128,201	98,061	85%	16,740	15%
Other Fields	97,533	77,384	89%	9,802	11%

Source: CGS/GRE Survey of Graduate Enrollment and Degree

CHART 6

Trends in Graduate Enrollment by Citizenship Status and Major Field of Study: 1997-2007

<u>Major Field</u>	<u>US Citizens and</u>	
	<u>Permanent Residents</u>	
	<u>Avg. Annual % Change</u>	<u>Non-US Citizen</u>
	<u>1997-2007</u>	<u>Avg. Annual % Change</u>
		<u>1997-2007</u>
Biological Sciences	1%	3%
Business	0%	2%
Education	1%	6%
Engineering	1%	5%
Health Sciences	4%	6%
Humanities & Arts	0%	2%
Physical Sciences	1%	4%
Public Administration and Services	1%	7%
Social Sciences	1%	3%
Other Fields	2%	2%
Total Enrollment	2%	5%

Source: CGS/GRE Survey of Graduate Enrollment and Degree

CHART 7

**First-time, Full-Time Graduate Students with Temporary Visas in
Science, Engineering and Health Fields: 2001-2006**

<u>Field</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	2001-06 <u>Total</u>
All surveyed fields	35,716	33,838	31,237	29,375	30,688	35,340	196,194
Science	19,566	18,344	17,516	16,875	17,413	19,306	109,020
Engineering	14,638	13,858	12,166	10,837	11,468	14,129	77,096
Health Fields	1,512	1,636	1,555	1,663	1,807	1,905	10,078

Source: CGS/GRE Survey of Graduate Enrollment and Degree

CHART 8

**First-time, Full-Time Graduate Students with Temporary Visas in
Science, Engineering and Health Fields: 2001-2006**

<u>Field/citizenship</u>	<u>1977</u>	<u>1982</u>	<u>1987</u>	<u>1992</u>	<u>1997</u>	<u>2002</u>	<u>2007</u>
All fields							
All doctorates	31,716	31,108	32,365	38,886	42,539	40,024	48,079
U.S. citizen	26,194	24,457	22,997	26,023	28,154	26,050	27,568
Non-U.S. permanent resident	1,365	1,226	1,571	1,974	2,932	1,662	1,832
Non-U.S. temporary visa holder	3,489	4,254	5,660	9,980	9,192	9,743	15,115
Life sciences							
All doctorates	4,977	5,762	5,783	7,172	8,421	8,478	10,630
U.S. citizen	3,952	4,667	4,265	4,750	5,226	5,422	6,523
Non-U.S. permanent resident	244	183	260	354	758	421	420
Non-U.S. temporary visa holder	679	763	939	1,956	2,058	2,120	3,028
Physical sciences							
All doctorates	4,325	4,238	5,000	6,444	6,581	5,604	8,037
U.S. citizen	3,307	3,079	3,072	3,500	3,562	2,930	3,488
Non-U.S. permanent resident	265	201	253	351	620	292	338
Non-U.S. temporary visa holder	680	839	1,374	2,448	2,067	2,119	3,662
Social sciences							
All doctorates	6,260	6,026	5,988	6,481	7,285	6,826	7,191
U.S. citizen	5,325	4,937	4,513	4,813	5,342	5,015	4,912
Non-U.S. permanent resident	200	207	255	301	370	249	243
Non-U.S. temporary visa holder	585	590	724	1,150	1,078	1,106	1,472
Engineering							
All doctorates	2,643	2,646	3,712	5,438	6,115	5,081	7,745
U.S. citizen	1,477	1,173	1,559	2,111	2,740	1,895	2,242
Non-U.S. permanent resident	326	296	355	410	593	273	290
Non-U.S. temporary visa holder	780	1,044	1,539	2,749	2,555	2,649	4,579
Education							
All doctorates	7,455	7,251	6,453	6,677	6,577	6,503	6,429
U.S. citizen	6,815	6,295	5,496	5,854	5,583	5,302	5,199
Non-U.S. permanent resident	108	145	169	164	165	113	136
Non-U.S. temporary visa holder	388	576	430	559	411	479	602
Humanities							
All doctorates	4,372	3,370	3,299	4,176	5,190	5,221	5,109
U.S. citizen	3,932	2,912	2,629	3,333	4,083	4,069	3,674
Non-U.S. permanent resident	147	127	165	232	296	209	243
Non-U.S. temporary visa holder	183	182	259	511	537	669	795
Other fields							
All doctorates	1,684	1,815	2,130	2,498	2,370	2,311	2,938
U.S. citizen	1,386	1,394	1,463	1,662	1,618	1,417	1,530
Non-U.S. permanent resident	75	67	114	162	130	105	162
Non-U.S. temporary visa holder	194	260	395	607	486	601	977

Source: NSF/NIH/USED/NEH/USDA/NASA, 2007 Survey of Earned Doctorates

CHART 9

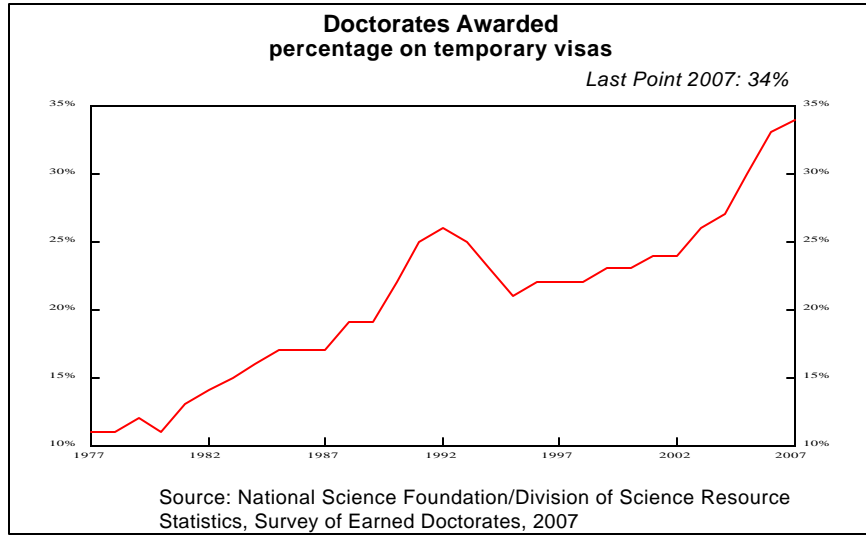


CHART 10

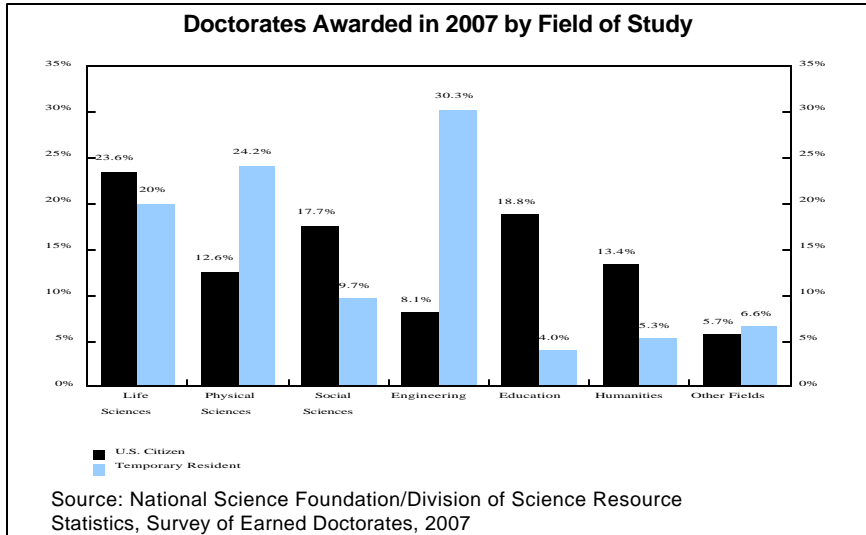


CHART 11

Country	Graduates of Advanced Research Programs (PhD equivalents)									1998-2006
	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Australia	3,271	3,514	3,687	3,802	3,910	4,315	4,763	4,886	5,276	37,424
Austria	1,901	1,843	1,790	1,871	2,125	2,197	2,443	2,228	2,158	18,556
Belgium	na	na	1,147	1,317	1,413	1,432	1,479	1,601	1,718	10,107
Canada	3,887	3,976	3,978	na	na	na	3,709	4,116	4,200	na
Czech Republic	752	827	895	1,066	1,327	1,546	1,732	1,908	2,023	12,076
Denmark	na	467	913	900	732	859	788	955	910	6,524
Finland	1,708	1,725	1,891	1,797	1,797	1,751	1,863	1,957	1,898	16,387
France	10,218	10,173	9,903	10,404	10,404	8,420	8,420	9,578	9,818	87,338
Germany	24,890	24,545	25,780	24,796	23,838	23,043	23,138	25,952	24,946	220,928
Greece	na	na	na	na	na	na	1,295	1,248	na	na
Hungary	1,205	1,229	717	793	983	1,067	893	1,069	1,012	8,968
Iceland	0	1	2	3	5	6	10	14	15	56
Ireland	449	475	501	572	520	668	683	810	979	5,657
Italy	3,463	3,463	3,557	4,044	3,977	4,456	6,351	8,466	9,604	47,381
Japan	9,860	10,974	12,192	13,179	13,642	14,512	15,160	15,286	15,979	120,784
Korea	4,999	5,586	6,143	6,208	6,690	7,172	7,946	8,449	8,657	61,850
Mexico	20,847	929	1,036	1,496	1,801	1,230	2,325	2,432	2,800	34,896
Netherlands	2,490	2,483	na	2,533	2,556	2,584	2,679	2,879	2,993	21,197
New Zealand	407	476	464	487	510	529	623	643	638	4,777
Norway	700	696	658	758	740	714	756	838	882	6,752
Poland	48,908	na	na	4,400	4,400	5,450	5,460	5,722	5,917	na
Portugal	na	na	1,586	na	na	3,723	3,963	4,150	5,342	na
Slovak Republic	na	415	446	532	734	2,126	854	1,022	1,218	na
Spain	5,931	6,307	6,007	6,453	6,905	7,479	8,168	6,902	7,159	61,311
Sweden	2,725	2,916	3,049	3,388	3,517	3,558	3,834	2,778	3,781	29,546
Switzerland	2,826	2,860	2,733	2,745	2,800	2,742	2,952	3,303	3,381	26,342
Turkey	2,364	2,615	2,124	1,985	2,472	2,815	2,680	2,838	2,594	22,487
U.K.	10,993	11,339	11,568	14,147	14,232	14,935	15,257	15,778	16,466	124,716
U.S.	45,876	46,010	44,808	44,904	44,160	45,994	48,378	52,631	56,067	428,828

Source: Organization for Economic Cooperation and Development