From Wall Street to Main Street: The Financial Crisis in the US

Douglas Young

What caused the 'meltdown' in the US financial markets? In this transcribed version of his talk delivered at IIMA, Douglas Young explores the variety of factors that influenced the housing boom and bust and discusses how that affected the household saving behaviour and the behaviour of lenders in the mortgage market, ultimately culminating into a financial crisis. The factors which led to the crisis include public policy, financial innovation, and just plain 'bubble mania' – the belief that real estate prices would just keep on rising forever. The policy responses are in three stages – (a) prevention of a collapse in the financial system; (b) Economic Stimulus and Recovery Act in place to cut taxes, increase infrastructure spending, etc., and (c) regulatory reforms for the financial system. The consequences of financial crisis for the Wall Street, Main Street, and India are also discussed.

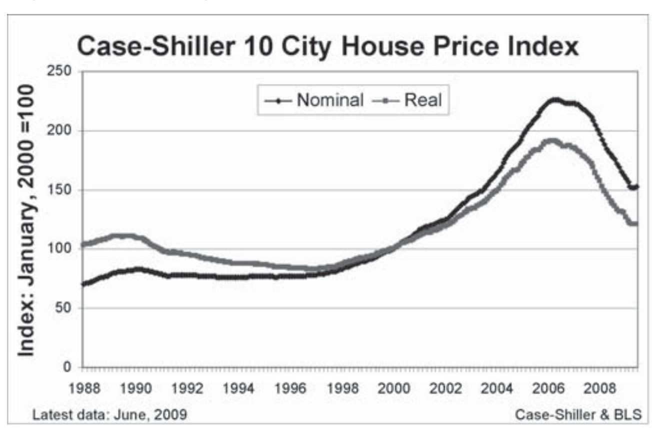
The financial crisis that originated in the US quickly spread to Europe and now is affecting most of the world, including India. This discussion is divided into two parts: (a) the causes of the financial crisis and (b) the consequences of the crisis for financial markets (Wall Street in the US), for people, homes, and businesses (what we call the Main Street in the US), and finally, for India.

THE CAUSES

There is not one but a number of different factors that came together to result in this crisis. However, the housing market played a central role. Figure 1 shows what happened to the US housing prices in the last 20 years. Of course, there are large differences between different regions in the US but this is a good representation of what happened on an average around the country.

In the Figure, the black line shows nominal prices (not adjusted for inflation) and the grey line shows real prices (adjusted for inflation). During early 1990s,

Figure 1: Housing Prices in the US



house prices were not even keeping up with inflation. They were going down in real terms as the grey line shows. But, by the late 1990s, house prices started rising very rapidly. Between January of 2000 and March of 2006, nominal house prices more than doubled and — even after adjusting for inflation – the real house prices increased by 90 per cent. Since the peak in 2006, house prices have come down on an average by more than 30 per cent, more in some parts of the country than in others. House prices are down by more than 40 per cent in parts of California and Florida and more than 50 per cent in Las Vegas, Nevada, and Phoenix. Other areas in the US that are struggling economically, such as Michigan – home to the US automobile industry—have also seen major declines in house prices.

Between January 2000 and January 2006, the housing prices grew on an average by 11.2 per cent a year, and by 17.3 per cent between August 2003 and August 2004, when the housing prices were rising the fastest.

A reasonable question is: What is the normal rate of growth for house prices? That is, if we look back historically, how fast have house prices gone up before this decade in the US?

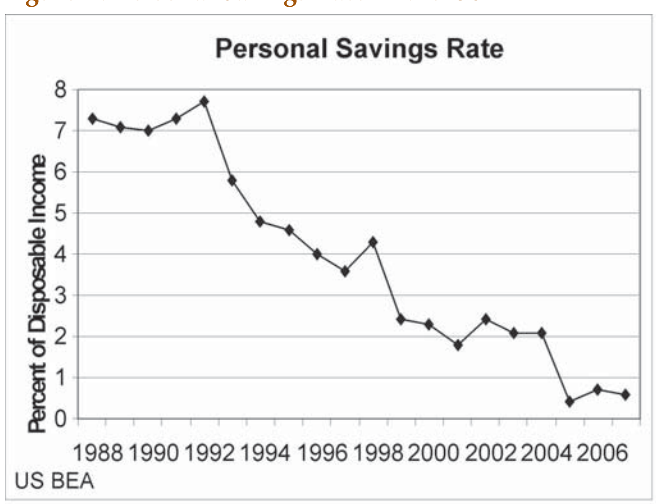
If we look at the period from 1890 to 2007, the average annual percentage increase in housing prices in the US after inflation was 0.4 per cent. 1890 is, of course, a really long time ago and many people may not be sure about its relevance now. Even if we look at a more recent period, say, 1960-2000, house prices have increased barely faster than inflation – about 0.2 per cent per year. This points out how unusual the last decade was: Between January 2000 and January 2006, the housing prices grew on an average by 11.2 per cent a year, and by 17.3 per cent between August 2003 and August 2004, when the housing prices were rising the fastest.

These were truly exceptional circumstances in terms of the behaviour of housing prices in the US, but psychologically, people started believing that "house prices always go up," and that "one can't lose money in real estate."

One of the consequences of rising house prices was that buyers were able to refinance after a few years, and could even buy a new car! There are different ways by which one can refinance. It could be through a second mortgage or a home equity loan. Suppose in 2004, we bought a house for $2 lakh with a standard down payment of 20 per cent, and thus have a mortgage debt of 80 per cent of the value or $160,000. Moving ahead, after two years, this house might well be worth $260,000, thus increasing by 15 per cent a year for two years. If we then go down to the bank and take a new mortgage of 80 per cent which means the bank would give $208,000, we could pay off the old mortgage of $160,000, and still be left with $48,000 – plenty of money to buy a really nice car!

Rising housing prices had a major effect on household saving behaviour. At the beginning of this period, it was 7-8 per cent of their income (Figure 2) and then buoyed by the rising housing prices as well as the rising share (equity) prices on the stock exchanges, people became much wealthier and started feeling that they could essentially quit saving. In fact, in a couple of quarters during this period, the savings rate was less than zero. People could just run up their credit cards and then refinance their home. And as long as the housing prices were rising, it worked—

Figure 2: Personal Savings Rate in the US



there was no need to save, one could have a nice car, maybe two houses and so on and so forth.

Rising housing prices also affected the behaviour of lenders in the mortgage market, because there were fewer loan defaults and therefore fewer foreclosures. Nobody ever defaulted, because even if there was ever any trouble with repayments, one could always refinance (as long as housing prices continued to rise). Consequently, the lenders began to lower their standards.

Lower down payments-The standard down-payment for many years in the US has been 20 per cent, the loan component being 80 per cent. Lenders said, "You can have 10 per cent down, or 5 per cent down. How about 0 per cent down — no money down — and still you can buy a house." That is a low lending standard.

Lower the income requirements- To buy a house of a given value, one's income need not be so high. Or for a given income level, one can buy a bigger, more expensive house.

No income or asset verification- Applying for a loan in the US means filling up a lot of forms and getting them verified. One would be required to provide information about one's income, assets, equity, etc. But some lending institutions had gradually started skipping this procedure.

You might have heard of the NINJA (No Income, No Job or Assets) loan in which even without income, job or asset, one can get a loan! These were the infamous "subprime" loans–subprime in the sense that the qualifications of the borrowers were much lower. And the lenders themselves would say - 'You don't have to be so qualified.' Then there were also the "teaser" interest rates that made mortgages more affordable. For the first 2-3 years, they would charge you reduced interest rates. Normally mortgage rates are about 6 per cent a year, but in this case, maybe for the first 2-3 years, they would charge you 2 per cent which would be reset after that according to the market rate. Actually, we are still going through that process and feeling its impact. There was also predatory and fraudulent lending, a situation in which the lenders would lie to the customers about what they could afford.

So, we were in a situation where there was a positive feedback loop—we got higher home prices; everybody saw it as a road to wealth; everybody wanted to buy a home which led to more demand for homes and the net worth going up. This in turn resulted in more demand for loans, lower lending standards, more demand for homes, and higher home prices.

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But there were also other factors that contributed to lower lending standards and ultimately to the financial crisis. Some of these were financial innovations. For many years, the situation was such that the banks where the loan originated, did not necessarily hold it; the loan could be resold. In fact, we had some quasi-public, quasi-private corporations set up for this purpose. The specific role of Fannie Mae and Ginnie Mae was to borrow in the market and use the funds to buy mortgages from financial institutions. Being quasi-government, they could borrow at a lower rate of interest. This had been going on since the Great Depression in the 1930s.

There were other innovations too. Mortgages would be collected, say, a 1,000 mortgages were collected by some entity and then they would issue new obligations with these mortgages as the backing—these were the mortgage-backed securities. They were sliced into different tranches according to the different risk categories. So, there might be a tranche and the first 70 per cent of the money that came in, went to that tranche; and so, that tranche was regarded to be extremely safe. Then there was another tranche for the next 20 per cent of the money and the last 10 per cent that came to be known as the "toxic waste"—that was the riskiest tranche. Some of these were fairly complicated. Then there were also credit default swaps under issue; these were guarantees that the principal would be repaid. They were, in fact, pretty complicated. There were a lot of MBAs and Ph.Ds in economics and business who said, "We understand these devices and we can manage the risk." But obviously, they were wrong.

There were other factors that contributed to rising house prices, including higher global wealth. Ben Bernanke, the present Chairman of the Federal Reserve in the US and a former professor at Princeton University, wrote about the tremendous increase in global savings that took place in the last 10-15 years with the growth in Asia as well as the savings taking place in the Gulf countries.[1] There was a tremendous amount of savings and not all of that was invested in Asia. For example, there were capital outflows from China into the US. We all know that China has purchased a large amount of foreign securities including US securities. India is also accumulating foreign exchange reserves and is contributing to that phenomenon. What happened was that many foreigners as well as domestic people loved these real estate-backed securities. There was definitely a market for it. Domestically, we have retirement funds and the insurance companies, but then we have foreign investors as well. And, again there was no fear of losing money in real estate. So, the willingness of foreign and domestic investors to buy mortgage-backed securities encouraged more and more lending.

Government policies also played a role. The idea of expanding home ownership has been a national priority in the US for a long time. It is felt that people who are home owners are better citizens; they have a greater stake in the society and to the extent that we can expand ownership, it is good for the society as well as the home owners themselves. In fact, there were laws that encouraged lending in depressed areas and to low income people, or at least prohibited discrimination against depressed areas and low income people. Banks do not want to give loans in areas where the housing scene has deteriorated and thus lose money. And so, they would literally draw a red line on the map around that area—it is called "Red Lining." The government passed a law against this practice. The idea again is to try to expand opportunities for home ownership amongst the least advantaged and minority people. Also in the US, the interest paid on a mortgage can be deducted on income taxes. And, sometimes, it is cited as being a subsidy on home ownership. But one of my colleagues points out that it is actually a subsidy on "debt-ship." One does not get this tax deduction by owning a home, but by being in debt. That is the key factor.

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There was also a period, in retrospect, when interest rates were exceptionally low. During 2003-2004, everybody was worrying about deflation and looking at Japan's "lost" decade of essentially no growth in the 1990s. In Japan, the banks had a lot of bad loans from excess property boom which were not resolved. One of the lessons from the Japanese experience is that it needs to be confronted and cleaned up. I think that will happen in the US. Finally, talking about competition amongst lenders, one lender starts making subprime loans, finds them to be profitable; the pressure is on every other lender, public and private, to do the same thing. Politicians were pressuring public agencies such as Ginnie Mae and Freddie Mac to buy those subprime mortgages. In some ways, these policies were successful. For

[1] See for example http://www.federalreserve.gov/boarddocs/speeches/2005/200503102/ .

many years, the home ownership rate in the US was about 64 or 65 per cent and then in the mid-1990s, the fraction of households that own homes increased to unprecedentedly high levels. So, from that perspective, what was going on was a success. And certainly at that time, nobody was complaining that the US was walking down the wrong path. The home owners were getting richer and hence were happy. More people were getting into homes than ever before. Lenders were happy. People buying mortgage-backed securities were happy. Certainly, the investment banks on Wall Street were very happy and the politicians were happy. Most of the economists missed the boat just like everybody else, or maybe they were too busy refinancing their homes.

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We know the current situation. Defaults on mortgage loans are rising sharply, and home prices are falling. Many borrowers cannot afford payments as interest rates rise. Now we are in a "definancing" phase. On an average, a house which was worth $260,000 in 2006 is worth $182,000 now. Many homeowners are 'upside down' or 'underwater.' The amount they owe on the house is more than the value of the house. There is a strong incentive to just walk away from the house and mortgage. Many of these people do not have other assets; they are bankrupt.

Where was the oversight? You can think about several of the financial institutions—ranging from the public to the quasi-public agencies like Freddie Mac and Ginnie Mae; also Lehman Brothers and lots of other institutions. What about the Boards of Directors? Are they monitoring the managers? What about the compensation? There are a lot of headlines about how high the compensation is and I think that is what bugs most Americans the most. But honestly speaking, as an economist, the issue is not the level of compensation, but perhaps the structure of compensation. Is the compensation structured in such a way as to provide incentive for the manager to look at the long-term profitability of the firm, or just to evaluate how they are performing during a particular year?

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Talking of the regulators, the structure of regulation is mainly focused on individual banks. Regulators look at X National Bank's assets and liabilities, its situation, and the probability of default. And then they compare them with another National Bank, Y, as a completely independent entity in the statistical sense. But that is not what we were faced with during the last fall. In fact, we faced widespread default because of the interactions among the financial institutions, with a tremendous amount of borrowing and lending among them. They are not independent of each other. So, if X National Bank closes down, it is a problem for Y National Bank. This is the way our regulatory apparatus is set up. It did not appreciate the systemic or system-wide risk.

THE CONSEQUENCES

Let me now shift to the consequences for Wall Street, Main Street, and India.

What do financial institutions do in an economy? They channel funds from people who are lenders (savers) to people and institutions who are borrowers and spenders. Savers are sometimes businesses, sometimes individuals; it is the same way with the borrowers. And, they play a crucial role in the economic performance; they finance new and expanding businesses and of course, homes. That is the role of the financial institutions—standing between savers, taking the savers' funds, and channelling them to the best loan prospects.

What happened in the US was that some financial institutions borrowed in the short-term market and used these funds to buy mortgage-backed securities. Many of these banks were highly leveraged: Their own capital (equity) financed only 5-10 per cent of their assets, and the rest of the financing was through borrowing. When the housing market started to turn down and mortgage defaults increased, the value of their mortgage-backed securities fell dramatically, especially if they owned "toxic waste." The institutions were then technically insolvent – their liabilities exceeded their assets. As word (or rumours) of these problems spread, they found that they could no longer borrow in the short-term market. That is why these banks failed in 24 hours. Another factor that contributed to the problem was that a lot of these mortgage-backed securities and the securities themselves were extremely complex. One security is a slice of thousands of mortgages. Nobody knows how many of these mortgages are going to fail. Nobody knows what these securities are worth. There is a lack of transparency. It was very difficult to price the security.

There was a similar situation of panic selling in the 1930s. The reason for panic then was the absence of deposit insurance. So, what happened was that as reaction to a rumour that a particular bank was in trouble, the depositors rushed to take their money out. That did not happen in the US this time, because now we have a well-established system of deposit insurance. So, it was the short-term lenders that performed the same role and wanted their money back.

Ben Bernanke, who was a student of the Great Depression and specifically studied the role of the collapse of the financial institutions, concluded—What made the Great Depression "great" was the collapse of the financial institutions. What they were looking at the last fall was whether they were going to repeat the Great Depression, when unemployment exceeded 15 per cent for 10 years. So, the first line of policy response was that they arranged a rescue for one of the investment firms – Bear Stearns — but in the fall, they let Lehman Brothers fail. Then they got the Troubled Asset Relief Programme (TARP). There have been several different measures but the question is: Why should the government prop up these bankers who have made such stupid decisions? Many people believe they should let them fail. Believe me, it is not politically popular in the US to bail out the banks. But the Bush administration did it, and the Obama administration is continuing to do it. The fundamental reason is that there is a significant probability that if they did not bail out the banks, there could be a credit freeze and a repeat of the Great Depression.

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Talking about Main Street, let us consider foreclosures on home mortgages. A company in the US, Realty Trac, is in the business of selling foreclosed properties so that they keep track of that market. They predict that 7.4 million homeowners will default on their mortgages between 2008 and 2010, and 4.3 million of them will actually lose their homes. This last figure represents about 9 per cent of all home mortgages in the US – almost 1 in every 11 homeowners with a mortgage is likely to lose their home. Note that this process is going to continue through this year and the next.

Consumer Wealth Loss Calculations

Household wealth in terms of the value of the US homes reached a peak of about $20 trillion and then went down by 30 per cent. That is a loss of $6 trillion. Equity in share markets, of course, fluctuates a little, but in the US, it is down by roughly 40 per cent. That would mean a loss of wealth of another $4 trillion and hence a total loss of consumer wealth worth $10 trillion in the US.

What it amounts to is a loss of about 20 per cent of household net worth, which is around $50 trillion. The loss in wealth affects consumption. A loss of $10 trillion of wealth suggests a decline in consumer demand of about $500 billion per year, or about 3 per cent of Gross Domestic Product. This is an important reason for the current recession in the US.

What do you think has happened to the home building industry in the US? It has collapsed. It was on roll in the 1990s and 2000s, and now since 2006, it has fallen by 50 per cent. It means construction workers are out of work. It shows up in the unemployment rate. The latest status of unemployment as of July, 2009, is 9.4 per cent; the expectations are that it would continue to rise this year and probably next year as well. In 1982, it was even higher at 11 per cent. But as things are, we may beat this record. Remember, however, that this is not the Great Depression, when it went up to 15-25 per cent for 10 years. We have had these situations before. Around 1982-1983, we were up to 11 per cent; but the unemployment rate came down and then the economy recovered. It is not the end of the world. But we have got a couple of tough years ahead.

> There is a depressing effect of the global prices on the Indian domestic business. With the shrinking world GDP, the Indian business community is apprehensive about its ability to sell its products. This has resulted in a moderation in investment demand within India, thus contributing to the slowdown in India.

I would say what the government has done so far is sufficient. The basic benchmark is — Has the US financial system collapsed? The answer is, No. I think if you set the standard that low and I honestly think that is the appropriate level, then so far the bailout has been a success. Yet I think it could be still better.

Impact on India

Now, let me talk about India. There has been a great deal of lending for houses, flats, and other developments here, just as it has happened in the US. The housing prices have risen rapidly in some areas of the country. One question you might ask is: Could there be a financial crisis in India similar to that of the US? My answer would be, "No, apparently not." There are a couple of reasons for that: Firstly, the boom in India is based on stronger fundamentals. The economy in India has been growing very rapidly; incomes have been rising; people have been moving up in housing—all this has a real base. In addition, Indian banks are in better shape than some of the US banks in terms of their leverage ratios. So, a financial crisis like the one in the US is not likely to happen in India. However, India is increasingly exposed to the world economy, and thus may get affected by the developments in the rest of the world. Economists look at this in terms of current account and capital account.

Talking about the current account, it consists of three main components: the balance of trade, income on foreign investments, and private transfers. I want to mention about transfers, because in India, this is a big number; in particular, the worker remittances. In 2007, India received about $35 billion in worker remittances. These are remittances from Indians who work abroad and send money back home. However, as world economic conditions deteriorate, there is probably going to be some deterioration in that inflow.

As far as the balance of trade is concerned, it depends on the incomes of the rest of the world. That is a very important point. The ability of India to sell its goods and services abroad depends on the economic condition in the rest of the world. Of course, it depends on prices of exports and imports, and the exchange rates among other factors.

One piece of bad news is that the housing boom or the housing price bubble was not confined to the US alone; in terms of annual percentage changes in house prices, even UK, France, and Spain experienced very substantial booms in housing prices. But the boom in housing prices is over in these countries, and their economies are also expected to shrink.

> India is still expected to outperform the world economy. Although its real income is expected to decline by about 1 per cent, which would mean a slowdown to the Indian economy, there would still be some acceleration the next year.

If we look at the forecasts for income growth in other parts of the world, in 2007, the US economy grew by about 2 per cent; in 2008, by 1.1 per cent; and this year, it is expected to contract by 3 per cent, i.e., income will be 3 per cent lower than the year before, and will be flat the next year (2010). In Europe, the situation is expected to be even worse. The European economy is expected to contract by about 4 per cent this year and shrink a little more the next year.[2]

In 2008, India was hit very hard in terms of increasing oil prices, costs, and imports. If we look at the current account balance back in 2007, India was more or less in balance. As per the IMF estimates, in 2008, the current account balance was in a deficit of about 2.8 per cent and this was the result of a combination of factors—high oil prices for a while last year and deteriorating foreign markets. Since then, of course, oil prices were greatly moderated. Although $66 may seem high, it is a lot better than $160 for a buyer. But what this reflects is continued deterioration in the world economy. With a weaker world economy and lower remittances, India's current account is expected to remain in deficit for both 2009 and 2010.

> It is difficult to forecast when the US would touch the bottom. Some of the news suggests a better than expected picture in the last few months; it could however be less than expected in the near future.

The other way India is exposed to the world economy is through the capital account or financial flows. For example, many US companies have set up subsidiaries in India, which is a form of Foreign Direct Investment (FDI). One thing about FDI is that it tends to be relatively stable. Companies do not make that kind of commitment—setting up a subsidiary—unless they expect that the long-term prospects are good. And one of the reassuring things is that FDI is continuing to flow into the Indian economy. That is a very good sign.

There is another kind of foreign investment called portfolio investment, much of which is being done by the foreign institutional investors. India's financial market has benefited from an inflow of liquidity from abroad in the past. In the 1997 financial crisis in Thailand, Indonesia, and Korea, there were enormous financial inflows and when people decided to take their money out, it happened very rapidly. How long does it take a man in New York to take his money out of India? All it takes is to press a button. That is today's financial market—money can go out just as fast as it comes in. And it did in countries like Indonesia and had horrific consequences. Last year in the fall, when there was a credit crunch in the US, there was an outflow, a moderate outflow of about $15 billion. But India has foreign exchange reserves in the order of $260 billion; so the outflow was not a major threat. I would like to end on that note: We have NOT seen large financial outflows from India, and in particular we have seen the portfolio investment again shift into the positive direction in 2009.

There is a depressing effect of the global prices on the Indian domestic business. With the shrinking world GDP, the Indian business community is apprehensive about its ability to sell its products. This has resulted in a moderation in investment demand within India, thus contributing to the slowdown in India.

2 These forecasts are from the International Monetary Fund's April, 2009 *World Economic Outlook,* http://www.imf.org/external/pubs/ft/weo/2009/01/index.htm. Current forecasts are slightly more optimistic: http://www.imf.org/external/pubs/ft/weo/2009/update/02/index.htm.

In 2007, GDP — real income — in India grew by 9.3 per cent; in 2008, it slowed down to about 7 per cent. The forecast is that this year it would further go down to about 4.5-5.5 per cent before starting to accelerate again in 2010.[3] Comparing India's growth with that of the world economy, it appears that for this year the difference is about 8 per cent. In the US, real income is shrinking by 3 per cent this year and it will be flat next year. Europe is shrinking by 4 per cent. In the US, the economy is getting worse. It will continue to get worse, and may have more foreclosures through the next year. It is getting worse before getting better.

India is still expected to outperform the world economy. Although its real income is expected to decline by about 1 per cent, which would mean a slowdown to the Indian economy, there would still be some acceleration next year.

SUMMARY

The US financial crisis resulted from a combination of factors including public policy, financial innovation, and just plain 'bubble mania' – the belief that real estate prices would just keep on rising forever. The policy responses are in three stages – (a) prevention of a collapse in the financial system; (b) Economic Stimulus and Recovery Act in place to cut taxes, increase infrastructure spending, etc., and (c) regulatory reforms for the financial system. This last measure has not actually happened yet with people so far just trying to keep the financial system afloat and moderate the recession.

On the question of whether we are on a recovery path, that is what the expectations are in terms of the stock markets. Stock markets are the leading indicators. In the US, the stock market tends to rise about six months in advance of the real economy, but there is a lot of variability around that. And the future continues to contain great uncertainty. In the US, we have seen dramatic fluctuations. It is difficult to forecast when the US would touch the bottom. Some of the news suggest a better than expected picture in the last few months; it could however be less than expected in the near future.

Douglas J Young was a Visiting Professor at the Indian Institute of Technology Bombay from January to June, 2009. He received his Ph.D in Economics from the University of Wisconsin in the USA. He has been a Professor of Economics at Montana State University since 1977. His teaching focuses on international economics and macroeconomics, including economic growth and business cycles. He has received two Fulbright Fellowships – in 1992-93 and 2003-04 – for foreign study from the US State Department and been a visiting professor at several universities, including the University of Botswana, Al Akhawayn University in Morocco, the American University in Cairo, Egypt, and the University of International Business and Economics in Beijing, China. He has worked extensively with the state government in Montana, serving on an advisory committee to the governor with regard to income taxes, performing studies of taxes, and spending for the legislature, and serving as a technical advisor to the Department of Revenue. His details (including full curriculum vitae) can be found on his website: http://djyoung.org

e-mail: djyoung@montana.edu

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3 International Monetary Fund, *Ibid*.