Understanding 'leveraging' and the Financial Meltdown

By George Irwin

October 2008

Think PIECES

Number 39

Think PIECES

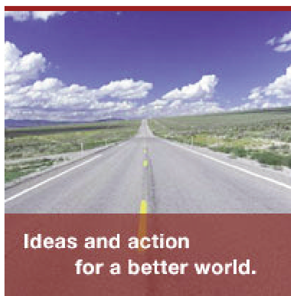
Number 39

Understanding 'leveraging' and the Financial Meltdown

By George Irwin

"The financial market is huge: its growth since 1980 is unprecedented. The value of financial assets—bank assets, equities, private and public securities–increased from $12 trillion in 1980 to an estimated $140 trillion in 2005. The coming recession will be wider, deeper and longer than most commentators care to admit."

Compass publications are intended to create real debate and discussion around the key issues facing the democratic left - however the views expressed in this publication are not a statement of Compass policy.



Understanding 'leveraging'...

and the Financial Meltdown

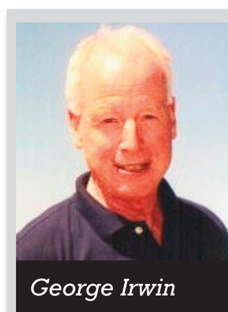
By George Irwin

In a single week in early October 2008, stock markets losses were the largest recorded since 1929. Because Britain, the IMF, the G7 countries and the main Central Banks reacted quickly, the world only just avoided financial meltdown. But there's no telling whether calm will return to the markets or whether we'll experience more of the same (or worse) next week, next month or next year.

As every newspaper in the land has repeated ad infinitum, the current financial crisis was triggered by the collapse in the US 'sub-prime' mortgage market---dodgy mortgages granted to cash-strapped families. Because house prices in the US and Britain are now falling at an unprecedented rate, negative equity has crept up through the market into middle class homes. The housing market has also weakened fast in Spain, France, Germany and Ireland and the problem is spreading other EU member-states as well. How did things get to this stage? Why is the contagion spreading and financial markets reeling? The answer is quite simply 'leverage'.

'Leverage' is simply a fancy term for borrowing money to supplement one's own. We do it all the time. When we buy a house, since we typically don't have anything like the cash required to pay for it up front, we put down a fraction of the value and borrow the rest from the bank. Assume the house is worth £100k and we put down £20k of our own equity, the remaining £80k borrowed from the bank means that we have 'leveraged' our £20k by a factor of 5:1 (total asset/own equity). If over 10 years the value of the house rises by 5% annually to £163k, we have made £63k on an initial equity investment of £20k. (We assume that the money spent on servicing the mortgage would otherwise have been spent on rented accommodation.) Trebling your money in 10 years is an attractive proposition, equivalent to an annual return of about 11.5%. Moreover, since investment in bricks and mortar is usually very safe, that's why so many of us buy houses.

Now let's assume that instead of putting down £20k, we only put down £10k and borrow the remaining £90k, raising our leverage to 10:1. If the above scenario were repeated, we would have turned our £10k into £63k over a decade, or just under 20% per annum. So increased leverage allows you to increase your rate of profit---and cheap money makes it easier to borrow. But too much leverage is like an inverted pyramid: the higher it gets, the more unstable it becomes.

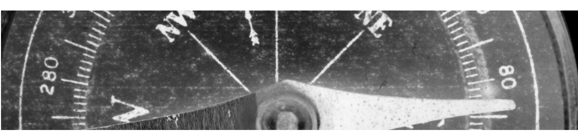

George Irwin

'...it's not the bankers and hedge fund managers who lose out ... they've salted away enough booty from the good years to retire.' comfortably.

In the old days, mortgage banks were reluctant to give out 90-95% mortgages, and certainly not to NINJAS---people who had no income, no job and no assets. All that changed when in 1983, following the Savings and Loan fiasco in the US, a Wall Street whiz named Larry Fink invented a new asset: the CMO (or Collateralised Mortgage Obligation). The basic principle is simple. Take a bunch of mortgages and place them in a trust, the income from which comprises of the stream monthly mortgage payments made by all those ordinary folk. Now, sell pieces of the trust as mortgage bonds. You probably wouldn't want to hold a single £100k mortgage because of the risk of default, but if you hold a £100k slice of thousands of mortgages bundled together in bond form, a few defaults will have negligible impact on your return. And if you want to be even more sophisticated, you'll slice the bonds into different segments: a top tranche of very safe bonds which have first claim on all cash flows, thereby qualifying for AAA-rating; a middle tranche of somewhat less safe mortgages, but with a somewhat higher yield, and a bottom tranche (say 10% of all mortgages) which are, in effect, high-yield junk---today colourfully termed 'toxic waste'.

That is precisely what allowed US mortgage banks to grant sub-prime mortgages: the banks could bundle them for resale on the secondary market. With so much money floating around the world's financial system, these were snapped up and, hey presto, the banks were able to pass on the risks. And it didn't stop there: everything from car loans to credit card debt could be bundled into Collateralised Debt Obligations (CDOs) and trusts known as Special Purpose Entities (SPEs) created offshore to purchase and hold the assets.

Following deregulation of the financial services industry under Reagan, Clinton and Bush, the demarcation lines between building societies, high street banks and investment banks disappeared. The wholesale credit market became a primary source of liquidity. Offshore tax havens thrived and new financial firms spun up off balance sheet unnameable to regulation. Home equity loans with ballooning repayment clauses in small print could be granted to hard pressed buyers; high-rate credit cards offering six months of free interest could be sent out by the truckload: little wonder that for the first time in history US households have been spending more than they earn. According



to one source, the worldwide value of CDOs in mid-2007 was about $2 trillion.[1]

And leverage didn't stop there. The private equity (PE) buyout pioneered forty years ago in the UK by companies like Slater Walker (in those days we called it 'asset stripping') has returned with a vengeance in the past decade. A typical PE deal works as follows. Put up £1bn, borrow another £5bn, snap up a company for £6bn and after paying off its executives handsomely and selling the company's land, buildings and other assets (which can then be leased back), sell it back to an ever-rising market for £8bn and pay yourself a couple of billion in fees and special dividends. Today, an estimated one in five employees in the private sector in Britain work for firms that have been 'privatised'. The groups behind the buyouts such as Permira, Apax, Minerva and CVC Capital partners are highly secretive about their operations, or indeed about the complex manner in which their deals are financed. But their deals are lucrative in the extreme.[2]

By far the biggest specialists in leverage are the hedge funds: their total worth is thought to be of the order of $1.5 trillion. The sophisticated portfolios they hold (typically offshore) for institutions and very wealthy individuals include financial instruments so complex and so rarely traded that their worth can only be determined using sophisticated mathematical models. The funds design positions to hedge against risk, purportedly acting as a 'risk sink' for the system. A small number of the very largest banks dominate hedge fund brokerage: names like Morgan Stanley, Goldman Sachs, UBS and Deutschebank, deriving as much as a quarter of their total revenue from hedge funds. Not only do hedge funds specialise in risky assets like complex derivatives, they typically leverage their equity very highly---thereby making it possible not merely to earn vast profits but, if a position goes sour, to incur spectacular losses.

For the sake of argument, let's assume that a hedge fund wants to buy the lowest tranche of a collateralised mortgage offer or CDO, one which will absorb 5% of the portfolio's first losses. Such a position would be leveraged 20:1. If the hedge fund has raised its money by borrowing £4 for every £1 of partners' equity (5:1 leverage) the overall leveraging position is 5 X 20:1 = 100:1. A 1% loss on the CDO will wipe out the fund's entire equity. Beyond 1%---likely if house prices are falling and more and more families default on their mortgages---the fund's losses can soon become colossal.

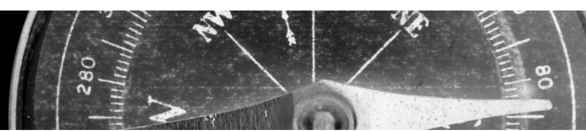
'Leverage' is simply a fancy term for borrowing money to supplement one's own. We do it all the time.

Now we can see what happened when in the summer of 2007 Bear Stearns's sub-prime hedge fund found itself illiquid. The bank wanted its cash back, the hedge fund pleaded insolvency, the bank seized the assets and tried to sell them---and discovered that mathematical pricing models not withstanding, they were worthless. A number of other banks looked at their own hedge funds, discovered much the same and credit dried up as the market went into meltdown. Bear Stearns eventually got 'rescued' by JP Morgan (with a little help from the Fed). The greater the leverage, the more people (and institutions) can get hurt.

In the popular press, there's a tendency to treat the present financial crisis as one arising exclusively from the toxic element in sub-prime loans; once the sub-prime loans are cleaned from the system, all will be well. If only it were that simple; in reality, the crisis is broader and deeper.

Much of corporate finance is based on high-yield bonds. A Standard and Poor's report suggests that over the past 15 years the median rating for US bond issuances has fallen from A to BBB---still investment grade, but only just above speculative grade junk bonds. Only 40% of non-financial issuances are investment grade. Junk bonds are back in fashion. Closely related to junk bonds are leveraged loans---the stuff of leveraged equity buyouts. Just as with mortgages, banks can pass the risk on to the secondary market by bundling and selling Collateralised Loan Obligations (CLOs) to specialist CLO investors. With the sub-prime crisis of 2007, however, CLO investors suddenly disappeared leaving the banks with millions in leveraged loans and negotiating their sale at large discounts to vulture funds, firms specialised in distressed debt. Outstanding corporate debt in the US alone is of the order of $6bn, of which perhaps $2bn is low quality (including high-yield loans, leveraged loans and CLOs). Even the higher-quality grades, often guaranteed by monoline insurers, can be at risk. The key point is that, in addition to sub-prime loans, there is a large overhang of highly leveraged corporate debt.[3]

Even more toxic potential exists in Credit Default Swaps (CDSs), another 'insurance' instrument that at present constitutes a huge risk to the banking system. A CDS is simply an insurance policy written for an asset by a financial institution. Suppose you hold some dodgy IOUs from Joe Bloggs in your portfolio. I can write you a CDS: in return for a fee, I promise to honour the IOU even if Joe Bloggs goes broke. But further suppose that I go broke and can no longer meet my CDS obligations---you are left holding non-performing assets that are uninsured. That's roughly what is happening to banks that hold CDSs written by (say) Bear Stearns. As these assets mature on a bank's balance sheet, the bank suddenly finds that it has less capital than it thought it had. When other banks find themselves in a similar position, bankers stop trusting one another----and



the general public stops trusting the banks. It is precisely such a collapse in confidence which lies at the heart of the present turmoil. Because writing CDSs was unregulated---they could be sold 'over the counter'---a great many of them were written and then sold on in the secondary market. The total value of all CDSs is thought to be of the order of $50-60tr, and nobody is quite sure what proportion have lost their value.

Now for the killer argument. The United States, Britain and quite probably the Eurozone are entering recession: house prices are falling, mortgage repossessions are accelerating, consumer spending is down and the construction sector is has flatlined. Over the business cycle, commercial banks tend to preserve a roughly constant level of leverage. By contrast, investment banks and hedge fund leverage tends to be pro-cyclical: in a recession, leverage falls. Because hedge funds and investment banks now provide such a large proportion of market liquidity, credit contraction will be far worse than in previous cycles. The financial market is huge: its growth since 1980 is unprecedented. The value of financial assets---bank assets, equities, private and public securities--increased from $12 trillion in 1980 to an estimated $140 trillion in 2005.[4] The coming recession will be wider, deeper and longer than most commentators care to admit.

Who bears the risk? In the final analysis, it is Governments and Central Banks that must ride to the rescue. Not for nothing are the financial markets begging governments to increase liquidity and bail out the casualties. Moreover, it's not the bankers and hedge fund managers who lose out---they may lose a few millions and even their job, but they've salted away enough booty from the good years to retire comfortably.

Ask the ordinary punter whose house is being repossessed or whose wages are stagnant while the cost of food and fuel rises, the man or woman whose final salary pension has disappeared and who'll never qualify for a mortgage on a decent house.

References

* The author is a Research Professor at the University of London, SOAS, and author of 'Super Rich: the growth of Inequality in Britain and the United States' (Cambridge: Polity, 2008).

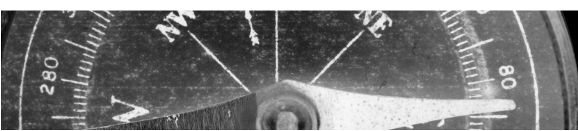
1 See Sanford Jacoby (2008) 'Finance and Labor: perspectives on Risk, Inequality and Democracy' UCLA Working Paper, May; viewed 17 May 2008:

http://www.newschool.edu/cepa/events/workshops/FinanceLaborCLLPJMay2008Revised1.pdf

2 See George Irvin (2008) Super Rich: the growth of inequality in Britain and the United States, Cambridge: Polity.

3 See for example Charles Morris (2007) The Trillion Dollar Meltdown, New York: PublicAffairs.

4 See Sanford Jacoby (2008: 3)



Think PIECES

Number 38

"Compass is the democratic left pressure group, whose goal is to debate and develop the ideas for a more equal and democratic world, then campaign and organise to help ensure they become reality."

Join today and you can help change the world of tomorrow - www.compassonline.org.uk/join.asp

compass

Southbank House, Black Prince Road, London SE1 7SJ
T: +44 (0) 207 463 0633 M: +44 (0) 7900 195591 gavin@compassonline.org.uk
www.compassonline.org.uk