

# Mortgages need to get FIT



Professor MUHAMMED-SHAHID EBRAHIM of Bangor Business School highlights how the concept of Continuous Workout Mortgages, developed with Yale University's Professor Shiller, Nobel Prize Winner in Economics, could be one solution to getting a healthy global economy back on track.

The subprime crisis of 2008 exposed the vulnerability of one of the most sophisticated financial systems in the developed world. The crisis, emanating from fragile plain vanilla home loans (mortgages) in the United States, wreaked havoc on both the real and financial sectors of the global economy. Its adverse impact on the economy was neatly summed up with this view from Jaffee and Renaud (1998, p. 75):

"Mortgage market development is likely to be a key factor in overall financial market development. In particular, an efficient mortgage market will act as a positive externality for the other capital markets, creating pressure for higher efficiency in these markets. On the other hand, a poorly functioning mortgage market is likely to 'pollute' other financial markets with its inefficiency."

The subprime crisis has initiated a major debate on the design of an efficient financial intermediation system that will mitigate the susceptibility of the macroeconomy to systemic risk. This is because, in mortgage markets, an intermediary connects asset prices (i.e. real estate) with the macroeconomy. It's important therefore to structure an efficient mortgage finance system that helps to alleviate the proneness of the economy to the kind of mortgage-related risk that was so destructive in the last crisis.

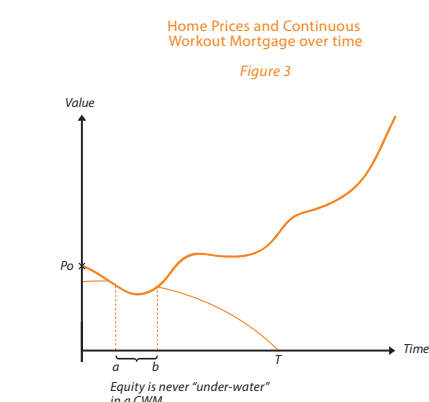
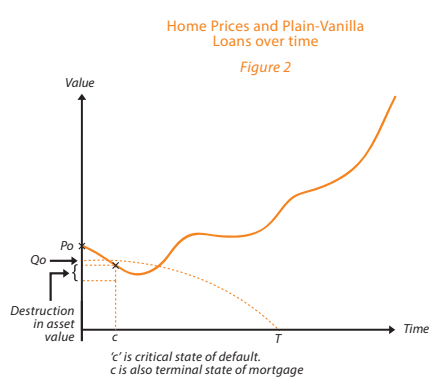
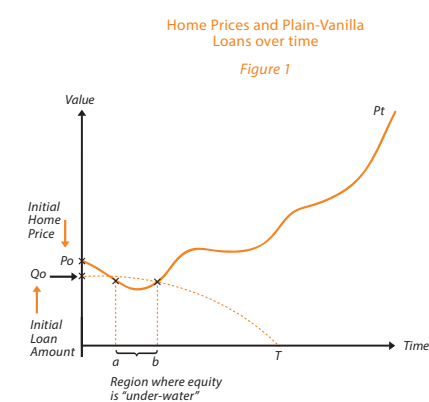
Housing plays a critical role in the economy since it serves both as a consumption good and an investment. The investment aspect of homeownership helps to increase wealth. Homeowners support their neighbourhood better than renters by, for example,

participating in crime prevention and supporting local schools. They are better citizens as they contribute in local governance. Homeownership fosters investment in local amenities along with social capital. These kinds of benefits all conspire to enhance the status and quality of the community (Ebrahim, 2009). Policymakers, therefore, have an obligation to ensure access to this vital asset of homeownership through an efficient financial intermediation system.

The recent subprime crisis ensuing from plain vanilla mortgages illustrates an inefficiency of the financial system. This is because these mortgages are basically fragile instruments and their rupture (i.e. default) impacts negatively on the institution investing in them. Modigliani (1974, p.1) reiterates this issue when he argues that: "As long as loan contracts are expressed in conventional nominal terms, a high and variable rate of inflation – or more precisely a significant degree of uncertainty about the future price level – can play havoc with financial markets and interfere seriously with the efficient allocation of flow of saving and the stock of capital."

The fragility of plain vanilla mortgages has led millions of Americans to default on their loan obligations and thus lose their home along with their meagre life savings in the form of home equity. This is because

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homeowners found it difficult to keep up with their fixed mortgage payments. They also could not refinance or sell their homes, as home values had declined below that of the respective mortgages. That is, their home equity was "under-water" or negative as illustrated in "period ab" in Figure 1 (page 42). This negative equity led homeowners to wilfully neglect the upkeep of their residence and also to default at "time c" as illustrated in Figure 2. This neglect resulted in a reduction (or destruction) in the value of assets (mortgages) owned by their investors. The wave of defaults across the US then impacted systemically on the global economy.

The crisis increased the supply of homes for sale due to repossessions, leading to a decline in their prices and negatively impacting on the construction sector, sales of durable goods and thus the manufacturing sector. This subsequently led to an economic contraction in the US that impacted on the economies of its trading partners through a decrease in trade, investment and remittances, thus leading to a backlash against globalisation (Ebrahim, 2009).

The impact on the financial sector of the economy includes a loss in market value of bonds associated with subprime mortgages. This happened because of a fall in the value of the underlying collateral (i.e. homes). This resulted in a devastation of the capital base of major financial institutions on both sides of the Atlantic; failure of a large number of subprime lenders; inability of the US-sponsored agencies (such as Fannie Mae and Freddie Mac) to provide relief, as they themselves have been placed under conservatorship; scrutiny of remaining subprime lenders from state and federal regulators; and a tightening of credit to businesses, leading to a severe recession

and a decline in the value of American assets. The spreading of systemic problems from the US globally increased market volatility and constrained world growth (Ebrahim, 2009).

One solution to mitigate the fragility and avoid the massive problems of default is proposed by Robert Shiller of Yale University, and the 2013 Economic Nobel Prize Winner. His advice is to structure mortgages in such a way that they absorb the shock of home price decline by attaching an insurance feature of a "Put option" to plain vanilla mortgages to mitigate the strategic option of a borrower to default when the equity goes "under water". Shiller et al (2013) terms this a Continuous Workout Mortgage (CWM). The financial intermediaries (FIs) gain an extra income from the Put option, but are subject to home price risk. This may seem to increase the overall risk of the FIs. But it is accompanied by a reduction in the cost of default, which has the potential to significantly impair the underlying collateral (i.e. the home) and thus devastate the capital base of intermediaries. Figure 3 (page 42) illustrates how CWMs serve as shock absorbers redeeming the financial architecture of fragility.

CWMs have the capability to reduce the overall risk of intermediation. This makes intermediaries less dependent on the government for bailouts. By employing

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CWMs, FIs can automatically adjust the mortgage balance and payment due with a downward drift in home prices. Thus, the FI continues to receive an uninterrupted stream of income without costly negotiations. The use of CWMs should reduce a lot of human trauma associated with loan default. Since CWMs alleviate the sufferings of homeowners and protect the capital base of FIs from severe deterioration during economic contractions, they should be adopted. This is also recommended by the Quantum Alpha Group to HM Treasury's 2013 Budget (visit [www.quantumalpha.com](http://www.quantumalpha.com) for more information).

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