

Subject: Full Disclosure and Full Accountability of Truth in Lending

Comment on Regulation Z, Mortgage Disclosure Improvement Act, and Truth in Lending Act: Docket No. R-1340

The goal of truth in lending should be full disclosure with the purpose of subsequent full accountability. The Federal Reserve should make full disclosure a regulation and do away with the patch-up regulations, which need to be continually updated.

Regulation Z involves a partial disclosure of a transaction. Full disclosure is against partial disclosure because from the point of view of the definition of full disclosure, partial disclosure can be construed as non-disclosure of material facts other than what is disclosed. Strictly speaking, non-disclosure of material facts should be considered illegal, for what is not disclosed, say, inputs after the finite time, could be used to hide future dire conditions. Also, to determine “long-term viability” requires full disclosure.

The government, in general, and the Federal Reserve, in particular, should be the guardian of knowledge. They should collect, promote the discovery of, verify, and explain knowledge. The knowledge of full disclosure for truth in lending is a necessary part of the solution of value, where value is defined as the sum total of all the benefits and losses to infinity in time.

The inputs for the solution of value consist all the factors affecting the value, which in practice can be either the price or the rate of return on investment. The mortgage terms are just one part of the full set of inputs.

Post-Science Institute has disclosed the solution of value defined above in its patent “*Quantitative Supply and Demand Model Based On Infinite Spreadsheet*” (Pat. No. 6,078, 901). Being completely rigorous mathematically, the solution of value is a non-violable law of nature in social science. As the non-violable law of gravitation constantly restricts the motion of material objects, the non-violable laws in social science are regulating our behavior regardless whether they have been discovered or not. We are free only within the limits of these non-violable laws of nature. A rational society should be designed based on non-violable laws of nature in social science.

With the understanding and the availability of non-violable laws of nature, man-made regulations, such as Regulation Z, should be replaced by their corresponding non-violable laws of nature. The man-made laws might come into conflict with the non-violable laws of nature. For example, FIRRA (Financial Institute Reform and Recovery Act) endorses the market comparison appraisal approach, which depends on past price data and is in conflict with the solution of value, where price depends on the future expected data. By making price inflexible to market changes, the market comparison approach could be considered the main cause of the Savings and Loan Crisis and of the Subprime Woe.

It should be clear to most people by now that THE MARKET PRICE IS NEARLY ALWAYS WRONG. The mark-to market regulation is valid only when the market price is correct. When market participants do not have access to the correct solution of value, the market price oscillates around the correct price, which should be determined based on the future benefits and losses, not on the past comparable price.

The solution of value from Post-Science Institute is easier to use than other valuation systems or could even be the only usable

valuation method with non-arbitrary price determination, because the full disclosure of inputs to infinity in time allows the solution to eliminate one input, namely, the resale price, the determination of which has occupied the attention of world authorities in real estate appraisal for nearly a century.

The ease of use of the solution of value can be demonstrated by the following commercial products for real estate valuation of the calculation of the rate of return of stocks:

<http://www.123is.com/fedreal.htm>

<http://www.123iss.com/fedstock.htm>

For a quick view of the valuation systems, just click the yellow “Calculate” button. Firefox works better than Explorer, especially, for the stock program. Introductory documentation is displayed after the one Inputs/Outputs page.

The above web based valuations systems provide full disclosure of inputs to infinity in time, the methodology, and the equation used in arriving at the outputs. Exactly, full disclosure means the disclosure of all the factors affecting the value, including all the inputs to infinity in time, the methodology with the equations used in the calculation. The appraiser can then be held accountable for the inputs, while designer of the valuation system, the methodology and the equations used.

Items 8, 9, 10, and 11 of the real estate valuation program are directly related to truth in lending. While the lender should provide truth in lending, the borrower needs to supply all the income data to determine the justifiable mortgage value. When the price of a real estate is determined correctly by all the market participants, including the government, and when the mortgage

amount is based on the correct price, not necessarily the market price, all the future financial crises can be prevented.

When the price is not determined correctly, over or under-valuation will grow into instabilities and cause financial crises. Economic instabilities are mostly due to finite, not infinite, consideration of the inputs. When the inputs are considered for a finite time, the decreasing price will lower the rate of return, which in turn will lower the price, so on and so forth, resulting in an instability.

Logically, and intuitively, when the expected economic condition is unchanged, a decrease in price should result in an increase in the calculated rate of return. In an infinite spreadsheet, where the full inputs are considered, the price and the rate of return move in opposite directions. But, in a finite spreadsheet, where only the short-term trend of the inputs is considered, the rate of return moves in unison with the price. Thus, the solution of value will stabilize and actually eliminate the onset of economic instabilities, whose amplitudes, when they grow to intolerable magnitude, cause financial crises.

In the mainstream economic thoughts, there is only one way to consider all the inputs according to mathematical economist Gerard Debreu: Taking into consideration all the factors to infinity in time and space. And, according to him, there is only one way to consider infinity: Mathematically.

Economists have worked on the solution of value technically for the good part of the last century, until John von Neuman, Kenneth Arrow, and Gerard Debreu finally defined clearly the problem of value in the book "Theory Of Value" of Debreu. But, the problem of spatial dependent of value is incorrectly solved on page 34, discussed by Arrow and me. The solution of value from Post-Science Institute contributes mainly to the temporal dependence of

value. When the quantity of any price calculated temporally to infinity is summed spatially to infinity, the quantified supply and demand model produce a price for multiple commodities or services with similar functionality or utility. The qualitative conclusion of Debreu checks with the quantitative results of the Quantitative Supply and Demand Model based on the Infinite Spreadsheet.

Thank you for your kind consideration. ### Hugh Ching, Post-Science Institute 12/10/2008