Appendix II

USING THE EXPLAINER TO EXPLAIN THE FINANCIAL CRISIS

PROBLEM AS CONCEIVED INCLUDING CIRCUITS

PROPOSITION 9. Borrower has low income and low equity
PROPOSITION 23. Nature of ARMs
PROPOSITION 29. Pressure to make loans with inadequate documentation to collect fees
PROPOSITION 34. Regulators guarantee symmetry of information about loan risks
EFFECT 12. Initial rate low
BECAUSE 23. Nature of ARMs
EFFECT 21. Initial lender gets origination fees
BECAUSE 23. Nature of ARMs
EFFECT 24. Initial lender cannot profit from initial rates
BECAUSE 9. Borrower has low income and low equity
AND 23. Nature of ARMs
EFFECT 26. Asymmetry of information about risks of bundles
BECAUSE NOT 34. Regulators guarantee symmetry of information about loan risks
EFFECT 28. Open books
BECAUSE 34. Regulators guarantee symmetry of information about loan risks
EFFECT 33. Bundled loans bring good prices
BECAUSE 26. Asymmetry of information about risks of bundles
EFFECT 7. Borrower wants to buy ARM loan
BECAUSE 9. Borrower has low income and low equity
AND 12. Initial rate low
EFFECT 10. Rate will rise to make loan profitable to lender
BECAUSE 24. Initial lender cannot profit from initial rates
EFFECT 13. Borrower cannot pay reset rate
BECAUSE 9. Borrower has low income and low equity
AND 10. Rate will rise to make loan profitable to lender
EFFECT 14. Borrower defaults
BECAUSE 13. Borrower cannot pay reset rate

Circuit - begin
1. EFFECT 17. More houses available on market
BECAUSE 14. Borrower defaults
32. Buyers walk away from homes
2. EFFECT 1. Home prices depressed
BECAUSE 17. More houses available on market
3. EFFECT 31. Negative equity
BECAUSE 1. Home prices depressed
4. EFFECT 32. Buyers walk away from homes
BECAUSE 31. Negative equity
Circuit – end
EFFECT 18. House prices driven down
BECAUSE 17. More houses available on market

Note that we have used **BECAUSE,** which is equivalent to **CAUSED BY**.

As per the discussion in Appendix I of how circuits can be resolved and imbedded into the remaining relations, using the following template, each BECAUSE within the circuit is replaced by: '14. Borrower defaults'

Template 1

Var	14	17	1	31	32
Val	T	T	T	T	T
Exp	1	↑	2	3	4
Stp	4	0	1	2	3
	Input	Block			

to get the following replacement for the statements involved within the circuits:

EFFECT 14. Borrower defaults
BECAUSE 13. Borrower cannot pay reset rate
Circuit - begin
EFFECT 17. More houses available on market
BECAUSE 14. Borrower defaults
EFFECT 1. Home prices depressed
BECAUSE 14. Borrower defaults
EFFECT 31. Negative equity
BECAUSE 14. Borrower defaults
EFFECT 32. Buyers walk away of homes
BECAUSE 14. Borrower defaults
Circuit – end
EFFECT 18. House prices driven down
BECAUSE 17. More houses available on market

Note that this makes perfectly good sense.

In principle Template 2 could give us another answer. But we can see that this would not make sense and thus we reject it.

Template 2

Var	14	17	1	31	32
Val	?	F	F	F	F
Exp		↑	2	3	4
Stp		0	1	2	3
	Input	Block			

Now we ask for an explanation for the Credit crunch:

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EXPLAIN:
2. Credit crunch
EFFECT 18. House prices driven down
BECAUSE 17. More houses available on market

EFFECT 20. Artificially low risk assigned to bundles
BECAUSE 26. Asymmetry of information about risks of bundles
EFFECT 22. Bundled loans have low risk rating
BECAUSE 20. Artificially low risk assigned to bundles
EFFECT 27. Investors unaware of bundle risks
BECAUSE NOT 28. Open books
AND 29. Pressure to make loans with inadequate documentation to collect fees
EFFECT 30. Ability of lenders to recoup bad loans
BECAUSE 33. Bundled loans bring good prices
EFFECT 5. Initial lender possesses home partially paid for by borrower's payments
BECAUSE 14. Borrower defaults
EFFECT 19. Initial lender bundles loans
BECAUSE 22. Bundled loans have low risk rating
EFFECT 11. Initial lender has low risk in reselling loan
BECAUSE 19. Initial lender bundles loans
AND 30. Ability of lenders to recoup bad loans
EFFECT 6. Initial lender wants to sell ARM mortgage
BECAUSE 5. Initial lender possesses home partially paid for by borrower's payments
AND 10. Rate will rise to make loan profitable to lender
AND 11. Initial lender has low risk in reselling loan
AND 21. Initial lender gets origination fees
EFFECT 8. Many ARM loans made
BECAUSE 6. Initial lender wants to sell ARM mortgage
AND 7. Borrower wants to buy ARM loan
EFFECT 15. High delinquency rate
BECAUSE 8. Many ARM loans made
AND 14. Borrower defaults
EFFECT 16. High foreclosure rate
BECAUSE 15. High delinquency rate
EFFECT 4. MisTrust
BECAUSE 16. High foreclosure rate
AND 29. Pressure to make loans with inadequate documentation to collect fees
EFFECT 3. Liquidity
BECAUSE NOT 4. MisTrust
EFFECT 25. Market collapse
BECAUSE NOT 3. Liquidity
EFFECT 2. Credit crunch
BECAUSE NOT 3. Liquidity

EXPLANATION
EFFECT 2. Credit crunch
BECAUSE 29. Pressure to make loans with inadequate documentation to collect fees
AND NOT 34. Regulators guarantee symmetry of information about loan risks
AND 23. Nature of ARMs
AND 9. Borrower has low income and low equity

When we ask for a scenario for this explanation, we get the following:

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DETERMINE THE CONSEQUENCES OF GIVEN ACTIONS OR ASSUMPTIONS
IF THE ACTIONS OR ASSUMPTIONS ARE:
9. Borrower has low income and low equity IS TRUE
23. Nature of ARMs IS TRUE
29. Pressure to make loans with inadequate documentation to collect fees IS TRUE
34. Regulators guarantee symmetry of information about loan risks IS NOT TRUE
THEN THE CONSEQUENCES ARE:
9. Borrower has low income and low equity IS TRUE
23. Nature of ARMs IS TRUE
29. Pressure to make loans with inadequate documentation to collect fees IS TRUE
34. Regulators guarantee symmetry of information about loan risks IS FALSE
12. Initial rate low IS TRUE
Term 1 IS TRUE
23. Nature of ARMs IS TRUE
21. Initial lender gets origination fees IS TRUE
Term 1 IS TRUE
23. Nature of ARMs IS TRUE
24. Initial lender cannot profit from initial rates IS TRUE
Term 1 IS TRUE
9. Borrower has low income and low equity IS TRUE
23. Nature of ARMs IS TRUE
26. Asymmetry of information about risks of bundles IS TRUE
Term 1 IS TRUE
NOT 34. Regulators guarantee symmetry of information about loan risks IS TRUE
28. Open books IS FALSE
Term 1 IS FALSE
34. Regulators guarantee symmetry of information about loan risks IS FALSE
33. Bundled loans bring good prices IS TRUE
Term 1 IS TRUE
26. Asymmetry of information about risks of bundles IS TRUE
7. Borrower wants to buy ARM loan IS TRUE
Term 1 IS TRUE
9. Borrower has low income and low equity IS TRUE
12. Initial rate low IS TRUE
10. Rate will rise to make loan profitable to lender IS TRUE
Term 1 IS TRUE
24. Initial lender cannot profit from initial rates IS TRUE
13. Borrower cannot pay reset rate IS TRUE

Term 1 IS TRUE
9. Borrower has low income and low equity IS TRUE
10. Rate will rise to make loan profitable to lender IS TRUE
14. Borrower defaults IS TRUE
Term 1 IS TRUE
13. Borrower cannot pay reset rate IS TRUE
17. More houses available on market IS TRUE
Term 1 IS TRUE
14. Borrower defaults IS TRUE
18. House prices driven down IS TRUE
Term 1 IS TRUE
17. More houses available on market IS TRUE
20. Artificially low risk assigned to bundles IS TRUE
Term 1 IS TRUE
26. Asymmetry of information about risks of bundles IS TRUE
22. Bundled loans have low risk rating IS TRUE
Term 1 IS TRUE
20. Artificially low risk assigned to bundles IS TRUE
27. Investors unaware of bundle risks IS TRUE
Term 1 IS TRUE
NOT 28. Open books IS TRUE
29. Pressure to make loans with inadequate documentation to collect fees IS TRUE
30. Ability of lenders to recoup bad loans IS TRUE
Term 1 IS TRUE
33. Bundled loans bring good prices IS TRUE
31. Negative equity IS TRUE
Term 1 IS TRUE
14. Borrower defaults IS TRUE
32. Buyers walk away of homes IS TRUE
Term 1 IS TRUE
14. Borrower defaults IS TRUE
1. Home prices depressed IS TRUE
Term 1 IS TRUE
14. Borrower defaults IS TRUE
5. Initial lender possesses home partially paid for by borrower's payments IS TRUE
Term 1 IS TRUE
14. Borrower defaults IS TRUE
19. Initial lender bundles loans IS TRUE
Term 1 IS TRUE
22. Bundled loans have low risk rating IS TRUE
11. Initial lender has low risk in reselling loan IS TRUE
Term 1 IS TRUE
19. Initial lender bundles loans IS TRUE
30. Ability of lenders to recoup bad loans IS TRUE
6. Initial lender wants to sell ARM mortgage IS TRUE
Term 1 IS TRUE
5. Initial lender possesses home partially paid for by borrower's payments IS TRUE
10. Rate will rise to make loan profitable to lender IS TRUE
11. Initial lender has low risk in reselling loan IS TRUE
21. Initial lender gets origination fees IS TRUE
8. Many ARM loans made IS TRUE
Term 1 IS TRUE
6. Initial lender wants to sell ARM mortgage IS TRUE
7. Borrower wants to buy ARM loan IS TRUE
15. High delinquency rate IS TRUE
Term 1 IS TRUE
8. Many ARM loans made IS TRUE
14. Borrower defaults IS TRUE
16. High foreclosure rate IS TRUE
Term 1 IS TRUE
15. High delinquency rate IS TRUE
4. MisTrust IS TRUE
Term 1 IS TRUE
16. High foreclosure rate IS TRUE
29. Pressure to make loans with inadequate documentation to collect fees IS TRUE
3. Liquidity IS FALSE
Term 1 IS FALSE
NOT 4. MisTrust IS FALSE
25. Market collapse IS TRUE
Term 1 IS TRUE
NOT 3. Liquidity IS TRUE
2. Credit crunch IS TRUE
Term 1 IS TRUE
NOT 3. Liquidity IS TRUE

COMMENTARY

Thus, the Explainer has been used to analyze the sub-prime mortgage and liquidity crisis. It traced the cause back to the fundamental principle that a free market can only operate properly if it can be guaranteed that parties to a financial transaction have equal access to the information they need to evaluate their risks. This can only be guaranteed by the government applying the appropriate regulations. It is not a consequence of the operation of the free market itself. This would prevent the sale of sick cows to unsuspecting buyers and make lenders less afraid to lend, freeing up the liquidity crisis.

For an extended time there existed the trust that allowed liquidity to occur and the markets to apparently operate properly. When the foreclosures hit, people suddenly found that trust was a fiction and they could no longer depend on it. The cycle of trust was suddenly broken and the system came crashing down.

If the cause of the crisis could be explained and the appropriate regulations initiated, it might reduce the fear that is unnerving the markets. I don't understand why we are not hearing from the economists that could explain this for us.

Apparently the problem has not been solved because too many people have a vested interest in the cause of the problem not being understood. If understood, people might insist that Congress pass the appropriate regulation that would put an end to their sick cow game and they wouldn't additionally be rewarded with large amounts of taxpayer money. Properly solving the problem might save taxpayers hundreds of billions of dollars.

Someone who has access to the data should compare the decrease in the flow of money caused by the loss of liquidity to the flow of taxpayer money being pumped into the system by bailing out the financial institutions. It might be illuminating if it is found that these amounts are close to being the same. That would provide some confirmation of this thesis.

Using regulations to restore liquidity would bring back a system that self generates the flow of money. But pouring taxpayer money into the system could only generate a money flow that could be paid for through the tax system, which is probably less efficient and may eventually dry up.

Solving the problem would be like turning off the hose. But currently the approach seems to be to try to mop up the mess without turning off the hose.

The problem was caused by excesses on the supply side that eventually swung so far that the free market system became broken by the people selling sick cows for profit. Now these same people are tapping into the taxpayer's pockets under the false premise that this would solve the problem. It will only seem to solve the problem until taxpayers run out of money.

The supply side can be fixed by introducing the appropriate regulations. But there is still a mess to be mopped up. This might require the use of demand side economics by helping people pay for their mortgages or having the mortgage rates restored to their pre-reset values until home owners can arrange a mortgage they can afford.

The same hundreds of billions of dollars now bailing out the investment banks could bail out home purchasers. And that would trickle up to bail out the investment banks and get these bad loans off their books.

More unemployment insurance may be required so that people put out of work by this crisis could pay their mortgages until the crisis is resolved and they can return to work.

Opening up the liquidity flow would generate money that could result in greater availability of loans, ultimately lowering rates (although they are low now, they may not stay low for long) causing fewer foreclosures and more house sales. This would bring house prices back up and restore the health of the economy.

A related issue is the bail out of the U.S. auto companies. How much sense does it make to pay billions of dollars to General Motors when the CEO Rick Wagner and vice president Bob Lutz have both said that they never believed that the warming crisis has anything to do with human activities? GM has constantly lobbied against raising the fuel standards.

GM a decade ago built the EV-1, then crushed them claiming that the lessees would not be willing to purchase them, contrary to what a survey of the lessees reported. Will giving them billions of taxpayer dollars to encourage them to do what they don't believe in really achieve the goal of more fuel efficient cars? Probably not!

However, approaching the problem from the demand side rather than the supply side might work. The government could give the money to buyers of fuel efficient cars who are willing to have their old fuel inefficient cars scraped. The car companies would then be encouraged to produce what customers want to buy and the government would achieve its goal of putting more fuel efficient cars on the road.

I would like to see this method widely used because I believe it could be extremely valuable. It could be used to help solve many problems now faced by our government and businesses.

Prior to this I have not had any success in explaining the concept clearly enough that people are willing to take it seriously. I hope this new explanation might get past that barrier. Perhaps you can be of some help. You may have some contacts that would be useful.

Thank you.

COMMENTS WOULD BE GREATLY APPRECIATED

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