

# Indicative solution of the Fortis Bank case (EN)

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The System Dynamics model of the ‘Fortis Bank’ case was developed on the day the ministers of finance of the Benelux countries met in a great hurry to rescue the Fortis bank. A System Dynamics model was built in order to gain a better understanding of potential dynamics of bank crises and to test policies for saving banks (see Figure 1 for the model structure and (Pruyt 2009) for a more detailed discussion). In the simplified case, students have to make a small and simple bank run model (see Figure 1) which is useful for generating different families of dynamic behaviour (see Figures 2a and 2b – different potentially interesting behaviours can be generated with it) and for exploring possible policies to save the bank from collapsing (see Figure 2c for a 50% guarantee of the initial underlying (asset) value).

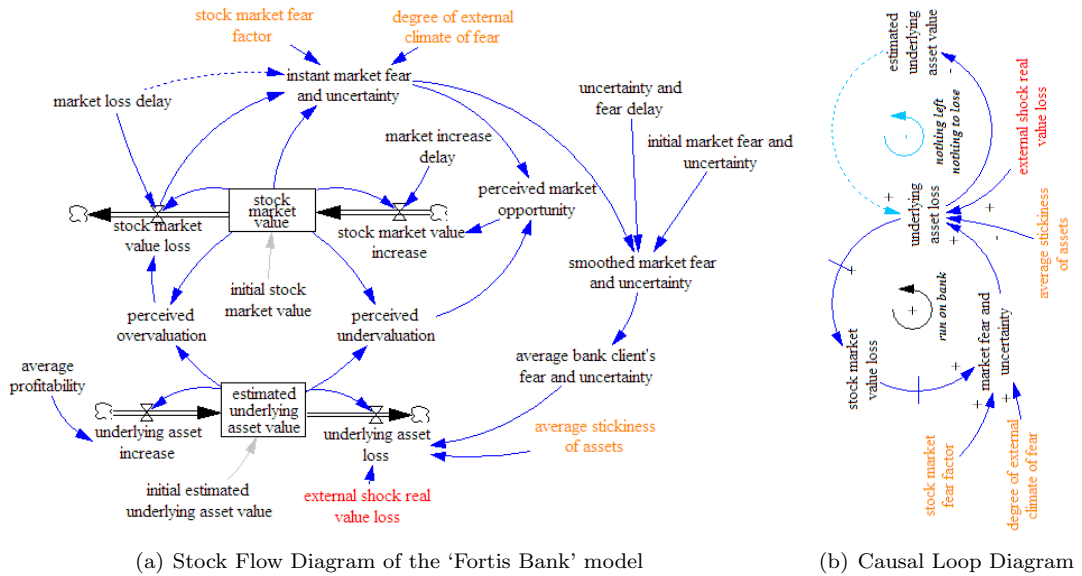
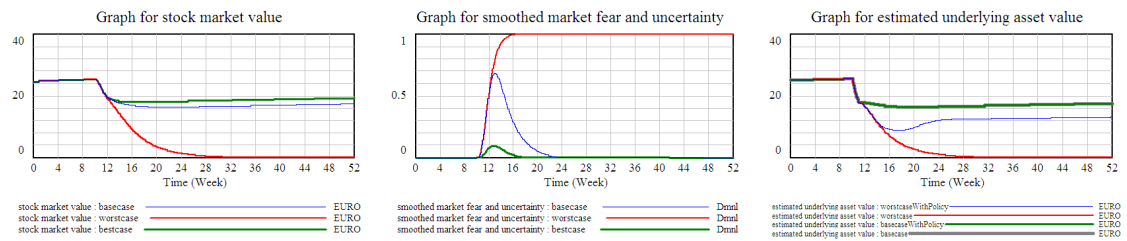


Figure 1: Structure of the ‘Fortis Bank’ model: Stock Flow Diagram of the simulation model (left) and Causal Loop Diagram of a ‘Run on the Bank’ (right)

## References

Pruyt, E. (2009, July). Saving a Bank? The Case of the Fortis Bank. In *Proceedings of the 27th International Conference of the System Dynamics Society*, Albuquerque, USA. 1



(a) Stock Market Value in the base case, worst case, and best case  
 (b) Market Fear and Uncertainty in the base case, worst case, best case  
 (c) Worst and base case with/out a guarantee of 50% of the asset value

Figure 2: Behaviour of the 'Fortis Bank' model for different scenarios and a policy (a 50% guarantee of the initial underlying (asset) value)