Feldblum IRR

Several factors promoting new model:

* Fixed profit margin no theoretical justification
* Not taking interest rate into account
* Industry competitiveness not factored in (could have resulted in lower profit margin)

IRR focused on Financial

Interrelation between Product and Financial market:

Financial to Product

* Higher cost of funds leads to lower supply of insurance
* Higher returns lead to higher supply

Product to Financial

* Higher demand raises return to investors
* Inadequate demand reduce return

IRR over Opportunity Cost then take project

IRR model makes assumptions about amount and timing of surplus commitment and release

Surplus amount requirement is hard to determine; allocation often based on premiums or reserves. Higher allocation indicate lower return.

2010 Q11: timing of surplus commitment; duration \* loss reserve= on avg how much the company needs to hold

Equity Flow Steps

* Required assets= required surplus + Reserve (UEPR or Loss Reserve)
* Contribution = required assets – (premium- expenses happened at time 0)
* Post Assets\* Inv Rate= Inv income the next time
* Pre dist Assets before expenses and losses paid = post assets + inv income next time
* Post Assets = required surplus+ loss reserves = required assets
* Distribution = pre dist assets before expenses and losses paid – expenses – paid losses – Post Assets
* If negative then contribution
* 2000Q27 Only Investment income should be counted towards pre-dis assets

Individual vs Industry:

Individual: surplus needs between insurers with same line could have different surplus leverage because of historical happenstance; Manufacturing companies are similar in terms of expenses

Manufacturing easy to determine fixed assets, but insurer’s surplus is much harder depend on past profits

IRR issue:

Revenue is seldom reinvested at IRR, violation of IRR assumption

Not quite an issue for pricing model:

* Extra revenue can be invested to write more policies, to maintain growth @ IRR rate
* Pricing sets IRR= cost of capital

Practical Criticism:

When IRR smaller than cost of capital but greater than 0 or investment, regulators may have false impression that insurer is making money;

Utility and Insurer: Insurer based surplus on reserves, which is unstable;

When reserve increases, surplus increases, income increases, profit looks ok

Pitfall from Regulators’ perspective: positive IRR, but actually not making money

--Surplus

Claims made, service and retrospective policy has different requirement on surplus,

If model makes no distinction of surplus requirement:

Retro is overstated, and excess is understated

If in proportion to true risk, then understate excess/retro because very unstable