Chapter 8: REFLECTIONS ON EXPERIENCE GAINED

Although the nature of this paper as a practical guide and overview for practitioners does not lend itself well to a section on conclusions, we would like to take this opportunity to set out some reflections based upon the experience of implementing a number of pilots and research activities. As we have pointed out at various stages, these reflections are in no way meant to be considered definitive—there may well be a number of breakthroughs in this field that will open new avenues or opportunities for a wider application of the product. We have broken down the reflections into several sections for ease of reference.

8.1 TECHNICAL CHALLENGES

Complexity. WII is a very technical product that requires a high degree of technical and financial knowledge, awareness, and capacity. These requirements are necessary not only at the design stage, but also during monitoring and product adaptation to new data and crops. This also directly affects the ease with which this product can be scaled up in new areas.

Costs. While there is still a belief that WII may enable costs to be reduced, experience has shown that the upfront development costs of this product are very high. This is a mixture of factors, such as the need to hire expensive international consultants and have them present in the country to work with stakeholders, the extensive costs associated with building the capacity of the local insurers, the costs incurred in educating potential policyholders on the product so that they can make an informed decision as to whether to buy the product or not, and so on. Without a dramatic scale-up in terms of number of policyholders, amortizing these upfront costs will be challenging and may dissipate any real advantage that this product might have over other traditional forms of insurance.

Duality of basis risk. The risk that actual loss will not be reflected by a proxy or parametric (which uses measurement of a variable at another place) is inherent in WII. The product effectively has a "built in" basis risk. While this is clearly a risk for the holder of the policy, it is also a risk for the insurance company that sold it. A cornerstone of a successful insurance company is the trust that people place in it to "make good on their promises." When those promises are perceived to be broken because of a failure of an index to trigger a payout, this will often have negative consequences for the insurance company in terms of future sales (not just with WII products).

Accuracy. Although the index is based on the use of data and complex modeling technology, the problem remains that you are trying to use mathematics to reflect a series of natural processes (that is, the growth of plants across a wide area). In developing countries, seed varieties are often mixed, farming practices are often suboptimal and highly variable, and information on actual planting dates are often inaccurate and lack conformity in any given area. Basis risk is generally considered to be about the problem of weather at the insured's field being accurately represented by the weather at a weather station. However, an equally important part of basis risk is whether the index itself (even given accurate representation of weather) accurately captures the phenology of the individual plants on the insured field.

8.2 PRACTICAL CHALLENGES

Ability or willingness to pay. While the purchase of insurance may be a logical action in the economic sense, the ability or willingness of farmers in developing countries is a totally different phenomenon. Indeed, this is not limited only to them—many homeowners in developed countries would not carry home insurance unless it was a mandatory requirement of their financing agreement (even allowing for the low premium rates). Most farmers in developing countries have extremely low disposable incomes (if any) and a limited awareness of financial products such as insurance. Given this, most are loath to pay insurance premiums, as many do not monetize their crop, especially if their government has a history of writing off debts or providing compensation. Add to this the complexity of explaining how WII works and on

what basis pay outs are calculated and one can see that demand is a real obstacle to scaling up.

Farmers actually want full indemnity. Index products do not offer indemnity—you can suffer a loss and not receive a payout either because of a lack of a trigger of the index due to lack of severity or because of the loss being caused by a variable that was not covered by the index (for example, you have drought coverage and your crop is destroyed by pest). Generally, what farmers actually want is an indemnity from loss, no matter what the cause. While it is possible to structure insurance with multiple indexes, this is very complicated, would likely end in very expensive premiums, and would be plagued by basis risk issues in relation to multiple, not single variables.

Lack of capacity. There is currently a lack of technical capacity in the insurance sectors of most developing countries, which is a constraint to the scaling up and further development of WII. While it is possible, on a pilot basis, to use external consultants to design an index product and assist in its rollout, marketing, and sales, such assistance is not possible on a wide scale (simply because of lack of qualified professionals).

Outreach and training. While WII may not require local presence in respect to field level assessments, it does require local presence during product rollout and sales. To ensure that farmers understand the product (so that they will either buy it or be able to appreciate when it will pay out), extensive awareness activities and training are needed. The costs inherent in such a process are prohibitive for most local insurance companies and therefore a major constraint to product development.

8.3 WHERE WII CURRENTLY WORKS BEST

Despite the long and apparently negative list of issues presented in 8.2 (which are connected with a micro/farmer-level product), there are a number of circumstances in which WII does appear to play a strong role. The differences between the above situation and those mentioned below are largely connected to the extent to which many of the challenges are removed or managed by the uses presented.

Some areas in which WII or other parametric products show promise are as follows:

As a financing tool for social protection schemes. Although WII may not be for the "poorest of the poor" because of their inability to pay premiums or have an easily identifiable insurable interest, the use of indexes at a district, regional, or national level can be a useful tool to generate funds for social protection measures in the case of natural disasters. Obviously, the issue of who will pay the premium and the ex-ante establishment of distribution channels and methodologies is an important part of the product design.

Large-scale commercial farmers. For large-scale farmers who have a clearly identifiable and insurable loss and equally a value proposition that enables them to pay premiums, WII can be an interesting option (especially where traditional insurance is not available or too expensive). The other advantage for such farmers is that, because of the size of the risk they wish to insure, they often have the option to take their business direct to international reinsurers and thereby circumvent the constraints posed by the lack of local insurance company capacity.

Portfolio risk management at the meso level. Input suppliers, banks, and processors often lend either cash or product to a wide group of farmers and are therefore exposed to the production risk that faces their farmers. Given the usual geographic spread of their farmers, they naturally tend to reduce the covariance of the risk and arguably the net basis risk (through aggregation). The use of WII by such meso-level stakeholders can be effective in reducing their exposure to certain given risks. However, care should be taken, as many risks that actually drive farmer default cannot be covered by WII—for example, side selling, market price risk, quality, and so on. In addition, there is a risk that if a farmer is aware that their counterparty has insurance, then they will be more likely to default, even in a case in which that default is not due to a risk covered by the index. From an ethical point of view, there is also a challenge, in that it is possible that a bank might receive a payout under their WII product, yet still seek to recover funds from the farmer.

Sovereign risk transfer at the macro level. If a country is running a contingent risk that relates to a weather variable, the use of a WII product can be extremely useful. Although at this level, the product is slightly different in nature (a derivative, as opposed to insurance), the general principles are the same. The payouts received from such a derivative could be used to stabilize budgetary shocks, purchase food for vulnerable populations, or finance social safety net programs. While this is a very attractive form of risk management, countries often suffer from a lack of ability to finance premiums or face political challenges in the use of public funds for nontangible and potentially "risky" premium payments.

Contingent finance, as opposed to risk transfer. Very similar to the previous application, the use of parametrics related to contingent financing is another interesting use of the index model. However, in the case of contingent financing, a country faces slightly less "risky" premium payments, which are replaced by much smaller commitment fees. The main advantage for politicians is that they do not have to pay relatively large amounts of money and potentially receive nothing in return—with contingent finance, they have to pay back, but only in the case of the risk being realized.