

International Insurance Foundation

***Risk Management
in the Small and in the Large:
Observations from Latin America***

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Risk Management in the Small and in the Large

- **in the Large**

- Macroeconomic instability and exposure to contagion
 - Recent economic growth largely tied to commodity price increases, leaving economies subject to reversal
 - Lack of commitment to fiscal discipline and central bank independence
- Natural disasters
 - The vulnerability falls heaviest on emerging markets
 - Climate change risk severe due to infrastructure gaps

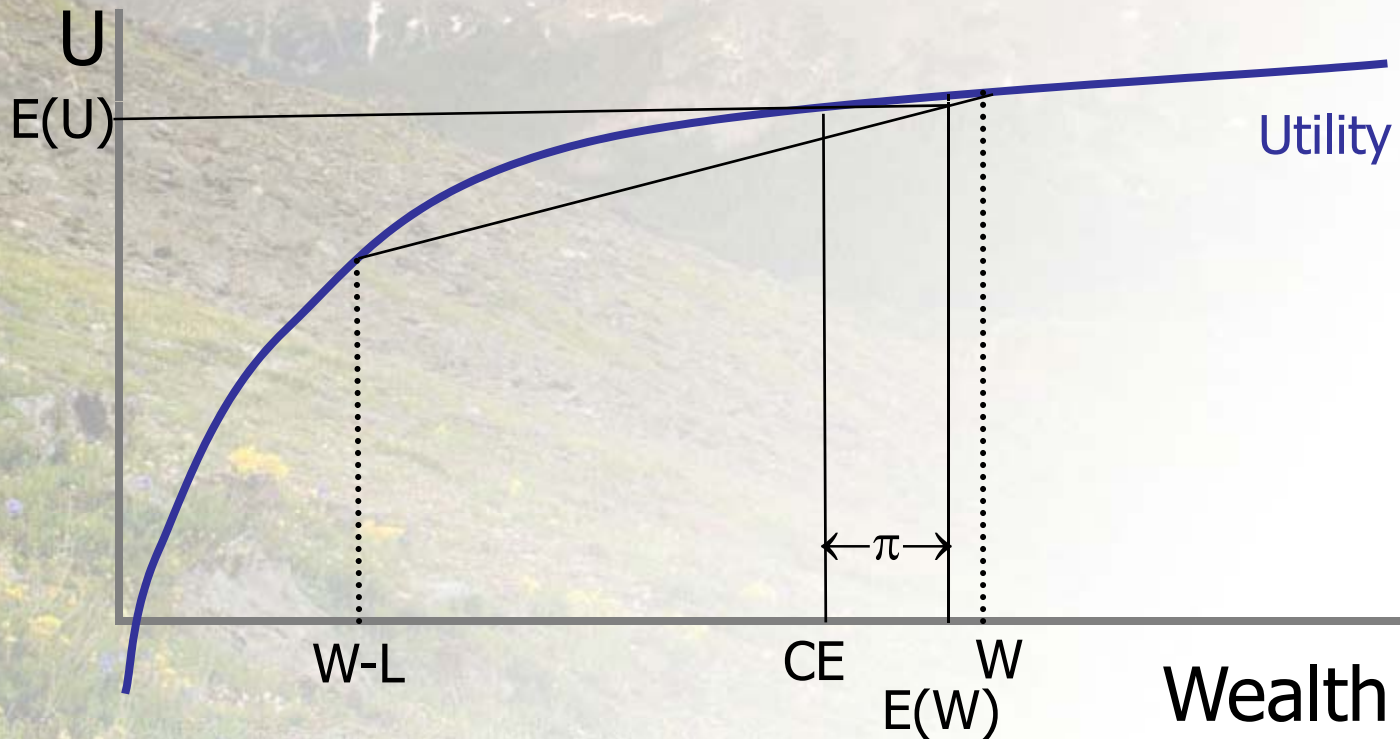
- **in the Small**

- Hedging markets are underdeveloped and illiquid
- Financial intermediaries lack financial sophistication
- Insurance products are not available to smaller firms
 - Lack of insurance culture and trust (exception in Caribbean)
 - Distribution systems are inefficient

Insurance & Risk Management Demand

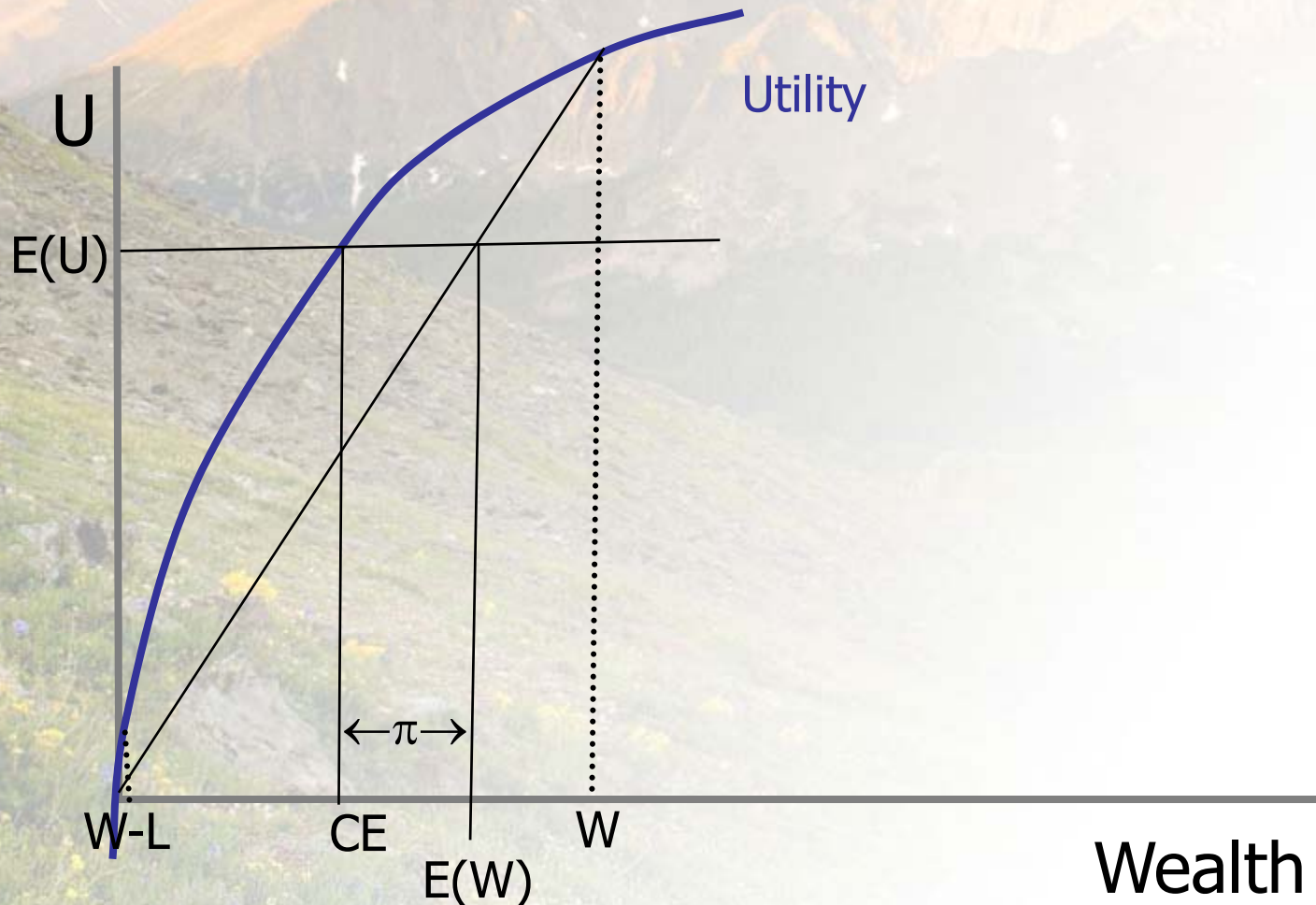
- **Traditional Explanation -- Individuals and Family Firms**
 - Eliminate uncertainty via the payment of premium
 - Valued by risk averse individuals
 - Risk averse will always insure at actuarial fair value
 - Will be willing to pay a risk premium above the actuarial fair value
 - Loading is poorly understood
 - Insurance is sold, but “should” be purchased
- **Corporate Finance Explanations -- Diversified Enterprise**
 - Corporations are not modeled as risk averse
 - Insurance and risk management reduce the of cost of financial distress
 - Outsource specialized risk identification and loss administration activities
 - Tax benefits of insurance
 - Bond holders use insurance to eliminate underinvestment problem
 - Allow the Board to “sleep at night”

Expected Utility Maximization: Risk Aversion & Risk Premium



Example: Fire insurance on home (5% prob.; lose 80% of household value)

Risk Aversion & Premium -- at risk individual



**Example: Fire in home/business (15 % prob.; lose \cong 100% capital)
[No safety net -- reduced to poverty for the remainder of life]**

IRM Demand: Base of the Pyramid

- **IRM will generate high investment returns at firm level**
 - Stochastic events can overwhelm scarce capital
 - “Homemade” insurance and risk management are commonplace but imperfect; catastrophic events cannot be covered
 - With limited risk mitigation, high NPV projects are passed up in favor of low NPV projects
 - It is not that small entrepreneurs do not understand risks. They understand only too well and utilize inefficient risk mitigation strategies
 - The lack of formal insurance and risk management services; appropriate products and effective distribution channels undermine economic growth and wealth distribution.

IRM Demand: Base of the Pyramid - 3

- Small and micro-entrepreneurs evaluate alternative portfolios of investments with embedded risks and risk management alternatives
- Can formal insurance (market solutions) facilitate risk management and increase investment returns?
- How can transactions costs be reduced?
 - Simple policies and simply claims settlement
 - Efficient MIS systems
 - Link with savings and credit
 - Link to cell phones
 - Opportunities international has set up a brokerage agency that covers 700,000 individuals in Africa. They earn \$0.25 per policy and are making a profit.

Alternative/non-market IRM Strategies

- **Social examples:**

- Investment in social networks
- Maintaining extended family connections
- Reliance on remittances
- Burial societies / community barn raisings

- **Economic examples:**

- Crop selection (lower yield, but resistant to extremes 1-in-20 year events)
- Multiple small retail outlets with inefficient inventory controls
- Savings in building supplies (non-interest earning)
- Underinvestment in efficient technologies and education (results in non-competitiveness)
- Retention of fragmented land ownership as insurance
- Banks deny loans to farmers due to risky production & price volatility
- Peru: Shaman's predictions of El Niño (better than modern techniques)

Market driven IRM Strategies

- **Natural Disasters -- Cat bonds and Reinsurance**
 - Turkey Earthquake insurance program for homeowners
 - Mexico Cat Bond
 - Caribbean Catastrophic Risk Insurance Facility
 - Insuring governments (fiscal shortfalls) vs. private sector assets
- **Climate Change -- Weather Derivatives**
 - Limited in Latin America -- mainly Asian and African market
 - Malawi -- Climate Insurance bundled with bank loans for ground nuts and maize. Without insurance, banks rarely lend to high risk, low-income farmers. Experimentation is underway to link climate insurance to seed variety to encourage farmers to use improved seed varieties.
- **Micro-insurance**
 - Uganda pioneered large scale life and health insurance bundled with microfinance and saving programs.
 - India, Philippines -- expensive community based micro-insurance
 - Venezuela has introduced private health insurance for poor

Institutional Strengthening

- **Regulatory oversight is often lacking. Assure promised payments will be made.**
 - Legal and regulatory reforms
 - Training of supervisors
- **Development of insurance/Risk Management products and efficient and effective distribution systems.**
 - Board/Senior Management recognition of opportunities
 - Product development
 - Data gathering and actuarial analysis
 - Risk and vulnerability modeling
 - Management information systems
 - Staff training / Client Identification / Opportunity recognition
 - Hedging capacity by financial intermediaries
 - Links with reinsurers
 - Distribution and loss administration systems
 - Use lesson from micro-finance to reduce distribution costs

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Thank You!

political & macroeconomic
stability;

lack of consensus
regarding impact, direct
costs and externalities

Uneven and changing
distribution of economic
and political power

Underlying Risk:

expected values,
variance and higher
movements; stability;
model uncertainty;
data availability

Model Failure?

Government Risk Policy:

attention to/understanding of
risk management;
resource availability;
competing priorities;
myopia & aid dependence

Governance/Policy Failure?

Risk Transfer Markets:

availability of capital
(reinsurance cycle);
insurability
vs..profitability;
resource commitment;
market competitiveness

Market Failure?

***Intersection between climate/disaster risks;
insurance markets and government policy***