

FIGURE 3.1 Klaus's Travel Time to Work

Source: Makridakis, Hogarth, and Gaba (2009).

The Frequency of Daily Returns of the DJIA: Jan. 1 1900 to Dec. 31 2007

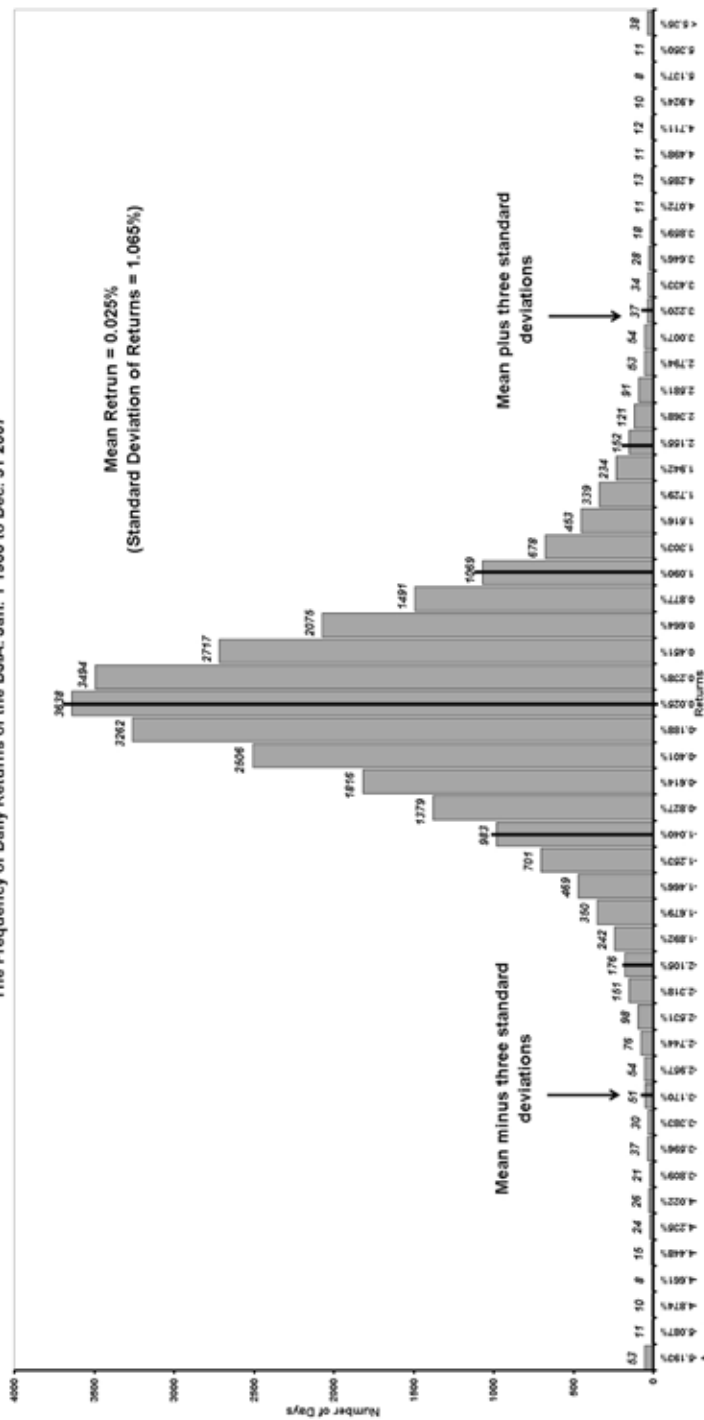


FIGURE 3.2 Dow Jones Industrial Average from January 1, 1900, to December 31, 2007

Source: Makridakis, Hogarth, and Gaba (2009).

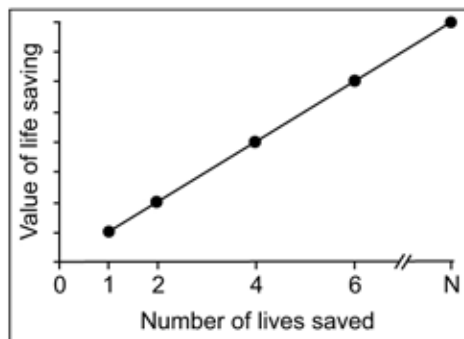


FIGURE 4.1
A Normative Model for Valuing
the Saving of Human Lives (Every
Human Life Is of Equal Value)

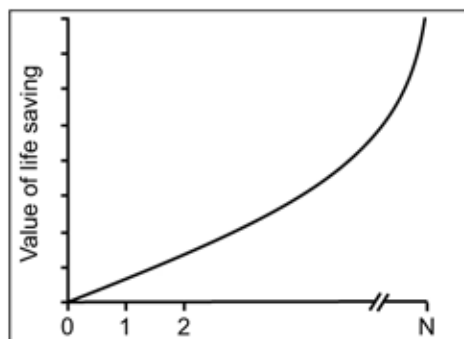


FIGURE 4.2
Another Normative Model
(Large Losses Threaten the
Viability of the Group or Society)

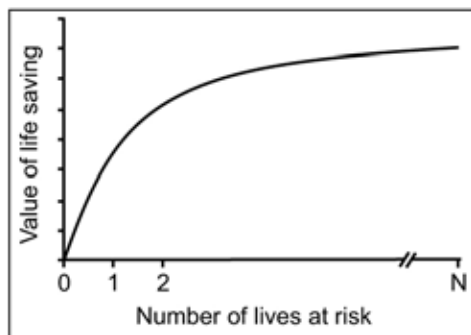


FIGURE 4.3
A Psychophysical Model
Describing How the Sav-
ing of Human Lives May
Actually Be Valued

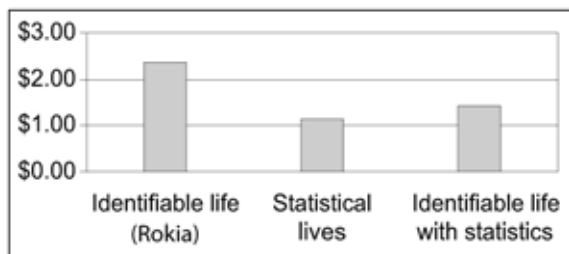


FIGURE 4.4
Mean Donations
Source: Reprinted from Small et al. (2006), copyright 2006, with permission from Elsevier.

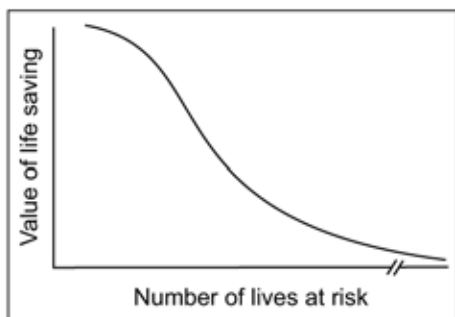


FIGURE 4.5
A Model Depicting Psychophysical Numbing: The Collapse of Compassion—When Valuing the Saving of Lives

FIGURE 5.1
Six Key Features of a New Risk Architecture



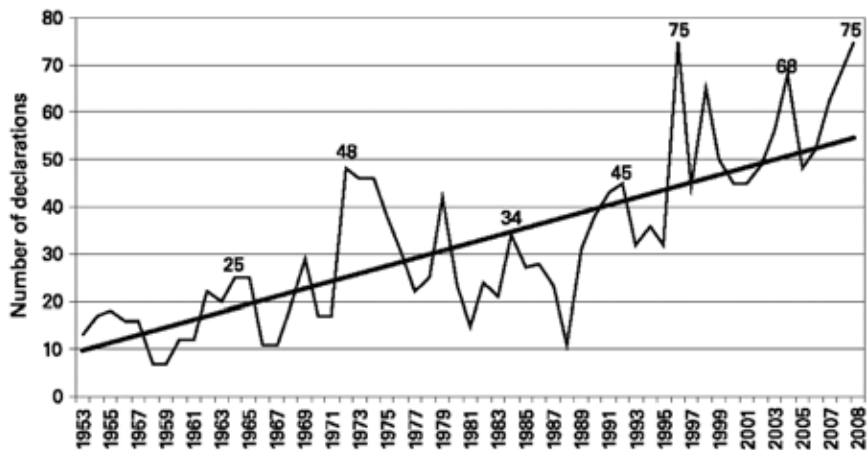


FIGURE 5.2 U.S. Disaster Presidential Declarations Per Year

Sources: Author's calculation with data for the U.S. Department of Homeland Security.

Note: Peak values on the graph correspond to some presidential election years in the United States.

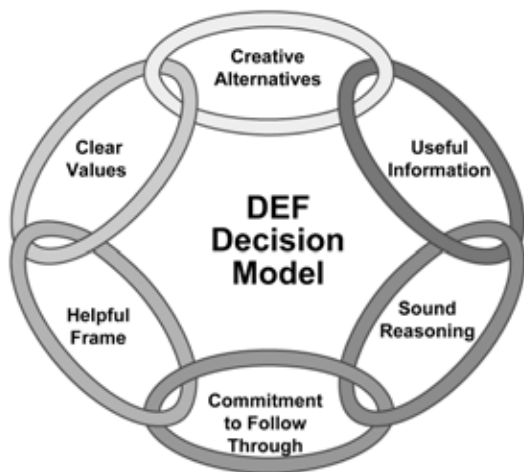


FIGURE 6.1
A Basic Decision Analytical Model
Source: Copyright 2008, Decision Education Foundation. All rights reserved.

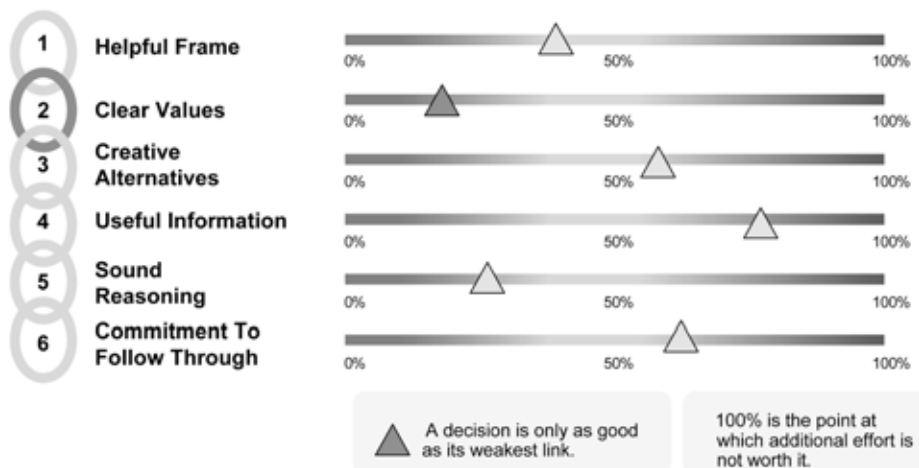


FIGURE 6.2 Profile of a Decision's Quality

Source: Copyright 2008, Decision Education Foundation. All rights reserved.

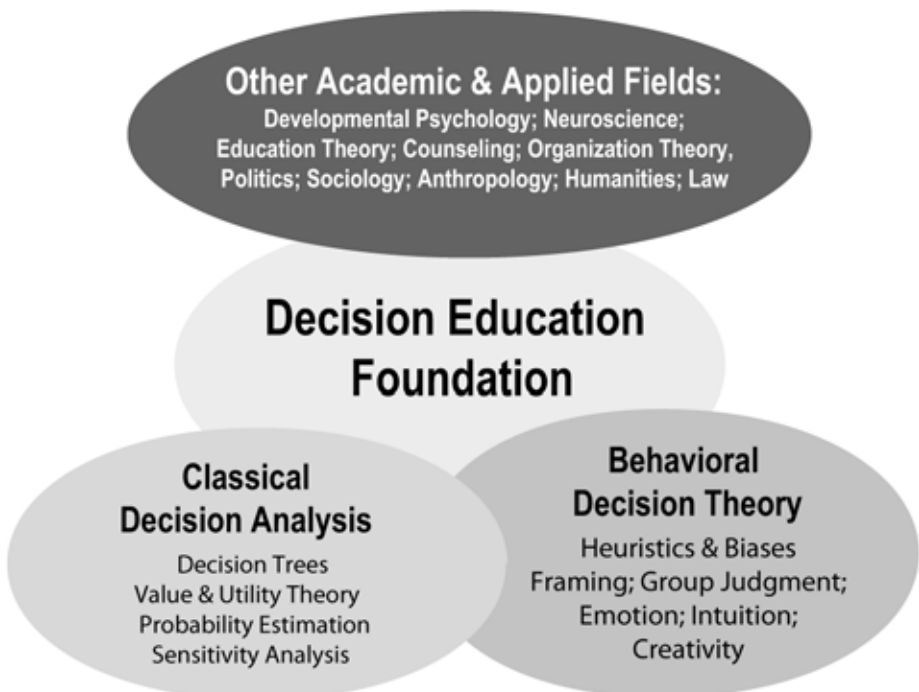


FIGURE 6.3 DEF Model

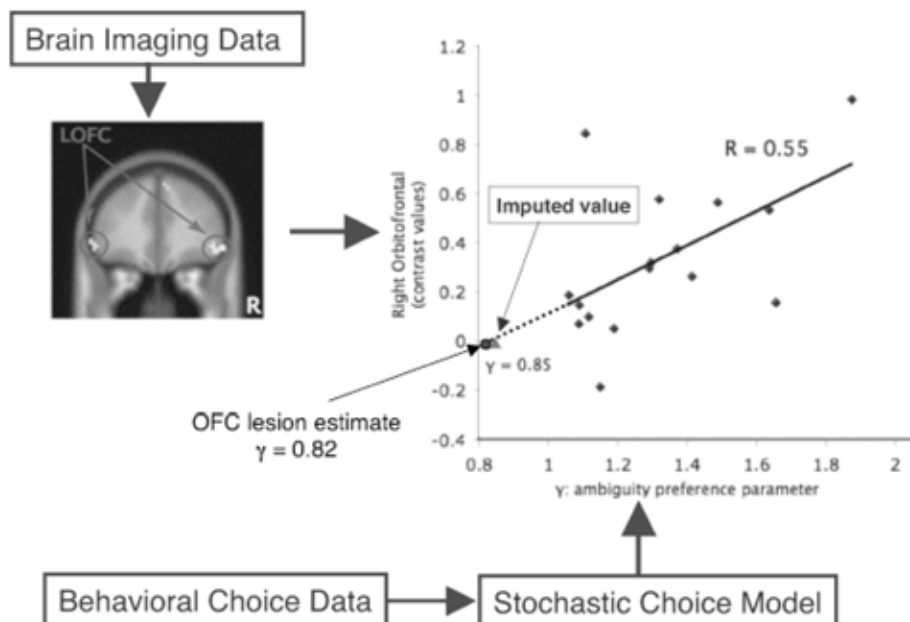


Figure 9.1: Linking Neural, Behavioral, and Lesion Data

Differential bold signal brain activity in the amygdala and the lateral orbitofrontal cortex (LOFC) in response to ambiguous versus risky choices. Right panels show time courses of activity in left (L) and right (R) areas after onset of stimulus (gamble requiring evaluation).

Source: Reprinted from *Science* with permission.

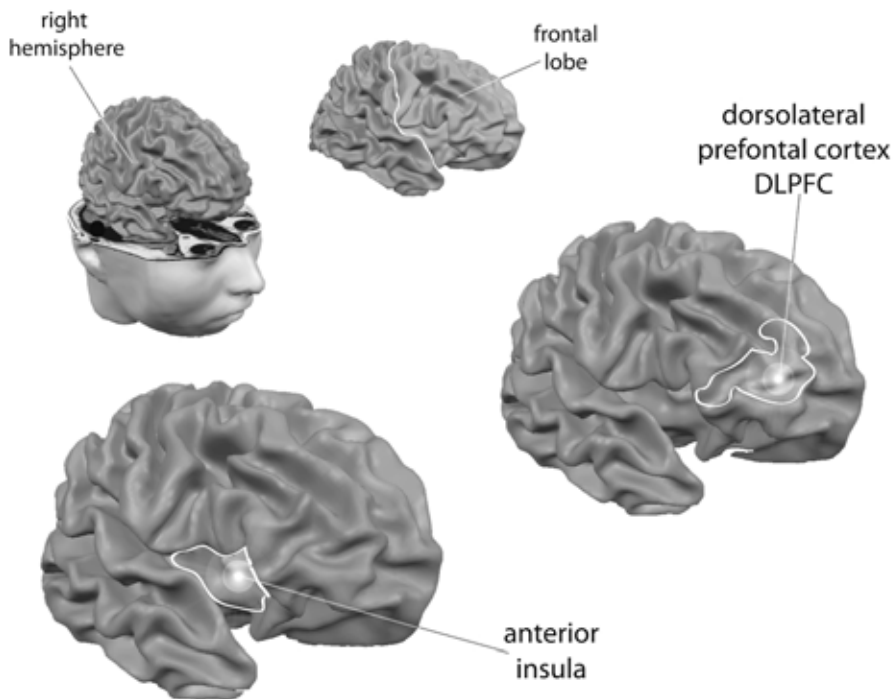


FIGURE 10.1 Some of the Brain Areas Showing Increased Activity When Refusing an Unfair Offer in the Ultimatum Game

Note: These are not actual experimental data but 3D reconstructions generated courtesy of Brain Voyager© for illustrative purposes.

	Out of Mind	Recognized
No Occurrences	Virgin Risks	Contemplated Risks
Past Occurrences	Neglected Risks	Experienced Risks

FIGURE 11.1 Typology of Risks

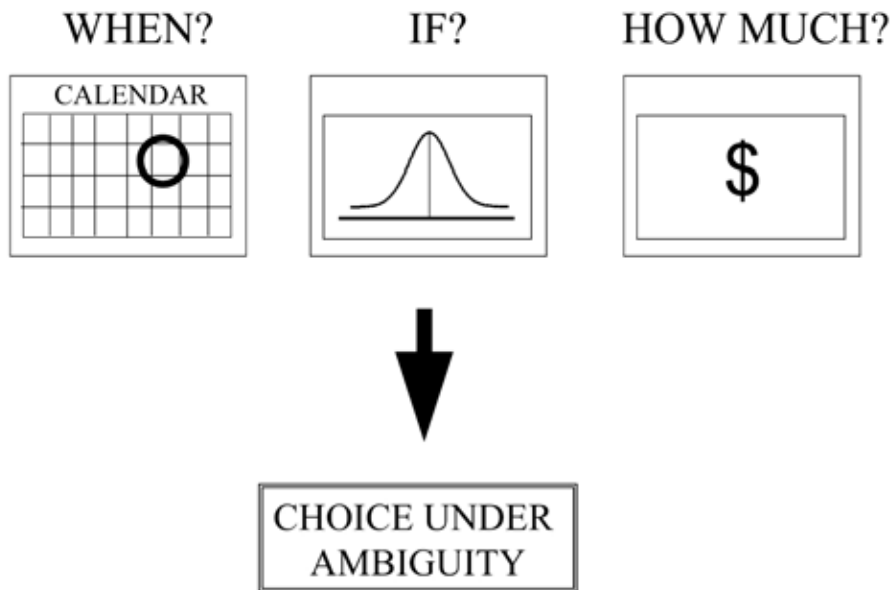


FIGURE 12.1 Uncertainties in Choice Under Ambiguity

		<i>Probabilities</i>	
		Precise	Ambiguous
<i>Outcomes</i>	Precise	Playing roulette	Plane crash
	Ambiguous	Tax audit	Earthquake

TABLE 12.1 Examples for Different Sources of Ambiguity

TABLE 14.1 Willingness to Pay in Dollars for Elimination of Cancer Risk: Harvard Law School Results, 2008

<i>Probability</i>	<i>Unemotional description</i>	<i>Emotional description</i>
1/100,000	241 (100) [20]	250 (100) [13]
1/1,000,000	59.21 (25) [19]	211 (2 00) [15]

Key: Mean (Median); [Number of subjects].

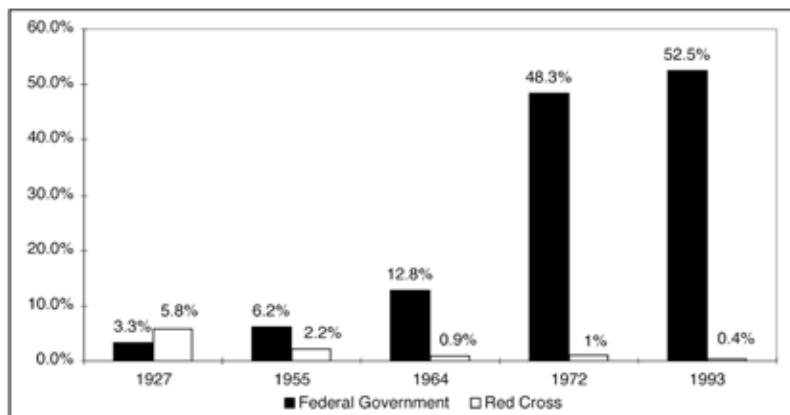


FIGURE 18.1 Approximate Coverage Rates on Five Major Disasters^b (Federal Government and the Red Cross)

^aRatio of disaster spending to total estimated damages (in percent).

^bThe five disasters are the Mississippi Floods of 1927, Hurricane and Flood Diane (1955), the Pacific Northwest Floods (1964), Tropical Storm Agnes (1972), and the Mississippi Floods of 1993.

Source: David A. Moss, "Courting Disaster? The Transformation of Federal Disaster Policy since 1803," in Kenneth A. Froot, ed., *The Financing of Catastrophe Risk* (Chicago: University of Chicago Press, 1999), figure 8.2 (p. 328).

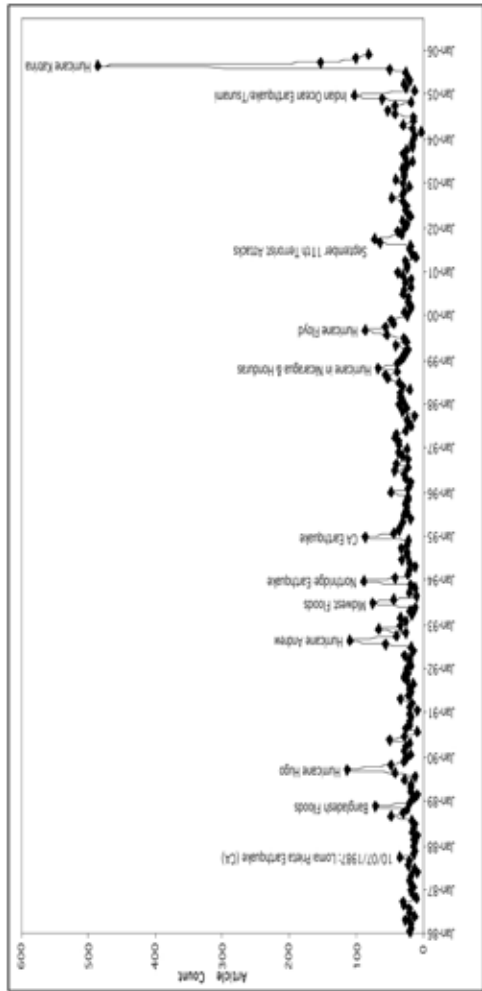


FIGURE 18.2 Natural Disaster Coverage in the New York Times, 1986–2005

Note: This figure was prepared by Stephanie Lo, using the Proquest Historical Database. Search terms were defined as (“disaster” or “catastrophe”) and (“storm” or “earthquake” or “flood” or “hurricane”).

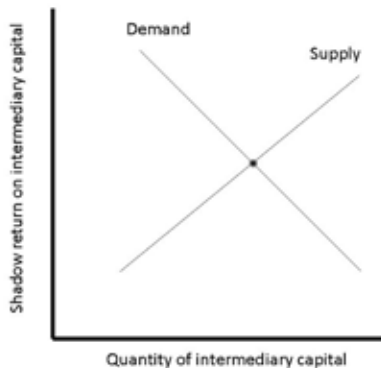


FIGURE 20.1 Equilibrium in the Market for Intermediary-Supplied Capital
Source: Copyright © Ken Froot.

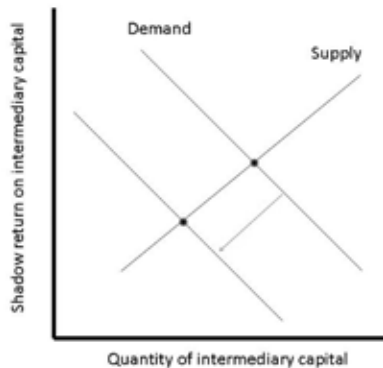


FIGURE 20.2 A Negative Shock to the Demand for Intermediary Capital
Source: Copyright © Ken Froot.

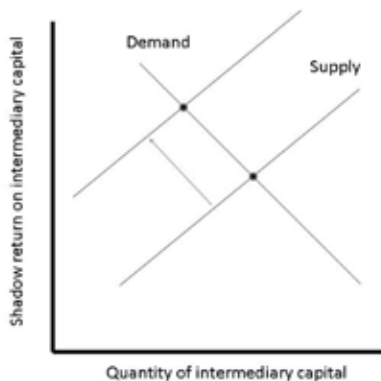


FIGURE 20.3 A Negative Shock to the Supply of Intermediary Capital
Source: Copyright © Ken Froot.

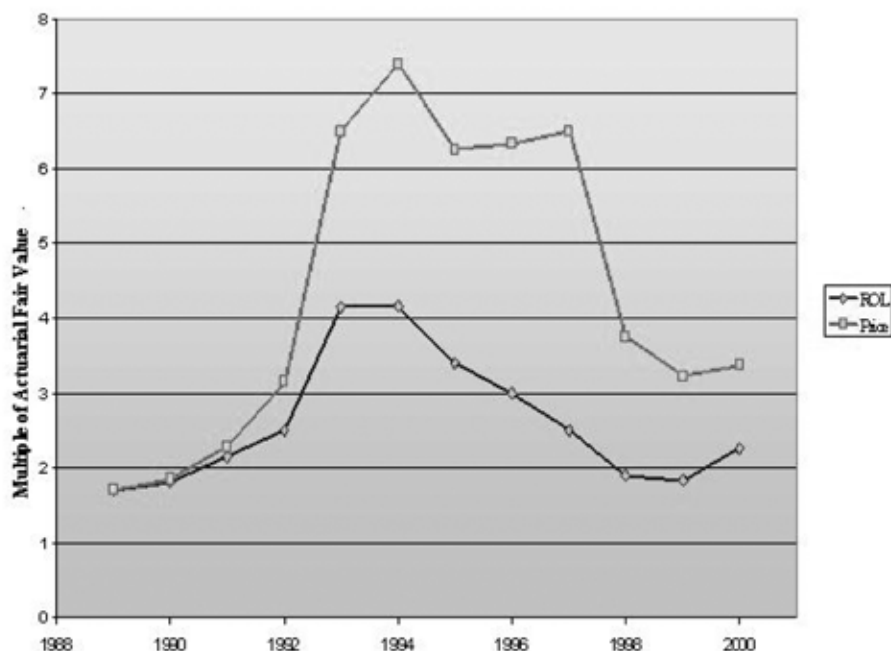


FIGURE 20.4 Prices of U.S. Property Reinsurance Relative to Actuarial Value Following Hurricane Andrew in 1992

Source: Ken Froot 2001.

TABLE 20.1 Prices of U.S. Property Reinsurance Relative to Actuarial Value Following the Hurricanes of 2005 (Katrina, Rita, and Wilma)

Source: Nephila Capital, Ltd. © Ken Froot.

Region	Strike	Expected Loss	2005	2006
US hurricane	\$50B	2.5%	1.4x	6x*
US hurricane	\$30B	4.9%	1x	5.1x
US hurricane	\$20B	8.1%	1.4x*	4x
US earthquake	\$15B	4.3%	1.7x	3.5x
US earthquake	\$20B	3.2%	1.8x	3.6x
US 2 nd event	\$10B	5.2%	1.4x	4.8x
US 2 nd event	\$20B	1.2%	n/a	10.4x

Pricing shown as a spread to risk-free (typically 3m UST)

Expected losses shown as market standard model output (not NCL estimates)

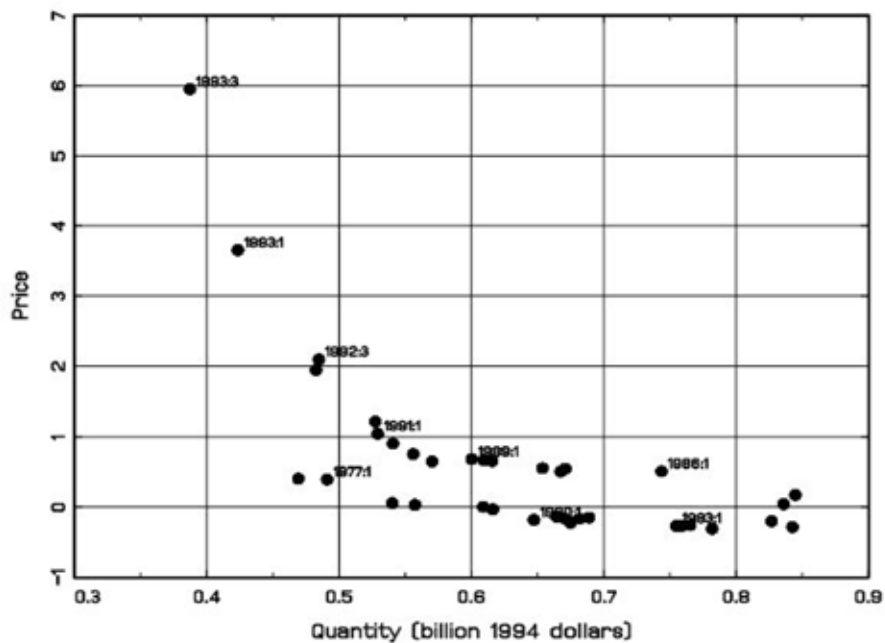


FIGURE 20.5 Transaction Prices and Quantities of U.S. Property Reinsurance Relative to Actuarial Value

Source: Ken Froot 2001.

CDS Bond Basis vs. Libor OIS
January 2007 to March 2009

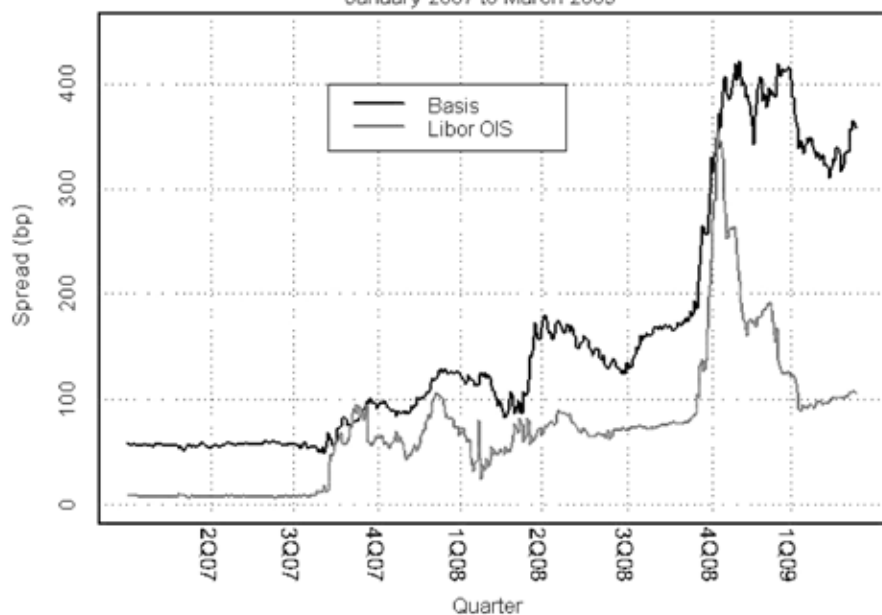


FIGURE 20.6 Difficulties in Bank Financing Were Coincident with Underpricing in Corporate Bonds Relative to CDS, But Dissipated Faster

Source: Ken Froot 2001.

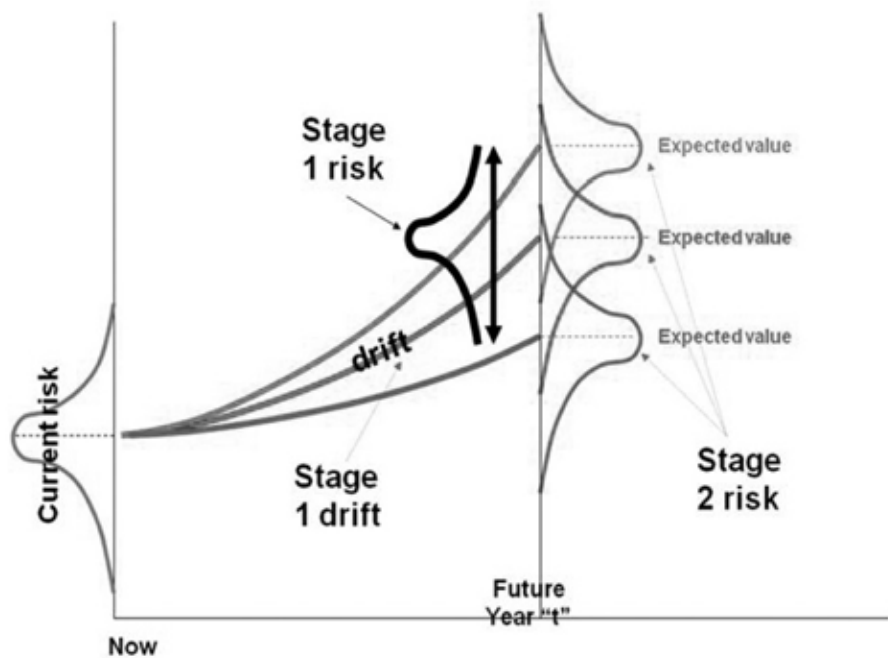


FIGURE 24.1 Risk as a Multi-Stage Lottery

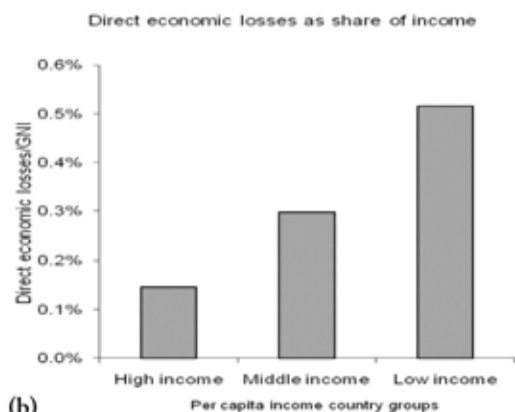
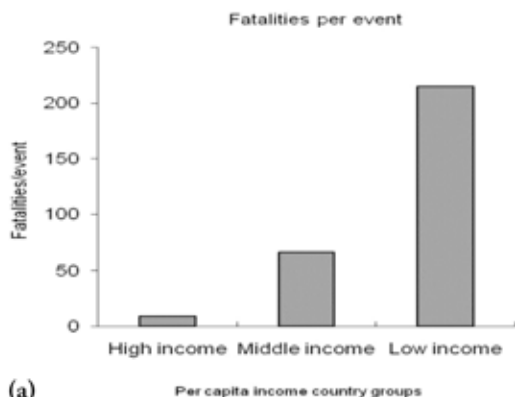


FIGURE 25.1
Differential Burden of
Natural Disasters:
(a) Fatalities Per Event and
(b) Economic Losses
According to Country
Income Groups
Source: Author's calculations
 based on data from the
 reinsurer Munich Re (2005).