Slide 1

A heading

One thing this example illustrates is how the `article` style option is good for printing slides two-up, for distribution to a seminar audience or class, or just for proofreading.

Definition: p (weakly) first-order stochastically dominates q if for every $\bar{z} \in Z$,

$$p(z \leq \bar{z}) \leq q(z \leq \bar{z})$$

Slide 2

Problems with stochastic dominance as a DT

z	$p(z)$
\$999	.01
\$1,000,000	.99

z	$q(z)$
\$1,000	1

Slide 3

Candidate Theory #3: Expected utility

Let Z be an arbitrary set of outcomes. Let $u : Z \to R$ be a utility representation of the DM's preferences over the elements of Z as certain outcomes. (I.e., $u(y) \geq u(z)$ iff $y \geq z$.)

Slide 4

Expected utility & the St. Petersburg Paradox

This can get around even St. Petersburg Paradox, because we don't require that utility be linear in money:

Prize	\$2	\$4	\$8	\$16	...
$u(z) = \log_2(z)$	1	2	3	4	...
Prob.	1/2	1/4	1/8	1/16	...

Expected utility is $\sum_{k=1}^{\infty} k/2^k = 2$, and so lottery gives same expected utility as getting \$4 for sure.