5.1 The Cost of Delivery

A few key principles are useful:

1) The value of an instrument or position must be related to what it costs to deliver it, regardless of academic theories.
2) If the deliverable is in some sense "physical", then there is a chance to use some form of a "risk neutral/no-arbitrage" methodology (see below), which, with some modification, is a reasonable approach to valuing derivatives in many cases, especially in liquid markets.
3) If the markets of interest are illiquid (meaning there is very little if any trading in the "instruments of interest"), or if the "deliverable" is not physical in some sense, then the valuation process can be tricky, and generally a correct procedure will require a "provisioning approach" (c.f. fair-value/no-arbitrage approach).
4) If the contract is contingent (e.g. option-like) then that valuation must relate to the probability of the event that triggers the pay-out, and size of the pay-out, but not in isolation of the cost to deliver.

These principles are applied in the following examples.

5.2 The Fair-Market/Risk-Free/No-Arbitrage Price: Exchange for Physical

You have just been informed that you won the Pulitzer Prize. Suppose that your share of the prize will also include USD 100,000, and that you will receive that at the ceremony in 3 months time.

Now is your chance to buy that Ferrari you've been dreaming of all your life. However, although Ferraris cost 90,000 now, there is rumour of a price increase to a yet unknown level, over the next couple of months, and possibly before you receive your prize money in 3 months.

What can you do now?

One solution is to enter into an options or forward contract that delivers the Ferrari to you in 3 months, and which somehow either locks in the price "today", or protects you against price inflation. That is, use derivatives to manage your purchasing dilemma/uncertainty/risk.

The forward price approach goes something like this: The person "agreeing to the delivery" must borrow 90,000 and pay the interest on that for 3-months. Plus, they must warehouse and insure the Ferrari for 3-months. Of course, they are not doing this for