

Spectrum valuation and auction design



What we were asked to do	<p>We were engaged by Telstra to advise on two matters involving radio frequency spectrum used for mobile telecommunications services in Australia.</p> <p>The first matter involved the preparation of valuations for existing, but soon expiring, spectrum licenses that were the subject of negotiations with the Australian Government.</p> <p>The second matter concerned the design of an auction for the sale, by the Australian Government of spectrum parcels freed up by the digitisation of free-to-air television—the so-called “digital dividend”.</p>
Valuation of spectrum licences	<p>A range of methodologies was applied to value spectrum, including international auction benchmarking, Incremental Optimised Deprival Value (IODV), and the residual value method (in which the spectrum valuation is assumed to be the difference between the present value of prospective mobile revenues less all applicable costs other than spectrum).</p> <p>Ultimately, Telstra was able to negotiate successfully for renewal of these licenses without reopening them to the risks of a new auction.</p>
Digital dividend auction design	<p>We prepared an expert report on the welfare implications of different approaches to the spectrum lot sizes (i.e., the bandwidth) and the geographic footprint of spectrum parcels that would be auctioned.</p> <p>That analysis looked at competition effects of different auction designs, technical performance issues for different lot sizes, and the trade-offs between these issues.</p>