Hollywood studios appear to plan sequels before they produce the original movie

The recent box office success of *Jurassic World*, the latest *Jurassic Park* sequel, reminded me of my study about the use of real options in the motion picture industry^{*}, which examined the application of this accounting tool to movie sequels.

A real option is the right, but not the obligation, to undertake a business decision. More importantly, a real-options approach to investment and decision-making recognizes that managers invest in projects in stages, based on new information. They can either continue or abandon projects based on how uncertainty unfolds over time. This is unlike traditional capital budgeting approaches and investment analyses that assume that managers undertake 'discrete' investments rather than doing them in stages.

In our research, we considered *growth options* in light of sequels following a successful original movie, as well as *abandonment options,* in the context of advertisement spending, indicating whether and how much to continue to back a movie based on such information as opening box-office receipts and tracking data. In this blog post, I focus on the growth option related to sequels.

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A sequel presents an investment option for a later time, based on an assessment of the original movie's success. Sequels present lower risk for the studios because moviegoers are familiar with the original movie's characters and context. Unsurprisingly, then, many of the recent box-office hits were sequels, *Jurassic World* chief among them. This latest iteration of the *Jurassic* brand broke box-office records during its opening weekend, taking in \$209 million in America and becoming the first release to surpass \$500 million in total in a single weekend worldwide. The movie went on to eventually gross over \$1.5 billion worldwide, over 10 times its cost.

We had two key findings in our study. We first compared sequels with single originals (those that didn't have follow-up movies), and found that sequels earn a higher return on investment, which indicates that they are more profitable. Then we compared the two types of originals, with and without sequels. We found that studios incur higher production and marketing costs for originals they plan to follow up with sequels, compared to those that remain single movies. This result suggests that the value of a growth option in a sequel justifies higher costs for an original film. Moreover, these findings indicate that studio managers have a growth option in mind when planning the original.

This was also corroborated through interviews with industry executives, who indicated that, in today's environment, they plan the majority of their movies with growth potential in mind. Of course, what we would have liked to observe, but couldn't, is originals for which a sequel was planned but never came out; i.e., cases in which the sequel was an unexercised real option. If these originals, too, have higher production and marketing costs, then that would further strengthen our inferences.

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thinking consistent with our study's findings. Given its box-office success, and Director Colin Trevorrow's hint that *Jurassic World* had "left story possibilities open" that might allow the dinosaur drama to play out in locations other than on an island, I bet that there will be another one.

But what would be interesting, too, is to see sequels to our study, and not just related to motion pictures, as I reckon real-options approaches are a valuable tool that can be just as pertinently applied to capital investment decisions in a variety of settings — such as the pharmaceutical industry, to name one — that demand massive investments under huge uncertainty.

* See also Using real options to make decisions in the motion picture industry.

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