Nearly 40 years ago, a great white dorsal fin sliced through American cinemas with its ominous, minor-second-interval leitmotif, and a new business model was born. “Jaws,” which cost $7 million to make, was deemed a good fit for a June release in 1975 partly because it took place at a beach around Independence Day. But its extraordinary success — the movie went on to earn $471 million at box offices worldwide — subsequently helped
spawn Hollywood’s now-conventional wisdom that if you’re going to make a blockbuster, then summer, when kids are out of school and people are in search of industrial-strength air-conditioning, is the best time to release it. After “Star Wars” became a huge hit two summers later, all the big studios seemed to take notice.

In the years since, those studios have crammed more man-eating marine life, aliens, pirates, superheroes, robots, dinosaurs and car chases (and their exploding iterations) into an increasingly crowded season. A decade ago, there were 22 films that each ran on 3,000 screens during the summer. This year, there were 31, the most ever. A lot of them, however, bombed. “R.I.P.D.,” “Turbo,” “Lone Ranger,” “Pacific Rim” and “White House Down” all cost more than $100 million, only to tank at the domestic box office. After a bit of soul searching, several explanations have been suggested — Ryan Reynolds’s inability to open a movie, why anyone would want to see the “Lone Ranger” in 2013 and so forth. But a number of economists are coming around to a more unsettling idea: The summer-blockbuster strategy itself may have tanked.

From an economics perspective, this summer schedule is baffling. The studios are choosing to release all of their big films precisely when they know their competitors are doing the same thing. “There’s rational behavior and there’s, well, other behavior,” says Peter Broderick, a film-distribution strategist who runs Paradigm Consulting. “Decision-making in Hollywood, perhaps more than anywhere else, is driven by conventional wisdom and inertia and a whole lot of things that are more complicated than just being rational.”

There are three main reasons big studios may not be behaving optimally. The first has to do with a poor understanding of statistics. Movie executives see that box-office revenues have been higher in the summer and conclude that there is something inflationary about a summertime release. Yet this thinking is inherently flawed. The summer was never actually as profitable as it seemed. The official season, which lasts about a third of the year (at least the way Hollywood divides the calendar), generates around 40 percent of annual ticket sales. Furthermore, box-office revenue may be higher in the summer precisely because that’s when studios have chosen to release their most popular movies. The expected box-office appeal of the film may be driving the release date, in other words, rather than the release date enhancing the box-office performance.

Economists refer to this chicken-and-egg problem, in which cause and effect become entangled, as “endogeneity.” It’s a problem that muddies all sorts of statistical analysis when you don’t have controlled experiments. (Does higher campaign spending win elections, for
instance, or does the more popular candidate simply attract more financing?) Liran Einav, an economist at Stanford University, has developed a model that tried to get rid of this endogeneity problem by figuring out a way to control for film quality, which he defined as mass appeal, not Oscar-worthiness. Einav concluded that there was indeed a bigger audience available in the summer; but even so, he determined, a large portion of the seasonal swings in box-office revenue comes from the fact that the biggest crowd-pleasers (“Shrek,” “X-Men,” “Jurassic Park”) are reliably released on the same handful of weekends each year. In the five decades leading up to “Jaws,” the year’s top-grossing movie was released in the summer only 20 percent of the time. In the decades since, the figure shot up to 63 percent. In the last decade, it has been 80 percent.

Why do studios chase an ever-diminishing share of what is only a slightly larger market? It probably has to do with overconfidence. Economists tend to think that companies trade off between larger customer demand and competition, but Hollywood studios behave as if the competition doesn’t actually exist. Studios, Einav told me, probably have a systemic tendency to overestimate how well their own films will do relative to competitors’. “When a studio green-lights a big blockbuster movie, they’re expecting it to work,” said Peter Schlessel, the former president of Columbia Pictures, and currently the chief executive of FilmDistrict, an independent distribution company. “By definition they’re not expecting it to not work.” To some extent that overconfidence can be wielded strategically. Studios claim release dates years in advance in the hope that their rivals will cede the weekend, a tactic economists call deterring entry. Columbia Pictures, for example, is opening “The Amazing Spider-Man 2” on May 2, 2014. That’s followed by “The Amazing Spider-Man 3” on June 10, 2016; and finally “The Amazing Spider-Man 4” on May 4, 2018.

Yet many industry experts say that the ubiquitous decisions to release tent poles in the summer is merely the sign of an incredibly risk-averse industry. “The worst possible scenario,” says Ricard Gil, an economist at the Carey Business School at Johns Hopkins University, “is trying to be a maverick and change the strategy in the industry with a big-budget studio release in the middle of March, and no one actually comes that weekend.” After all, executives at Universal didn’t spend $130 million making “R.I.P.D.” to test a hypothesis and learn from their mistakes.

The instinct to retrench and overemphasize strategies that have worked in the past is a common problem in companies as they get bigger and have more to lose, particularly as technologies change. Polaroid and BlackBerry doubled down on their time-tested formulas despite market changes, suggesting that this behavior can undermine even the most
successful companies. “The more successful and larger they become, the more antibodies they develop to doing anything new,” said Alan MacCormack, a Harvard Business School professor. And this may explain why summer 2015 will see sequels in the franchises for “Batman,” “Superman,” “Avengers,” “Terminator,” “Independence Day,” “Pirates of the Caribbean” and “Smurfs.”

Because persuading an industry’s largest companies to experiment is challenging, smaller and more entrepreneurial companies are usually tasked with figuring out the next-generation business model. Some smaller motion-picture companies, like Magnolia Pictures, have tried innovative things like allowing consumers to watch a film on-demand before it’s released in theaters. Last year, Lionsgate released “The Hunger Games,” which cost $78 million to produce, in March. Lionsgate wouldn’t comment for this column, but analysts speculate that executives saw an opportunity to appeal to (and potentially capture large numbers of) the relatively neglected moviegoers of an uncrowded spring. The movie, it turns out, grossed $408 million domestically. That’s better than all but one of the eight “Harry Potter” movies, in inflation-adjusted terms, even though each of those was released in either the summer or holiday seasons.

But the success of “The Hunger Games” is not likely to transform Hollywood game theory just yet. The release timing for the three coming sequels to “The Hunger Games” is late November 2013, late November 2014 and late November 2015. That’s timed to coincide with the start of the holiday film season — the other saturated release period — in what has become known in the industry as “the ‘Twilight’ slot.” Lionsgate, however, is still holding onto that previously snubbed March weekend. Next year it will release the first of what it hopes will be the next big teenage dystopian franchise, “Divergent.” Wild cards are for experimenting with; the established blockbusters, it seems, still are not.

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