

The Stocking Exchange HOW TO NET SOME PRESENT VALUE



Every year, a sleighload of hard-earned cash is spent on Christmas gifts worldwide. Some presents are just that – for the present, then forgotten. Others seem to re-appear at the bottom of the tree again and again. But could there be a third set – gathering dust in the attic, at the back of your bedroom cupboard – that might prove altogether more lucrative? Can the presents of Christmas past provide a profit to those who hang on to them? And which of 2016's must-haves are most likely to represent a shrewd investment?

To unwrap the truth, Frontier's elves have collected information on more than 100 of the best-selling Christmas presents of the last 70 years. Combining data on original prices with current market values (based on the average of the top three sold listings on eBay), we have calculated the implied compound annual growth rate ('CAGR') in the value of each present.



As the chart above shows, some presents have been shooting stars. The 1990 *Teenage Mutant Ninja Turtle* figurine, for example, has achieved an impressive CAGR of 11% – higher than that of the DAX since its launch in 1988, almost twice as high as that achieved by the FTSE 100 since its launch

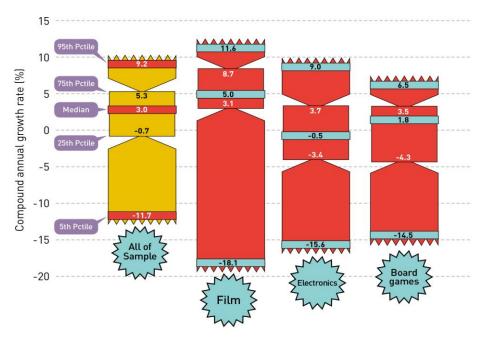
December 2016 frontier economics

in 1984, and almost three times as much as gold over the same period. Other toys, however, have done nothing more than go down the slopes...

STOCKINGS OR STOCKS?

So are Christmas presents an investor's dream? Well, they're certainly not a safe bet: plenty have flopped, too. For example, a 1999 edition of the board game version of *Who wants to be a Millionaire?* would now fetch about £4 (\in 4.76) according to our sample – significantly less than the £23.78 (\in 28.30) it would have cost originally. Those who really wanted to be a millionaire would have done better to choose a different present.

However, the canny investor-shopper should take heart. It is possible to detect certain patterns in the value performance of different types of present. The Christmas crackers below show the distribution of the growth rates seen in our sample for different categories of toys.



Let's take a closer look.

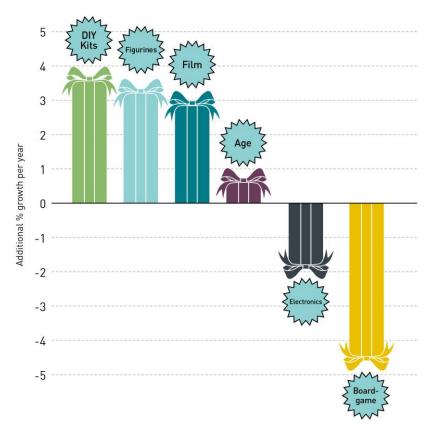
- Films. Not bad. Many of the presents achieving the highest growth rates in our sample spring from popular movies, which appear to grant a lasting appeal to associated gifts. Nostalgia for Christmas Past? Or the skilful working of popular franchises Star Wars, Teenage Mutant Ninja Turtles or Ghostbusters with high-profile re-releases? It's important to work out where the magic lies, because a number of film-related presents have lost more than 15% of their value each year.
- Electronics. Instant gratification, but bye-bye value. Gifts involving electronics whether battery-operated or plugged in usually lose value fast, as they are overtaken by faster and better alternatives. For a stark illustration, look no further than the pocketsize present. The *Tomy Talking Tutor* in 1991 was capable of asking a series of multi-choice questions. By 1997 the *Tamagotchi* an interactive handheld pet took its first digital breath and provided the next level of interaction. Less than ten years later, the fully walking, talking humanoid *Robosapien* had appeared under the Christmas tree. Something better is never far around the corner. A few electronics will make it into the nostalgia "safe haven", or (like antique camera) become collectables in their own right, but most are headed for the non-biodegradable scrap-heap.
- Board games. A poorly performing category. However useful they are on dark Christmas evenings, particularly to parents trying to drag their children away from social media, they don't seem to have gained value. Demand for board formats has remained resilient in the face of competition from video games. But the market's just too crowded. Many of the classic games of yesteryear Monopoly, even Trivial Pursuits are still produced in very similar formats today, leading to an abundance of supply.

December 2016 frontier economics

But these conclusions are based on simple correlations between category and value. Do they still hold true when we control for other characteristics? For example, film-branded presents are often figurines or models, items which seem to have held their value relatively well. Does this explain why film-branded presents have outperformed electronics or board games?

HOW TO NET SOME PRESENT VALUE

Frontier's tinselled technologists have had a go at analysing the links between combinations of present characteristics and value performance. The chart below shows the results of our Christmas econometrics. In brief: the best value-holding present would appear to have been a film-character figurine, preferably in kit form, and certainly not electronic.



We found that if a present was a kit, a figurine or film-based, its value tended to increase by a CAGR of between 2 and 3.5 percentage points higher than otherwise. The combined effect of these characteristics is a growth rate not to be sniffed at, particularly when you consider that the equivalent growth rate of the FTSE 100 since launch in 1984 has been about 6%.

In contrast, board games and electronics-based presents were associated with lower annual growth rates (the annual drag on CAGR was 5 percentage points and 2 percentage points respectively). An electronic board game, in short, appears unlikely to deliver more than a good night in.

UP WITH THE ATTIC

A key result of our analysis is the indication that the value of presents accelerates as they get older. For every extra year a present ages, the CAGR over its lifetime seems to be about half a percentage point higher. So those now grown-up children who just won't throw away *My Little Pony* or those ankle-breaking *Star Wars* figurines may not be so stupid, after all.

Perhaps as interesting were the characteristics which *didn't* appear to have an effect on the future value of presents. These included the following.

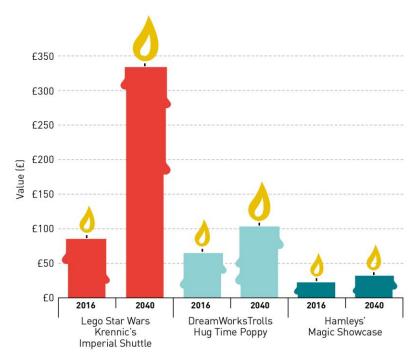
TV shows. In contrast to the success of film-related toys, we found that having a link to a TV show had no impact on the future value of a present. Historically, the big screen seems to have trumped the small when it comes to securing future value.

December 2016 frontier economics

Size. We found that there is no statistically significant relationship between the size of the present and its future value. So while good things may come in small packages, good investments come in all shapes and sizes.

WHAT SHOULD I BUY THIS YEAR?

Pause for the all-important legal warning: we must point out that these predictions really, really don't constitute investment advice – or any advice at all for that matter; you're on your own here, parents. But just for fun, we applied our estimated factors to the list the famous toy retailer, Hamleys, has compiled of the presents it expects to be most popular this Christmas, and projected their values through to 2040. The list of the top 10 included a wide range of toys from children's smart watches to a *Star Wars Lego* model, via *Nerf Mega Blasters* and magic kits. The chart below sheds some light on their value as investments, showing the 2040 values predicted by our model for the predicted top 3 risers…



Overall, the predictions don't give a lot of Christmas joy – whereas a $Lego\ Star\ Wars\$ kit comes out of our fantasy model worth more than £300 (€345) by 2040 (up from a current retail price of £80 (€92)), no other present can hold a candle to its predicted growth. Indeed, all of the other seven gifts in Hamleys' top 10 are predicted to fall in value, most by more than half. Moreover, it's also very possible that our modelling results are skewed by current market trends – notably, the success of historic film-based presents in our sample may be driven by recent high-profile franchise returns (such as $Star\ Wars$ and Ghostbusters), and this category may lose its lustre in the future. Which doesn't leave you which much of a future-proofing choice.

So what to do? Well, here's a thought. Write off the toy story: choose something more traditional. And to spur your generosity, here's some encouraging data:

- gold has achieved a CAGR of 4% since 1984; and
- although frankincense and myrrh are no longer the market benchmarks they once were, the price of perfumes has increased by a respectable 2% CAGR over the same period.

So perhaps the oldest presents of all in the Christmas tradition will still offer better long-term value than another plastic gargoyle.

The Elves



+44 (0)20 7031 7000.



the.elves@frontier-economics.com