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Lego investment returns match art, wine: economists

By Patrick Hoff
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Average annual returns for Lego sets are comparable to those of fine art, wine and stamps, according to a group of U.K. researchers, potentially making the multigenerational construction toys a relatively safe alternative asset class for investors.

The paper, published in November in the *Journal of Risk Finance*, analyzes sales of Lego sets on the secondary market, a previously under-studied market, within a six-month period, cataloging approximately 90,000 sales worth a total of $7.5 million across 95 countries.

Savva Shanaev, a graduate tutor at Northumbria University in Newcastle upon Tyne, England, and co-author of the research, was finishing his Ph.D. thesis on fringe alternative investment markets when an undergraduate student approached him about studying the secondary market for Legos.

The main thing he looks for in his research, Shanaev said, is matching well-established patterns from traditional asset classes such as stocks to alternative investment classes such as cryptocurrency and Lego sets.

“But there are a lot of skeptics around that, who think that those are just artifacts of data mining or just weird blips in the data,” Shanaev said. “So my idea and my general contribution to the literature … is to try to spot these anomalies and irregularities on fringe markets no one has really investigated before."

Most of the data used by researchers came from Brickset, a database of every known Lego set that includes year of launch, piece count, initial retail price and dimensions, and BrickLink, a widely known secondary marketplace for Legos. This dataset included 10,588 Lego sets launched between 1966 and 2018, and 90,000 transactions across 95 countries between September 2018 and March 2019.

Previous research, published in 2018, found that Lego sets enjoy an 8% average annual return, but Shanaev and his colleagues found that this result was inflated by survivorship bias, or examining only sets that are actively traded while ignoring thousands of others, and using equal-weighted portfolios instead of value-weighted portfolios in the methodology.

The real average annual return is 2.85% — in line with the annual return of wine, which is 2%, and slightly above the average annual return of stamps, which is 2%. The median annual return of fine art is 2.6%.

Certain categories of sets far exceeded this average: collectible mini figures, for example, have a 29.56% value-weighted average annual return, with 24 of the 31 sets launched currently trading on the secondary market. Some sets based on another company's intellectual property — such as Harry Potter, Indiana Jones and Pirates of the Caribbean — also have a value-weighted average annual return above 9%, though other intellectual property categories, such as Star Wars, are not as lucky.

Though Lego has several direct competitors — with Mega Brands' Mega Bloks among the most noteworthy — Shanaev said that several aspects of Lego's business model make its toys ripe for a secondary market.

First, each Lego set has an identifiable set number on each box, making it easy to research characteristics about each set. Additionally, Lego releases each set for a limited time, and rather than refurbishing old sets, the company releases new designs of popular products, meaning that a Lego Hogwarts Castle from the early 2000s is a different product than the similarly named set being sold now.

All of this, Shanaev said, helps Lego sets appreciate in value and makes them difficult to forge.

"The risk of forgery is one of the major risks in alternative investments that can actually shake the whole market down," he said. "It's been researched that when there are forgeries identified on art, there are shockwaves that are propelled throughout the market overall."

The barriers to entry for investing in Lego sets are also relatively low, with some sets available for less than $10.

"It makes you wonder what could have been if you were more disciplined as a kid," Shanaev said.

Beyond Legos, Shanaev said his research also confirms previous theories about alternative asset markets, such as survivorship bias; local bias, which refers to the tendency of investors to invest mainly in domestic assets despite any benefits of diversifying into foreign equities; and the small firm effect, a theory that smaller firms or those with a small market capitalization outperform larger companies. It also corrects previous misconceptions that Legos don't fit typical patterns seen in alternative asset markets.

The researchers found that more secondary-market sales of Lego sets occurred domestically than internationally in 92 out of 95 countries, confirming local bias. Though Shanaev was unable to examine small firms, his research found that smaller sets and sets with a low price-to-piece ratio saw higher returns than larger sets.

Studying the non-pecuniary utility of Legos, or the non-monetary value that investors derive from the Lego sets, also helps explain the question of why individuals and corporations invest in socially responsible ways even when it does not directly benefit them.

When you ask an investor about their Lego set collection, Shanaev said, they likely won't initially discuss the risks and returns — they'll show you the sets they've collected "and be absolutely hyped up about what they have."

In a similar way, he added, "You have findings that stocks of socially responsible companies have lower returns than stocks of socially irresponsible companies. … But it might be that investors like green stocks, and they like thinking about themselves as kind of virtuous people who invest in virtuous companies."

The study "Children's toy or grown-ups' gamble? LEGO sets as an alternative investment," published Nov. 30, 2020, in the Journal of Risk Finance, was authored by Savva Shanaev, Northumbria University; Nikita Shimkus, University of Saint Andrews; Binam Ghimire, Northumbria University; and Satish Sharma, University College Birmingham.