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MONEY ILLUSION

# 'Star Wars,' and How a Force Helps the Federal Reserve

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This is a story about “Star Wars: The Force Awakens”... and the Federal Reserve. Wait! Keep reading. Some cheap tricks are entertaining.

The movie, as of Sunday, had collected more money from American audiences than any other film in American history. In less than a month, its domestic box office receipts have totaled \$812 million.

This is a record. It is also a great example of “money illusion,” the human tendency to take nominal prices more seriously than actual value.

The new “Star Wars” is not the most successful movie in American history. Adjusting for inflation, it has

earned about half as much as the original “Star Wars” in 1977, according to Box Office Mojo. It lags even further behind the inflation-adjusted \$1.74 billion haul of the real champion, “Gone With the Wind.” (Put differently, the money earned by “Gone With the Wind” in 1939 bought almost twice as much stuff as the new movie’s receipts.)

Yet the nominal record strikes people as more interesting and important than the inflation-adjusted rankings. When I tweeted about the real rankings earlier this week, several people responded that I was a party-poopng pedant. Disney, which released the movie, is celebrating; the media is trumpeting the news; and the hullabaloo is likely to draw even more people to see “Star Wars” because, after all, everyone loves a winner.

The emphasis on nominal box-office records makes it possible for Hollywood to portray the movie business as a growth industry. Every blockbuster is bigger than the last, every summer a record-setter. The reality is that the movie industry sold about 80 million tickets during an average week in 1930, or 65 tickets for every 100 Americans. In 2015, theaters sold about 23 million tickets a week, or 7 per 100 Americans.

This emphasis on nominal records is successful because people prefer to pretend the value of money is constant. Research suggests we don’t even realize that we’re doing it.

In a 1997 study, two-thirds of respondents judged that a worker who got a 5 percent raise during a period of 4 percent inflation would be happier than a worker who got a 2 percent raise during a period of zero inflation.

And the illusion is more than a feeling. The same study asked respondents to imagine that their income and prices had both increased by 25 percent over the previous six months. Some 38 percent of respondents

said they would be less likely to buy a leather armchair that now cost \$500 rather than \$400, while 43 percent said they would be more likely to sell a desk that was now worth \$500 rather than \$400. Inflation did not change the real value of the armchair and desk, but it did change people's decisions.

(Some economists refuse to believe that people are tricked by inflation, or at least that they err on a scale sufficient to affect economic patterns. These economists prefer to believe that people behave rationally, a belief that, in a wonderful instance of irony, happens itself to be irrational.)

And now comes the part you've been waiting for: The money illusion doesn't just help Hollywood. It also helps the Federal Reserve.

People don't like inflation. They tend to regard it as a kind of theft. And the confusion caused by inflation looks like an additional downside.

But the Fed has concluded that a little inflation is a good thing. It aims to keep prices rising about 2 percent a year, and, at the moment, Fed officials are actually worried there isn't enough inflation. Prices have climbed by significantly less than 2 percent in each of the last three years.

In part, the Fed wants a little inflation simply to avoid deflation. Economists generally agree that a general decline in prices, or deflation, is more disruptive than a general increase, or inflation. Consumers delay purchases, awaiting better deals. Growth stalls, prices fall further, and it can be very hard to break the resulting cycle. Japan has been trying for two decades.

Standard measures of inflation also tend to overstate it, so avoiding deflation actually requires keeping measured inflation above zero. One reason for the bias can be technological improvement. The first iPhone

went on sale in 2007 for \$599, and the price dropped significantly soon after. The most recent iPhone went for more, but the price increase ignores the vast quality improvement. The memory in the newest iPhone is twice as large as on the original; the camera is better; the display is sharper; it has more sensors; and there are a world of apps that make it a multiuse tool.

Inflation also increases the Fed's ability to stimulate the economy by cutting borrowing costs. Let's say short-term interest rates are at 5 percent and inflation is at 2 percent when the economy falls off a cliff. If the Fed cuts rates to zero, while inflation remains at 2 percent, the cost of borrowing drops to negative 2 percent, increasing the impact of the stimulus.

But on top of all of this, it turns out that the confusion caused by inflation — the money illusion — also has some important benefits. During economic downturns, businesses are often reluctant to cut wages, delaying necessary economic adjustments, because workers hate wage cuts. Inflation helps the medicine go down. Holding nominal wages steady, or raising wages more slowly than the pace of inflation, offers a more palatable route to gradually reducing the value of those wages.

The money illusion also helps to reduce debt burdens. Sensible lenders would index contracts to inflation. Humans, focused on nominal value, generally do not, and so lenders suffer as inflation erodes promised receipts. Say a person makes \$50,000 a year and takes a \$300,000 mortgage loan. The payments would take 34 percent of pre-tax income. Now let's say inflation boosts wages 2 percent a year. After a decade, the same monthly payment would take just 28 percent of that person's monthly income. Inflation can similarly ease the burden of national debts.

And, during good times, the money illusion helps to fuel what John Maynard Keynes memorably called the "animal spirits." By inflating economic measures, it creates the appearance of greater prosperity,

encouraging people to borrow more, spend more, risk more.

It sends a clear message: Join the party, you must.

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