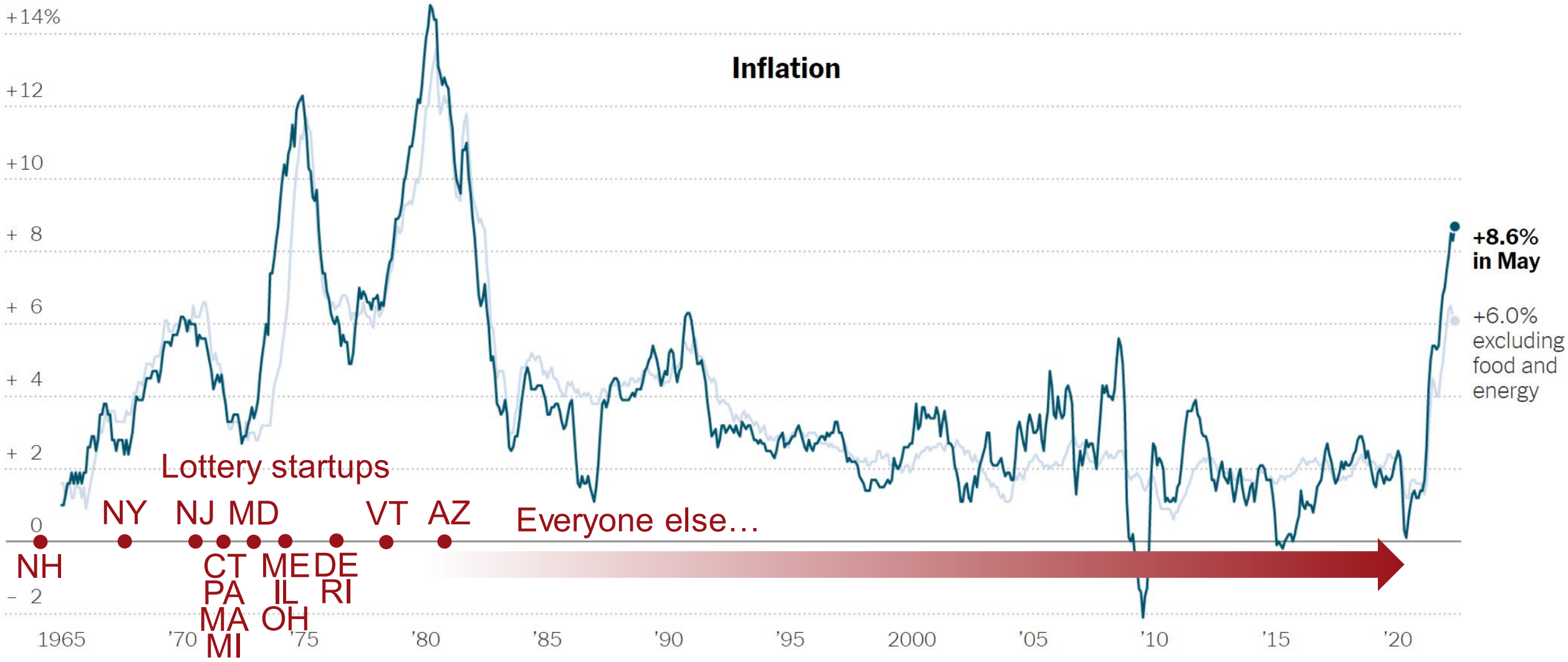
Inflation impacts on the Lottery industry

Russ Harben
Deputy Director of Operations, Arizona Lottery

Historical perspective…



Year-over-year percentage change in the Consumer Price Index • Source: Bureau of Labor Statistics • By The New York Times

Real value of a $1 ticket

Expressed in 1981 $USD



$1.00

$0.66

$0.51

$0.40

$0.31

$1.00
$0.80
$0.60
$0.40
$0.20
$0.00

1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Real value of a $1 ticket

Expressed in 2022 $USD



$3.24

$2.11

$1.65

$1.30

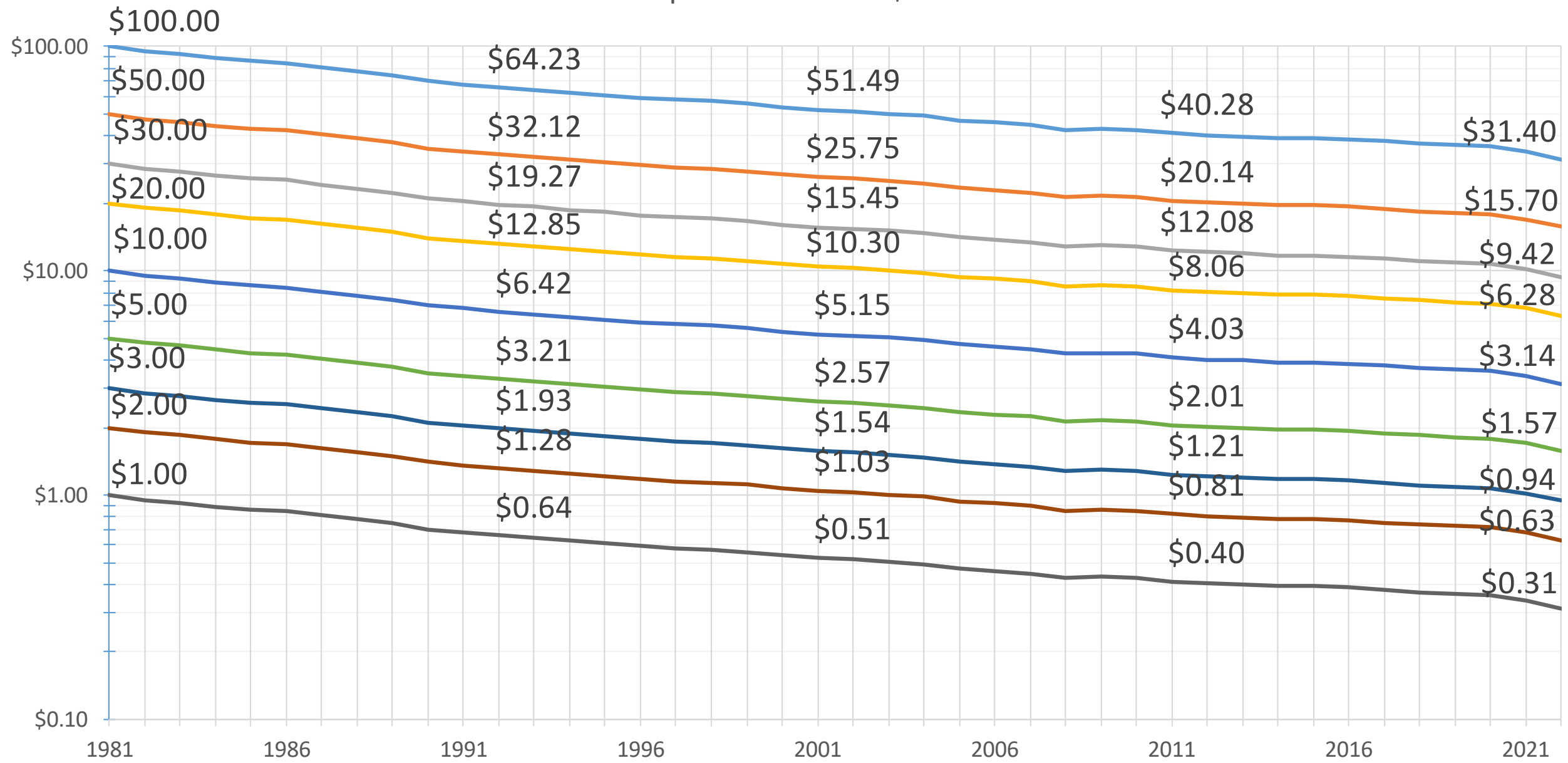
$1.00

$3.50
$3.00
$2.50
$2.00
$1.50
$1.00
$0.50
$0.00

1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

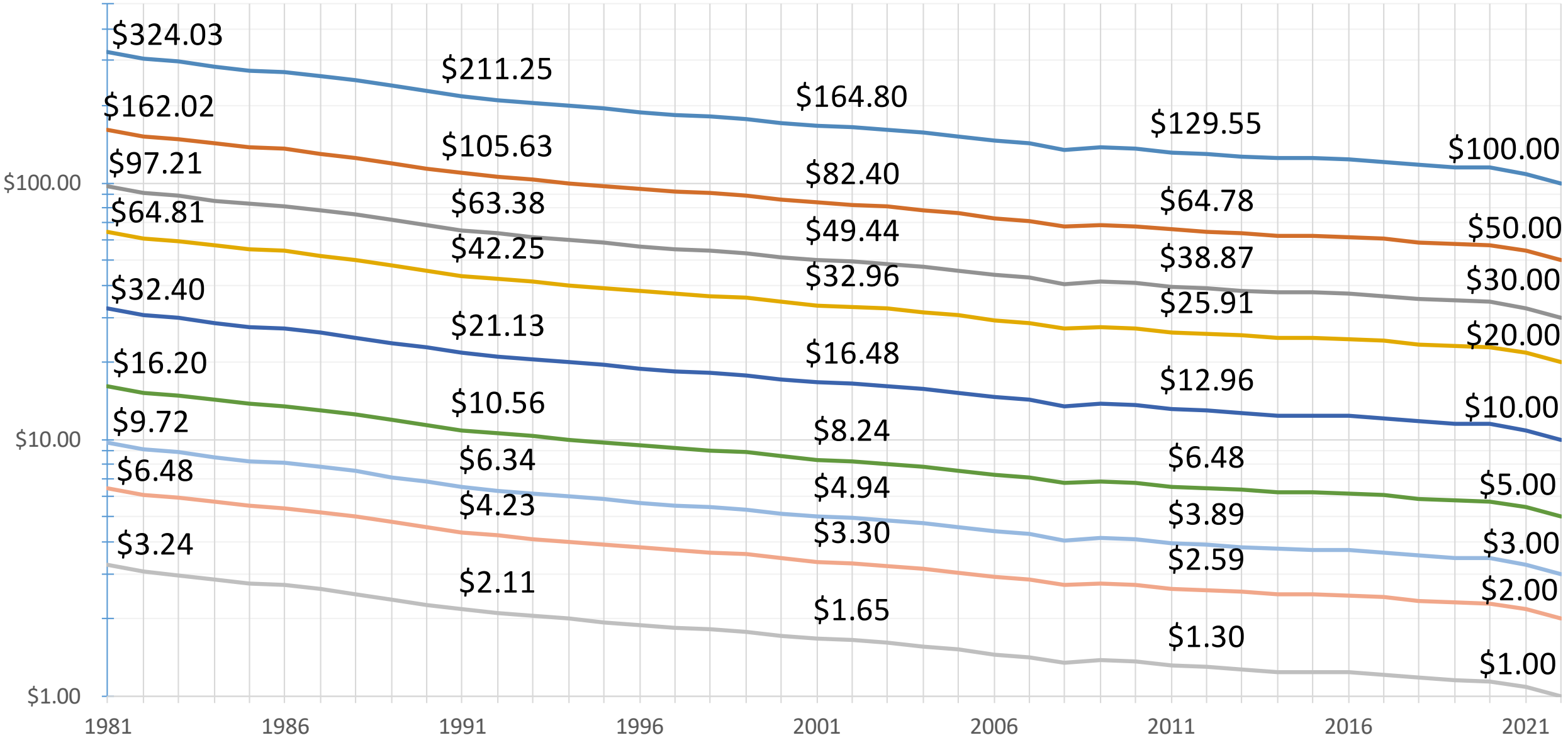
Real value of Lottery price points

Expressed in 1981 $USD



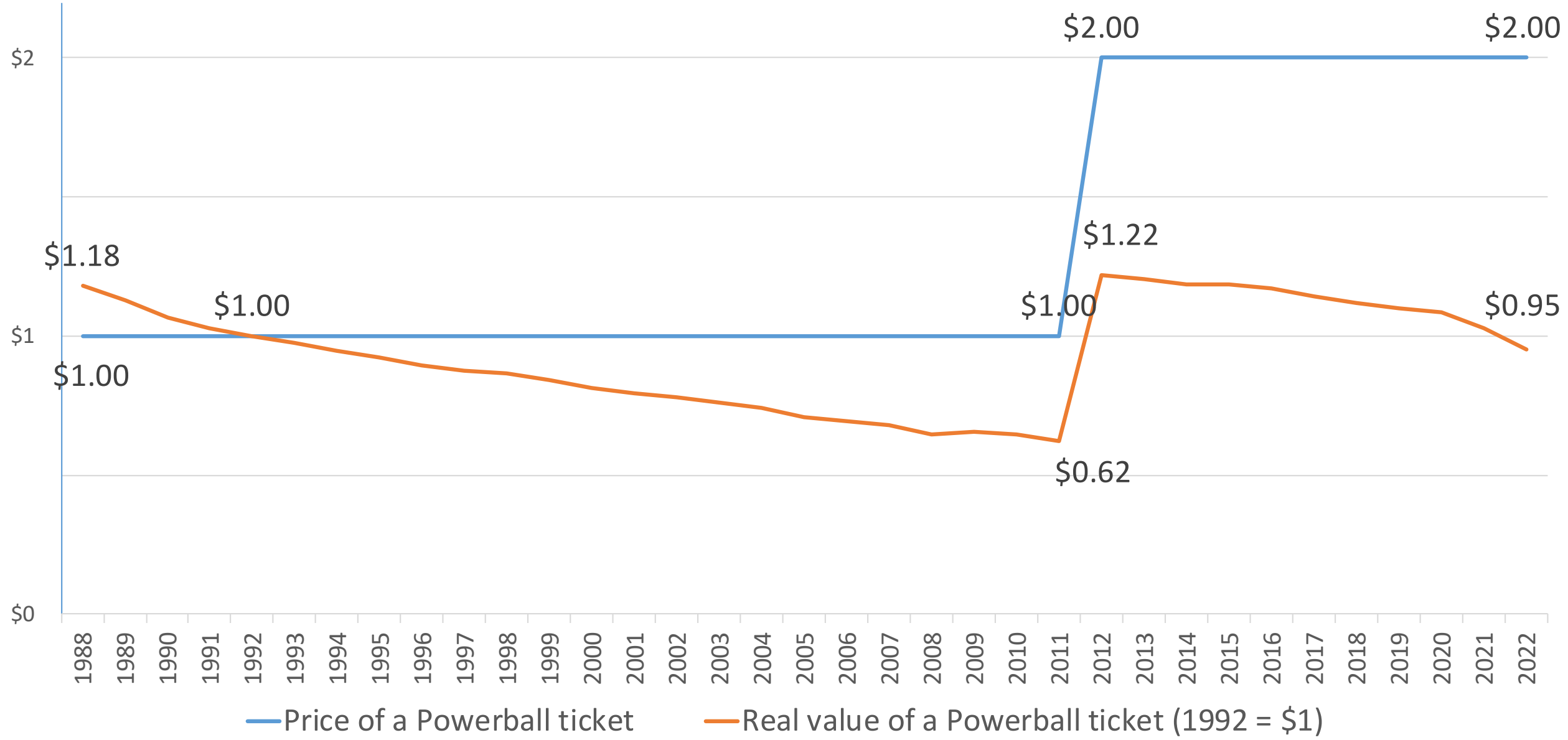
Real value of Lottery price points

Expressed in 2022 $USD



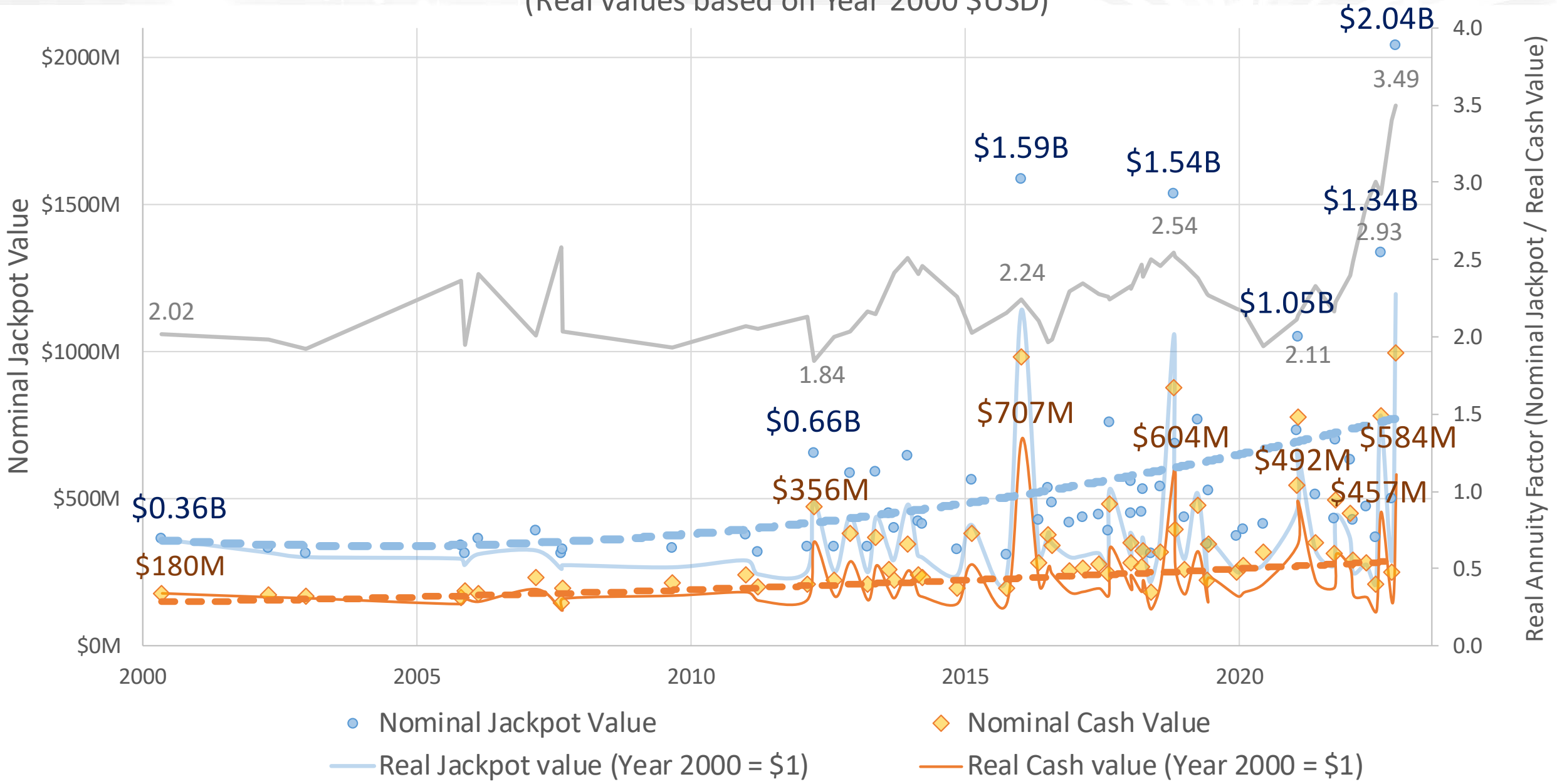
Powerball ticket price vs. real value

Expressed in 1992 $USD



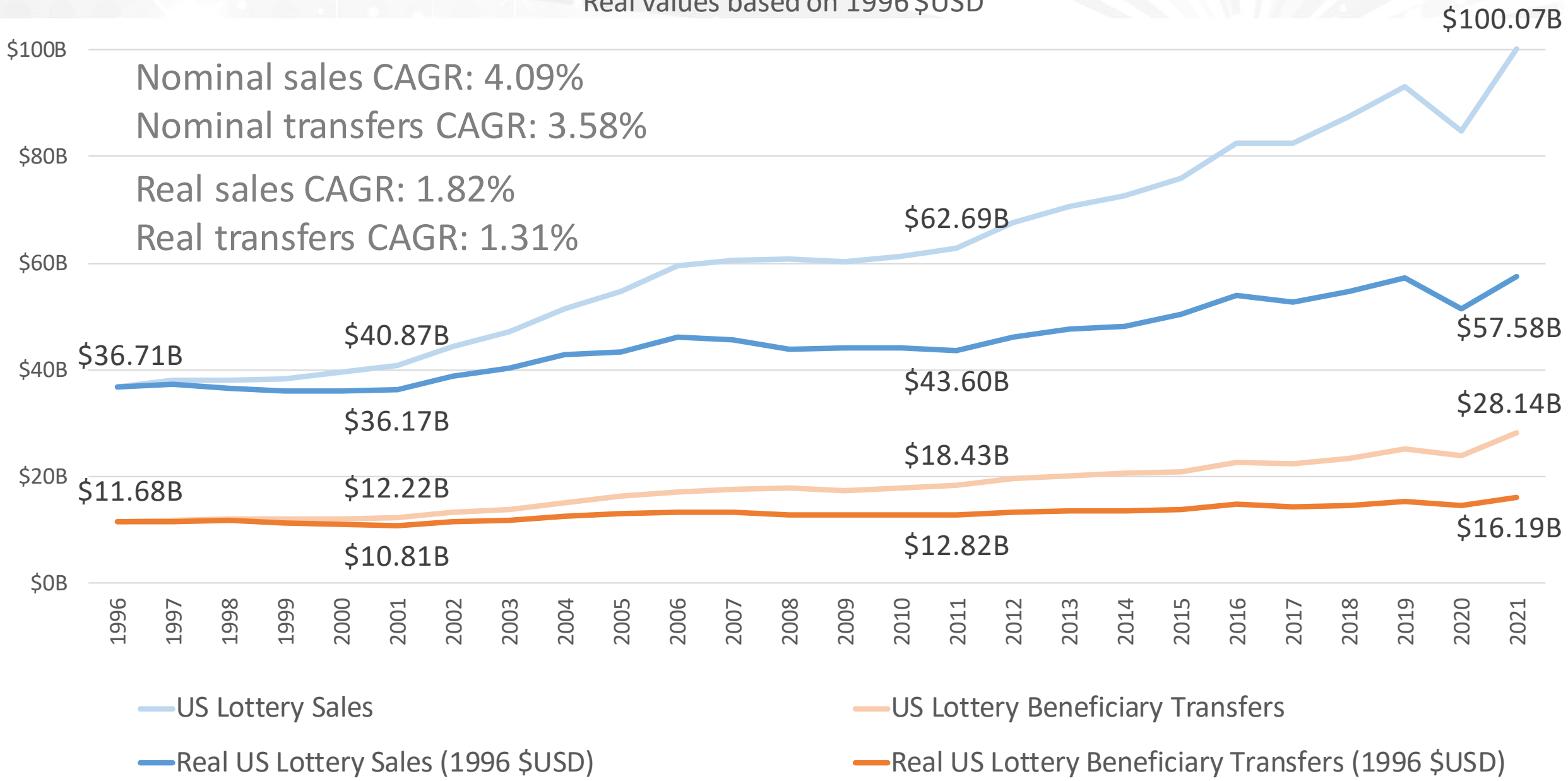
$300M+ Multi-state Jackpots Nominal vs Real Values

(Real values based on Year 2000 $USD)

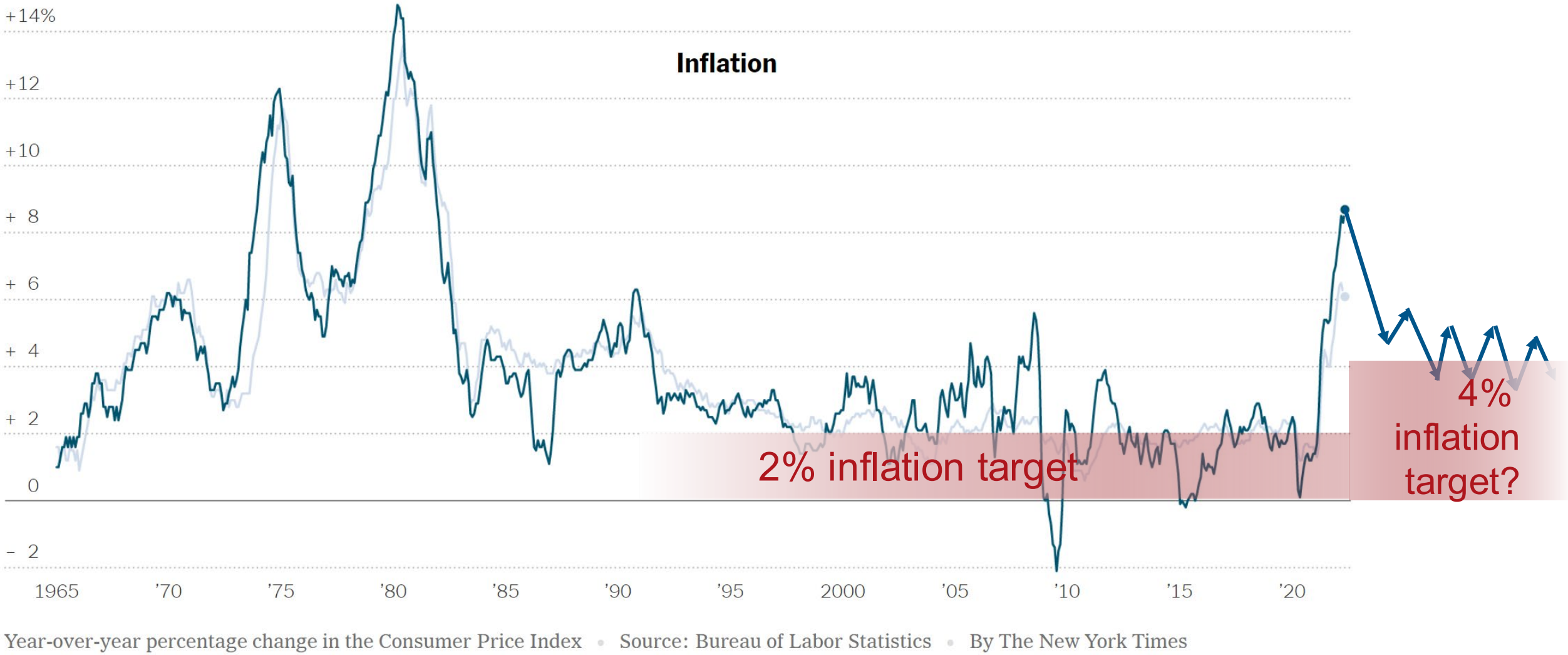


Nominal vs Real US Lottery Industry Sales + Transfer Growth

Real values based on 1996 $USD

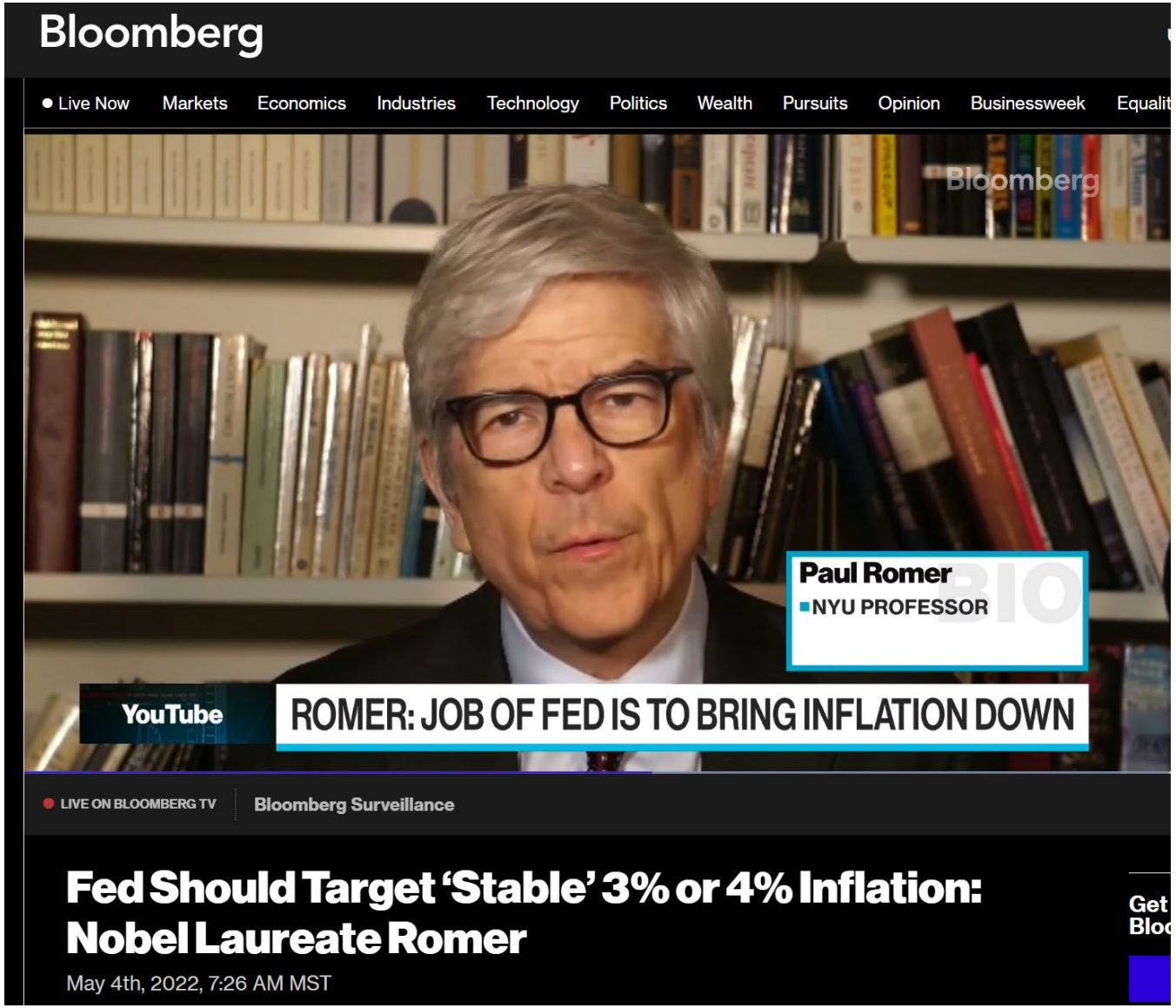


Is four percent the new two percent?



Year-over-year percentage change in the Consumer Price Index • Source: Bureau of Labor Statistics • By The New York Times

Is four percent the new two percent?



https://www.bloomberg.com/news/videos/2022-05-04/fed-should-target-stable-3-or-4-inflation-romer-video

THE CASE FOR FOUR PERCENT INFLATION

Laurence M. Ball*

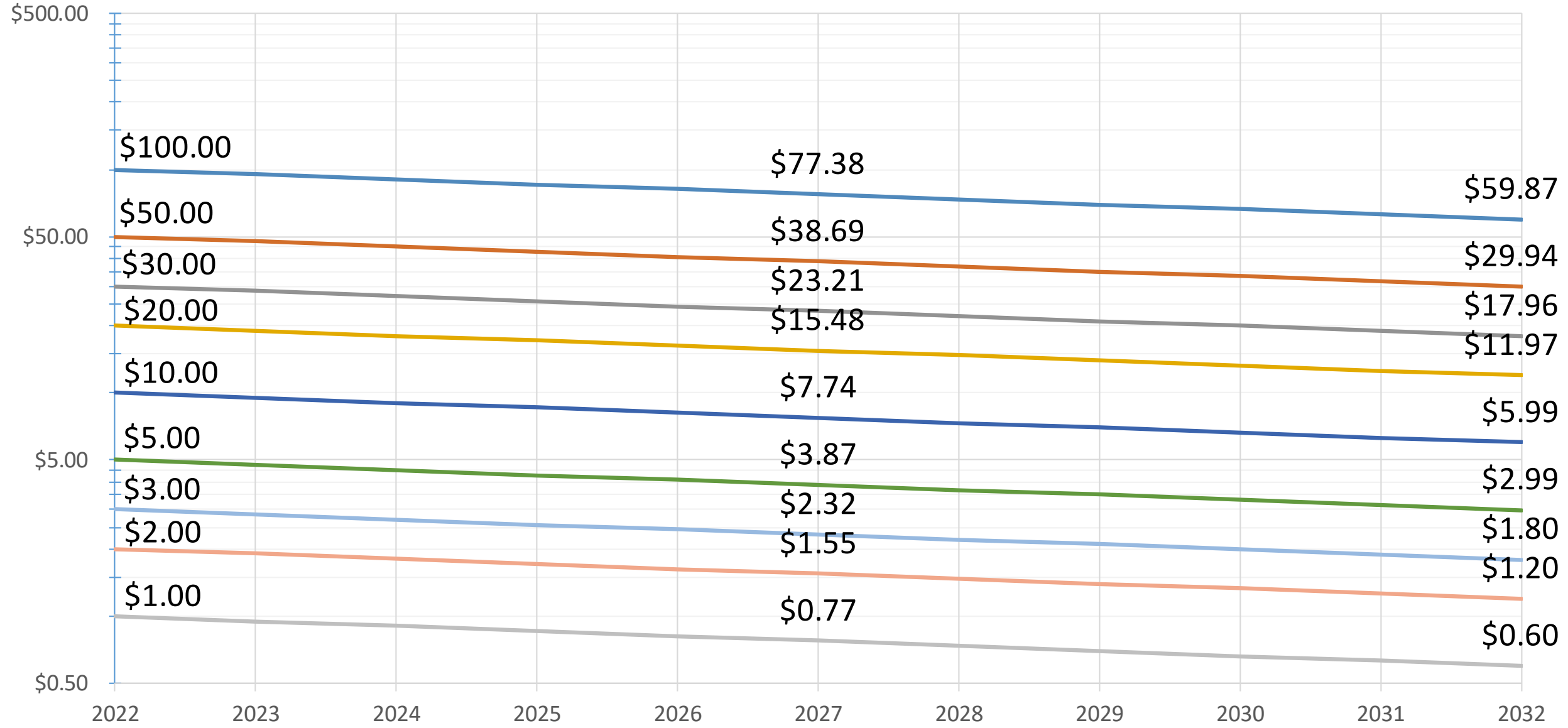
ABSTRACT Many central banks target an inflation rate near two percent. This essay argues that policymakers would do better to target four percent inflation. A four percent target would ease the constraints on monetary policy arising from the zero bound on interest rates, with the result that economic downturns would be less severe. This benefit would come at minimal cost, because four percent inflation does not harm an economy significantly.

JEL E52, E58, E31
Keywords Inflation, Monetary policy, Inflation target

http://www.econ2.jhu.edu/People/Ball/four%20percent%20inflation%20cbank.pdf

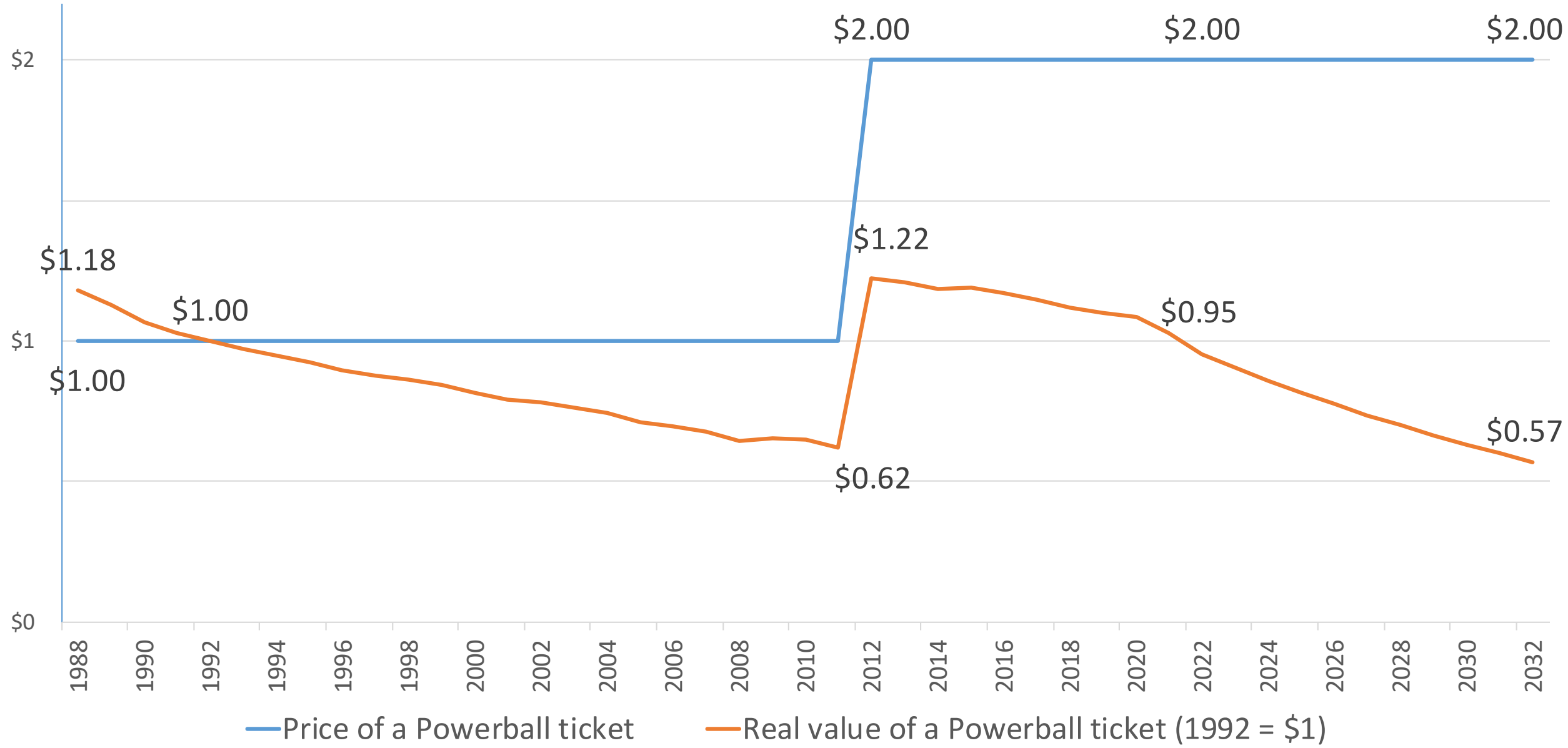
Real value of Lottery price points 2022-2032

Expressed in 2022 $USD assuming 5% inflation



Powerball ticket price vs. real value thru 2032

Expressed in 1992 $USD, assuming 5% inflation after 2022

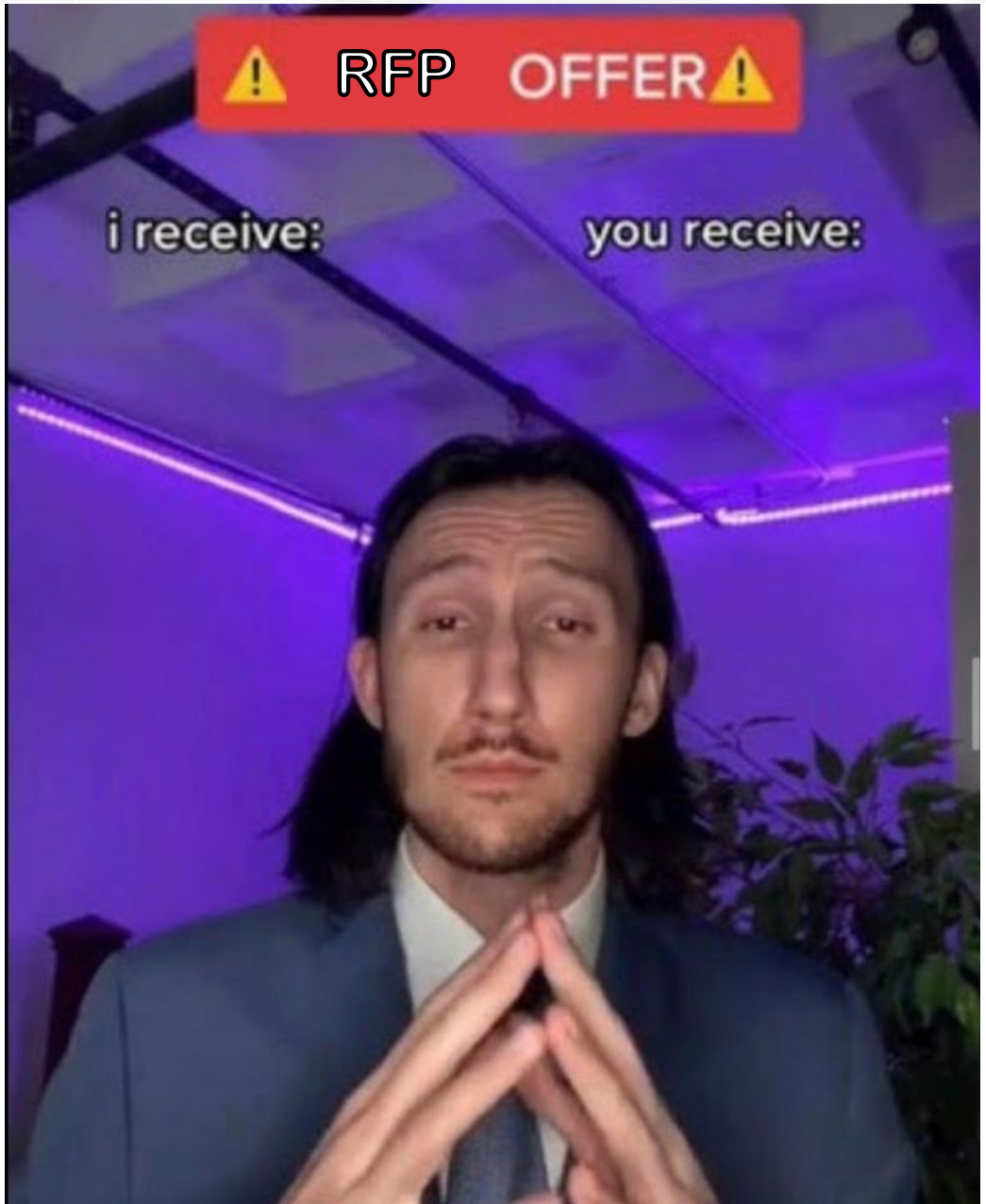



REQUEST FOR PROPOSALS
REQUEST FOR PROPOSALS
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REVISIONS

Let's Make A (RFP) Deal

Lottery receives:

- $50M of custom-built hardware & software
- $10M of annual operating expenses
- Total $150M-$200M of nominal value
- $0 down payment

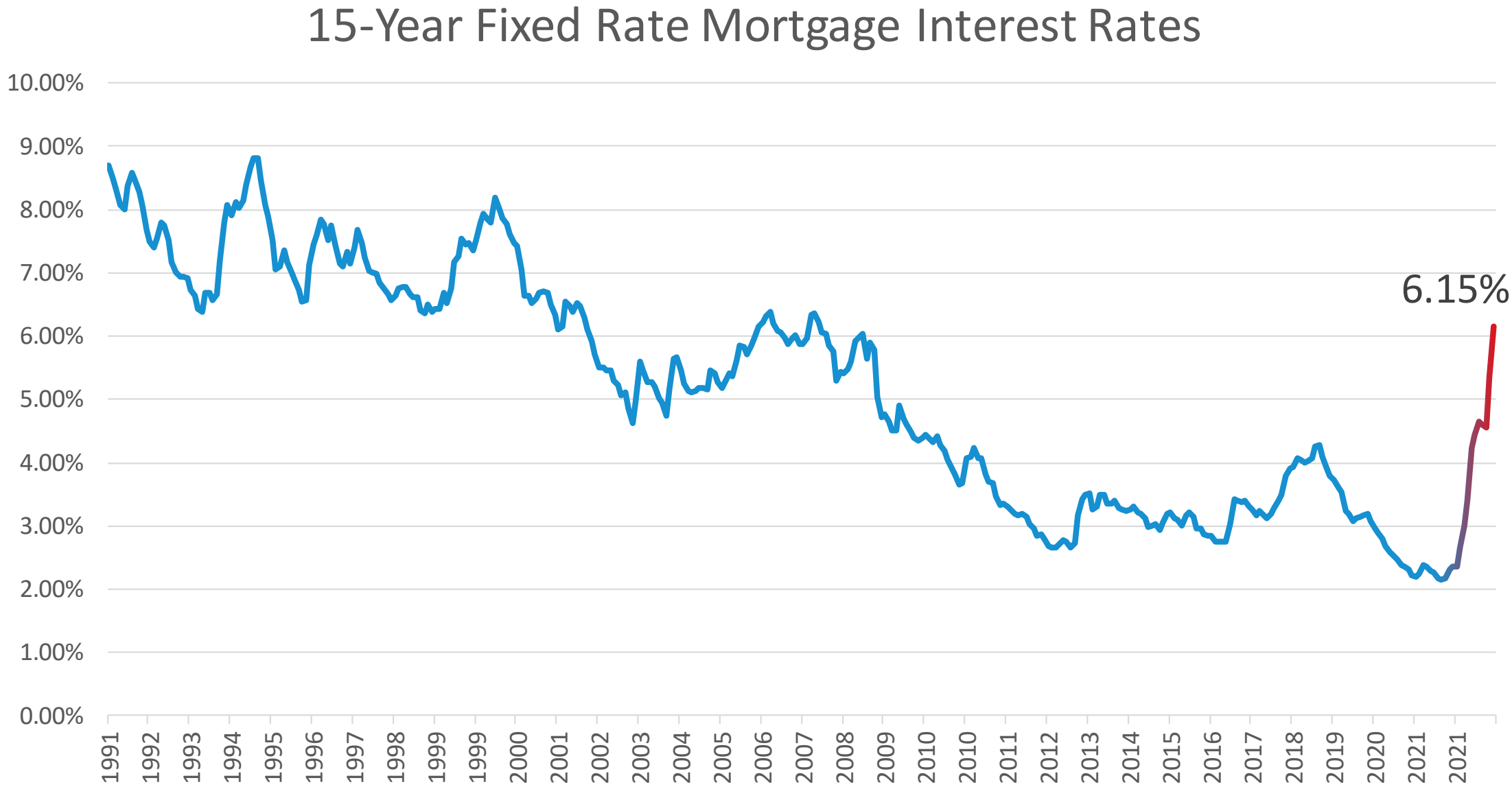


Vendor receives:

- 1-5% of gross sales revenues
- $200M-$400M in total payments over 10-15 years

Is this a good deal in an inflationary environment?

Mortgage costs as a proxy for cost of capital



Mortgage costs as a proxy for cost of capital



Let's Make A (New RFP) Deal?

Old, low-inflation RFP

- Single vendor
- Replace all physical assets at the same time
- Completely re-write all business application software
- Operate from dedicated, on-premise data centers
- Finance entire cost over 10+ years
- Pricing determined by crystal ball sales forecast and vendors' access to cheap capital

New, high-inflation RFP?

- Multi-vendor capable
- Phased asset purchases, BYOD, more commodity hardware
- Decoupled, cloud / SaaS-based business applications
- Operate from scalable, on-demand cloud platforms
- Pay-as-you-go
- Pricing based on actual usage, ongoing service / subscription model

Five lessons for an inflationary world

1. Assume higher inflation is here to stay
2. Shift to an inflationary business mindset
3. Accelerate product innovation to keep pace with inflation
4. Plan for tough choices to maintain appropriate product value
5. Be smarter about structuring contracts and capital expenses

Thank You!