

Why Housing Prices Soar Despite a COVID Recession?

Dr. Edward Yiu

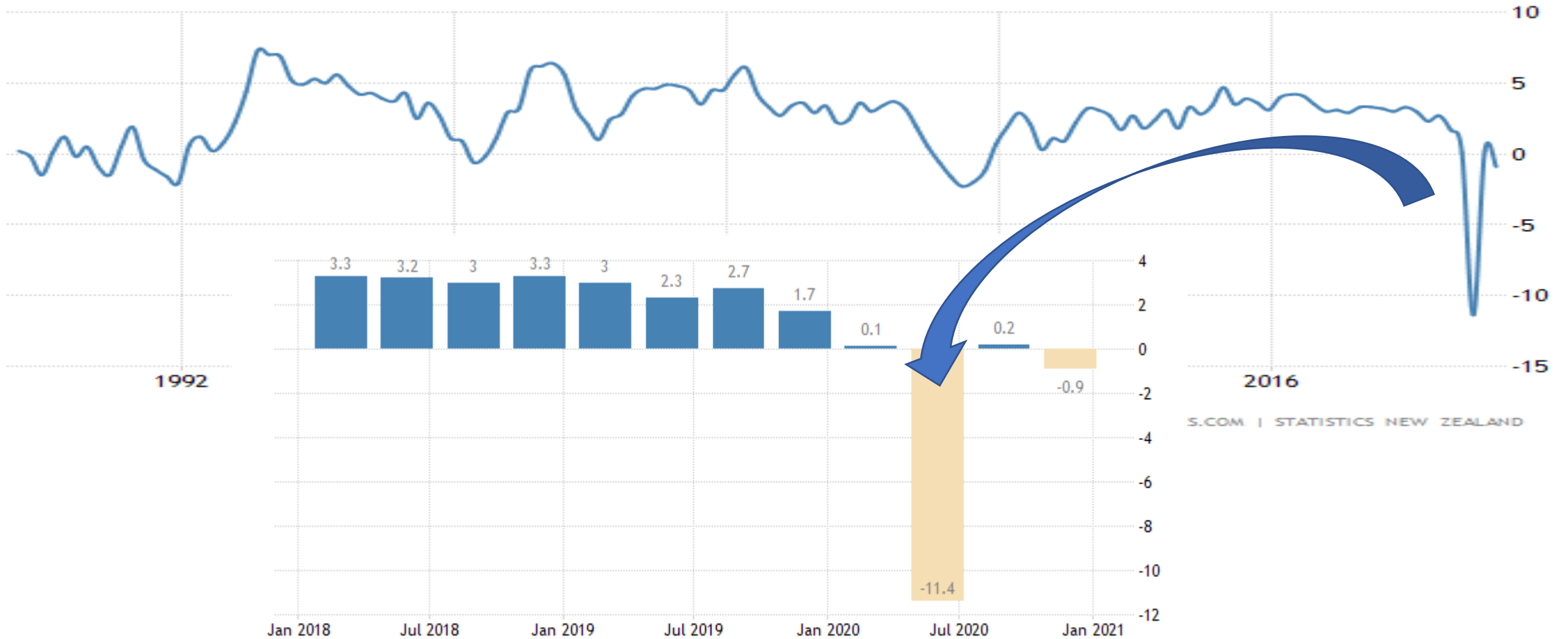
Associate Professor, University of Auckland

April 29, 2021

Full Article at <https://www.thebigq.org/tag/property/>

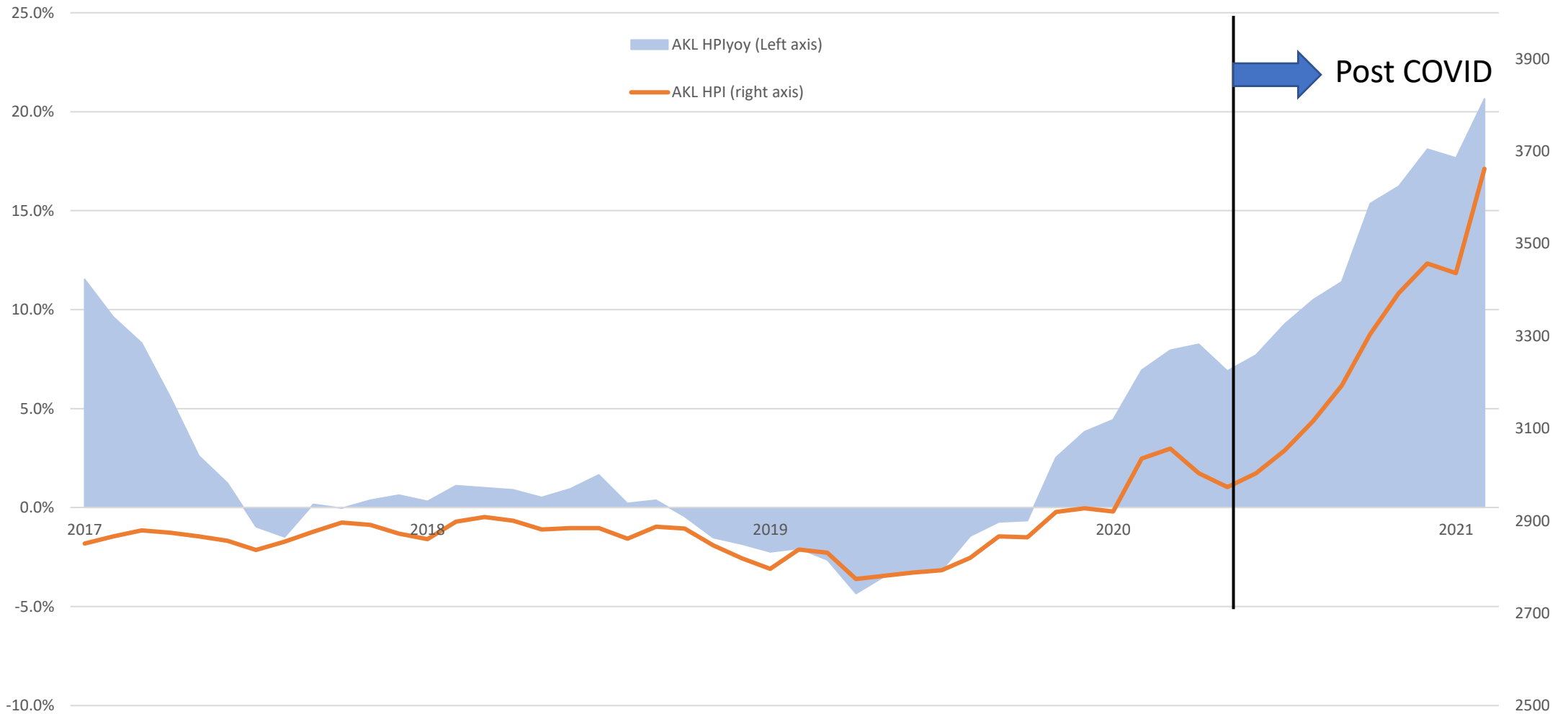
Powerpoint is available at <https://grealab.weebly.com/global-house-prices-during-covid.html>

2020: the Deepest Recession of NZ

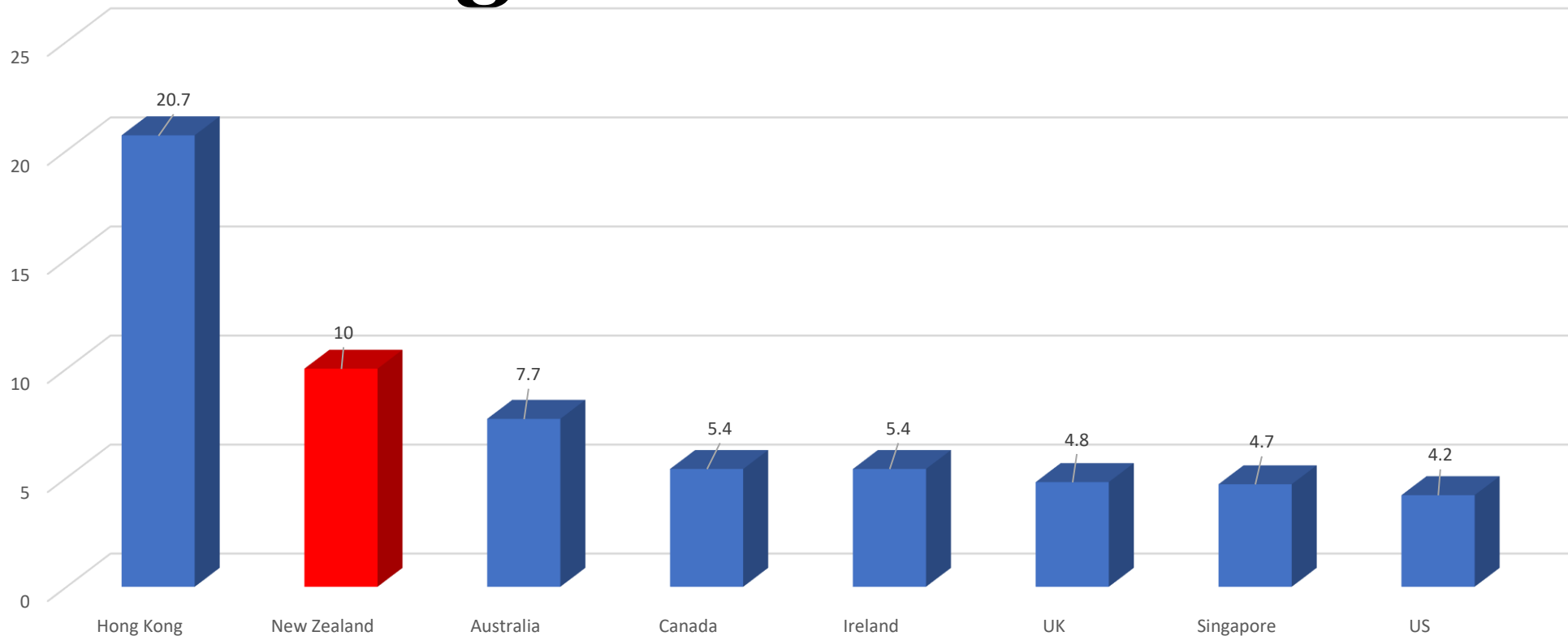


SOURCE: TRADINGECONOMICS.COM | STATISTICS NEW ZEALAND

Upsurge of NZ House Prices During COVID



NZ – the 2nd most unaffordable housing market in the world



Demographia (2021) median house price to household income ratio in 2020

Why NZ House Price Rise During COVID?

- Hypotheses:
 - Economic growth
 - No capital gain tax
 - Insufficient house supply
 - Kiwis and Migrants come back
 - Monetary policy (cut interest rate and relax mortgage restrictions)

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Exclusive: Data proves lack of supply is driving New Zealand's housing crisis

KATIE BRADFORD, 1 NEWS REPORTER
THU, FEB 4 • SOURCE: 1 NEWS

A lack of supply has long been blamed for as a key driver for our housing crisis.

SCOOOP Top Scoops

Front Page Scoops Parliament Politics Regional Business Sci-Tech

Fixing House Prices And The Limitations Of A Capital Gains Tax

Monday, 7 December 2020, 2:01 pm
Article: [Mark Rais](#)

BUSINESS

Housing boom 'past peak', prices to fall, interest rates to rise: Westpac chief economist

3 Mar, 2021 09:03 AM

4 minutes to read



Watch: The latest OneRoof Property Report shows that Auckland's "affordable" suburbs, defined as those with median house prices below the Government's \$650,000 affordable KiwiBuild mark, have dwindled to just three within city limits.



By: [Anne Gibson](#)

Property editor, NZ Herald

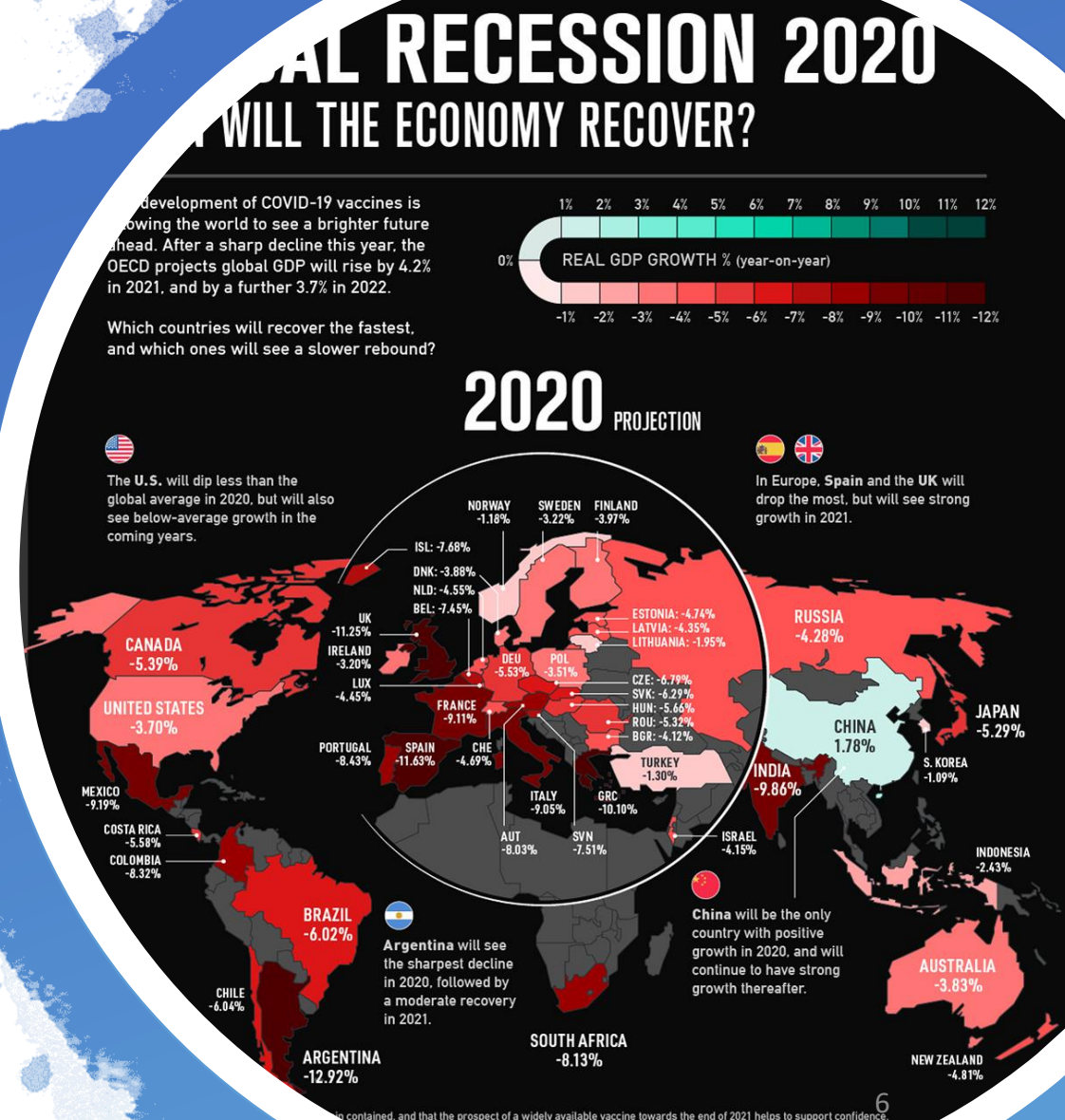
anne.gibson@nzherald.co.nz

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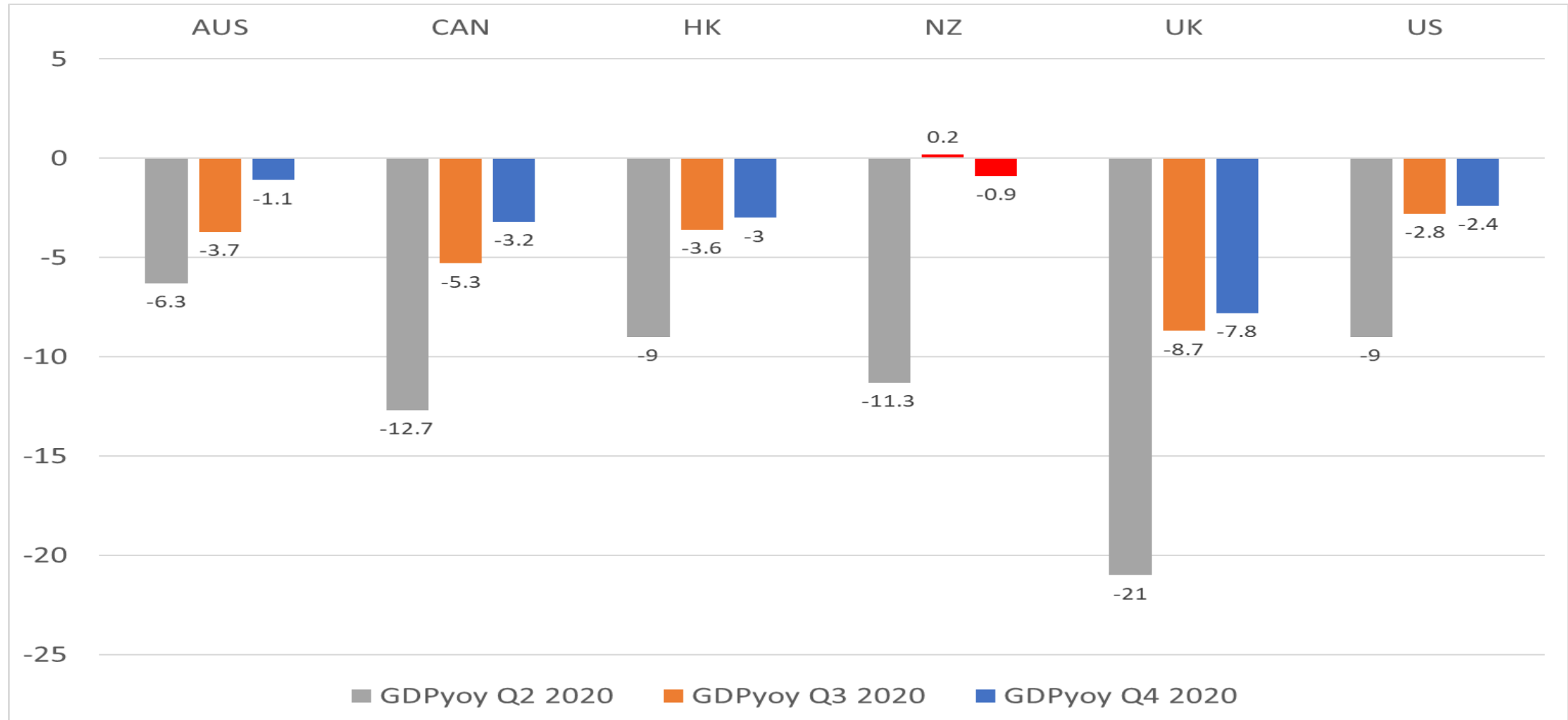


Hypothesis 1: Economic Growth?

<https://www.visualcapitalist.com/global-recession-2020-recovery/>

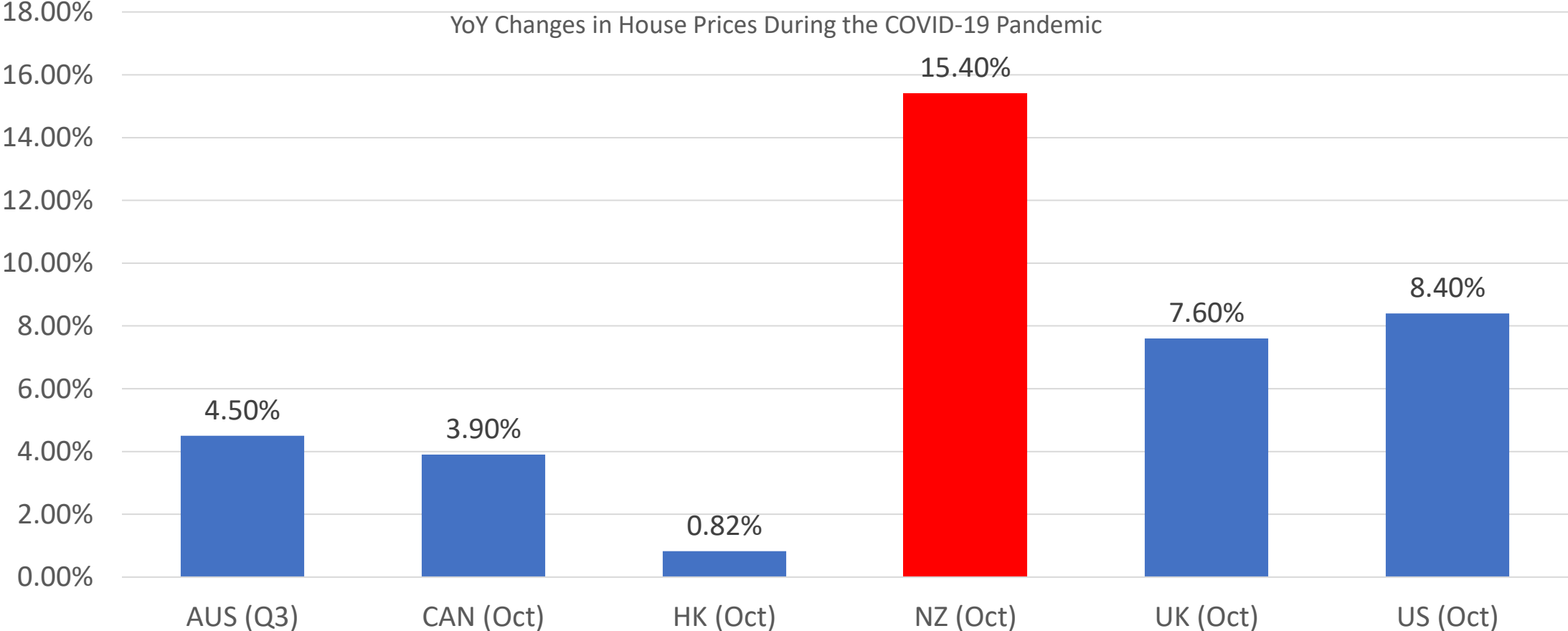


COVID Causes a Global Recession



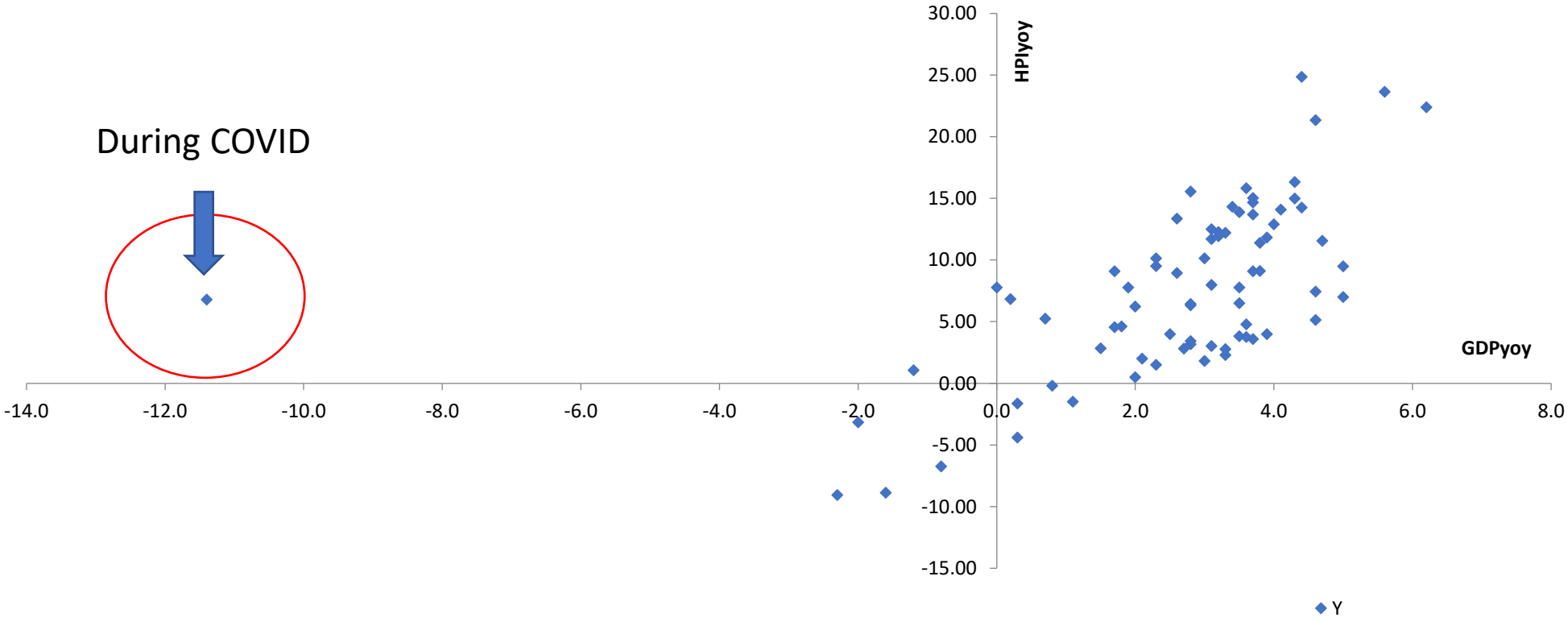
The latest 3 releases of Year-on-Year % Changes of GDP During the COVID-19 Pandemic of the six developed economies. Sources: Trading Economics.

House Price Rise in COVID is a Global Phenomenon



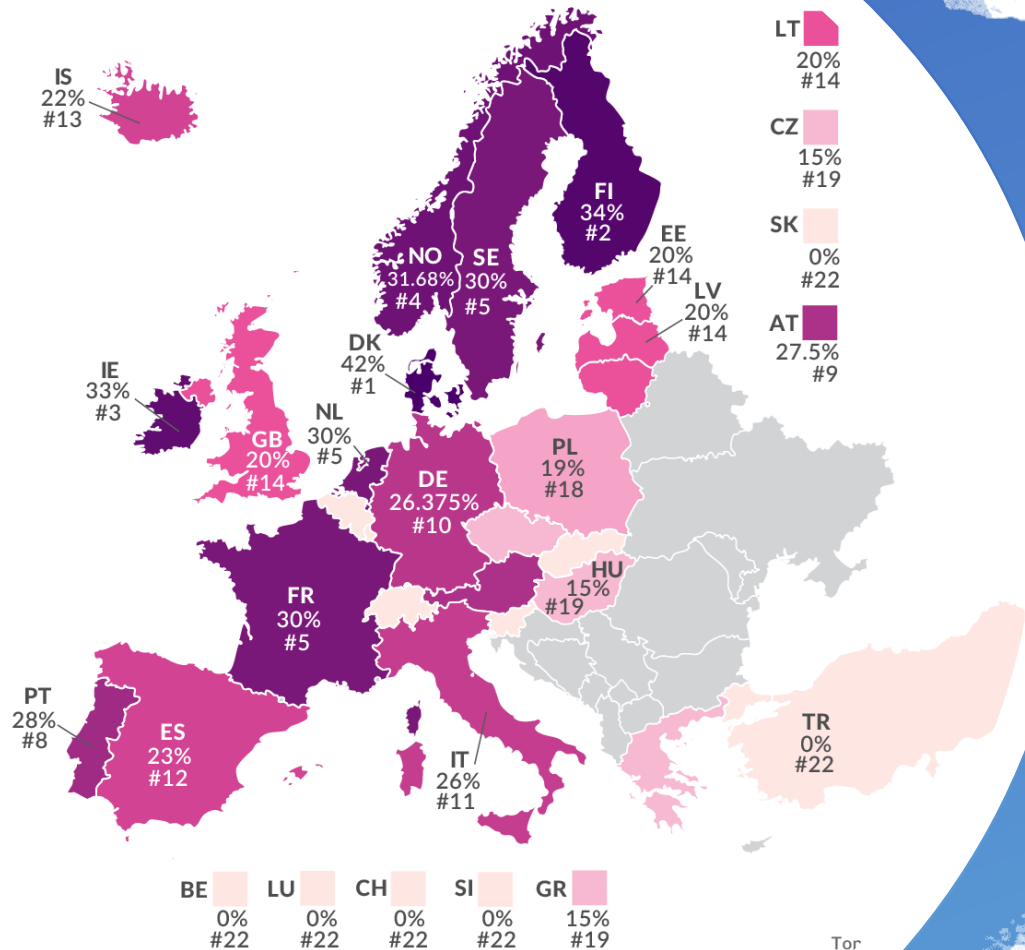
The latest release of Year-on-Year Growth Rates of the House Price Indices During the COVID-19 Pandemic of the six developed economies: Australia (AUS), Canada (CAN), New Zealand (NZ), United Kingdom (UK), United States (US) and Hong Kong (HK). Sources: AUS-ABS, CAN-TradingEconomics, HK-RVD, NZ-REINZ, UK-HM, US-FRED.

Evidence that the house price growth is **NOT** due to GDP growth in NZ during COVID



Capital Gains Tax Rates in Europe

Capital Gains Tax Rates in European OECD Countries, 2020



Hypothesis 2: NO Capital Gain Tax?

Note: If the capital gains tax rate varies by type of asset sold, the tax rate applying to the sale of listed shares after an extended period of time is used.

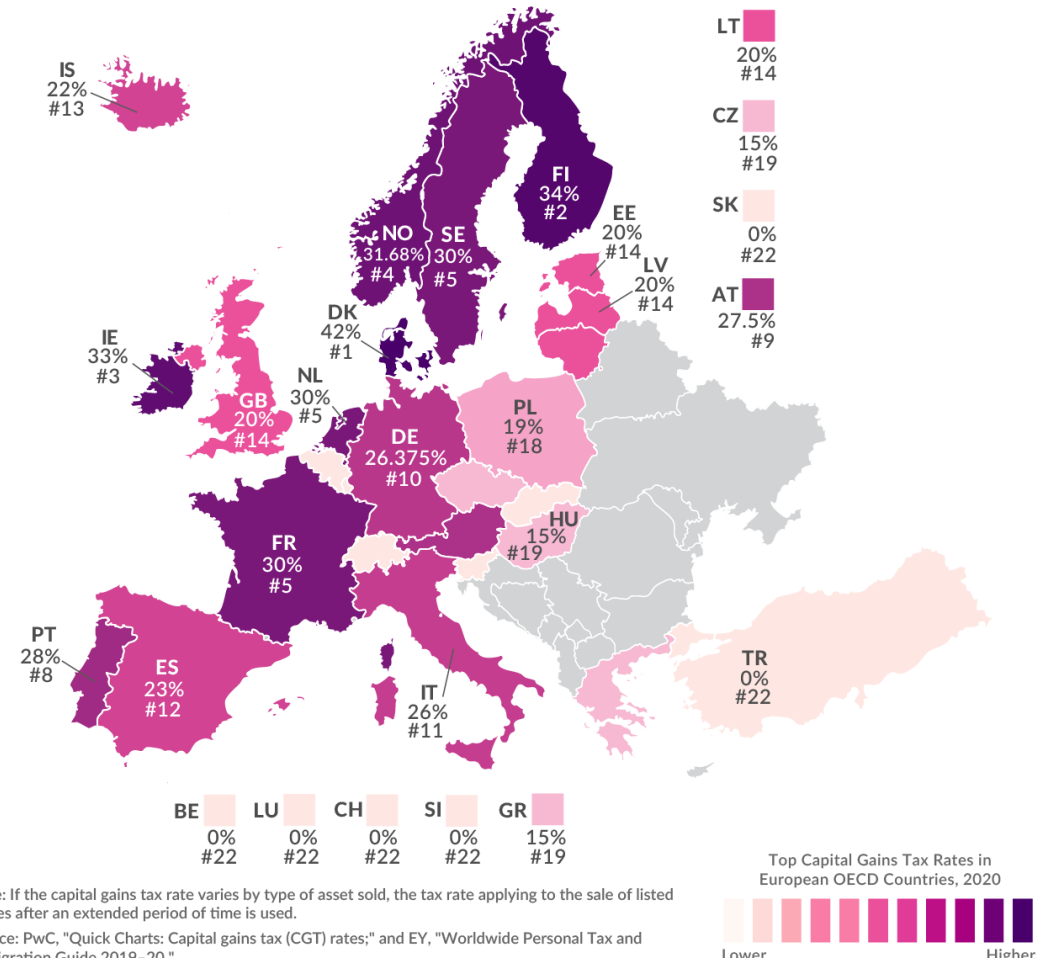
Source: PwC, "Quick Charts: Capital gains tax (CGT) rates;" and EY, "Worldwide Personal Tax and Investment Guide 2019-20."

Capital Gain Tax

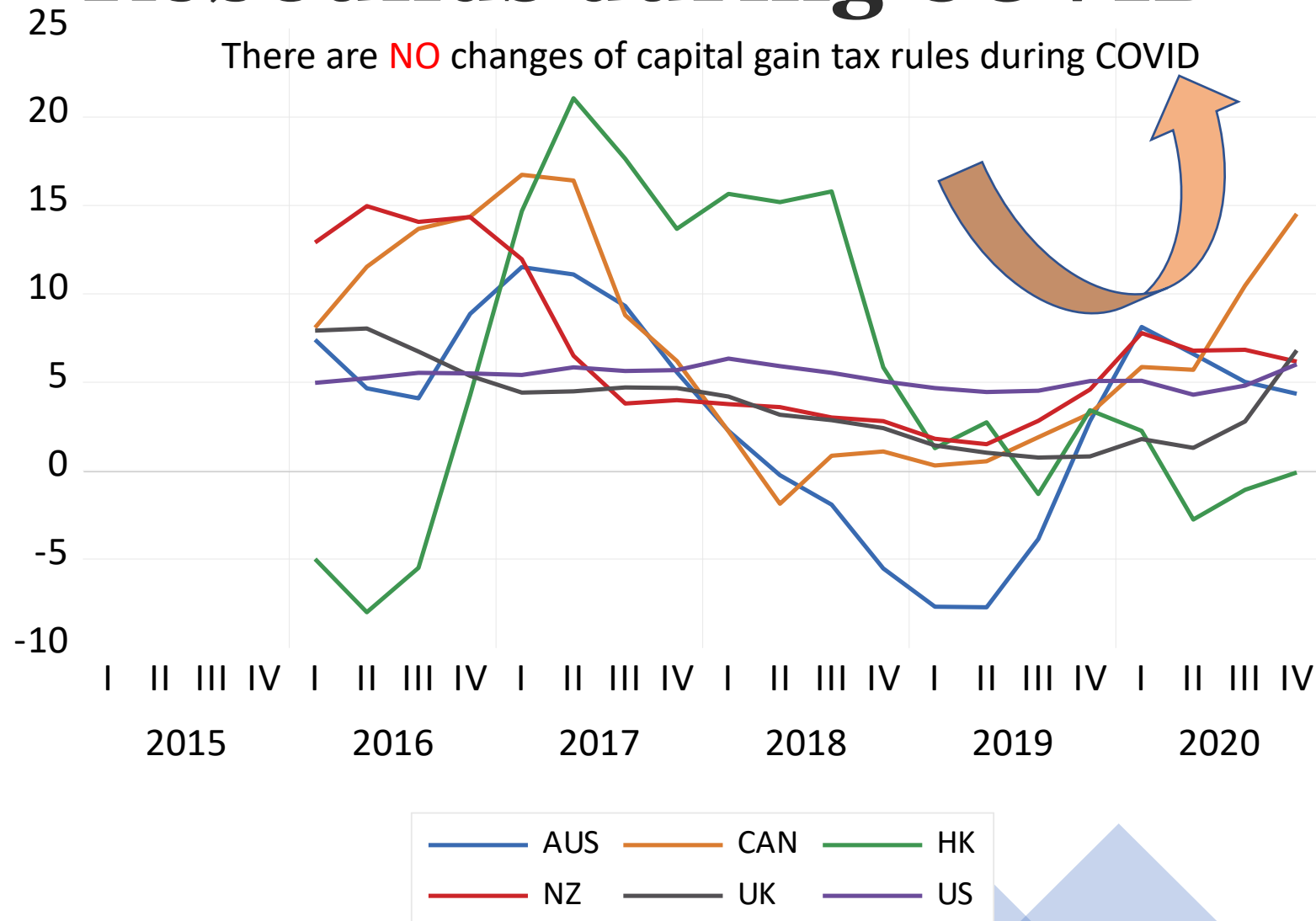
- HK – No Capital Gain Tax
- NZ – bright line test
- UK – 20%

Capital Gains Tax Rates in Europe

Top Capital Gains Tax Rates in European OECD Countries, 2020



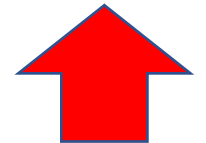
Synchronisation of House Price Rebounds during COVID



Hypothesis 3: Insufficient House Supply?

Housing Supply Compared to Housing Demand in Auckland

Year to June	Natural increase in population	Net internal migration	Net international migration	Total population growth	New dwellings required	New dwellings completed	Surplus/deficit of new dwellings
2019	12,800	-11,800	24,700	25,700	8892	10,080	1188
2020	12,800	-12,600	36,700	36,900	12,768	14,353	1585



Year	Surplus
2019	1188
2020	1585

<https://www.interest.co.nz/property/108084/aucklands-housing-crisis-starting-ease-supply-starts-overtake-demand-and-accumulated>

Numbers of Households and Private Dwellings Changes YoY – 1992 - 2020

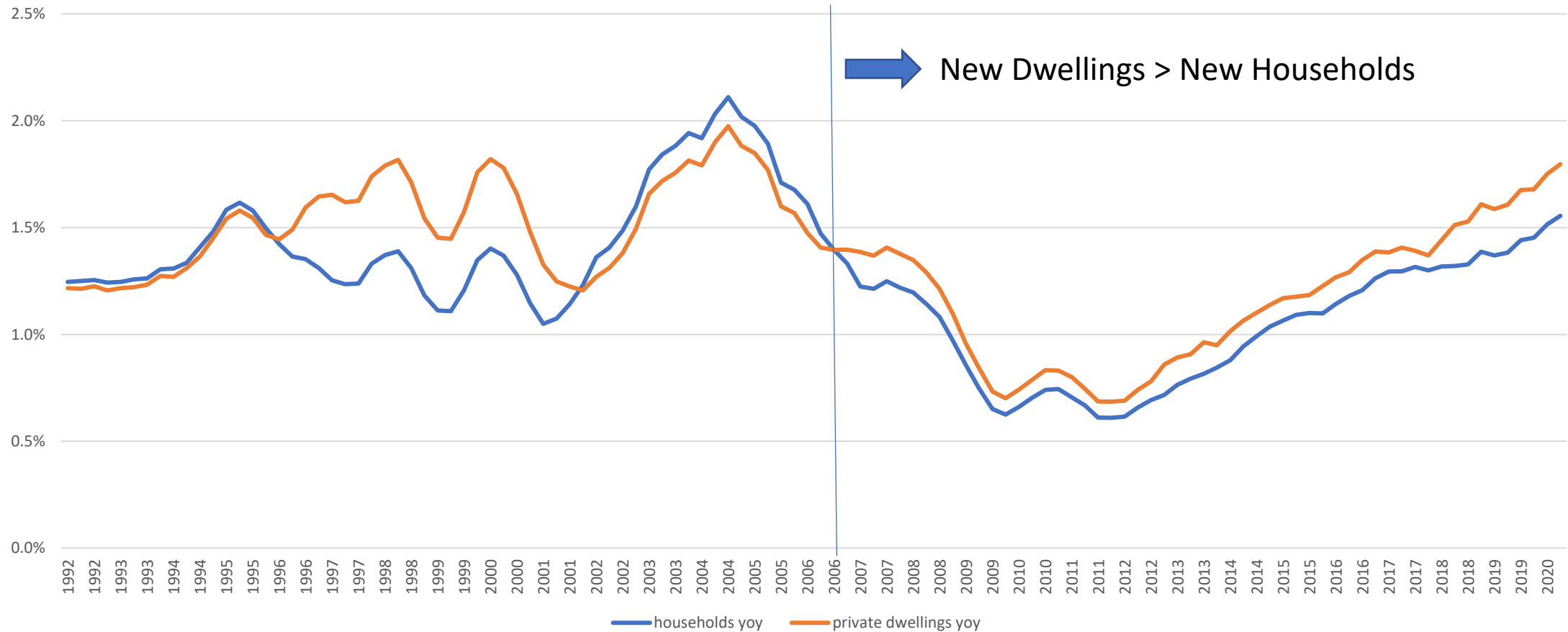


Figure 3 Number of Households yoy versus Number of Private Dwellings yoy, Jun 1992—Sep 2020. Source: Stats NZ (2020a)

Hypothesis 4: Migrants?

- Since Oct 2018, non-resident or non-citizen buyers are banned from buying houses by the Overseas Investment Amendment Act



Home Transfers by Non-Citizens or Non-Resident – 2017 Mar – 2020 Sep

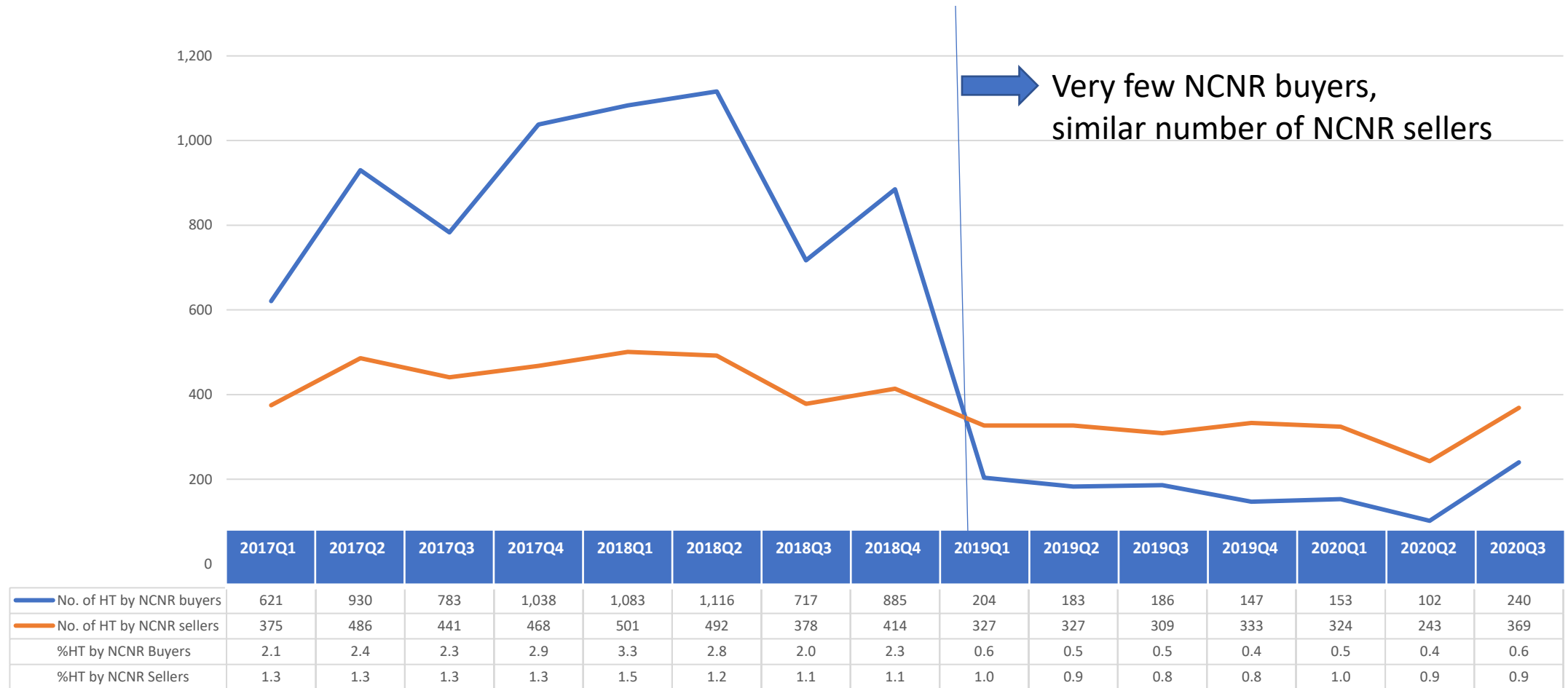
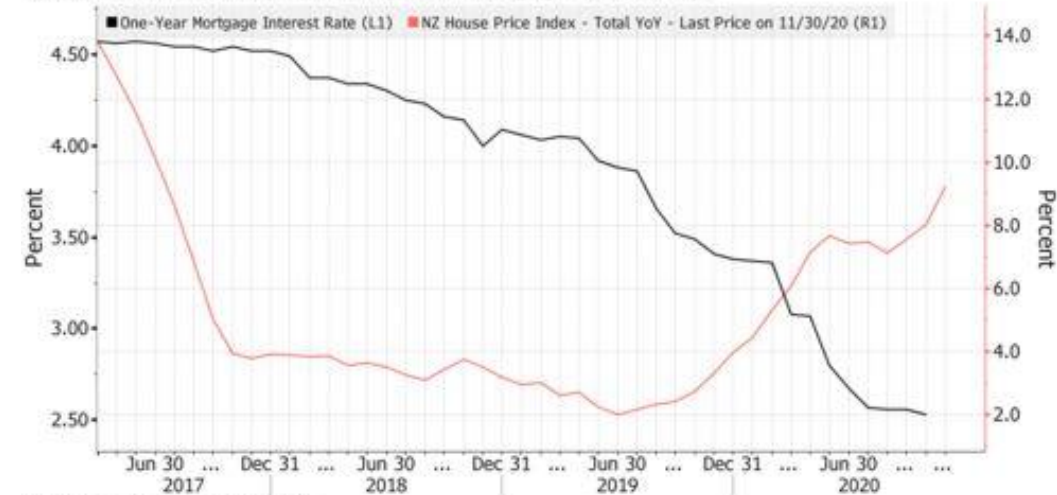


Figure 4 Home Transfers by Non-Citizen or Non-Resident (NCNR) Buyers and Sellers, Mar 2017—Sep 2020.
Source: Stats NZ (2020c)

Hypothesis 5: Mortgage Policy?

Boom
New Zealand house prices surge as mortgage rates drop



Source: Source: CoreLogic, RBNZ

- <https://www.bloomberg.com/news/articles/2021-01-05/new-zealand-posts-fastest-house-price-growth-since-mid-2017>

A Cut of Interest Rates

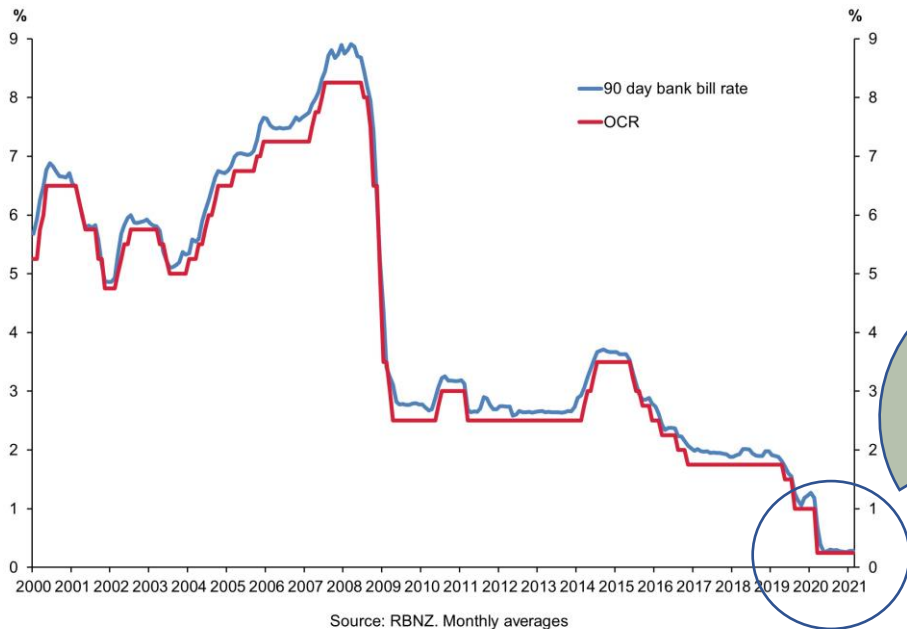
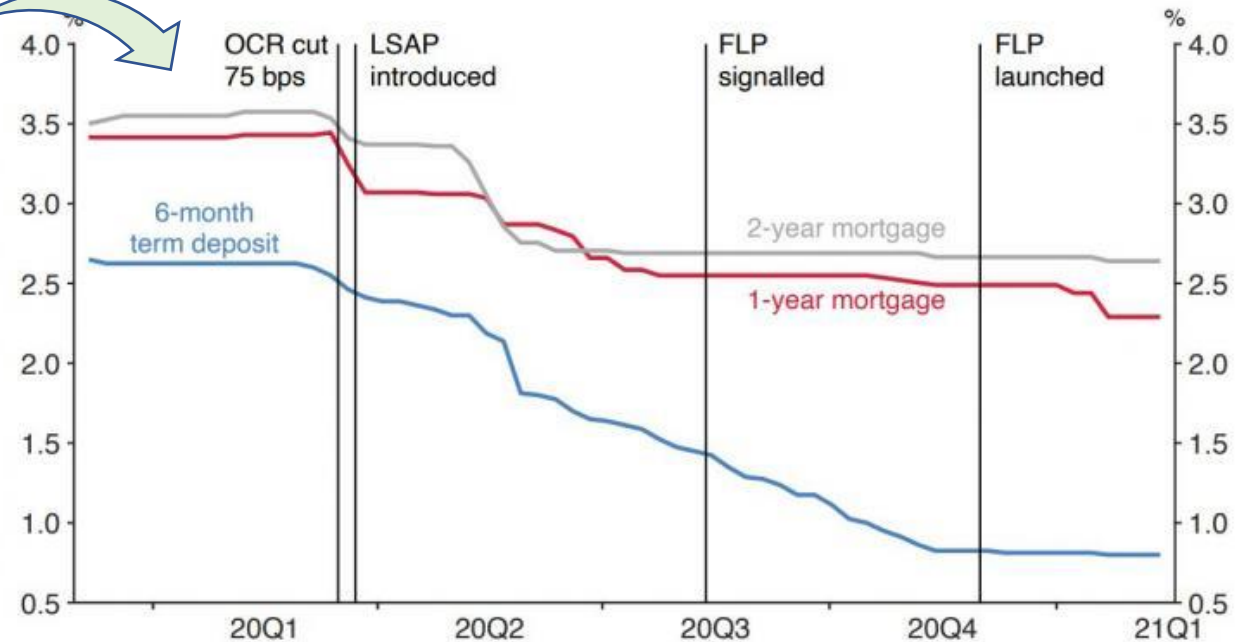


Figure 3.4
Retail deposit and mortgage rates
(average of 4 largest banks)



<https://www.rbnz.govt.nz/monetary-policy/about-monetary-policy/what-is-the-official-cash-rate>

<https://www.interest.co.nz/banking/109222/rbnz-governor-adrian-orr-tells-banks-lower-interest-rates-more-noting-if-offshore>

Relaxation and Reinstatement of Mortgage Loan Restrictions

Reserve Bank removes LVR restrictions for 12 months
30 April 2020

The Reserve Bank has today decided to remove mortgage loan-to-value ratio (LVR) restrictions for 12 months. The decision was made to ensure LVR restrictions didn't have an undue impact on borrowers or lenders as part of the mortgage deferral scheme implemented in response to the COVID-19 pandemic.

Owner-occupier loans – 20 / 20
REINSTATE on 1 March 2021



From 1 March, 2021 most owner-occupiers will need a 20% deposit to secure a property. Lenders can provide a maximum of 20% of new mortgage lending to owner-occupiers at LVRs greater than 80 percent (those with less than a 20% deposit).

Investor loans – 30 / 5
REINSTATE on 1 May 2021

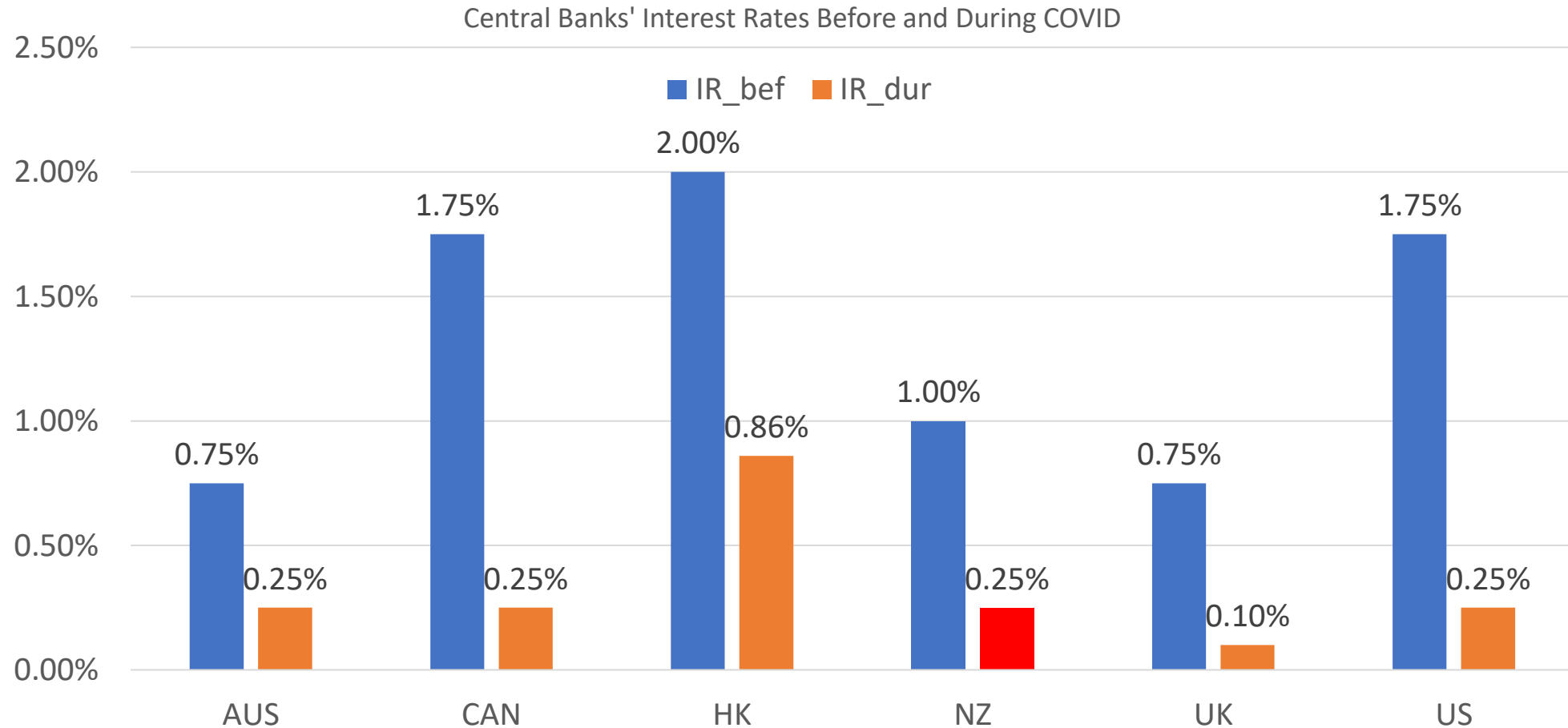


Most investor-occupiers will need a 40% deposit to secure a property. Lenders can provide a maximum of 5% of new mortgage lending to investors at LVRs greater than 60 percent (those with less than a 40% deposit).

<https://www.rbnz.govt.nz/education/at-a-glance-series/lvr-restrictions-at-a-glance>

<https://www.rbnz.govt.nz/news/2020/04/reserve-bank-removes-lvr-restrictions-for-12-months>

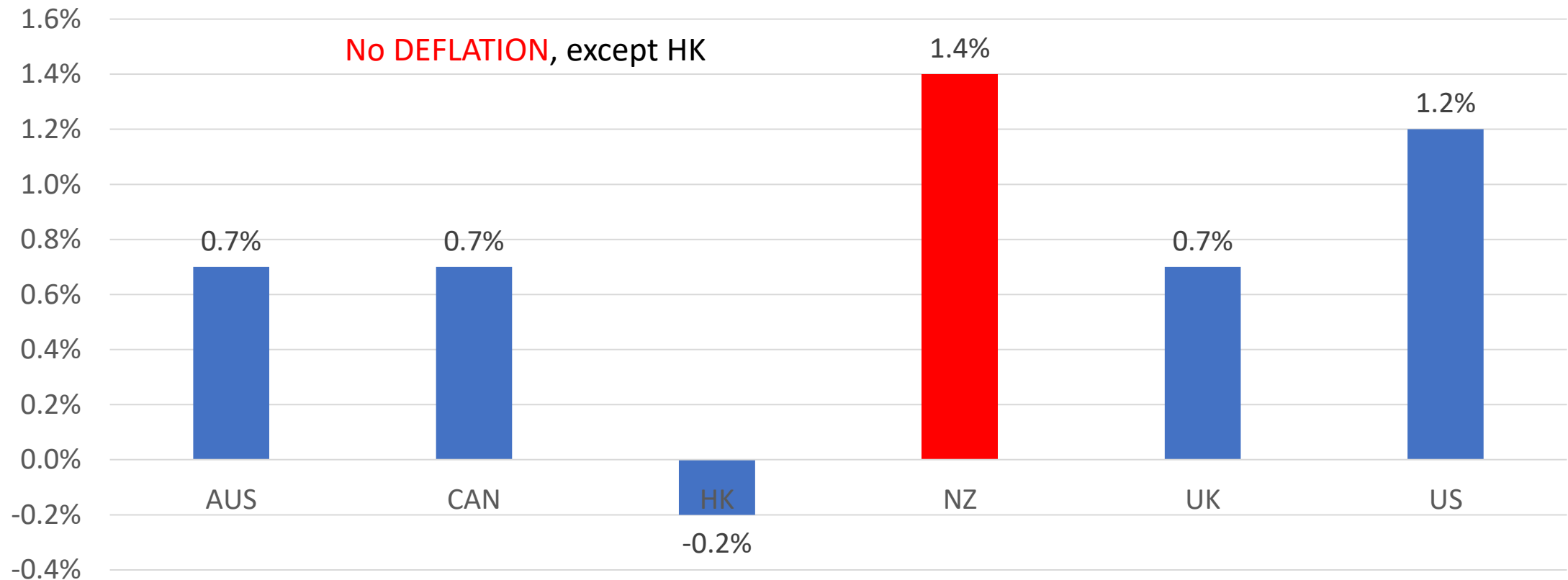
Central Banks' Interest Rates – Before and During COVID



Changes in interest rates before (IR_bef) and during (IR_dur) the pandemic, source: Deloitte (2020)

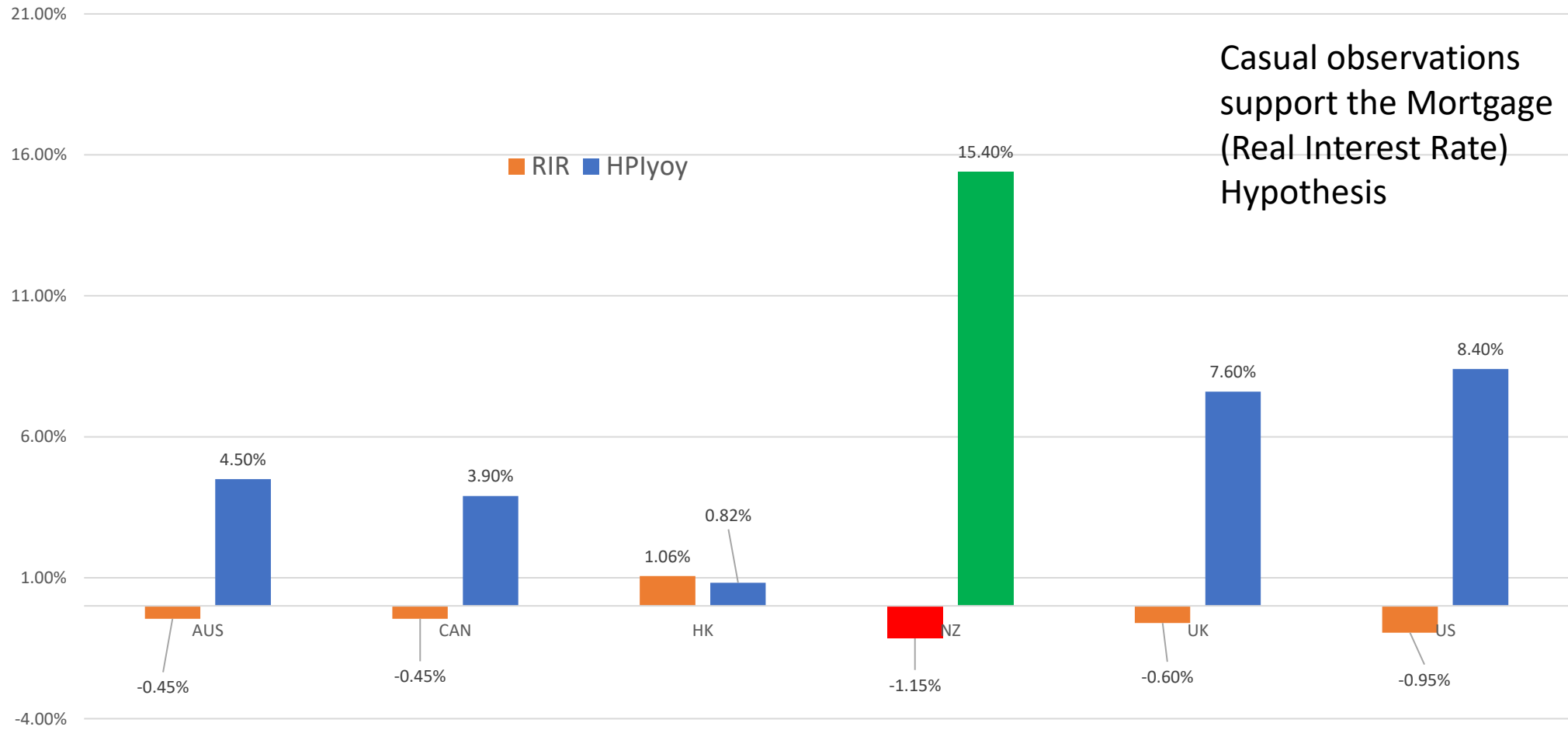
Inflation Rates Before and During COVID

Inflation Rates and Real Interest Rates



The latest inflation rates (INF) of the 6 economies (because the data is released on different dates, the data is not from the same month). Source: Trading Economics

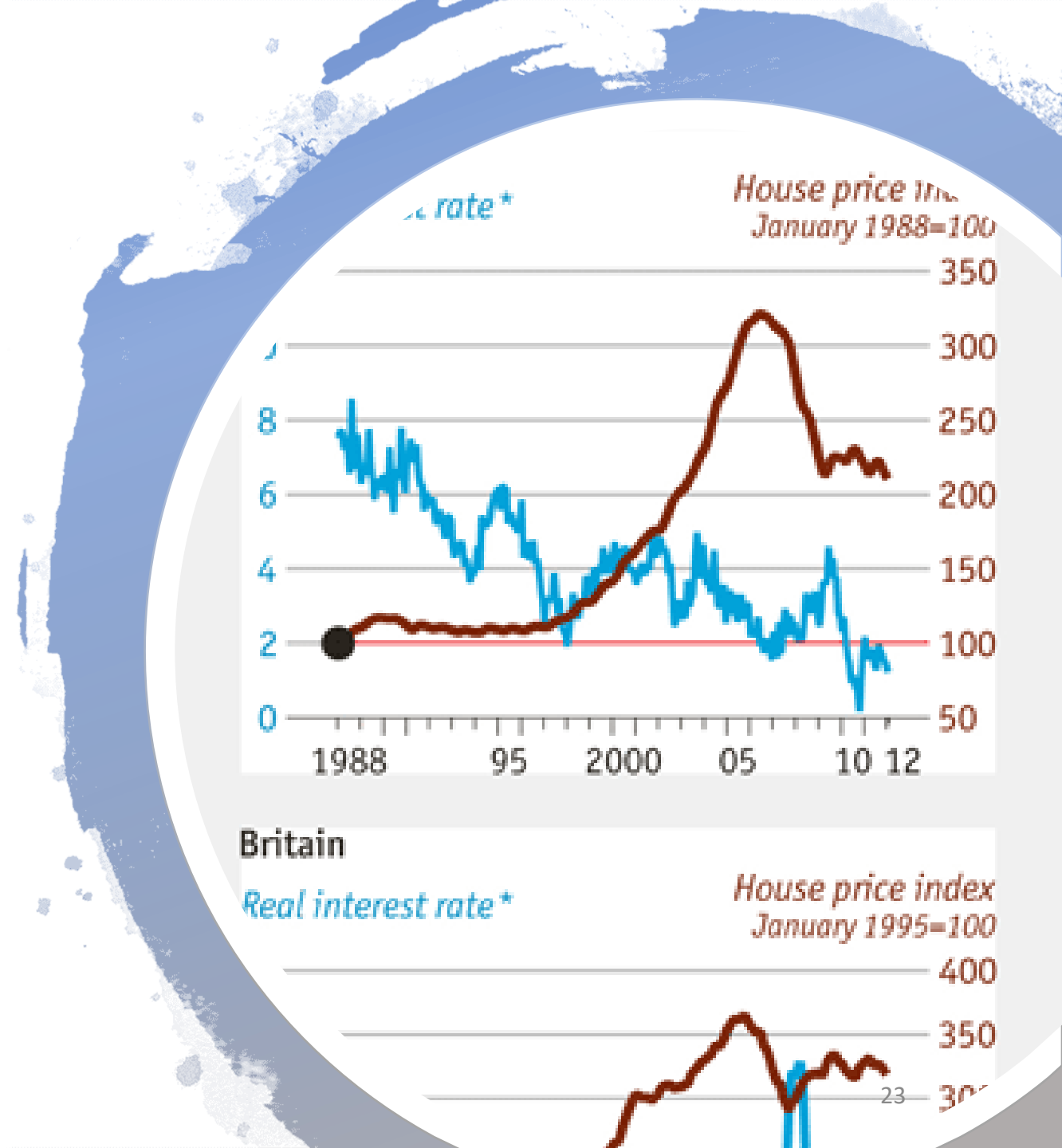
Real Interest Rates & House Price Changes in COVID



The real interest rates (RIR) of the 6 economies (because the data is released on different dates, the data is not from the same month).

Theory and Literature

- <https://www.economist.com/buttonwoods-notebook/2012/04/20/keeping-it-real>



LR: Why Can't You Afford a Home?

- 'Why can't you afford to buy a home? It's not because of ... too little land, but **too much bank lending.**'
 - Steve Keen,
 - author of *Debunking Economics*
- “**Unlimited credit and money flows** into an inherently finite supply of property, which causes rising house prices – a **housing-finance feedback cycle**”
 - Josh Ryan-Collins,
 - author of *Why can't you afford a home?*

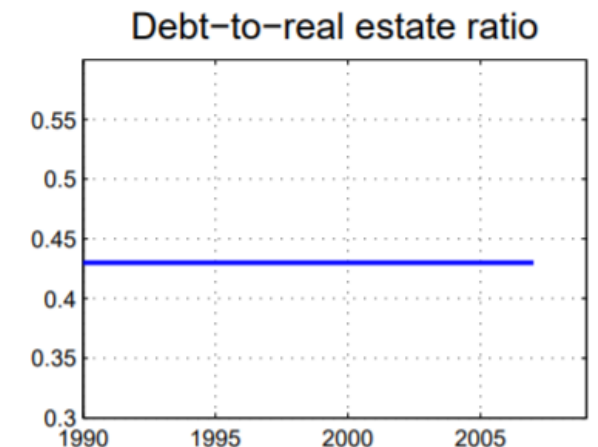
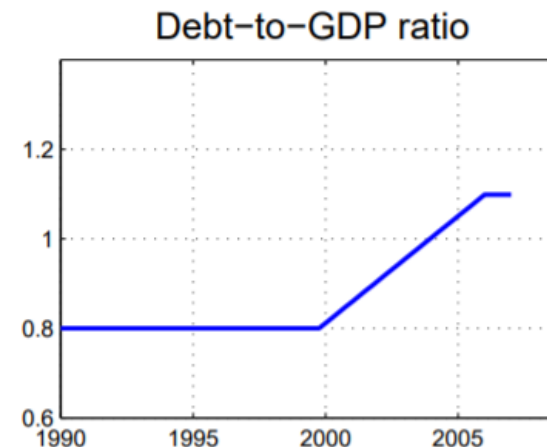
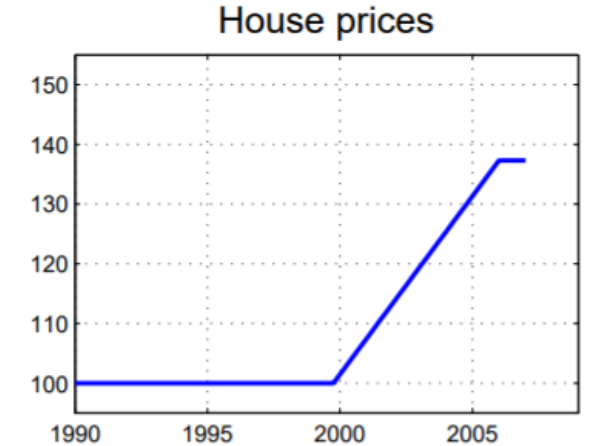
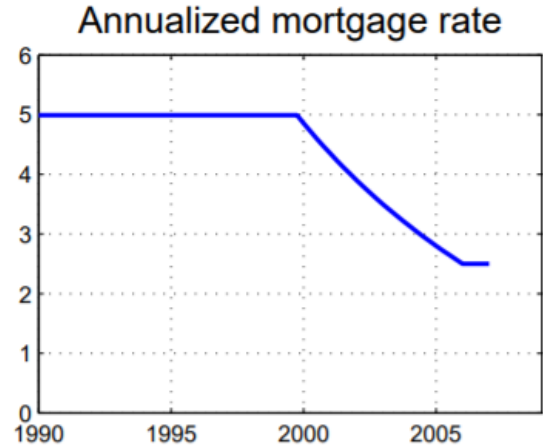
Josh
Ryan-Collins
**Why can't
you afford
a home?**

LR: Mortgage Credit Supply and House Prices

- Favara and Imbs (2015)
- “There is a causal chain going from an expansion in credit to house prices. This is illustrated using the lifting of branching restrictions that has taken place in the United States since 1994, and examining its consequence on the mortgage market.”
- In areas where housing supply is inelastic, the response of house prices was pronounced. It was muted in areas where housing supply is elastic

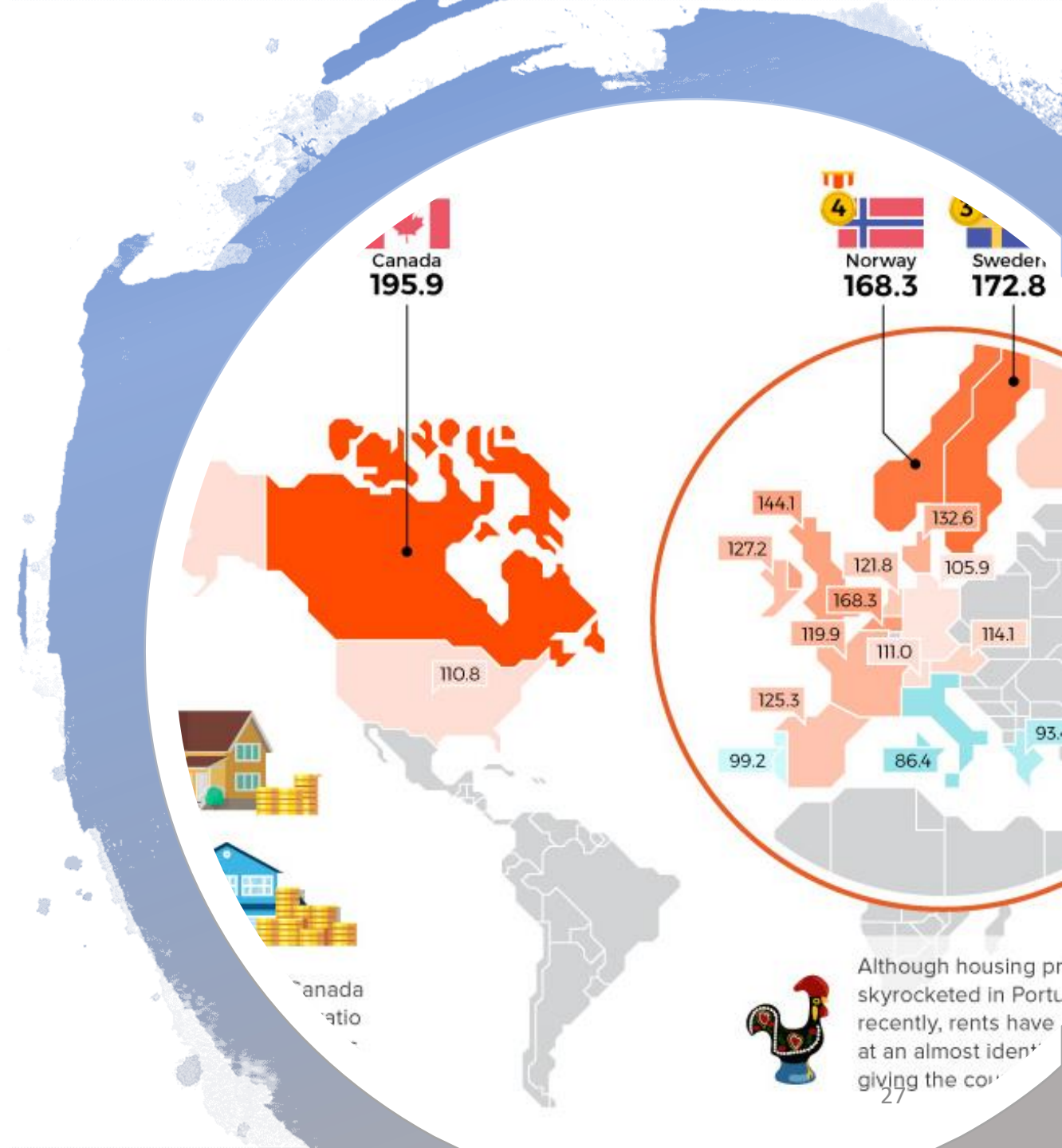
LR: Credit Supply and House Prices

- Justiniano et al. (2015)
- “The housing boom that preceded the Great Recession was the result of an increase in credit supply driven by looser lending constraints in the mortgage market.”



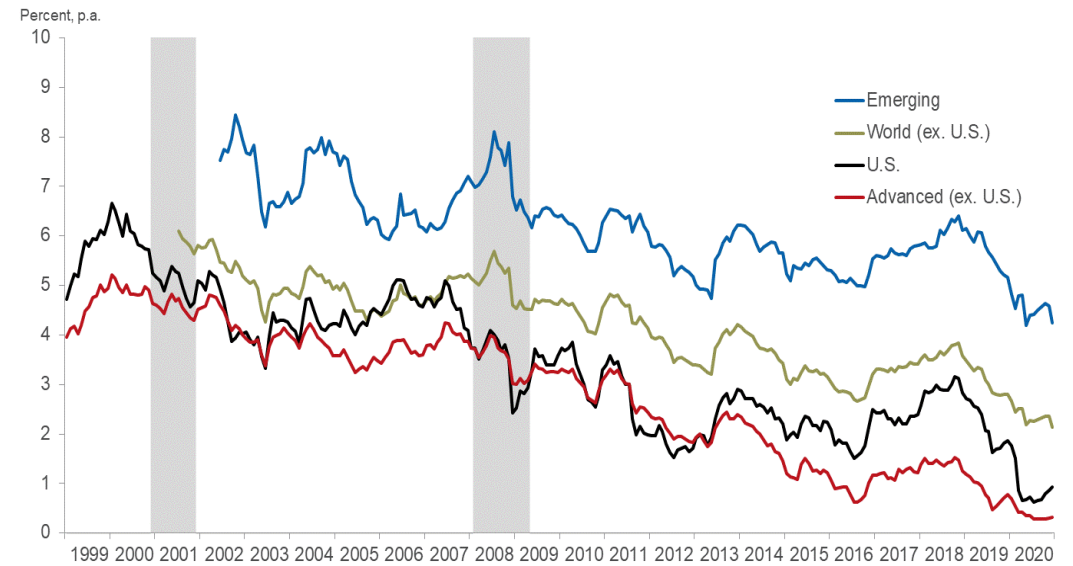
Empirical Evidence of the RIR Hypothesis from the current COVID crisis

- <https://www.visualcapitalist.com/mappe-d-the-countries-with-the-highest-housing-bubble-risks/>



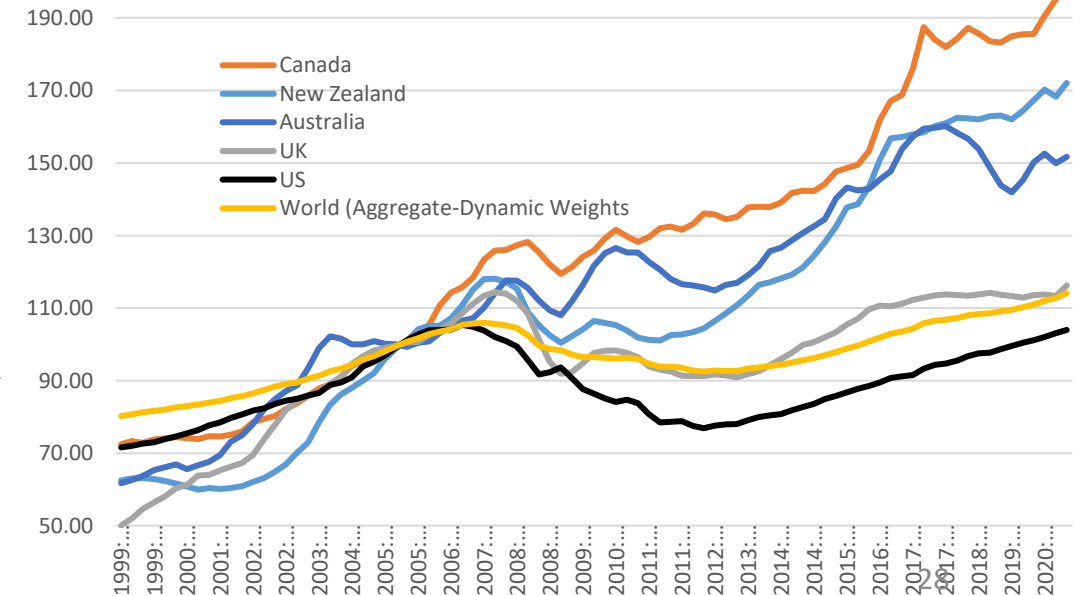
Interest Rates and Global House Prices Data

Long-Term Interest Rates



NOTES: Calculations are based on a representative sample of 37 countries. Aggregated using U.S. trade weights. Argentina, Costa Rica and Indonesia are excluded due to lack of data. Shaded bars indicate global recessions (Grossman, Mack and Martínez-García (2015); "A Contribution to the Chronology of Turning Points in Global Economic Activity (1980-2012)," Journal of Macroeconomics, Vol. 46, pp. 170-185). Last updated April 2021.
SOURCES: Database of Global Economic Indicators; Haver Analytics.

Global Real House Price Indices



- Global House Prices: Mack, A., and E. Martínez-García. 2011. "A Cross-Country Quarterly Database of Real House Prices: A Methodological Note." Globalization and Monetary Policy Institute Working Paper No. 99, Federal Reserve Bank of Dallas. <https://www.dallasfed.org/institute/houseprice#tab2>
- Long Term Interest Rate: <https://www.dallasfed.org/institute/dgei/ltrates.aspx>

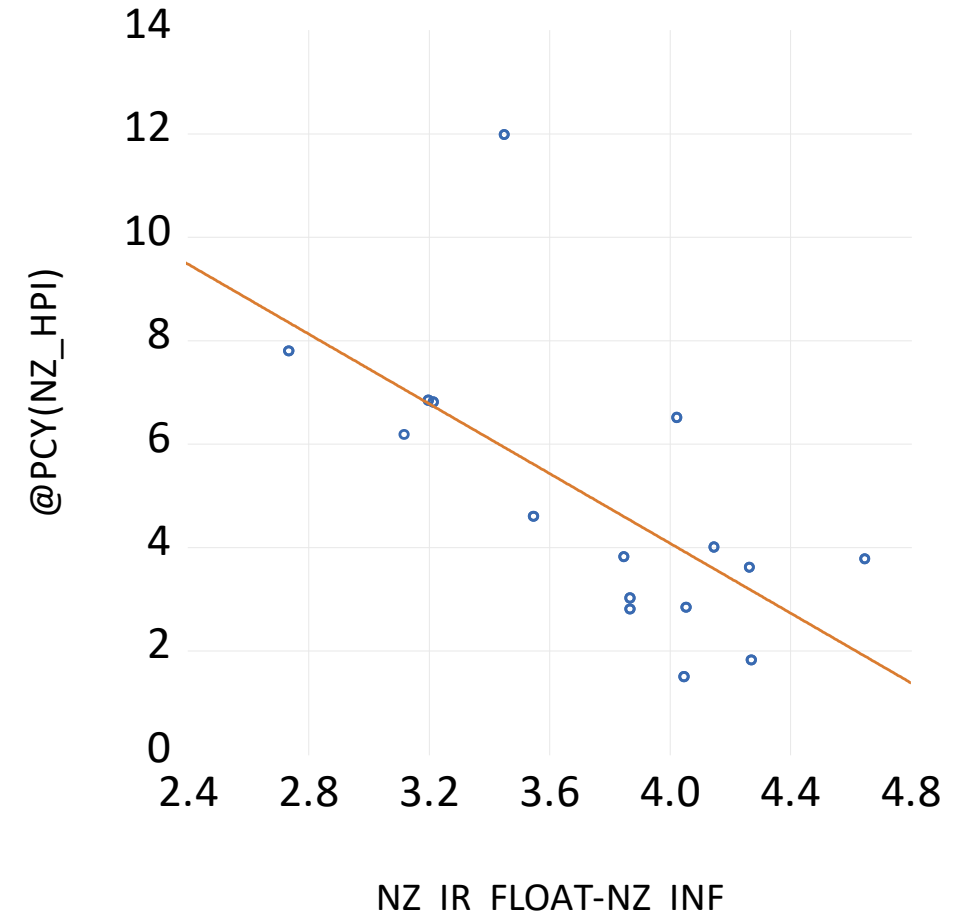
Prelim Panel Results - 6 Economies 2017 -2020

Panel	Model 1	Model 2
Dep Var	HPI-YoY	HPI-QoQ
C	6.346 (8.04)***	0.017 (4.95)***
RIR	-2.514 (-2.83)***	-0.009 (-2.71)***
ΔGDP	0.454 (2.52)**	0.001 (2.39)**
ΔUNE	-0.023 (-1.24)	-0.015 (-0.58)
AR(1)	-	0.253 (2.44)**
Fixed Effect	Cross-economy	
No of Obs	6 economies x 16Q (2017Q1 – 2020Q4)	
Adj R-sq	0.24	0.16

Figures in parenthesis are t-statistics, *** represents p-value <= 0.01

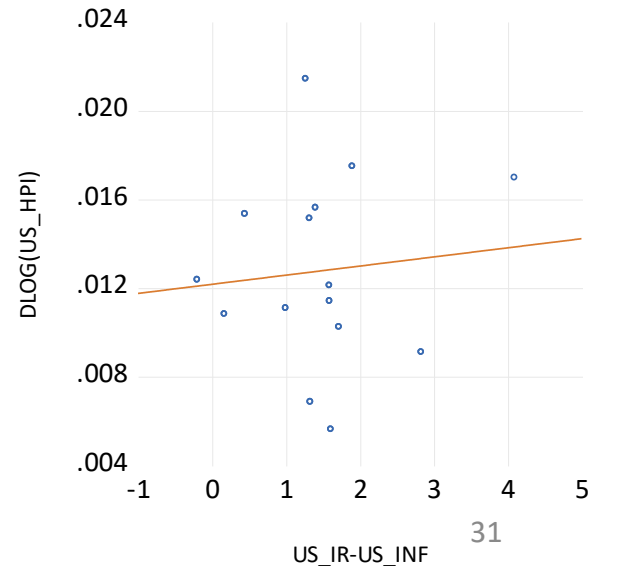
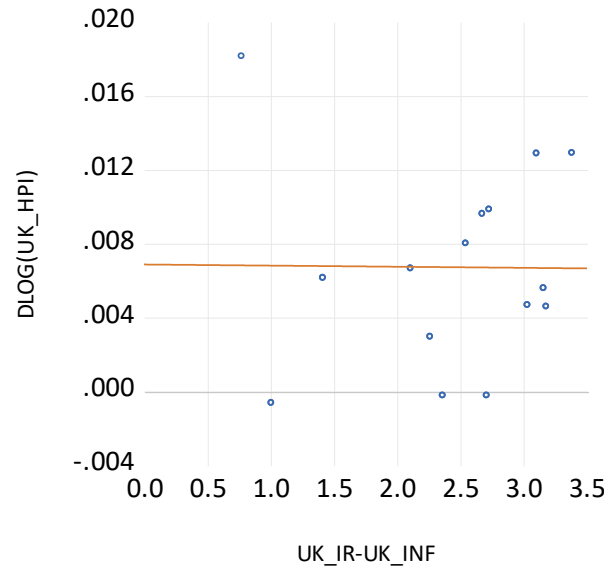
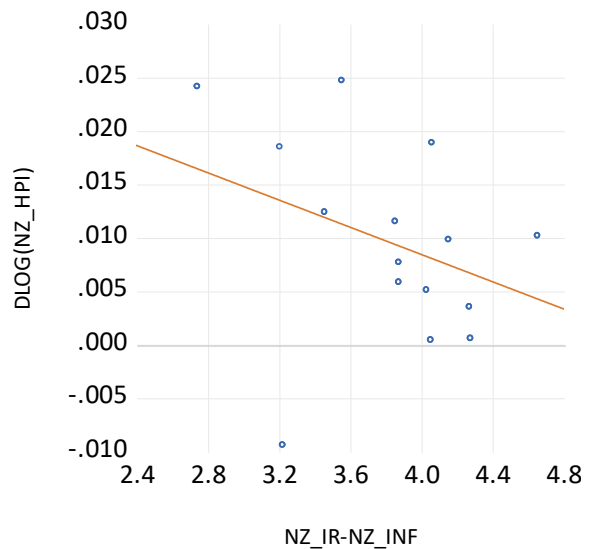
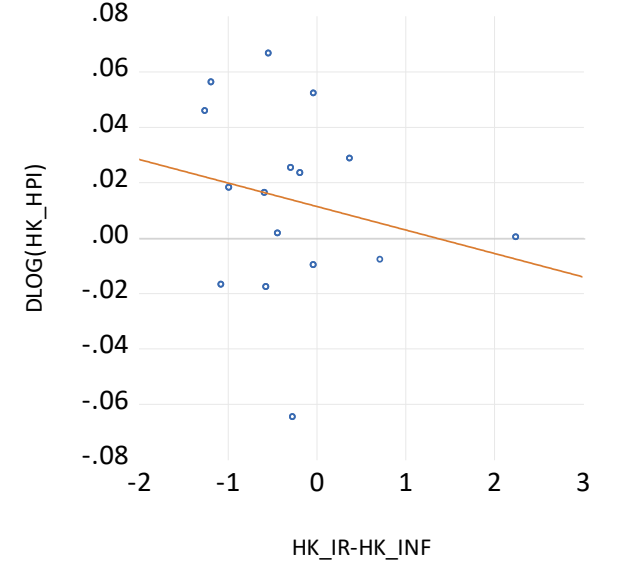
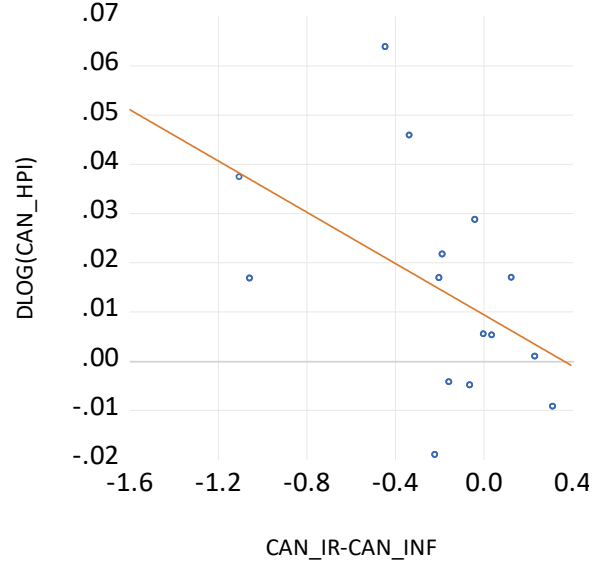
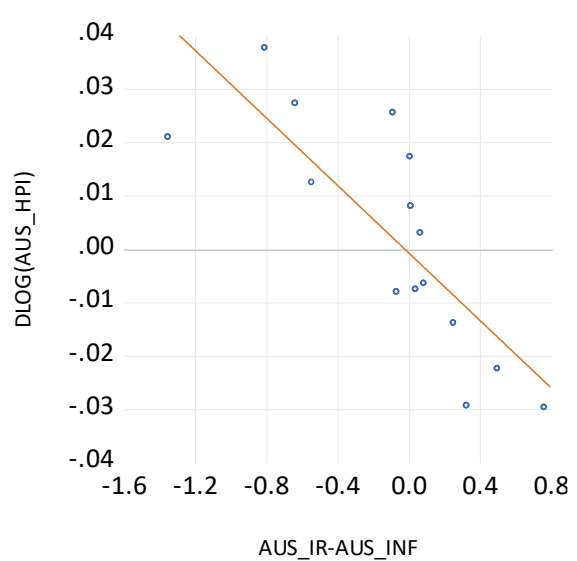
Compare the Prelim Results of NZ and the 6E

NZ	NZ Model 1	6 Econ Model 1
Dep Var	HPI-YoY	HPI-YoY
C	20.04 (3.68) ^{***}	6.35 (8.04) ^{***}
RIR	-4.21 (-2.71) ^{**}	-2.51 (-2.83) ^{***}
ΔGDP	0.35 (0.66)	0.45 (2.52) ^{**}
ΔUNE	0.02 (0.19)	-0.02 (-1.24)
No of Obs	16 (2017Q1 – 2020Q3)	
Adj R-sq	0.30	0.24



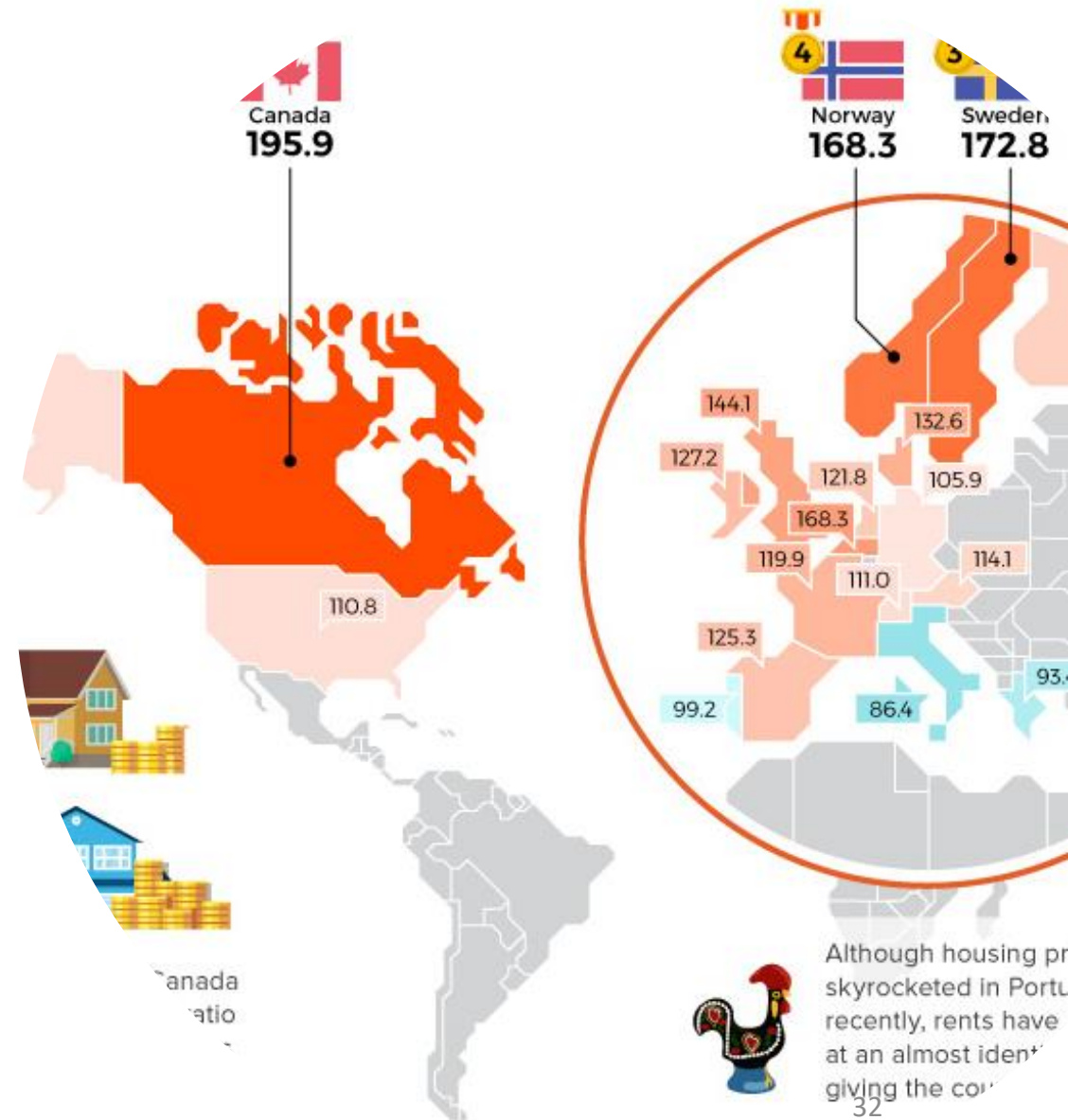
Figures in parenthesis are t-statistics, ^{***}, ^{**}, ^{*} represent p-value ≤ 0.01 , 0.05 , 0.10 respectively

COVID Crisis – 6 Economies 2020



Empirical Evidence of the RIR Hypothesis from the previous 3 financial crises

- <https://www.visualcapitalist.com/mappe-d-the-countries-with-the-highest-housing-bubble-risks/>

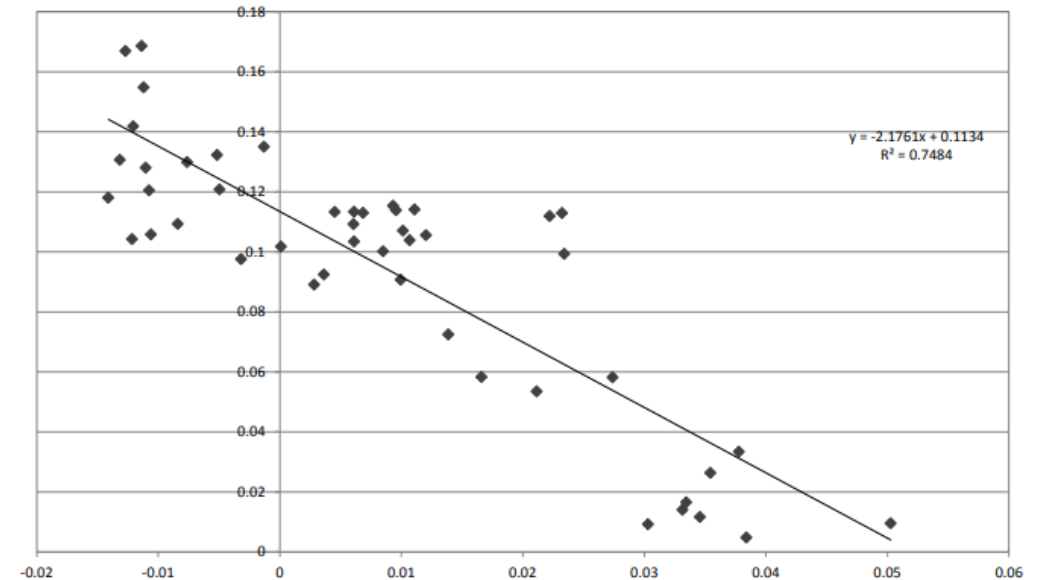


European Sovereign Debt Crisis – Spain 2009

Test Results

Variable	Model 1	Model 2	Model 3
Dependent Variable	yoy_HPI	yoy_HPI	dlog(HPI)
constant	-5.122	-3.137***	-0.004*
yoy_GDP	2.092***	1.815***	---
yoy_UNE	0.061***	-0.009	---
RIR	-0.912***	---	---
RIR_Before	---	-1.475***	-0.003***
RIR_After	---	1.238***	0.004**
dlog(GDP)	---	---	1.494***
dlog(UNE)	---	---	-0.057**

RIR v. HPI of Spain



Yiu, C.Y. and Liusman, E. (2015) Negative real interest rates and the bursting of Spain's housing bubbles: The fourth confirmed case. Presented in International Conference on Banking, Real Estate and Financial Crises: Hong Kong, China and the World, 17 January 2015, Hong Kong SAR, China.

Subprime Crisis – US 2007

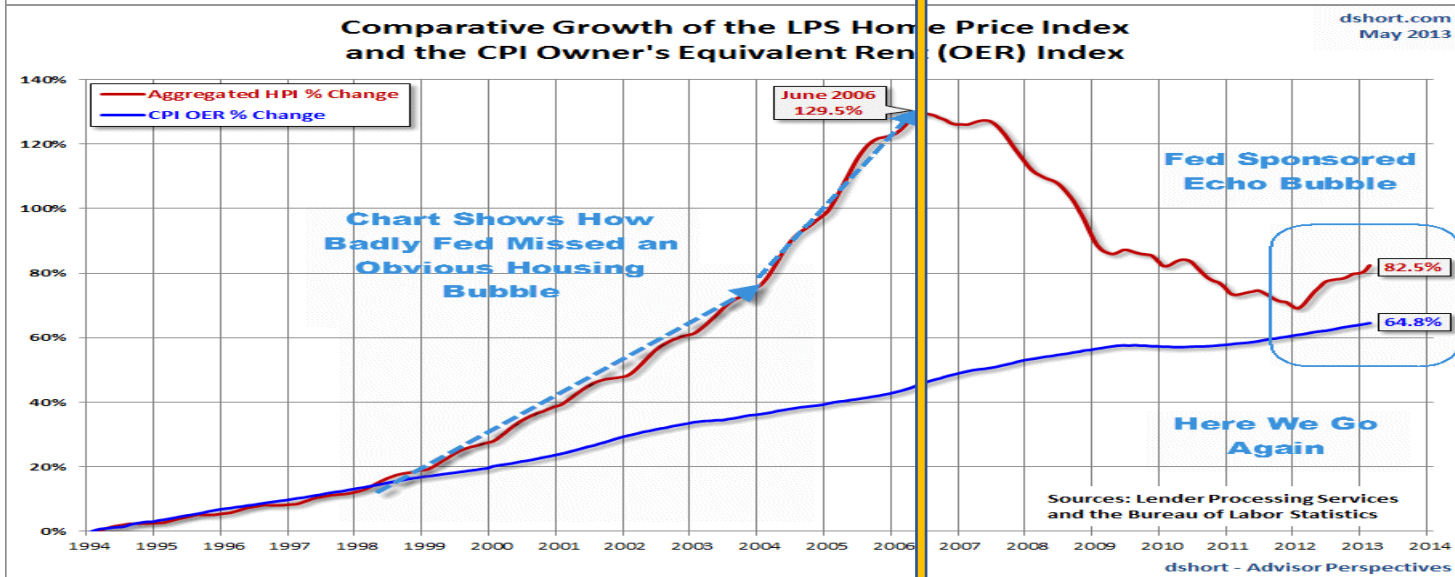
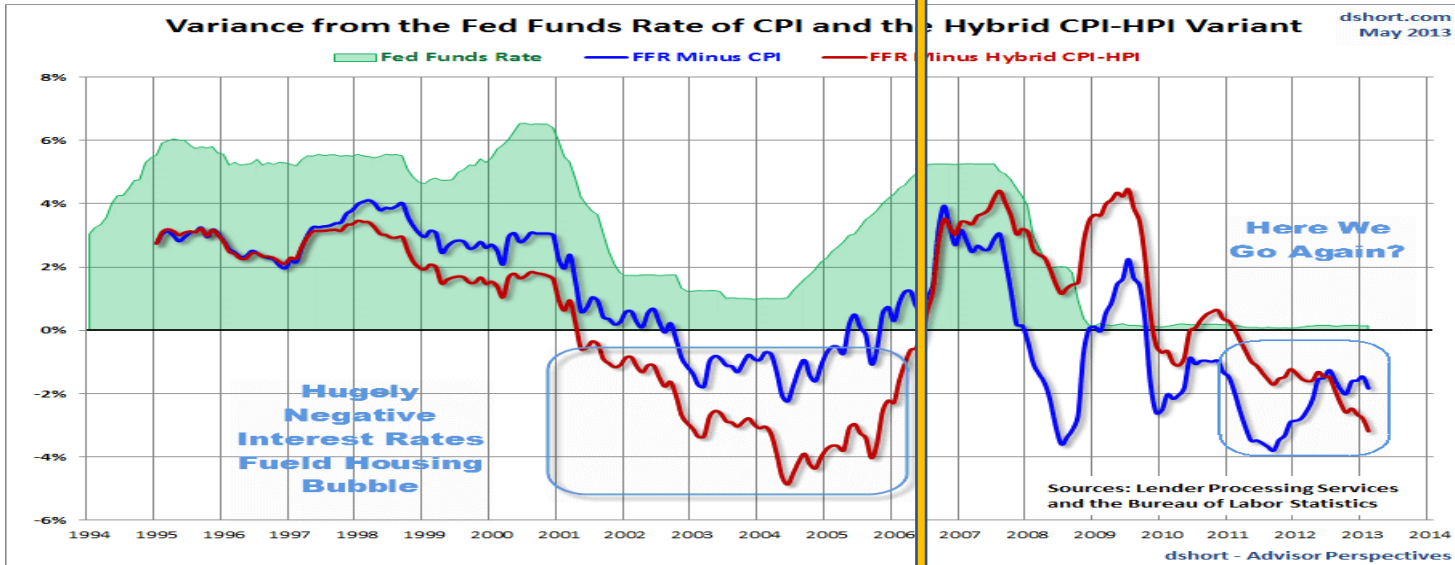
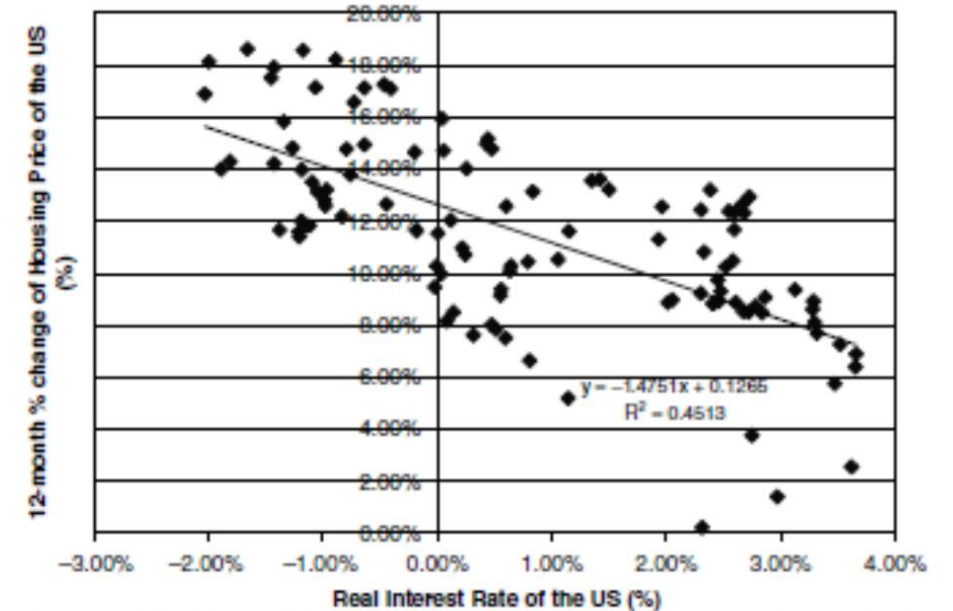
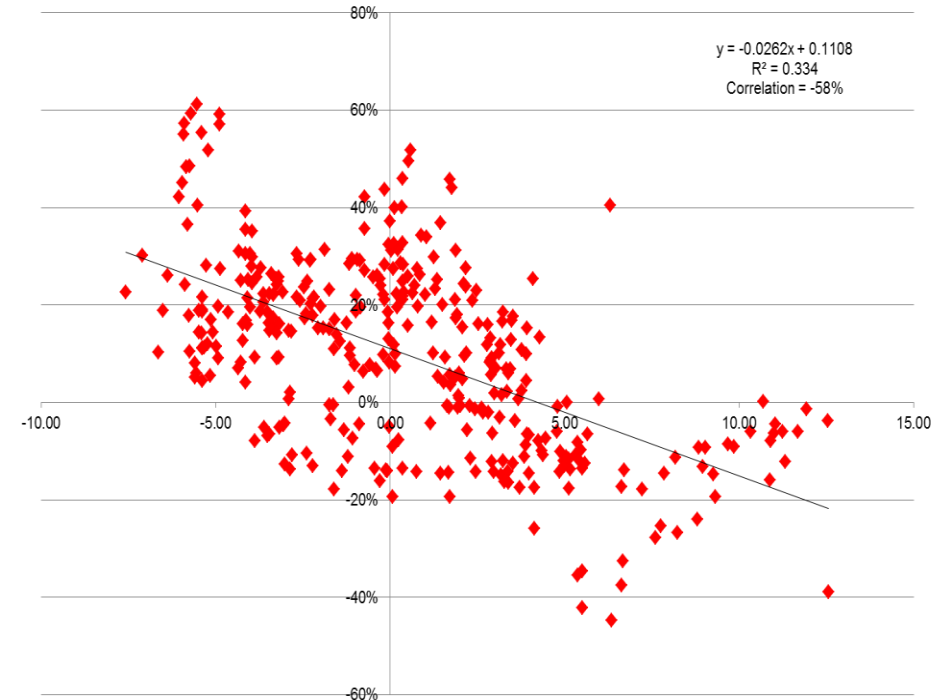
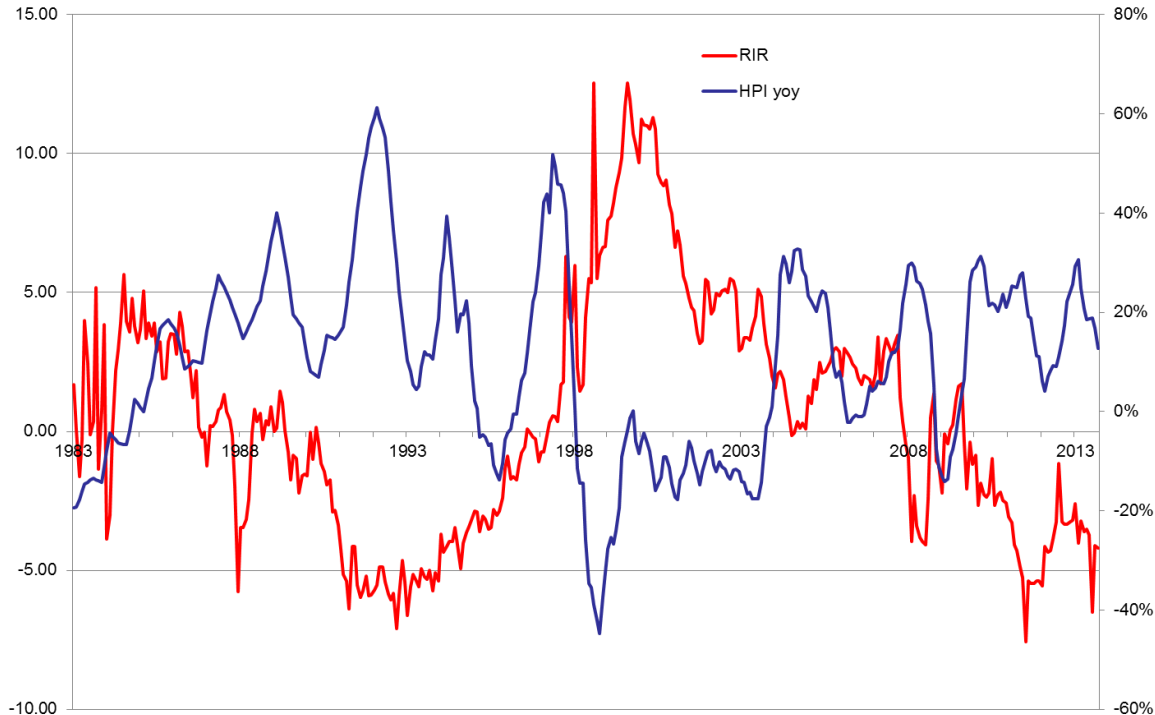


Exhibit 15
Scatterplot of Annual Housing Return versus Real Interest Rate in the U.S. (1991-2006)



Annual housing return = 12-month % change of S&P/Case and Shiller Composite 10 Housing Price Index). Real interest rate = (nominal interest rate - inflation rate) * 100%. Data of 2007 and 2008 are excluded due to the volatile risk premium and expectation of income growth during the bubble burst.

Asian Financial Crisis – HK 1998

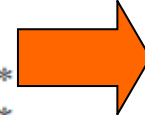
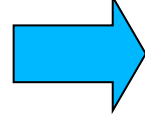


Yiu, C.Y. (2010) Negative real interest rate and housing bubble implosion – an empirical study in Hong Kong, **2010 JFMPC 14(3), 257-270**

Empirical Evidence of RIR Hypothesis HK 1998

Independent variables	Model 1		Model 2a		Model 2b (excl. outliers of $d(RIR_{t-1} \geq 1)$)	
	Coefficient	<i>t</i> -statistics	Coefficient	<i>t</i> -statistics	Coefficient	<i>t</i> -statistics
Constant	1.86	1.75 ***	1.99	1.79 ***	1.30	0.93 **
$d \log(GDP_t)$	0.09	0.61	0.08	0.40	0.12	0.97
$d(UNE_t)$	-5.30	3.96 *	-5.37	3.48 *	-4.19	4.27 *
$d \log(EXC_t)$	-0.38	2.26 **	-0.36	2.23 **	-0.25	1.72 ***
$d(RIR_{t-1})$	-0.83	2.47 **	-	-	-	-
$d(RIR_{t-1}^+)$			-0.56	1.42	-0.56	1.89 ***
$d(RIR_{t-1}^-)$			-1.67	2.43 *	-2.61	2.67 *
AR(1)	0.64	7.13 *	0.65	7.40 *	0.72	8.07 *
<i>Dependent variable</i>			$d \log(HPI_t)$			
Adjusted R^2	0.58		0.60		0.61	
Durbin-Watson statistic	2.03		1.96		1.77	
	White Heteroskedasticity-Consistent Standard Errors & Covariance					
Observations	101 (1984Q1-2009Q2)				87	

-0.83%



-2.61%

Yiu, C.Y. (2009) Negative real interest rate and housing bubble implosion – an empirical study in Hong Kong, *Journal of Financial Management of Property and Construction*, 14(3), 257-270

Conclusions

- House price rise is a global phenomenon, its cause is likely to be a shock common to many economies during COVID;
- It's unlikely to be caused by local issues, such as tax policy, house supply, etc;
- A cut to an unprecedented low interest rate and a lax monetary policy is common to the OECD economies during COVID;
- A cross-economies panel analysis confirms a negative association between real interest rates and house price rises;
- Real interest rate does not only affect the borrowing cost, but it is also a benchmark for the required rate of return.

References:

- Beckford, G. (2020) [Reserve Bank rejects request for help fixing the housing crisis](#), RNZ, 11 Dec.
- Deloitte (2020) COVID-19-The impacts on global residential mortgage markets, May.
- Kingsly, K. & Henri, K. (2020) Central Banks Respond to COVID-19 to Stave off a Financial Crisis, They Need for Targeted Fiscal Measures Should not be Understated, SSRN. <https://ssrn.com/abstract=3562320>
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- Small, Z. (2020) [Reserve Bank Governor Adrian Orr recommends new housing agency to coordinate response to rising house prices](#), Newshub, 11 Dec.
- Stats NZ (2020a) [Dwelling and household estimates: Sep 2020 quarter](#), Stats NZ, 7 Oct.
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