

# Does Share Repurchase Legalization Really Harm Corporate Investments?

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with Elliot Tobin (HBS)

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@ Imperial Business School

# What We Do

- We (re-)examine the impact of legalizing share repurchases on corporate investments (R&D and CAPEX)
  - ↪ [Wang, Yin, and Yu \(JFE 2021\)](#) claim legalizing share repurchases lead repurchasing firms to lower investments
- Setting: Using the staggered legalization of share repurchases in 17 markets around the world between 1985 to 2010, we **do not find any compelling evidence that legalizing share repurchases harm investments**
  - ↪ Our evidence consistent with legalizing repurchases stimulating investments for the average firm, consistent with facilitating flow of capital

# Why? Broad-Based Concern Buybacks' Effects

Significant and growing concern about repurchases and investments since 2014

Harvard  
Business  
Review

## 2014 HBR McKinsey Awards

FIRST PLACE



### "Profits Without Prosperity"

SEPTEMBER 2014

A meticulously researched study by **William Lazonick**, a professor at the University of Massachusetts Lowell, suggests that executives are using massive stock buybacks to manipulate share prices and boost their own pay—at great cost to innovation and employment.

- 2003-2012: S&P500 buybacks + dividends  $\approx$  **91% of net income**
  - ↪ ['03-'22]  $\approx$  100%
  - ↪ ['22] Record high
- "... [Level of shareholder payouts] left very little for investments in productive capabilities or higher incomes for employees."
- Criticism focused on stock buybacks, which accounted for the majority ( $> 60\%$ )

# Why? Broad-Based Concern Buybacks' Effects

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## Lipton (2015)

“In response to short-termist pressures brought by hedge funds and activist share-holders, companies have been fundamentally altering their business strategies to forego long-term investments in favor of stock buybacks, dividends and other near-term capital returns. At this point, theoretical debates about [short-termism and corporate governance] ... have been superseded by observable, quantifiable trends and behaviors. For example, according to Standard & Poor’s, dividends and stock buybacks [in S&P 500 firms] ... totaled more than \$900 billion in 2014—the highest level on record... ”

Corporate Lawyers


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**REPORT**  
**Stock buybacks: From retain-and-reinvest to downsize-and-distribute**  
William Lazenick - Friday, April 17, 2015

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 **REUTERS**

[Imprisoned In Myanmar](#) [Energy & Environment](#) [Brexit](#) [North Korea](#) [Ch](#)

**FUNDS NEWS**  
MARCH 26, 2014 / 12:00 AM / 5 YEARS AGO

## BlackRock CEO warns top U.S. firms: don't overdo dividends, buybacks

Long-term Investors

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The New York Times



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**DealBook**

DEALBOOK

*Stock Buybacks Draw Scrutiny From Politicians*

By [Andrew Ross Sorkin](#)

Aug. 10, 2015

Politicians



# Why? Broad-Based Concern Buybacks' Effects

Significant and growing concern about repurchases and investments since 2014

OPINION | COMMENTARY

## *How Short-Termism Saps the Economy*

Paying CEOs so much in stocks puts their focus on the share price instead of building for the long run.

By [Joe Biden](#)

Sept. 27, 2016 7:14 p.m. ET

Politicians

# Why? Broad-Based Concern Buybacks' Effects

Significant and growing concern about repurchases and investments since 2014



[Home](#) > [Economy & Politics](#) > [Capitol Report](#)

## Clinton and surrogates criticize share buybacks — even as the trend reverses

By [Francine McKenna](#)

Published: Aug 24, 2016 9:20 a.m. ET

Politicians

# Why? Broad-Based Concern Buybacks' Effects

Significant and growing concern about repurchases and investments since 2014

## Warren decries stock buybacks, high CEO pay

Senator seeks overturn of rules



Politicians

# Why? Policy Proposals to Restrict/Ban Buybacks

- '18 Senators Chuck Shumer (D-NY) and Tammy Baldwin (D-WI) introduced bill to “rein in” buybacks
  - Allow SEC the authority to reject buybacks that, in its judgment, hurt workers
  - Require boards to “certify” that a repurchase is in the “best long-term financial interest of the company”
- '19 Senators Tammy Baldwin (D-WI) and Elizabeth Warren (D-MA) also introduced a bill that bans **all** open-market repurchases
- '22 President Joe Biden’s 1% tax on stock buybacks as part of the Inflation Reduction Act
- '23 Senators Sherrod Brown (D-OH) and Ron Wyden (D-OR) proposed increasing the tax to 4% in Stock Buyback Accountability Act

# Why? Academic Evidence

## ■ Are the claims/concerns warranted?

RQ1. Does the legalization of buybacks lead to a decline in corporate investments?

→ Among **all** firms? **Some** (repurchasing) firms?

RQ2. Why / why not?

## ■ These questions remain open in the literature, which lacks causal evidence

→ Repurchases tend to be negatively correlated with investment  
([Grullon and Michaely, JF 2004](#); [Boudry et al, JCF 2013](#))

■ May reflect diminishing growth opportunities and excess cash

→ [Graham \(JF 2022\)](#): Survey of CFOs suggests that dividends more likely than repurchases to crowd out investment, consistent with dividends being sticky

→ [Fried and Wang \(RCFS 2019\)](#): When properly measured, *net* shareholder payouts a much smaller percentage of investment-available income (20-30%) than previously thought

■ Do not pin down the firm-level effect of repurchases on investments

# Why? Academic Evidence

Bonaime and Kahle (2024) call for research that provides causal evidence on “the extent to which repurchases come at the expense of long-term investments...”

↪ “Precise answers to these questions are necessary to inform the broader conversation among regulators about corporate short-termism”

# Wang, Yin, and Yu (JFE 2021)

Journal of Financial Economics 140 (2021) 197–219



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## Real effects of share repurchases legalization on corporate behaviors<sup>☆</sup>

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### ABSTRACT

We use staggered share repurchases legalization from 1985 to 2010 across the world to examine its impact on corporate behaviors. We find that share-repurchasing firms do not cut dividends as a substitution. The cash for repurchasing shares comes more from internal cash than external debt issuance, leading to reductions in capital expenditures and R&D expenses. While this strategy boosts stock prices, it results in lower long-run Tobin's Q, profitability, growth, and innovation, accompanied by lower insider ownership. Tax benefits and paying out temporary earnings are two primary reasons that firms repurchase.

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- Causal evidence of repurchase legalization lowers corporate investments among repurchasing firms
- Staggered legalization of share repurchases in markets around the world

# Wang, Yin, and Yu (JFE 2021): Advantages of Setting

- Broad international sample: 17 markets that legalized repurchases between 1980 to 2010
- Plausible causal identification
  - ↪ “Staggered legalization across countries provides an identification setting... that allows us to reinvestigate the motivations and consequences of share repurchases that previous work has documented without being able to address endogeneity issues.”
  - ↪ “We... confirm that the timing of repurchase legalization is not related to pre-existing country-year-level conditions.”
  - ↪ “[O]ur results are not driven by chance,” or by violations of the parallel-trends assumption



# Reasons for Re-Evaluation: Incomplete Answer

Sample that *chose* to engage in buybacks within two years of legalization

- ↪ Small minority of firms ( $\sim 6.5\%$ ) that are older, larger, face fewer growth opportunities, and hold more cash
- ↪ If true, is it bad?  
(e.g., if the firms choosing to buyback are low-growth high-cash)
- ↪ From policy perspective, interested in the effect for *all* firms!  
(e.g., pumping cash out of low-growth cash-rich firms may mean greater ability to fund investments in high-growth cash-poor firms)

# Reasons for Re-Evaluation: Problematic Estimator

Causal estimates based on pooled TWFE “staggered DiD regressions”

- ↪ Do not estimate ATT and can produce estimates of the wrong sign  
de Chaisemartin and D’Haultfœuille (AER 2020); Goodman-Bacon (JE 2021);  
Callaway and Sant’Anna (JE 2021); Sun and Abraham (JE 2021); Borusyak,  
Jaravel, and Spies (REStud 2024)
- ↪ Problems are relevant to the accounting and finance literature  
Baker, Larcker, Wang (JFE 2022)
- ↪ E.g., if the investment effect of repurchase legalization is dynamic, pooled  
TWFE can be especially problematic
- ★ Investment plans tend to be sticky and take time to develop  
⇒ effect of policy likely to be dynamic
- ★ TWFE reflects a significant degree of “negative weights”

# Replication

## Sample: 17 markets that legalized share repurchases between 1980 and 2010

**Table 1.**

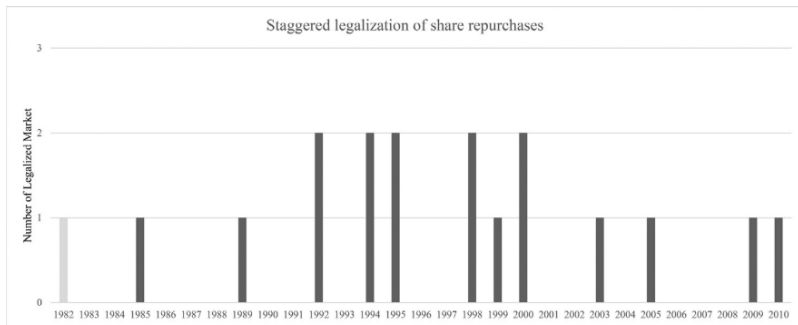
Detailed legalization information of 17 markets in regression sample.

Market	Legalized Year	Law	Referring literature	First appearance of repurchase case	SDC deal number
Canada	1985	Canada Business Corporations Act	IBA Corporate and M&A Law Committee (2014); <a href="#">Anand (2015)</a>	1985	97,827,040
China	2005	Administration of Repurchase of Public Shares by Listed Companies Procedures (Trial Implementation)	Administration of Repurchase of Public Shares by Listed Companies Procedures (2005)	2005	1,672,814,040
Germany	1998	<i>Aktiengesetz</i>	<a href="#">Kim et al. (2005)</a> ; <a href="#">Seifert and Stehle (2005)</a>	1998	842,806,040
Greece	2003	The Commission Regulation	<a href="#">Drousia et al. (2019)</a>	2003	1,402,914,040
Israel	1999	The Companies Law	IBA Corporate and M&A Law Committee (2014)	1999	942,220,040
Japan	1995	Commercial Law (1994), Tax Reform Act (1995)	<a href="#">Sabri (2003)</a> ; <a href="#">Kim et al. (2005)</a>	1995	450,952,040
Kuwait	2010	Capital Markets Law	Capital Markets Law (2018)	2011	2,296,984,040
Netherlands	1992	Dutch Civil Code	IBA Corporate and M&A Law Committee (2014); <a href="#">Van Holder et al. (2015)</a>	1993	332,690,040
New Zealand	1994	The Companies Act	<a href="#">Sabri (2003)</a>	1994	447,075,040
Russia	1995	Federal Law on Joint Stock Companies (LJSC)	IBA Corporate and M&A Law Committee (2014); An Overview of the Glass Lewis Approach to Proxy Advice: Russia (2017)	1996	597,023,040
Singapore	1998	The Companies Act	<a href="#">Sabri (2003)</a> ; <a href="#">Chua (2010)</a>	1999	923,168,040
South Africa	2000	Listing Requirements	<a href="#">Bhana (2007)</a>	2000	1,017,165,040
South Korea	1994	Securities Act	<a href="#">Jung et al. (2005)</a> ; <a href="#">Isa and Lee (2014)</a>	1996	537,334,040
Spain	1989	Spanish Company Law	<a href="#">Lainez et al. (1999)</a> ; <a href="#">Davies et al. (2013)</a>	1990	165,256,040
Switzerland	1992	Swiss Company Law	<a href="#">Kim et al. (2005)</a>	1993	332,310,040
Taiwan	2000	Securities and Exchange Act	<a href="#">Sabri (2003)</a> ; <a href="#">Wang et al. (2013)</a>	2002	1,278,824,040
Turkey	2009	The Commercial Law	<a href="#">Dizkırıcı (2013)</a>	2010	2,256,287,040
United States*	1982		<a href="#">Cook et al. (2003)</a> ; <a href="#">Kim et al. (2005)</a> ; <a href="#">Kim et al. (2005)</a>		

\* United States information is only for reference but not used in main analysis.

# Replication

Sample: 17 markets that legalized share repurchases between 1980 and 2010



Basic specification (for firm  $i$  in country  $j$  and year  $t$ ):

$$Y_{ijt} = \beta_0 + \beta_1 \text{Legalization}_{jt} + \beta_2 X_{ijt} + FE_{ij} + FE_t + \epsilon_{ijt}$$

# Replication: Main Results of WYY21 (T1)

*Pooled TWFE Staggered DiD using Repurchasing Firms*

	<i>Repurchase</i>		<i>Cash</i>		<i>Investment</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Panel A: WYY Data</b>						
<i>Legalization</i>	0.3919*** (0.086)	0.5878*** (0.106)	-3.3855*** (0.566)	-1.3047** (0.533)	-1.0744*** (0.210)	-0.6790** (0.280)
Firm Controls	No	Yes	No	Yes	No	Yes
Observations	16,093	10,023	17,573	11,604	18,196	11,290
Adj $R^2$	0.1652	0.1668	0.6112	0.7004	0.5529	0.5300

Legalization led to a  $\approx 10 - 15\%$  decline in investment

# Replication: Main Results of WYY21 (T1)

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<b>Panel B: TW Data</b>						
<i>Legalization</i>	0.3796*** (0.060)	0.5454*** (0.075)	-3.6395*** (0.611)	-1.1107** (0.532)	-1.1117*** (0.217)	-0.7507** (0.293)
Firm Controls	No	Yes	No	Yes	No	Yes
Observations	17,728	10,942	16,379	10,942	17,081	10,681
Adj $R^2$	0.1510	0.1677	0.6033	0.7053	0.4807	0.4944

Can replicate results (with proper winsorization) by reconstructing own data  
 → necessary for extending analysis to *all* firms

# Effect of Repurchase Legalization on All Firms

- Why consider broader impact of share repurchase legalization on all public firms in affected jurisdictions?
  - ↪ Repurchasing firms constitute only 6.5% of total sample
  - ↪ In theory, legalizing repurchases could impact other (non-repurchasing) firms (e.g., changing cost of capital or ease of capital raising)
  - ↪ For policy purposes, understanding the effect of legalizing repurchases on *all* firms at least as important

# Firms Repurchasing within 2 Years of Legalization (T3)

*Repurchasing Firms and Firm Characteristics*

	(1)	(2)	(3)	(4)
<i>Age</i>	0.0037*** (0.001)	0.0044*** (0.001)	0.0041*** (0.000)	0.0037*** (0.000)
<i>Log Assets</i>	0.0112*** (0.002)	0.0127*** (0.001)	0.0132*** (0.002)	0.0125*** (0.002)
<i>ROA</i>	-0.0019*** (0.000)	-0.0025 (0.002)	-0.0024 (0.002)	-0.0031 (0.002)
<i>Log Book to Market</i>		0.0048* (0.002)	0.0059** (0.002)	0.0057** (0.002)
<i>Sales Growth</i>		-0.0021* (0.001)	-0.0011 (0.001)	-0.0008 (0.001)
<i>Cash/Assets</i>			0.0744*** (0.014)	0.0728*** (0.013)
<i>Dividends/Assets</i>			4.2378*** (1.098)	4.3168*** (1.141)
<i>Leverage</i>			0.0000 (0.000)	0.0000 (0.000)
<i>Insider Shares</i>				-0.0442*** (0.008)
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	286,622	231,194	204,849	174,119
Adjusted $R^2$	0.1252	0.1374	0.1363	0.1333

Repurchasing firms tend to be **older**, **larger**, have **fewer growth opportunities**, hold **more cash**, and are more **prone to shareholder payout**.



# Investment FX on All Firms: Stacked Regressions (T4)

## A. Impact of Repurchase Legalization on All Firms

	Repurchase			Cash			Investment		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Legalization</i>	0.2185*** (0.0142)	0.2284*** (0.0162)	0.2054*** (0.0165)	-0.6260** (0.2484)	-0.4674** (0.2311)	-0.9660*** (0.2175)	0.6864*** (0.1167)	0.6758*** (0.1480)	0.5672*** (0.1467)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Controls	No	No	Yes	No	No	Yes	No	No	Yes
Clustering	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	604,497	339,664	339,664	567,214	339,661	339,661	483,800	284,150	284,150
Adj $R^2$	0.2968	0.1794	0.1821	0.6472	0.6854	0.7151	0.5140	0.5104	0.5163

For all firms, legalization leads to **more** investment.

# Investment FX on All Firms: Stacked Regressions (T4)

## B. Components of Investment – Capex and R&D

	Capex			R&D		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Legalization</i>	0.5980*** (0.1114)	0.6628*** (0.1438)	0.5781*** (0.1428)	0.1116*** (0.0291)	0.0077 (0.0276)	-0.0251 (0.0282)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm Controls	No	No	Yes	No	No	Yes
Clustering	Yes	Yes	Yes	Yes	Yes	Yes
Observations	483,800	284,150	284,150	604,505	339,664	339,664
Adj $R^2$	0.4591	0.4884	0.4950	0.6917	0.8261	0.8281

Effects largely driven by CAPEX.

No R&D effect among firms with non-missing control variables, which tend to be **older**, **larger**, **more profitable**.

# Investment FX on All Firms: CS Estimates (T5)

## *Callaway & Sant'Ana (2021) Estimators*

	<i>Investment</i>			
	(1)	(2)	(3)	(4)
No Matching	1.4591*** (0.3151)			
Match on T-1 Values	1.6072*** (0.5264)	2.0326*** (0.6190)	1.4087*** (0.4398)	1.3815*** (0.4480)
Match on T-3 Values	1.3219** (0.5232)	0.9645** (0.4904)	1.9074*** (0.3677)	1.9424*** (0.3438)
Match on T-5 Values	2.9520*** (0.8159)	1.5267** (0.7149)	1.7813*** (0.4364)	0.9745* (0.5495)
Match on 3 Year Avg.	1.1631* (0.6609)	1.0008 (0.8008)	1.7609*** (0.3995)	1.7826*** (0.4001)
Match on 5 Year Avg.	2.1295*** (0.6457)	0.9221 (0.7201)	1.8139*** (0.4855)	1.6189*** (0.5290)
Matching On	Cov	Cov	Pre	Pre
Estimator	Outcome	DRIPW	Outcome	DRIPW

nb. "Outcome" is an outcome regression method. "DRIPW" is a doubly robust method (inverse probability weighting + regression adjustments)

**Consistent with stacked, legalization increases investments on average!**

# Understanding the Main Effects

Hypothesis: Legalizing share repurchases facilitate redistribution of equity capital across public companies

- ⇒ Circulation hypothesis predicts investment effect concentrated in non-repurchasing firms
- ⇒ Easier access to equity capital should result in a shift from debt to equity
- ⇒ Easier access to equity capital could lead to more positive NPV investment opportunities being realized
- ⇒ Such redistribution effects should be more pronounced in countries with greater frictions on capital access, for which any redistributed capital from repurchase legalization is more likely to stimulate investment activities

# Firm-Level Heterogeneity: Rep vs. Non-Rep Firms (T6)

	<i>Repurchase</i>			<i>Cash</i>			<i>Investment</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Panel A: Non-Repurchasing</b>									
<i>Legalization</i>	0.1355*** (0.0144)	0.1268*** (0.0152)	0.0996*** (0.0152)	-0.5644** (0.2808)	-0.2157 (0.2566)	-0.6361*** (0.2417)	0.9831*** (0.1311)	0.9020*** (0.1662)	0.7997*** (0.1642)
Firm Controls	No	No	Yes	No	No	Yes	No	No	Yes
Observations	565,424	317,492	317,492	531,591	317,489	317,489	448,659	263,796	263,796
Adj $R^2$	0.3033	0.1871	0.1899	0.6459	0.6843	0.7148	0.5126	0.5091	0.5153
<b>Panel B: Repurchasing</b>									
<i>Legalization</i>	0.5858*** (0.0509)	0.6276*** (0.0648)	0.6220*** (0.0686)	-2.2218*** (0.6273)	-2.3884*** (0.7463)	-3.2164*** (0.6264)	-0.5924* (0.3303)	-0.6611* (0.3760)	-0.7775** (0.3740)
Firm Controls	No	No	Yes	No	No	Yes	No	No	Yes
Observations	39,065	22,157	22,157	35,614	22,157	22,157	35,127	20,337	20,337
Adj $R^2$	0.2602	0.1577	0.1610	0.6763	0.7002	0.7382	0.5421	0.5305	0.5365

Legalization resulted in higher (lower) investment in non-repurchasing (repurchasing) firms

# Understanding the Main Effects

Hypothesis: Legalizing share repurchases facilitate redistribution of equity capital across public companies

- ↪ Circulation hypothesis predicts investment effect concentrated in non-repurchasing firms [✓]
- ↪ Easier access to equity capital should result in a shift from debt to equity
- ↪ Easier access to equity capital could lead to more positive NPV investment opportunities being realized
- ↪ Such redistribution effects should be more pronounced in countries with greater frictions on capital access, for which any redistributed capital from repurchase legalization is more likely to stimulate investment activities

# Capital Structure Effects (T7)

	<i>Debt</i>			<i>Debt Issuance</i>			<i>Equity</i>			<i>Equity Issuance</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>Legalization</i>	-2.4046*** (0.3751)	-1.9523*** (0.3685)	-0.9284** (0.3818)	-0.2209 (0.1578)	-0.9272*** (0.1814)	-0.6145*** (0.1804)	4.0665*** (1.0425)	1.5372*** (0.4294)	0.6045 (0.6885)	2.8305*** (0.4213)	3.6746*** (0.3886)	2.5299*** (0.3878)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Clustering	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	597,731	351,676	351,676	519,082	347,602	347,602	604,290	351,775	351,775	338,686	219,958	219,958
Adj $R^2$	0.4963	0.6844	0.6965	0.1832	0.0901	0.1110	0.4630	0.5712	0.5798	0.3853	0.2109	0.2340

Legalization resulted in lower debt and debt issuance, higher equity and equity issuance

# Understanding the Main Effects

Hypothesis: Legalizing share repurchases facilitate redistribution of equity capital across public companies

- ↪ Circulation hypothesis predicts investment effect concentrated in non-repurchasing firms [✓]
- ↪ Easier access to equity capital should result in a shift from debt to equity [✓]
- ↪ Easier access to equity capital could lead to more positive NPV investment opportunities being realized
- ↪ Such redistribution effects should be more pronounced in countries with greater frictions on capital access, for which any redistributed capital from repurchase legalization is more likely to stimulate investment activities



# Operating Performance Effects (T8A)

	<i>Return on Assets</i>			<i>Return on Equity</i>			<i>Sales Growth</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Legalization</i>	3.0388*** (0.2322)	2.1567*** (0.1025)	2.2941*** (0.0909)	4.2607*** (0.4568)	4.5122*** (0.2892)	4.7635*** (0.2700)	8.8051*** (1.0334)	8.6245*** (0.9532)	6.9769*** (0.9737)
Firm Controls	No	No	Yes	No	No	Yes	No	No	Yes
Observations	732,394	468,554	468,554	730,198	467,855	467,855	642,818	415,658	415,658
Adj $R^2$	0.3239	0.5445	0.6857	0.0609	0.3566	0.4128	0.1144	0.1997	0.2148

Legalization resulted in higher ROE, ROA, and Sales Growth

# Stock Performance Effects (T8B)

	<i>Tobin's Q</i>			<i>Buy and Hold Return</i>		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Legalization</i>	1.1684 (1.9377)	3.7252* (1.9418)	5.6751*** (1.9360)	27.8817*** (1.4407)	28.8843*** (1.8009)	28.7881*** (1.8122)
Firm Controls	No	No	Yes	No	No	Yes
Observations	614,804	393,031	393,031	496,033	315,661	315,661
Adj $R^2$	0.4480	0.5724	0.5777	0.1233	0.1889	0.1951

Legalization resulted in higher Tobin's Q and Stock Returns

# Understanding the Main Effects

Hypothesis: Legalizing share repurchases facilitate redistribution of equity capital across public companies

- ↪ Circulation hypothesis predicts investment effect concentrated in non-repurchasing firms [✓]
- ↪ Easier access to equity capital should result in a shift from debt to equity [✓]
- ↪ Easier access to equity capital could lead to more positive NPV investment opportunities being realized [✓]
- ↪ Such redistribution effects should be more pronounced in countries with greater frictions on capital access, for which any redistributed capital from repurchase legalization is more likely to stimulate investment activities

# Country-Level Heterogeneity: Capital Friction (T9)

	<i>Capital Controls</i>		<i>Cash Spread</i>		<i>Market Segmentation</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Legalization</i>	1.4468*** (0.1795)	0.3876** (0.1652)	0.9832*** (0.1549)	0.4523*** (0.1752)	0.9415*** (0.1791)	0.5729*** (0.1516)
Higher - Lower Friction	1.0591*** (0.2485)		0.5309** (0.2130)		0.3685* (0.2229)	
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm Controls	No	No	No	No	No	No
Clustering	Yes	Yes	Yes	Yes	Yes	Yes
Observations	222,518	391,212	250,520	360,230	278,412	330,328
Adj $R^2$	0.5306	0.5267	0.5169	0.5195	0.4901	0.5281

NB. The countries with capital controls are South Korea, China, Kuwait, Russia, Taiwan, South Africa, and Japan. The difference between the odd and even columns is reported in the difference below the estimates. A high (low) cash spread has an above (below) median cash interquartile range of Cash to Assets at the time of legalization. High cash spread countries are China, Germany, Greece, Israel, Japan, Kuwait, Singapore, South Africa, Taiwan, and Turkey. High (low) market segmentation indicates the country has less (more) competition for capital [following [Bekaert, Harvey, Lundblad and Siegel \(2011\)](#) and [Jiao, Karolyi, and Ng \(2024\)](#)]. The high segmentation countries are Germany, Greece, Kuwait, Netherlands, Russia, South Korea and Turkey. This difference is reported using bootstrapped standard errors, clustered at the firm-stack level with 1,000 repetitions.

Investment effect **more positive** in countries with capital controls

- ... greater cash-holding inequality
- ... greater equity market segmentation

# Takeaways

- From policy perspective, impact of repurchases on *all* firms (rather than those that choose to repurchase right after legalization) most relevant
  - ↪ Lowering the barriers to payout may have positive spillover effects on capital markets, allowing capital to flow from cash-rich low-growth companies to cash-poor high-growth companies
- No compelling evidence that legalization of repurchases leads to overall reduction in corporate investments
  - ↪ Best evidence may be among repurchasing firms, but they represent a small minority of the market (6.5%)
  - ↪ Repurchasing firms are older, larger, face fewer growth opportunities, hold more cash; negative payout-investment relation may be desirable (e.g., limit over-investment)
- Cautions against blanket restrictions on buybacks, which could inadvertently impede efficient capital allocation



**Thank You!**