Tax Evasion and Information Production: Evidence from the FATCA and Offshore Asset Management

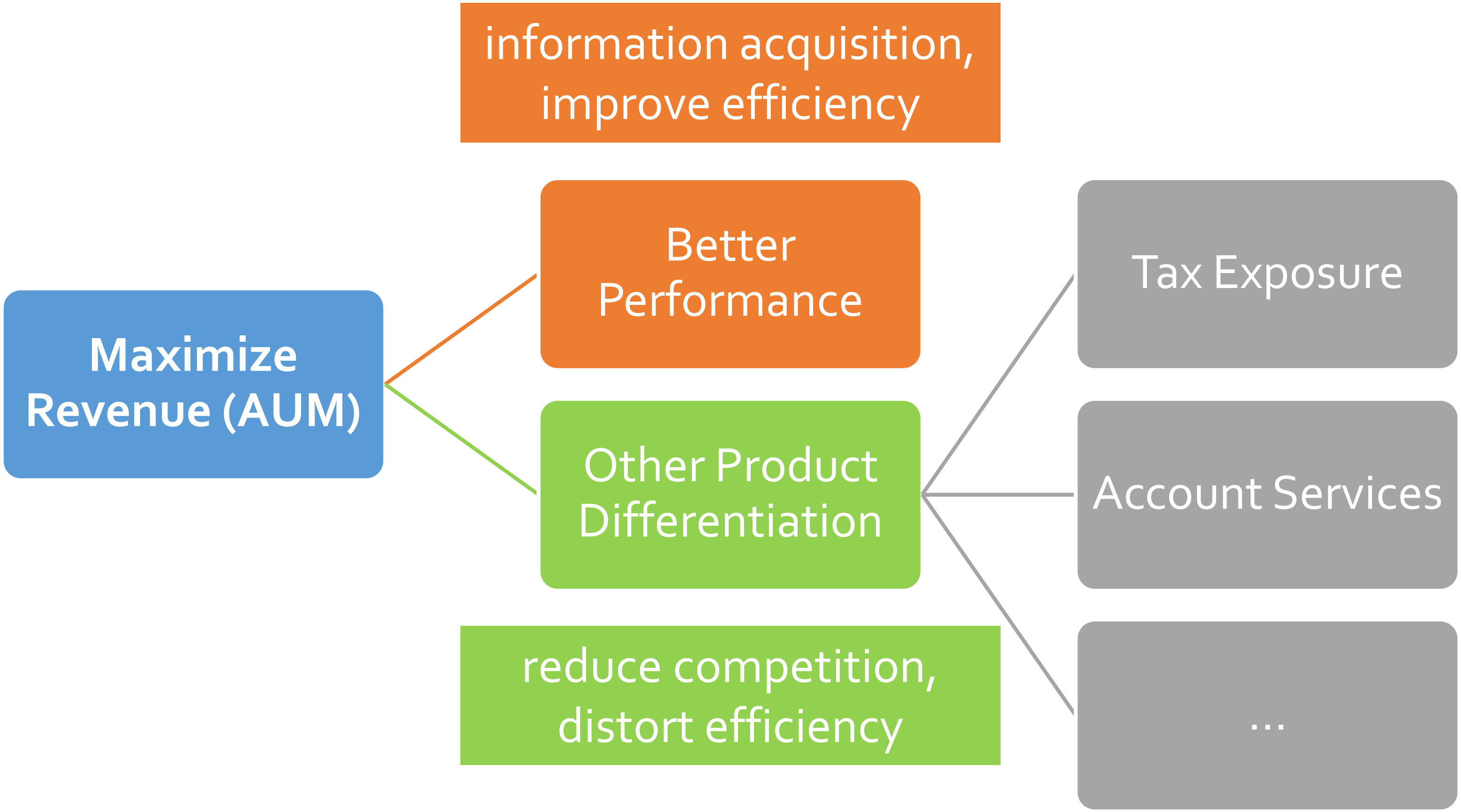
Si Cheng, Chinese University of Hong Kong

Massimo Massa, INSEAD

Hong Zhang, Tsinghua University

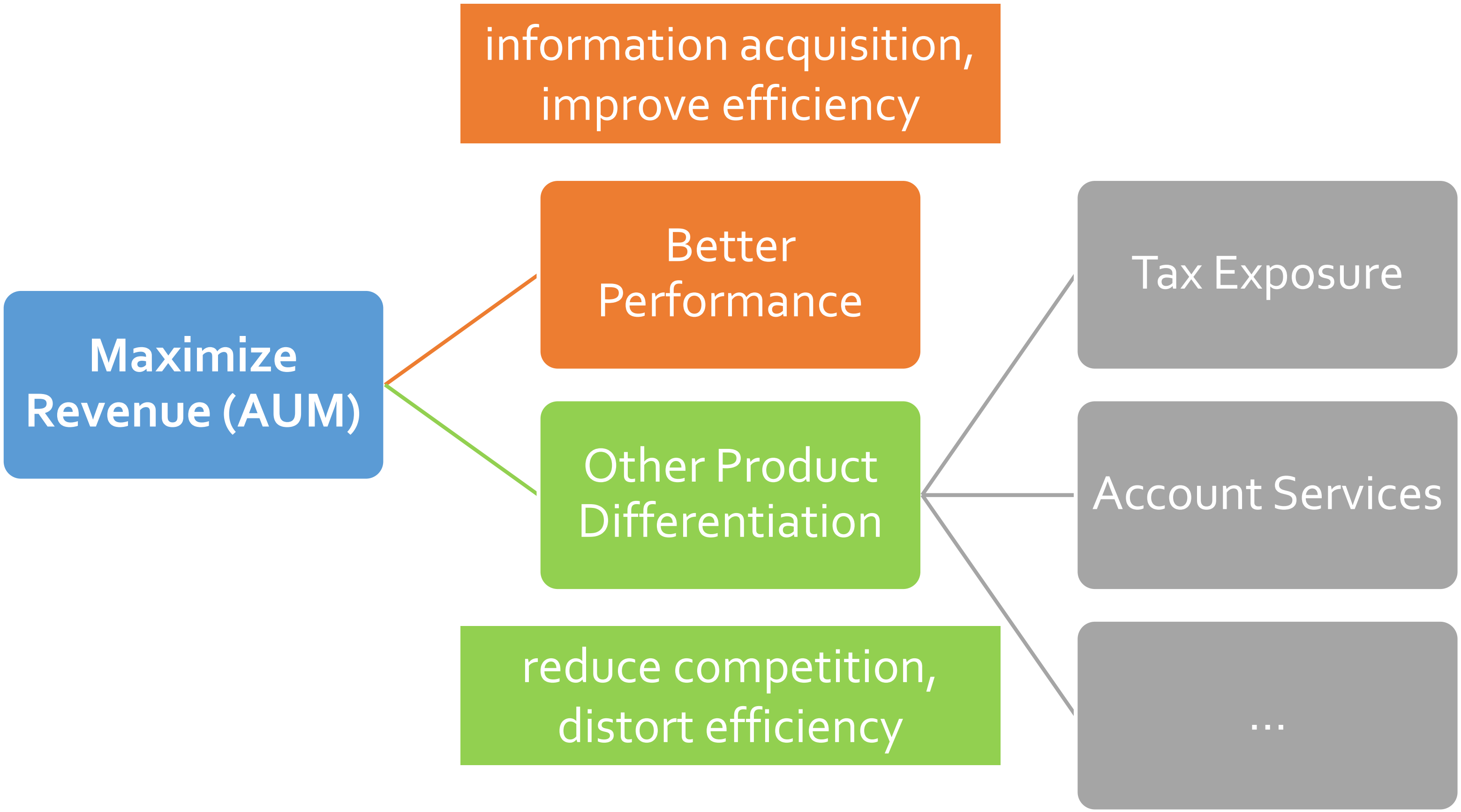
ABFER Annual Conference, May 2022

Background



- Fund managers may optimally devote resources to nonperformance-related attributes.

Background



- Empirical challenge: endogenous choice, the *ex ante* choice sets of fund managers are unobservable

FATCA as an Exogenous Shock

- FATCA: Foreign Account Tax Compliance Act
- Exogenous shock to an important nonperformance-related attribute: offshore tax evasion
- Before FATCA: self-report the offshore income, establish offshore accounts to evade U.S. taxes
- After FATCA: foreign financial institutions (FFIs) report directly to the Internal Revenue Service (IRS)
- 97% of FFIs have registered under the FATCA in July 2014 when it was first implemented, otherwise face a 30% withholding tax on any U.S.-sourced income

Offshore Accounts: No Place to Hide?

The U.S.'s intense crackdown on tax evasion is entering a new phase.

Revenue to receive details on thousands of offshore accounts

Disclosure of Crown Dependencies and Overseas Territories' records likely to spur prosecutions

A New Era of Tax-Data Sharing for the IRS

Agency starts digital exchange of financial-account data with authorities overseas

Tax milestone as Fatca reporting requirement takes effect

Financial institutions must start collecting information US clients

Wealthy turn their backs on offshore tax havens

Tighter international rules cut the options for managers

Jersey has traitionally been a major centre for offshore financial services

Research Questions

- How tax evasion affects information production by asset managers?
- What are the implications for the efficiency of financial markets?
- Mutual funds underperform the market on average:
  - Lack of skill
  - Market is efficient
  - Selection mechanism: substitute performance with more cost-effective attributes (e.g., tax advantage)

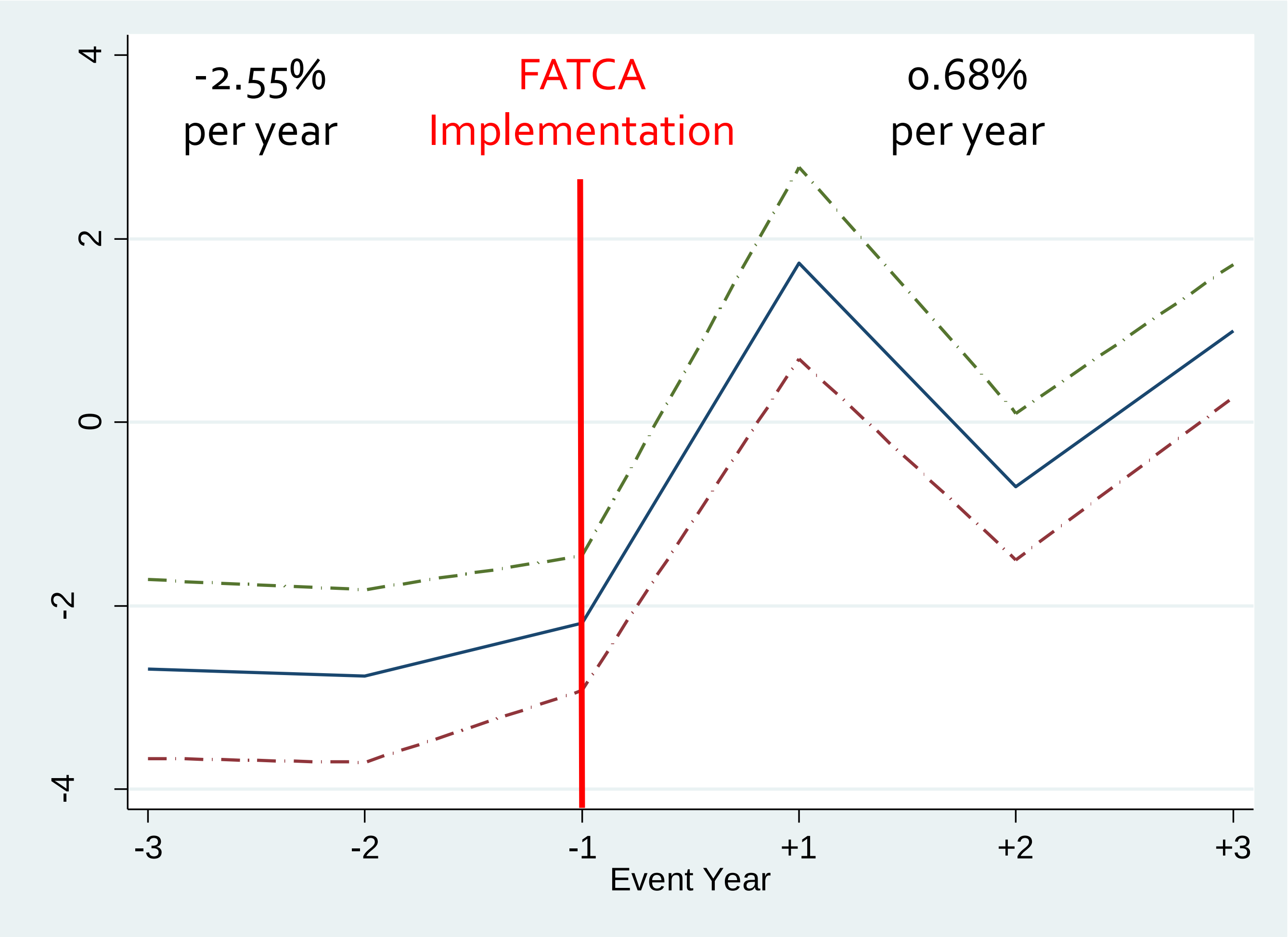
Data

- Mutual fund characteristics: Morningstar Direct and FactSet
- Stock characteristics: CRSP, COMPUSTAT North America and Global
- Sample: actively managed offshore equity mutual funds from 2011 to 2017
- 10,079 unique funds domiciled in 34 countries

Identification Strategy: Diff-in-Diff

- Treatment group: offshore funds sold to U.S. investors, affected funds
  - Before FATCA: provide tax benefits, compete on after-tax returns to attract investors
  - After FATCA: no tax advantage, compete on before-tax returns, need to improve performance or provide other benefits to retain investors
- Control group: offshore funds not sold to U.S. investors, unaffected funds
- Event window: [-3, +3] years around the FATCA implementation (July 1, 2014)

Style-adjusted Return Spread (Treatment-minus-Control)



DiD Estimate: Fund Performance

	Return		Risk-adjusted Return		Value Added	
	Return	STYRET	FFC4	FFC8	STYRET	FFC8
	Model 1	Model 2	Model 5	Model 6	Model 9	Model 10
US Sale × Post FATCA 3Y	0.232***	0.214***	0.107**	0.083*	1.109***	0.810***
	(5.17)	(5.25)	(2.13)	(1.91)	(7.56)	(4.95)
Controls	Y	Y	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y

- Affected funds: 2.57% higher style-adjusted return, $13.31 million higher dollar value added per year
- Sialm and Zhang (2020): the median (third quartile) tax burden of U.S. domestic funds is 1.62% (2.89%) in 2014.
- Mutual funds can deliver better performance when they need to.

DiD Estimate: Fund Performance Over Time

	Return		Value Added	
	Return	STYRET	STYRET	FFC8
	Model 5	Model 6	Model 7	Model 8
Panel A: Full Sample				
US Sale × Pre FATCA^{-1}	-0.109	-0.100	0.251	0.322
	(-1.28)	(-1.18)	(0.96)	(1.12)
US Sale × Post FATCA^{+1}	0.261***	0.220***	1.296***	0.949***
	(3.51)	(2.97)	(5.01)	(4.71)
US Sale × Post FATCA$^{+2:+3}$	0.158*	0.157*	1.147***	0.922***
	(1.76)	(1.72)	(3.85)	(3.56)
Panel B: Matched Sample				
US Sale × Pre FATCA^{-1}	-0.021	-0.008	-0.002	0.582
	(-0.23)	(-0.09)	(-0.01)	(1.27)
US Sale × Post FATCA^{+1}	0.330***	0.299***	1.926***	1.233***
	(5.42)	(5.03)	(5.89)	(4.88)
US Sale × Post FATCA$^{+2:+3}$	0.225***	0.237***	1.083**	1.075***
	(3.53)	(3.73)	(2.66)	(2.86)
Controls	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y
Month FE	Y	Y	Y	Y

- No pretrends in fund performance

DiD Estimate: Fund Performance Over Time

	Return		Value Added	
	Return	STYRET	STYRET	FFC8
	Model 5	Model 6	Model 7	Model 8
Panel A: Full Sample				
US Sale × Pre FATCA^{-1}	-0.109	-0.100	0.251	0.322
	(-1.28)	(-1.18)	(0.96)	(1.12)
US Sale × Post FATCA^{+1}	0.261***	0.220***	1.296***	0.949***
	(3.51)	(2.97)	(5.01)	(4.71)
US Sale × Post FATCA$^{+2:+3}$	0.158*	0.157*	1.147***	0.922***
	(1.76)	(1.72)	(3.85)	(3.56)
Panel B: Matched Sample				
US Sale × Pre FATCA^{-1}	-0.021	-0.008	-0.002	0.582
	(-0.23)	(-0.09)	(-0.01)	(1.27)
US Sale × Post FATCA^{+1}	0.330***	0.299***	1.926***	1.233***
	(5.42)	(5.03)	(5.89)	(4.88)
US Sale × Post FATCA$^{+2:+3}$	0.225***	0.237***	1.083**	1.075***
	(3.53)	(3.73)	(2.66)	(2.86)
Controls	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y
Month FE	Y	Y	Y	Y

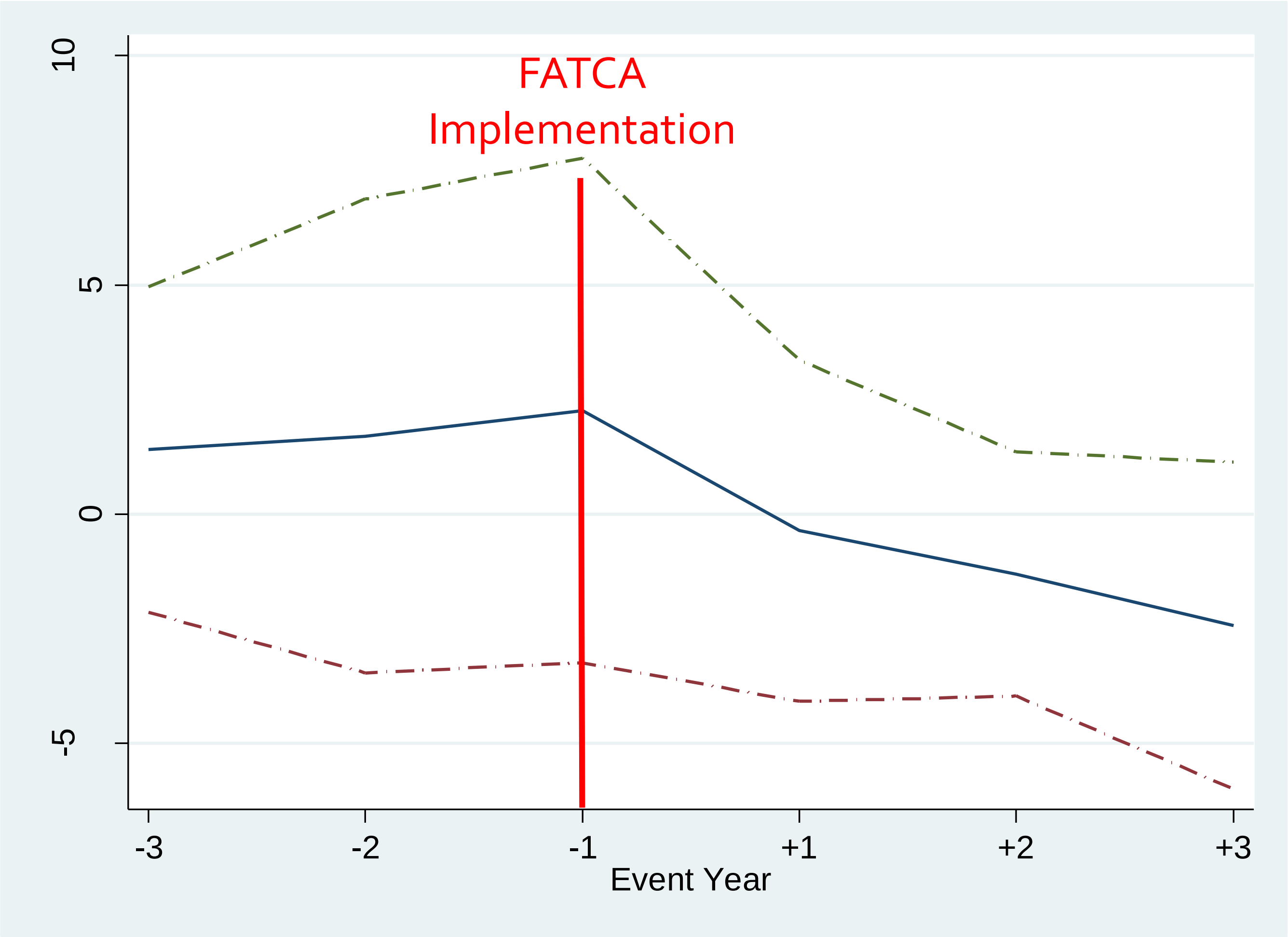
- FATCA-induced performance improvement persists over time.

DiD Estimate: Fund Fees in Matched Sample

	Fee		Style-adjusted Fee	
	Model 5	Model 6	Model 7	Model 8
US Sale × Post FATCA 3Y	-0.022**		-0.021*	
	(-2.06)		(-1.97)	
US Sale × Post FATCA^{+1}		-0.007		-0.007
		(-0.62)		(-0.62)
US Sale × Post FATCA$^{+2:+3}$		-0.030**		-0.029**
		(-2.60)		(-2.47)
Controls	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y

- Affected funds: 2-3 bp lower fee per year, 1.62% of the sample average

Style-adjusted Flow Spread (Treatment-minus-Control)



DiD Estimate: Fund Flows in Matched Sample

	Flow			Style-adjusted Flow		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
US Sale × Post FATCA 3Y	-0.186		-0.257*	-0.182		-0.252**
	(-1.50)		(-2.05)	(-1.52)		(-2.06)
US Sale × Post FATCA^{+1}		-0.036			-0.035	
		(-0.26)			(-0.26)	
US Sale × Post FATCA$^{+2:+3}$		-0.272**			-0.267**	
		(-2.25)			(-2.30)	
US Sale × Post FATCA 3Y × ΔSTYRET			0.405***			0.403***
			(2.96)			(2.95)
Post FATCA 3Y × ΔSTYRET			0.224*			0.213*
			(1.94)			(1.82)
Controls	Y	Y	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y

- Affected funds: 3.20% lower style-adjusted flows per year, in Years 2 and 3 following the FATCA
- The additional performance do not fully compensate for the loss of tax benefits.

DiD Estimate: Fund Flows in Matched Sample

	Flow			Style-adjusted Flow		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
US Sale × Post FATCA 3Y	-0.186		-0.257*	-0.182		-0.252**
	(-1.50)		(-2.05)	(-1.52)		(-2.06)
US Sale × Post FATCA^{+1}		-0.036			-0.035	
		(-0.26)			(-0.26)	
US Sale × Post FATCA$^{+2:+3}$		-0.272**			-0.267**	
		(-2.25)			(-2.30)	
US Sale × Post FATCA 3Y × ΔSTYRET			0.405***			0.403***
			(2.96)			(2.95)
Post FATCA 3Y × ΔSTYRET			0.224*			0.213*
			(1.94)			(1.82)
Controls	Y	Y	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y

- Affected funds: less outflows if improve performance after the FATCA

DiD Estimate: Counterfactual Analysis

	Active Funds		Index Funds	
	Model 3	Model 4	Model 7	Model 8
US Sale × Post FATCA 3Y	-0.102		-1.125**	
	(-1.15)		(-2.22)	
US Sale × Post FATCA^{+1}		0.083		-0.811
		(0.75)		(-1.29)
US Sale × Post FATCA$^{+2:+3}$		-0.205**		-1.315**
		(-2.16)		(-2.01)
Controls	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y
Month FE	Y	Y	Y	Y

- No significant difference in performance between affected and unaffected index funds after the FATCA
- Affected active vs. index funds: 2.46% vs. 15.78% lower style-adjusted flows per year, in Years 2 and 3 following the FATCA
- Fund investors are aware of the tax benefits and the potential flow damage is substantial.

DiD Estimate: Fund Investment Strategies

	TR^2	Return Gap	ICI	AS_Low News Coverage	AS_High Amihud	AS_Low Turnover
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
US Sale × Post FATCA 3Y	-0.133***	0.042	0.370***	0.132**	0.231**	0.580***
	(-2.92)	(1.31)	(2.96)	(2.55)	(2.51)	(5.30)
Controls	Y	Y	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y

- Affected funds: more active
- More return deviations, more concentrated portfolios in specific industries, more active shares on stocks with low news coverage and more asymmetric information

DiD Estimate: Fund Investment Strategies

	Stock Dividend Yield	Fund Dividend Yield
	Model 7	Model 8
US Sale × Post FATCA 3Y	0.027	-0.193
	(1.02)	(-0.60)
Controls	Y	Y
Fund FE	Y	Y
Month FE	Y	Y

- Divest from high-dividend-yield stocks → reduce the tax burden
- Affected funds: not likely to improve tax efficiency

Market Efficiency

	Delay_Local		Delay_Global	
	Model 2	Model 4	Model 6	Model 8
IO_Affected × Post FATCA 3Y	-0.331**	-0.397**	-0.054	-0.057
	(-2.71)	(-2.76)	(-0.74)	(-0.86)
IO_Unaffected × Post FATCA 3Y	0.087	0.086	0.050	0.020
	(1.43)	(1.35)	(1.62)	(0.70)
Controls	Y	Y	Y	Y
Stock FE	Y	Y	Y	Y
Country-Year FE	Y	N	Y	N
Country-Industry-Year FE	N	Y	N	Y

- 1 std.dev. increase in the ownership of affected funds → reduce the delay to local market information by 4.84% (higher price efficiency)
- No change for unaffected funds and delay to global market information

Additional Analysis

- Fund heterogeneity Details
- Rule out the alternative performance channel: decreasing returns to scale Details
- Diff-in-diff-in-diff (DDD): Active × US Sale × Post
- Extend the sample period to June 2019 (5 years after FATCA)
- No effect around the enactment date (March 2010)
- Alternative clustering, fixed effects, and matched sample

Conclusion

- Selection mechanism: being informed is an endogenous choice of fund managers
- FATCA as an exogenous shock to fund performance incentives: mutual funds can deliver better performance when they need to.
- More transparency in tax reporting motivates performance-based competition → improves the efficiency of the global mutual fund industry and stock markets.

APPENDIX

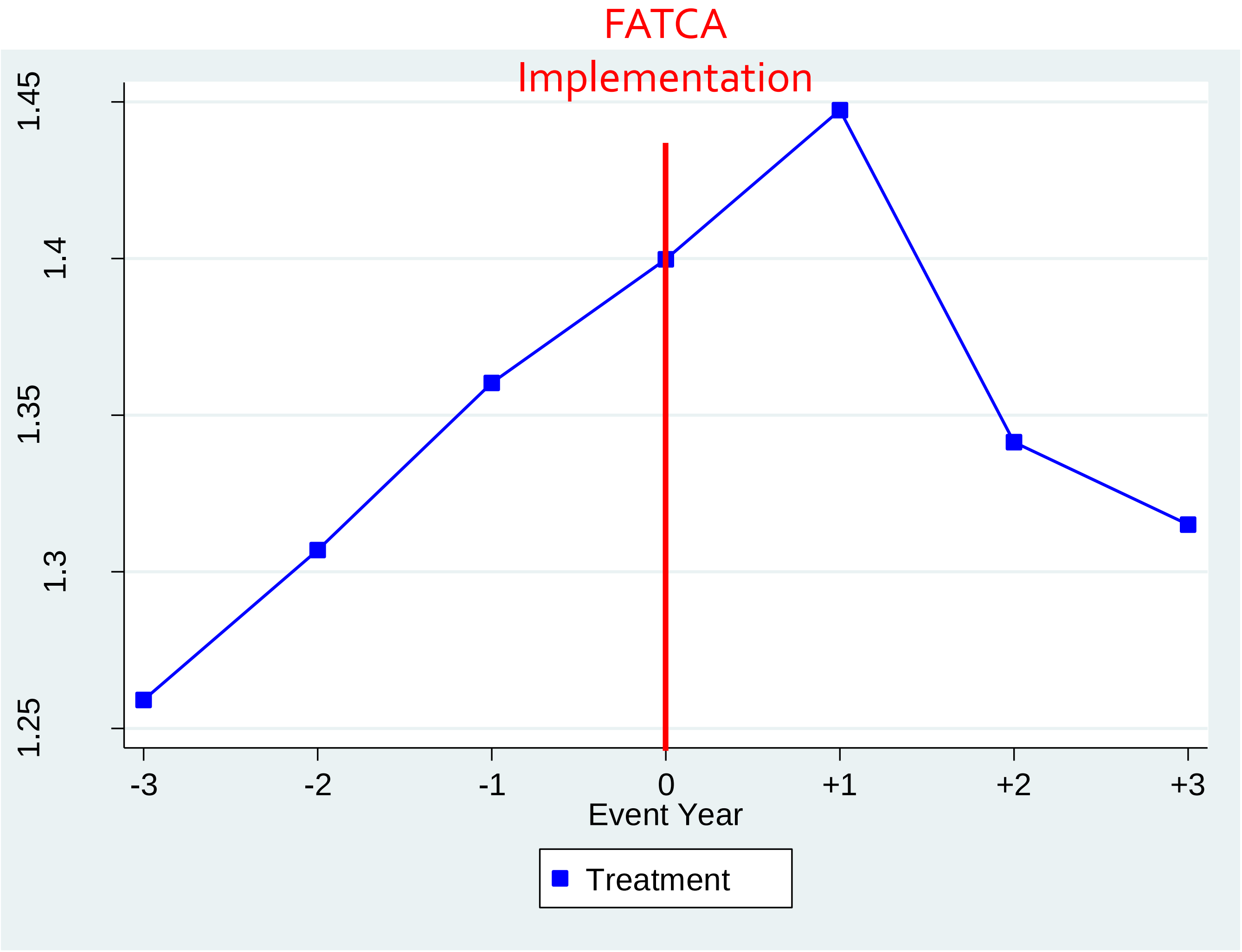
DiD Estimate: Style-adjusted Return

	Model 6	Model 7	Model 8	Model 9	Model 10
US Sale × Post FATCA 3Y	-0.077*	-0.077*	0.082**	0.107***	0.101***
	(-1.86)	(-1.86)	(2.62)	(2.81)	(2.97)
US Sale × Post FATCA 3Y × Haven	0.164***				
	(3.84)				
US Sale × Post FATCA 3Y × TIEA Haven		0.153***			
		(3.55)			
US Sale × Post FATCA 3Y × Non-TIEA Haven		0.206***			
		(5.42)			
US Sale × Post FATCA 3Y × Income Fund			0.232***		
			(3.76)		
US Sale × Post FATCA 3Y × Large Fund				0.063*	
				(1.76)	
US Sale × Post FATCA 3Y × Low TR^2					0.087*
					(2.03)
Controls	Y	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y

- Greater performance improvement among tax-sensitive funds: domiciled in tax havens, income funds

Back

Treatment Fund Size



Back