



# HIDING FILTHY LUCRE IN PLAIN SIGHT: THEORY AND IDENTIFICATION OF BUSINESS-BASED MONEY LAUNDERING

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PRESENTATION



PAPER

## SUMMARY

**MONEY LAUNDERING** is the process of moving proceeds from illicit activities into the legal economy.

**FACTS:** 2.3–5.5% of global GDP is laundered every year

**WE STUDY TWO MONEY LAUNDERING CHANNELS:**

- **BUSINESS-BASED (BBML)** Illicit funds placed by investing in a legitimate business
- **FINANCIAL-BASED (FBML)** Illicit funds channelled through financial institutions using hidden bank accounts, anonymous trusts, and intermediaries located in different countries

**CONTRIBUTION** We propose a theory-based approach that uses publicly available data to estimate changes in BBML due to regulatory changes affecting the marginal cost of FBML. We provide the first evidence that stronger international regulations designed to reduce FBML abroad causally increase BBML in U.S. counties.

## THEORETICAL FRAMEWORK

GENERAL EQUILIBRIUM MONOPOLISTIC-COMPETITION MODEL

**ENVIRONMENT:** consumer, criminal enterprise, legitimate and BBML-established firms

**MONEY LAUNDERING TECHNOLOGY (NOVEL INGREDIENT)**

$$R(E) = \max_{0 \leq z \leq E} \alpha \cdot \underbrace{(E-z)}_{\text{Fin-Based ML}} + \underbrace{V_T(z)}_{\text{Business-Based ML}}$$

$$z = \underbrace{\frac{M}{ML \text{ Firms}}}_{\text{ML Firms}} (f + c\bar{q}), \quad N = \underbrace{n}_{\text{Clean}} + M, \quad V_T(z) = \left(1 - \frac{M}{N}\right) \int_n \pi_i d_i$$

Lik. Not Confiscated

**TESTABLE IMPLICATION.** Tighter anti-money-laundering regulations targeting the financial sector cause a relative increase in unobservable BBML which is **at least as large as** the relative increase in observable business activity.

$$0 \leq \frac{dN}{d\varphi} \frac{1}{N} \leq \frac{dM}{d\varphi} \frac{1}{M}$$

## EXPOSURE-BASED RESEARCH DESIGN

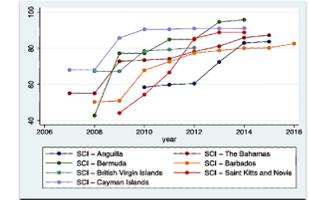
**BARTIK INSTRUMENT.** County-year index of exposure to financial regulations targeting FBML abroad.

$$\text{Off-shore-FRI}_{c,t} = \sum_{\text{Jurisdictions}} \text{Exposure}_{c,t} \cdot \text{SCI}_{j,t}$$

Status of Compliance Index

### 1. ANTI-MONEY-LAUUNDERING REGULATIONS TARGETING FBML.

We hand-code the Status of Compliance (SCI) of selected Caribbean countries with recommended standards for combating FBML issued by the Caribbean Financial Action Task Force (CFATF) over the period 2008–2015.



### 2. EXPOSURE OF US COUNTIES.

We use the Offshore Leaks database by the International Consortium of Investigative Journalists (ICIJ) to measure the exposure of U.S. counties to regulatory changes in these jurisdictions

## LINEAR MODEL

The increasing rigor of anti-money-laundering regulations in the Caribbean islands over the period 2008–2015 caused on average at least a 1.70% increase in the number of establishments due to BBML in exposed counties, conditional on state-year and county fixed effects, plus other controls.

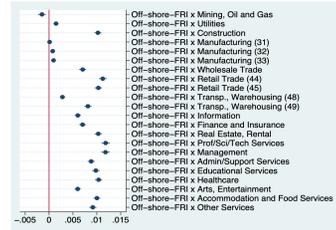
Table 3: Effect of AML regulations on Business Activity.

	OLS	Baseline	All	Discretized
	(1)	(2)	(3)	(4)
Offshore-FRI	0.02301*** (0.00057)	0.00039*** (0.00009)	0.00036*** (0.00009)	0.00036*** (0.00009)
Log Income		0.20545*** (0.03085)	0.19167*** (0.02435)	0.20476*** (0.03084)
Log Income x Exposed		0.09898** (0.04501)	0.06883 (0.04227)	0.10158** (0.04531)
Constant	Yes	Yes	Yes	Yes
County FE	No	Yes	Yes	Yes
State x Year FE	No	Yes	Yes	Yes
Income/Wealth Controls	No	No	Yes	No
Socio-Demographic Controls	No	No	Yes	No
Observations	24,656	24,648	24,648	24,648
R <sup>2</sup>	0.375	0.999	0.999	0.999

Regression coefficients, Standard error clustered at county level in parenthesis.

## HETEROGENEOUS EFFECTS

The effects of anti-money-laundering regulatory changes varies by production sector, as predicted in our extended model. The effect is strongest in retail trade and other services, but absent in manufacturing.



Finally, we find evidence that this business activity is tied to the presence of illicit global financial networks.

	(1)	(2)	(3)	(4)
	Full Network	Asian Network	Full Network	Asian Network
Offshore-FRI	0.00039*** (0.00009)	0.00167*** (0.00020)	0.00008 (0.00009)	0.00074*** (0.00024)
Offshore-FRI x Share of Asian			0.00013*** (0.00002)	0.00012*** (0.00004)
Share of Asian			0.00907 (0.00633)	0.01630*** (0.00395)
Constant	Yes	Yes	Yes	Yes
Baseline Controls	Yes	Yes	Yes	Yes
Observations	24,648	24,648	24,648	24,648
R <sup>2</sup>	0.999	0.999	0.999	0.999

Regression coefficients, Standard error clustered at county level in parenthesis.

## INTERTEMPORAL EFFECTS

The effects of anti-money-laundering regulatory changes gradually build over time, peaking to 2.6% after 6 years from the first switch.

