

Does Disclosure Mandate Affect Firms' Contribution to Poverty Alleviation?

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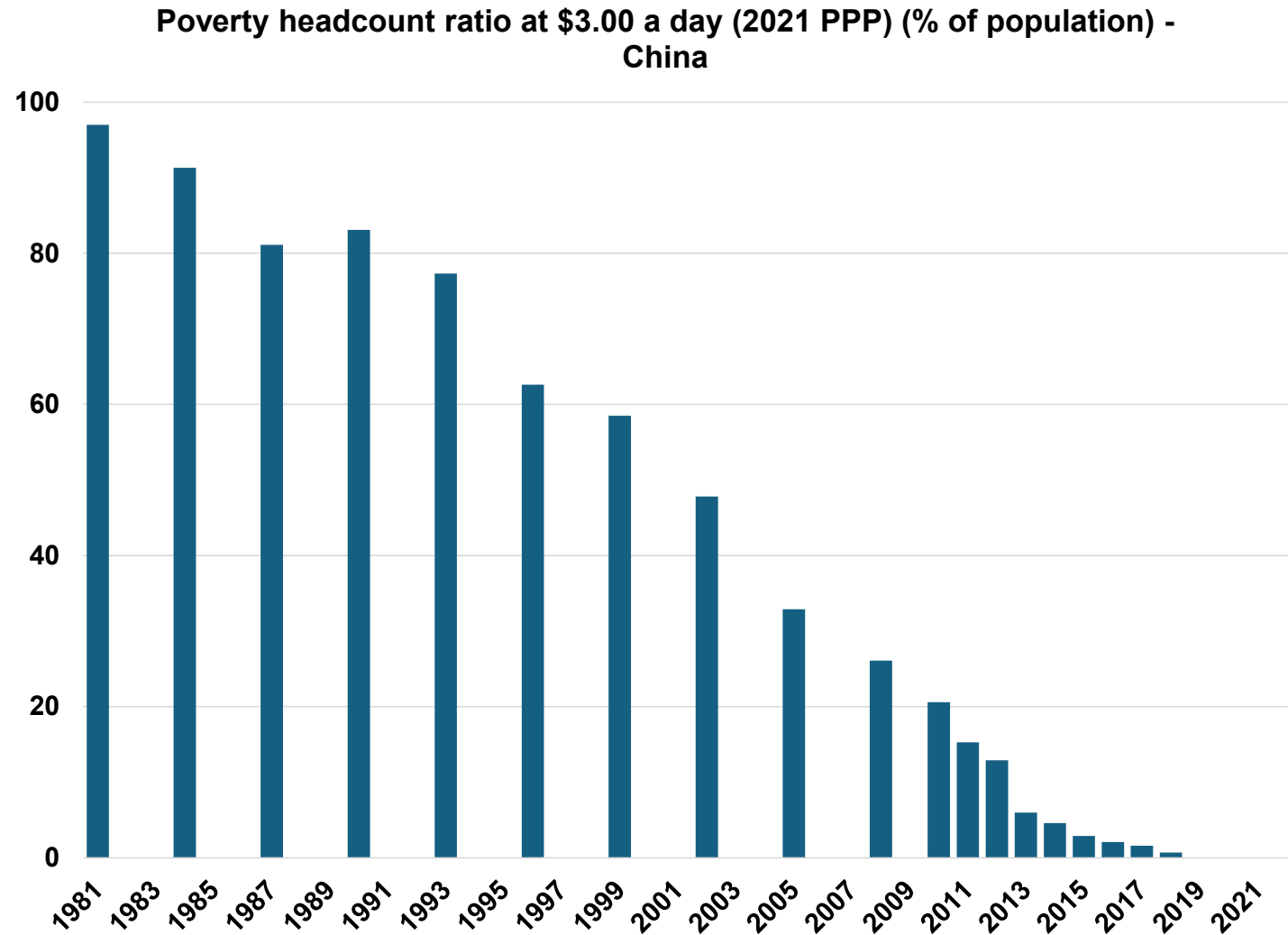
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Ending poverty is UN's Goal #1



Source: *The 2030 Agenda for Sustainable Development, United Nations*

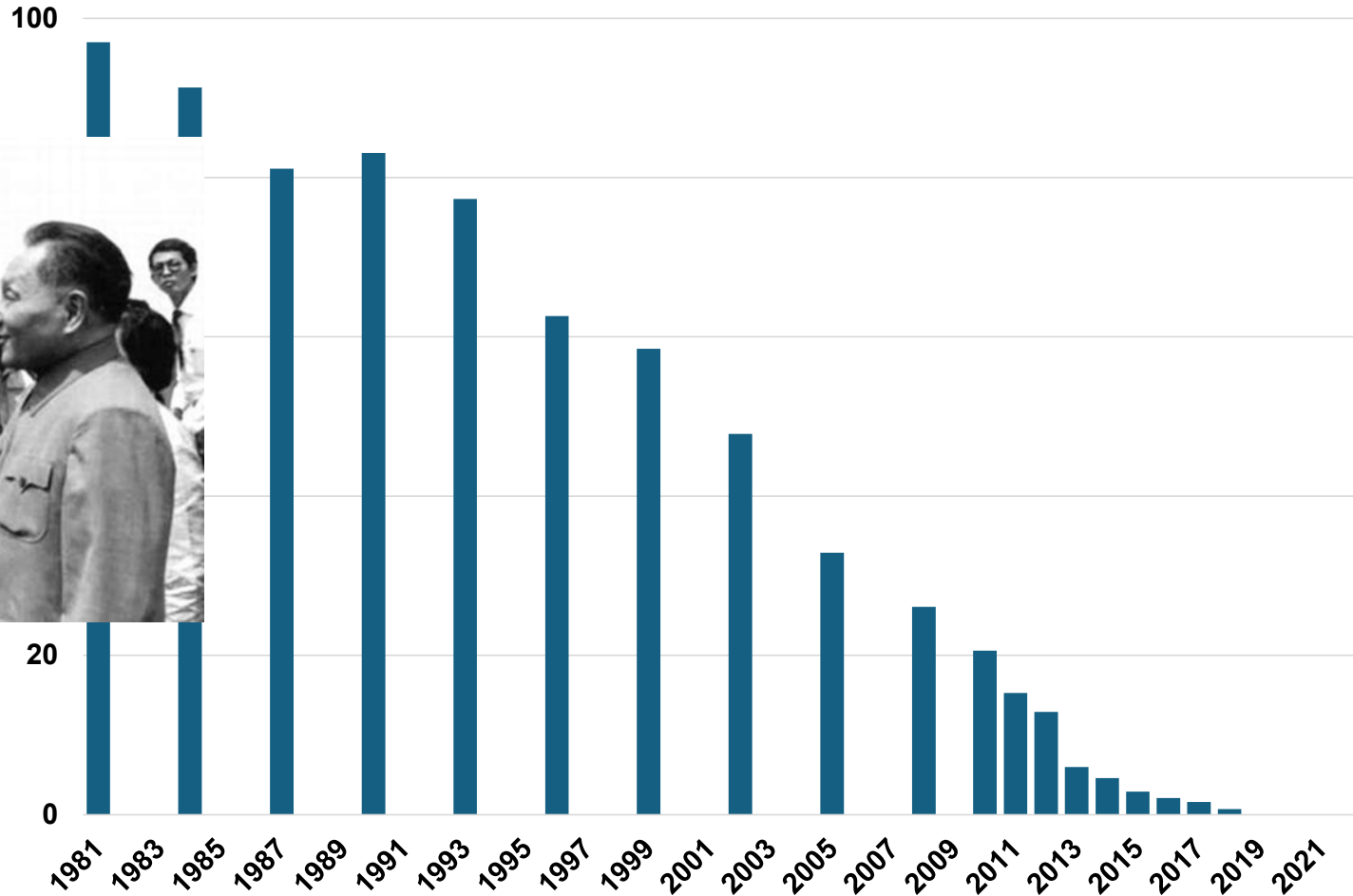
China's role and contribution



Source: World Bank

China's role and contribution

Poverty headcount ratio at \$3.00 a day (2021 PPP) (% of population) - China



Deng Xiaoping's first visit to Singapore in 1978

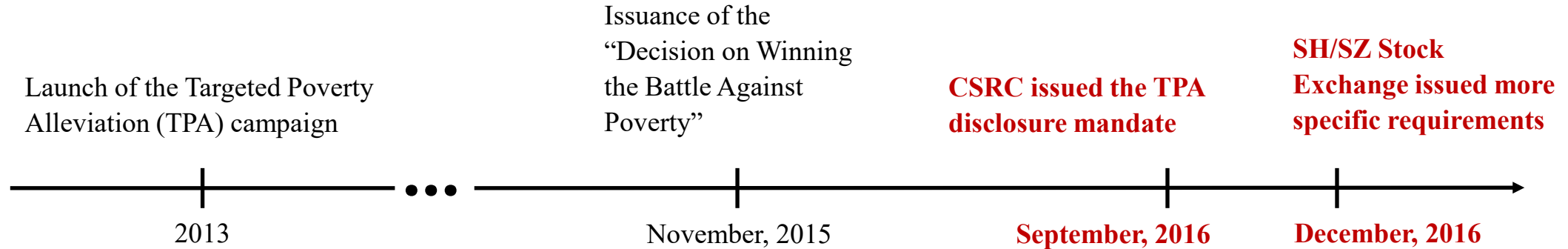


Source: World Bank

China's targeted poverty alleviation (TPA) campaign



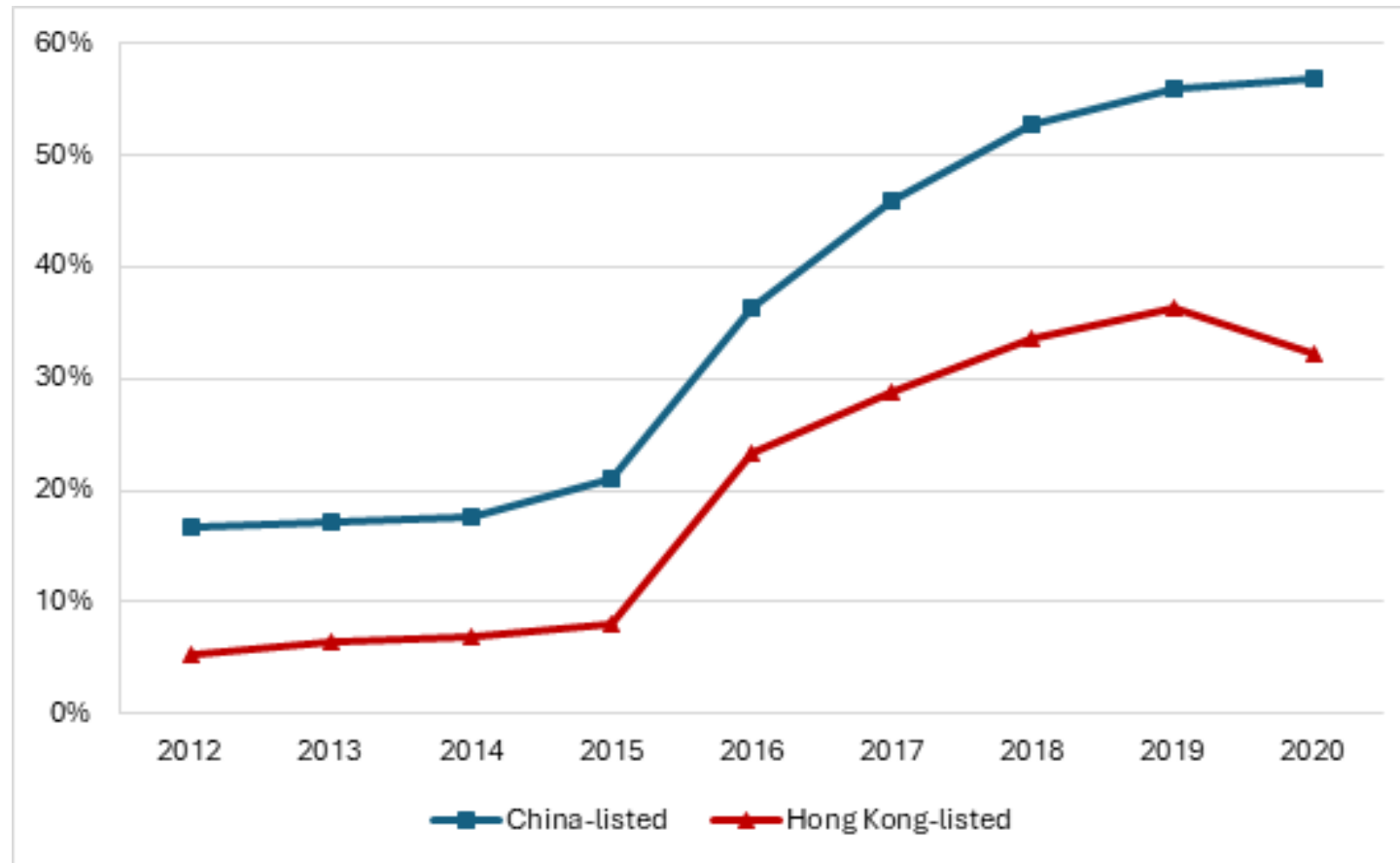
TPA disclosure mandate



- The regulation required all firms listed in mainland China to disclose their involvement in poverty alleviation activities in their annual reports
- This mandate entailed explicitly stating whether firms had or **had not** made any contributions to poverty alleviation and, if they had, providing details of their contributions

Research question: How does the TPA disclosure mandate affect firms’ participation in poverty alleviation activities?

Proportion of firms participating in poverty alleviation



Difference-in-Differences design

- **Treatment group**

- Firms listed in mainland China (the Shanghai Stock Exchange or the Shenzhen Stock Exchange)

- **Control group**

- Firms operating in mainland China but listed exclusively in Hong Kong

- $PARTICIPATION_{i,t} = \beta_0 + \beta_1 CHINA_LISTED_i \times POST_t + \gamma X_{i,t-1} + \alpha_i + \alpha_t + \epsilon_{i,t}$

- *PARTICIPATION*: an indicator variable equal to one if a firm participated in poverty-alleviation activities in a year and zero otherwise
- *CHINA_LISTED*: an indicator variable equal to one if a firm is listed on the Shanghai Stock Exchange or the Shenzhen Stock Exchange, and zero otherwise
- *POST*: an indicator variable equal to one in and after 2017, and zero otherwise

The effect of the TPA disclosure mandate on firms' poverty-alleviation activities

Dependent variable: <i>PARTICIPATION</i>	(1)	(2)	(3)
<i>CHINA_LISTED</i> × <i>POST</i>	0.082*** (5.47)	0.069*** (4.54)	0.068*** (4.44)
Controls _{t-1}	No	Yes	Yes
Controls _{t-1} × <i>POST</i>	No	No	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	26,976	26,976	26,976
Adj-R ²	0.485	0.490	0.494

- The average marginal effect of *CHINA_LISTED* × *POST* is 6.8 percentage points
- 31% increase relative to the 22% probability of pre-period TPA participation for China-listed firms

Identifying assumptions

- **When firms engaged in poverty alleviation activities, they would disclose these activities even when they were not required to do so**
- **In the absence of the disclosure mandate, the treatment group and the control group would act similarly**
- **There is no other shock concurrent with the disclosure mandate that only affects the treatment group**

Identifying Assumption 1

- **When firms engage in poverty alleviation activities, they will disclose these activities**
 - Even without a disclosure mandate, Chinese companies are motivated to disclose their poverty alleviation activities due to positive perceptions by the government and other stakeholders, as well as encouragement from securities regulators (Shenzhen Stock Exchange, 2006; Shanghai Stock Exchange, 2008)
 - For a subset of randomly picked firm-years that were not covered by the disclosure mandate and did not disclose poverty alleviation in their annual or CSR reports, we do not find any information about their engagement in poverty alleviation in a comprehensive online search
 - Eliminate the effect of the increased visibility of TPA participation
 - We drop $PARTICIPATION = 1$ observations during the post-period if their TPA spending is below a certain threshold, and rerun the main analysis
 - Alternative measure of poverty-alleviation activities based on donations

Identifying Assumption 1

- Dropping *PARTICIPATION*=1 observations with low TPA spending

Dependent variable: <i>PARTICIPATION</i>	Minimum TPA spending				
	(1) 200k	(2) 400k	(3) 600k	(4) 800k	(5) 1,000k
<i>CHINA_LISTED</i> × <i>POST</i>	0.032** (2.07)	0.028* (1.86)	0.028* (1.80)	0.026* (1.73)	0.026* (1.70)
Controls _{t-1}	Yes	Yes	Yes	Yes	Yes
Controls _{t-1} × <i>POST</i>	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
N	25,839	25,659	25,608	25,524	25,497
Adj-R ²	0.475	0.469	0.467	0.464	0.463

Identifying Assumption 1

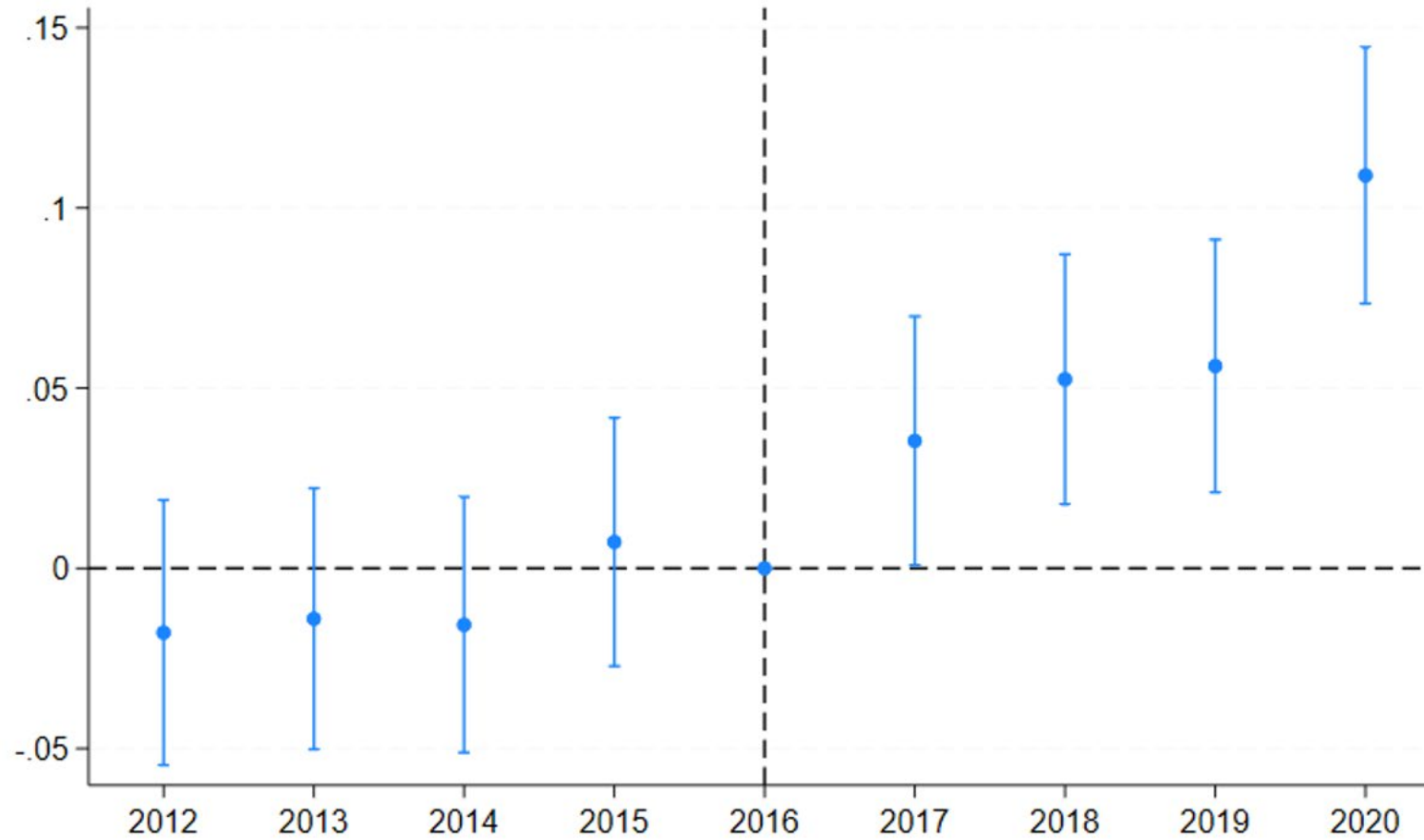
- Using *Donation* as an alternative depending variable

Dependent variable: <i>DONATION</i>	(1)	(2)	(3)
<i>CHINA_LISTED</i> × <i>POST</i>	0.007*** (6.49)	0.007*** (6.06)	0.006*** (4.55)
Controls _{t-1}	No	Yes	Yes
Controls _{t-1} × <i>POST</i>	No	No	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	26,976	26,976	26,976
Adj-R ²	0.401	0.405	0.406

Identifying Assumption 2

- **In the absence of the disclosure mandate, the treatment group and the control group would act similarly**
 - The gap in TPA participation between China-listed and Hong Kong-listed firms remained relatively stable before 2017
 - In particular, the participation gap between the two sets of firms did not widen in 2016, despite substantial increases in their respective participation rates (likely driven by the 2015 Decision)

Identifying Assumption 2



Identifying Assumption 2

- **In the absence of the disclosure mandate, the treatment group and the control group would act similarly**
 - Matching treatment and control firms by location, industry, and size quintile in 2016
 - Propensity score matching that includes other characteristics in 2016

Identifying Assumption 2

- Matching treatment and control firms by location, industry, and size quintile in 2016

Dependent variable: <i>PARTICIPATION</i>	(1)	(2)	(3)
<i>CHINA_LISTED</i> × <i>POST</i>	0.066** (2.47)	0.057** (2.13)	0.060** (2.21)
Controls _{t-1}	No	Yes	Yes
Controls _{t-1} × <i>POST</i>	No	No	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	5,908	5,908	5,908
Adj-R ²	0.471	0.478	0.484

Identifying Assumption 2

- Propensity score matching that includes other characteristics in 2016

Dependent variable: <i>PARTICIPATION</i>	(1)	(2)	(3)
<i>CHINA_LISTED</i> × <i>POST</i>	0.068*** (3.39)	0.062*** (3.09)	0.061*** (3.14)
Controls _{t-1}	No	Yes	Yes
Controls _{t-1} × <i>POST</i>	No	No	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	10,194	10,194	10,194
Adj-R ²	0.476	0.480	0.489

Identifying Assumption 3

- **There is no other shock concurrent with the disclosure mandate that only affects the treatment group**
 - We conducted an extensive search of regulations related to poverty alleviation around the disclosure mandate and did not find any other concurrent regulation that only affected the treatment group

Heterogeneous effects of the TPA disclosure mandate

Dependent variable: <i>PARTICIPATION</i>	(1) Small	(2) Large	(3) Small	(4) Large	(5) Small	(6) Large
<i>CHINA_LISTED</i> × <i>POST</i>	0.141*** (8.05)	0.013 (0.57)	0.137*** (7.86)	-0.004 (-0.15)	0.104*** (5.30)	0.010 (0.40)
Controls _{t-1}	No	No	Yes	Yes	Yes	Yes
Controls _{t-1} × <i>POST</i>	No	No	No	No	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Diff (<i>p</i> -value)	0.000		0.000		0.000	
N	13,426	13,550	13,426	13,550	13,426	13,550
Adj-R ²	0.435	0.484	0.438	0.488	0.441	0.489

- Positive accounting theory posits that larger firms face higher political scrutiny (Watts and Zimmerman, 1978; Fan, Wong, and Zhang, 2007)
- The disclosure mandate promotes TPA participation by small firms (assets < median), which faced less political pressure to participate during the pre-period.

Heterogeneous effects of the TPA disclosure mandate

Dependent variable: <i>PARTICIPATION</i>	(1) <i>POL=0</i>	(2) <i>POL=1</i>	(3) <i>CSOE=0</i>	(4) <i>CSOE=1</i>	(5) <i>REGULATE=0</i>	(6) <i>REGULATE=1</i>	(7) <i>MARKET=1</i>	(8) <i>MARKET=0</i>
<i>CHINA_LISTED</i> × <i>POST</i>	0.114*** (6.68)	0.011 (0.19)	0.107*** (6.81)	0.074 (0.55)	0.111*** (6.67)	0.063 (1.23)	0.095*** (3.73)	0.033 (1.06)
Controls _{t-1}	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls _{t-1} × <i>POST</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Diff (<i>p</i> -value)	0.008		0.025		0.080		0.010	
N	7,024	6,402	13,026	400	10,749	2,677	6,472	6,954
Adj-R ²	0.400	0.455	0.438	0.505	0.440	0.447	0.386	0.464

- Among small firms, the effect is more pronounced among those facing less pre-existing political pressure: firms that lack politically connected management, are not central state-owned enterprises, are not in TPA-relevant, heavily regulated industries, and are in more market-oriented regions.

New participants' spending and focus on reducing poverty

	<i>SPENDING</i>			<i>FREQUENCY</i>			<i>FOCUSED</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>NEW_PARTICIPANT</i>	-1.348*** (-8.17)	-0.826*** (-4.99)	-0.817*** (-4.72)	-0.487*** (-5.49)	-0.243*** (-2.81)	-0.264*** (-2.62)	0.071** (2.05)	0.101*** (2.82)	0.106*** (2.95)
<i>SIZE</i>		0.732*** (10.61)	0.779*** (11.28)		0.355*** (6.40)	0.393*** (6.93)		0.060*** (4.36)	0.058*** (5.77)
<i>LEVERAGE</i>		-0.746* (-1.75)	-0.574 (-1.30)		-0.130 (-0.51)	-0.151 (-0.54)		-0.066 (-0.68)	-0.014 (-0.27)
<i>GROWTH</i>		-0.083 (-0.72)	-0.055 (-0.50)		-0.052 (-0.75)	0.005 (0.07)		0.006 (0.27)	0.003 (0.11)
<i>ROE</i>		0.243 (0.71)	0.222 (0.65)		0.213 (0.96)	0.196 (0.87)		-0.170** (-2.19)	-0.150* (-1.76)
<i>OCF</i>		1.797* (1.83)	1.372 (1.39)		0.730 (1.10)	0.329 (0.50)		-0.213 (-1.06)	-0.266 (-1.36)
<i>AGE</i>		-0.023** (-2.08)	-0.022* (-1.80)		-0.006 (-0.80)	-0.013 (-1.48)		-0.003 (-1.24)	-0.002 (-0.70)
<i>CONCENTRATION</i>		-1.200** (-2.33)	-1.018* (-1.94)		-0.811** (-2.40)	-0.751** (-2.18)		0.043 (0.41)	0.072 (0.42)
<i>HHI</i>		-3.656 (-0.91)	0.340 (0.03)		5.610** (2.21)	-4.607 (-0.47)		1.609** (2.29)	0.099 (0.03)
<i>TANGIBILITY</i>		0.473 (1.12)	0.406 (0.83)		0.102 (0.37)	0.111 (0.38)		-0.072 (-0.83)	0.019 (0.15)
Industry FE	No	No	Yes	No	No	Yes	No	No	Yes
Year FE	No	No	Yes	No	No	Yes	No	No	Yes
N	2,130	2,130	2,130	2,130	2,130	2,130	2,130	2,130	2,130
Adj-R ²	0.048	0.173	0.190	0.012	0.072	0.091	0.003	0.029	0.050

Additional analyses

- **Incentives of TPA participation**

- New participants are financially weaker firms that faced lower political pressure.
- Non-participants receive fewer bank loans and are more likely to receive regulatory inquiry letters.

- **County-level analysis**

- Counties with “impoverished county” designation by the central government, lower GDP per capita, and lower income per capita are more likely to receive firms’ TPA support.
- Receiving firms’ TPA support is not significantly associated with local economic outcomes in impoverished counties, such as GDP growth, household income, urbanization, employment, and real estate development.

Contributions

- **Literature on CSR disclosure mandates**
 - Examining the disclosure in a government-led market, complementing existing research on market-led economies.
- **Literature on the interaction between wealth inequality, redistribution, and CSR.**
 - Firms' CSR disclosure mandate is a conceptually important poverty-reduction solution that has not been studied in prior research.
- **Literature on poverty reduction**
 - While existing research has examined many poverty alleviation strategies, we know little about how mandated disclosures affect public firms' contribution to poverty alleviation

Thank you!



Appendix

TPA non-participation and regulatory treatment

	<i>LNLOANADD</i>			<i>INQUIRY</i>		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>NON_PARTICIPANT</i>	-1.762*** (-7.60)	-0.430** (-1.97)	-0.438** (-2.01)	1.013*** (9.21)	0.474*** (4.66)	0.523*** (5.08)
<i>SIZE</i>		1.791*** (17.38)	1.837*** (17.91)		-0.340*** (-6.88)	-0.327*** (-6.52)
<i>LEVERAGE</i>		9.394*** (15.33)	9.852*** (15.84)		2.127*** (6.07)	2.418*** (6.49)
<i>GROWTH</i>		0.870*** (4.55)	0.685*** (3.64)		0.219* (1.79)	0.274** (2.20)
<i>ROE</i>		5.095*** (12.33)	4.810*** (11.56)		-3.797*** (-10.31)	-3.626*** (-9.81)
<i>OCF</i>		-30.625*** (-20.77)	-29.980*** (-20.37)		-0.744 (-0.95)	-1.571** (-1.96)
<i>AGE</i>		-2.859*** (-11.75)	-2.651*** (-10.38)		0.160 (1.33)	0.050 (0.40)
<i>CONCENTRATION</i>		-4.012*** (-5.03)	-4.024*** (-5.01)		-2.505*** (-7.66)	-2.325*** (-6.77)
<i>HHI</i>		-0.160 (-0.04)	29.507** (2.01)		0.123 (0.06)	2.068 (0.28)
<i>TANGIBILITY</i>		2.229*** (3.18)	0.136 (0.17)		-0.567* (-1.91)	-0.725** (-2.03)
Firm FE	No	No	Yes	No	No	Yes
Year FE	No	No	Yes	No	No	Yes
N	9,769	9,769	9,769	9,769	9,769	9,769
Adj-R ²	0.008	0.180	0.191	0.014	0.113	0.119

County-level determinants of receiving firms' TPA support

Dependent variable: <i>SUPPORT</i>	(1)	(2)	(3)	(4)	(5)
<i>IMPOVERISHED</i>	0.363*** (10.76)	0.302*** (7.41)	0.204*** (4.59)	0.312*** (7.49)	0.202*** (4.00)
<i>GDP_PRE</i>		-0.149*** (-5.64)			-0.074* (-1.88)
<i>RURAL_INCOME_PRE</i>			-0.435*** (-6.12)		-0.398*** (-4.24)
<i>URBAN_INCOME_PRE</i>				-0.345*** (-3.49)	-0.014 (-0.09)
<i>REVOLUTIONARY_DISTRICT</i>	0.071 (0.82)	0.308*** (15.45)	0.226*** (46.64)	0.193*** (119.56)	0.278*** (9.50)
<i>RELIGION</i>	0.057*** (4.67)	0.040*** (3.10)	0.041*** (3.11)	0.044*** (3.12)	0.043*** (2.73)
<i>MINORITY_DIALECT</i>	0.123* (1.91)	0.045 (0.54)	0.052 (0.64)	0.135 (1.63)	0.026 (0.25)
<i>HAN_DIALECT</i>	0.064 (1.44)	0.000 (0.01)	-0.009 (-0.16)	0.061 (1.19)	-0.034 (-0.49)
<i>DISTANCE_COUNTY_BEIJIN</i>	-0.007 (-0.07)	0.042 (0.59)	-0.005 (-0.06)	-0.044 (-0.50)	0.061 (0.81)
<i>G</i>					
N	2,849	2,167	2,127	2,070	1,550
Adj-R ²	0.228	0.220	0.221	0.219	0.237

The relation between firms' TPA support and the economic conditions of poverty-stricken counties

	(1) <i>GDPGROWTH</i>	(2) <i>LNURBAN INCOME</i>	(3) <i>LNURBAN INCOME</i>	(4) <i>URBANRATE</i>	(5) <i>RURALEMP</i>	(6) <i>REALESTATE</i>
<i>IMPOVERISHED</i> × <i>SUPPORT</i>	-0.002 (-0.23)	0.013 (0.55)	0.018 (1.37)	0.017 (0.97)	-0.079 (-0.66)	0.268 (1.51)
<i>SUPPORT</i>	-0.003 (-0.71)	-0.042** (-2.53)	-0.032*** (-3.73)	-0.054*** (-4.46)	0.291*** (2.86)	-0.115 (-1.12)
<i>IMPOVERISHED</i>	0.011 (1.49)	-0.331*** (-12.76)	-0.166*** (-12.81)	-0.147*** (-8.97)	0.289** (2.06)	-1.046*** (-7.80)
<i>REVOLUTIONARY_DISTRICT</i>	0.050 (1.59)	0.046 (0.87)	-0.001 (-0.03)	-0.054 (-1.18)	-0.139 (-0.52)	
<i>RELIGION</i>	-0.011*** (-2.64)	0.034*** (2.86)	0.004 (0.99)	-0.029*** (-4.62)	0.231*** (7.22)	0.134** (2.22)
<i>MINORITY_DIALECT</i>	-0.009 (-0.53)	-0.056 (-1.52)	-0.013 (-0.63)	-0.055* (-1.71)	-1.251*** (-5.00)	-0.794*** (-3.49)
<i>HAN_DIALECT</i>	-0.030 (-0.83)	-0.066** (-2.24)	-0.005 (-0.30)	0.060** (2.27)	-0.263 (-1.51)	0.021 (0.14)
<i>DISTANCE_COUNTY_BEIJING</i>	0.032 (1.07)	0.024 (0.37)	-0.049 (-1.22)	-0.067 (-1.21)	-0.128 (-0.89)	-1.228** (-2.27)
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	10,205	8,311	7,807	3,845	2,839	2,465
Adj-R ²	0.088	0.580	0.800	0.450	0.712	0.560

Indicator	Unit	Amount/Implementation situation
A. Overall situation	—	—
Including: 1. Fund	10,000 Yuan	215.81
B. Input by project	—	—
1. Industrial development	—	—
Including: 1.1 Type of poverty alleviation projects for industrial development	—	Poverty alleviation through agriculture and forestry, poverty alleviation through electronic commerce, others
1.2 Number of poverty alleviation projects for industrial development	Item	6
1.3 Amount invested in poverty alleviation projects for industrial development	10,000 Yuan	83.42
2. Transfer and employment	—	—
2.2 Number of persons engaging in vocational training	Person	45
3. Removal and relocation	—	—
4. Educational poverty alleviation	—	—
Including: 4.1 Input of aiding poor students	10,000 Yuan	9
4.2 Number of aiding poor students	Person	18
4.3 Amount invested in improving the educational resources in poor areas	10,000 Yuan	74.1
5. Health poverty alleviation	—	—
6. Ecological protection	—	—
6.2 Input amount	10,000 Yuan	36
7. Basic guarantee	—	—
8. Social poverty alleviation	—	—
9. Other project	—	—
Including: 9.1. Item	Item	3
9.2. Input amount	10,000 Yuan	13.29

Year	New Participant	Industrial development	Transferred Employment	Education	Health	Ecological protection	Basic guarant
2017	No	2,740	15	123	30	100	18
	Yes	13	0	2	0	0	1
2018	No	4,165	53	297	125	71	14
	Yes	228	1	20	15	0	1
2019	No	8,300	32	245	78	98	14
	Yes	205	0	67	8	0	0
2020	No	2,708	142	398	104	92	17
	Yes	168	0	31	1	0	1
Subtotal	No	17,913	241	1,062	337	361	63
	Yes	615	1	121	24	1	3
Total		18,527	242	1,183	361	362	66
% of all types		71%	1%	5%	1%	1%	0%