Tax Enforcement & Tax Elasticities:
Evidence from Charitable Contributions in France

Gabrielle Fack & Camille Landais

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Motivation:

- "Sufficient statistics approach" has become workhorse of optimal tax analysis:
- Principle: express optimal tax rate / subsidy as a function of estimable "tax elasticities" (w.r.t rate / subsidy)
  - Optimal income tax rates: Saez [2001]
  - Optimal unemployment subsidies: Baily-Chetty [2005]
  - Optimal charitable contributions subsidy: Saez [2004]
- Implicit assumptions
  - Tax elasticities are locally stable, unaffected by other available policy instruments
  - All other policy instruments have already been set optimally.

Motivation (2):

- In practice though, tax authorities have many more instruments than the mere tax rates.
  - level of information available to taxpayers
  - level of tax enforcement
  - size of the tax base, etc.
- Are tax elasticities sensitive to these other policy instruments?
- If yes, optimizing the tax rate for a given tax elasticity can lead to completely misleading conclusions
- Yet, no empirical evidence available
  - Hard to find all sources of variations at the same time for identification

This paper:

- Evidence on the relationship between tax elasticities and one particular policy instrument: level of tax enforcement
- Exploit a tax enforcement reform increasing traceability of charitable deductions in France in 1983
- Identify the effect on tax reporting behaviours, the elasticity of reported contributions and the elasticity of taxable income.
  - Reported contributions dropped by more than 75%
  - Elasticity of reported contributions dropped by more than 50%
  - Bunching at the kinks of the income tax schedule disappeared

Institutional background:

- Charitable contributions deductible from taxable income since 1954
- Until 1982, taxpayers asked to **keep** a receipt of the contribution
- In 1983, taxpayers required to **attach** these receipts to their tax return

Table 1 : Descriptive statistics

Variables	(1) Before reform 1975-1979	(2) After reform 1984-1988
Marginal tax rate τ	.15	.17
	[.13]	[.13]
Log price of contributions	-.18	-.2
	[.16]	[.17]
Taxable income (2010 €)	15,890	17,549
	[23,317]	[23,998]
Reported contributions (2010 €)	41.15	17.66
	[148.64]	[180.75]
Reported contributions (among givers)	207.99	192.85
	[277.42]	[568.31]
Fraction reporting contributions > 0	.20	.09
	[.4]	[.29]
Number of children	.67	.62
	[1.16]	[1.06]
N	83766	94996

Source: Sample of taxpayers' returns: 1975, 1979, 1984, 1988.

Figure 1 : Tax-reported charitable contributions in France

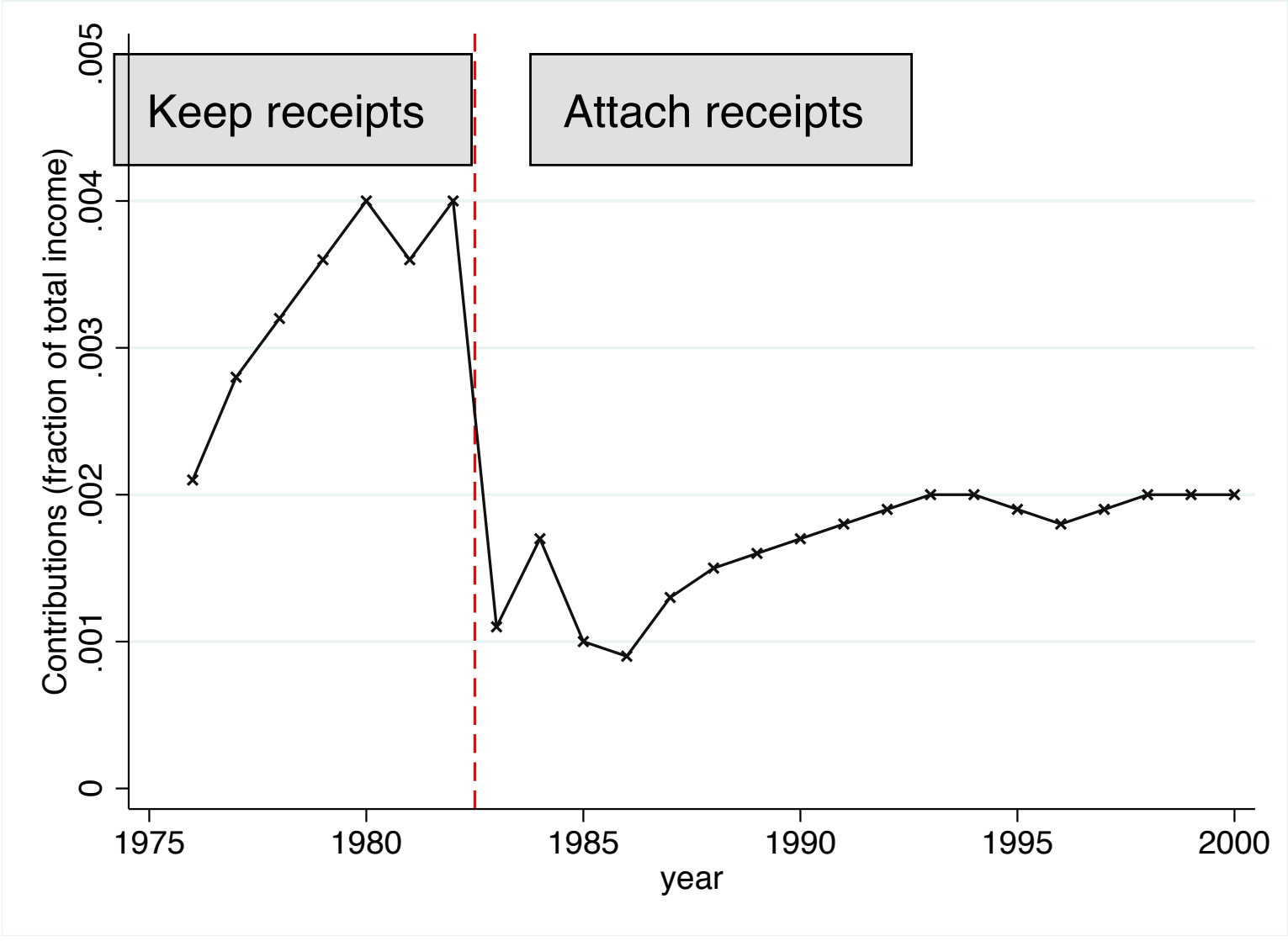


Figure 2 : Tax-reported contributions & contributions received by French largest foundation

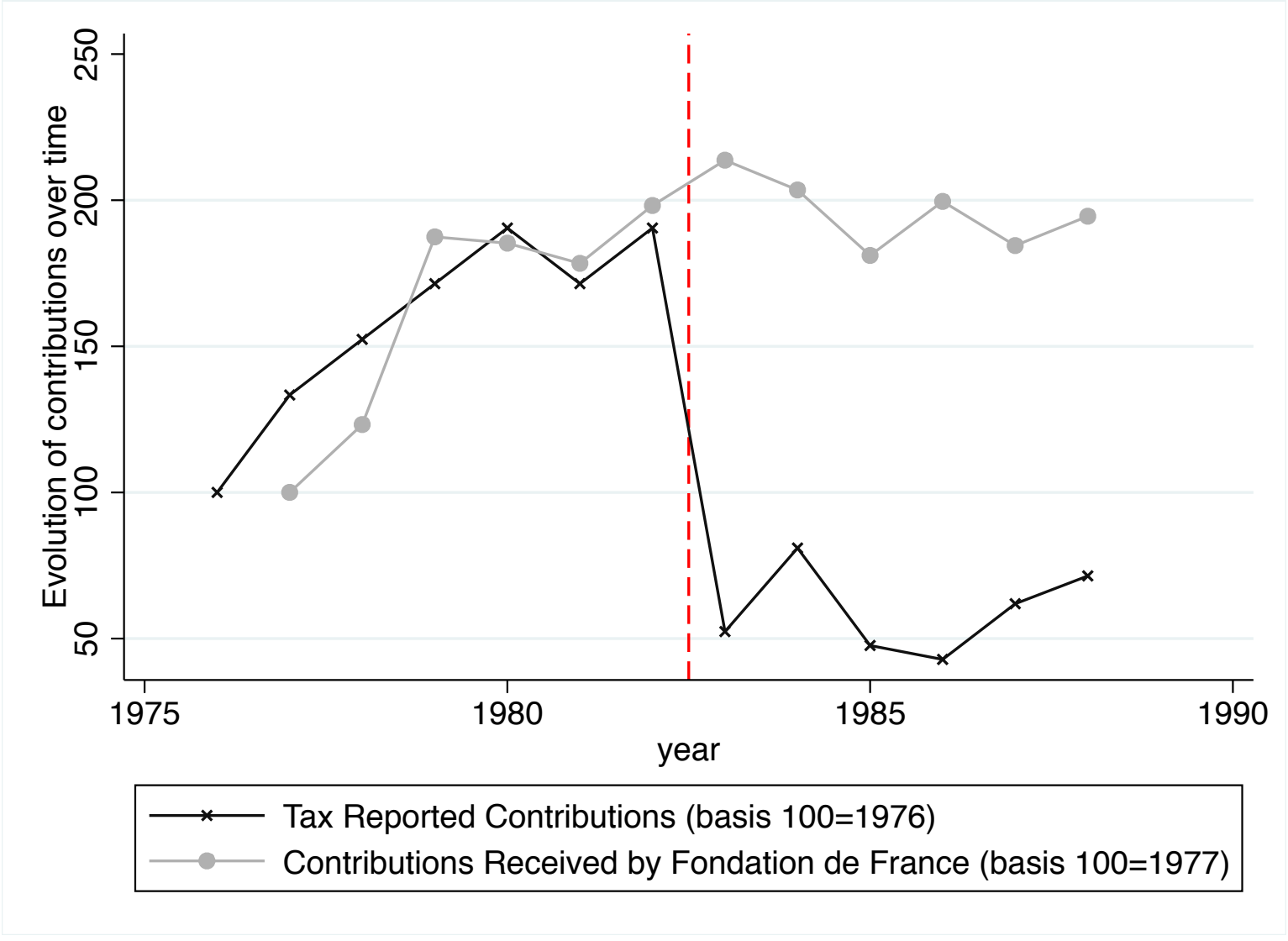
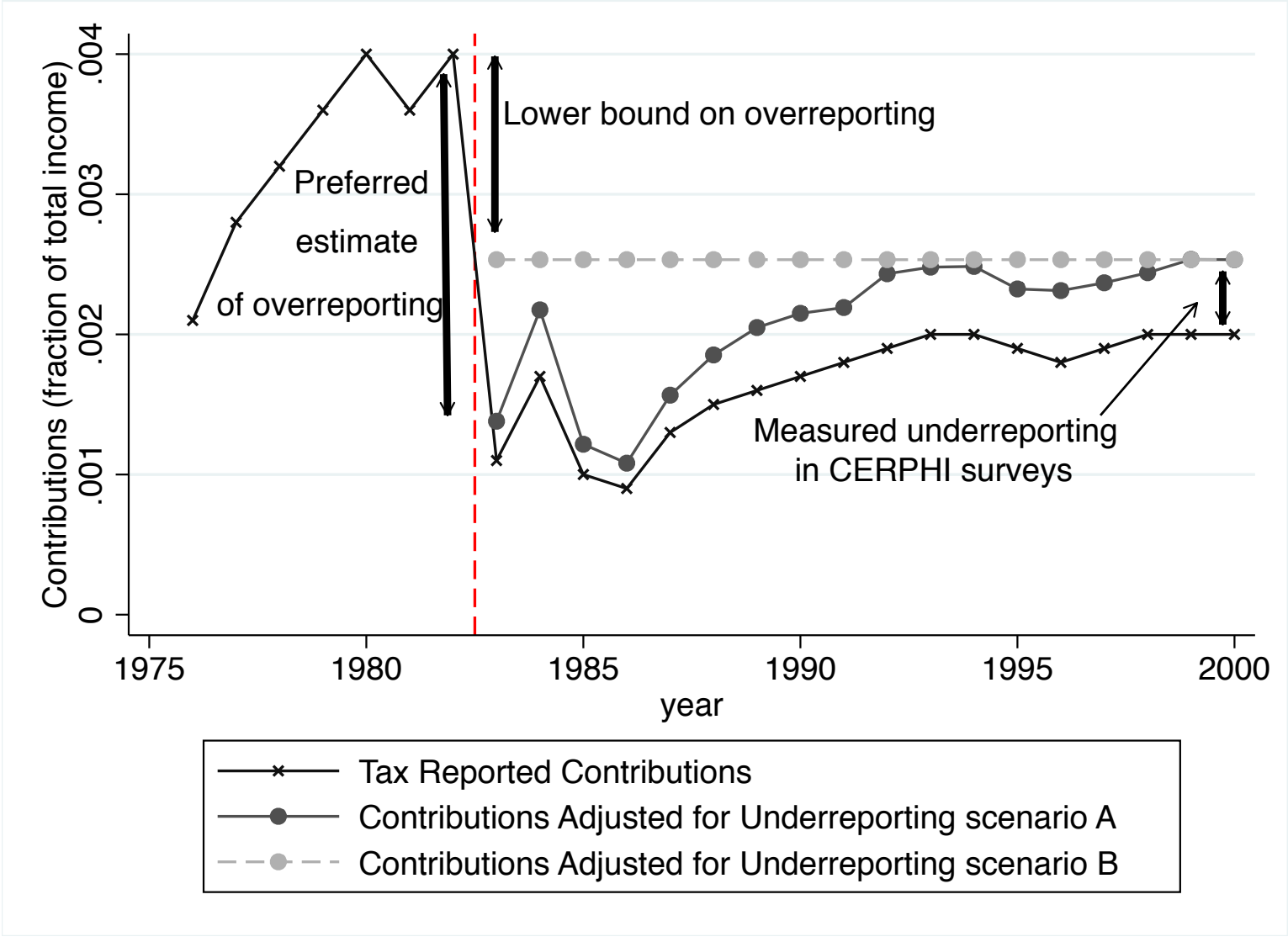


Figure 3 : Tax-reported contributions & adjustments for underreporting



Identifying the elasticity of contributions:

- Strategy 1: Use non-linearities in subsidy due to family income tax splitting ("Quotient Familial")
- Strategy 2: Use deduction cap at 1% of taxable income for specific charities

Figure 4 : Log price of contributions as a function of log income for different groups of QF (1979)

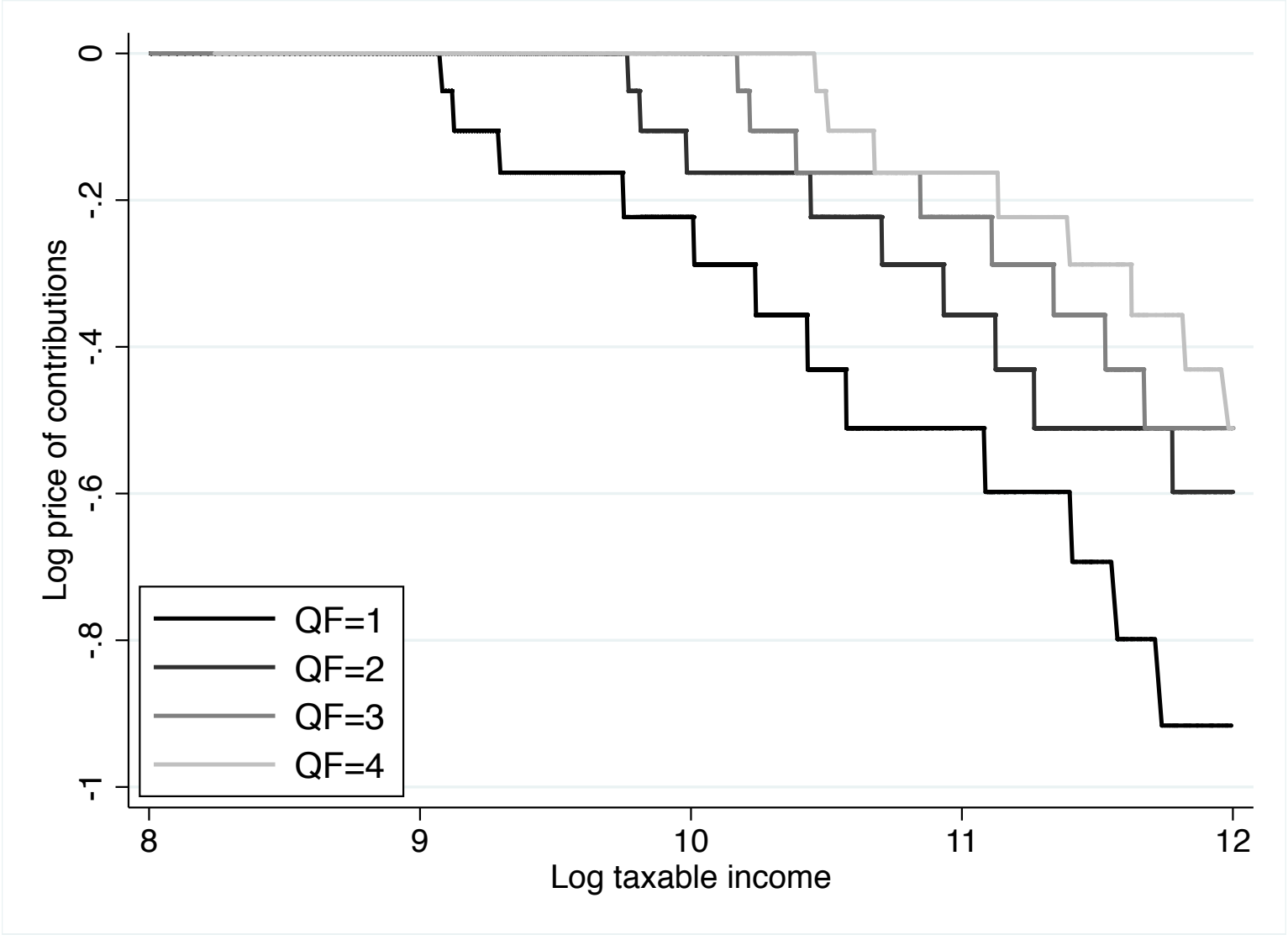


Table 2 : Estimates of price elasticity of reported contributions before and after the reform

	(1) OLS	(2) 2SLS First €	(3) 2SLS First €	(4) 2SLS First €	(5) 2SLS Grouping
$\log(1-\tau) \times$ [Before 1983] (ε_1)	-1.345***	-1.589***	-1.737***	-1.862***	-2.232***
	(0.119)	(0.116)	(0.178)	(0.197)	(0.235)
$\log(1-\tau) \times$ [After 1983] (ε_2)	-0.454***	-0.569***	-0.342*	-0.357*	-0.192
	(0.119)	(0.119)	(0.171)	(0.166)	(0.207)
Year×income groups FE	YES	YES	YES	YES	YES
Year×marital status	NO	NO	YES	YES	YES
Year×# children FE	NO	NO	YES	YES	YES
Year×marital status× log(income)	NO	NO	NO	YES	YES
Year×# children FE × log(income)	NO	NO	NO	YES	YES
Test $\varepsilon_1 = \varepsilon_2$					
Prob $> \chi^2$	0.00	0.00	0.00	0.00	0.00
N	134560	134560	134560	134560	134560
R^2	0.125	0.125	0.136	0.142	0.141

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3 : Heterogeneity of price elasticity change

	(1) 2SLS Lower income households (P0-50)	(2) 2SLS Higher income households (P50-100)	(3) 2SLS Wage income only	(4) 2SLS Self-reported income
$\log(1-\tau) \times$ [Before 1983] (ε_1)	-1.476***	-0.921**	-1.871***	-1.080**
	(0.278)	(0.292)	(0.207)	(0.368)
$\log(1-\tau) \times$ [After 1983] (ε_2)	-0.433*	-0.511	-0.805***	-0.710
	(0.217)	(0.331)	(0.218)	(0.383)
Year×income groups FE	YES	YES	YES	YES
Year×marital status	YES	YES	YES	YES
Year×# children FE	YES	YES	YES	YES
Test $\varepsilon_1 = \varepsilon_2$				
Prob $> \chi^2$	0.00	0.35	0.00	0.49
N	41850	62948	82078	22720
R^2	0.06	0.09	0.13	0.09

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figure 5 : Bunching at the subsidy cap for contributions to "associations d'interet general"

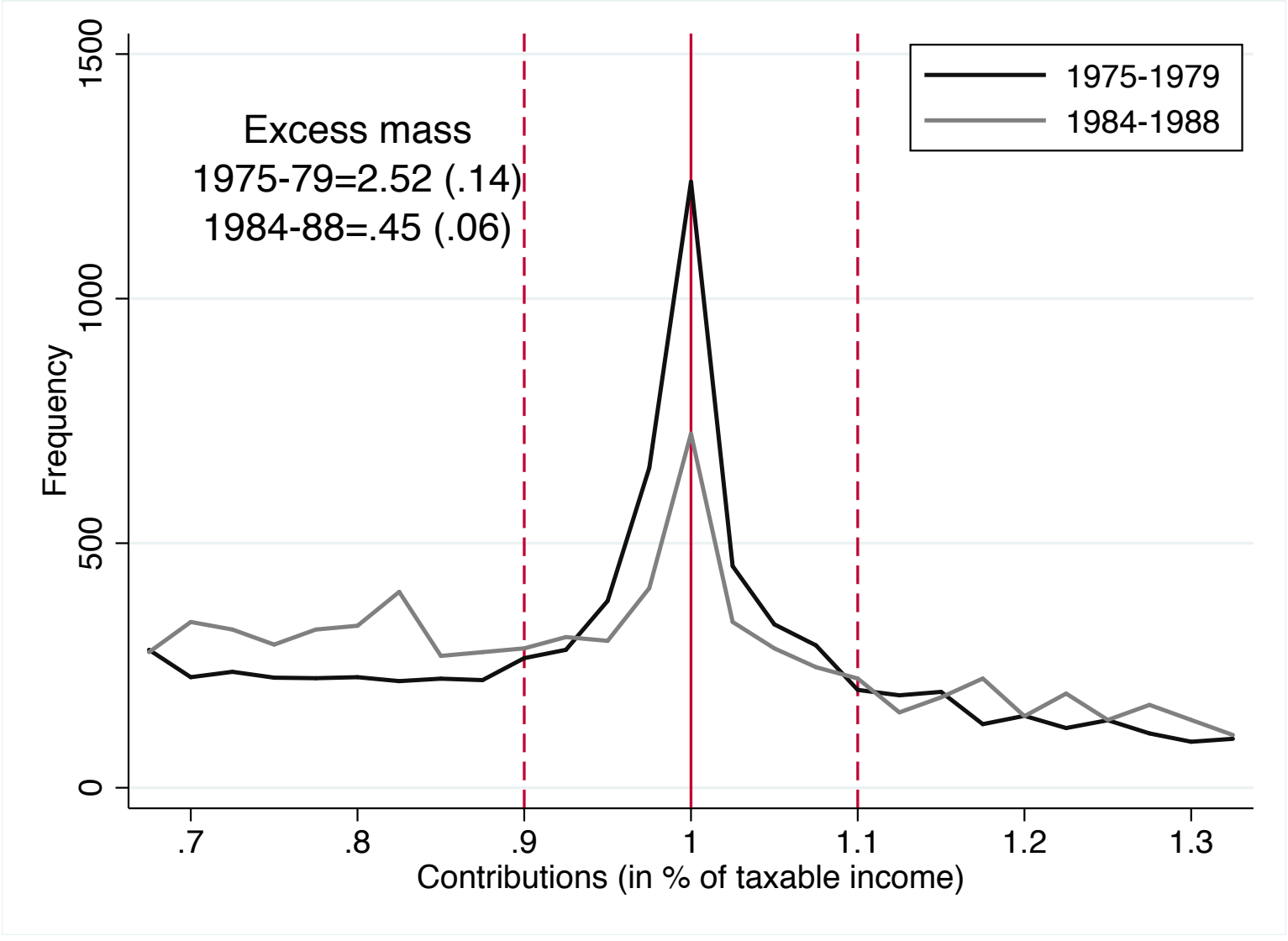
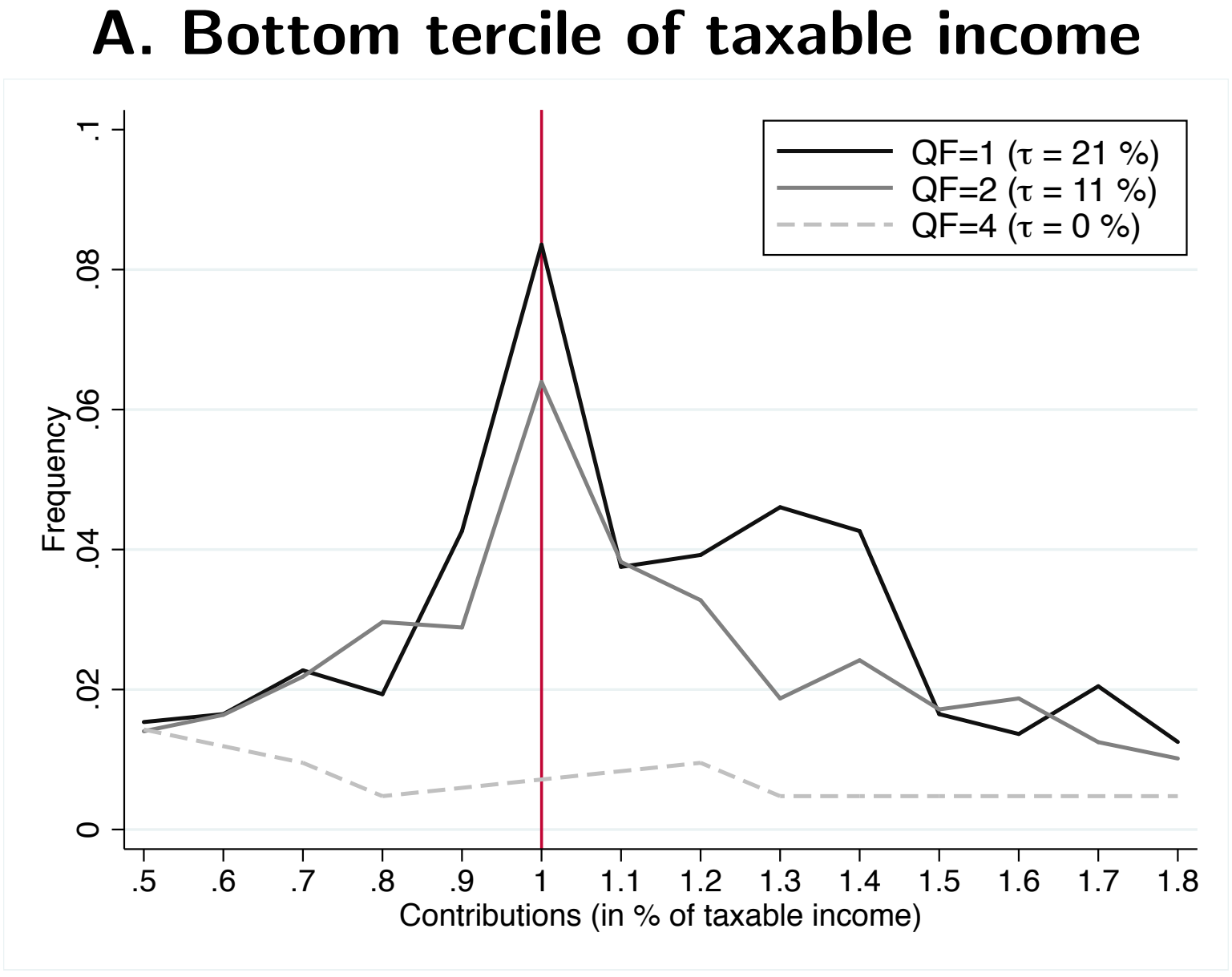


Figure 6 : Bunching by income×QF group (before 1984)



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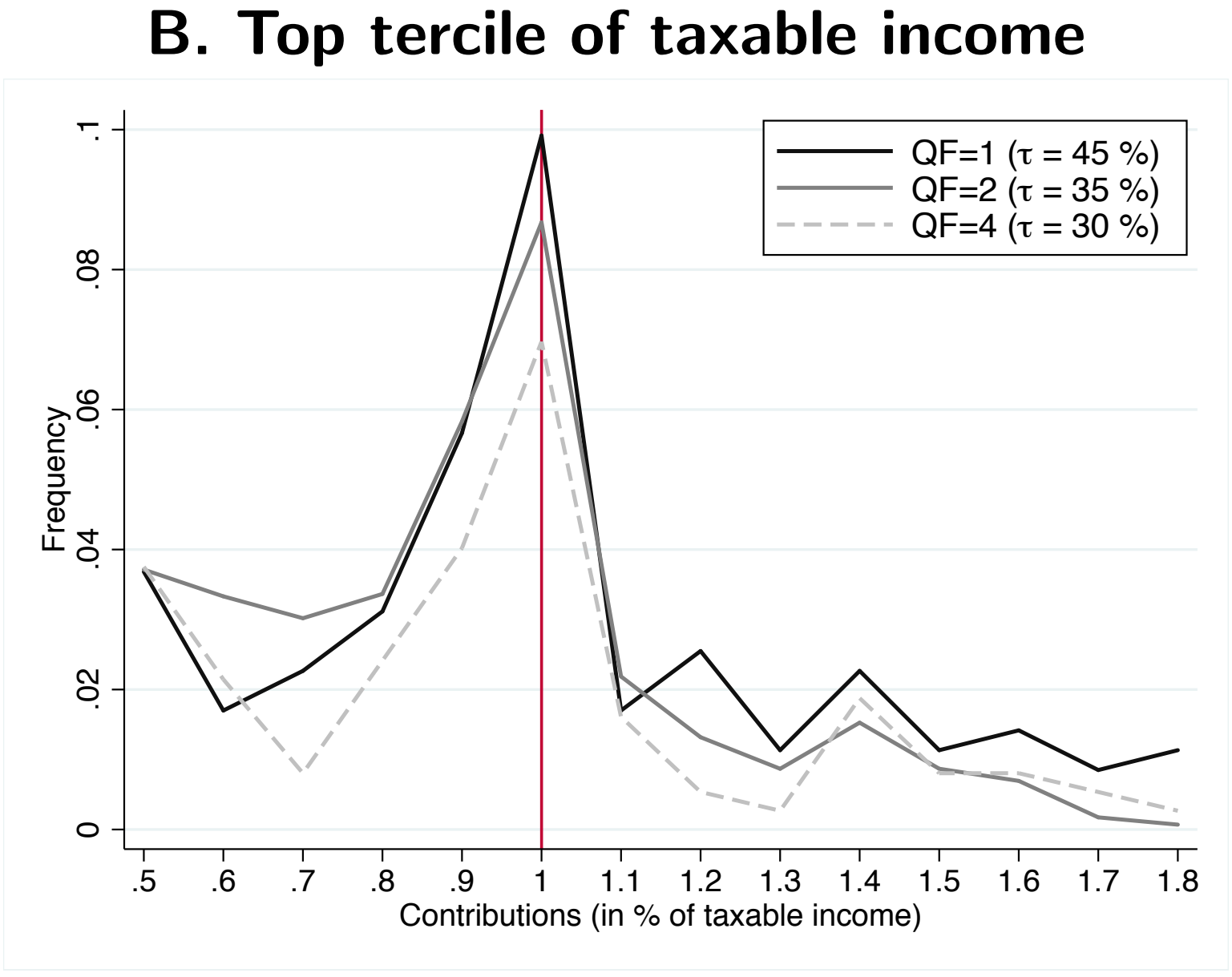
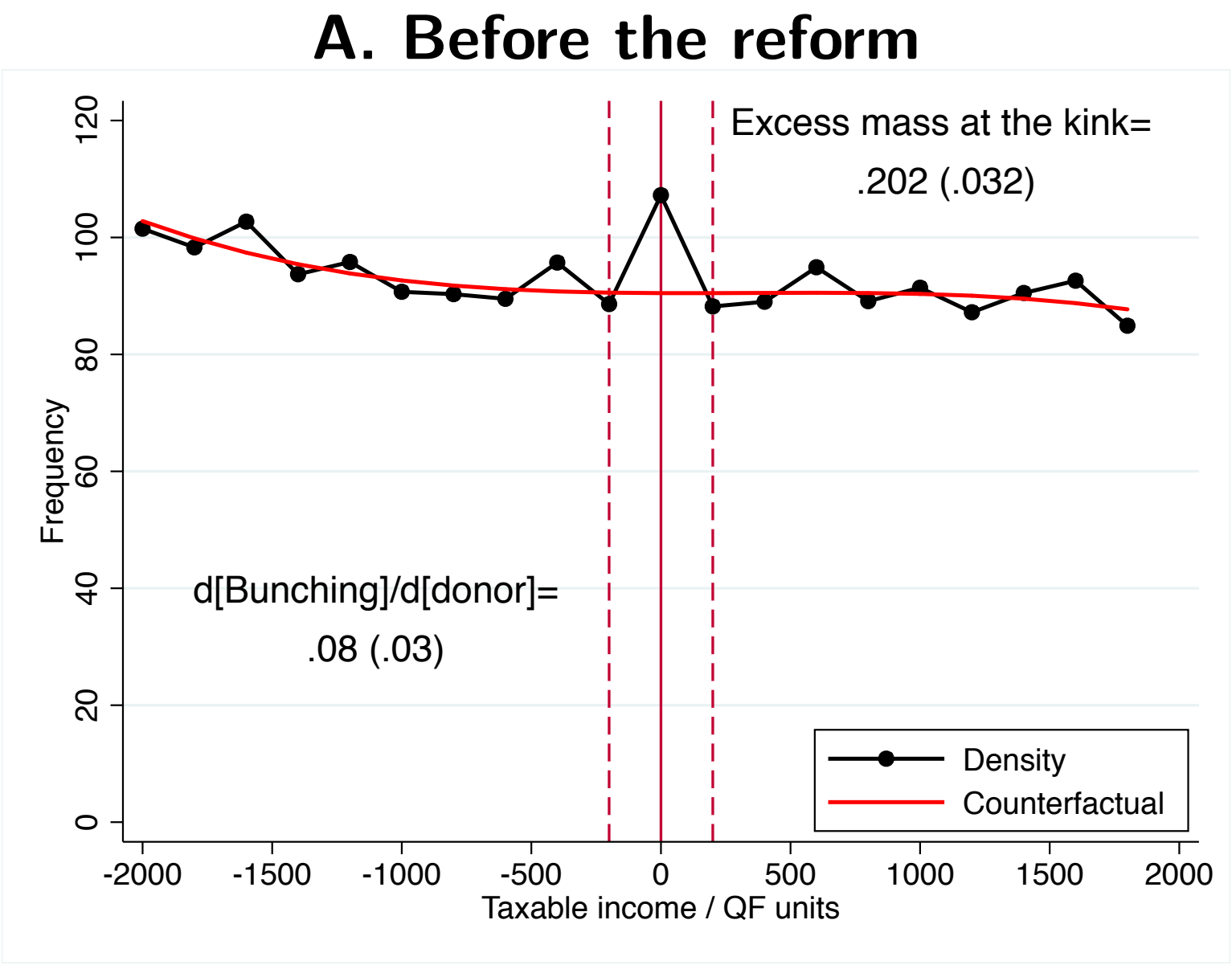


Taxable income bunching:

- Income tax schedule
  - 12 brackets
  - marginal tax rates increments $= 5\%$
  - expressed as function of taxable income per QF unit
- Hard to bunch at kink points
- Yet, taxpayers seem to have used charitable deduction to bunch before 1983

Figure 7 : Taxable income bunching at the kinks in the income tax schedule



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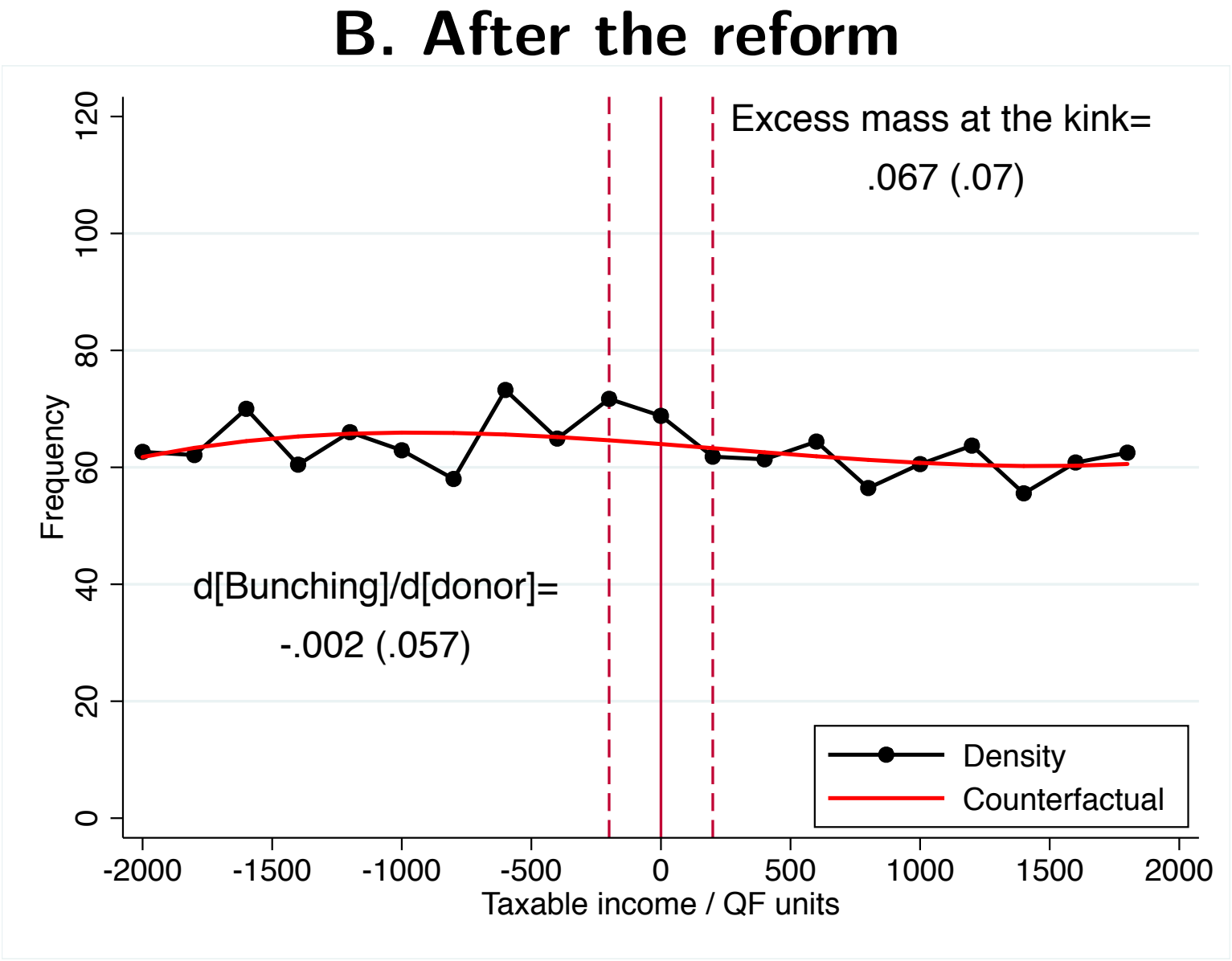


Identification of overreporting elasticity:

- Elasticity of reported contributions = elasticity of true reported contributions + elasticity of overreported contributions
- We can provide partial identification of overreported contributions
- Results suggest that elasticity of overreporting contributions is large

Table 4 : Upper bound estimates on the elasticity of overreporting contributions

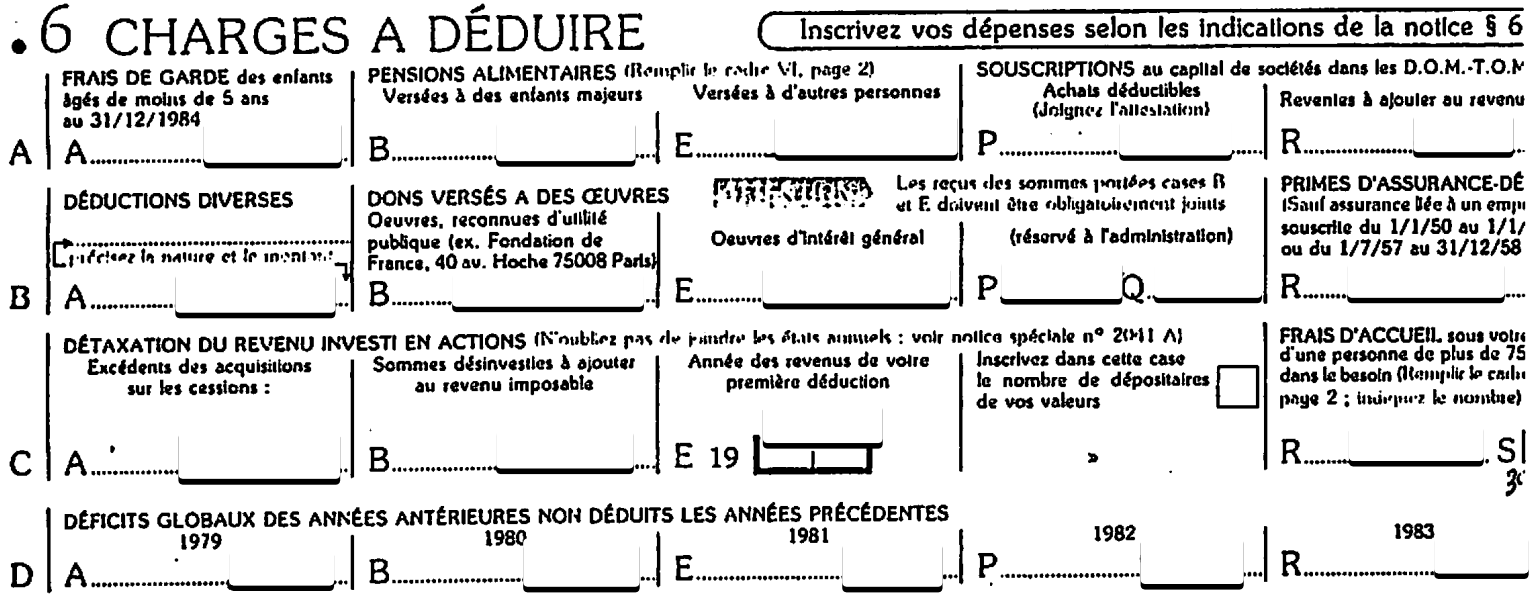
(1) Share of overreported contributions Before 1983 $1-\alpha$	(2) Elasticity of reported contributions Before 1983 ε_B^R	(3) Elasticity of reported contributions After 1983 ε_A^R	(4) Elasticity of overreported contributions $\varepsilon^C \leq \overline{\varepsilon^C}$ Conservative bound	(5) Elasticity of overreported contributions $\varepsilon^C \leq \overline{\varepsilon^C}$ Tighter bound
A. Baseline: underreporting $\approx$ 0 before 1983				
.6	-1.86	-.36	-2.87	-2.98
	[.2]	[.17]	[.33]	[.33]
.375	-1.86	-.36	-4.11	-4.47
	[.2]	[.17]	[.5]	[.5]
.6	-1.59	-.57	-2.24	-2.38
	[.12]	[.12]	[.21]	[.21]
.375	-1.59	-.57	-3.27	-3.84
	[.12]	[.12]	[.31]	[.29]

Conclusions:

- Tax evasion on non third-party reported items can be substantial.
- Tax non-compliance can be very elastic to the net-of-tax rate
- Tax elasticities are extremely sensitive to variations in other policy instruments available to tax authorities
- Calibrating optimal tax formulas with estimated tax elasticities leads to misleading conclusions, when the other available policy instruments are not at set optimally.

Figure 8 : Personal income tax form for 1984

B. Section dedicated to deduction from taxable income



6 CHARGES A DÉDUIRE

Inscrivez vos dépenses selon les indications de la notice § 6

A
- FRAIS DE GARDE des enfants âgés de moins de 5 ans au 31/12/1984 — A
- PENSIONS ALIMENTAIRES (Remplir le cadre VI, page 2) Versées à des enfants majeurs — B
- Versées à d'autres personnes — E
- SOUSCRIPTIONS au capital de sociétés dans les D.O.M.-T.O.M Achats déductibles (Joignez l'attestation) — P
- Revenus à ajouter au revenu — R

B
- DÉDUCTIONS DIVERSES (Précisez la nature et le montant) — A
- DONS VERSÉS A DES ŒUVRES Oeuvres, reconnues d'utilité publique (ex. Fondation de France, 40 av. Hoche 75008 Paris) — B
- Oeuvres d'intérêt général — E
- Les reçus des sommes portées cases B et E doivent être obligatoirement joints (réservé à l'administration) — P Q
- PRIMES D'ASSURANCE-DÉ (Sauf assurance liée à un empr souscrite du 1/1/50 au 1/1/ ou du 1/7/57 au 31/12/58 — R

C
- DÉTAXATION DU REVENU INVESTI EN ACTIONS (N'oubliez pas de joindre les états annuels : voir notice spéciale n° 2041 A) Excédents des acquisitions sur les cessions : — A
- Sommes désinvesties à ajouter au revenu imposable — B
- Année des revenus de votre première déduction — E 19
- Inscrivez dans cette case le nombre de dépositaires de vos valeurs
- FRAIS D'ACCUEIL sous votre d'une personne de plus de 75 dans le besoin (Remplir le cadre page 2 ; indiquez le nombre) — R S

D
- DÉFICITS GLOBAUX DES ANNÉES ANTÉRIEURES NON DÉDUITS LES ANNÉES PRÉCÉDENTES
- 1979 — A
- 1980 — B
- 1981 — E
- 1982 — P
- 1983 — R

Figure 9 : Price and log reported contributions vs log income for two QF groups (1979)

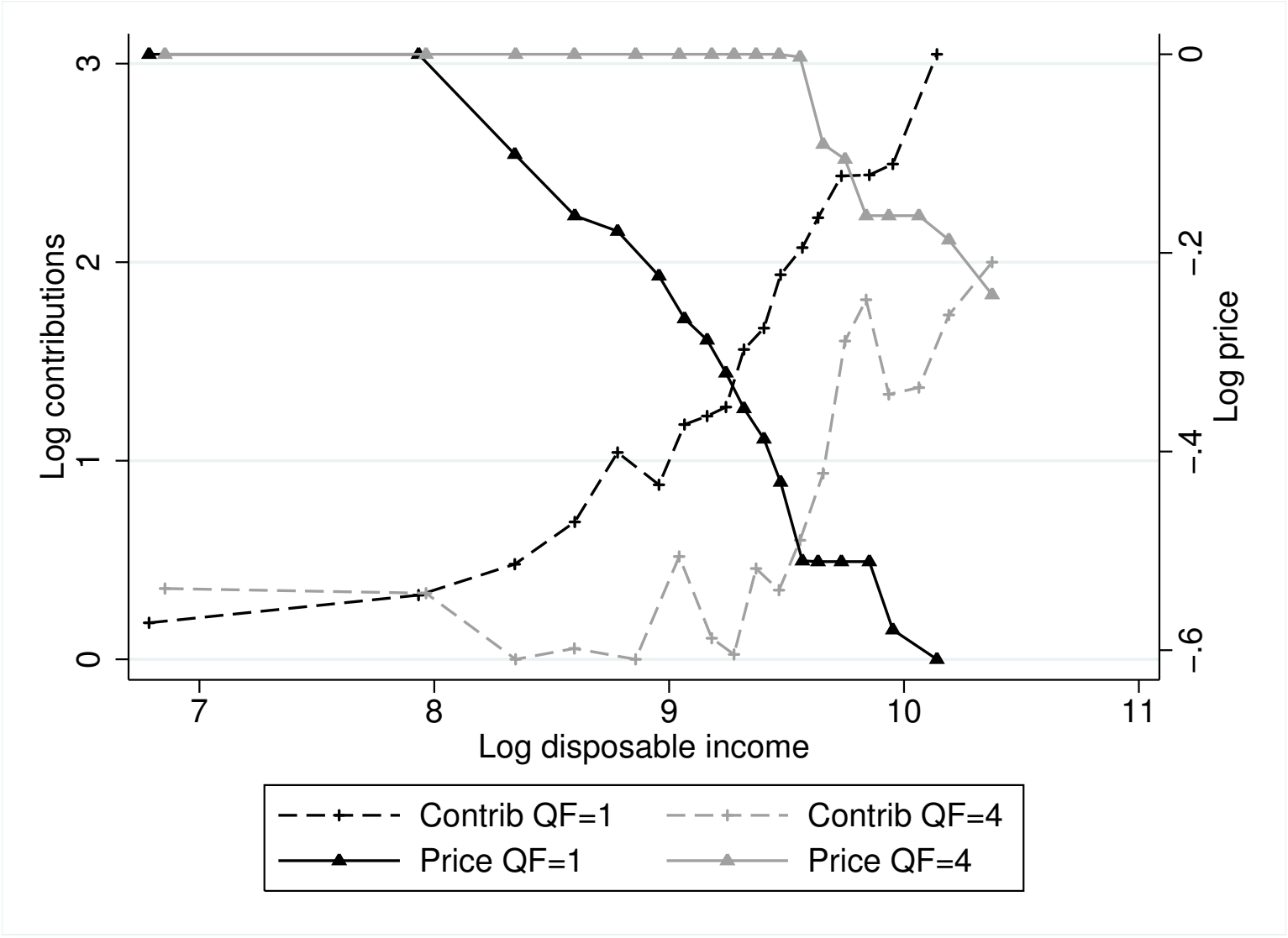


Figure 10 : A regime change in price elasticity, France (1979 & 1984)