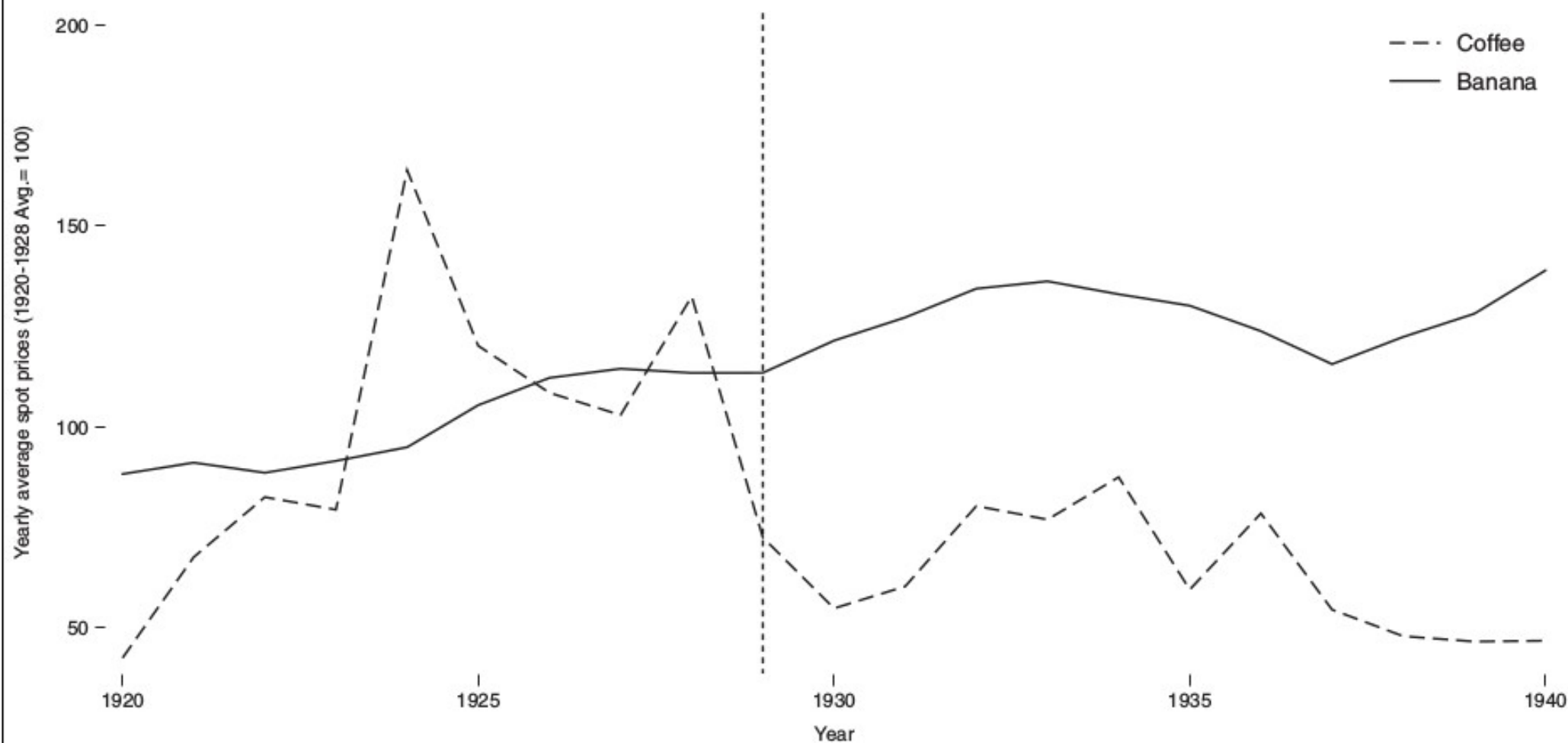


FIGURE 2. Commodity Prices Before and After the Great Depression



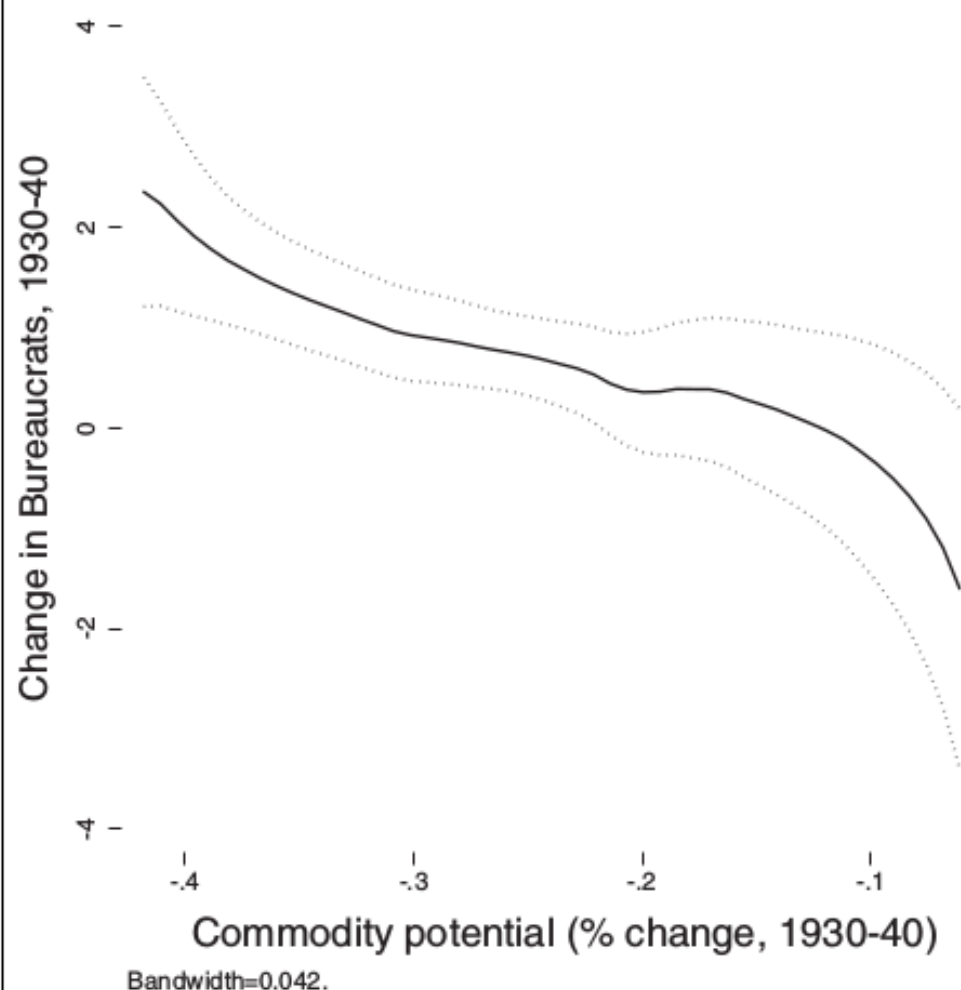
Source: Global Financial Data, from various primary sources.

Ecuación 1

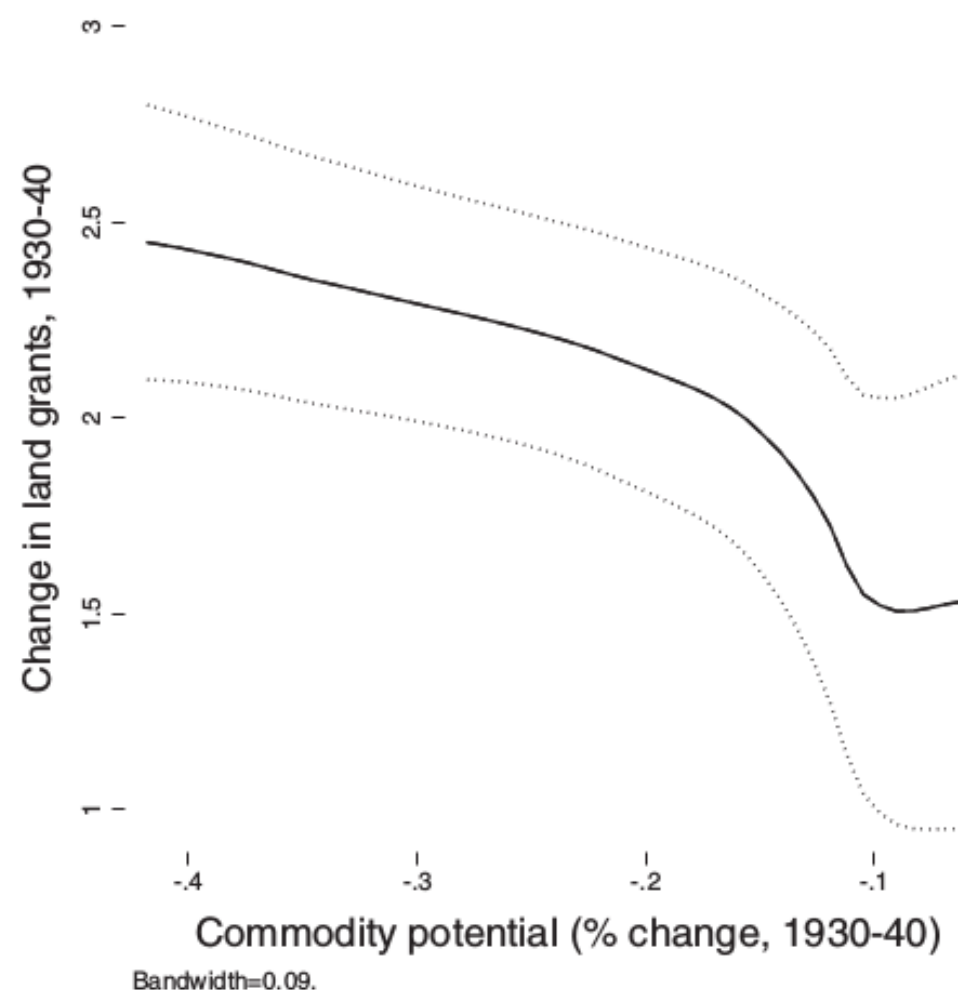
$$\ln y_{it} = \alpha + \beta_1 \ln \bar{V}_{it} + \lambda_t \times X_{i,1930} + \lambda_t + \gamma_i + \varepsilon_{it},$$

- y_{it} = N burócratas ó tierras expropiadas
- $\bar{V}_{it} = \sum_{g=1}^G \frac{\bar{P}_{gt} \times Suitability_{ig}}{Avg. Suitability_g},$
- $Suitability_{ig}$ = capacidad del municipio i para producir cultivo g (ton/Ha, FAO)

FIGURE 3. Bureaucrats, Land Redistribution, and Commodity Potential (1930–40)
Negative commodity shocks increase bureaucrats and land redistribution.



(a) Bureaucrats



(b) Land Redistribution

Nadaraya-Watson regressions. Bandwidths selected using the Rule of Thumb estimator. The unit-of-analysis is the *municipio* year. *Municipios* with *haciendas*.

TABLE 1. Commodity Shocks and Bureaucrats

	(1) Bureaucrats per 1,000 people (<i>Haciendas</i>)	(2) Bureaucrats per 1,000 people (<i>Haciendas</i>)	(3) Bureaucrats per 1,000 people (No <i>haciendas</i>)	(4) Bureaucrats per 1,000 people (<i>Haciendas</i>)
Commodity potential (log)	-7.92* (4.33)	-9.39** (4.11)	2.14 (3.14)	
Placebo commodity potential (log)				-0.34 (0.54)
Population in 1930 (log) × 1940		0.12 (0.45)	0.97** (0.44)	-0.29 (0.51)
Municipal surface area, Ha. (log) × 1940		0.090 (0.29)	0.15 (0.42)	0.49 (0.38)
Localities per Ha. in 1930 × 1940		474.0 (351.0)	437.0 (459.7)	418.7 (348.2)
Population in agriculture in 1930 (%) × 1940		-0.022 (0.033)	-0.019 (0.028)	-0.034 (0.032)
Population in cities in 1930 (%) × 1940		-0.042 (0.034)	0.036 (0.029)	-0.035 (0.034)
Commodity potential (log) in 1930 × 1940		0.011 (0.17)	0.013 (0.21)	0.050 (0.17)
Year FE	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes
Within- <i>Municipio</i> Mean of DV	4.23	4.23	2.49	4.23
Within- <i>Municipio</i> SD of DV	2.34	2.34	1.75	2.34
R ²	0.74	0.74	0.75	0.74
Observations	3019	3019	1489	3019
Number of <i>municipios</i>	1557	1557	762	1557

OLS estimations. See [Equation \(1\)](#) for the econometric specification. The unit-of-analysis is the *municipio* year. Standard errors (clustered at the *municipio* level) in parentheses.

$p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

TABLE 2. Commodity Shocks and Land Redistribution

	(1) Land reform, grants (<i>Haciendas</i>)	(2) Land reform, grants (<i>Haciendas</i>)	(3) Land reform, grants (No <i>haciendas</i>)	(4) Land reform, grants (<i>Haciendas</i>)
Commodity potential (log)	-3.31** (1.65)	-4.69*** (1.73)	3.78*** (1.24)	
Placebo commodity potential (log)				0.056 (0.32)
Population in 1930 (log) \times 1940		2.12*** (0.37)	0.43** (0.21)	1.96*** (0.35)
Municipal surface area, Ha. (log) \times 1940		0.0090 (0.15)	0.41*** (0.13)	0.15 (0.16)
Localities per Ha. in 1930 \times 1940		40.9 (197.7)	17.6 (118.2)	2.25 (186.2)
Population in agriculture in 1930 (%) \times 1940		0.017 (0.013)	0.0011 (0.0051)	0.015 (0.013)
Population in cities in 1930 (%) \times 1940		0.015 (0.014)	0.0032 (0.012)	0.018 (0.014)
Commodity potential (log) in 1930 \times 1940		-0.028 (0.11)	0.17** (0.080)	-0.0087 (0.11)
Land reform by 1930 (grants) \times 1940		0.28 (0.38)	-0.74* (0.39)	0.31 (0.38)
Year FE	Yes	Yes	Yes	Yes
Municipality FE	Yes	Yes	Yes	Yes
Within- <i>Municipio</i> Mean of DV	1.35	1.35	0.34	1.35
Within- <i>Municipio</i> SD of DV	1.62	1.62	0.42	1.62
R ²	0.58	0.65	0.61	0.65
Observations	3114	3114	1524	3114
Number of <i>municipios</i>	1557	1557	762	1557

Ecuación 2 (x-seccional)

- $y_{i,1940} = \alpha + \beta_0 \ln \bar{V}_i^{1920s} + \beta_1 S_i^{1920s-30s} + \delta X_i + \varepsilon_i,$
- $S_i^{1920s-30s} = \frac{\bar{V}_i^{1930s} - \bar{V}_i^{1920s}}{\bar{V}_i^{1920s}} \times 100.$

TABLE 3. Commodity Shocks and Local Bureaucrats (1940)

	(1) Local bureaucrats per 1,000 people	(2) Local bureaucrats per 1,000 people	(3) Bureaucrats per 1,000 people	(4) Bureaucrats per 1,000 people	(5) Land redis- tribution (grants)	(6) Land redis- tribution (grants)
Commodity potential 1920s (log)	−0.015 (0.015)	−0.012 (0.014)	0.034 (0.11)	−0.0097 (0.092)	0.13 (0.084)	−0.022 (0.081)
% shock to commodity potential	−2.08*** (0.34)	−0.98*** (0.30)	−14.3*** (3.52)	−9.66*** (2.77)	−4.65*** (1.52)	−6.32*** (1.64)
Population, 1930 (log)		−0.049 (0.036)		−0.32 (0.28)		2.10*** (0.26)
Bureaucrats per 1000 people, 1930		0.017*** (0.0048)		0.37*** (0.044)		
Municipal surface area, Ha. (log)		0.14*** (0.025)		0.67*** (0.20)		0.019 (0.10)
Localities per Ha., 1930		86.9** (37.3)		973.4** (401.0)		44.6 (139.7)
Pop. in agriculture 1930 (%)		−0.0082*** (0.0024)		−0.047*** (0.017)		0.016* (0.0093)
Pop. in cities 1930 (%)		0.013*** (0.0018)		0.076*** (0.015)		0.015 (0.010)
Land reform by 1930 (grants)					2.85*** (0.31)	2.25*** (0.27)
Mean of DV	0.66	0.69	4.64	4.79	2.63	2.69
SD of DV	0.85	0.85	7.94	8.03	6.00	6.06
R ²	0.032	0.24	0.017	0.26	0.19	0.31
Number of <i>municipios</i>	1565	1462	1565	1462	1596	1557

TABLE 4. Commodity Shocks and Long Term Local State Capacity

	(1)	(2)	(3)	(4)
	Bureaucrats per 1,000 people (2000)	Bureaucrats per 1,000 people (2000)	Local taxes (% of mun. GDP) Avg. 1989–2013	Local taxes (% of mun. GDP) Avg. 1989–2013
Commodity potential 1920s (log)	−0.0092 (0.12)	−0.037 (0.11)	0.024*** (0.0076)	0.027*** (0.0076)
% shock to commodity potential	−14.1*** (2.34)	−13.3*** (2.28)	−0.97*** (0.15)	−0.92*** (0.15)
Population, 1930 (log)	−1.32*** (0.30)	−2.66*** (0.33)	−0.034 (0.022)	0.067*** (0.020)
Bureaucrats per 1000 people, 1930	0.33*** (0.032)	0.28*** (0.032)	0.00051 (0.0014)	0.0035** (0.0016)
Municipal surface area, Ha. (log)	0.14 (0.21)	0.28 (0.19)	0.012 (0.012)	0.0082 (0.012)
Localities per Ha., 1930	630.0** (297.1)	400.3 (260.8)	59.8*** (22.3)	70.2*** (22.7)
Pop. in agriculture 1930 (%)	−0.075*** (0.021)	−0.068*** (0.021)	−0.0028 (0.0017)	−0.0027* (0.0016)
Pop. in cities 1930 (%)	0.035*** (0.011)	0.032*** (0.010)	−0.00041 (0.00058)	0.00014 (0.00064)
Municipal GDP 2005 (log)		1.51*** (0.21)		−0.094*** (0.017)
Federal transfers (log) Avg. 1989–2013		−0.60*** (0.10)		0.011 (0.0068)
Mean of DV	9.71	9.71	0.42	0.42
SD of DV	6.69	6.69	0.46	0.46
R ²	0.23	0.28	0.037	0.077
Number of <i>municipios</i>	1455	1455	1462	1462