THE GREAT REVERSAL

How America Gave Up on Free Markets

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The Belknap Press of Harvard University Press
CAMBRIDGE, MASSACHUSETTS
LONDON, ENGLAND
2019

Printed in the United States of America

First printing

Design by Dean Bornstein

Library of Congress Cataloging-in-Publication Data

Names: Philippon, Thomas, author.
Title: The great reversal : how America gave up on free markets / Thomas Philippon.
Description: Cambridge, Massachusetts : The Belknap Press of Harvard University Press, 2019. | Includes bibliographical references and index.
Identifiers: LCCN 2019018624 | ISBN 9780674237544
Subjects: LCSH: Free enterprise—United States. | Free enterprise—Europe. | Free enterprise—Political aspects—United States. | Markets—United States. | Markets—Europe. | Competition—United States. | Competition—Europe. | Lobbying—United States.
Classification: LCC HB95 .P53 2019 | DDC 330.973—dc23
LC record available at https://lccn.loc.gov/2019018624

TABLE I.1

Broadband Prices, Selected Countries, 2017

Rank	Country	Average monthly cost ($US)
37	South Korea	$29.90
47	Germany	$35.71
54	France	$38.10
. . .		
113	United States	$66.17

Data source: Cable.co.uk; https://www.cable.co.uk/broadband/deals/worldwide-price-comparison/

TABLE 1.1

Growth Rate of Real US GDP per Capita

Decade	1950s	1960s	1970s	1980s	1990s	2000s	2010–17
Average growth	2.4	3.1	2.1	2.1	2.0	0.8	0.6

Data source: FRED, real gross domestic product per capita, continuously compounded rate of change

TABLE 1.2

Labor Earnings, Education, and Inequality

	1980	1990	1992	2000	2010	2015
Evolution of real hourly wage by education (2015 $)						
No degree	14.19	12.84	12.47	13.03	13.22	13.56
High school	16.33	15.99	15.87	17.2	17.77	17.98
Some college	18.8	19.29	19.16	20.84	21.47	21.59
Four-year college	22.85	25.32	25.18	28.98	30.49	30.93
Graduate degree	27.27	31.43	31.66	36.4	39.7	39.48
Education premia						
College / high school	40%	58%	59%	68%	72%	72%
Graduate / no degree	92%	145%	154%	179%	200%	191%

Data source: Valletta (2016)

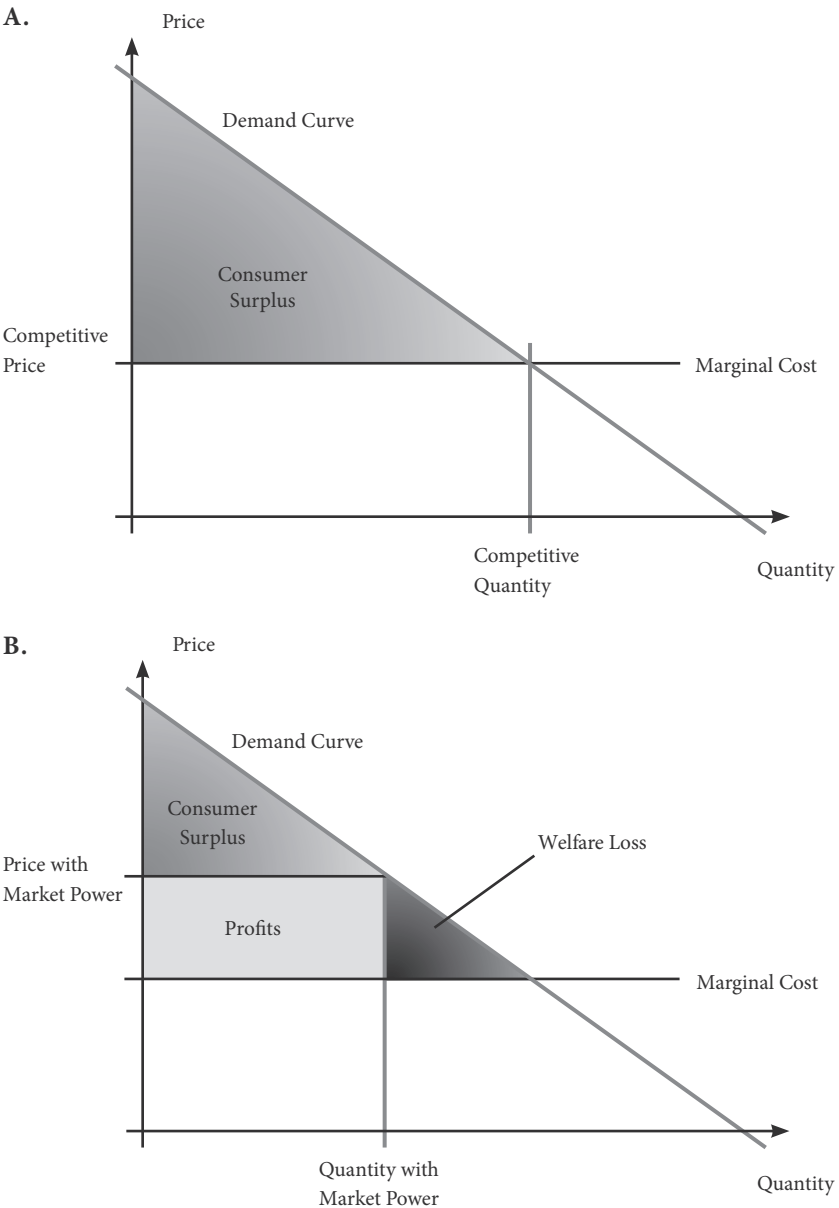

FIGURE 2.1 Industry equilibrium. (*a*) Competitive industry; (*b*) Industry with market power.

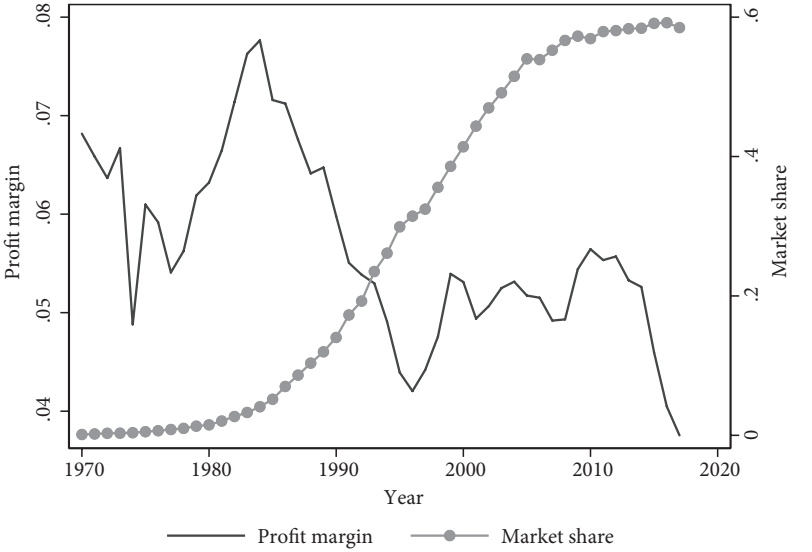

FIGURE 2.2 The growth of Walmart

FIGURE 2.3 Retail price index relative to consumer price index. *Data sources*: BEA, GDP by Industry; FRED, PCE index

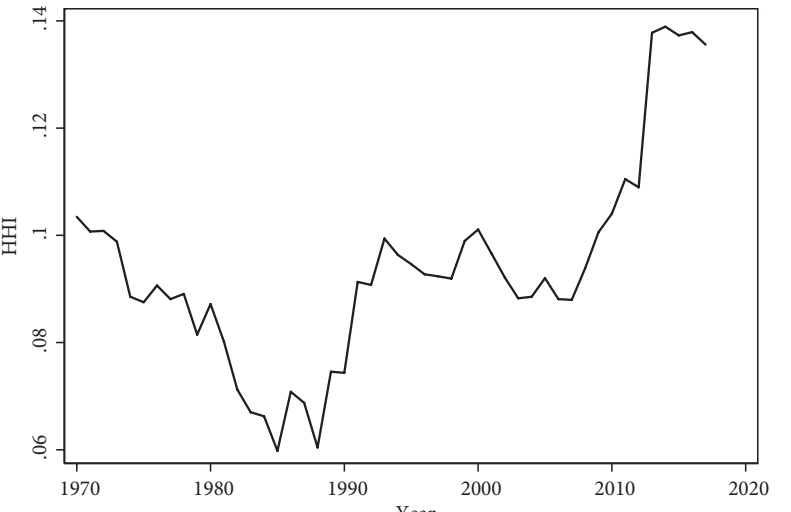

FIGURE 2.4 HHI in US air transport industry. *Data source:* US firms in Compustat

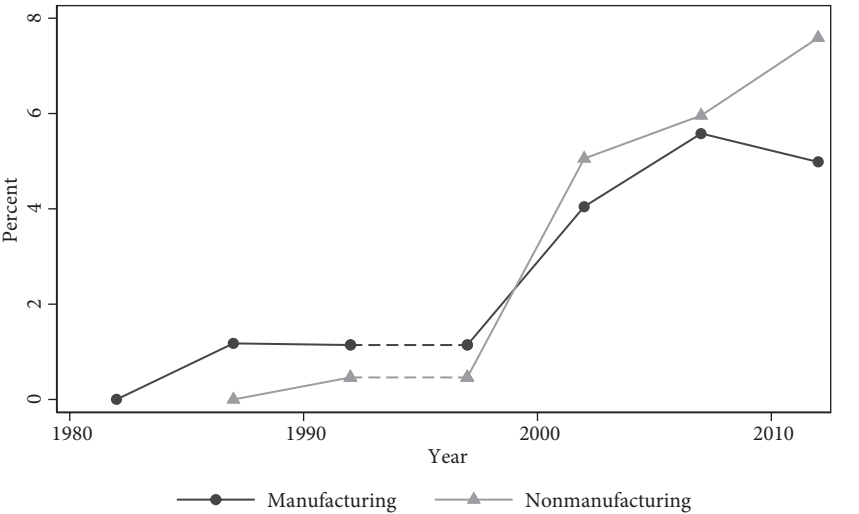

FIGURE 3.1 Concentration using top eight firm Census shares, cumulative change in CR8. Annual data.

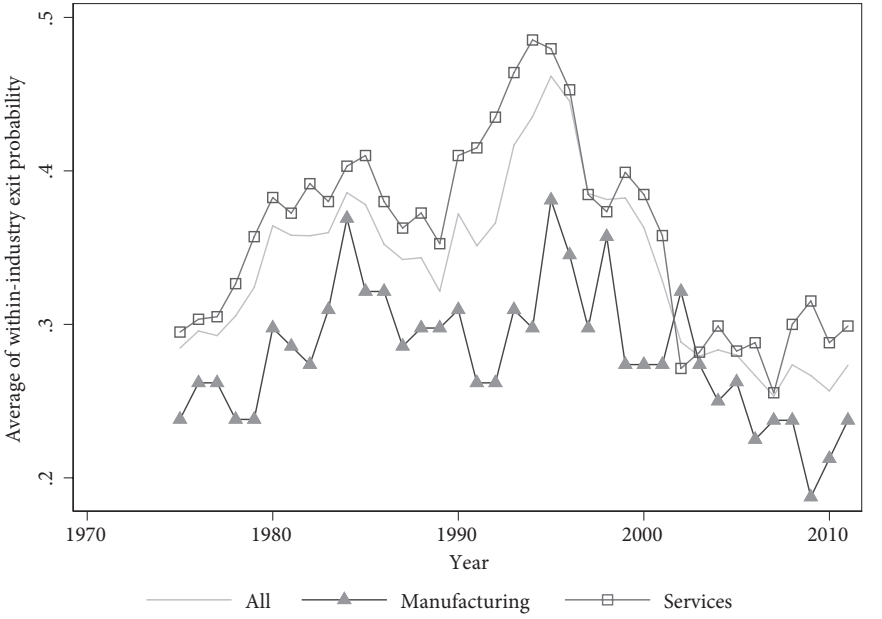

FIGURE 3.2 Turnover at the top. See text for details.

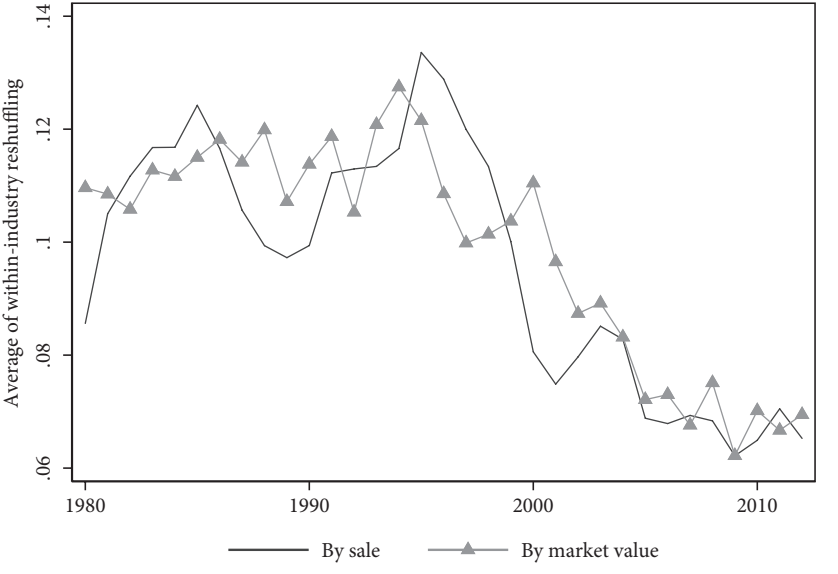

FIGURE 3.3 Reshuffling. See text for details.

FIGURE 3.4 Corporate profits over GDP. Corporate profits after tax with inventory valuation adjustment and capital consumption adjustment, quarterly, seasonally adjusted. *Data source*: FRED

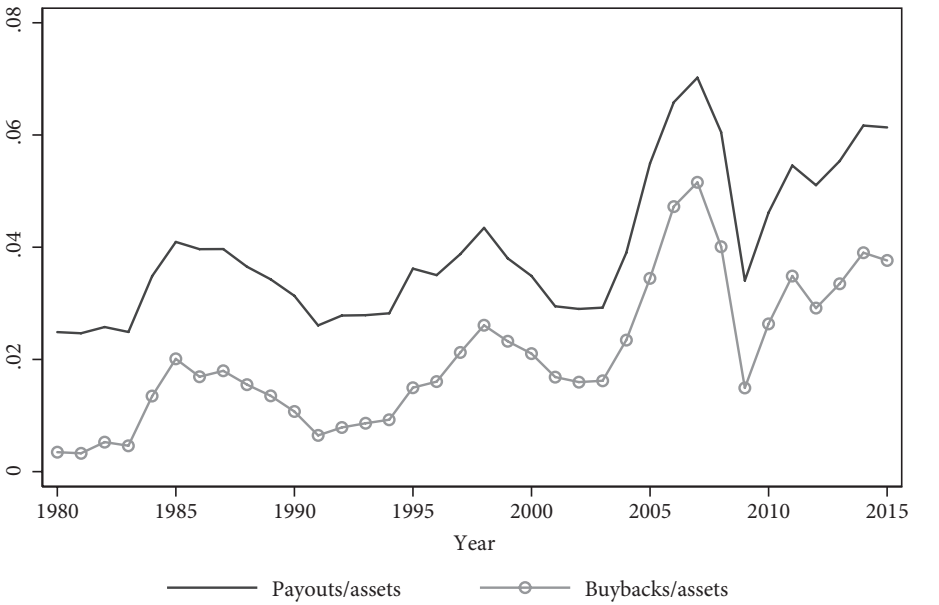

FIGURE 3.5 Share buybacks and payouts. Annual data for all US-incorporated firms in our Compustat sample. Results are similar when including foreign-incorporated firms. The SEC instituted in 1982 rule 10b-18, which allows companies to repurchase their shares on the open market without regulatory limits. It was followed by a large increase in buybacks.

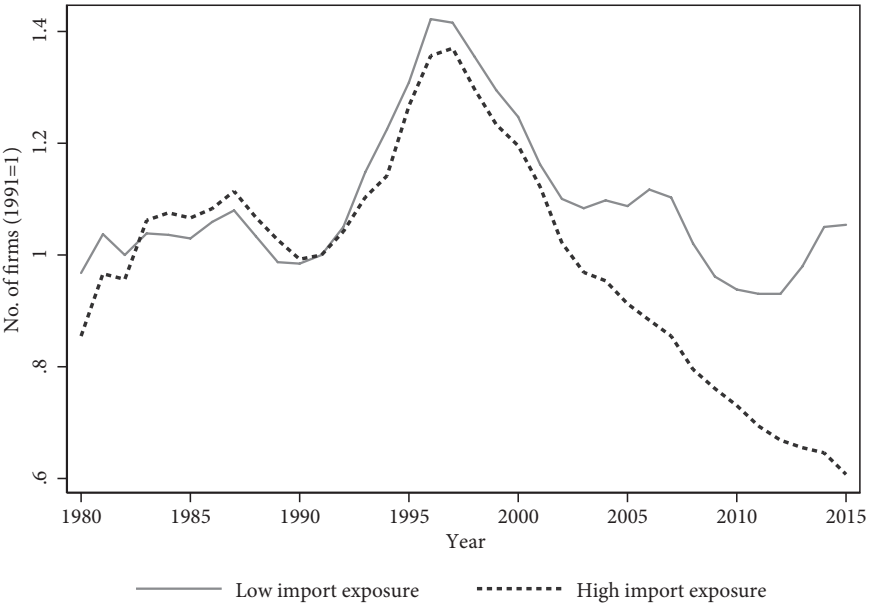

FIGURE 3.6 The China shock: The number of active US firms in manufacturing, by exposure to China, normalized to 1 in 1991. Annual data. Manufacturing industries only are split into "high" (above-median) and "low" (below-median) exposure based on import penetration from 1991 to 2011. *Data sources*: Firm data from Compustat; import data from UN Comtrade

Business Investment Has Been Low

Figure 4.1 shows that in recent years investment has been low relative to firms' profits. Figure 4.1 shows the ratio of net investment (investment expenditures minus depreciation) to net operating surplus (gross surplus minus depreciation). Net investment is what matters for economic growth because it measures the change in capital from one year to the next.

There is a lot going on in Figure 4.1, so let us use the example from Chapter 3 to explain what these numbers mean. Recall that we imagined a firm with the following accounting information:

Assets	Revenues	Income	Depreciation	Taxes	Net investment	Dividends
$100	$150	$15	$5	$3	$2	$5

For this firm, we concluded that gross operating surplus (income) is $15. Depreciation is $5, so net operating surplus is $10. Gross investment

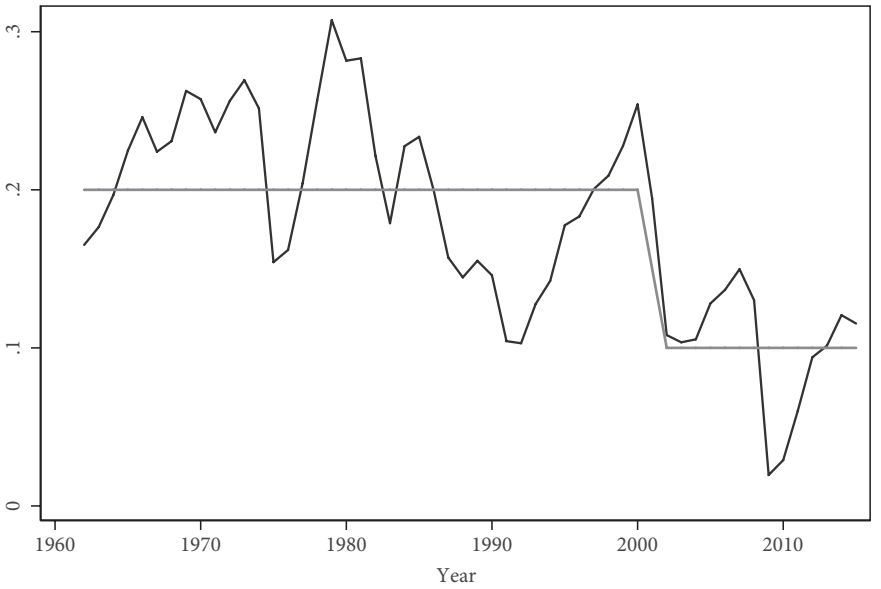

FIGURE 4.1 Net investment relative to net operating surplus

TABLE 4.1

Flow of Funds to Business Sector in 2014

Name	Value in 2014 ($ billions)		
	Corporate (1)	Noncorporate (2)	Business (1+2)
Gross value added (*PY*)	$8,641	$3,147	$11,788
Stock of fixed capital (*K*)	$14,857	$6,126	$20,983
Consumption of fixed capital (CFK)	$1,286	$297	$1,583
Net operating surplus (*PY*–Wages–Tax–CFK)	$1,614	$1,697	$3,311
Gross fixed capital formation (*I*)	$1,610	$354	$1,964
Net fixed capital formation (*I*–CFK)	$325	$56	$381

Note: Stock of fixed capital is measured at replacement cost.

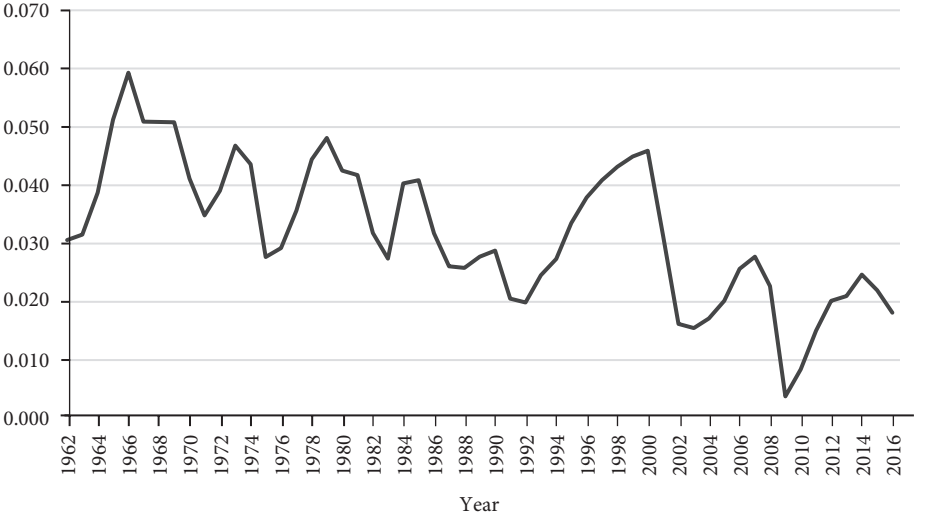

FIGURE 4.2 Declining growth of capital: growth rate of corporate businesses' capital stock

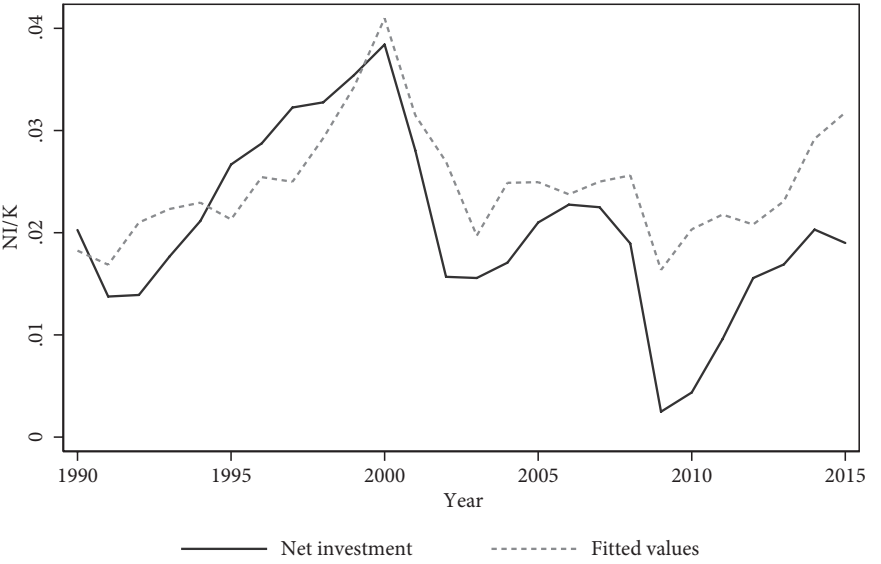

FIGURE 4.3 Tobin's *q* and investment. Tobin's *q* is the market value of nonfinancial private businesses over the replacement cost of capital. Net investment is investment minus depreciation over the replacement cost of capital. Fitted values is investment predicted by *q* at the beginning of each year. *Data source*: BEA

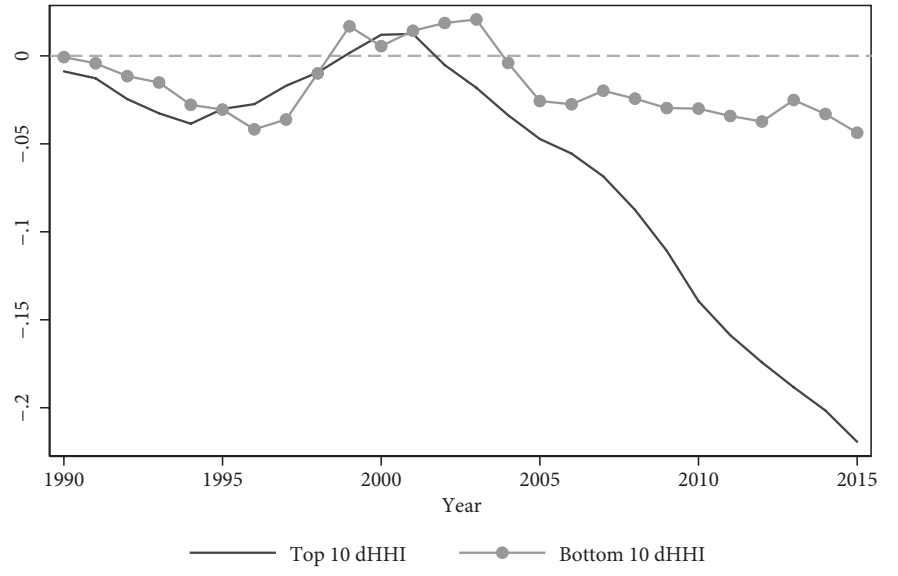

FIGURE 4.4 Concentration and investment gap. Annual data. We use the ten industries with the largest and smallest relative change in import-adjusted HHI indexes. The figure shows the cumulative implied capital gap (as percent of capital stock) for the corresponding industries (Gutiérrez and Philippon, 2017).

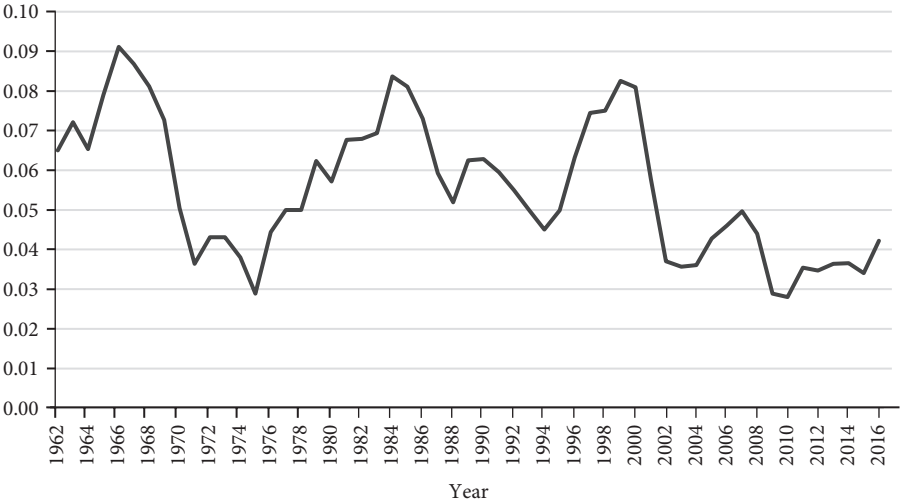

FIGURE 4.5 Growth rate of intangible capital stock: intellectual property products

Box 4.2. Statistical Models

Table 4.2 presents the results of five regressions, that is, five statistical models. The right half of the table considers the whole economy; the left half focuses on the manufacturing sector.

TABLE 4.2

Regression Results

	(1)	(2)	(3)	(4)	(5)
Productivity growth	**Manufacturing**			**Whole economy**	
Years	**97–02**	**02–07**	**07–12**	**89–99**	**00–15**
Census CR4 growth	0.13*	0.01	−0.13		
	[0.06]	[0.05]	[0.17]		
Compustat CR4 growth				0.14*	−0.09
				[0.06]	[0.07]
Data set & granularity	**NAICS-6**			**KLEMS**	
Year fixed effects	Y	Y	Y	Y	Y
Observations	469	466	299	92	138
R^2	0.03	0.00	0.02	0.07	0.09

Notes: Log changes in TFP and in top 4 concentration. Standard errors appear in brackets below the coefficients. 97–02 means that the sample spanned 1997–2002. See Covarrubias, Gutiérrez, and Philippon (2019) for details.

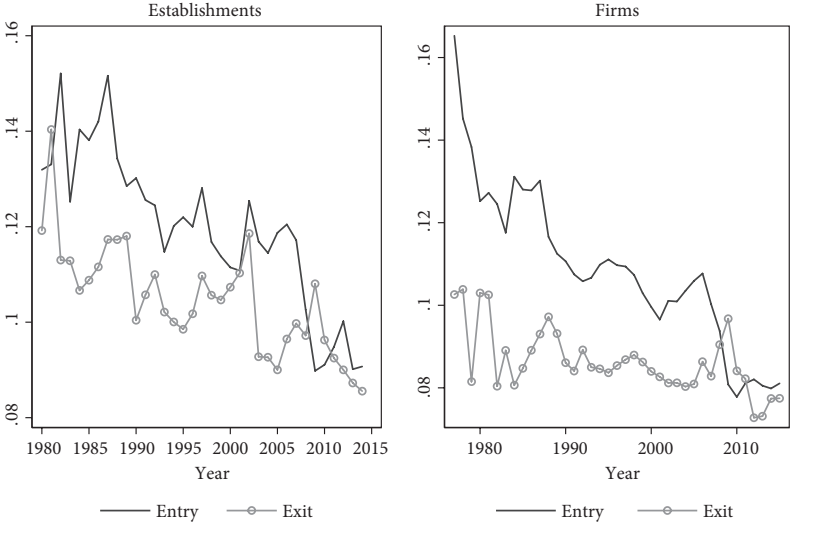

FIGURE 5.1 Entry and exit rates of establishments *(left)* and firms *(right)*. *Data source*: US Census Bureau, Business Dynamics Statistics

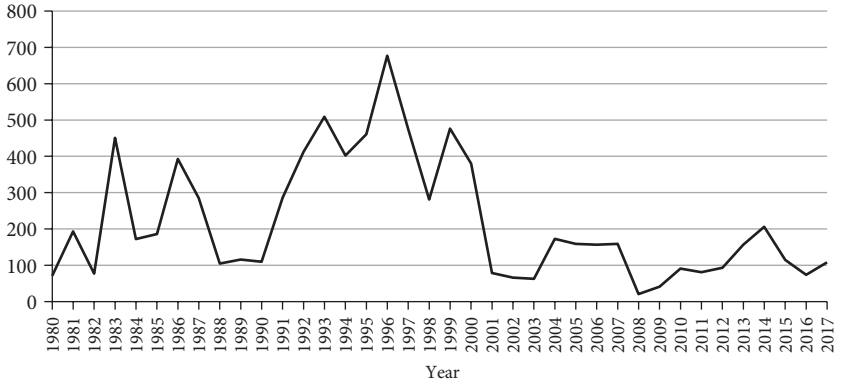

FIGURE 5.2 Number of IPOs per year, 1980–2017 (Ritter, 2019)

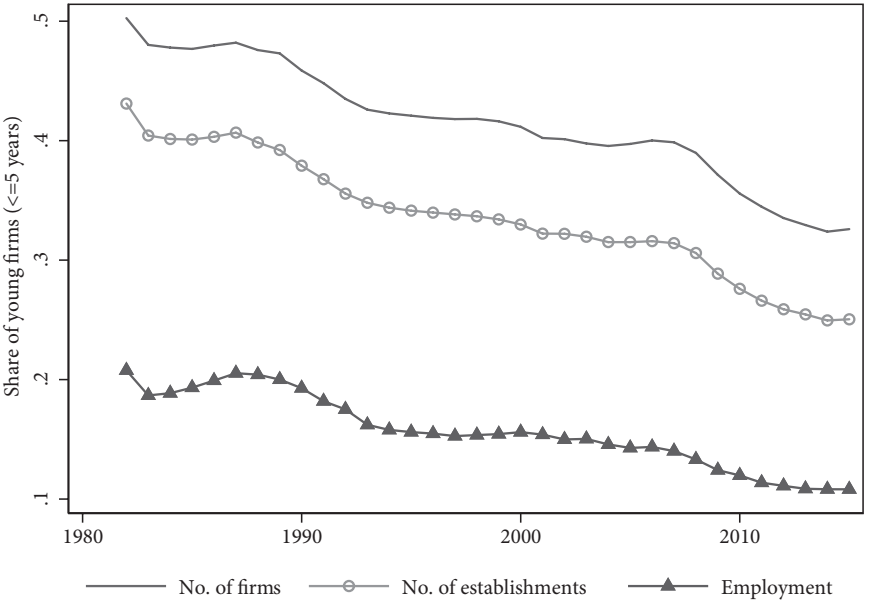

FIGURE 5.3 The shrinking share of young firms in the US economy

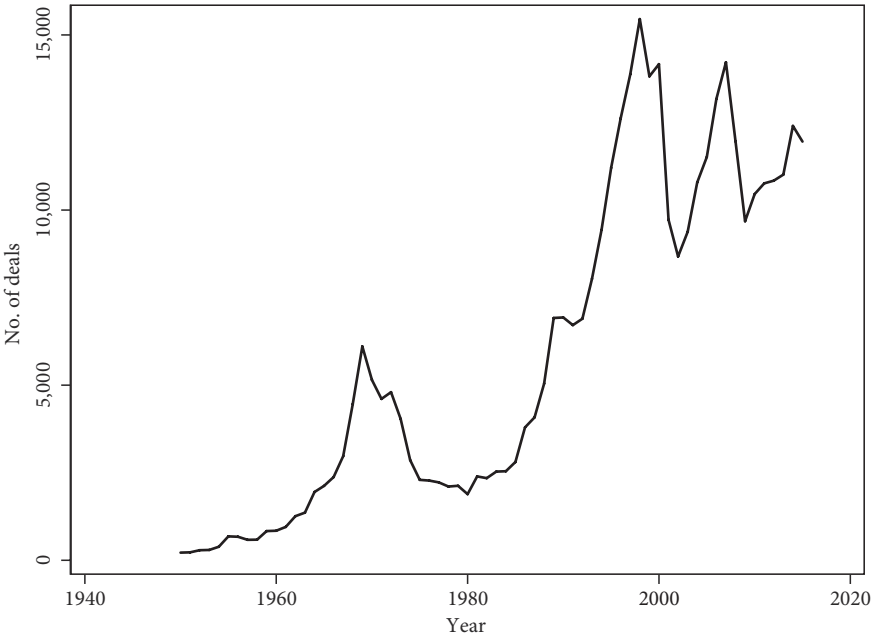

FIGURE 5.4 Number of merger and acquisition deals

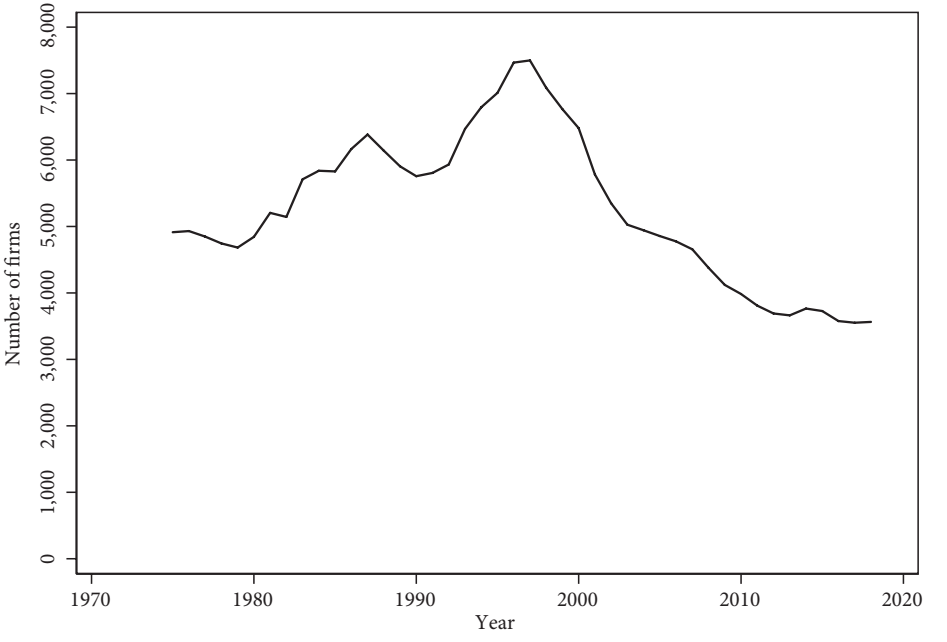

FIGURE 5.5 Decline in the number of publicly listed US firms

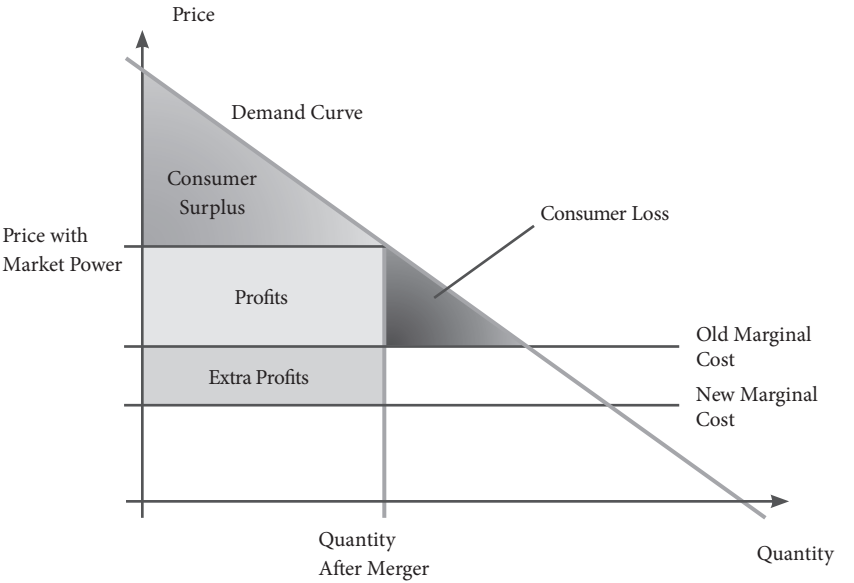

FIGURE 5.6 Merger with efficiency gain

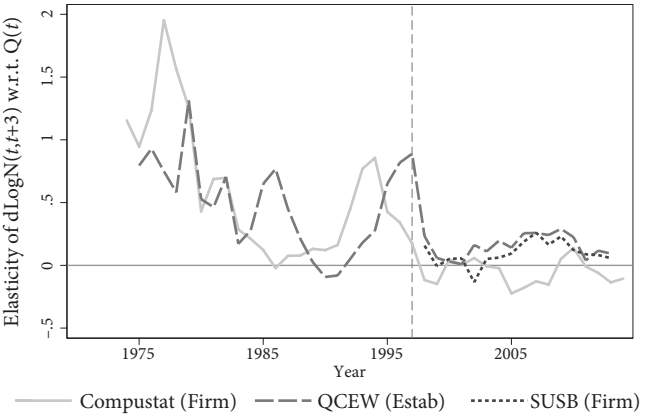

FIGURE 5.7 Declining allocation of entry to high-value industries. The figure plots the coefficient of year-by-year regressions of changes in the log-number of firms / establishments on the industry-median Tobin's *q*. *Data sources:* Compustat and SUSB series based on the number of firms by NAICS level 4 industry. QCEW series based on the number of establishments by SIC level 3 industry up to 1997 and NAICS level 4 industries afterward. Changes in the number of firms are standardized to have mean zero and variance of one to ensure comparability across data sources. Industry-median *q* is based on Compustat. See Gutiérrez and Philippon (2019b) for details.

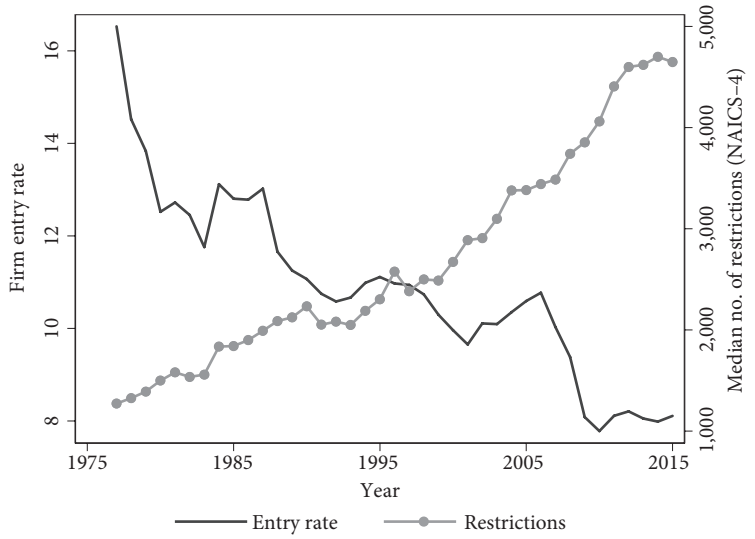

FIGURE 5.8 Regulation index and establishment birth rate. *Data sources*: Establishment entry rates from Census' Business Dynamics Statistics. Regulatory restrictions from RegData. See Gutiérrez and Philippon (2019b) for details.

MAP 6.1 The euro area (EA19) began with eleven members in January 1999: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain. Later arrivals were Greece (2001), Slovenia (2007), Cyprus and Malta (2008), Slovakia (2009), Estonia (2011), Latvia (2014), and Lithuania (2015). Members of the European Union (EU28) share a common set of institutions (the European Commission, the European Parliament, a court of justice, and so on) and, most importantly for this book, the Single Market. Cyprus, an EA19 country, is not shown on this map. Brexit negotiations may change the UK's membership status. *Data source*: https://d-maps.com/m/europa/europemax/europemax11.pdf

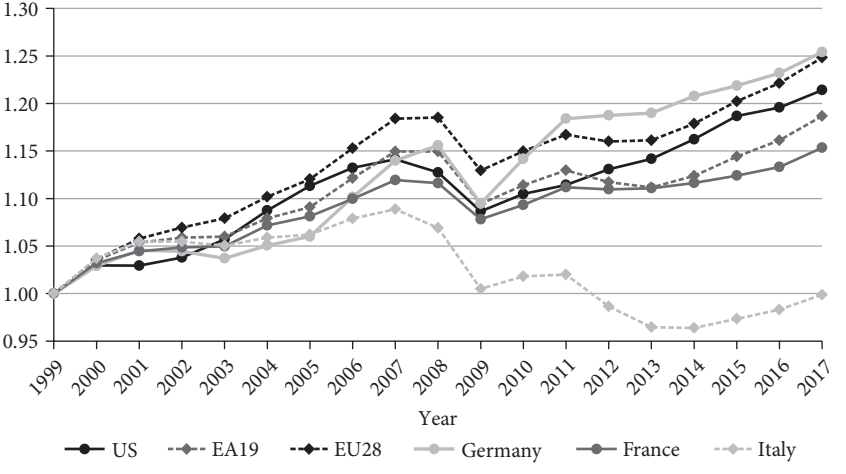

FIGURE 6.1 Cumulative growth of GDP per capita in the US, the euro area, the EU, and selected EU countries. *Source:* OECD

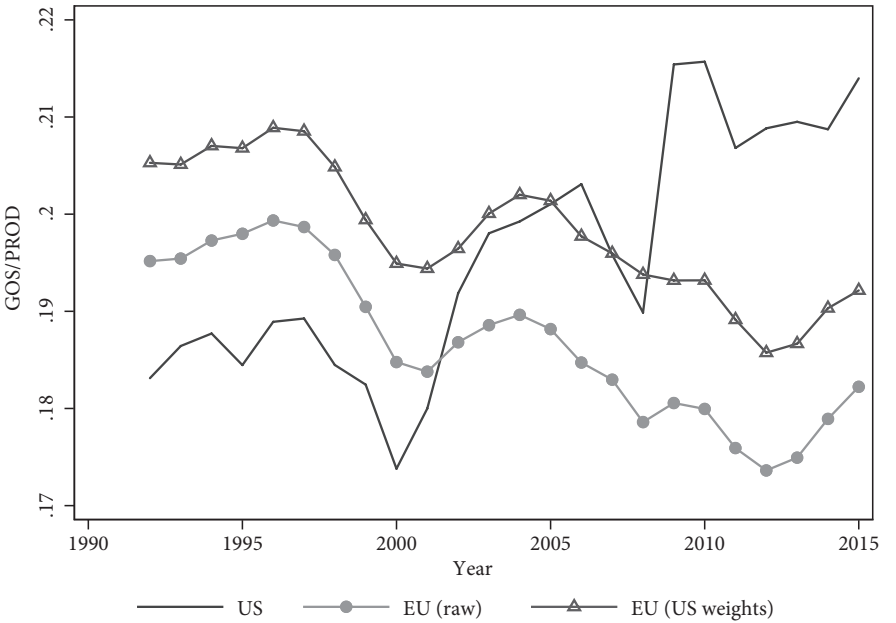

FIGURE 6.2 Profit margins in the US and EU. Shown are profit rates for the nonagriculture business sector, excluding real estate. The line with circles weighs by EU country × industry gross output. The line with triangles first aggregates across EU countries, within industries, using EU country × industry output as weights, then across EU industries using US industry output as weights. *Data source*: OECD Database for Structural Analysis (STAN)

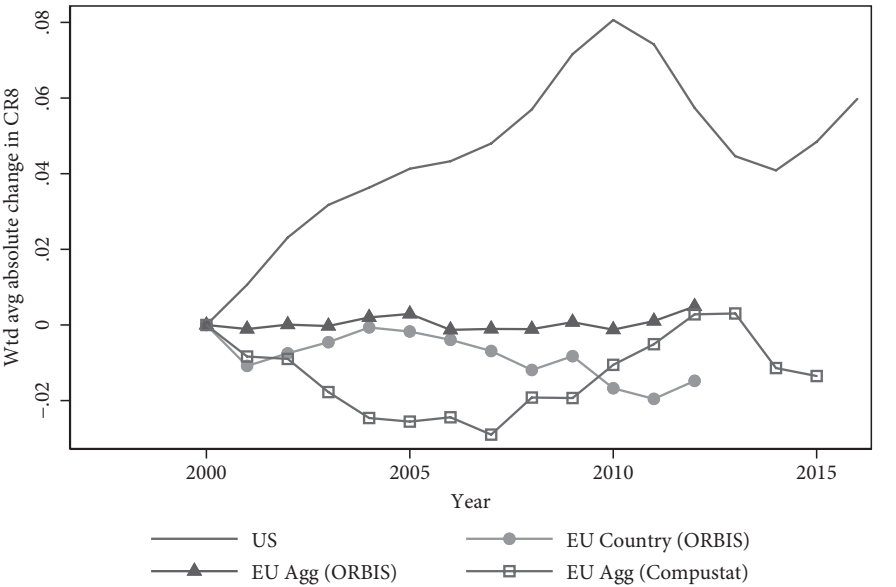

FIGURE 6.3 Concentration in the US and in the EU. The figure reports the real gross-output weighted average of absolute changes in an eight-firm concentration ratio (CR) across industries, from 2000. Country series treat each country as an independent market. Aggregate series treat the EU as a single market. To ensure consistency, all CRs follow the EU KLEMS segmentation and are averaged across industries using the US share of sales in each industry and year. CRs are adjusted for database coverage using gross output from OECD STAN. EU concentration includes Austria, Belgium, Germany, Spain, Finland, France, Great Britain, Italy, Netherlands, and Sweden. See Gutiérrez and Philippon (2018a) for details. *Data sources*: US CR, Compustat. EU CRs, consolidated financials from Compustat (squares) and unconsolidated financials from ORBIS (circles and triangles), using the data of Kalemli-Ozcan et al. (2015)

TABLE 6.1

Profit Margins and Profit Rates

	US			EU		
	1997–99	2013–15	Δ	1997–99	2013–15	Δ
Operating margin	9%	13%	4%	8%	7%	−1%
Operating profit rate	13%	16%	3%	9%	8%	−1%

Data source: EU KLEMS data for Nonfinancial Corporate Business Sector

FIGURE 6.4 US labor share. *Data source:* FRED

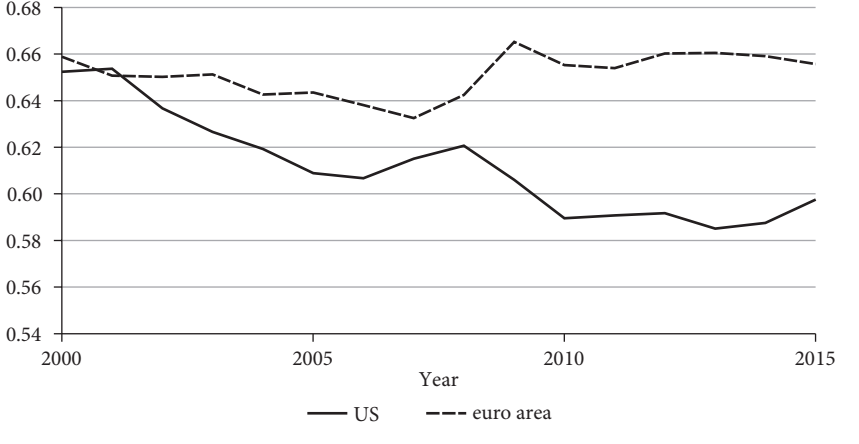

FIGURE 6.5 Labor shares for the market economy. Euro area includes eleven original countries plus Greece. *Data source*: KLEMS

TABLE 7.1

FOREX Rates, Big Mac Prices, and ICP PPP Rates

	Market exchange rate	Local price of Big Mac		PPP exchange rates, €1 = $*x*	
Year	€1 = $*x*	EA19	US	Big Mac	ICP
2000	$0.92	€2.56	$2.51	$0.98	$1.16
2001	$0.89	€2.57	$2.54	$0.99	$1.16
2002	$0.94	€2.67	$2.49	$0.93	$1.17
2003	$1.13	€2.71	$2.71	$1.00	$1.16
2004	$1.24	€2.74	$2.90	$1.06	$1.17
2005	$1.24	€2.92	$3.06	$1.05	$1.17
2006	$1.25	€2.93	$3.15	$1.08	$1.21
2007	$1.37	€3.06	$3.41	$1.11	$1.22
2008	$1.46	€3.37	$3.57	$1.06	$1.24
2009	$1.39	€3.31	$3.57	$1.08	$1.26
2010	$1.32	€3.38	$3.73	$1.10	$1.26
2011	$1.39	€3.44	$4.06	$1.18	$1.28
2012	$1.28	€3.58	$4.33	$1.21	$1.29
2013	$1.33	€3.62	$4.56	$1.26	$1.32
2014	$1.33	€3.68	$4.79	$1.30	$1.33
2015	$1.11	€3.70	$4.79	$1.29	$1.32
2016	$1.11	€3.82	$5.04	$1.32	$1.33
2017	$1.13	€3.91	$5.30	$1.36	$1.33

Source: *Economist*, OECD

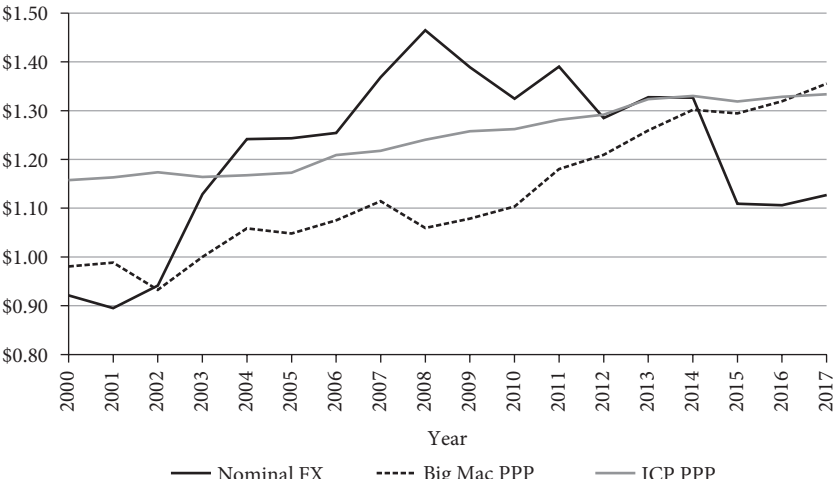

FIGURE 7.1 Nominal euro/dollar exchange rates

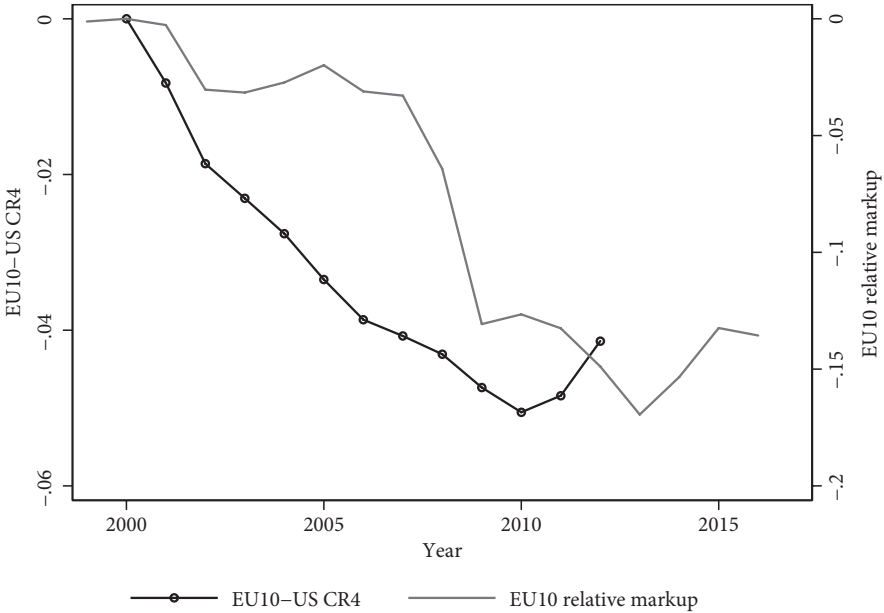

FIGURE 7.2 Markup and concentration in Europe versus the US

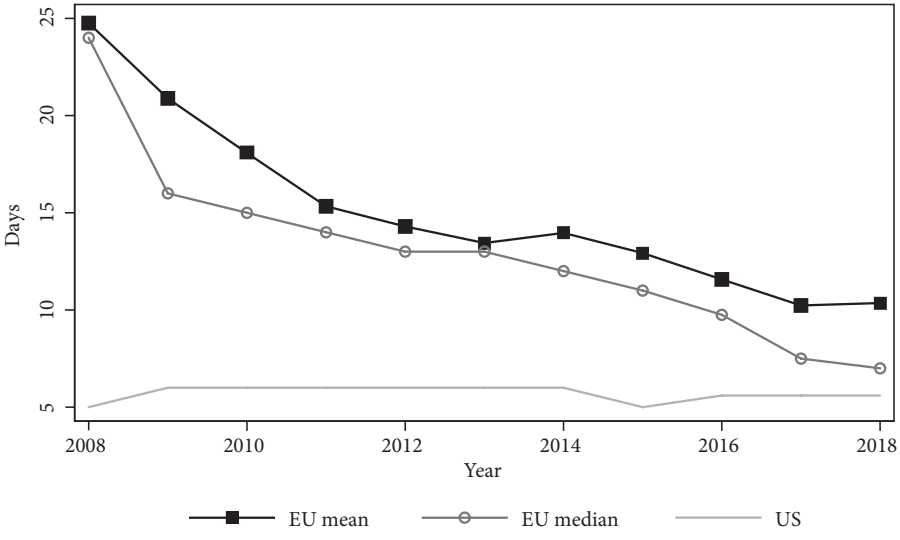

FIGURE 8.1 Number of days to start a business. *Data source:* World Economic Forum

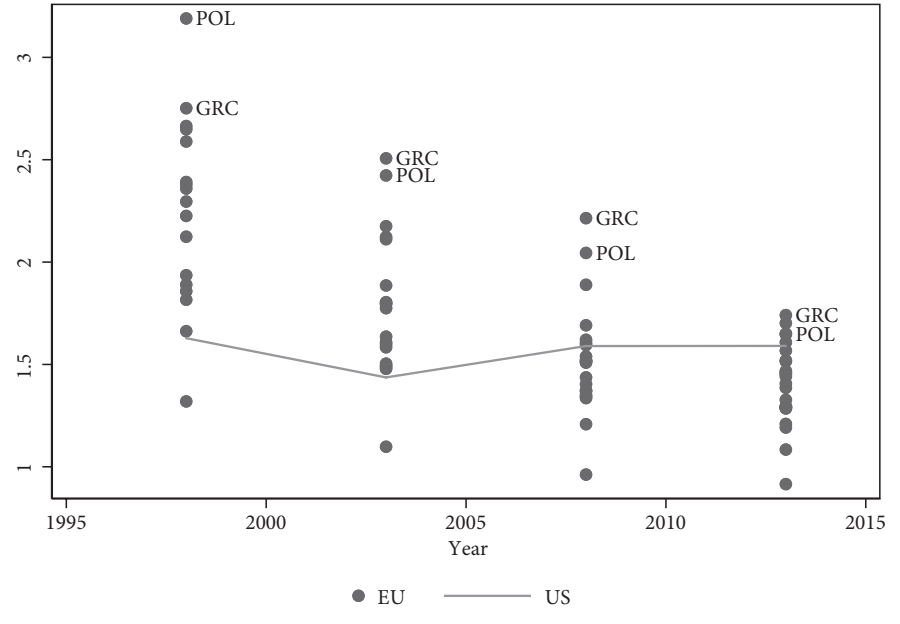

FIGURE 8.2 Product market regulation index. GRC = Greece; POL = Poland. *Data source*: OECD

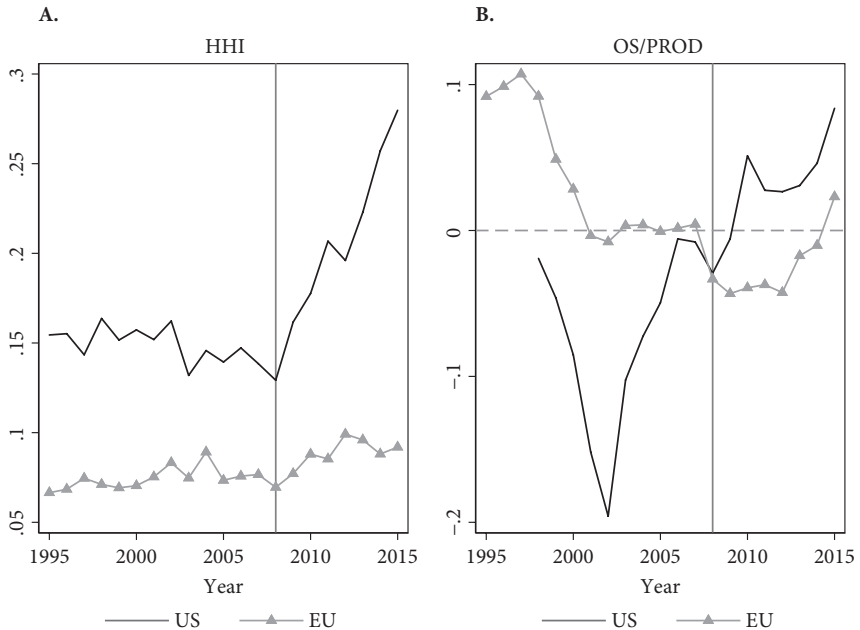

FIGURE 8.3 Air transportation concentration *(a)* and profits *(b),* European Union versus United States. Chart compares concentration (HHI) and the evolution of net profit rates in the transportation–air industry (ISIC code 51) for the US and Europe. *Data sources*: Concentration based on Compustat, adjusted for database coverage using OECD STAN. Sales shares are defined as the ratio of firm sales to gross output from OECD STAN. Firms included only if data for the corresponding country are available in STAN. Profit rates are from OECD STAN.

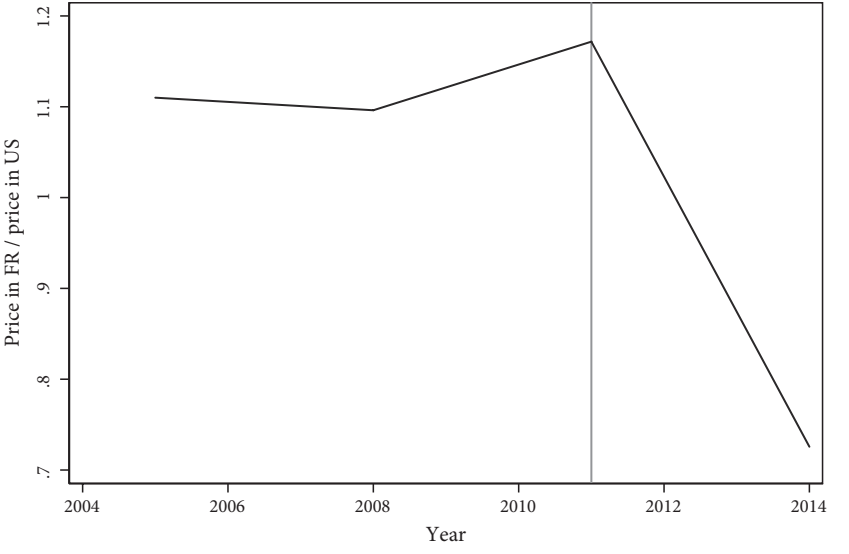

FIGURE 8.4 Telecom prices in France relative to the US. French prices are converted into dollars using the FOREX rate. The vertical line shows the entry of Free Mobile in the 4G market. *Data source:* ICP

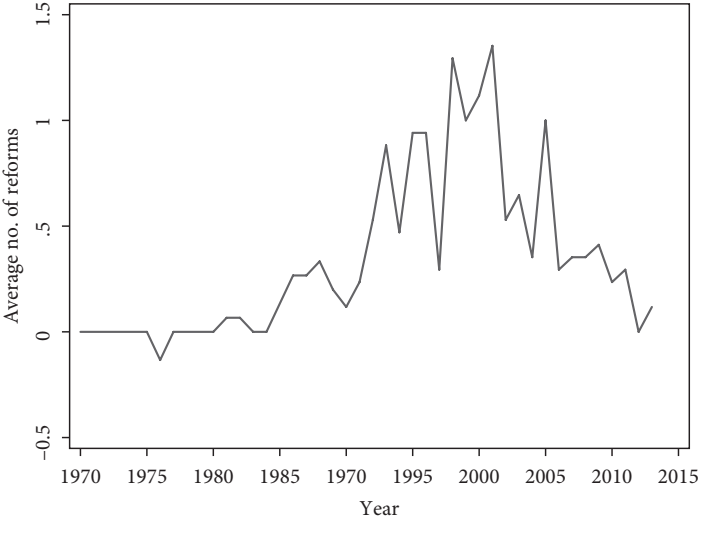

FIGURE 8.5 Product market reforms in Europe. *Data source*: Duval et al. (2018)

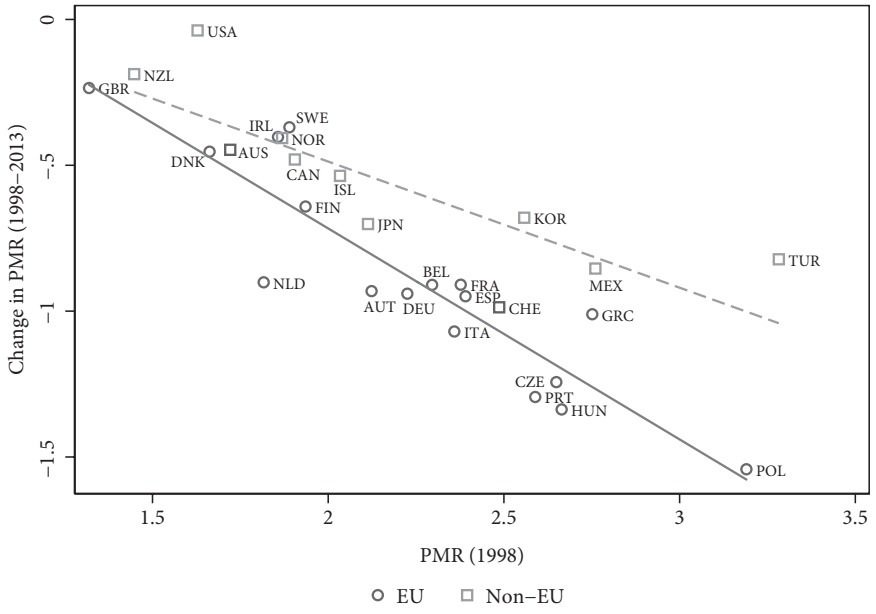

FIGURE 8.6 Global convergence of product market regulations. *Data source:* OECD

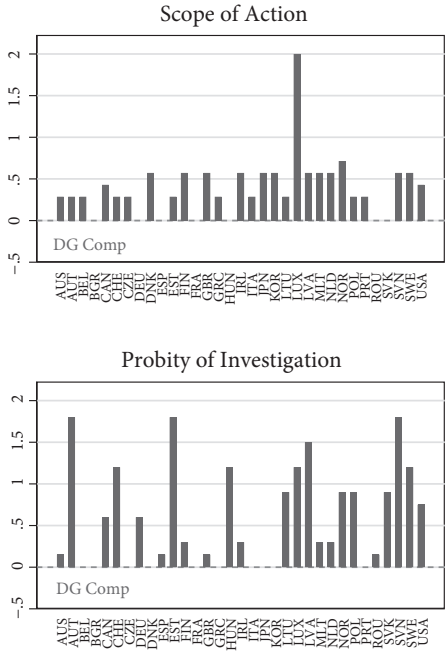

FIGURE 8.7 Restrictions on antitrust enforcement. *Data source:* OECD

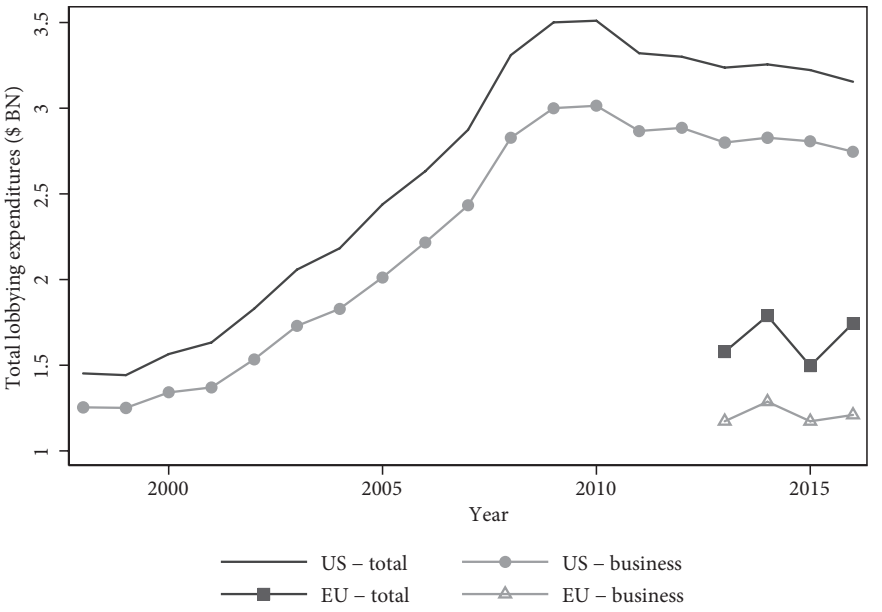

FIGURE 9.1 Lobbying expenditures in US and EU. See caveats for EU lobbying totals in the text. US business sector includes agribusiness, electronics, construction, defense, energy, finance, insurance, real estate, health, lawyers and lobbyists, misc. business, and transportation. EU business sector includes professional consultancies / law firms / self-employed consultants, and in-house lobbyists and trade / business / professional associations. *Data sources*: US, Center for Responsive Politics and Federal Lobbying Disclosure Act Database; EU, LobbyFacts.eu and the EU Transparency Register

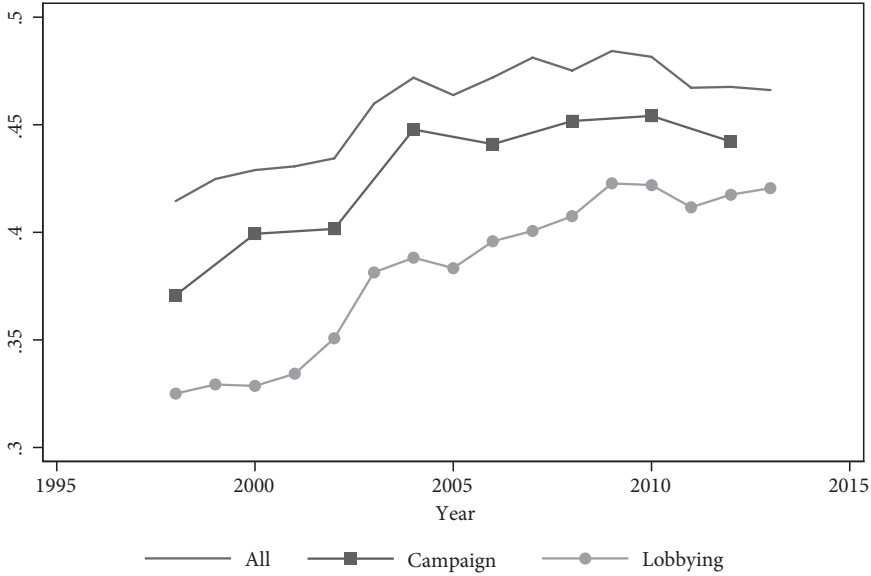

FIGURE 9.2 Fraction of politically active firms in S&P 1500

TABLE 9.1

Skewness of Lobbying and Campaign Finance Contributions by Firm Size

	Among S&P 1500 firms			All firms
(logarithm of)	Skewness & elasticities	CR50	Industry CR4	Industry CR4
Sales	0.23 (skew.)	42%	52%	15%
Campaign finance	0.63 (elas.)	49%	65%	35%
Lobbying	0.67 (elas.)	54%	68%	45%

The elasticities of campaign and lobbying expenses to sales are computed by regressing log(expenses) on log(sales) for expenses above $10,000 and controlling for year fixed effects.
Source: Compustat and OpenSecrets.com

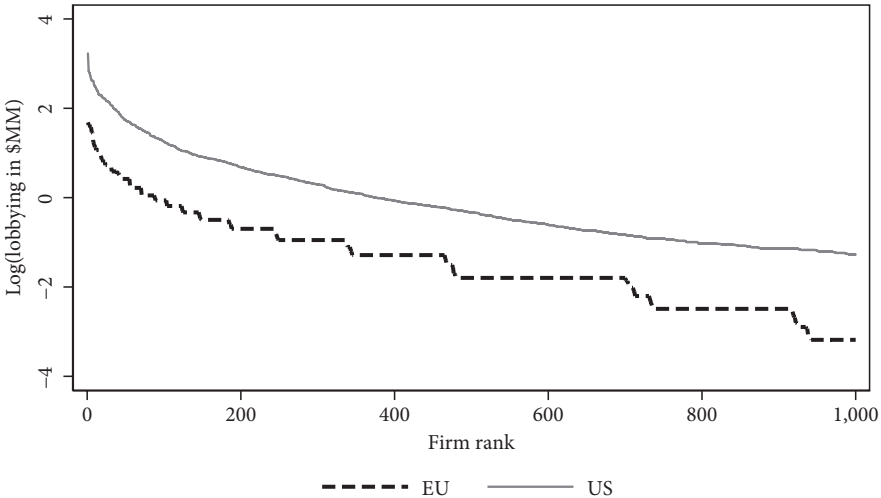

FIGURE 9.3 Distribution of large lobbying firms in the EU and in the US. Only firms are included—no trade associations or nonbusinesses. EU bunching is a result of how these data were processed (reporting in bins). *Data sources*: US, Center for Responsive Politics; EU, LobbyFacts.eu

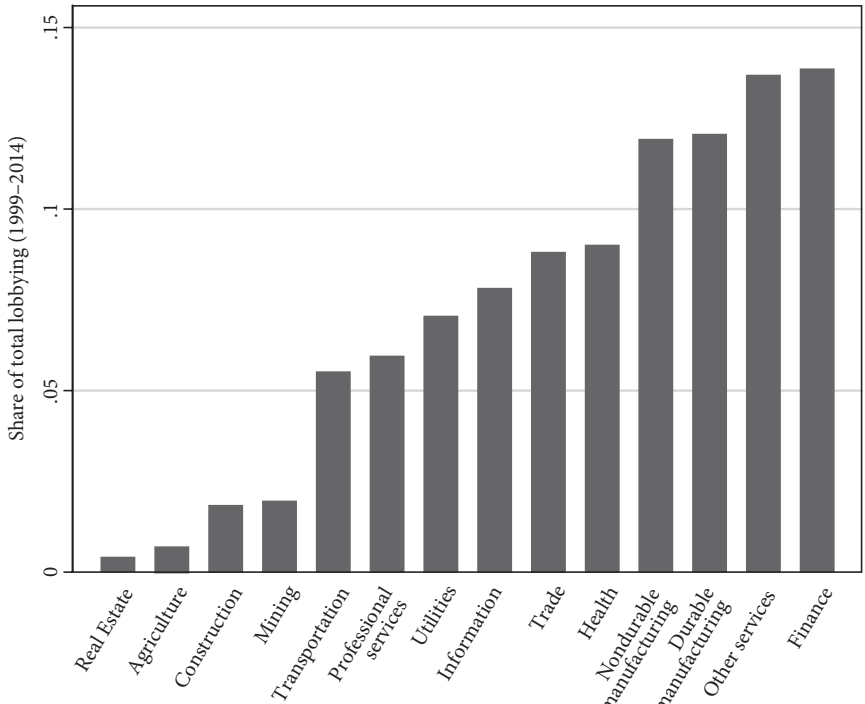

FIGURE 9.4 Contribution of industries to aggregate lobbying expenditures, 1999–2014

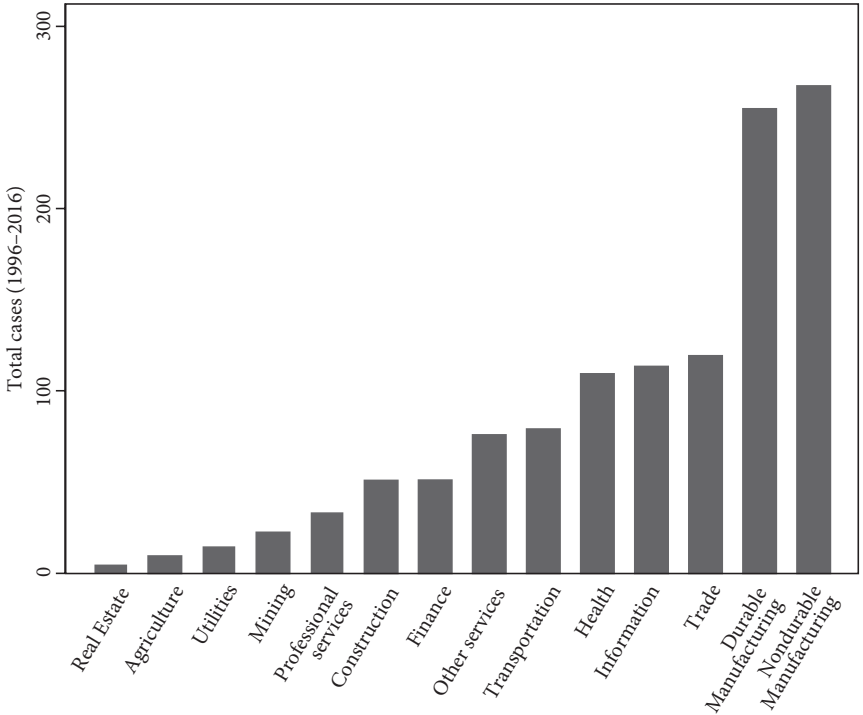

FIGURE 9.5 Number of cases brought against industries, 1996–2016

FIGURE 10.1 Average direct spending by winning candidates. All spending is in 2014 dollars to neutralize the effect of inflation. *Data source:* Center for Responsive Politics

TABLE 10.1

Five Most Expensive Senate Races of 2014

	Total spending	Campaign	Outside groups
North Carolina Senate	$113,479,706	$32,390,468	$81,089,238
Colorado Senate	$97,285,589	$27,887,734	$69,397,855
Iowa Senate	$85,364,286	$23,452,451	$61,911,835
Kentucky Senate	$78,231,062	$44,838,119	$33,392,943
Georgia Senate	$66,136,490	$39,579,101	$26,557,389

Data source: Center for Responsive Politics

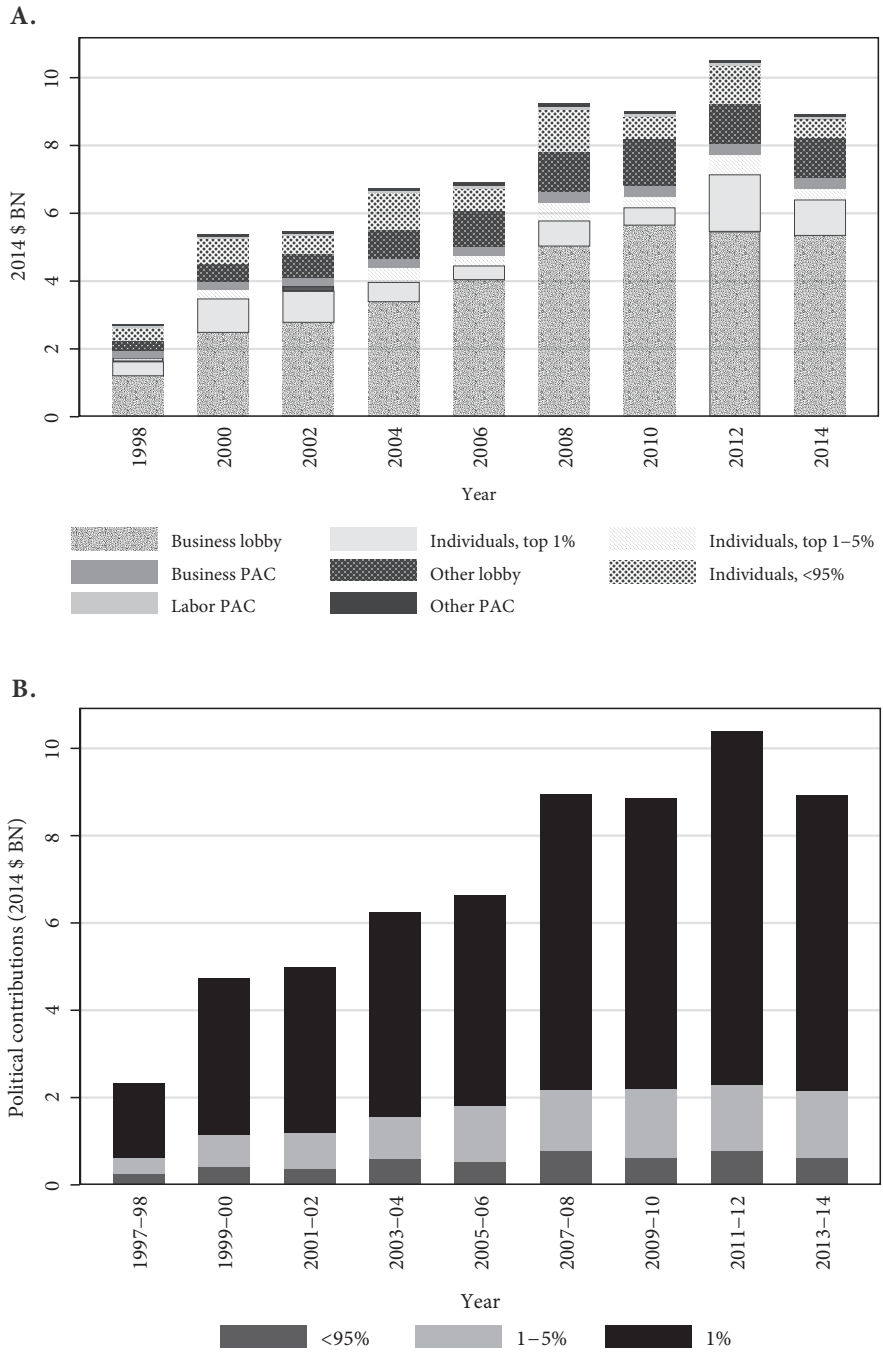

FIGURE 10.2 (*a*) Political expenditures by groups; (*b*) The concentration of contributions (both in 2014 dollars). *Data source:* Center for Responsive Politics

TABLE 10.2

2016 Election Donations ($MM)

	Hillary Clinton	Donald Trump
Raised by candidate	$973	$564
Raised by super PACs	$217	$82
Total	$1,190	$646

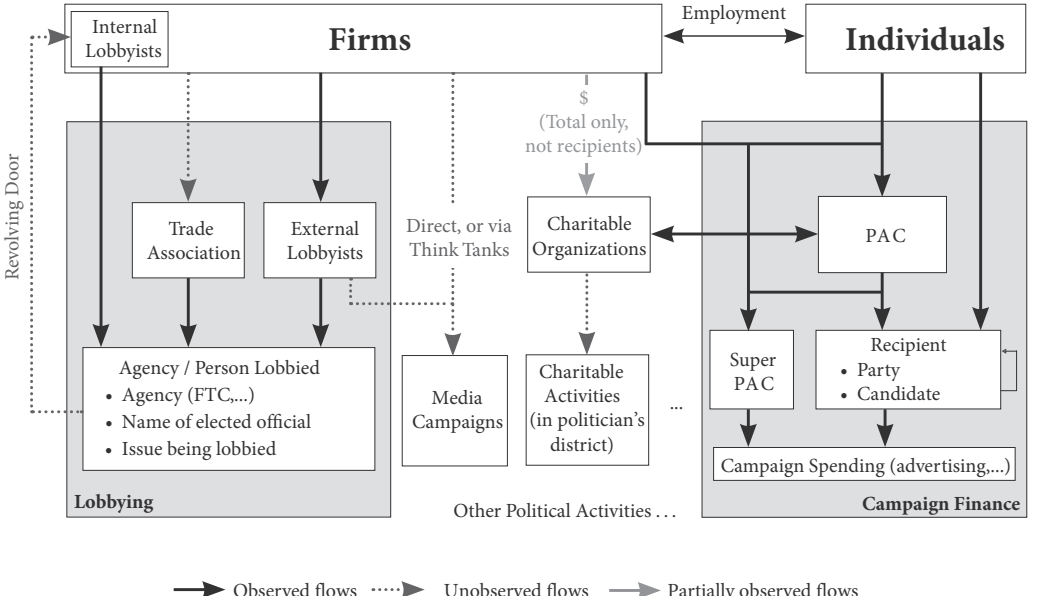

FIGURE 10.3 What we see, and what we don't

TABLE 10.3

Top Sixteen PACs of the 2016 Election Cycle

PAC name	Total	Democrats	Republicans
National Association of Realtors	$3,973,350	42%	58%
National Beer Wholesalers Association	$3,322,700	43%	57%
AT&T Inc.	$2,953,750	38%	62%
Honeywell International	$2,861,364	40%	60%
National Auto Dealers Association	$2,659,250	28%	72%
Lockheed Martin	$2,612,750	38%	62%
Blue Cross / Blue Shield	$2,573,398	36%	64%
International Brotherhood of Electrical Workers	$2,570,650	96%	4%
American Bankers Association	$2,444,007	21%	79%
Credit Union National Association	$2,380,350	47%	53%
Operating Engineers Union	$2,250,300	74%	26%
Comcast Corp.	$2,242,300	36%	64%
National Association of Home Builders	$2,185,625	17%	83%
Boeing Co.	$2,163,135	43%	57%
Northrop Grumman	$2,135,500	39%	61%
Nat. Assn. of Insurance & Financial Advisors	$2,091,950	33%	67%
Total	$41,420,379	42%	58%

Data source: Center for Responsive Politics calculations using data released by the FEC on November 27, 2017

TABLE 10.4

Top Leadership PACs in 2016

PAC name	Affiliate	Total	Democrats	Republicans
Majority Committee PAC	Kevin McCarthy (R-Calif)	$2,086,513	$0	$2,086,513
Prosperity Action	Paul Ryan (R-Wis)	$1,326,238	$0	$1,326,238
AmeriPAC	Steny H. Hoyer (D-Md)	$1,019,499	$1,019,499	$0
Eye of the Tiger PAC	Steve Scalise (R-La)	$942,485	$0	$942,485
More Conservatives PAC	Patrick McHenry (R-NC)	$697,000	$0	$697,000

TABLE 10.5

Super PACs with Over $3 Million in Independent Expenditures in 2018

Super PACS	Supports / opposes	Independent expenditures	Viewpoint	Total raised
Congressional Leadership Fund		$70,579,180	Conservative	$100,999,974
Senate Majority PAC		$46,632,153	Liberal	$95,693,285
Senate Leadership Fund		$40,977,919	Conservative	$61,962,292
House Majority PAC		$16,366,917	Liberal	$51,456,232
Women Vote!		$13,572,937	Liberal	$19,134,659
New Republican PAC	supports Scott	$12,129,362	Conservative	$10,864,801
DefendArizona	supports McSally	$11,057,869	Conservative	$1,375,200
Club for Growth Action		$9,831,861	Conservative	$13,266,020
National Association of Realtors		$8,071,191		$11,050,215
With Honor Fund		$7,026,669		$17,683,994
America First Action		$6,879,805	Conservative	$18,129,004
Patients for Affordable Drugs Action		$6,402,502		$3,117,279
Restoration PAC		$6,334,807	Conservative	$7,252,065
Americas PAC		$5,807,485	Conservative	$5,657,500
Highway 31	supports Jones	$4,232,558	Liberal	$4,367,528
Wisconsin Next PAC	supports Vukmir	$4,110,362	Conservative	$2,940,050
Change Now PAC		$3,897,079	Liberal	$1,782,491
Integrity New Jersey	opposes Menendez	$3,462,048	Conservative	$2,125,000
Total		$277,372,704		$428,857,589

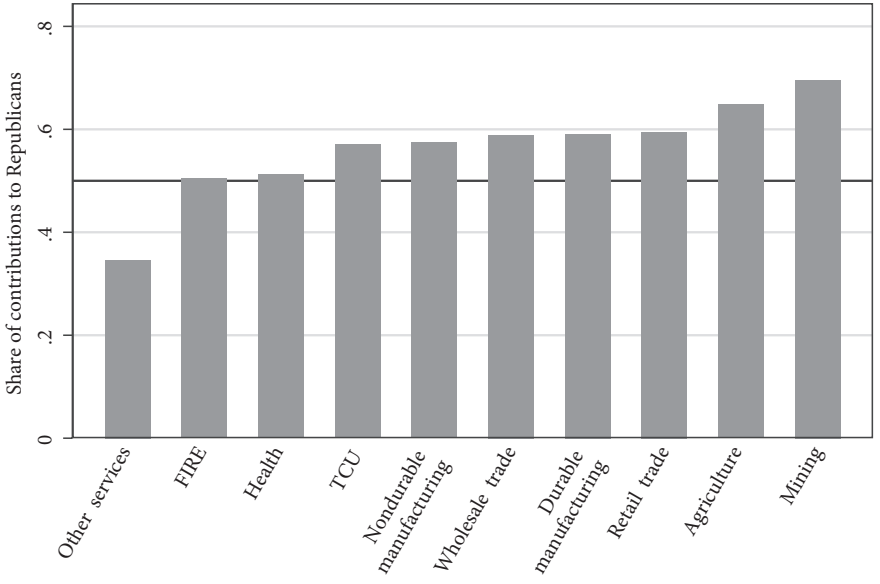

FIGURE 10.4 Contributions by industry sector to the Republican Party. FIRE = finance, insurance, and real estate; TCU = transportation, communications, and utilities

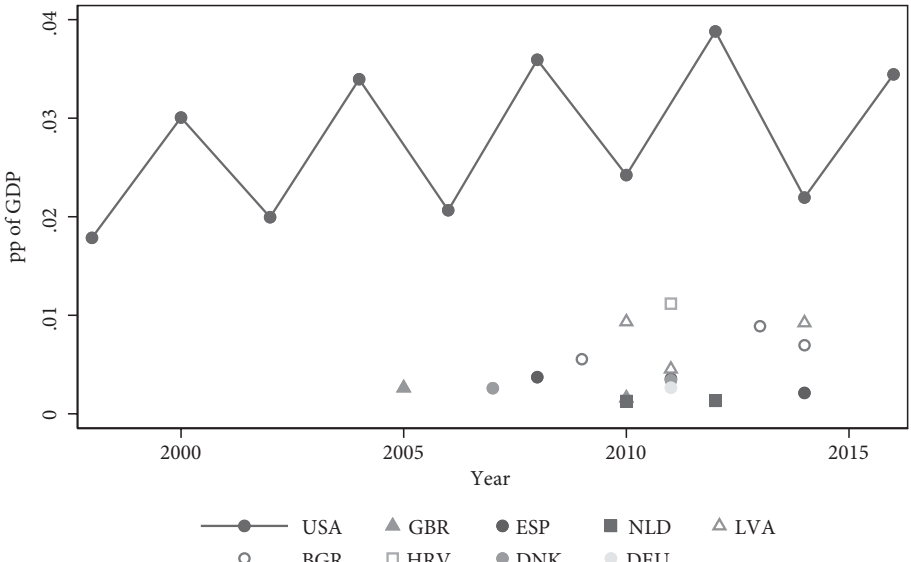

FIGURE 10.5 Total campaign expenditures divided by GDP. *Data sources*: US, Center for Responsive Politics; EU, EU Parliament (2015). For Germany, see Bundestags-Drucksache (2013).

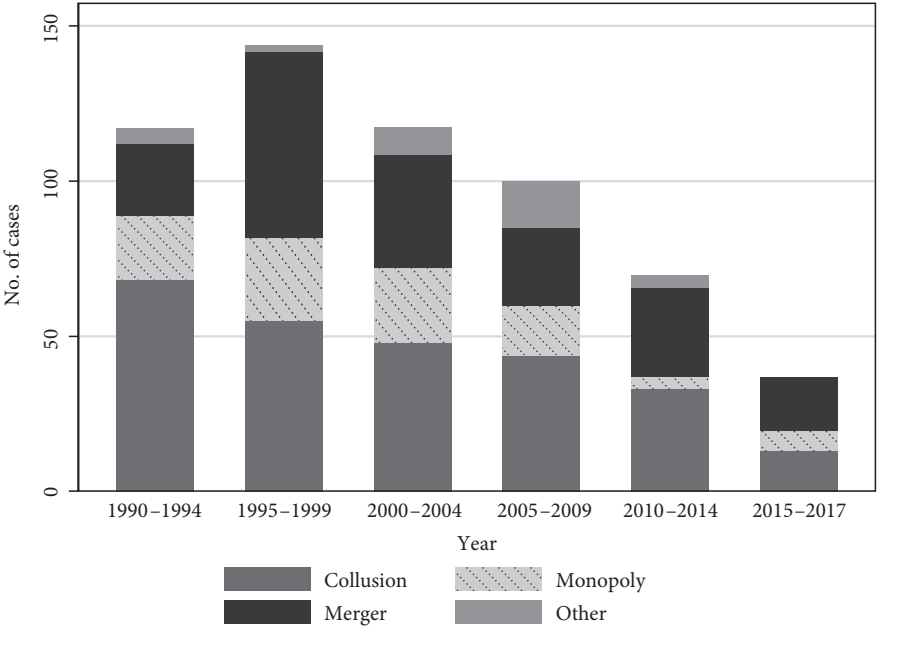

FIGURE 10.6 The type and number of enforcement cases with state attorneys general as plaintiffs. *Data source*: National Association of Attorneys General (NAAG) State Antitrust Litigation Database

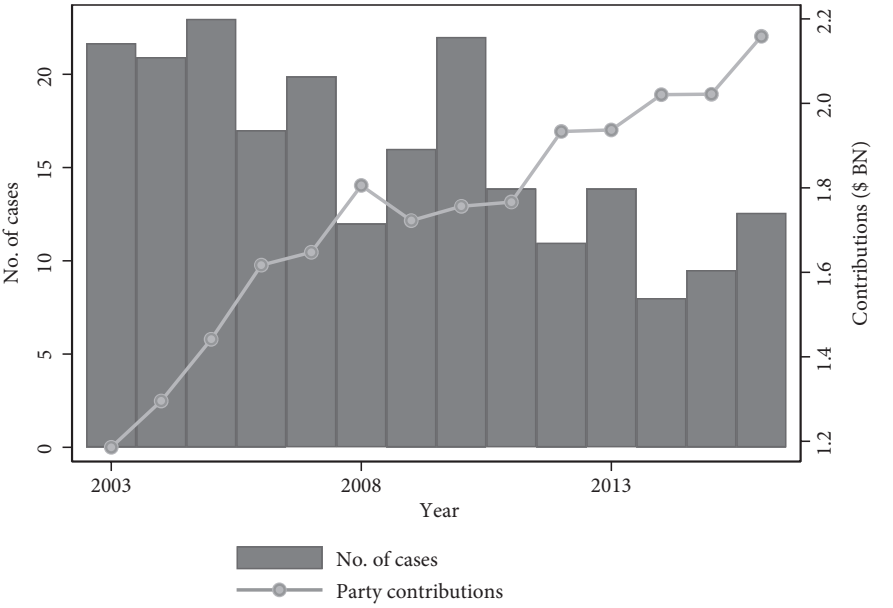

FIGURE 10.7 State political contributions and nonmerger antitrust cases. Four-year moving average contributions control for the seasonality of election cycles. *Data sources*: Case data, NAAG State Antitrust Litigation Database; state campaign contributions, Campaign Finance Institute

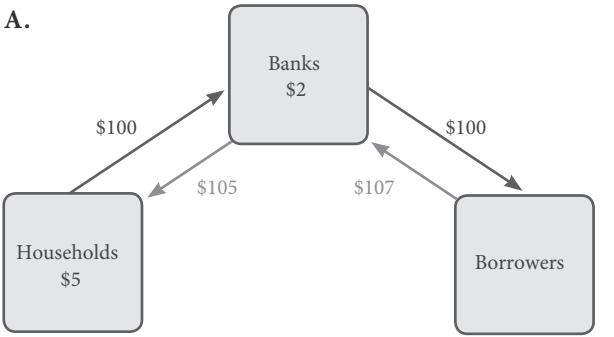

FIGURE 11.1 (*a, b*) Two equivalent financial systems

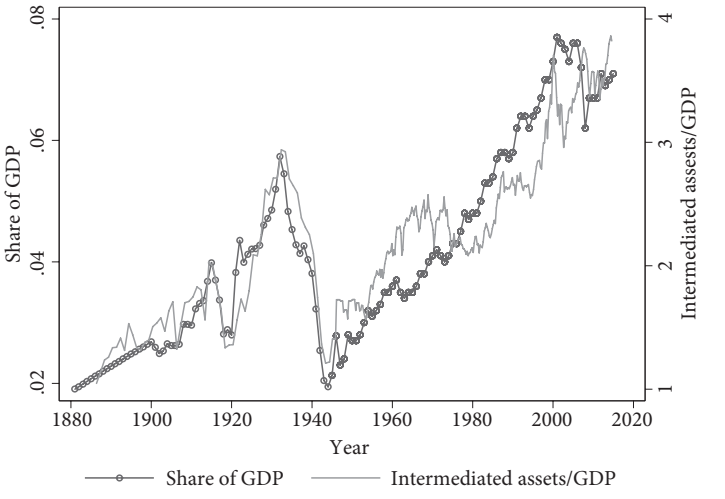

FIGURE 11.2 Income of the finance industry and intermediated assets. Both series are expressed as a share of GDP. Finance income is the domestic income of the finance and insurance industries, that is, aggregate income minus net exports. Intermediated assets include debt and equity issued by nonfinancial firms, household debt, and various assets providing liquidity services. The data range for intermediated assets is 1886–2012.

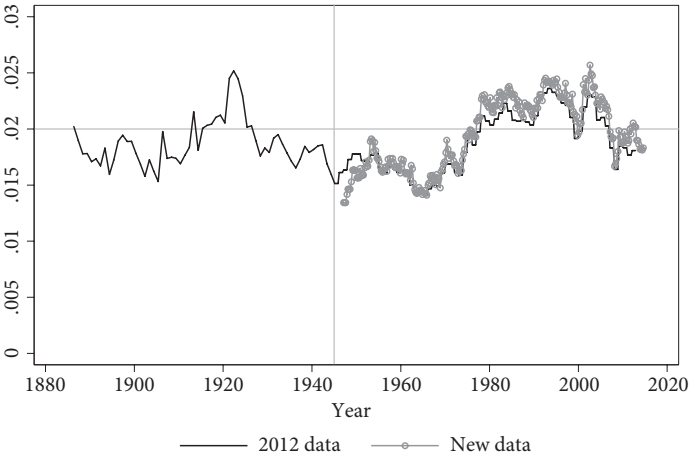

FIGURE 11.3 Raw unit costs of financial intermediation. The raw measure is the ratio of finance income to intermediated assets, as shown in Figure 11.2. The 2012 data are from Philippon (2015), while the new data were accessed May 2016. The data range is 1886–2015. *Source:* Philippon (2015) with updated data

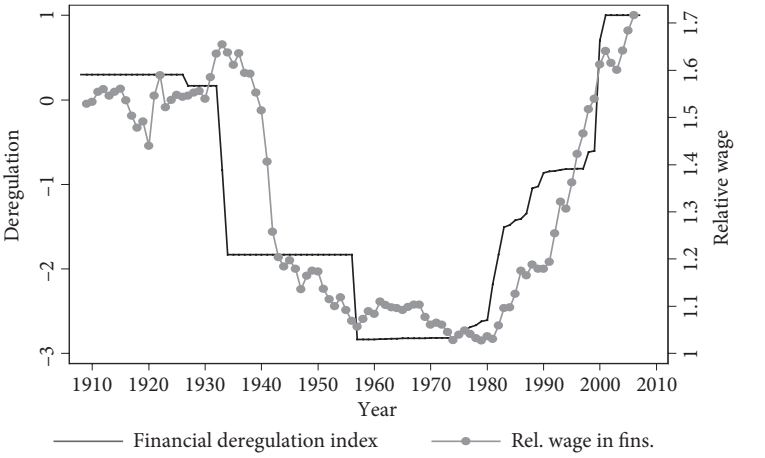

FIGURE 11.4 Wages and regulation in finance. *Data source*: Philippon and Reshef (2012)

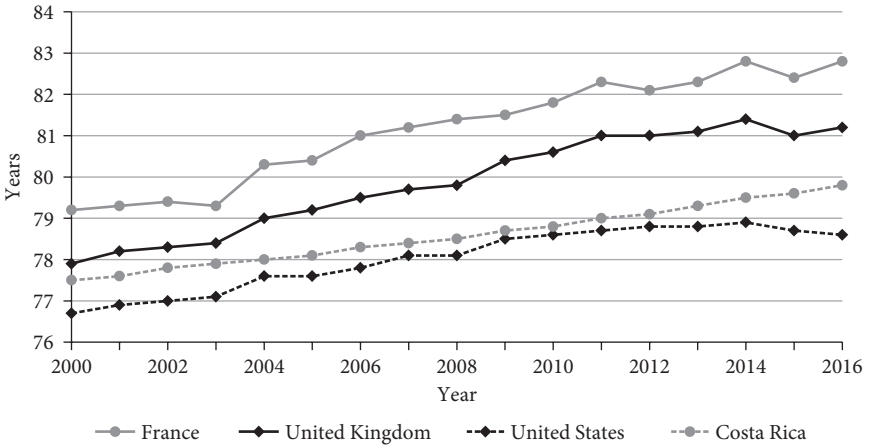

FIGURE 12.1 Life expectancy. *Data source*: OECD

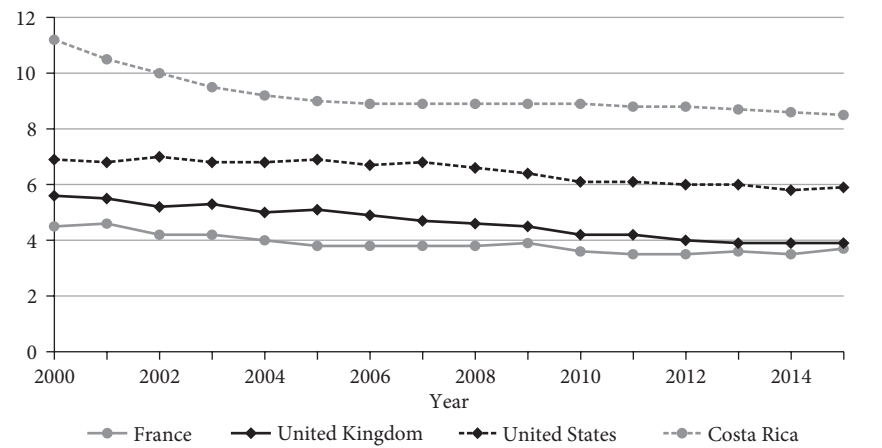

FIGURE 12.2 Infant mortality rates. Deaths per 1,000 live births. *Data source*: OECD

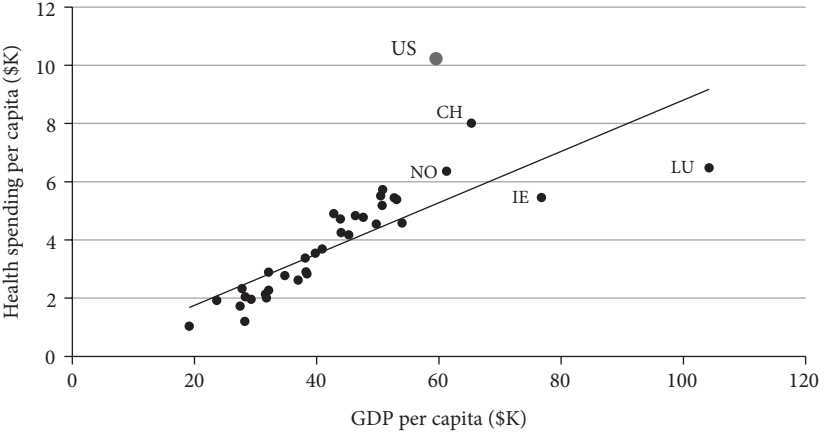

FIGURE 12.3 Health-care cost versus GDP per capita in select countries. US = United States; CH = Switzerland; NO = Norway; IE = Ireland; LU = Luxembourg. *Data source*: Kaiser Family Foundation analysis of OECD data

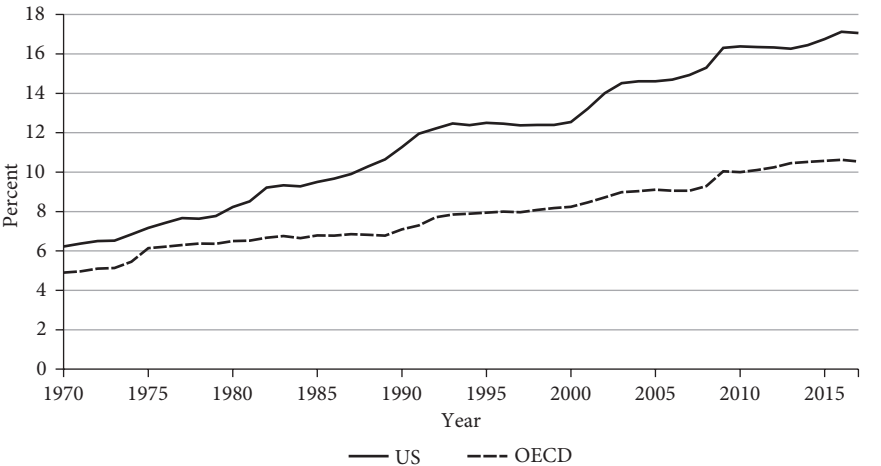

FIGURE 12.4 Health-care spending, share of GDP. US versus OECD, averages. *Data source*: Kaiser Family Foundation analysis of OECD data

TABLE 12.1

Top-Scoring Countries for Health-Care Access and Quality

HAQ index	Countries
97	Iceland, Norway
96	Netherlands, Luxembourg, Australia, Finland, Switzerland
95	Sweden, Italy, Andorra, Ireland
94	Japan, Austria, Canada
93	Belgium
92	New Zealand, Denmark, Germany, Spain, France
91	Slovenia, Singapore
90	UK, Greece, South Korea, Cyprus, Malta
89	Czech Republic, US

TABLE 13.1

Top Ten Global Firms, Spring 2018

Company	Country	Market value ($ billion)
Apple	US	926.9
Amazon	US	777.8
Alphabet	US	766.4
Microsoft	US	750.6
Facebook	US	541.5
Alibaba	China	499.4
Berkshire Hathaway	US	491.9
Tencent Holdings	China	491.3
JPMorgan Chase	US	387.7
ExxonMobil	US	344.1

TABLE 13.2

Seven Decades of Stars

Decade	Rank	Company	Profitability (%)		MV / Emp ratio		Share of the Economy (%)		
			Op. Inc. / Sales	Taxes / Op. Inc.			MV share	Emp share	COGS / GDP
1950s	1	AT&T	24.9	45.6	7.3		7.01	0.957	0.62
	2	General Motors	16.9	57.2	7.5		6.71	0.891	1.22
	3	ExxonMobil	16.8	38.2	24.7		5.70	0.231	0.57
	4	Dupont	28.7	59.7	39.0		5.55	0.142	0.16
	5	General Electric	12.7	57.9	8.0		2.98	0.373	0.47
		Average	*20.0*	*51.7*	*10.8*	*Tot.*	*27.95*	*2.595*	*3.04*
1960s	1	AT&T	30.9	44.6	7.4		6.40	0.869	0.56
	2	IBM	25.3	53.1	19.1		4.08	0.213	0.12
	3	General Motors	16.3	51.9	4.5		4.25	0.952	1.25
	4	ExxonMobil	13.5	43.0	14.5		2.98	0.206	0.69
	5	Texaco	12.9	23.3	20.9		1.88	0.090	0.25
		Average	*19.8*	*43.2*	*8.4*	*Tot.*	*19.59*	*2.330*	*2.86*
1970s	1	IBM	24.6	50.3	14.1		4.66	0.330	0.18
	2	AT&T	25.5	35.0	4.4		3.91	0.894	0.69
	3	ExxonMobil	17.5	66.6	15.6		2.46	0.158	1.03
	4	General Motors	9.2	46.4	2.5		2.20	0.873	1.31
	5	Eastman Kodak	24.1	47.5	12.6		1.72	0.137	0.10
		Average	*20.2*	*49.2*	*6.3*	*Tot.*	*14.95*	*2.391*	*3.30*

1980s	1	IBM	19.6	42.6	9.4		3.31	0.354	0.31
	2	ExxonMobil	9.8	44.5	15.8		2.08	0.132	1.14
	3	AT&T	12.8	18.7	4.4		2.10	0.472	0.85
	4	General Electric	11.5	33.5	4.6		1.48	0.320	0.42
	5	General Motors	4.3	11.3	1.5		1.05	0.710	1.21
		Average	*11.6*	*30.1*	*5.0*	*Tot.*	*10.03*	*1.987*	*3.94*
1990s	1	General Electric	22.5	17.4	10.1		2.12	0.209	0.49
	2	Microsoft	39.0	35.5	93.6		1.28	0.014	0.01
	3	ExxonMobil	7.7	38.1	23.9		1.71	0.072	0.67
	4	Walmart	5.0	39.4	2.5		1.27	0.517	0.80
	5	Coca-Cola	23.1	31.7	55.2		1.34	0.024	0.05
		Average	*19.5*	*32.4*	*9.2*	*Tot.*	*7.73*	*0.836*	*2.02*
2000s	1	ExxonMobil	13.0	48.2	41.1		2.51	0.061	0.88
	2	General Electric	23.8	10.3	10.5		2.35	0.223	0.44
	3	Microsoft	40.7	31.6	44.8		2.05	0.046	0.03
	4	Walmart	5.1	36.0	1.3		1.63	1.223	1.52
	5	Pfizer	32.0	16.3	20.5		1.47	0.072	0.02
		Average	*22.9*	*28.5*	*6.2*	*Tot.*	*10.01*	*1.625*	*2.89*

(*continued*)

TABLE 13.2 (continued)

Decade	Rank	Company	Profitability (%)		MV / Emp ratio		Share of the Economy (%)		
			Op. Inc. / Sales	Taxes / Op. Inc.			MV share	Emp share	COGS / GDP
2010s	1	Apple	29.6	25.8	41.8		2.54	0.061	0.24
	2	ExxonMobil	8.3	34.4	36.7		1.91	0.052	0.87
	3	Microsoft	32.8	18.4	23.0		1.68	0.073	0.07
	4	Alphabet	27.7	23.2	43.3		1.56	0.036	0.09
	5	Berkshire Hathaway	15.2	13.2	6.6		1.43	0.216	0.58
		Average	*22.7*	*23.0*	*20.8*	*Tot.*	*9.11*	*0.438*	*1.84*

Notes: Based on US-headquartered companies in Compustat. All quantities in percentage points. Cost of goods sold (COGS) adjusted for firm export shares. MV share is market value of equity divided by total US stock market value. Emp share is employment divided by total US civilian employment. MV / Emp ratio is ratio of market value share over employment share. AT&T COGS missing in 1950s, value input from 1960. Current names of firms are used for historical data (ExxonMobil, AT&T).

TABLE 13.3

Current Stars at the End of 2017

Rank	Company	Profitability (%)		MV / Emp ratio	Share of the Economy (%)		
		Op. Inc. / Sales	Taxes* / Op. Inc.		MV share	Emp share	COGS / GDP
1	Apple	24.9	26.4	36.5	2.92	0.080	0.37
2	Alphabet	16.9	19.7	47.3	2.46	0.052	0.15
3	Microsoft	16.8	13.9	27.6	2.22	0.081	0.09
4	Amazon	28.7	35.0	5.2	1.90	0.367	0.42
5	Facebook	12.7	18.4	105.8	1.73	0.016	0.01
6	Berkshire Hathaway	30.9	25.4	6.7	1.65	0.245	0.70
7	Johnson & Johnson	25.3	15.4	14.5	1.26	0.087	0.05
8	JPMorgan Chase	16.3	19.1	7.5	1.23	0.164	0.08
9	ExxonMobil	13.5	−43.4	26.4	1.19	0.045	0.75
10	Bank of America	12.9	17.9	7.5	1.02	0.136	0.06
11	Wells Fargo	24.6	24.0	5.9	1.00	0.171	0.05
Average	*1–5*	*20.0*	*22.7*	*18.8*	*Tot.* *11.23*	*0.596*	*1.03*
	GFAM (4)	*17.8*	*19.6*	*40.8*	*9.32*	*0.229*	*0.61*
	6–10	*19.8*	*6.9*	*9.4*	*6.35*	*0.677*	*1.64*
	Top 10	*19.9*	*14.8*	*13.8*	*17.58*	*1.273*	*2.68*

Notes: Based on US-headquartered companies in Compustat. All quantities in percentage points. COGS adjusted for firm export shares. MV share is market value of equity divided by total US stock market value. Emp share is employment divided by total US civilian employment. MV / Emp ratio is ratio of market value share over employment share. GFAM removes Amazon and does the calculations for the remaining four firms. *Tax rate as of 2016 because of tax changes in 2017.

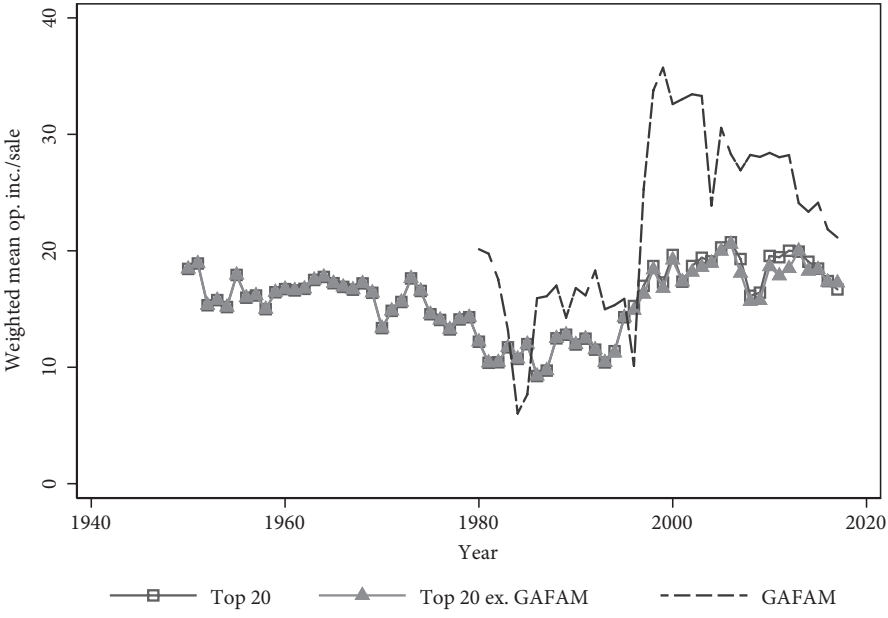

FIGURE 13.1 Pretax operating profit margins

Box 13.1. Inputs, Outputs, and Economic Footprints

A simple example illustrates why footprints matter (see Figure 13.2). Imagine two economies. Each has three firms. All firms produce output, and the GDP is the sum of their outputs. (We are using a simplified example in which relative prices do not enter.) In the first economy, firm 1 produces x_1 units and firm 2 produces x_2 units. Firm 3 produces q units, and total output is $x_1 + x_2 + q$. Let us use some simple numbers: $x_1 = 2$, $x_2 = 1$, and $q = 1$. GDP is equal to 4. Now suppose the productivity of firm 3 increases by 10 percent, from 1 to 1.1. What happens? GDP rises from 4 to 4.1, a 2.5 percent improvement. That's because firm 3 accounts for one-quarter of GDP, and its productivity increases by 10 percent. The impact on the economy is one-quarter of 10 percent. It's good but not great.

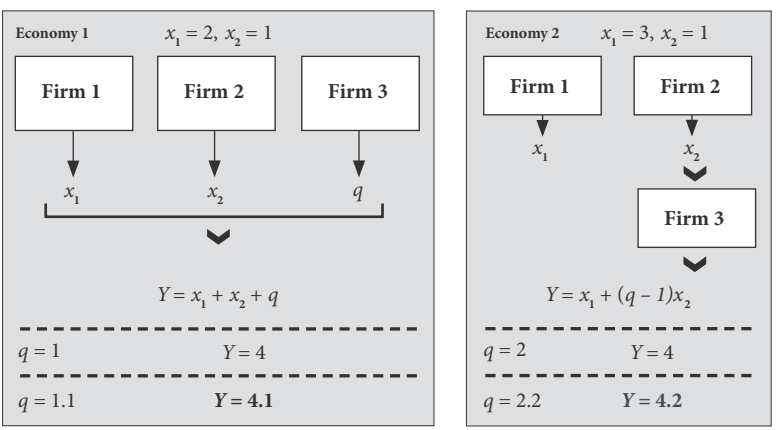

FIGURE 13.2 Why footprints matter

Now look at the second economy. In that economy, firm 2 produces intermediate inputs for firm 3. Firm 3 purchases x_2 inputs from firm 2 and turns them into qx_2 units of output. The value added of firm 3 is $qx_2 - x_2$ because it consumes the intermediate inputs. Let us imagine that $x_1 = 3$ and $q = 2$, so the starting value of GDP is still 4, the same as it was in the first economy. The GDP share of firm 3 is still one-quarter. So the second economy looks just like the first. But now imagine that firm 3 becomes 10 percent more productive. You can see that output increases by 5 percent.

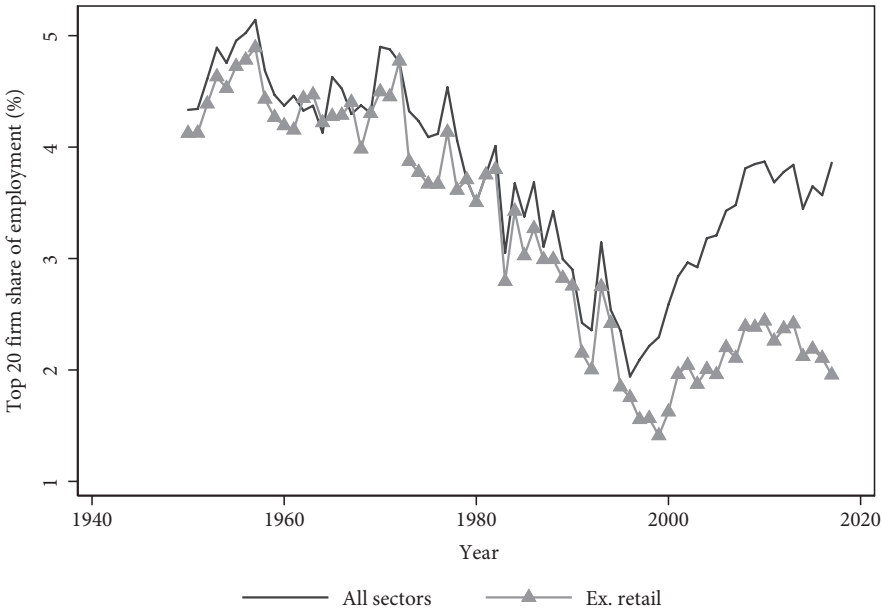

FIGURE 13.3 Labor footprint of the stars

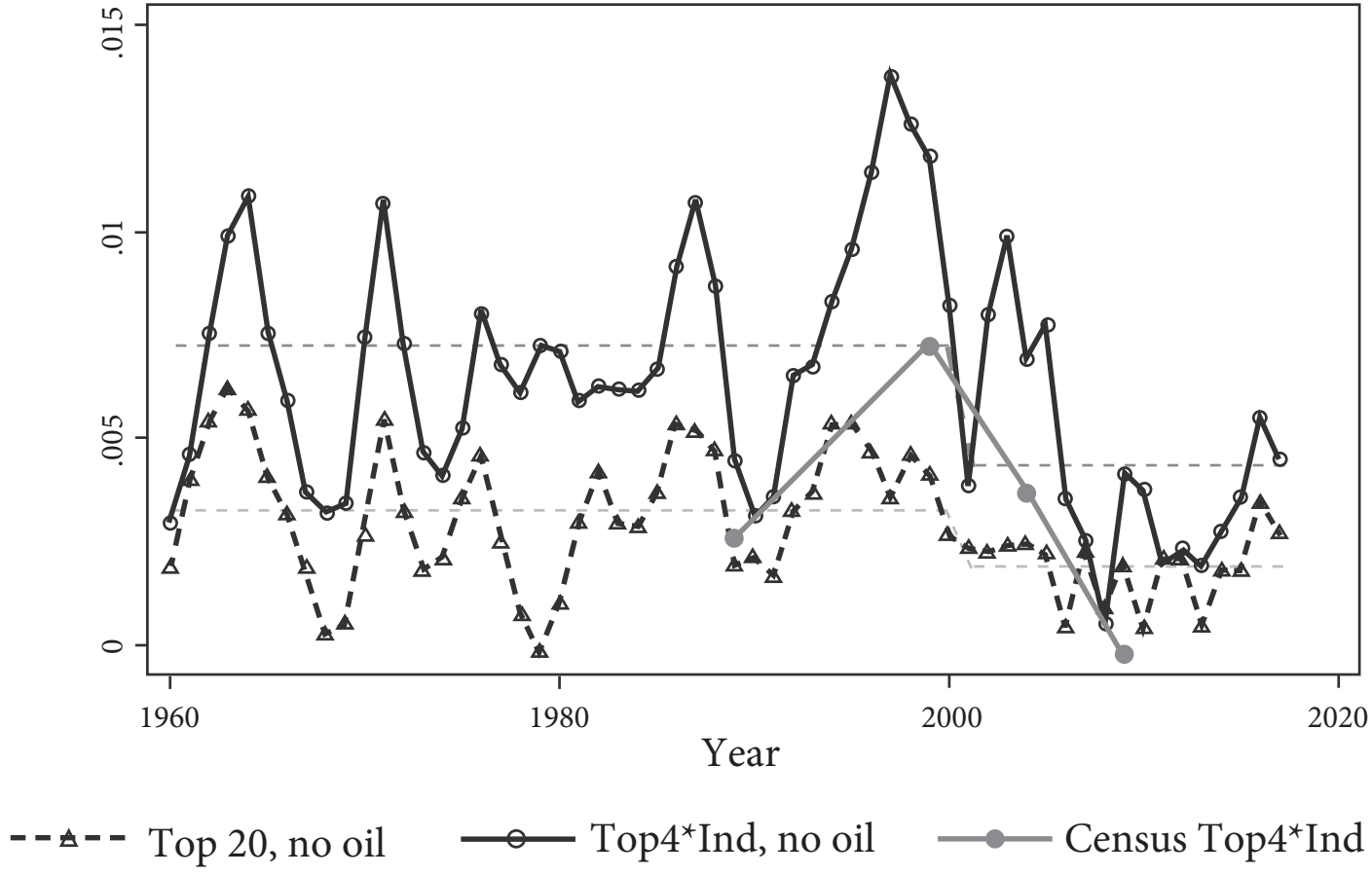

FIGURE 13.4 Contribution of stars to US growth

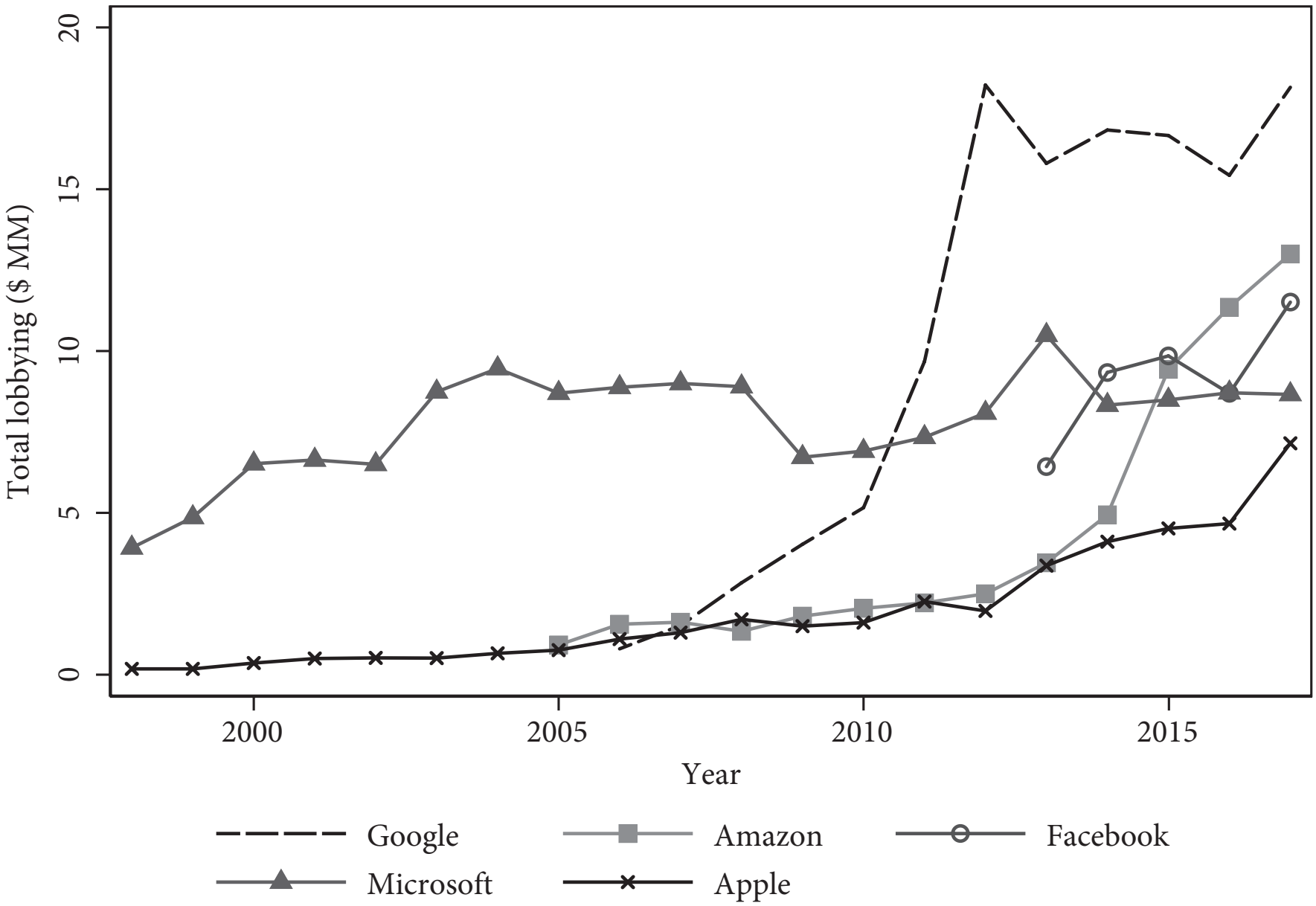

FIGURE 14.1 Lobbying expenditures. *Source*: Center for Responsive Politics

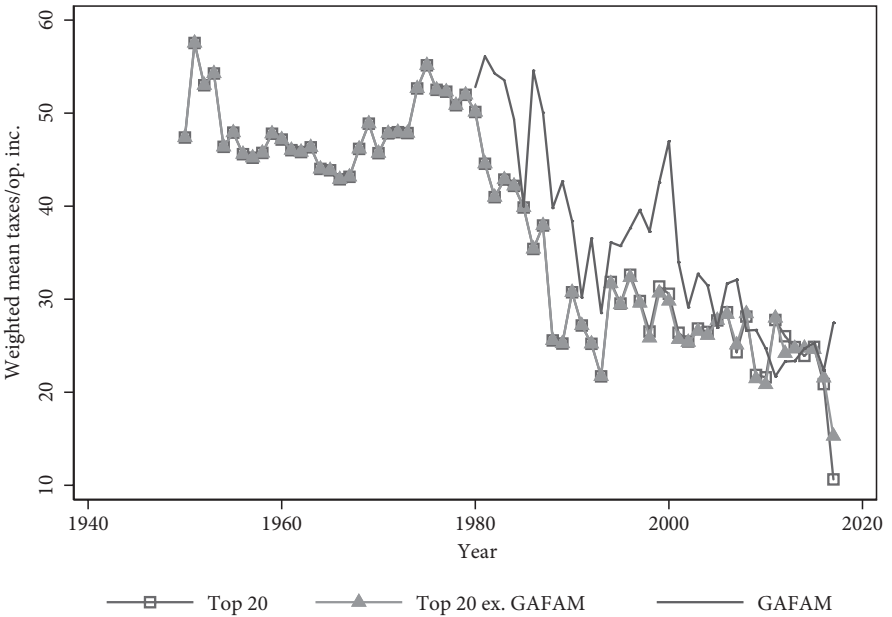

FIGURE 14.2 Corporate income tax rates. Total reported taxes over operating income.

TABLE A.1.

NAICS Classification of Important Sectors of the US Economy

Selected Sector	Code	Definition	Example
Utilities	22	Generate, transmit & distribute gas, electricity, steam, water; sewage	22111 Electric power generation
Construction	23	Erect buildings & structures, repair & maintain	23731 Highway, street, and bridge construction
Manufacturing	31–33	Transform materials, substances, or components into new products	32541 Pharmaceutical and medicine manufacturing
Wholesale trade	42	Trade raw & intermediate materials, and goods for resale	42471 Petroleum bulk stations and terminals
Retail trade	44–45	Retail merchandise to the general public	44111 New car dealers
Transportation & warehousing	48–49	Transport passengers and cargo, store goods	481111 Scheduled passenger air transportation
Information	51	Distribute information and cultural products	51521 Cable 51721 Wireless carriers
Finance & insurance	51	Create and trade financial assets and insurance products	52311 Investment banking and securities dealing
Professional services	54	Provide scientific & technical services to organizations	54181 Advertising agencies
Health care & social assistance	62	Provide health care and social assistance to individuals	62121 Offices of dentists

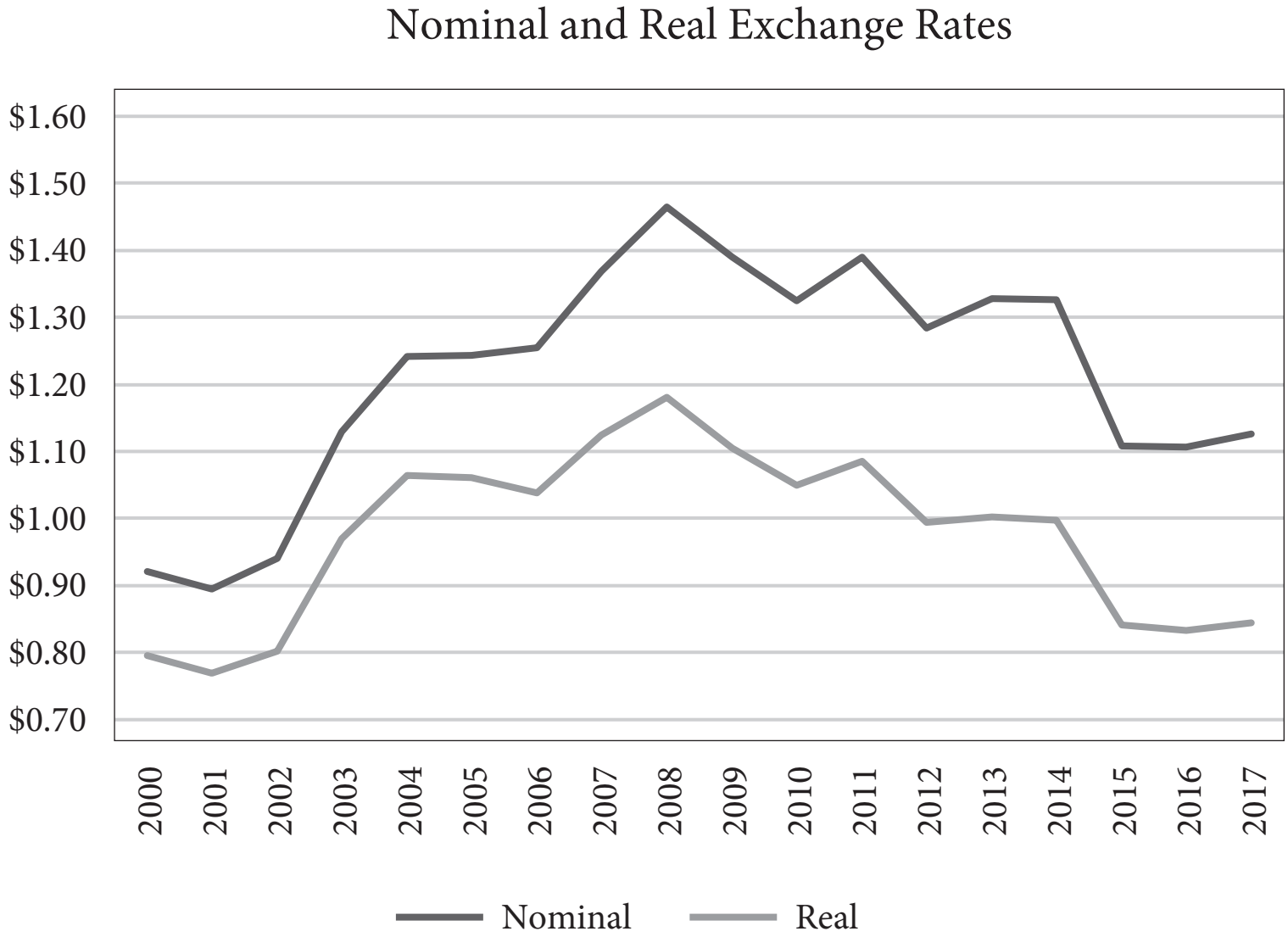

FIGURE A.1 Nominal and real exchange rates. The real exchange rate (RER) is the ratio of the nominal rate to the PPP rate. When the RER rate is less than one, the euro is cheap. According to this view, the euro was somewhat expensive in 2007–2008, but has been cheap since 2015. Volatility is the sample standard deviation of the series.

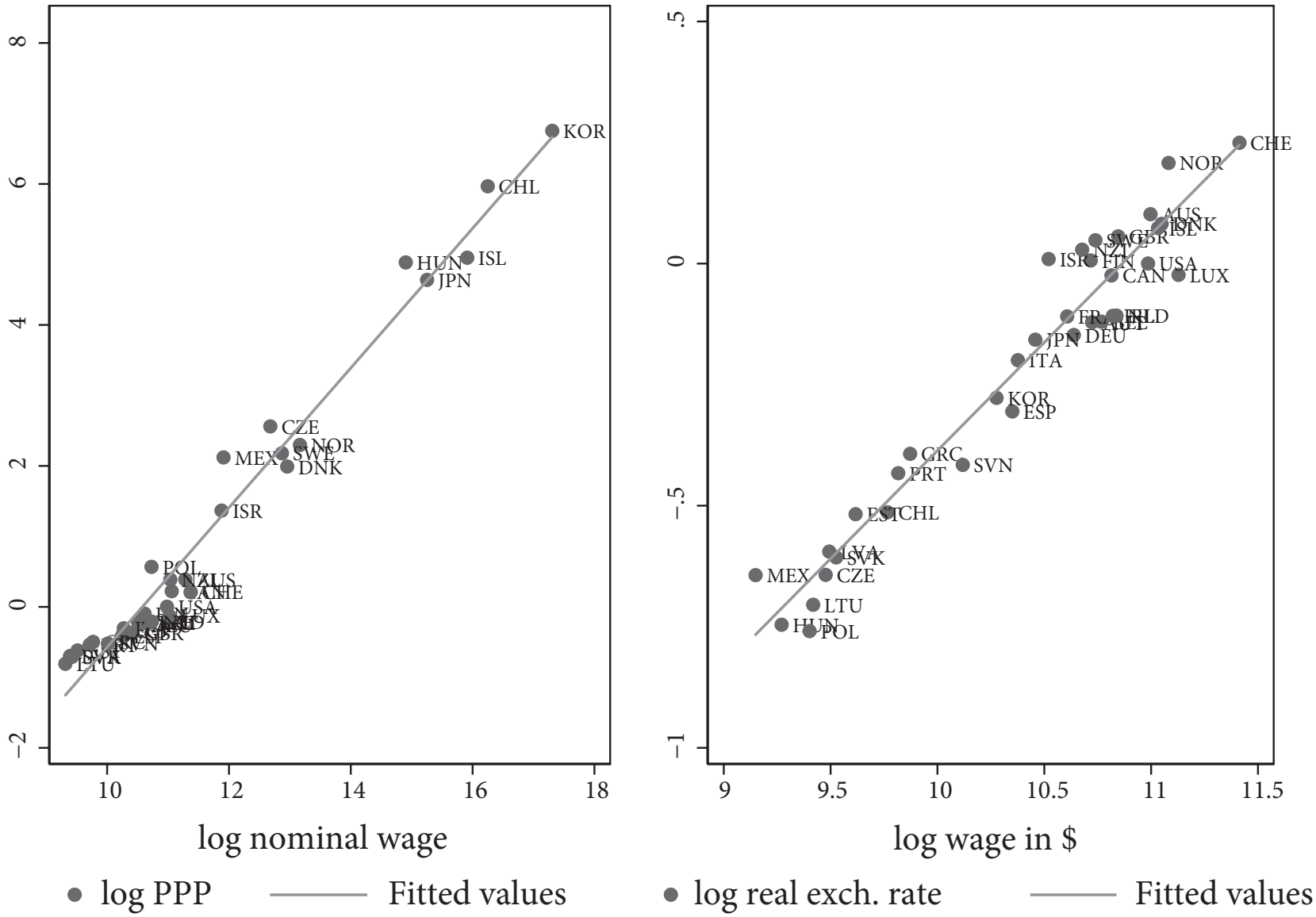

FIGURE A.2 Prices and wages in 2015. (*Left*): log (PPP) versus log (nominal wage). (*Right*): Variables are scaled by the FX exchange rate, so this graph plots log (RER) versus log (real wage).

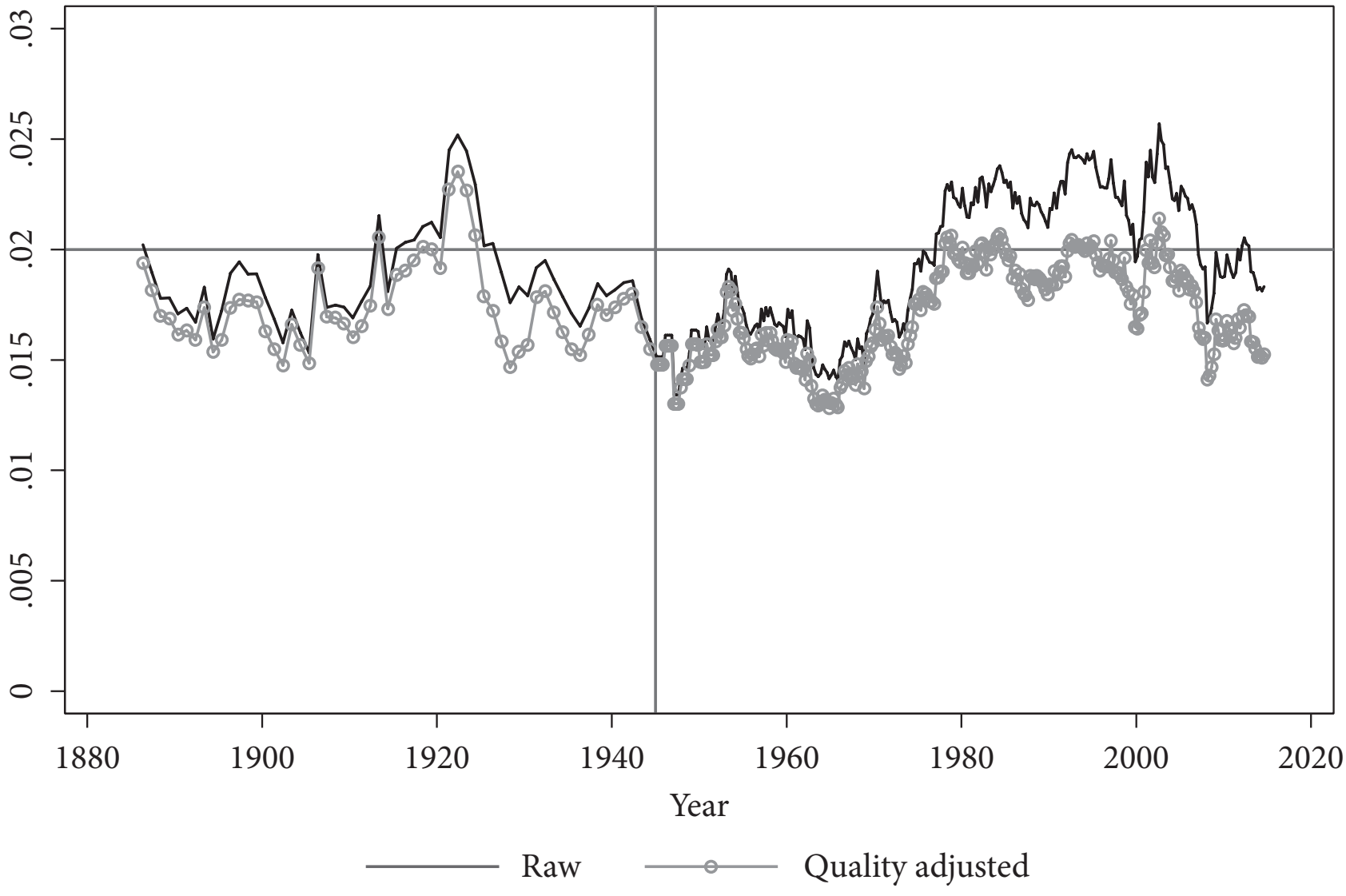

FIGURE A.3 Unit cost and quality adjustment. The quality-adjusted measure takes into account changes in firms' and households' characteristics. Data range is 1886–2015. *Source*: Philippon (2015)