



The University of Chicago Booth School of Business

*Regulatory Complexity & Policy Uncertainty:
Headwinds Of Our Own Making*

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Contemporary and Historical Perspectives”**

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Three Principles for Policy Makers*

1. Keep the regulatory system clear, simple, and easy to administer, and then live with it.
2. Keep the tax system as simple as possible.
3. Make economic policies predictable.

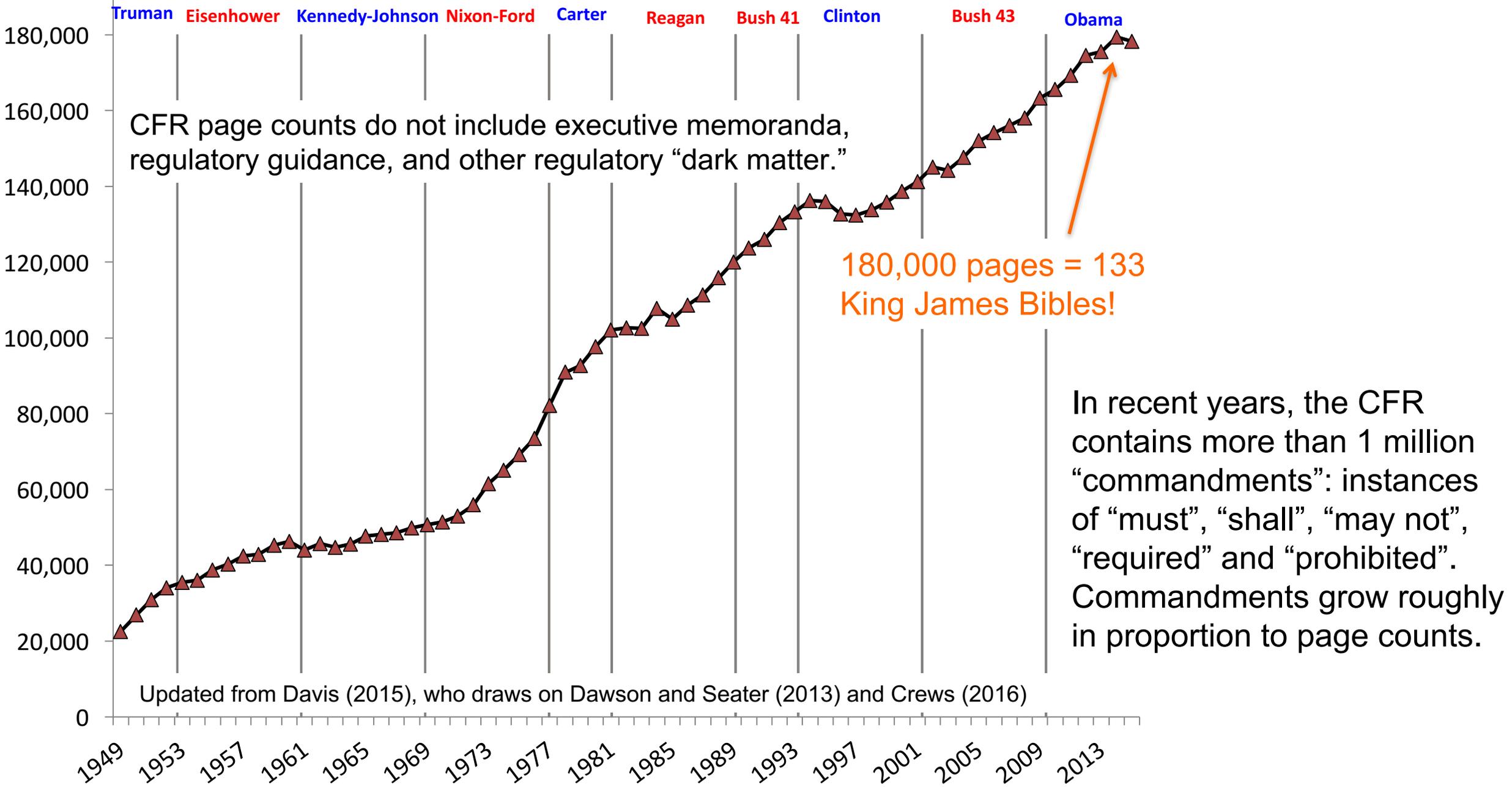
* From “Return to a Vibrant Economy” in *Issues on My Mind: Strategies for the Future* by George P. Shultz, Hoover Institution Press, 2013.

I. The Expanding Regulatory State

Some Systematic Evidence

1. Scale and growth of federal regulations
2. Scale of the federal tax code
3. State & local government regulations
 - Example: Expansion in occupational licensing

Code of Federal Regulations Page Count, 1949 to 2015



CFR page counts do not include executive memoranda, regulatory guidance, and other regulatory “dark matter.”

180,000 pages = 133 King James Bibles!

In recent years, the CFR contains more than 1 million “commandments”: instances of “must”, “shall”, “may not”, “required” and “prohibited”. Commandments grow roughly in proportion to page counts.

Updated from Davis (2015), who draws on Dawson and Seater (2013) and Crews (2016)

Regulatory “Dark Matter”

CFR page counts understate the scale and growth of the regulatory state, because many important pronouncements by the regulators involve “guidance” rather than formal regulations.

As the D.C. Circuit Court observed in *Appalachian Power Co. v. EPA* (208 F.3d 1019 (D.C. Cir. 2000)):

“The phenomenon we see in this case is familiar. Congress passes a broadly worded statute. The agency follows with regulations containing broad language, open-ended phrases, ambiguous standards and the like. Then as years pass, the agency issues circulars or guidance or memoranda, explaining, interpreting, defining and often expanding the commands in regulations.... ***Several words in a regulation may spawn hundreds of pages of text*** as the agency offers more and more detail regarding what its regulations demand of regulated entities. ***Law is made, without notice and comment, without public participation, and without publication in the Federal Register or the Code of Federal Regulations.***”

Reproduced from the OMB’s “Final Bulletin for Agency Good Guidance Practices,” 18 January 2007. Emphasis added.

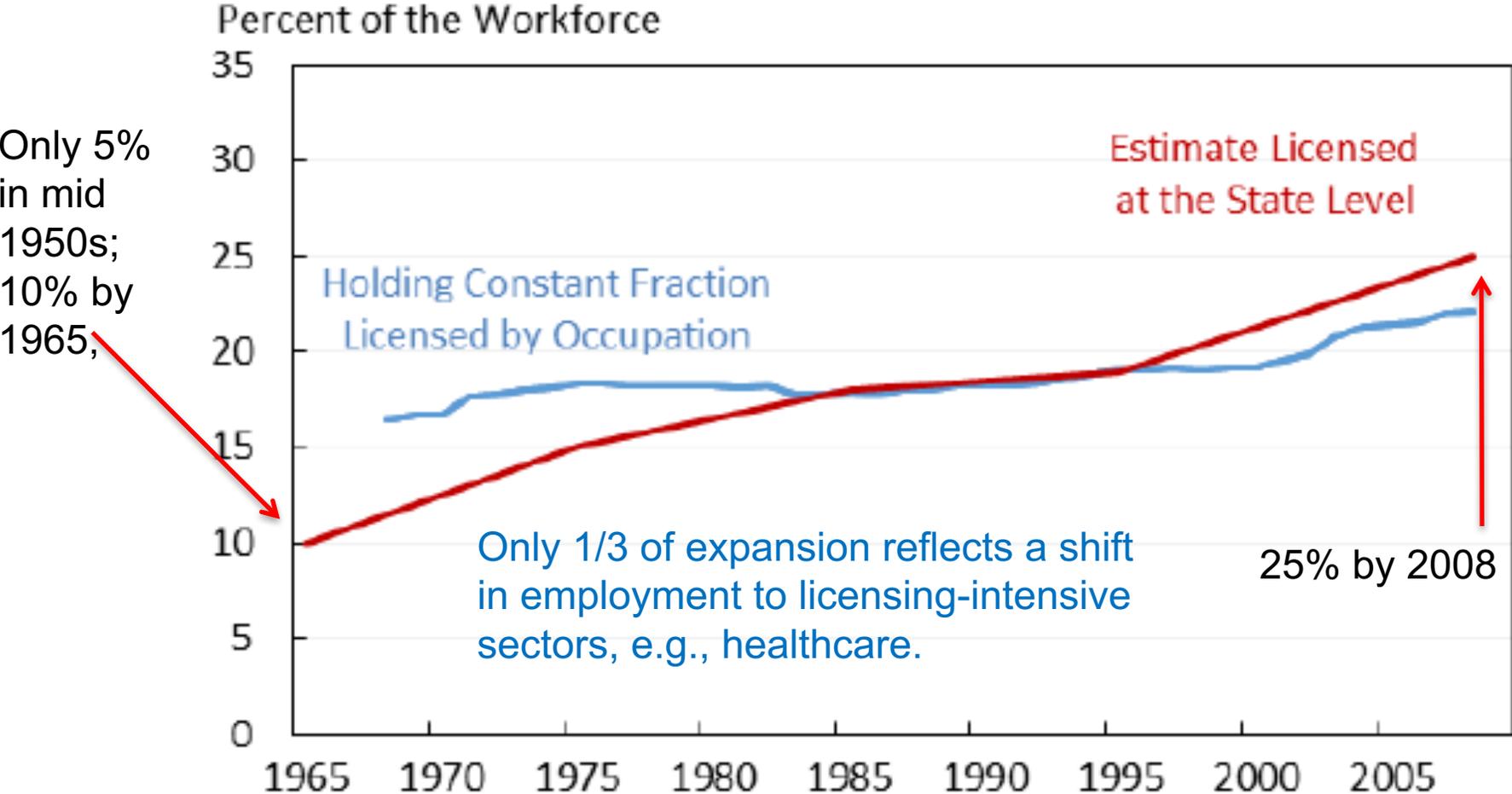
The U.S. Federal Tax Code

- The scale and complexity of the U.S. tax code also grew dramatically in recent decades. As of 2011, it takes four million words or 70,000 pages (another 52 bibles!) to explain the federal tax code (McCaherty, 2014).
- There were about 4,400 changes to the tax code from 2000 to 2010, 579 changes in 2010 alone.

The U.S. Federal Tax Code

- One reason the federal tax code is so large and complex is because policy makers (and citizens) insist on using it to bestow financial favors on certain activities and groups.
- “Tax expenditures” – tax revenues foregone because of rules that grant tax breaks under particular conditions and for certain taxpayers – in FY 2015 were about \$1.4 trillion. By way of comparison, all direct federal spending was about \$3.5 trillion in 2014.

Percent of U.S. Workforce in Jobs that Require an Occupational License: Estimated and Counterfactual with Constant License Rates by Occupation



Examples

Barber, manicurist, florist, funeral attendant, tree trimmer, music therapist, massage therapist, sign language interpreter, taxidermist, auctioneer, travel agent, travel guide, animal trainer, taxi driver, interior designer, and hundreds of others. See Carpenter et al. (2012).

Source: Kleiner and Krueger (2013), Westat data; Bureau of Labor Statistics; Current Population Survey.

Reproduced from “Occupational Licensing: A Framework for Policymakers,” The White House, Washington DC, July 2015

II. Breeding Complexity and Uncertainty

The sheer volume and complexity of statutes, regulations, regulatory guidance, and tax code provisions – and their instability over time – are barriers to:

- Knowledge and comprehension of the law
- Avoidance of legal jeopardy
- Sound planning by individuals, businesses and organizations

Thus, the enormous expansion of the regulatory state breeds complexity and uncertainty in economic affairs.

Huge Scale Leads to More Discretion – Adding To Uncertainty and Raising Potential for Abuse

As the regulatory state expanded, regulators acquired great power to interpret statutes, transform broad and vague legislative mandates into specific regulations, and exercise discretion in crafting and enforcing regulations.

As the system grew more complex, interpretation and enforcement became more uncertain. The scope for capricious regulator conduct grew (Epstein, 2011a,b), as did the risk that regulators exercise their discretion as a tool of political control (Cochrane, 2015).

Breeding Complexity and Uncertainty

Some Evidence

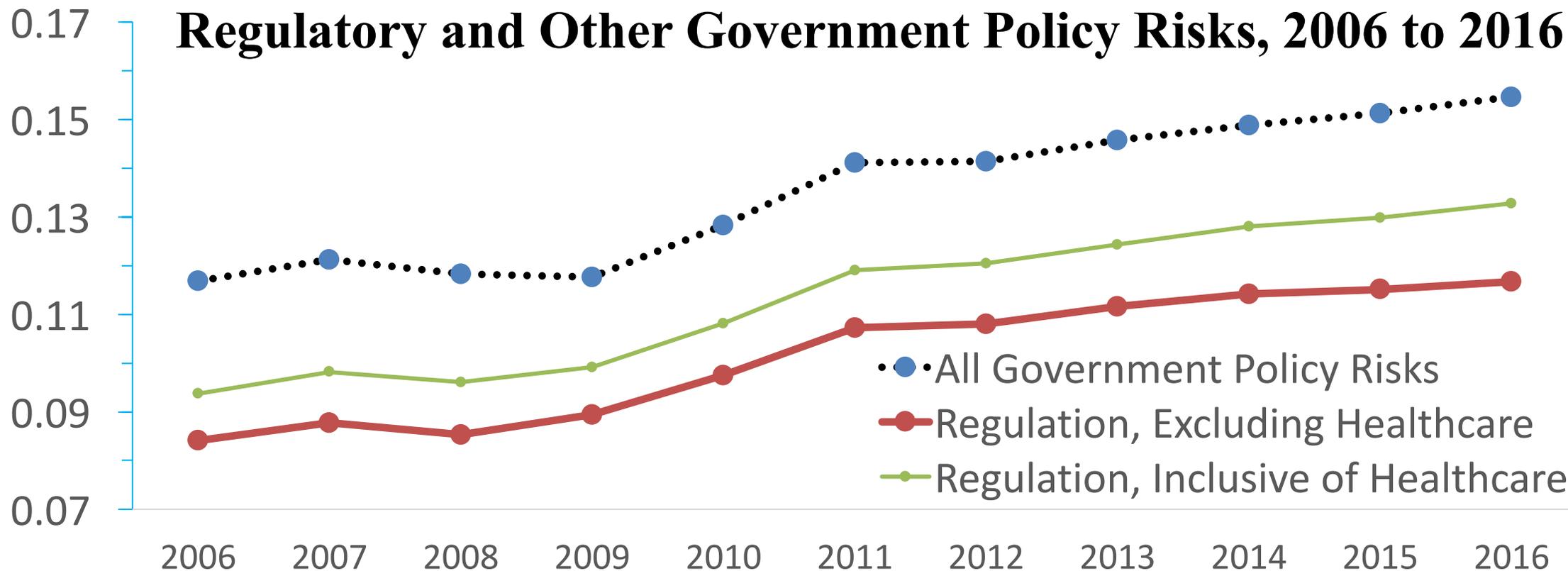
1. 10Ks: Regulation is a growing source of business risks
2. Newspapers: An upward drift in policy uncertainty
3. Newspapers: Narrower measures
 - Healthcare Policy Uncertainty Index
 - Financial Regulation Uncertainty Index

Regulation as a Source of Business Risks: Using 10-K Filings to Quantify Its Importance

- Since 2006 (for FY 2005) the SEC has required most publicly held firms to include a separate discussion of “Risk Factors” in Part 1a of their annual 10-K filings.
- In explaining “How to Read a 10-K” at www.sec.gov/answers/reada10k.htm, the SEC describes Part 1a as follows:
 - **Item 1A - “Risk Factors”** includes information about the most significant risks that apply to the company or to its securities. Companies generally list the risk factors in order of their importance. In practice, this section focuses on the risks themselves, not how the company addresses those risks. Some risks may be true for the entire economy, some may apply only to the company’s industry sector or geographic region, and some may be unique to the company.
- **Quantification**: (a) Calculate the *share* of sentences in Part 1a of each 10-K filing that contains one or more regulation-related terms. (b) Compute the cross-firm average of this share by filing year. Plot the resulting time series.

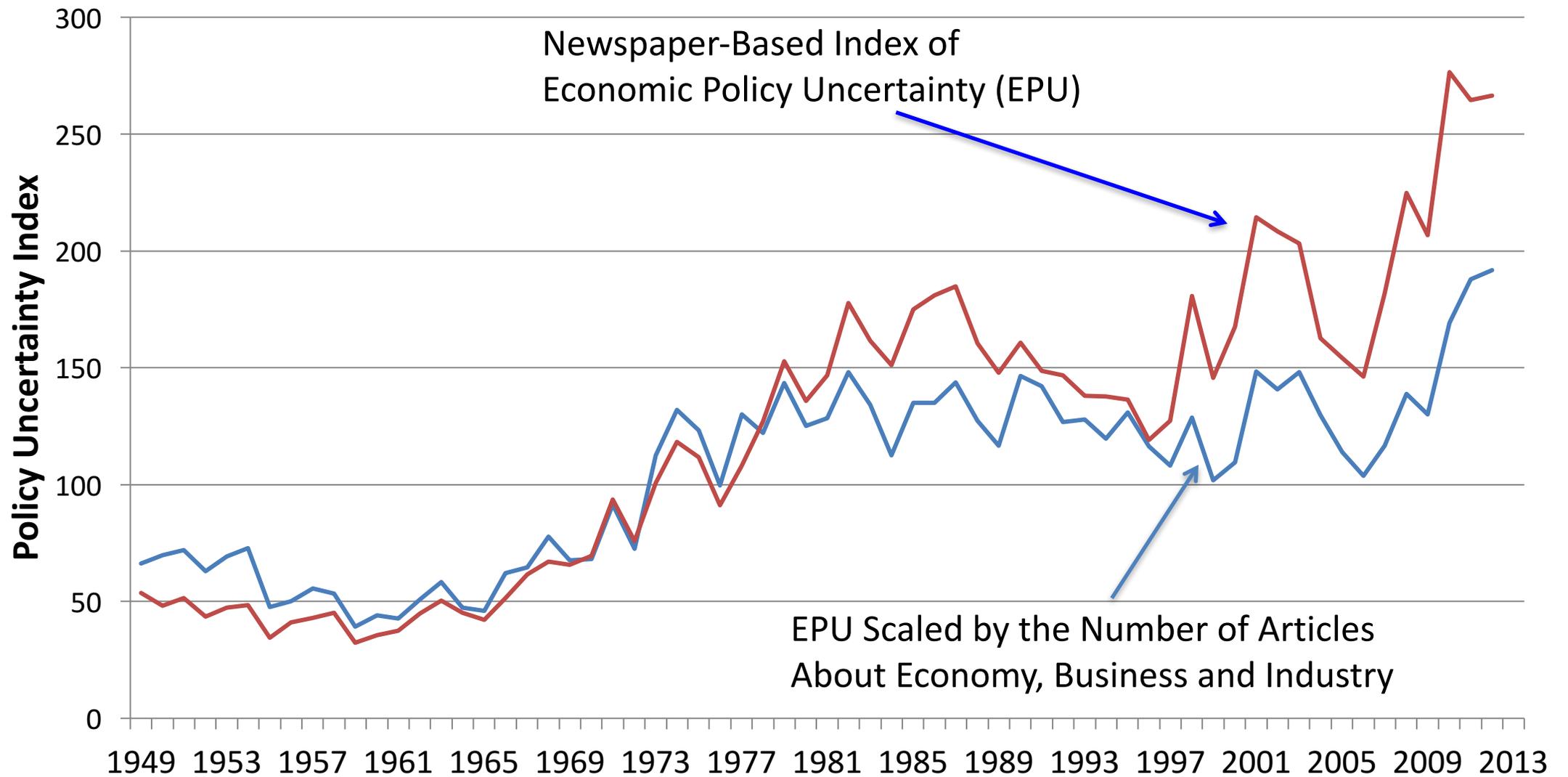
Regulation and Other Government Policy Matters Account for a Growing Share of Business Risks, According to 10-K Filings

Share of Sentences in Part 1a of 10-K Filings that Reference Regulatory and Other Government Policy Risks, 2006 to 2016



Note: In addition to regulatory matters, “All Government Policy Risks” includes those related to fiscal policy, monetary policy, entitlement and welfare programs, trade policy and more.

An Upward Drift in U.S. Economic Policy Uncertainty



Source: Baker et al. (2014), based on a balanced panel of six newspapers. Data are annual averages of monthly values from 1949 to 2012.

Category-Specific Policy Uncertainty Indices

Constructing the category-specific indices shown below

- Get monthly counts of articles in Access World News (covering hundreds of daily US papers) that contain at least one term from each of the following sets:

E: {economic or economy}

P: {regulation or deficit or “federal reserve” or congress or legislation or “white house”}

U: {uncertain or uncertainty}

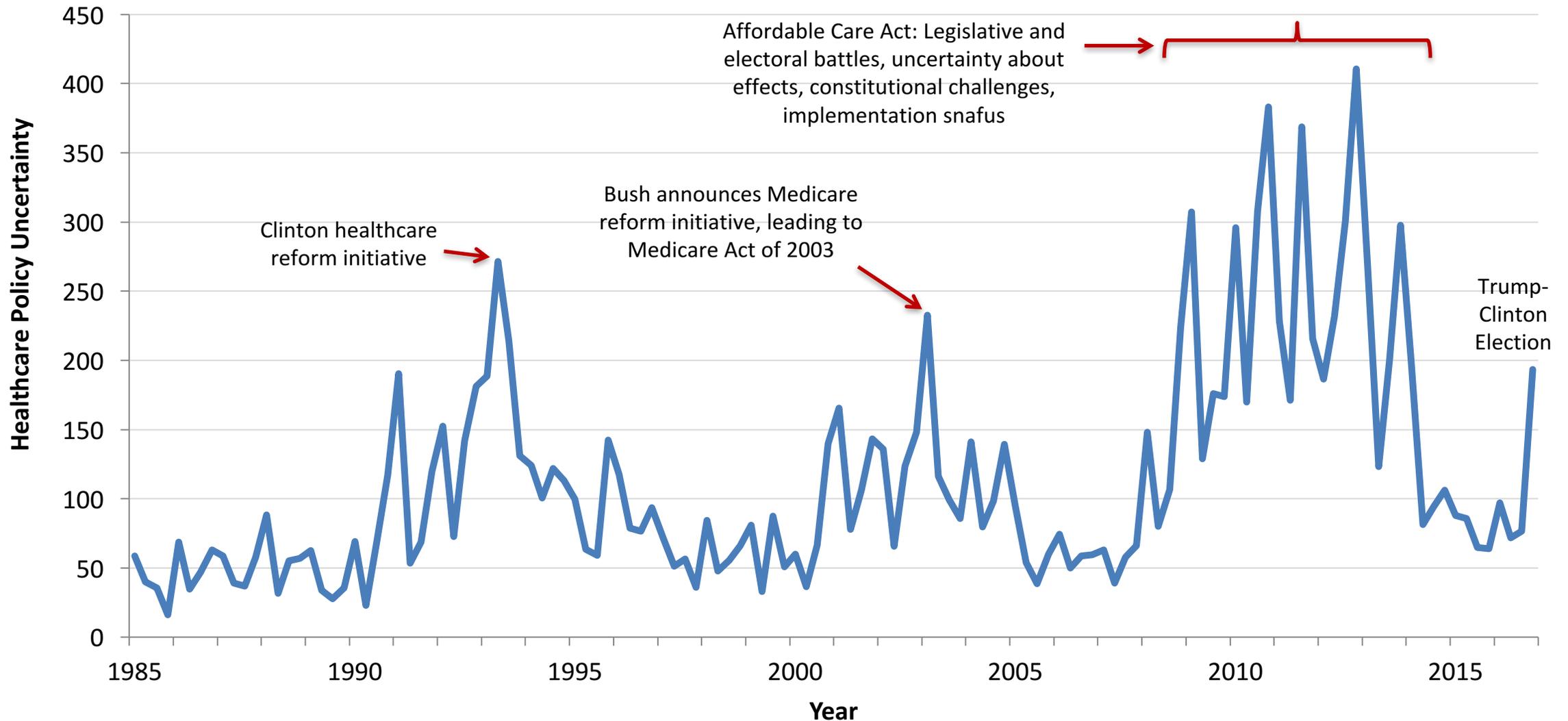
C: {category-specific terms}

Include “the Fed”, “regulatory” and other variants.

- Scale the raw EPUC count by the count of all articles in the same month.
- Multiplicatively normalize the time series of scaled monthly counts to a mean of 100 from 1985 to 2009.
- See Baker, Bloom and Davis (2016) for more information.

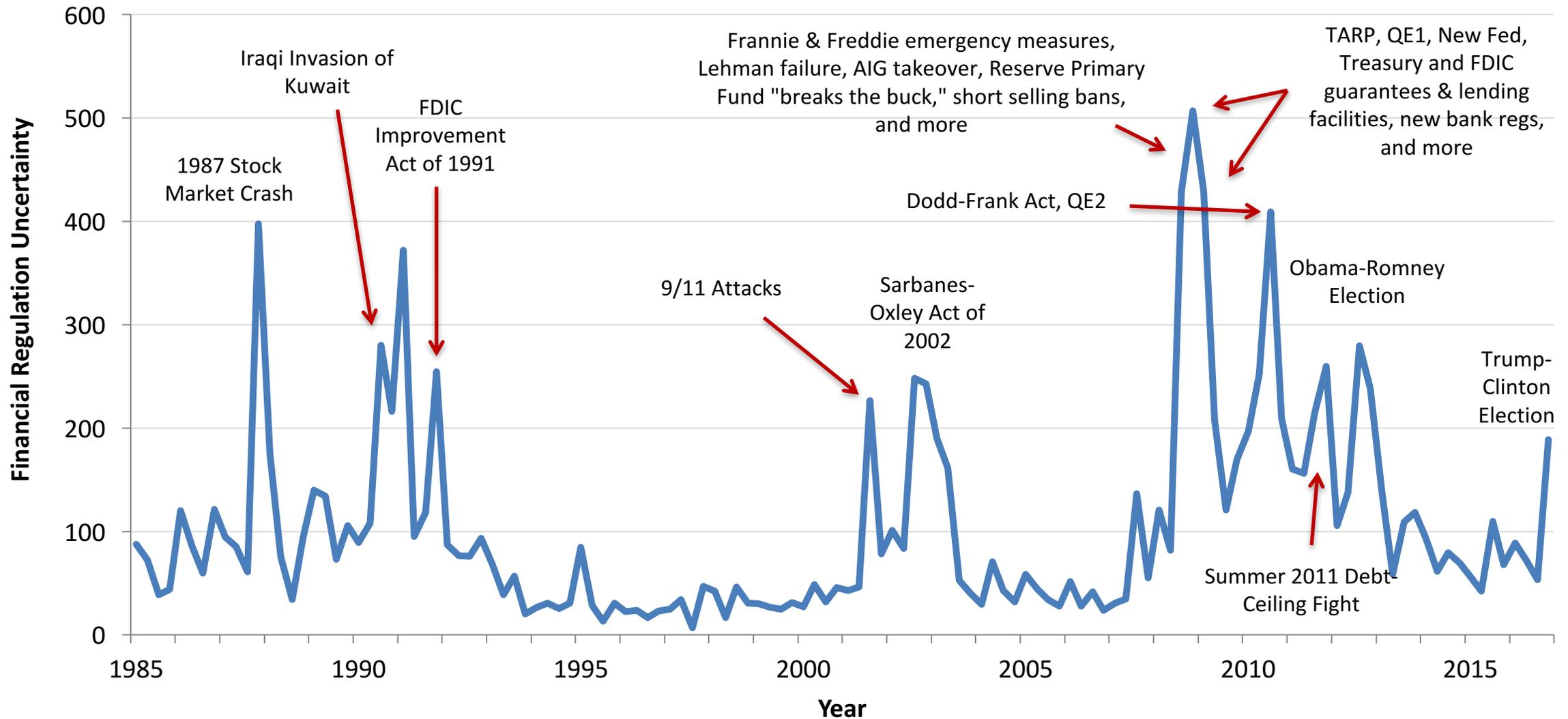


Healthcare Policy Uncertainty Index, 1985 Q1 to 2016 Q4, Quarterly



Notes: The index reflects the frequency of newspaper articles about economic policy uncertainty *and* healthcare policy matters, as indicated by terms like "healthcare," "hospital," "health insurance," and "Medicare." Data are from Baker, Bloom, and Davis (2016) and are available and updated at www.PolicyUncertainty.com. Normalized to a mean of 100 from 1985 to 2009.

Financial Regulation Uncertainty Index, 1985 Q1 to 2016 Q4, Quarterly



Notes: The index reflects the frequency of newspaper articles about economic policy uncertainty *and* financial regulation, as indicated by terms like “bank(ing) supervision,” Glass-Steagall,” and “Dodd-Frank.” Updated from Baker, Bloom, and Davis (2016). Available with regular updates at www.PolicyUncertainty.com. Normalized to a mean of 100 from 1985 to 2009.

IV. Brief Remarks on Economic Effects

1. Disproportionate Effects on Smaller and Younger Businesses
2. Occupational Licensing and Geographic Mobility
3. Firm-Level Effects of Regulatory and Policy Uncertainty
4. Macroeconomic Effects of Regulatory and Policy Uncertainty
5. Regulatory Uncertainty Undermines Regulatory Goals

Disproportionate Regulatory Burdens On Smaller and Newer Businesses?

Yes, despite some small-firm exemptions. Why? Three basic reasons:

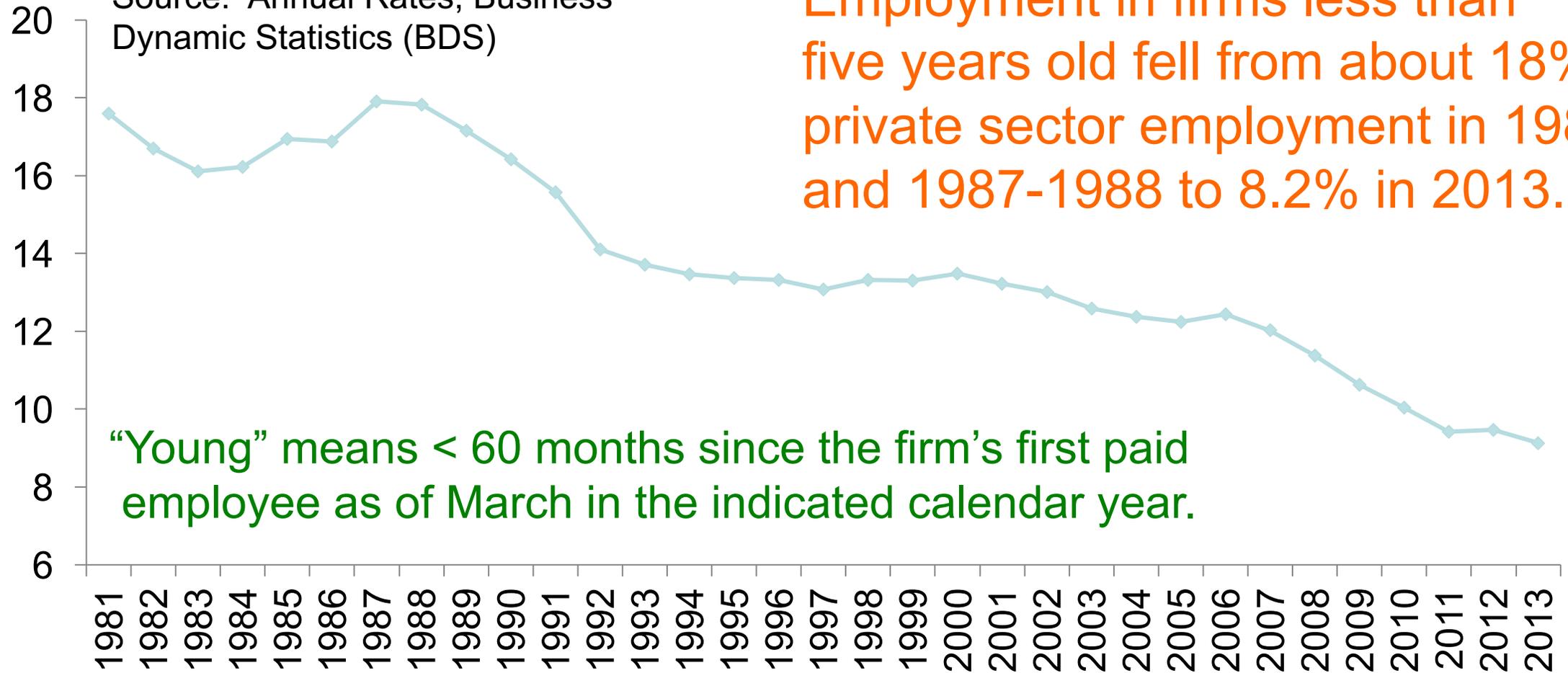
1. Scale economies in compliance → higher compliance costs per unit of output (or per worker) at smaller firms
2. One-time costs of learning relevant regulations, establishing relationships with regulators, and developing compliance systems → favoring incumbents over entrants
3. Larger, established firms have greater capacity & incentive to lobby for legislative exemptions, administrative waivers, and favorable regulatory treatment.

Points 1 & 2 also imply that regulatory and tax complexity deter large, mature firms from expanding into new markets, products, etc. Thus, tax and regulatory complexity also soften competitive pressures and repress creative destruction more broadly.

Share of Employees in Young Firms, 1981-2013, U.S. Nonfarm Private Sector

Source: Annual Rates, Business
Dynamic Statistics (BDS)

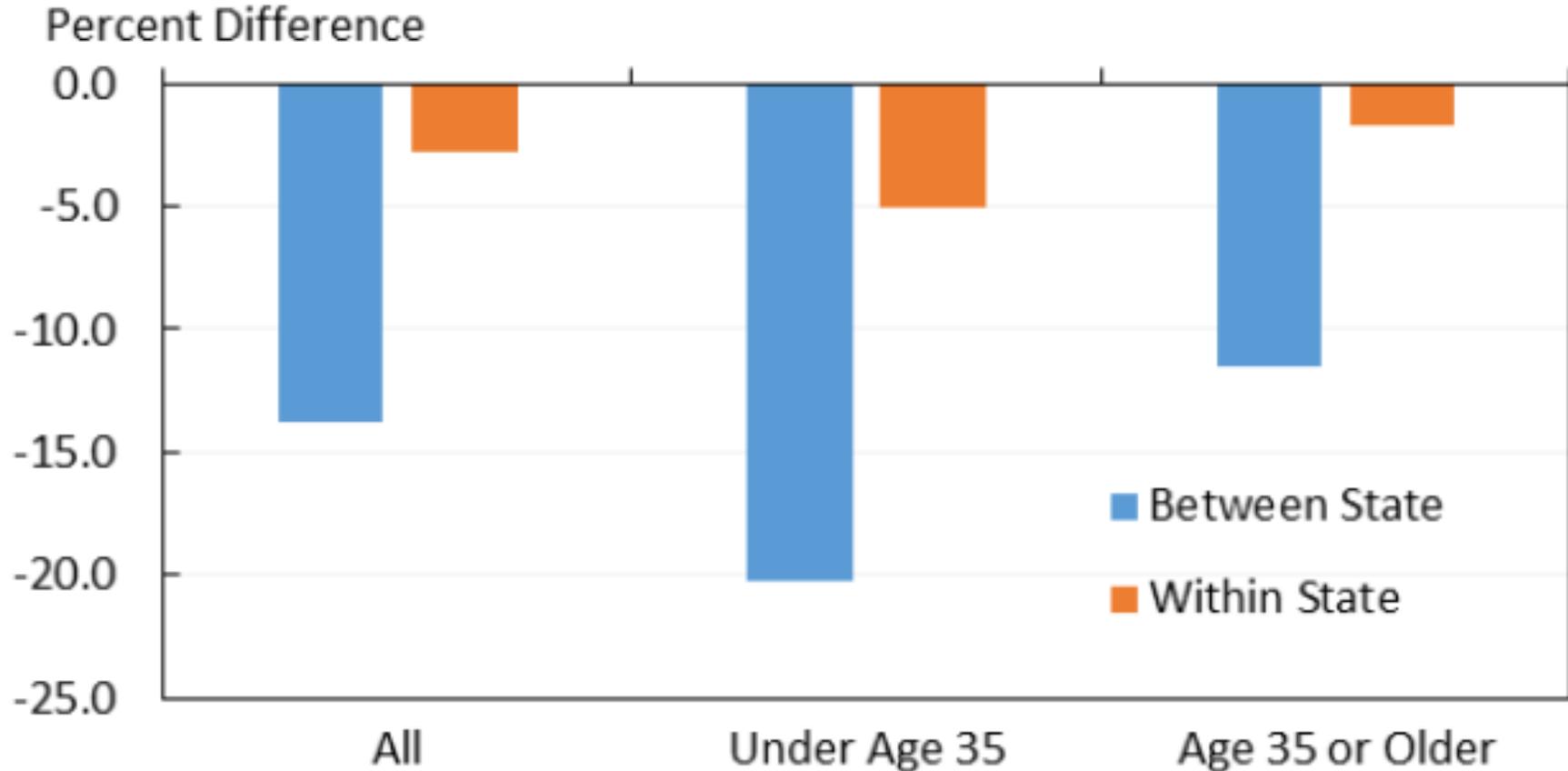
Employment in firms less than
five years old fell from about 18% of
private sector employment in 1981
and 1987-1988 to 8.2% in 2013.



“Young” means < 60 months since the firm’s first paid
employee as of March in the indicated calendar year.

Occupational Licensing Restrains Geographic Mobility

Figure 1: Difference in Migration Rates of Workers in Most vs. Least Licensed Occupations



Reproduced from
“Occupational Licensing:
A Framework for
Policymakers,” The
White House,
Washington DC,
July 2015

Source: Census Bureau, American Community Survey 2010-2013 ; CEA Calculations. Number is calculated from an OLS regression controlling for race, citizenship, sex, citizenship, number of children, marital status, education, income, year, and state. Ages 25 to 65 were included.

Firm-Level Effects of Policy Uncertainty

- My research with Scott Baker and Nick Bloom finds:
 - High policy uncertainty raises the stock-price volatility of firms in sectors with heavy reliance on government spending (e.g., healthcare, defense industries, infrastructure construction) and high exposure to regulation (e.g., healthcare, financial services).
 - Rising policy uncertainty lowers firm-level investment and employment growth in sectors with heavy reliance on government spending and high exposure to regulation. See Ion and Gulen (2016) for additional evidence on investment responses.
- These effects on firm-level stock-price volatility, investment rates, and employment growth rates are sizable in sectors with high exposure to regulatory and other policy risks.

Macroeconomic Effects of Policy Uncertainty

- My work with Baker and Bloom (and several other papers) find that upward shocks to policy uncertainty foreshadow deteriorations in aggregate investment, employment and output measures. The responses are material, but moderate, in size.
- Many other recent studies find similar results.
- Two possible interpretations (not the only two):
 - Higher policy uncertainty causes the negative effects
 - Policy uncertainty shocks coincide with other negative developments that are not (fully) captured by the other variables in the statistical model, and the other developments cause the deterioration.

Regulatory Uncertainty Undermines Regulatory Goals

Firms can make investments in production capacity *and* product quality, where “quality” includes things like pollutants and health risks per unit of output and consumption.

Raising quality typically requires costly investments. For example, reducing pollutants at a coal-fired power plant or improving the safety of the working environment requires up-front outlays.

Let x denote the regulatory penalty per unit of pollutant or health risk caused by producing and consuming the good. When quality investments are costly to reverse, as they typically are, *uncertainty about future regulatory policy (future value of x) depresses the firm's investments in capacity **and** quality.*

V. What to Do?

1. Design for simplicity

- Pigouvian taxes to limit pollution instead of command-and-control regulations.
- High tangible capital requirements for commercial banks instead of detailed regulation of their activities and balance sheet structures.

2. Design to foster predictable policymaker responses

- Reform bankruptcy code so illiquid and insolvent financial institutions can remain operational, curtailing negative spillovers to financial system. This would foster more predictable policy responses to financial institution failures and lessen the need for regulator discretion and hard calls in crisis situations. See Scott and Taylor (2012) and Scott, Jackson and Taylor (2015).

3. Reassert Congressional oversight

- Sensible idea but insufficient given scale, scope and complexity of regulatory state.

4. Restrain the regulators

- Common-sense idea: Before introducing a new regulation, a regulatory agency should clearly describe the problem it seeks to address, assess its significance, explain why regulation is a good response, provide a sound cost-benefit analysis for any proposed regulatory action, and explain why the proposed action is better than alternatives – including the alternative of no regulatory action.
- Every U.S. president since Jimmy Carter has tried some version of this idea.
- It hasn't worked.

4. Restrain the regulators

- Why do regulatory impact analyses often fail to deliver:
 - For technical reasons, when costs & benefits are hard to quantify.
 - More important, there's a serious two-part institutional problem:
 - 1) It's too easy for regulators to circumvent requirements for an impartial, rigorous analysis of benefits and costs. The regulatory agency orchestrates the impact analysis and judges its adequacy.
 - 2) When agencies promulgate ineffective, costly or downright perverse regulations, recourse is difficult. Congress is too distracted for effective oversight, administrative courts are creatures of regulatory agencies, and the process in the general courts is slow and costly. Also, courts tend to defer to regulators.

Restraining the Regulators

A Proposal: Establish independent regulator oversight commissions (IROCs), with powers as follows:

- At its own initiative or at the request of affected parties, an IROC could review the adequacy and quality of regulatory impact analyses offered by the regulator in support of a regulation.
- If the IROC determined that the impact analysis was inadequate or incomplete, or did not support the case for the regulation under review, the regulation would be suspended.
- IROCs would have no power to make or modify regulations. Unlike courts, they could not rule on legal questions – e.g., the scope of an agency’s regulatory powers.
- IROC authority would be limited to suspending regulations that are not adequately supported by high-quality, even-handed regulatory impact analyses.

4. End politically manufactured injections of uncertainty

- No more nail-biting debt-ceiling fights, fiscal cliffs, partial government shutdowns, gross execution failures, etc.

5. Recognize the limits of regulation

- Government regulation is not the right solution to every societal problem.

V. Concluding Remarks

- Many of my fellow economists speak of headwinds that curtail the possibilities for growth.
- Yes, we face headwinds. But my remarks today suggest that many of the headwinds are of our own making.
- Some degree of regulatory complexity and policy uncertainty will be with us always. But their extent, and the weight of their burdens, depends greatly on policy design and our approach to regulation, taxation and policy making.
- We've been marching away from the three principles I borrowed from George Shultz. A course correction is overdue.

Extra Slides

Restraining the Regulators

Some Practical Questions:

1. Number, term and appointment process for IROC members?
2. Compensation of commissioners, IROC staff and budget?
3. IROC scope? One IROC per regulatory agency?
4. Special provisions (Short of legislation) to allow the President or Congress to overturn IROC decisions?

Are IROCs a good idea, on balance? I don't know.

Prudence suggests starting small by creating a single IROC for an agency greatly in need of restraint. For the EPA?

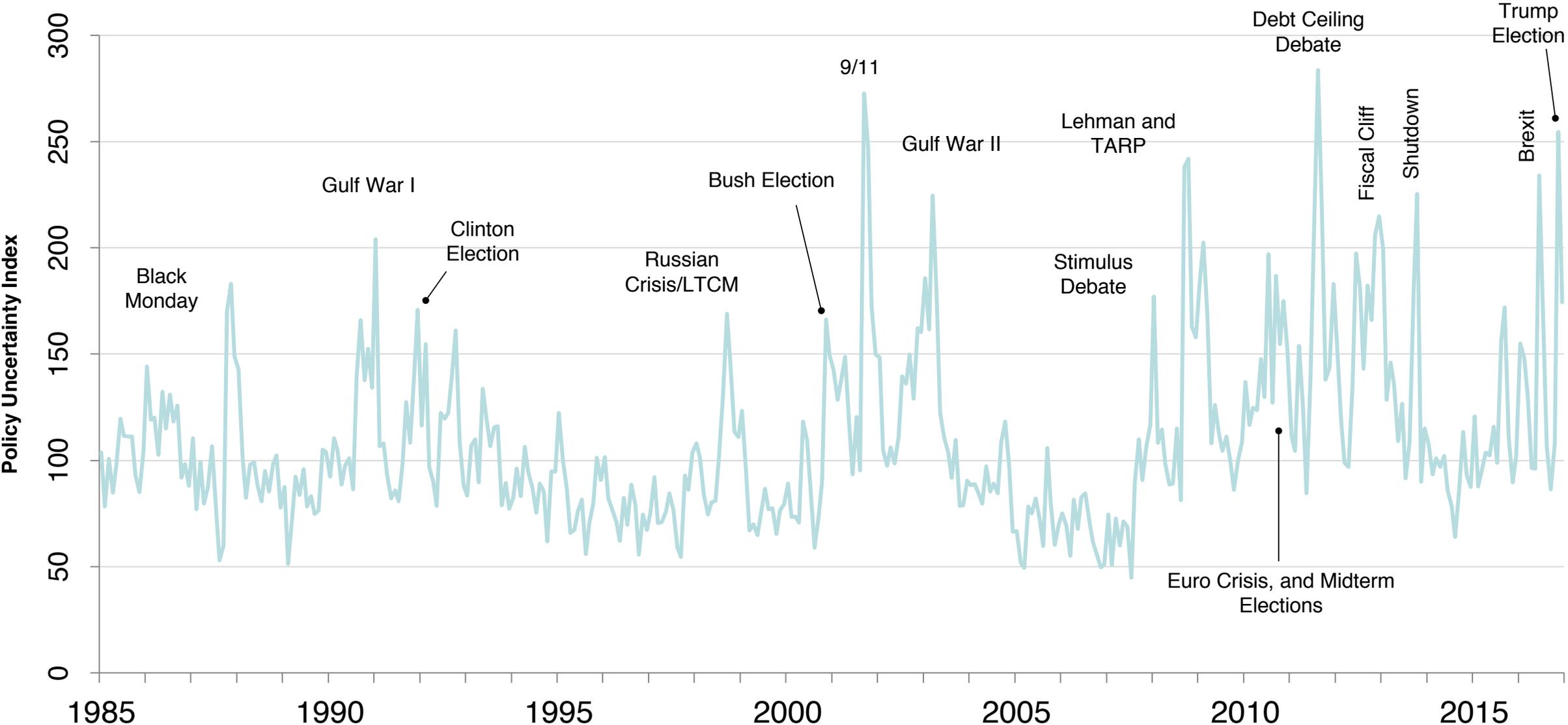
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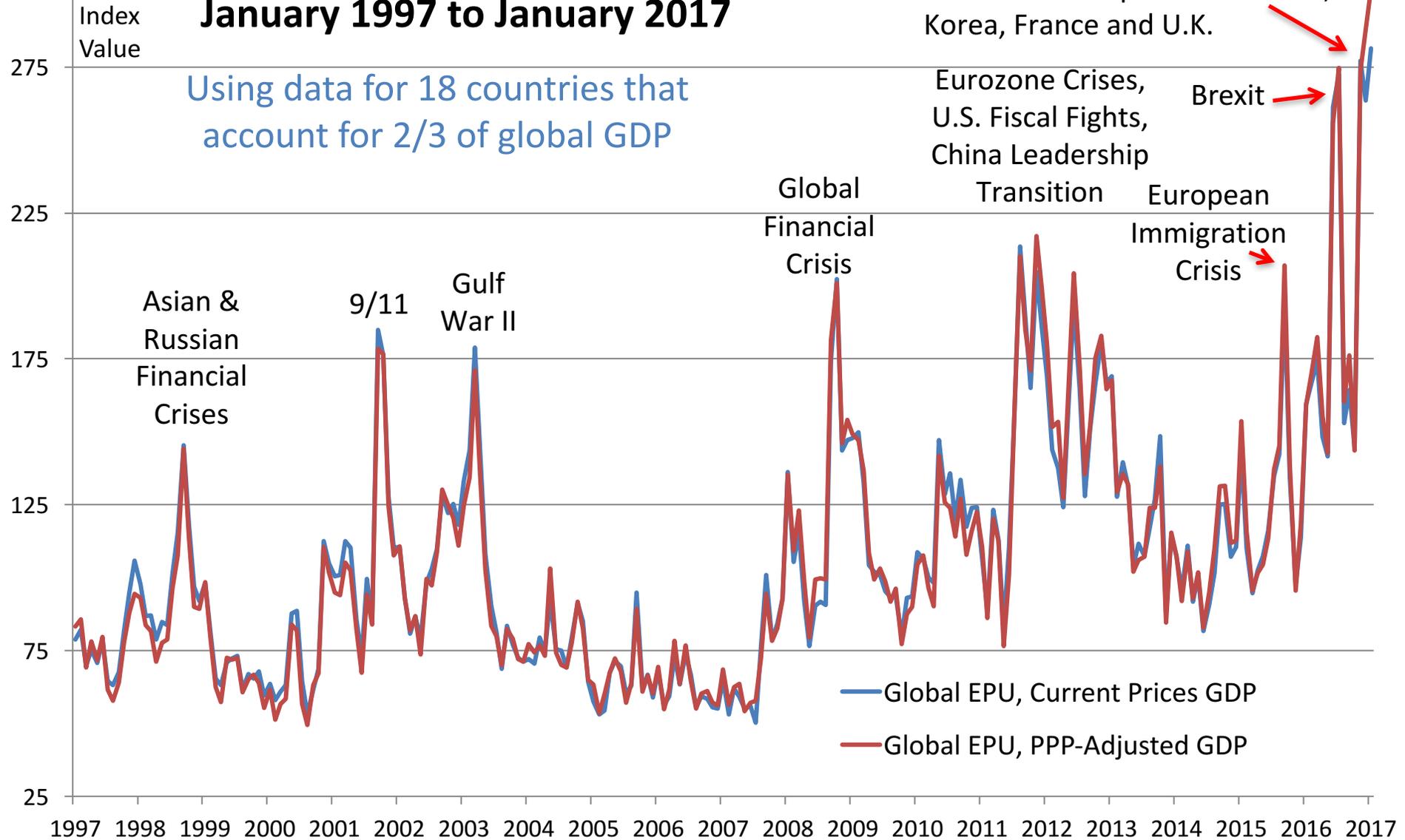
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U.S. Economic Policy Uncertainty Index, Jan. 1985 to Dec. 2016



Source: "Measuring Economic Policy Uncertainty" by Scott R. Baker, Nicholas Bloom and Steven J. Davis, all data at www.policyuncertainty.com. Monthly data normalized to 100 prior to 2010. Data to December 2016.

Global Economic Policy Uncertainty Index, January 1997 to January 2017



Notes: Global EPU calculated as the GDP-weighted average of monthly EPU index values for US, Canada, Brazil, Chile, UK, Germany, Italy, Spain, France, Netherlands, Russia, India, China, South Korea, Japan, Ireland, Sweden, and Australia, using GDP data from the IMF's World Economic Outlook Database. National EPU index values are from www.PolicyUncertainty.com and Baker, Bloom and Davis (2016). Each national EPU Index is renormalized to a mean of 100 from 1997 to 2015 before calculating the Global EPU Index.