

# How much is energy subsidized?

*Rob James*

*Pillsbury Winthrop Shaw Pittman LLP*

*Environmental Law & Policy Colloquium*

*Stanford Law School, January 23, 2019*

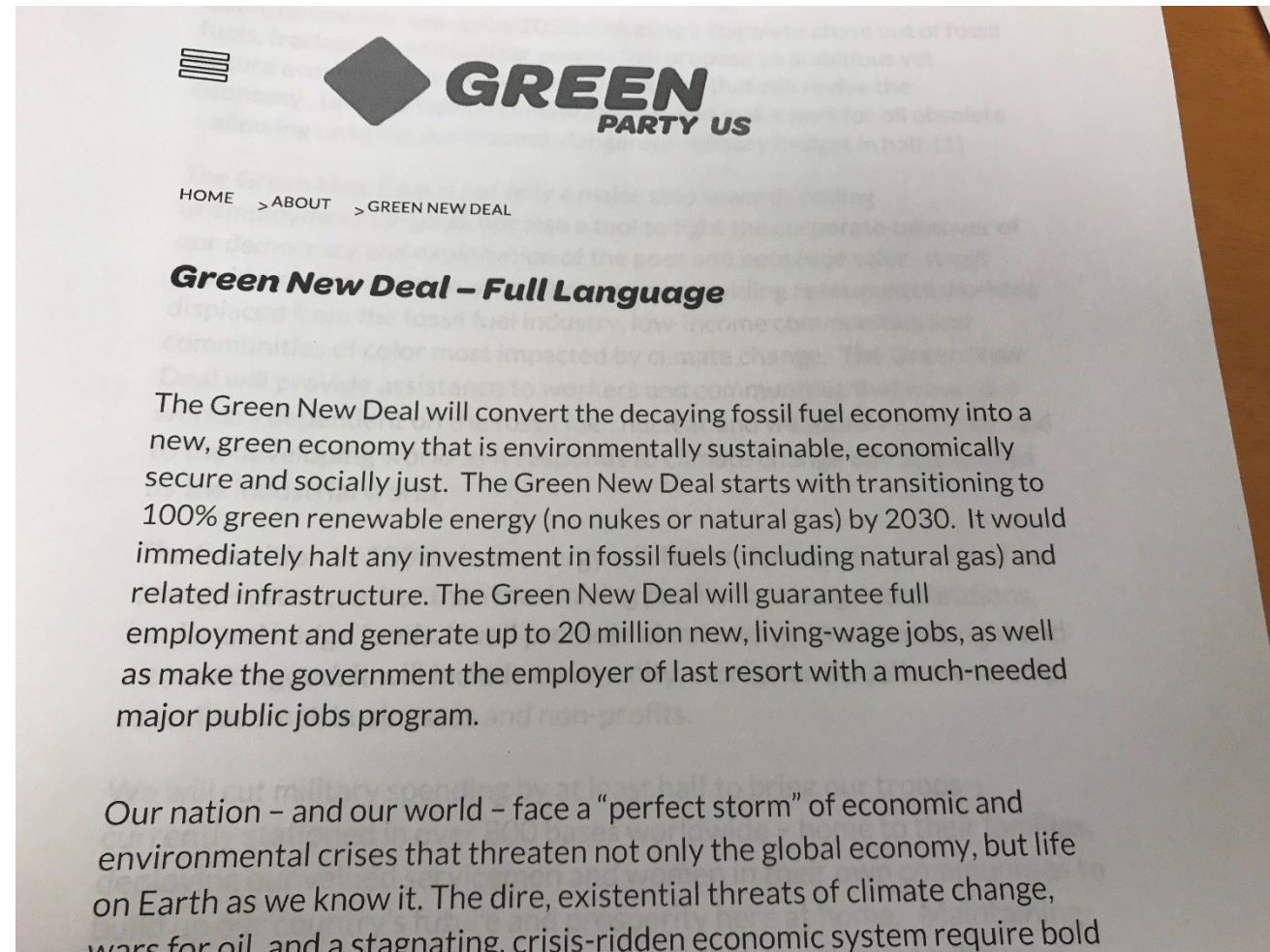
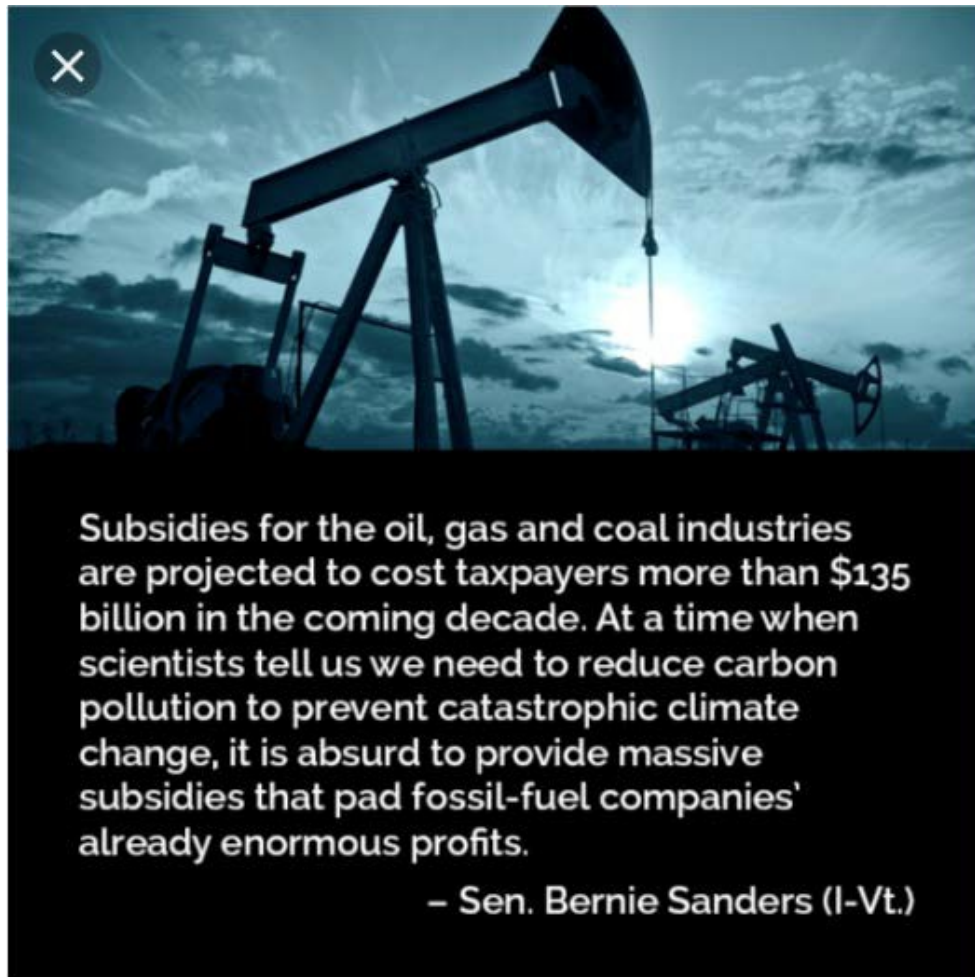
# How much is energy subsidized?

This seems like such a simple question

“A story always sounds clear enough at a distance,  
but the nearer you get to the scene of events  
the vaguer it becomes.”

—George Orwell, *“Shooting An Elephant”* (1936)

# How much is energy subsidized? The tweets



# How much is energy subsidized?

## The tweets

- “Who wants to have [a kind of] energy when you need a subsidy?” –*President Trump*
- “We subsidize a lot of different energy sources. We subsidize wind energy, we subsidize ethanol, we subsidize solar, we subsidize oil and gas. Government’s picking winners and losers every day.” –*DOE Secretary Rick Perry*
- “We will seek to end subsidies for electric cars and renewable energy sources ... We will end those subsidies and others of the Obama administration.” –*Presidential economic adviser Larry Kudlow*

# How much is energy subsidized?

## The experts

- That's politicians for you; what did you expect?
- But what about the agency and think tank professionals? Aren't *they* apolitical?

“In our age there is no such thing as ‘keeping out of politics’. All issues are political issues.”

—George Orwell, “*Politics and the English Language*” (1945)

# How much is energy subsidized?

## Trillions upon trillions, for U.S. fossil fuels alone?

- Airports and highways, trillions in replacement cost; ongoing annual maintenance, \$200 billion
- Road gridlock time, \$100 billion; air delays, \$40 billion more
- Military for Persian Gulf, \$133 billion; foreign aid, more
- Environmental and healthcare impacts, \$400 billion minimum
- Sunk costs of petroleum-based vehicles, trains, planes, vessels: trillions more
- Suburban sprawl, gas guzzlers, sedentary culture: more impacts
  
- Would you rather spend \$32 trillion for 20 years just to maintain our outmoded carbon system, or spend \$25 trillion once and “have free fuel forever”?

—Chris Nelder, “Reframing the Transportation Debate,” ZDNet, October 19, 2011

# How much is energy subsidized?

## \$5.3 trillion, for fossil fuels alone?

- “In a new and disturbing report from researchers at the International Monetary Fund (IMF), the world’s governments are providing subsidies to the highly profitable oil industry to the tune of an astonishing \$5.3 trillion in benefits per year.” —*Politicus USA*
- “Big Oil’s astronomical hand-out: Fossil fuels received \$5.3 trillion in global subsidies each year” —*Salon*
- “Fossil fuel companies are benefitting [\$10 million] every minute of every day” —*Guardian*
- “Consumers should be paying a whopping \$5 trillion more a year for energy” —*Wall Street Journal*
- Do these headlines accurately portray the report?

—David Coady, Ian Parry, Louis Sears & Baoping Shang,

“How Large Are Global Energy Subsidies?” *IMF Working Paper WP/15/105 (2015)*;

“How Large Are Global Fossil Fuel Subsidies?” *91 World Development 11 (2017)*

—critique, Tim Worstall, *Forbes*, May 19, 2015

# How much is energy subsidized?

## \$641 billion?

- International Energy Agency (IEA): 2015 global fossil subsidies were \$506 billion, renewable subsidies \$135 billion —*IEA, World Energy Outlook 2016*

## \$170 billion, for OECD member country fossil fuels?

- —*Organization for Economic Cooperation and Development (OECD), Inventory of Support Measures for Fossil Fuels, 2015*

—*Doug Koplow, “Defining and Measuring Fossil Fuel Subsidies,” in Jakob Skovgaard & Harro Van Asselt, The Politics of Fossil Fuel Subsidies and Their Reform (Cambridge, 2018)*

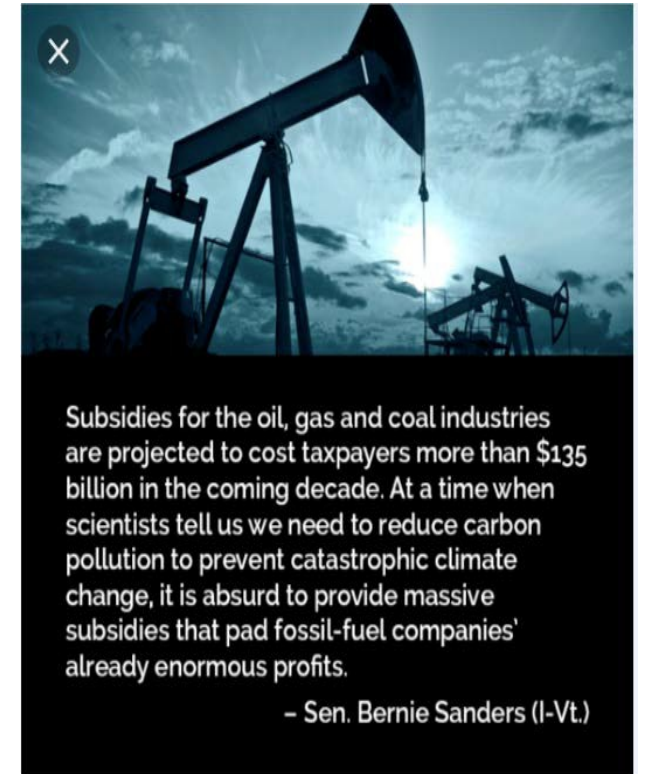
—*Jakob Skovgaard, “The devil lies in the definition: competing approaches to fossil fuel subsidies at the IMF and the OECD,” 17 International Environmental Agreements 341 (2017)*



# How much is energy subsidized?

## \$15 to \$30 billion for the U.S., mostly for fossil fuels?

- US Energy Information Administration (EIA): 2016 federal subsidies in all energy markets were \$15 billion, down from \$29.3 billion in 2013  
—*EIA, Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2016*
- Oil Change International, a NGO: 2016 U.S. fossil subsidies alone were \$20.5 billion
- “Permanent” subsidies were \$1.1 billion for renewables, \$74 billion for fossil fuels  
{“temporary” subsidies include solar ITC 30% 2019 construction-26% 2020-22% 2021; wind PTC 2.3-2.4¢/kWh for 10 years for 2016 construction dropping 20%-40%-60% through 2019}  
—*OCI, “Dirty Energy Dominance: Dependent on Denial,” October 27, 2017*



# How much is energy subsidized?

## \$15 billion for the U.S., but mostly for renewables?

- Institute for Energy Research (IER): federal subsidies are 93% for renewables, even though only 22% of energy sources are renewables
- So 2013 federal subsidies for petroleum were \$2.35 billion (\$0.67/MWh), renewables \$13.2 billion (wind, \$35.33/MWh; solar, \$231/MWh)

—IER, *“Fossil Fuels Dominate U.S. Energy Production, But Receive A Small Percentage of Federal Fuel Subsidies,”* January 9, 2019

# How much is energy subsidized?

## Zero by *our* country, for fossil fuels?

- American Petroleum Institute (API): federal oil subsidies are “a myth”—  
“the oil and natural gas industry doesn’t get any.” –*API release, January 30, 2012*
- Koplow (2018):  
API is “pursuing a classical political strategy to simply deny that key interventions are subsidies at all.”
- Remember your Orwell: *all* issues are political issues
- Even government sources do the same thing
- UK Department of Energy & Climate Change: “The UK has no fossil fuel subsidies.” –*August 17, 2015*

# How much is energy subsidized?

- **Greens:** Trillions and trillions for U.S. fossil fuel
- **IMF:** \$5.3 trillion for fossil fuel
- **IEA:** \$641 billion mostly for fossil fuel
- **OECD:** \$170 billion in OECD for fossil fuel
- **EIA:** \$15-30 billion in U.S., half for fossil fuel
- **OCI:** \$20 billion in U.S. for fossil fuel, much more than for renewables
- **IER:** \$15 billion U.S. federal, almost all for renewables
- **API, UK:** zero by *our* country for fossil fuel
- *Somewhere between trillions every year—and zero?*

# What is going on?

It obviously depends on what the meaning of the word “*subsidy*” is

But what are we really talking *about* when we talk about “subsidy”?

# What is a subsidy?

## What is the definition in economics and laws?

- *Palgrave Dictionary of Economics* is the leading source—but does it define “subsidy”?
- *Oxford Dictionary of Finance and Banking*:  
payment by government to producers to sell to public at a lower price
- *Oxford Dictionary of Economics*: payment by government to producers *or consumers* so that revenue to producer is greater than the price to consumer
- World Trade Organization (WTO): financial contribution by government via
  - A direct financial transfer,
  - Foregoing a government collection (e.g., by tax relief),
  - Provision of goods and services below market prices, or
  - Regulatory policies raising import costs or lowering export costs  
—*WTO Agreement on Subsidies and Countervailing Measures (SCMs), 1995; GATT 1947*

# What is a subsidy?

Build up all subsidies, or compare resulting prices of product being sold?

- *Inventory* of all subsidies
- *Price-gap*, comparing the net cost of a product here to its cost abroad
- Total Subsidy Estimate (*TSE*) and hybrids

—*Koplow (2018)*

But what is your baseline?

- “Much of what governments do directly or indirectly promotes business activity ... [or] discourages business activity by imposing costs ...  
The net impact in any context thus reflects a complex web of benefits and burdens.”  
—*Alan O. Sykes, “The Questionable Case for Subsidies Regulation: A Comparative Perspective,” 2 J.Legal Analysis 473 (2010)*

# What is a subsidy?

My point is that “subsidy” is a concept rooted in political economy and rhetoric rather than in formal economics

You should define your usage, and be aware that others use the word in different, possibly undefined ways



# What is an energy subsidy? Look at the IMF approach

- The IMF researchers define both a *consumer subsidy* and a *producer subsidy*
- The *consumer* subsidy is measured by the difference between the (low) price a consumer pays for a good and (Supply price with inputs priced efficiently) + (corrections to VAT/sales tax for equity across all goods) + (Pigouvian tax addressing externalities)
- So first thing, note that this approach “resets” the input prices and the VAT/sales tax rates
- The *producer* subsidy is measured by benefits a producer receives that it does not pass along to the consumer
- Do producer subsidies and consumer subsidies come to the same place?  
Is it just that one is easier to impose and measure than the other? Or that one is more politically palatable?

—Coady *et al.* (2015, 2017)

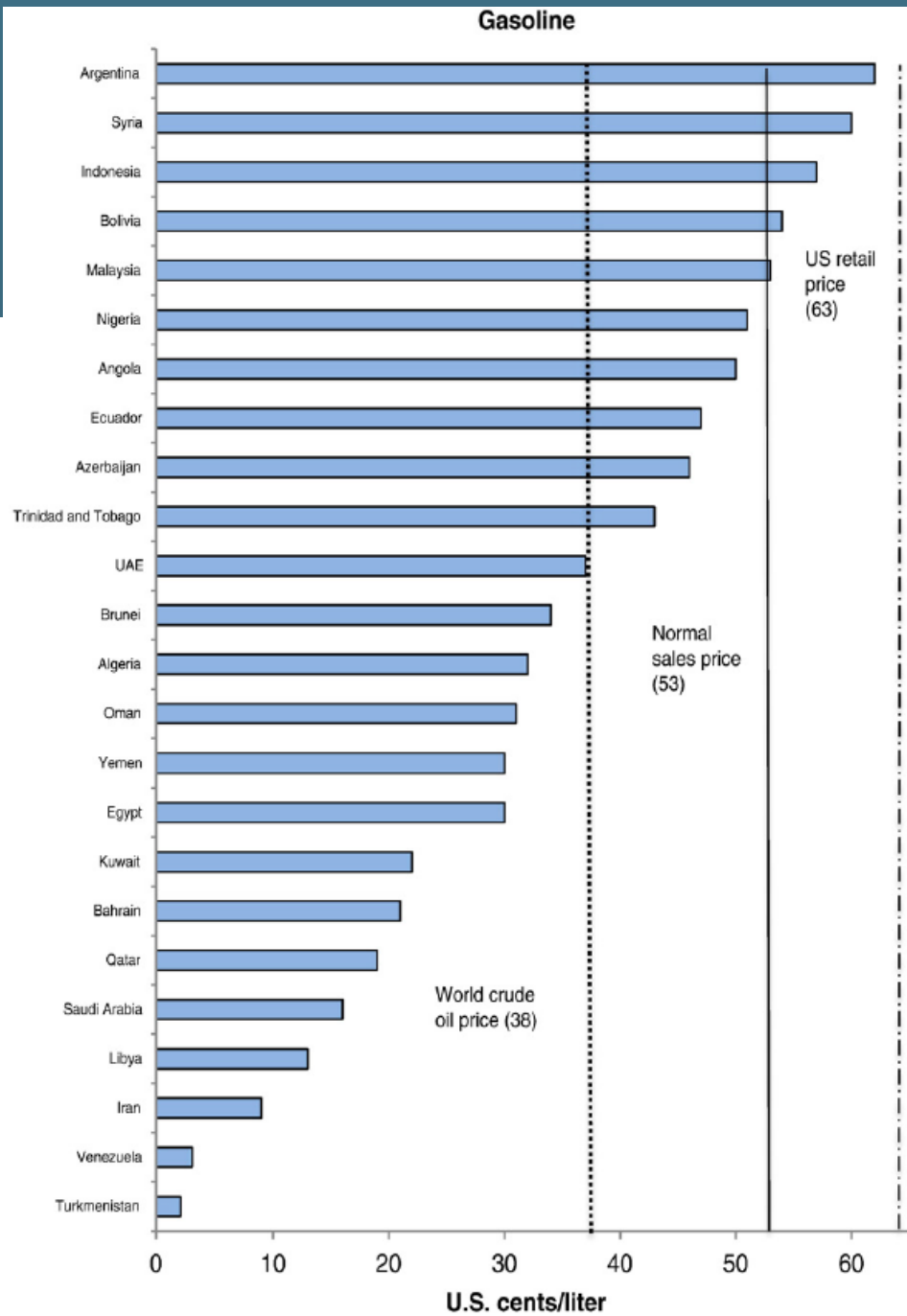
# What is an energy subsidy? Look at the IMF approach

- What is a Pigouvian (or Pigovian) tax?
- What Pigouvian taxes do we already pay?

# What is an energy subsidy?

## Look at the IMF approach

- The IMF fossil fuel subsidy figure (\$5.3 trillion annually) reflects an “efficient tax” or “implicit subsidy”
- What do those terms mean?
- Mostly from two factors
- The first factor: consumer fuel subsidies in the developing world
  - Iran: up to 20% of its GDP, 1/7<sup>th</sup> of world subsidies
  - Venezuela: 1.6¢/liter for gasoline
  - What behaviors do these subsidies incentivize?



# What is an energy subsidy?

## Look at the IMF approach

- The other major factor contributing to the \$5.3 trillion annual figure:
- Environmental impacts of fossil fuels that have not been prohibited or factored into the product price
  - Examples of such impacts:
    - **particulate pollution controls and health costs, premature mortality**
    - **CO<sub>2</sub> and CH<sub>4</sub> emission impacts**
    - **traffic, congestion, accidents and road damage**
  - So failing to stop an externality is an *“implicit subsidy,”* and including the health, climate change, and accident/traffic/congestion costs in the product price is an *“efficient tax”*
  - No inquiry into whether the political system considered and rejected such a tax, or rejected or approved such a subsidy, or whether the political system or decision was legitimate

# What is an energy subsidy? Look at the IMF approach

IMF researchers: cut subsidies and raise taxes when commodity prices are low,  
“as the public opposition to reform is likely to be somewhat muted.” — *Coady et al. (2015, not 2017)*

“There is something Orwellian about describing a failure to tax something as a subsidy.  
... Rebranding externalities as subsidies might make for good headlines in the Left-wing press, but it also makes for stifled debates and woolly thinking.”  
— *Sam Bowman, “IMF’s fuel subsidies are not what they seem,” Telegraph, May 24, 2015*

# What is an energy subsidy?

## Other approaches

- **Greens:** also includes in U.S. fossil subsidy the Strategic Petroleum Reserve, the U.S. military in the Middle East, and the interstate highway system
- **IEA:** any affirmative government action driving production cost down, producer profit up, or consumer price down
- **EIA, IER:** federal U.S. budget line-items (positive and negative) specific to the energy industry
- **European Union (EU):** government benefit that confers an unfair advantage on a specific industry
- **API, UK:** only industry-specific cash outlays from the Treasury— is complying with the current tax code, however it has been drafted, a subsidy?

# How can we talk to each other about subsidies?

- In what discipline is the speaker engaging?
  - Fiscal analysis (EIA, IER)
  - Regulatory and industrial policy (IEA, OECD)
  - Political economy, or even political philosophy (IMF)
  - Politics writ large (Greens—and possibly API and the U.K. government?)



# How can we talk to each other about subsidies?

- Why does the speaker care about subsidies?
  - Encourage rational economic decision-making?
  - Reward or punish certain behaviors or intentions? (*legal causation, tort principles?*)
  - Encourage nascent technology or industries?  
(*Take away when established, or leave in place as a relied-upon entitlement?*)
  - Mitigate effects of societal change?
  - Compensate affected population or interest group?
  - Move costs upstream or downstream to facilitate collection?
  - Treat one energy industry sector comparably with sectors of other industries?

# How can we talk to each other about subsidies?

- What does the speaker want done with subsidies?
  - Create one?
  - Take one away? (*Gordon Tulloch, “The Transitional Gains Trap,” 6 Bell J.Econ. 671 (1975)*)
  - Attack all of them?
  - Justify existing ones on industrial policy grounds?
  - Justify them on political grounds?
  - Improve them?
  - Target the beneficiaries or purposes more efficiently?  
—*George J. Stigler, “The Theory of Economic Regulation,” 2 Bell J.Econ. 3 (1971)*

# How can we talk to each other about subsidies?

- What are the political realities?
  - “Government leaders act with the goal of staying in power. Policies that provide subsidies often help leaders achieve that goal.”
  - “Once a subsidy is created, regardless of its original purpose, interest groups and investments solidify around the existence of the policy and make change difficult.”
  - Consumer subsidies are very popular and easy to see
- How can subsidies be reformed?
  - Neutralize or co-opt the interest groups
  - Communicate the adverse effects of the subsidy in a transparent manner
  - Design the subsidy to maximize benefits and minimize adverse effects
  - Use alternative tools that are better than the subsidy in achieving the goals

—David G. Victor, “The Politics of Fossil-Fuel Subsidies,” GSI/IISD, 2009

# How can we talk to each other about subsidies?

What happens after you set, or reform, or withdraw a subsidy?

“People can foresee the future only when it coincides with their own wishes, and the most grossly obvious facts can be ignored when they are unwelcome.”

—George Orwell, “*London Letter*” (1944)

# The energy policy palette

- If we can't agree on the painting, can we at least agree that there exists a palette from which an individual work is painted?
- API doesn't accept the U.S. naval fleet; Greens don't accept the necessity of a cash transfer; where are you?
- But can we agree that there exist policy tools?
- And the political will to use them, or the political will to not use them, or the absence of such a political will?
- And the fact that these tools have a range of applications and impacts, from specific energy activities to economy-wide influences?

# The energy policy palette

- To a fuel source, or to an energy use?
- With major, minor or zero collateral costs or benefits for unrelated activities?
- What about not successfully taking political action to shift externalities?
- What about successfully rejecting such political action?
- Just for energy? Or beyond, to a broader swath of sectors or activities?

# The energy policy palette



## MONEY

Direct financial transfers

## TAXES

Deductions and credits

## CUSTOMS

International trade tools

## REGULATIONS

Domestic controls on firms and markets

## LOANS

Government finance and credit support

## BOONS

Services or property without cost, or below cost or market price

## RISKS

Transfer of exposures to industry, government, or public

## EXTERNALITIES

Transfer costs of product impacts, near or far—or failing to do so?





# The Energy Policy Palette

*Rob James, Pillsbury Winthrop Shaw Pittman LLP, rob.james@pillsburylaw.com, January 2019*

## MONEY

*Direct financial transfers to producers or consumers*

**ENERGY:**  
fuel subsidies (Iran petrol, \$0.10/liter)

**BEYOND:**  
grants for and purchases of biofuel crops

## LOANS

*Low-interest, low security, preferential loans and guarantees, government full faith and credit*

**ENERGY:**  
DOE loans, guarantees; ARRA guarantee programs

**BEYOND:**  
Agricultural loans and guarantees for efficiency; Eximbank financing

## TAXES

*Deductions and credits on income and excise taxes, special rates and depreciation*

**ENERGY:**  
depletion, depreciation, EOR credits, ITC (solar), PTC (wind); expensing of drilling costs; MLPs

**BEYOND:**  
foreign income and excise credits; loss carryforwards; LIFO accounting practices; ethanol credits

## BOONS

*Government services and property without compensation, or below cost or world prices*

**ENERGY:**  
Low royalties; data, R&D; transportation networks

**BEYOND:**  
TVA power and water improvements; highways

## CUSTOMS

*Quotas, tariffs, duties, embargoes, international market-access restrictions*

**ENERGY:**  
ban on imports of fuel; tariffs on solar cells

**BEYOND:**  
tariffs on import of ethanol, steel and aluminum

## RISKS

*Transfers of exposures to industry or public*

**ENERGY:**  
Price-Anderson Act; decommissioning expenses; Strategic Petroleum Reserve

**BEYOND:**  
deduction of legal settlements and judgments

## REGULATIONS

*Price controls, rate caps, domestic market-access, local content requirements*

**ENERGY:**  
prioritization of coal; renewable portfolio standards, feed-in tariffs; eminent domain powers

**BEYOND:**  
Opportunity zones; domestic manufacturing priorities; employment and relocation incentives

## EXTERNALITIES

*Incorporating, or possibly failing to incorporate, costs of pollution, health care or other impacts into the product price*

**ENERGY:**  
Particulate, healthcare costs; CO<sub>2</sub> and CH<sub>4</sub> emission impacts; traffic, congestion, accidents

**BEYOND:**  
same impacts for autos, power and cement plants, sprawl; national security deployments and foreign aid in Middle East



“Here’s to plain speaking and clear understanding.” –*The Maltese Falcon* (1941)

# Orwell gets the last words

“If thought corrupts language, language can corrupt thought.”

“Political language—and with variations this is true of all political parties, from Conservatives to Anarchists—is designed to make lies sound truthful and murder respectable, and to give an appearance of solidity to pure wind.”

“[Use] language as an instrument for expressing and not for concealing or preventing thought.”

—George Orwell, *Politics and the English Language*”

Robert A. James

Pillsbury Winthrop Shaw Pittman LLP

+1.415.983.7215

[rob.james@pillsburylaw.com](mailto:rob.james@pillsburylaw.com)

WeChat *diogenes510*