



The Upside of a Balance of Trade Deficit

[Update December 3: sometime this week I expect to add to this article including international income accounting details.]

Taiwan's Foxconn announced they will build a \$10 billion factory in Wisconsin. Eventually the plant will employ 10,000 workers. Part of the reason Foxconn can make this investment is the U.S. balance of trade deficit with Taiwan. That deficit creates a net financial inflow into the U.S. Some of that inflow will be the Foxconn plant. In the financial account this is recorded as "foreign direct investment" (FDI).

The current account balance plus the capital account balance must equal the financial account balance. This is the fundamental international economic accounting identity. Luckily for us, the capital account balance is usually pretty small. That lets us focus on the current account and the financial account. And the result is straightforward, if not widely understood: a current account deficit must be matched by a financial account surplus. The U.S. runs a current account deficit vis-à-vis Taiwan. Therefore, we must run a financial account surplus vis-à-vis Taiwan.

The implications are staggering, but we need to understand some details first. So go get another cup of coffee – studying accounting always puts me to sleep. And remember, this is accounting. All the relationships described here are identities and definitions. In what follows the U.S. will be

the home country and Taiwan will be the foreign country. To avoid repeating the tedious phrase “goods and services” let’s just call them “products.”

Balancing Act

Each account has a balance. For example, most of the current account balance is the balance of trade, equal to exports minus imports. Exports are products produced in the U.S. and sold in Taiwan. An export creates a flow of a product from the U.S. to Taiwan AND a flow of spending from Taiwan to the U.S. Similarly, imports are products produced in Taiwan and sold in the U.S. An import creates a flow of a product from Taiwan to the U.S. AND a flow of spending from the U.S. to Taiwan.

But what about the financial account? For accounting purposes, what matters is the flow of spending. An export creates a flow of spending from Taiwan to the U.S. The financial account equivalent is the purchase of a U.S. asset by a Taiwanese entity. Thus, when Sony bought Columbia Pictures Entertainment in 1989 that created a financial inflow (debit entry) for the U.S. Putting it bluntly, a country finances its trade deficit by selling assets to foreign countries. (As an aside, some economists argue that the U.S. has a comparative advantage at creating assets. If they’re correct, running a balance of trade deficit is actually a good strategy.)

For example, suppose you are vacationing in Belize. You drop into a bar on Secret Beach and buy a beer for \$2.50. Like many small tourist destinations, Belize accepts U.S. dollars as well as their currency, the Belize dollar. Because you are not a resident of Belize, your purchase counts as an import to the U.S. An increase in imports increases both the balance of trade deficit and the current account deficit. Offsetting this transaction is the \$2.50 the bar now has – an asset for the Belize financial account and a liability for the U.S. financial account.

Current, Capital, and Financial Account Balances

A current account deficit must be matched by a (roughly) equal net sale of home assets to the foreign country. Those can be real estate, U.S. government securities, and many other physical and financial assets. The proposed Foxconn project is FDI. The numerous vehicle assembly lines built by BMW, VW, Toyota, Honda, and others are also FDI. And FDI creates jobs in America. (“Investment” as used by economists means physical capital. Foxconn building a new factory in the U.S. is investment. Foxconn buying \$100 million in U.S. government securities is not investment, but is still recorded as a financial account transaction.)

At least since 2003 the U.S. has run consistent balance of trade deficits vis-à-vis Taiwan. These have ranged from \$5.4 billion to \$15.2 billion. (The mean over that period was \$10.4 billion.)

In 2016 the current account deficit was \$21.2 billion. That means Taiwan residents – businesses, individuals, government agencies – bought roughly \$21.2 billion in U.S. assets. About \$0.3 billion of that was FDI. (The current account balance is the balance of trade plus net income receipts. In 2016 net income receipts were -\$12.4 billion.)

The Statistical Discrepancy

Measuring these variables is difficult. It’s even harder because of smuggling and other illegal activities. For example, suppose someone arrives at a U.S. airport with checked luggage containing \$100,000 in hundred dollar bills. That will probably not be measured in the balance of payments accounts.

That’s why there is always a statistical discrepancy, the difference between the current account balance and the

financial account balance. This item has many names, some of which are not suitable for printing here. “A measure of our ignorance” is pretty good, however. The books have to balance. The statistical discrepancy takes care of that.

	A	B	C
1	Table 1.2. U.S. International Transactions, Expanded Detail		
2	[Millions of dollars]		
3	Bureau of Economic Analysis		
4	Release Date: September 19, 2017 - Next Release Date: December 19, 2017		
5			
6	Line		2016
7	Current account		
8	1	Exports of goods and services and income receipts (credits)	\$3,157,241
9	2	Exports of goods and services	\$2,208,072
10	23	Primary income receipts	\$813,977
11		Secondary income (current transfer) receipts /2/	\$135,192
12	31	Imports of goods and services and income payments (debits)	\$3,608,926
13	32	Imports of goods and services	\$2,712,866
14	52	Primary income payments	\$640,751
15	58	Secondary income (current transfer) payments /2/	\$255,309
16	Capital account		
17	59	Capital transfer receipts and other credits	\$0
18	60	Capital transfer payments and other debits	\$59
19	Financial account		
20	61	Net U.S. acquisition of financial assets excluding financial derivatives (net increase in assets / financial outflow (+))	\$347,891
21	62	Direct investment assets	\$311,581
22	65	Portfolio investment assets	\$40,638
23	70	Other investment assets	-\$6,418
24	75	Reserve assets	\$2,090
25	84	Net U.S. incurrence of liabilities excluding financial derivatives (net increase in liabilities / financial inflow (+))	\$741,394
26	85	Direct investment liabilities	\$479,415
27	88	Portfolio investment liabilities	\$237,367
28	93	Other investment liabilities	\$24,612
29	99	Financial derivatives other than reserves, net transactions /3/	\$15,817
30	Statistical discrepancy		
31	100	Statistical discrepancy /4/	\$74,059
32	Balances		
33	101	Balance on current account (line 1 less line 31) /5/	-\$451,685
34	102	Balance on goods and services (line 2 less line 32)	-\$504,794
35	105	Balance on primary income (line 23 less line 52)	\$173,226
36	106	Balance on secondary income (line 30 less line 58)	-\$120,117
37	107	Balance on capital account (line 59 less line 60) /5/	-\$59
38	108	Net lending (+) or net borrowing (-) from current- and capital-account transactions (line 101 plus line 107) /6/	-\$451,744
39	109	Net lending (+) or net borrowing (-) from financial-account transactions (line 61 less line 84 plus line 99) /6/	-\$377,686

US international accounts 2016 (click for larger image)

U.S. Bureau of Economic Analysis, “[Table 1.2 U.S. International Transactions, Expanded Detail](#),” (accessed October 25, 2017).

Business Fixed Investment

The same economists who know the relationship between the current account and the financial account will also tell you that attributing any single FDI event to the current account balance is, well, foolish. But consider the counterfactual.

If U.S. trade with Taiwan had been balanced (current account balance equals zero), there would not have been excess dollars in Taiwan that needed to be used to buy something. Without the trade deficit, it's unlikely that Foxconn would invest in Wisconsin.

A country's business fixed investment involves putting up buildings and stocking them with all sorts of office and factory equipment. This investment is financed by a country's savings. Financial intermediaries channel those savings to investments through many channels: loans, mutual funds, direct stock purchases, bonds, and so on. The three sources of savings are personal, government, and foreign. (A government budget surplus adds to savings, while a deficit subtracts.)

We know U.S. residents don't save very much. And the last government budget surplus was in 2000. Since 1971 the U.S. has run an international current account deficit for all but seven years. But that means we have experienced a net international financial account inflow. This has kept U.S. business fixed investment growing. Since 1991 U.S. net investment has grown by 2.2 percent per year. For better or worse, the net financial inflow has also partly financed the government budget deficit.

Business fixed investment is important. It creates new buildings (residential and nonresidential construction), puts office equipment and machines into the nonresidential buildings (equipment acquisition) and creates intellectual property (yes, IP is included in the national income accounts as part of investment spending). All of this is business fixed investment. New buildings and equipment improve productivity, leading to higher wages. New equipment is often technologically superior to items it is replacing, This also increases productivity. Eighty years ago John Maynard Keynes developed the idea of the investment multiplier: a dollar spent on business fixed investment actually increases total GDP by more than one dollar.

If we balanced the current account, we would also balance the international financial account. And U.S. business fixed investment would grow at an even slower rate than has been the case in recent years. Is that really what we want?

An Economic Model of Teaching Effectiveness

An Economic Model of Teaching Effectiveness

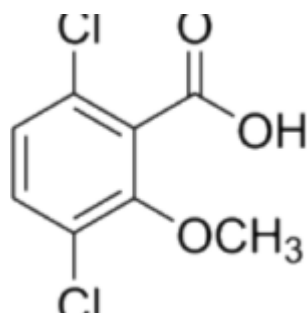
Author(s): Anthony K. Lima

Source: The American Economic Review, Vol. 71, No. 5 (Dec., 1981), pp. 1056-1059

Published by: American Economic Association

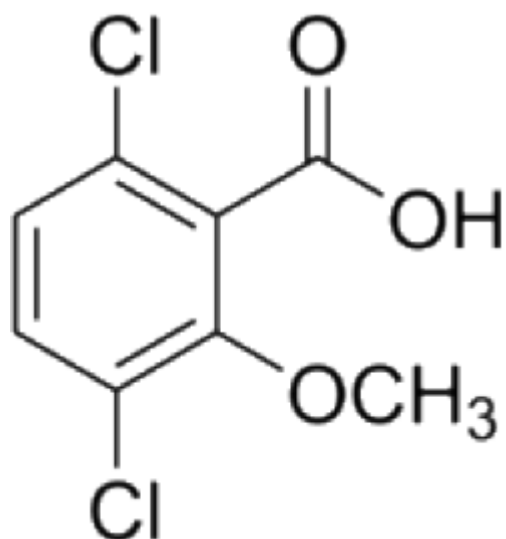
Stable URL: <http://www.jstor.org/stable/1803490>

[An Economic Model of Teaching Effectiveness](#)



Dicamba is a Word You Should

Learn



Dicamba molecule

This is biological blackmail. Use our seeds or your crop will die.

Dicamba combined with Monsanto's Xtend seed line is a relatively low-cost way of controlling weeds in soybean and cotton fields. But if your farm is next door and you don't plant Monsanto seeds, you better be upwind from the neighbor. Otherwise, dicamba will blow onto your field, severely damaging your crops. Read on for one of the best examples of a **negative externality** I've ever heard. (There is a [good article in the St. Louis Post-Dispatch](#) that is the source for much of this article.)

The Economics

Dicamba creates a negative externality. Neighboring farms that do not plant Monsanto seeds may suffer crop damage. In principle (see the Coase Theorem) the farmers should be able to negotiate with dicamba producers for compensation. In practice, we know Coase's solution does not work when there are many entities experiencing damage. Reported damage is

currently 242 farms in Arkansas alone. The farmers should get together and hire a good lawyer.

But this is even worse. The solution to averting damage is to buy and plant Monsanto seeds! This is biological blackmail. Use our seeds or your crop will die. Luckily, this also gives us a measure of damage cost: the difference between using the dicamba-Monsanto system and a competing system (LibertyLink) made by Bayer.

What Is Dicamba? How Does It Work?

Dicamba is an **herbicide** used to control weeds in crop fields. The problem is that **dicamba also kills crops**. However, [Monsanto's Xtend crop line](#) is resistant to this chemical. Thus, plant your soybeans or cotton using Monsanto's seeds, treat the fields with dicamba, and your weed control problems are solved.

But the farm next door may not be so happy. Dicamba is both volatile and drift-prone. In non-agricultural English that means it can **evaporate and redeposit on neighboring farms**. And it can also be **blown onto those fields by wind**.

This has caused a lot of damage. **Most of the reported damage is in Arkansas and Missouri**. According to the [St. Louis Post-Dispatch](#), there have been **242 cases of dicamba misuse in Arkansas alone**.

Who Is the Competition?

Bayer produces and markets the [LibertyLink](#) system. Using a combination of genetically-modified seeds and a different herbicide (**Liberty 280 SL**), the system also controls weeds while allowing crops to grow. The problem is that **the Bayer seeds are not resistant to dicamba**. From the [Post-Dispatch article](#):

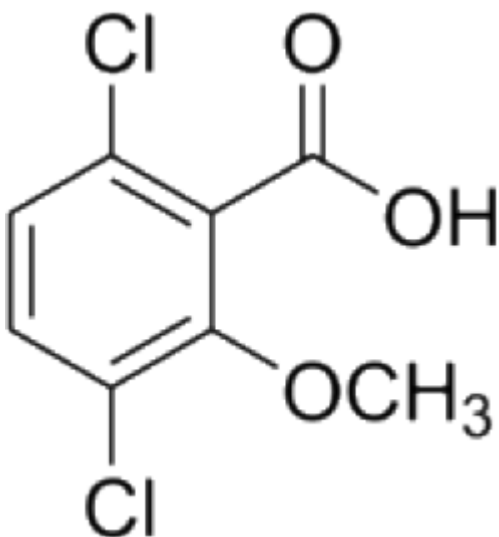
Tom Burnham, an Arkansas grower whose farmland stretches

across Mississippi County and into Missouri's Dunklin and Pemiscot counties, estimates that all of his 7,500 acres of LibertyLink soybeans have symptoms of dicamba damage. He calls off-target movement of dicamba the most serious issue he has confronted in more than three decades of farming, and thinks the problem has arisen despite correct application methods by other growers nearby.

Bayer says Liberty 280 SL is not toxic. But don't take my word for it. [Here's the official safety sheet.](#)

The Chemistry

Here's what the molecule looks like ([from Wikipedia](#)):



Dicamba molecule

Verbal description, also [from Wikipedia](#):

***Dicamba** (3,6-dichloro-2-methoxybenzoic acid) is a broad-spectrum herbicide. Brand names for formulations of this herbicide include **Banvel**, **Diablo**, **Oracle** and **Vanquish**. This chemical compound is an organochloride and a derivative of benzoic acid.*

Giving equal time to Bayer, here are the active ingredients in

Liberty 280 SL.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Glufosinate ammonium	77182-82-2	24.5
Alkylethersulfate, sodium salt	68891-38-3	22.1
1-Methoxy-2-propanol	107-98-2	1.0
Alkyl polysaccharide	68515-73-1	6.2

Liberty 280 SL formulation (click for larger image)

David Ricardo and Comparative Advantage



Portrait of David Ricardo by Thomas Phillips, circa 1821. This painting shows Ricardo, aged 49, just two years before his death.

[Update Nov. 23. Several folks pointed out that 2017-1817=200 not 300. Corrected below. Old age is not for sissies.]

Ricardo's seminal work was his theory of comparative advantage. His paper "On the Principles of Political Economy

and Taxation” was published in 1817. That means next year will be the 200th anniversary of this historic piece.

I will not discuss the theory here. Instead, my purpose is to urge my fellow economists to engage in two activities. First, **celebrate this important anniversary**. Second, **redouble your efforts to educate the public on the merits of free trade**. Current public opinion and political winds seem to indicate a serious lack of information on this subject.

Learning Economics With Video

For future reference, this is also a page under the Learning tab.

I’ve recently finished two lengthy projects for Pearson Higher Educational Publishing. Textbook links are to Amazon.com. The textbooks are

- [Jeffrey Perloff and James Brander, “Managerial Economics and Strategy” \(2e, ISBN 978-0134168401\).](#)
- [Jeffrey Perloff, *Microeconomics: Theory and Applications with Calculus* \(4e, ISBN 978-0134167381\)](#)

Each project was about 60 “voiceovers.” These are detailed explanations of graphs in the textbook accompanied by video showing each step in the process. Naturally, I think they are terrific. Here’s a sample developing the Edgeworth box. I’m especially proud of the video fx I managed here:

Pearson owns the copyrights to these works. They have given me permission to post three of them as long as I use password protection. I have posted each on Vimeo. For the link and

password, please e-mail me. Warning: these are view-only and cannot be downloaded. Also the password will change every two months.

International Trade, Tariffs and Quotas

Exchange and Trade, Edgeworth Box Analysis, the Contract Curve

Prospect Theory (Behavioral Economics)

Venezuela News



Venezuela Truck With Sign (click for larger image)

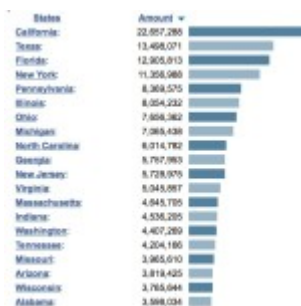
Apparently many trucks in Venezuela are now sporting signs like this one. Rough translation: no food on board. The reason, of course, is massive food shortages caused by the government's equally massive price controls. Food truck hijackings have become common.

Ain't socialism great?

How Much a Human Life is Worth

This question came up while [I was reading Mr. Roadshow's column today](#). More on him in a minute. For now I want to use some data he wrote about today to calculate how much a human life is worth. The issue is California's specially formulated gasoline that reduces air pollution. Let's do some cost-benefit analysis.

The Basics



Licensed Drivers by State (click for larger image)

According to [the StateMaster website](#) there are 22,657,288 licensed drivers in California. Mr. Roadshow cites a University of Michigan study showing California's ultra-clean gasoline saves 660 lives per year. In exchange, each driver pays a higher price for gas. How much higher?

“And the cost? A study in March by Severin Borenstein, a professor of business at UC Berkeley, concluded that reformulated gasoline costs the average California motorist \$37 to \$51 a year, since not all of the difference between the U.S. average price and California's gas prices is attributed to the cleaner-burning fuel.”

Prof. Borenstein is a respected expert in this field, so let's use his numbers. Multiplying his cost per year estimates (high and low) by the number of licensed drivers gives a total annual cost between \$838,319,656 and \$1,155,521,688 per year. Dividing each number by lives saved per year (660) gives the implied value of a human life: between \$1,270,181.30 and \$1,750,790.44.

Licensed Drivers	Lives Saved per Year	Cost per driver per year	Total Cost per Year	Cost per Life Saved
22,657,288	660	\$37	\$838,319,656	\$1,270,181.30
		\$51	\$1,155,521,688	\$1,750,790.44

Cost per Life Saved

Is this too much? Too little? That's a policy question. I will say that the generally accepted figure is around \$5,000,000.^[1] My best guesstimate is that benefits exceed costs. But I have to add that I'd like more information on that claim of 660 lives saved per year.

A Counterfactual

Let's do a counterfactual. How many lives per year would need to be saved to raise the cost to \$5 million? That's easy.

The number of lives needing to be saved per year is simply the total cost per year divided by the cost per life saved – in this case, \$5 million. The number of lives that need to be saved for costs to equal benefits is between 167.66 and 231.10. California's population is 38.8 million. My guess is that saving around 200 lives per year with cleaner gas is very likely.

Licensed Drivers	Lives Saved per Year	Cost per driver per year	Total Cost per Year	Cost per Life Saved
22,657,288	167.66	\$37	\$838,319,656	\$5,000,000.00
	231.10	\$51	\$1,155,521,688	\$5,000,000.00

Required Lives Saved

Mr. Roadshow



Gary Richards

Mr. Roadshow is the *nom de plume* of Gary Richards in the San Jose Mercury-News. In his column, he answers questions about cars, road conditions, and all things automotive. And he does this in six issues a week.

As always my methods are transparent. [Click here](#) to download the Excel workbook.

[1] Tom Tietenberg and Lynne Lewis, *Environmental and Natural Resource Economics* (9th edition, 2012). ISBN 978-0-13-139257-1. Addison-Wesley. Chapter 4 includes a long discussion of this topic.

Quote of the Day Krugman Edition

[Bret Stephens in the June 16, 2015 Wall Street Journal gets credit for our quote of the day Krugman edition:](#)

What an extraordinary comeback for such a parochial political impulse. "Why do policy wonks who will happily watch hundreds of hours of talking heads droning on about the global economy

refuse to sit still for the ten minutes or so it takes to explain [David] Ricardo?" [So asked one famous economist in the mid-1990s](#), making fun of intellectuals who couldn't grasp the great English economist's concept of comparative advantage "with its implication that trade between two nations normally raises the real incomes of both."

To this economist, Ricardo's ideas were as self-evident as Darwin 's—beyond dispute except to quacks or creationists. The economist was Paul Krugman.

U.S. Government Debt Revisited

Today's article is prompted by another idiotic statement from the White House coupled with a few very stupid responses on Twitter. I'm encouraged, however, by the number of intelligent, correct replies. Today I'll discuss the U.S. government debt and deficit revisited.

You can save some time by [reading this first](#). The article discusses the basic accounting relationships between a deficit, the debt, and the quantity of money in circulation. This stuff is not difficult. The fact that so few people do not understand it is a testimonial to the sad state of economic and financial literacy in the U.S. And, as always, my data is transparent. [Click here](#) to download my Excel workbook.

The Tweets and Responses

I noticed this little controversy in [the summary at Twitchy.com](#). It begins with a tweet from the White House:



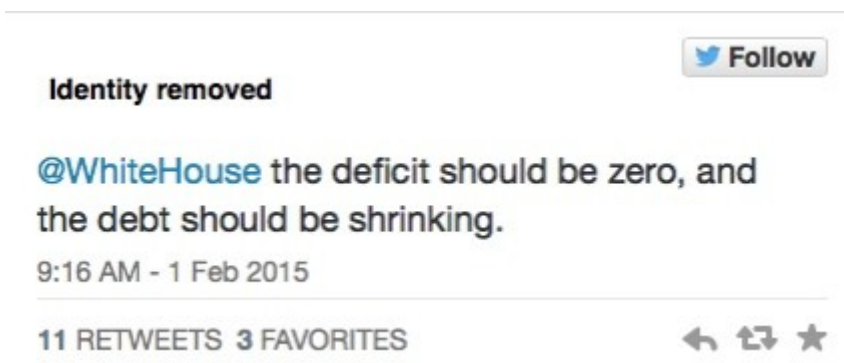
White House Tweet

Twitchy summarized the readers' comments starting with this one (which is 100 percent correct):



First Tweet Response

But if you read to the end you'll find this (which asks for the impossible):



Second Tweet Wrong

A Review for Those Who Did Not Click the Link

Now I know many of you will not click the previous link. (If you did, [click here](#).) So here's an ultra-short summary. Although I've described this using the government as an example, the relationship between debt and a budget applies to individuals, businesses, and every other entity.

The government deficit is the difference between government spending and government revenue. Deficits are financed by issuing bonds. Those bonds make up the government debt. The relationship is simple. When the government runs a deficit it issues enough bonds to cover the difference between spending and revenue. Those newly-issued bonds add to the national debt. When (if?) the government runs a surplus, revenue exceeds spending. The "excess" revenue is used to buy back some of the outstanding debt. Thus we have the fundamental relationship between debt and the budget.

$$D_t = D_{t-1} - B_t$$

where D_t is the debt at the end of year t , D_{t-1} is the debt at the beginning of the year, and B_t is the government budget during the year. If the government runs a surplus, B_t is positive and the debt falls. If the government runs a deficit, B_t is negative and the debt rises.

For example, if the government debt at the beginning of the year is \$17 trillion and the government runs a deficit of \$1 trillion during the year, the debt at the end of the year will be \$18 trillion.

Note that none of this affects the money supply. The government borrows because it needs money to spend. The money that buyers pay for the bonds is almost immediately spent by

the government, leaving the quantity of money in circulation unchanged.

In developed economies there is a central bank that determines the money supply. In the U.S. the central bank is the Federal Reserve system ("the Fed"). In many European countries the central bank is the European Central Bank (ECB). The central bank attempts to control the money supply by purchasing or selling government securities. When the central bank buys securities, it pays for them with newly-created money.^[1] If the central bank decides to reduce the money supply it sells securities. Bingo, there is less money in the hands of the public.

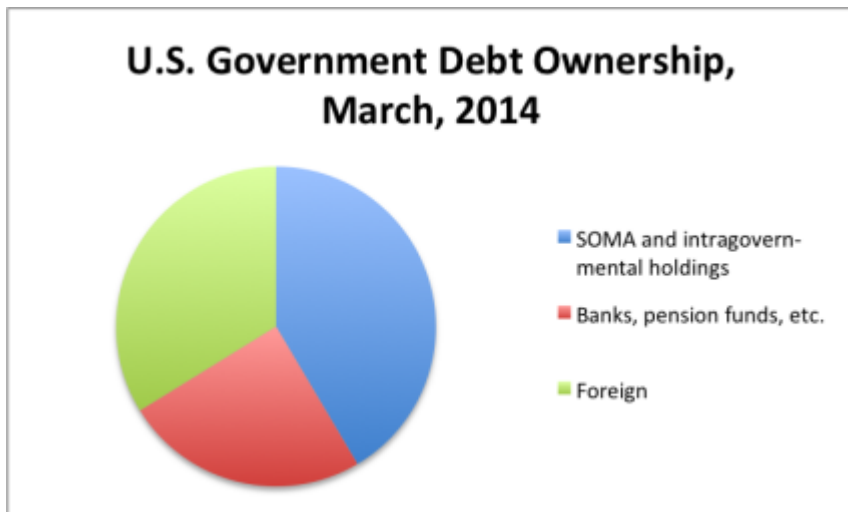
Where does the newly-created money come from? The central bank creates it. Central banks can decide to create or destroy money based entirely on the decisions of people assigned to make those decisions. They do not worry about gold, silver, yak butter, sharks' teeth, or the infamous stone money of Yap. They only worry about the current and future state of the economy.

Now You're Ready for Current Data

It happens that another project led me to update the data from my 2010 article. The data is from the U.S. Department of the Treasury, Office of Debt Management, Office of the Under Secretary for Domestic Finance Table OFS-2 as of March, 2014.

Entity Owning Debt	March, 2014 %
Total public debt	100.00%
SOMA and intragovernmental holdings	41.49%
Total privately held	58.52%
Depository institutions	2.09%
U.S. savings bonds	1.01%
Private pension funds	2.84%
State and local government pension funds	1.17%
Insurance companies	1.51%
Mutual funds	6.39%
State and local governments	3.37%
Foreign and international	33.80%
Other investors	6.33%

If you're more comfortable with a chart, here it is:

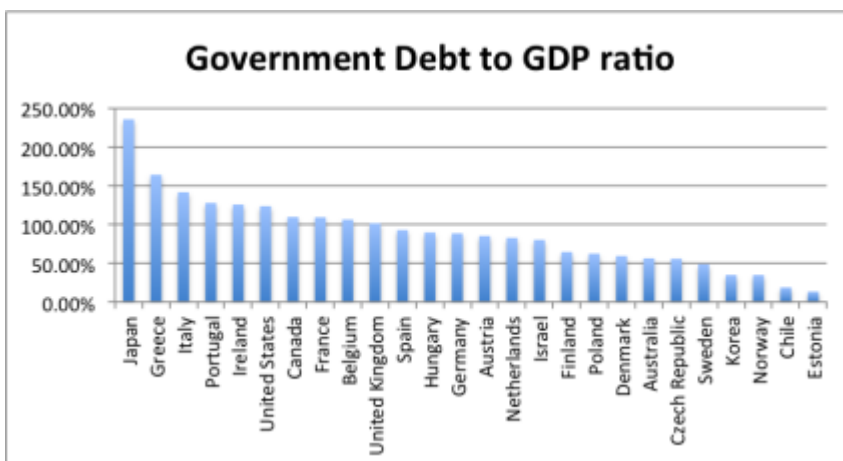


Compare the above with data from my 2010 article:

Owner (Data is as of July 24, 2010).	Percent of government debt held
Federal Reserve and inter-governmental holdings	43.11%
Depository institutions	1.43%
U.S. Savings Bonds	1.65%
Private pension funds	2.74%
State and local government pension funds	1.48%
Insurance companies	1.85%
Mutual funds	5.82%
State and local government (not pension funds)	4.42%
Foreign and international	29.83%
Other	7.67%

Foreign ownership is large and growing.

“But,” some people say, “our GDP is very large. What about the debt-to-GDP ratio?”



(click image for a larger version)

We don't need to worry about the U.S. government debt because it's mostly owed to U.S. residents.

When I first studied economics several decades back, textbooks commonly made this statement →

That simply meant that **very little debt was owned by foreign entities**. As the tables above clearly show, **that is no longer true. About one-third of U.S. debt is owned by foreigners.**

Conclusion

Honestly, **this material is not difficult and the data is readily available. I always have trouble understanding why people don't simply look at the facts instead of trusting the media. Nearly everyone in the media, including most of those who report on economics, are illiterate about even the most basic economic concepts. Remember, their college degrees are in journalism or communications. Somewhere along the way an editor decided they knew some economics. They don't.**

[1] Please don't give me a hard time about this simplification. I know the purchase actually creates bank reserves. I even understand why the money supply mechanism in the U.S. is broken today.

Monopoly Pricing in a

Government Agency

I've been looking into **detailed election results, specifically our local school district**. There are **31 precincts**. To save some time I thought I'd **get the GIS maps**. Imagine my surprise when I found out they would cost **\$86 per precinct!**

I'm not going to spend that much on maps just to satisfy my curiosity. But I wondered if this came close to the monopoly profit-maximizing price. Have I found monopoly pricing in a government agency?

Review of Econ 1

Before proceeding, let's quickly review some econ 1. **Any profit-maximizing entity will produce the output quantity that makes marginal revenue equal marginal cost ($MR = MC$)**. Those entities with market power will set price (p) above both **MR and MC** . An obvious measure of market power is some measure of price relative to marginal cost. Economists call this measure the **Lerner Index ($LI = [(p - MC)/p]$)**. A second useful measure is the **price elasticity of demand (ϵ)**. Because demand curves always slope downward **price elasticity of demand is always negative**. Monopolies must always choose a price and quantity on the elastic part of a demand curve (because MC can never be negative^[1]).

Assumptions and Results

I made two assumptions:

1. The agency is maximizing profits so $MR = MC$.
2. Marginal cost is \$5.

(If you don't like assumption 2, feel free to play with the Excel workbook which you can download by [clicking here](#). If you don't like assumption 1, you'll have to do the research

yourself.)

So here's the math.

$$\varepsilon = \frac{\partial Q}{\partial p} \frac{p}{Q}$$

$$MR = p \left[1 + \left(\frac{1}{\varepsilon} \right) \right]$$

$$\varepsilon = \frac{1}{\left[\left(\frac{MR}{p} \right) - 1 \right]}$$

$$MC = MR$$

$$\varepsilon = \frac{1}{\left[\left(\frac{MC}{p} \right) - 1 \right]}$$

$$\varepsilon = \frac{1}{\left[\left(\frac{\$5}{\$86} \right) - 1 \right]}$$

$$\varepsilon = -1.0617$$

$$LI = \frac{(p - MC)}{p} = 0.9419$$

We see first that **demand is just barely elastic**, putting the **price close to the revenue-maximizing price** (where demand is unit elastic). And **the closer the Lerner Index is to 1.0 the more market power the firm has**. I would hazard a guess that **this agency is close to monopoly pricing**.

[\[1\]](#) Elasticity is -1.0 (unit elastic) exactly halfway up a linear demand curve. At that point p will be half the choke price (the price at which no output will be sold, the vertical intercept of the demand curve). And Q will equal half the maximum quantity (the quantity demanded if the price is zero, half the horizontal intercept).