On the Origin of the Laffer Curve
O původu Lafferovy křivky

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Abstract
In 1974 Arthur Laffer sketched his famous curve on a restaurant napkin. Jude Wanniski gave the curve Laffer's name and popularized it in 1978. Nowadays the Laffer curve is part of most economics textbooks and essential argument in tax debates. In this paper we present less known citations on the relation between the tax rate and the tax revenue of Milton Friedman, John Maynard Keynes, and Adam Smith who uttered the idea lying behind the Laffer curve long time before Arthur Laffer.

Keywords
Laffer curve, taxation, history of economic thought

JEL Codes
B0, H20

Abstrakt
V roce 1974 načrtl Arthur Laffer svou slavnou křivku na ubrousku restaurace. Jude Wanniski jí dal jméno Lafferova křivka a popularizoval ji v roce 1978. V současnosti je Lafferova křivka součástí většiny ekonomických učebnic a základním argumentem v daňových debatách. V článku uvádíme méně známé citace Miltona Friedmana, Johna Maynarda Keynese a Adama Smithe o vztahu mezi daňovou sazbou a daňovými příjmy, které obsahují myšlenku Lafferovy křivky dlouho před Arthurem Lafferem.

Klíčová slova
Lafferova křivka, zdanění, historie ekonomického myšlení

Professor Arthur Laffer is a living legend. He gave name to one of the best-known curves in economics, and had done so not by writing a scientific article but by sketching a simple graph on a napkin at a restaurant dinner. The curve shows a concave relation between the tax rate and the tax revenues, which is now present in most economics textbooks.

In this article we present the historical background of the genesis of the Laffer Curve and we remind thoughts of great economists – Milton Friedman, John Maynadrd Keynes, and Adam Smith – who uttered the very idea lying behind the Laffer curve long time before Arthur Laffer.

1 Introduction

In 1974 the professor of economics at the University of Chicago Arthur B. Laffer sketched a curve describing a relationship between the tax rate and the tax revenue on a napkin at a dinner in the Two Continents restaurant in Washington, D.C. The dinner was attended by the host Dick Cheney from President Gerald Ford administration, the economist Arthur Laffer, Ms. Grace-Marie Arnett (now Turner), a press secretary, and Jude Wanniski, the journalist at the Wall Street Journal. (Wanniski, 2005)

Four years after this diner Jude Wanniski coined the term "Laffer Curve" as he presented the napkin graph under the title "Laffer Curve" in an essay in 1978 where he also described the story with the dinner. (Wanniski, 1978)

Laffer later admitted: "I *supposedly grabbed my napkin and a pen and sketched a curve on the napkin illustrating the trade-off between tax rates and tax revenues. Wanniski named the trade-off "The Laffer Curve." I personally do not remember the details of that evening, but Wanniski's version could well be true*." (Laffer, 2014)

2 What napkin

The curve became part of the American history because not only it contributed to the economic science, but it also prompted a radical change in the American politics as it provided a strong argument in favour of low taxes. It started the "supply side revolution" and helped Ronald Reagan win the presidential election and consequently defeat the Soviet Union in the Cold War.

After Wanniski's death in 2005 his wife donated a napkin with Laffer's notes to The National Museum of American History.

Fig. 1: A napkin with Arthur Laffer's sketch

Source: http://americanhistory.si.edu/collections/search/object/nmah_1439217

The museum napkin bears this description:
In 1974 economist Art Laffer sketched a new direction for the Republican Party on this napkin. Displeased with President Gerald Ford's decision to raise taxes to control inflation, four men got together at a Washington, DC restaurant to think about alternatives. Laffer was joined by journalist Jude Wanniski and politicians Dick Cheney and Don Rumsfeld. Laffer argued that lowering taxes would increase economic activity. Wanniski popularized the theory, and politicians Don Rumsfeld and Dick Cheney carried it out.
The cloth napkin was taken as a souvenir by Jude Wanniski. The napkin reads "If you tax a product less results/If you subsidize a product more results./We've been taxing work, output and income and subsidizing non-work, leisure and un-/employment./The consequences are obvious! with an image of the laffer curve in the middle. The bottom of the napkin reads To Don Rumsfeld/at our Two Continents/Rendezvous/ 9/13/74/Art B. Laffer."

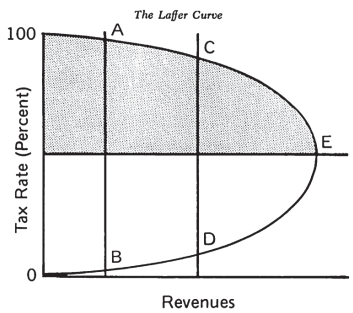
In October 2017 the editor of the New York Times newspaper Binyamin Appelbaum wrote an article questioning the authenticity of the napkin and his description. According to Laffer himself that napkin "*was made few years later at the request of Wanniski who wanted a keepsake of the famous moment*." (Appelbaum, 2017) The original napkin was a paper one, not a cloth, according to Ms. Turner, another participant at the dinner. Furthermore, according to Wanniski the dinner took place 4th December and not 13th of September and Donald Rumsfeld was not present because he was suddenly called to President Ford. (Wanniski, 2005)

Whatever was the original napkin, the curve was given a name and popularised four years after the dinner took place by Jude Wanniski in his article "Taxes, revenues, and the Laffer curve" (Wanniski, 1978)

3 Basics of the Laffer curve

Wanniski quotes Laffer, "*There are always two tax rates that yield the same revenues*," an expression which clearly defines the curve and its parabolic shape.
In his book he also presented the famous graph:

Fig. 2: Laffer curve as presented by Wanniski in 1978



Source: Wanniski, 1978a, p. 4
(Note that contrary to Fig. 2 it is common nowadays to put the tax rate on the horizontal axis and the revenues on the vertical axis.)

After this publication many versions of the definition of the Laffer curve have sprung up in economics articles and textbooks.
A comprehensive presentation of the Laffer curve by the author himself came only 40 years after the famous dinner:
"The basic idea behind the relationship between tax rates and tax revenues is that changes in tax rates have two effects on revenues: the arithmetic effect and the economic effect. The arithmetic effect is simply that if tax rates are lowered, tax revenues (per dollar of tax base) will be lowered by the amount of the decrease in the rate. The reverse is true for an increase in tax rates. The economic effect, however, recognizes the positive impact that lower tax rates have on work, output, and employment – and thereby the tax base – by providing incentives to increase these activities. Raising tax rates has the opposite economic effect by penalizing participation in the taxed activities. The arithmetic effect always works in the opposite direction from the economic effect. Therefore, when the economic and the arithmetic effects of tax-rate changes are combined, the consequences of the change in tax rates on total tax revenues are no longer quite so obvious." (Laffer, 2014)

4 Laffer curve before Laffer

Wanniski remarks that "*all [Lafer] did was depict the law of diminishing returns as it applied to tax policy, but it caused a sensation once I named it after [him] and publicized it in my 1978 book*." (Wanniski, 2005)
Laffer himself admits that various economists before him have come with the idea. (Laffer, 2004) He cites two thinkers – Ibn Khaldun, a 14th Century Persian philosopher, and J. M. Keynes.
Ibn Khaldun's citation presented by Laffer is the following one: "It should be known that at the beginning of the dynasty, taxation yields a large revenue from small assessments. At the end of the dynasty, taxation yields a small revenue from large assessments." (Laffer, 2014)
And John Maynard Keynes wrote it, according to Laffer, with "incredible clarity": *"Nor should the argument seem strange that taxation may be so high as to defeat its object, and that, given sufficient time to gather the fruits, a reduction of taxation will run a better chance than an increase of balancing the budget. For to take the opposite view today is to resemble a manufacturer who, running at a loss, decides to raise his price, and when his declining sales increase the loss, wrapping himself in the rectitude of plain arithmetic, decides that prudence requires him to raise the price still more – and who, when at last his account is balanced with nought on both sides, is still found righteously declaring that it would have been the act of a gambler to reduce the price when you were already making a loss."* (Laffer, 2014, Keynes, 1933)

5 What about yet another Keynes, Friedman, and Smith?

There are however less known much clearer descriptions of the principle embodied in the Laffer curve stated by other famous authors who are mentioned neither by Laffer nor by others.

In 1953, twenty-one years before the famous napkin dinner Milton Friedman wrote:
"As for any other tax, there is some rate of tax that will give the maximum yield, depending on the conditions of demand and supply for the product taxed…[if]the supply is perfectly elastic…the maximum yield is at a point on the demand curve of unitary elasticity." (Friedman, 1953, p. 256–7)

Friedman wrote this in his *Discussion of the Inflationary Gap* arguing mainly about the "inflation tax", a tax imposed on money holders through inflation. His remark however deals with taxation in general. It is interesting that this remark has never been cited in connection with the Laffer curve, although the article itself is often cited in articles on monetary issues. It is also interesting that Friedman mentions the principle as if it was an absolutely obvious and well-known thing.

Laffer cites Keynes (Laffer, 2004) saying, that Keynes' remark was of "incredible clarity". Keynes' words were from 1933 and in fact they were not as clear as Keynes' words from as early as 1924, half a century before the dinner:
"Just as a toll can be levied on the use of roads or turnover tax on business transactions, so also on the use of money. The higher the toll and the tax, the less traffic on the roads, and the less business transacted, so also the less money carried. But some traffic is so indispensable, some business so profitable, some money-payments so convenient, that only a very high levy will stop completely all traffic, all business, all payments. A government has to remember, however, that even if a tax is not prohibitive it may be unprofitable, and that a medium, rather than an extreme, imposition will yield the greatest gain." (Keynes, 1924, p. 49)

But as usual, if we want to find a clear description of an economic principle, it is sufficient to open once again the Wealth of Nations by Adam Smith published in 1776, two centuries before the dinner took place:
"High taxes, sometimes by diminishing the consumption of the taxed commodities, and sometimes by encouraging smuggling, frequently afford a smaller revenue to government than what might be drawn from more moderate taxes. When the diminution of revenue is the effect of the diminution of consumption there can be but one remedy, and that is the lowering of the tax" (Smith, 1776, 1924).

6 Conclusion

We should not forget that before Laffer many economists had described the basic principle of taxation – the one that there are diminishing returns of taxation – including Milton Friedman, John Maynard Keynes and Adam Smith. Arthur Laffer and Jude Wanniski nevertheless made this principle famous and presented a graph of it – and for this they deserve credit.

When forty years after the famous sketch Arthur Laffer was asked about its legacy, he said: "*I think today everyone agrees with the premise that when you tax something you get less of it, and when you tax something less, you get more of it*." (Moore, 2014) This might not have happened if there was no napkin at a dinner.

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