The Paradox of Thrift

Intermediate Macroeconomics - UCLA - Econ 102

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Section 1

The Paradox of Thrift

Definition

- According to the paradox of thrift, efforts to save more might be self-defeating and in fact lead to less saving and investment.
- In neoclassical economics, saving can sometimes be "too high" (dynamic inefficiency); however by assumption more saving always translates into more investment.
- According to one version of Keynesian economics, this is not correct: investment does not depend much on the cost of capital.
- This could be due to the fact that the growth rate g is a lower bound for r (capitalists never want a lower return than that; if returns get lower, they just stop investing)

Keynes (1936) - Chapter 7

This phenomenon was explained by J.M. Keynes in Chapter 7 - "The Meaning of Saving and Investment Further Considered" of the *General Theory*:

> The reconciliation of the identity between saving and investment with the apparent 'free-will' of the individual to save what he chooses irrespective of what he or others may be investing, essentially depends on saving being, like spending, a two-sided affair. For although the amount of his own saving is unlikely to have any significant influence on his own income, the reactions of the amount of his consumption on the incomes of others makes it impossible for all individuals simultaneously to save any given sums. Every such attempt to save more by reducing consumption will so affect incomes that the attempt necessarily defeats itself. It is, of course, just as impossible for the community as a whole to save *less* than the amount of current investment, since the attempt to do so will necessarily raise incomes to a level at which the sums which individuals choose to save add up to a figure exactly equal to the amount of investment.

Keynes (1936) - Chapter 24

- Keynes restates the paradox of thrift in Chapter 24 "Concluding Notes on the Social Philosophy Towards which the General Theory Might Lead."
- In this chapter, Keynes argues that a higher saving rate (lower propensity to consume) need not increase capital accumulation. On the contrary, it might lower it:

> The existing confusion of the public mind on the matter is well illustrated by the very common belief that the death duties are responsible for a reduction in the capital wealth of the country. Assuming that the State applies the proceeds of these duties to its ordinary outgoings so that taxes on incomes and consumption are correspondingly reduced or avoided, it is, of course, true that a fiscal policy of heavy death duties has the effect of increasing the community's propensity to consume. But inasmuch as an increase in the habitual propensity to consume will in general (i.e. except in conditions of full employment) serve to increase at the same time the inducement to invest, the inference commonly drawn is the exact opposite of the truth.

Chapter 24: the vanishing importance of thrift

Thus our argument leads towards the conclusion that in contemporary conditions the growth of wealth, so far from being dependent on the abstinence of the rich, as is commonly supposed, is more likely to be impeded by it. One of the chief social justifications of great inequality of wealth is, therefore, removed. I am not saying that there are no other reasons, unaffected by our theory, capable of justifying some measure of inequality in some circumstances. But it does dispose of the most important of the reasons why hitherto we have thought it prudent to move carefully. This particularly affects our attitude towards death duties: for there are certain justifications for inequality of incomes which do not apply equally to inequality of inheritances.

Counterintuitive? Immoral?

- Idea that thrift is always virtuous is very deeply ingrained in our culture.
- It is a matter of philosophy, morals, and sometimes even religion. (e.g. the "protestant ethic")
- For example, in the Walt Disney movie Mary Poppins, Michael is being lectured by a banker that he should not be "feeding the birds" (=spend) but instead invest his tuppence "wisely in the bank" to "be part of railways through Africa; Dams across the Nile, fleets of ocean Greyhounds; Majestic, self-amortizing canals; Plantations of ripening tea" (save and invest).
- Interestingly, these capital investments are all abroad; we shall come back to this later.

Walt Disney movie Mary Poppins

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Paradox of thrift by Samuelson (1948)

Induced investment means that anything that increases national income is likely to be good for the capital goods industries; anything that hurts national income is likely to be bad for those industries. This throws a new spotlight on the age-old question of thrift versus consumption. It shows that an increased desire to consume—which is another way of looking at a decreased desire to save—is likely to boost business sales and increase investment. An increase in thriftiness, on the other hand, is likely to make a depression worse and reduce the amount of actual net capital formation in the community. *High consumption and high investment go hand in hand rather than being competing.*

Counterintuitive? Immoral? - Samuelson (1948)

This surprising result is sometimes called the "paradox of thrift." It is a paradox because in kindergarten we are all taught that thrift is *always* a good thing. Benjamin Franklin's "Poor Richard's Almanac" never tired of preaching the doctrine of saving. And now along comes a new generation of alleged financial experts who seem to be telling us that black is white and white is black, and that the old virtues may be modern sins.

Let us for the moment leave our cherished beliefs to the side, and try to disentangle the paradox in a dispassionate, scientific manner. Two considerations will help to clarify the whole matter.

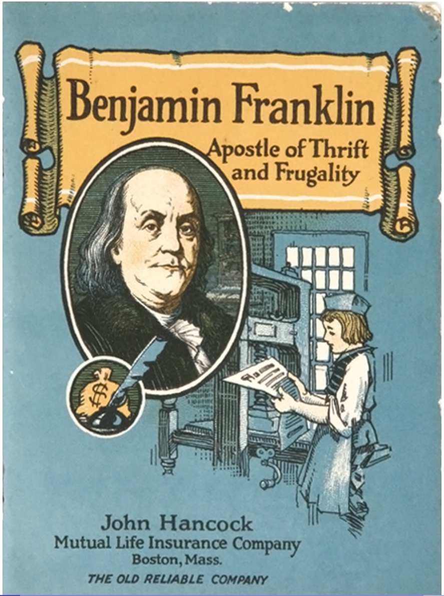
The first is this. In economics, we must always be on guard against the logical fallacy of composition. What is good for each person separately need not be good for all; under some circumstances, private prudence may be social folly. Specifically, this means that the *attempt* of each and every person to

Neoclassical VS Keynesian regimes

increase his saving may—under the conditions to be described—result in a reduction in *actual* saving by all the people in the community. Note the italicized words "attempt" and "actual"; between them there may be a world of difference if people find themselves thrown out of jobs and with lowered income payments.

The second clue to the paradox of thrift lies in the question of whether or not national income is at a depression level. If we were at full employment, then obviously the more of our national product that we devote to current consumption, the less is available for capital formation. If output could be assumed to be always at its maximum, then the old-fashioned doctrine of thrift would be absolutely correct—correct, be it noted, from both the individual and the social standpoints.

Benjamin Franklin



Section 2

Before J.M. Keynes

Very early

The paradox of thrift was known before J.M. Keynes, perhaps in the Book of Proverbs:

> *There is that scattereth, and yet increaseth; and there is that withholdeth more than is meet, but it tendeth to poverty. (Proverbs 11:24)*

More certainly, it was present as early as in Bernard Mandeville's *The Fable of the Bees: or, Private Vices, Public Benefits* (1714):

> *As this prudent economy, which some people call Saving, is in private families the most certain method to increase an estate, so some imagine that, whether a country be barren or fruitful, the same method if generally pursued (which they think practicable) will have the same effect upon a whole nation, and that, for example, the English might be much richer than they are, if they would be as frugal as some of their neighbours. This, I think, is an error.*

Bernard Mandeville's Fable of the Bees (1714)

WHEN People have small comings in, and are honest withal, it is then that the Generality of them begin to be frugal, and not before. Frugality in *Ethicks* is call'd that Virtue from the Principle of which Men abstain from Superfluities, and despising the operose Contrivances of Art to procure either Ease or Pleasure, content themselves with the natural Simplicity of things, and are carefully temperate in the Enjoyment of them without any Tincture of Covetousness. Frugality thus limited, is perhaps scarcer than many may imagine; but what is generally understood by it is a Quality more often to be met with, and consists in a *Medium* between Profuseness and Avarice, rather leaning to the latter. As this prudent Oeconomy, which some People call [198]*Saving*, is in private Families the most certain Method to increase an Estate, soa some imagine that whether a Country be barren or fruitful, the same Method, if generally pursued (which they think practicable) will have the same Effect upon a whole Nation,[1] and that, for Example, the *English* might be much richer than they are, if they would be as frugal as some of their Neighbours. This, I think, is an Error, which to prove I shall first refer the Reader to what has been said upon this head in Remark (*L.*) and then go on thus.

Bernard Mandeville's Fable of the Bees (1714)

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Malthus (1820) - Principles of Political Economy

To explain myself by an instance. Adam Smith has stated, that capitals are increased by parsimony, that every frugal man is a public benefactor,* and that the increase of wealth depends upon the balance of produce above consumption.† That these propositions are true to a great extent is perfectly unquestionable. No considerable and continued increase of wealth could possibly take place without that degree of frugality which occasions, annually, the conversion of some revenue into capital, and creates a balance of produce above consumption; but it is quite obvious

Malthus (1820) - Principles of Political Economy

that they are not true to an indefinite extent, and that the principle of saving, pushed to excess, would destroy the motive to production. If every person were satisfied with the simplest food, the poorest clothing, and the meanest houses, it is certain that no other sort of food, clothing, and lodging would be in existence; and as there would be no adequate motive to the proprietors of land to cultivate well, not only the wealth derived from conveniences and luxuries would be quite at an end, but if the same divisions of land continued, the production of food would be prematurely checked, and population would come to a stand long before the soil had been well cultivated.

Malthus (1820) - Principles of Political Economy

If consumption exceed production, the capital of the country must be diminished, and its wealth must be gradually destroyed from its want of power to produce; if production be in a great excess above consumption, the motive to accumulate and produce must cease from the want of an effectual demand in those who have the principal means of purchasing. The two extremes are obvious; and it follows that there must be some intermediate point, though the resources of political economy may not be able to ascertain it, where, taking into consideration both the power to produce and the will to consume, the encouragement to the increase of wealth is the greatest.

Crocker and Macvane (1887) - General overproduction

men. During the last twelve or fifteen years, business men have, almost without exception, complained that, so far at least as the particular business of each was concerned, there

has been an actual overproduction; and, unless a majority of these men have been mistaken as to the proportion of demand to production in their own specialties, general overproduction must have been, in spite of the theories of the economists, an actual existing fact. In this conflict of theory with apparent fact, it becomes important carefully to test the theory, in order to see whether it is based on sound reasoning.

Hobson

The object of production is to provide 'utilities and conveniences' for consumers, and the process is a continuous one from the first handling of the raw material to the moment when it is finally consumed as a utility or a convenience. The only use of Capital being to aid the production of these utilities and conveniences, the total used will necessarily vary with the total of utilities and conveniences daily or weekly consumed. Now saving, while it increases the existing aggregate of Capital, simultaneously reduces the quantity of utilities and conveniences consumed; any undue exercise of this habit must, therefore, cause an accumulation of Capital in excess of that which is required for use, and this excess will exist in the form of general over-production.[46]

Section 3

Austerity leads to a fall in investment

Crowding in, Paradox of thrift

- A rise in public saving, according to neoclassical economics, should boost investment.

Alesina, Favero, and Giavazzi (2019)

- Alesina, Favero, Giavazzi now agree that **tax-based austerity** generates a long-run **fall in investment**. *Note*:
- Also **pervasive**: same using Romer and Romer (2010)'s narrative fiscal shocks.
- More generally: consumption, investment and output are positively correlated even conditional on **aggregate demand** shocks.

Alesina, Favero, and Giavazzi (2019)

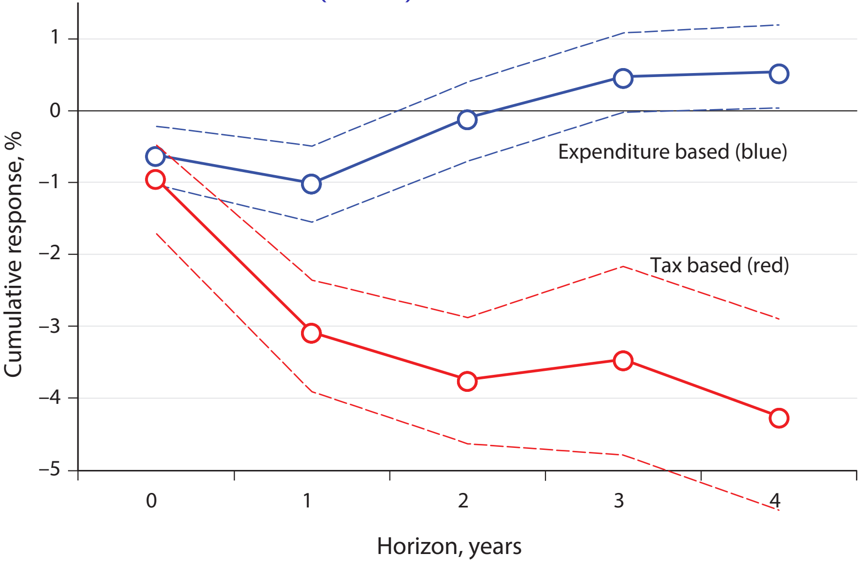
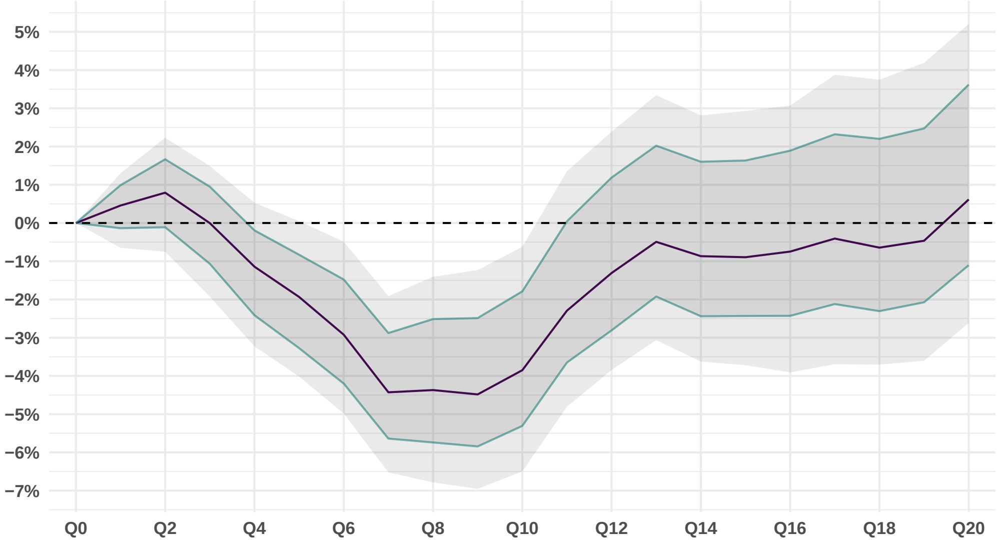
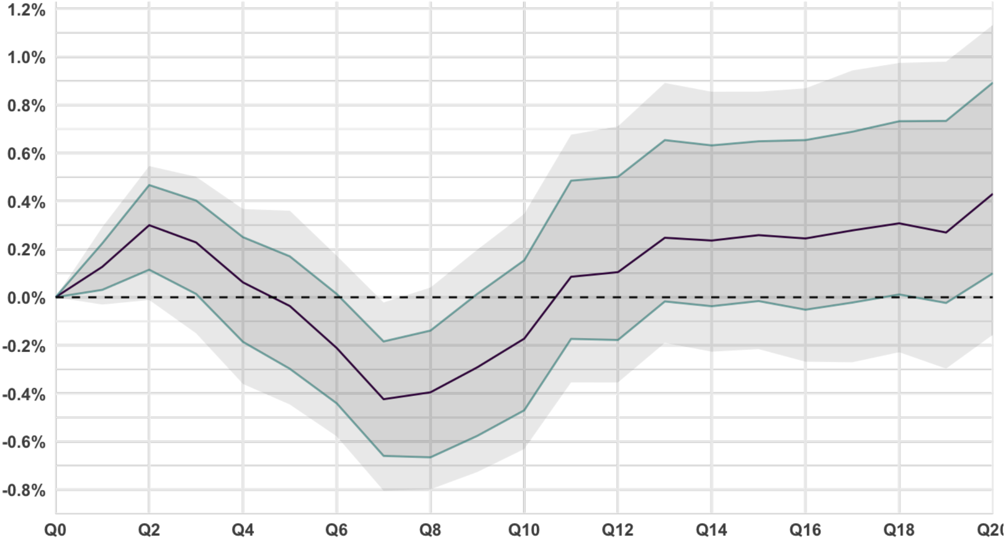


Figure 7.3. Response of investment to two different plans

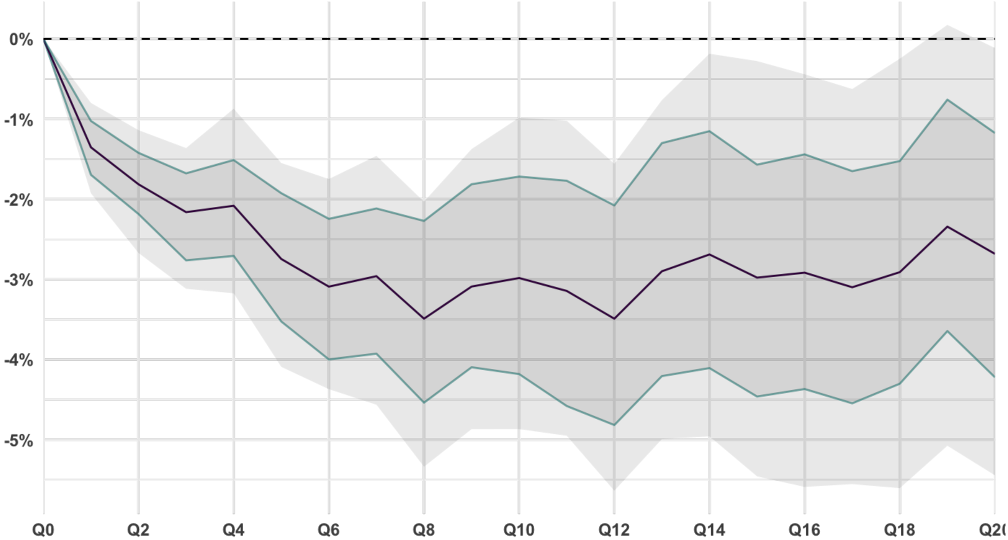
Romer and Romer (2010): Investment



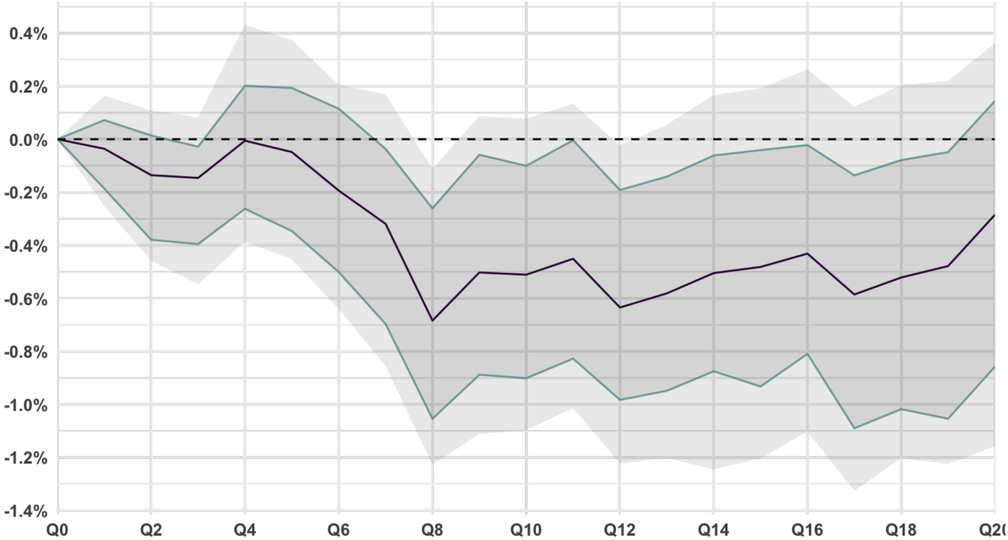
Romer and Romer (2010): Saving



Riera-Crichton, Vegh, and Vuletin (2016) - Investment

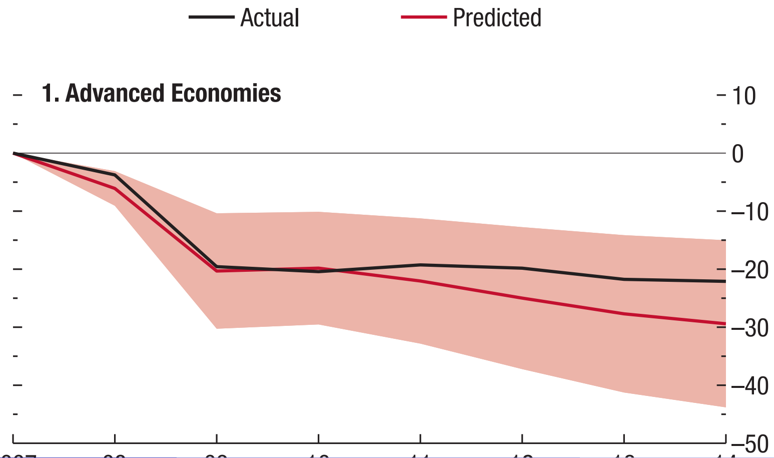


Riera-Crichton, Vegh, and Vuletin (2016) - Saving



World Economic Outlook 2015 (IMF)

The bulk of the slump in business investment since the crisis reflects the weakness in economic activity. For broad groups of advanced economies, there is little unexplained investment.



Krugman

Crowding In and the Paradox of Thrift

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As Francesco Saraceno notes, the IMF's research department, which was always excellent, has become an extraordinary source of information and ideas in this Age of Blanchard. In particular, these days you can pretty much count on the semiannual World Economic Outlook to offer some dramatic new insight into how the world works. And the latest edition is no exception.

The big intellectual news here is Chapter 4, on business investment. As the report notes, weak business investment has been a major reason for global economic weakness. But why is business investment weak?

Krugman

What it doesn't say explicitly is that in using this procedure, it manages in passing both to refute a very widely held but false belief about deficits and to confirm a highly controversial Keynesian proposition.

The false belief is that government deficits necessarily "crowd out" investment, so that reducing deficits should free up funds that lead to higher investment. Not so, says the IMF: when governments introduce deficit-reduction measures, investment falls instead of rising. This says that the deficits were crowding investment in, not out.

Section 4

Ricardian equivalence or the paradox of thrift

Link

This absence of crowding out effect is in fact what motivated the idea of “Ricardian” equivalence: Robert Barro’s explanation for the absence of crowding out of lower taxes was that people saved in anticipation of future taxes to come. But Ricardian equivalence does not actually explain the **crowding in** that we observe. Moreover, people did consume more when taxes fell. The increase in saving came from higher employment and GDP.

Section 5

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