



Universiteit
Leiden
The Netherlands

Uncertainty, Taxation and Entrepreneurship

Leen, A.R.

Citation

Leen, A. R. (2004). Uncertainty, Taxation and Entrepreneurship. *Archives Of Economic History*, 15(2), 17-30. Retrieved from <https://hdl.handle.net/1887/43293>

Version: Not Applicable (or Unknown)

License:

Downloaded from: <https://hdl.handle.net/1887/43293>

Note: To cite this publication please use the final published version (if applicable).

**UNCERTAINTY, TAXATION,
AND ENTREPRENEURIAL ENTRY**

AUKE R. LEEN

TAX LAW AND ECONOMICS DEPARTMENT, FACULTY OF LAW, LEIDEN UNIVERSITY

THE NETHERLANDS

P.O. Box 9520

2300 RA Leiden

The Netherlands

tel. 31 71 527 78 53/78 55

a.r.leen@law.leidenuniv.nl

Abstract

Auke R. Leen: Uncertainty, Taxation, and Entrepreneurial Entry.

In what way do higher taxes and uncertainty influence the decision to become an entrepreneur? In other words, “What tax system suits entrepreneurial entry in the market process best?” The paper answers the question from the Austrian perspective. The perspective is to be contrasted with the mainstream neoclassical perspective. If the market—as the Austrians do say—is a process of discovery, the first effect of a tax system is not its effect on the relative preferability for the decision-maker of already-perceived alternative courses of action. The effect we have to take into account is, first and foremost, the possibility that the tax may have significant impact upon the very perception by the prospective taxpayer of what array of opportunities are available for his choice. This view goes against the mainstream view that higher taxes could serve as an insurance against the greater risk in self-employment as compared to that in wage employment. In terms of policy implications, tax relief efforts aimed at small businesses for sure do foster entrepreneurial entry. Raising taxes, however, even with full loss recovery, might be a risky “strategy” to increase entrepreneurial entry.

JEL classification: B53, H21, M13

Key words: entrepreneurship, uncertainty, taxation

1. Introduction

Ever since the article that started it all of Domar and Musgrave: *Proportional Income Taxation and Risk-Taking* (1944; compare for more recent updates and theoretical refinements, e.g., Feldstein, 1969; Stiglitz, 1969; Kanbur, 1981; Kihlstrom and Laffont, 1983; and Gentry and Hubbard, 2000) about the influence of taxation on investment in risky ventures and entrepreneurial entry, we do have that surprising and intriguing result: *the higher the tax rates are, the greater is the amount of risk an entrepreneur is willing to take and hence*

entrepreneurial entry will be (that is the decision of wage-and-salary employees to become self-employed). The motivation of this now widely accepted proposition by professional economists (Feldstein, 1969, p. 755, cp. Blau, 1987, p. 464) goes as follows. If losses can be offset, both the yield (defined as the mean portfolio return anticipated when all possible returns are considered) and the risk (defined as the sum of anticipated negative incomes weighted by their probabilities) of the investment have been reduced by the rate of the tax. (Hence: yield = gain (defined as the sum of anticipated positive incomes weighted by their probabilities) – risk). The extent to which loss offset is possible in actual practice depends of course on the offset provisions in the tax law and upon the availability of other income. With full loss offset, the return per unit of risk-taking remains unchanged. In other words, the government assumes part of the risk as well as of the yield. In a sense the government appoints itself as a business partner to the entrepreneur. Though the total (society's) risk remains the same, the entrepreneur's (individual) risk has been reduced. But the entrepreneur's income has been reduced too. To restore his income, he will take higher yielding and more risky investments. If this result is extended beyond a portfolio choice into an occupational choice framework (see, e.g., Kanbur, 1981): entrepreneurial entry will increase too. A result confirmed as recently as 2000 by Bruce: higher relative tax rates in self-employment were found to increase the rate of entry. Or as said by Bruce in 2002, "higher tax rates on income from self-employment do not increase, and might actually reduce, the probability that an individual will exit self-employment."

Bruce (2000, 2002) also gives a second reason given in the literature for the result just-discussed. Motives of tax avoidance and evasion are at the heart of this reason. Higher tax rates on self-employment income translate into greater rewards from avoidance and evasion. In other words, higher marginal tax rates seem to encourage self-employment relative to wage-employment. Self-employment offers greater opportunities to avoid or evade taxes than wage-employment does (Parker, 1996, p. 472). This is confirmed by the fact that the voluntary reporting percentage for wages and salaries (subject to third-party reporting and withholding) is over 99 percent for fillers, while the percentage for all other income is 80 percent (Joulfaian and Rider, 1998, p. 675). Hence reducing those rewards may even lead to reduced entrepreneurial

entry. "If some entrepreneurs are actually creative tax-evaders, then reducing their marginal tax rates could encourage them to close their 'businesses' " (Bruce, 2002, p. 8).

It appears that the just-cited results go against what Frederic Bastiat (a predecessor of modern-Austrian economics) and Ludwig von Mises (the founder modern-Austrian economics) taught us. Bastiat said us to "accustom ourselves [...] not to judge things solely by what is seen, but rather by what is not seen" ([1850], 1964, p. 9). Therefore, as far as taxes are concerned, he wrote: "You compare the nation to a parched piece of land and the tax to a life giving rain. So be it. But you should also ask yourself where this rain comes from, and whether it is not precisely the tax that draws the moisture from the soil and dries it up" (o.c., p. 8). And Mises, [1949], 1966, p. 741 said, " This metamorphosis of taxes into weapons of destruction is the mark of present-day public finance."

In this paper we look, in the tradition of Bastiat and Mises, at tax systems with regard to the ultimate unseen: we even do not know what we do not know. In other words, we examine a tax system that fits the market economy. This since the essence of the market economy—from the perspective of the modern Austrians¹—is that it is a system of *competitive-entrepreneurial discovery*. In other words, what characterizes the market economy is competition, what drives the market is entrepreneurship, and what constitutes the steps in the market process are discoveries. In the market process we discover new ends and means. Accordingly, a tax system can be assessed with respect to the ability to promote creative acts of entrepreneurship. And we conclude that to increase taxes and hence to buffer uncertainty is not the one-way bet it seems to be as far as entrepreneurial entry goes.

The central thesis of this paper, to be explained more fully later, is the following. The risk Musgrave and Domar do speak about (and modern neoclassical economists do too) is the risk of a known alternative. Indeed, if that is the situation, to look at relative preferability is the right (economic) thing to do. We, e.g., look at the changing relative gains of higher taxes on committing tax fraud for wage earners as compared to the self-employed; and then, indeed, the stated results do follow (see, e.g., Blau, 1987, and Bruce, 2000). However, if it is utter ignorance (uncertainty) we are speaking about, and that is the situation for the entrepreneur in his day-to-

day practice, taxation robs the entrepreneur of the incentive to come up with the promising investments (with or without a high risk) in the first place. In other words, for Austrian economics fundamental uncertainty is of the essence of the situation the entrepreneur faces. His situation is not one of uncertainty over given alternatives. The entrepreneur has, first of all, to come up with those alternatives. He has to come up with a framework of ends and means (cp. Kirzner, 1973, pp. 82-84). Afterwards he can assess the riskiness of the ends and means.

Kanbur (1981, p. 179), in his neoclassical framework, also does come up with an element of discrete, non-marginal choice as of the essence of entrepreneurship. As far as his emphasis is on the real choice element in entrepreneurship there is indeed not “a little bit” more in entrepreneurial activity and he is correct. He places his analysis, however, in a general equilibrium framework: the choice is between existing “alternative activities that differ in their risk characteristics.” Riskiness of self-employment (since it is unobservable), in order to be modeled in a neoclassical model, needs a proxy. Parker, e.g., uses as a proxy “the turbulence of industrial relations, as measured by the number of strikes” (1996, p. 465). To do this is of course, by definition, out of the question for the modern-Austrian. Since the general equilibrium framework lacks fundamental error and hence the unknown choices open to the entrepreneur. Which is of the essence of Austrian economics.

The influence, also, of taxation on risk is a different one for each of these two problems: known uncertainty of “given” means and ends versus fundamental uncertainty as far as what are the means and ends in the first place. Neoclassical economics hints at the influence of taxation in regard to the first form of risk. Austrian economics hints at the influence of taxation in regard to the second form of risk. Fundamental ignorance and hence an ultimate error stands against a situation of given alternatives involving risk (of which we do know the probability distribution of incomes attached to each alternative). For the Austrian, entrepreneurship is defined as the very perception of the ends-means framework within which allocation and economizing is to take place (Kirzner, 1973, p.33). For the neoclassical it is defined as combining individual-specific ability with an up-front investment to generate an uncertain return (Gentry and Hubbard, 2000, p. 283).

2. The core of Austrian economics

Let us first expend a little bit on the intricacies of the core of Austrian economics. In 1871 Carl Menger's value theory turned the value theory of the classical economists upside down. The classical (Ricardian) theory held that cost of production determines the normal value of consumption goods. In contrast, Menger's theory held that the value of consumption goods ultimately determines the cost of production. Value is an expression of judgements concerning future usefulness in meeting consumer wants. Hence does follow one of the Austrian fundamentals of taxation, "No tax can be shifted forward" (Rothbard, 1970, p. 88). Prices, as we just said, are never determined by costs of production; the reverse is true. Think of it. There is no reason to expect the producer to wait on, e.g., a general sales tax to increase his prices if he could have done so before. Since the selling price is already set at a "maximum"; a rise in costs, i.e. an imposed general sales tax, cannot raise the price any further. The price is determined by the total stock in existence and the demand schedule for it on the market. Hence the fact that the sticker price of a product does show a certain amount of sales tax does not prove that it is shifted forward towards the consumer. The price for the producer for a good on the market is not the market price minus the sales tax. It is just that market price. The price minus the sales tax the producer gets might well have been reduced to allow for the payment of taxes. So it makes the income the producer receives less. Hence a sales tax is an income tax on the production factors (Rothbard, 1970, pp. 88-93).

Israel Kirzner describes modern Austrianism as an authentic extension of Menger's older static subjectivism: a consequent dynamic subjectivism. In modern Austrianism, the two central figures are Ludwig von Mises and Friedrich Hayek. Both authors focus on market adjustment processes. Kirzner, building his theory as Mises and Hayek did, believes that one of the greatest failures of neoclassical (equilibrium) analysis is that it assumes equilibrium is actually brought about. The real problem for modern Austrians is to describe the possible realization of an equilibrium as the result of "the systematic way in which plan revisions are made as a consequence of the disappointment of earlier plans" (Kirzner, 1962, p. 381).

Mises and Hayek made it possible to describe adjustment as a systematic sequence of decisions. Mises's extension of subjectivism was to describe the individual decision unit not only as maximizing, but also as finding out the relevant ends-means relationship. This opened the way for incorporating learning into our understanding of market processes. Hayek's extension of subjectivism was to describe the process as one of learning by discovery. Endogenous change in the ends-means relationship—says Kirzner—is possible with the entrepreneurial element in each individual market participant: alertness. Alertness is "the propensity [...] toward fresh goals and the discovery of hitherto unknown resources" (1973, p. 34). A disequilibrium situation points to market ignorance. From it emerge profitable opportunities that are exploited by alertness. Alertness gives a more realistic image of human action (and hence real choice) and makes possible the description of the market as a unified discovery process. "[The] 'alertness' view of the entrepreneurial role rejects the thesis that if we attribute genuine novelty to the entrepreneur, we must necessarily treat entrepreneurially generated market events as not related to earlier market events in any systematic way. The genuine novelty [...] attribute[d] to the entrepreneur consists in his spontaneous *discovery* of the opportunities marked out by earlier market conditions (or by future market conditions as they would be in the absence of his own actions)" [...] "[These] entrepreneurial discoveries are the steps through which any possible tendency toward market equilibrium must proceed" (Kirzner, 1985, pp. 11-12).

3. Two views on risk: the un- and counter expected

At this point we do answer our core question: What influence does the tax system have on entrepreneurial entry (occupational choice) and hence the market's competitive-entrepreneurial discovery process? If the market is a process of discovery, the first effect of a tax system is not its effect on "the relative preferability for the decision maker of already-perceived alternative courses of action" (Kirzner, 1985, p. 94) as the neoclassical tells us. No, the effect we have to take into account is "the possibility that the tax may have, perhaps, significant impact upon the very

perception by the prospective taxpayer of what array of opportunities are available for his choice” (o.c., p. 94).

To answer our question, we do have to distinguish between the truly unexpected and the counter-expected. For Austrians uncertainty (risk) is first and foremost illustrated in the appearance of something completely unexpected. “[T]he situation holds unknown possibilities unconstrained by known constraints. It is the entrepreneur’s awareness of the *open-endedness* of the decision context that appears to stimulate the qualities of self-reliance, initiative, and discovery” (Kirzner, 1985, p. 109). For the neoclassical, however, only counter-expected things do happen. He thought to be 99 percent sure the sun would shine tomorrow. But the counter-expected did happen: it rained! In mean-stream economics the entrepreneur is “the ultimate bearer of irreducible, noninsurable risk” (Kanbur, 1982, p. 2; cp. Kihlstrom and Laffont, 1983, p. 163, who describe the entrepreneur as someone who “receives the random profits of the firm he creates”). For the Austrian, however, the entrepreneur spots something, we even did not know it could happen at all. This is something completely different as to speak of an uninsured idiosyncratic risk. It also means, and that is the crux of our paper, that first and for all, an error (utter ignorance) in a market economy does unveil itself by showing up as an opportunity for monetary profit. So it looks as if it is the entrepreneur—to stimulate his discovery process (for that is what the entrepreneur does by correcting genuine errors stimulated by monetary profit)—we do have to focus on. If this is the case, we can say that any form of taxation that lowers prospective profits (the way an error reveals itself and that provides the incentive that inspires entrepreneurial discovery of unnoticed opportunities) goes against the entrepreneurial process of discovery the market is.² Which, as just-said, is the bread and butter of the producer-entrepreneur. This is our first reason to exempt the producer from any form of taxation. It is an argument against all corporate income taxes.

A second reason to exclude the entrepreneur from taxation is that demand is not the desire of the consumer for a hypothetical product not yet produced. “[T]he demand that is expressed in the demand curve for a product means the quantities of it that consumers will be prepared to buy, at given prices, when offered the opportunity of doing so” (Kirzner, 1973, p. 178). Consumer sovereignty means that production patterns are dictated by the pattern of consumer demand. To

be more specific “production decisions are determined by entrepreneurial anticipation of the patterns of demand that will be evoked by alternative production plans” (o.c. p. 176). So if the distortions of taxation—that is the impact on the discovery process—should be minimized, taxes should not be levied on the entrepreneur. Since he is the first, the *conditio sine qua non*, to come up with something new (correcting an error) in the causal market process.

The third reason not to tax entrepreneurs goes as follows. If it is entrepreneurship we do focus on—so (as we just-said) the producer-entrepreneur is central—profits have to be as visible and as promising as possible. Entrepreneurship has to be stimulated. Entrepreneurship involves fundamental uncertainty in general but also, and of particular relevance of here, uncertainty as far as the complexity and instability of the tax code goes: legislative changes and tax court rulings. [T]he alert entrepreneur, discovering what *seems* to be an attractive opportunity, may have considerable misgivings [uncertainty] concerning the venture” (Kirzner, 1973, p. 78). [F]rom the point of view of the prospective entrepreneur the profit opportunity is, with all its uncertainty, *there*” (o.c., p. 83). Often, because of either the sheer size or instability in the tax code, it is impossible to predict (there is fundamental uncertainty) the tax consequences of a particular activity. This uncertainty leads to a loosening of the entrepreneurial grip on pure profit. This since profits or losses arising from tax changes, by a fortunate or unfortunate change in the tax system, do appear after the entrepreneur has taken up his position, A potential and in fact superior vision may be highly stifled. We do remove much of the incentive—to “purposeful alertness, the alert purposefulness” (Kirzner, 1999a, p. 39)—for paying attention to the unknown. Hence a tax system has to be as simple and predictable as possible.

Fourth, Austrians emphasize the division of knowledge and its growth. Entrepreneurial opportunities tend to appear within the context of a specific time and place. So—after Hayek (the Nobel Memorial Prize in Economics winner in 1974)—a decentralized economy is the place to look at. It allows individuals to act on their entrepreneurial insights, and rewards them for doing so. The institutional setting of the market is especially fitted to stimulate discovery. It produces an environment where entrepreneurship is stimulated. And since entrepreneurial insights lay also the foundation for additional entrepreneurial insights the growth process of the economy is sustained.

The market system encourages the full use of (decentralized) human knowledge. There is no efficient non-market, e.g., governmental, resource allocation. This was the insight the Austrians tried to bring to the fore in the socialist-calculation debate that raged in the interwar period. A debate that began with the question, “Is an efficient non-market resource allocation possible?” For the Austrian, market based prices are necessary to signal scarcity, to transmit knowledge, and to stimulate discovery. Hence the government cannot be trusted to do this job for society, that is, guiding the discovery process, by changing the relative preferability of outcomes and means of production. And as Mises concludes: “Inasmuch as money prices of the means of production can be determined only in a social order in which they are privately owned, the proof of the impracticability of socialism necessarily follows. [...] [T]his proof is certainly the most important discovery made by economic theory” (1981, p. 15). A discovery (that is using decentralized instead of centralized knowledge) a consumption tax tries to live up to. Hence, a simple uniform consumption tax system comes up as a logical corollary. There simply is no efficient governmental resource allocation by means of taxation.

4. Summary and policy conclusions

If it is sparking interest we are looking at (that is not changing relative attractiveness), we do—in fact—focus on the effects of taxing pure (unknown) entrepreneurial profit. This instead of mainstream neoclassical analysis that focuses on changing the (known) relative preferability of the options the producer-entrepreneur faces. Pure profit is a sum that cannot be described as necessary for the production of the item sold; the producer has already recovered all his expenses (opportunity costs). But alertly noting hitherto unnoticed opportunities depend on the possibility of the emergence of pure profit. In other words, worthwhile opportunities may simply not be noticed in the absence of the possibility of pure profit. For the Austrian, this is a valid description of the situation the entrepreneur faces. Hence taxing pure profit should be looked at with suspicion at the least. As Kirzner says, progressive taxation changes an open-ended world into a closed one (1999b, p.109). If, in order to have a profit, it were luck we are counting on,

no incentive whatsoever would be necessary. Neither are profits wholly, as Frank Knight would say, the uncertainty-bred differences between the anticipated value of resource services and their actual value" (Kirzner, 1973, p. 82). What we are looking at is a potentially attractive outcome (on the basis of active, alert, searching entrepreneurial activity) in an open-ended world: an unknown possibility unconstrained by known constraints. "*The most impressive aspect of the market system is the tendency for [...] opportunities to be discovered*" (Kirzner, 1985, p. 30). Prices expressed in money show price discrepancies. Through the possibility of monetary profits, prices stimulate the discovery of valuable concrete information. And it is precisely the institutional setting of the market economy that translates utter error into prospective net gain. It is a social setting in which people are continuously pressed to improve.

The study of risk taking, taxation, and entrepreneurship has often been motivated from the point of view of policy. To sum it all up, for the neoclassical economist the effects of progressive taxation on risk taking are positive if risk aversion is greater than unity. "[H]igher marginal tax rates seem to encourage self-employment relative to paid employment" (Parker, 1996, p. 472; cp. Richter, 1960, p. 164). In the neighborhood of risk neutrality, however, it reduces risk taking (Kanbur, 1997, p. 790). And since "[r]isk and income move together because, *ceteris paribus*, greater income is a reward for bearing greater risk" (Parker, 1996, p.462), the pattern of income distribution in a society reflects, in part, the pattern of risk taking in occupational choice (Friedman, 1953, p. 278). If so, however, the neoclassical economist sees a policy conflict (all depending on the assumptions about the risk attitude of the society in question) between the reduction of income inequality in society (by means of progressive taxation), the encouragement of risk-taking (entrepreneurship) and the growth in national income. We can sum it up in the words of Kanbur, 1982, p. 19, who also does not see any general conflict between the stated objectives. Since, "the conflict only arises in particular cases and in particular ways. Theory has to provide models that illustrate these cases, and empirical analysis has to pronounce on the possible net effect of the different forces." But the conflict, however illusory as Kanbur says it is, does only exist if the entrepreneur is seen as a risk taker per se. But "it should be clear that entrepreneurship as we have discussed it in no way depends on any specific attitude toward uncertainty-bearing on the

part of the decision-makers” (Kirzner, 1973, p.78). If the entrepreneur is correcting fundamental errors, as the Austrians do say, the conflict vanishes. We are looking “for entrepreneurial alertness and for its effect upon the continued availability of perceived opportunities for pure profit” (o.c., p. 79). Also, though it is an empirical question as to whether what preferences for risk do exist in the different countries of this world in practice (cp. Feldstein, 1969, p. 763, who speaks of the necessity “of the exploration of a variety of restricted but plausible models”), the Austrian–based theoretical analysis does warn us that any general claim about the effects of taxation on inequality and growth of income should be treated with caution. This because they do leave out the most important asset of the market economy: entrepreneurial alertness.

And again, if the Austrian perspective is the way to look at entrepreneurship, the remark made by, e.g., Kandur that “the [neoclassical] model leaves out an analysis of why entrepreneurship is beneficial in the long-run is without sense.” In other words, he says, “there is no modeling of what must be presumed to be a basic tenet of the conventional wisdom, in terms of the ‘dynamism’ of an economy with a greater degree of entrepreneurship” (1982, pp. 19-20). See also the question asked by Richter: “‘Should’ risk taking be encouraged? [...] [W]hat is desirable about encouraging ‘risk taking?’ Indeed, why should not society’s utility function register abhorrence to ‘risk’ as much as do those of most individuals?” (1960, p. 166). Compare what Stiglitz, 1969, p. 279 says: “Even if risk-taking is increased by a given type of tax, it is not clear that such a tax should be adopted: after all, risk-taking is not an end itself.” Or to give a last example of a question posed inside a neoclassical market framework: “[D]oes market equilibrium have too many or too few entrepreneurs?” (Kanbur, 1981, p. 179). For the Austrian, however, it is all very clear. The correction of fundamental errors is a one-way bet! Our conclusion is the same as made by Gentry and Hubbard “models [either neoclassical or Austrian] emphasizing a link between entrepreneurial talent [understood in the Austrian tradition as entrepreneurial alertness] and selection into entrepreneurship predict a negative correlation between increases in tax progressivity and entrepreneurial entry probabilities” (2000, p. 284).

Our analysis also answers the question posed by Gentry and Hubbard, 2000, p. 282 (and they were unable to answer and left for future research), “when tax rates are less progressive and

hence there is encouragement of entrepreneurial entry is this efficient, that is stimulating the most talented entrepreneurs.” In other words, “to what extent do progressive marginal tax rates discourage entry by entrepreneurs with the most promising business projects?” (o.c. p. 287). From the Austrian point of view, to correct an error is, as just-said, a one way bet. To ask the question if this is efficient, is to deny the benign quality of the market system: the correction of fundamental errors.

To conclude, by taxing pure profit, the discovery process is seriously hampered. By lowering profits (especially since risk is at hand), impeding on the first one—that is the entrepreneur—in the discovery process, and changing by a central government relative preferences with unknown consequences, discovery is seriously harmed. If there should be taxation, taxing consumers without changing relative prices seems to be the least intrusive way to collect taxes in the competitive-entrepreneurial discovery process of the market.

NOTES

1. In this paper I do not give ‘the’ but ‘an Austrian approach to taxation. As far as there are other (non- and Austrian) approaches, there is of course the partial equilibrium approach of the Marshallians: we do only look at a particular tax in isolation and then analyze its effects. Next we do have the Walrasian (general equilibrium) and Keynesian approach: we do look not only at what the government takes out of the economy but at what it spends too. In other words, we look at the whole budgetary process of tax-and-spend. As far as the Austrians go, for Mises, the founder of modern-Austrian economics, first, taxation is a matter of the market economy. Under socialism “the government no longer depends for its financial support on the means extracted from the citizen” (1966, p. 740). Second, since the role of the government in a fully-fledged market economy is very small, taxes “are low and do not perceptibly disarrange production and consumption” (o.c., p. 740). In general, also, though taxes are a phenomenon of the market economy they do not have to bother us in a perfect (Austrian) market economy. The small amount of it, per se, does make it unimportant.

2. The situation is even worse. We do have an almost confiscatory taxation of potentially successful endeavors and, in fact, a tax subsidy for safe, nonentrepreneurial undertakings. “[P]eople do not like insecure loans to new businesses based on great new ideas. They do like lending secured to readily marketable assets by mortgages or similar arrangements” (Hall, 1996, p. 32).

REFERENCES

- Bastiat, Frederic ([1850], 1964). “What Is Seen and What Is Not Seen,” in: *Selected Essays on Political Economy*. Irvington-on-Hudson, NY: The Foundation For Economic Education.
- Blau, David M. (1987). “A Time-Series Analysis of Self-Employment in the United States.” *Journal of Political Economy*, Vol. 95, Issue 3 (June), pp. 445-467.
- Bruce, Donald (2000). “Effects of the United States tax system on transitions into self-employment.” *Labour Economics* 7, pp. 545-574.
- Bruce, Donald (2002). “Taxes and Entrepreneurial Endurance; Evidence from the Self-Employed.” *National Tax Journal*, Vol. LV, No. 1 (March). pp. 5-24.
- Domar Evsey D. and Ricard A. Musgrave(1944). “Proportional Income Taxation and Risk Taking.” *The Quarterly Journal of Economics*, Vol. 58, Issue 3 (May), pp. 388-422.
- Feldstein, Martin S. (1969). “The effects of taxation on risk taking.” *Journal of Political Economy*, Vol. 77, Issue 5 (Sep. – Oct.), pp. 755-764.
- Friedman, Milton (1953). “Choice, Chance, and the Personal Distribution of Income.” *Journal of Political Economy*, Vol. LXI, Number 4 (August), pp. 277-290.
- Gentry William M. and R. Glenn Hubbard (2000). “Tax Policy and Entrepreneurial Entry.” *American Economic Review*, Vol. 90, no. 2 (May), pp. 283-287.
- Hall. A. [et al] (1996). *Fairness and Efficiency in the Flat Tax*. Washington: the American Enterprise Institute.
- Joulfaian, David and Mark Rider (1998). “Differential taxation and tax evasion by small business.” *National Tax Journal*, 51, No. 4 (December), pp. 675-687.
- Kanbur, S.M. Ravi (1979). “On Risk Taking and the Personal Distribution of Income.” *Journal of Political Economy*, vol. 87, Issue 4 (August), pp. 769-797.
- Kanbur, S.M. Ravi (1981). “Risk Taking and Taxation.” *Journal of Public Economics* 15, pp. 163-184.
- Kanbur, S.M Ravi (1982). “Entrepreneurial Risk Taking, Inequality, and Public Policy.” *Journal of Political Economy*, Vol. 90, Issue 1 (Feb.), pp. 1-21.
- Kihlstrom Richard E. and Jean-Jacques Laffont (1983). “Taxation and Risk Taking in General Equilibrium Models With Free Entry.” *Journal of Public Economics*, 21, pp. 159-181.
- Kirzner, Israel. M. (1962). “Rational Action and Economic Theory.” *Journal of Political Economy*, Vol. LXX, August, pp. 380-85.
- Kirzner, Israel M. (1973). *Competition and Entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, Israel M. (1985). *Discovery and the Capitalist Process*. Chicago: University of Chicago Press.

- Kirzner, Israel M. (1999a). "Self-Interest & the new Bashing of Economics." *Critical Review*, Vol. 4, Num. 1 & 2, pp. 27-40.
- Kirzner, Israel M (1999b). *The Driving Force of the Market*. London and New York: Routledge.
- Mises, Ludwig von ([1949], 1966). *Human Action*. Chicago: Contemporary Books, 3rd edition.
- Mises, Ludwig von (1981). *Epistemological Problems of Economics*. New York: Princeton.
- Parker, Simon C. (1996). "A Time Series Model of Self-employment under Uncertainty." *Economica*, Vol. 63, pp. 459-457.
- Richter, Marcel K. (1960). "Cardinal Utility, Portfolio Selection and Taxation." *Review of Economic Studies*, Vol. 27, Issue 3 (June), pp. 152-166.
- Rothbard, Murray N. *Man, Economy and State*. Princeton, N.J: Van Nostrand, 1962.
- Rothbard, M.N. (1970). *Power and Market (Government and the Economy)*. Kansas City: Sheed Andrews and McMeel.
- Stiglitz, J.E. (1969). "The Effects of Income, Wealth, and Capital Gains Taxation on Risk-Taking." *Quarterly Journal of Economics*, Vol. 83, Issue 2 (May), pp. 263-283.