Inflation, Agriculture, and the Environment

Working paper

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ABSTRACT

The aim of this chapter is to investigate how inflation affects the environment. We begin by outlining how the environment fares in the unhampered market when property rights are protected and can be established without any institutional hindrances. Insofar as the environment can be used for monetary gain we see that it works well, but we also investigate the case where monetary gain is not possible, what we term environmental stewardship. We then turn to see what impact inflation has and through a detour over some of Schumpeter's writings we see that inflation is in fact very damaging to the environment, specifically to stewardship of the environment. In the final section we consider how inflation and other interventions interact as regards the environment (as yet unwritten).

Inflation, Agriculture, and the Environment

I

In this chapter we will discuss a question very much in vogue at the present time: how does the economy affect the environment, and how do interventions in the market economy impact on the environment? And can we say whether inflation has any effect on the environment? There is already a vast literature on this topic, which conceives of environmental problems in terms of negative externalities: costs or damages imposed on others by the actions of a given individual. The basic property-rights approach that Austrians favor is not unique to them: it is also very much in evidence among more mainstream economists, such as Tietenberg (1992, 44–71), Baden and Stroup (1981; 1979), and Anderson and Leal (2001).[1] The uniquely Austrian approach originates with Menger (2007) who thought stewardship of economic goods required private property in them, Mises (1998, 650–56) who saw the problem of externalities in terms of inadequately formulated property rights, and Rothbard (1982) who formulated a theory of property rights and tort law that would overcome this problem. This approach as applied to specifically environmental concerns has been more fully developed by Cordato (2007, 2004) and challenged by Dolan (2014).[2] Block (1990) has applied the theory to a slew of environmental issues, and Dawson (2013) has shown how it can solve the problems raised by climate change.

The property rights approach to environmental issues is very effective in solving the problem of externalities by conceiving of it in terms of interpersonal conflicts. In these terms, it is a matter of who is imposing costs on whom, who is damaging or interfering with whose property. What is unique about the Austrian approach is that the Austrians recognize that property is a normative concept, that there is

1 See literature review above for more references.
2 See the responses in Block (2014) and Carden (2014) and Dolan's reply (2015).

no way of allocating rights in a positive, value-free way. This doesn't mean that nothing can be said about these issues, but that the allocation of rights and costs is ultimately based on ethical principles (Hülsmann 1999, 2004; Hoppe 1989).

That said, the normative basis of property rights does not preclude us from making conclusions about their economic and environmental effects. We can group these in two general categories: pollution and conservation.

Pollution in all its forms is a question of one individual's actions interfering with the property of someone else. Effluent from a factory may poison a neighboring stream. Sparks from a locomotive may set hay stacks or orchards on fire. The question in these and all similar cases is, does the actor have a right to do this, or is he unlawfully interfering with others' property? In the latter case, he will either have to cease his polluting activities and pay damages, or he will have to negotiate with the property owners to gain permission to continue his polluting activities. This is basically the polluter pays principle reconstructed (Cordato 2004, 12). In the former case, when the "polluter" has a right to do as he does (for instance, if he has an easement over a neighboring property), there is no pollution as such. The "polluter" has a right – either due to previous negotiations or because he has homesteaded an easement to pollute the neighboring properties – to continue the polluting activities unmolested. The property owners whose land is being polluted with effluents they would prefer not to have there – be it noise, smells, toxic substances or whatever – will have to seek an agreement with the polluter and probably will have to compensate him to make him stop his polluting activities.[3] While costs are not the primary consideration, it is clear that the effect of this principle will be to make actors bear the full costs of their actions.

3 The consequences are therefore similar to those from Coase's argument: resources will be shifted to their most highly valued uses, but it is important to note that in this framework we are not limited to consider the monetary values of assets: property rights are not assigned but discovered and fully protected, and all exchanges are voluntary, so subjective, nonmonetary costs and values are fully integrated.

Not all problems of pollution are solved this way. Only where people have established rights over the land can these rights be the basis for conflict resolution, but that raises the question of why people haven't established ownership over all resources. There are two possible answers to this question: either they have been prevented by technological or institutional constraints, e.g., the government has prohibited homesteading or preempted it by declaring a given piece of land public property; or no one has been really interested in the resource before, so they have not bothered to expend the energy needed to establish a claim to the resource in question. The case of institutional constraints can be resolved by allowing persons to freely establish property rights, whether this be by abolishing erroneous government legislation or opening up public lands for private appropriation.[4]

The second case is on closer analysis not really a problem. It might be that no one thought of appropriating a given resource earlier because its use was freely available to all in its natural state. This might be the case, for instance, with a fishing stream or an unspoiled wilderness that people enjoy contemplating. The enjoyment of these resources is completely gratuitous until an entrepreneur starts activities that somehow affect them, say, by polluting the stream. Then the question arises whether someone cares enough for the continued enjoyment of the unspoiled resource to appropriate it and clean it up, or whether the costs of doing so outweigh the expected benefits of continuing to enjoy the resource's environmental value. The entrepreneur who pollutes the resource may of course decide to clean it up and stop the pollution, but he cannot be forced to – he has homesteaded a pollution easement on the property that later appropriation cannot annul.[5]

The problem of conservation of scarce natural resources is also solved by the institution of property rights (López 2002, 1225ff). It is important to realize that what we are really discussing when

4 See (Terry L. Anderson and Hill 1975) for a classic case study of the evolution of rights in a favorable institutional environment.

5 The problem of technological limitations restricting the ability to homestead is not really an independent case. These limitations can after all be overcome by investing more in research. In other words, it is just a case of higher costs in establishing property rights.

considering how to use natural resources is what would be the optimal rate of use (Pasour 1990, 200; Pasour and Rucker 2005, 257ff). If an entrepreneur has full control over a resource, he will use it in such a way to maximize its capitalized value. This will be the most profitable use he can make of it. Exactly where this trade off will be depends on the social rate of time preference as revealed in the market rate of interest which reveals the balance between the value of present use and future uses. If the entrepreneur uses up the resource too quickly, he will make a loss, as the extra income from using more of it will be overshadowed by the cost of declining capitalized value. Someone else will therefore be able to bid the resource away from the entrepreneur if he does not himself change his allocation of use between the present and the future.

Aspects of stewardship that would not normally fall into the category of resource conservation can also be solved in the property rights paradigm, as can be shown after a little reflection. The protection of wildlife can, for instance, yield a monetary profit to the landowner, if he is secure in his property rights. The leasing of hunting grounds is perhaps the best example (Terry Lee Anderson and Leal 2001, 63ff). Because the landowner can earn money from the hunt on his land, he now has an additional incentive in protecting and even enhancing the local ecosystem. Not only his own personal valuation of the local environment, but also those of all others interested in the aspects of the environment having to do with the hunt is brought to bear on the use of the land through the price system.[6]

II

It should thus be clear that a lot of environmental issues can be solved without the need for any special interventions in the functioning of the market economy, so long as property rights are protected and there are no institutional barriers to the appropriation of unowned land and resources. But it does not

6 It should be clear that this only takes account of interest expressed in action, that is, the demonstrated preferences of people. Yet why should we take the preferences of people seriously unless they are willing to demonstrate them in action? On this point, see Rothbard (1997).

solve all conceivable environmental problems. Specifically, environmental problems that do not go beyond the borders of one property or which do not interest anyone apart from the owner are clearly not solved. There will not be any recourse to the courts since there is no property dispute, and there is no monetary cost to the problem, since the aspects of the environment that are threatened are not valued by anyone, so therefore no income can be earned by preserving them. It could at this point, of course, be argued that since no one's property rights are violated and the owner of the land or resource in question has full rights to do with it as he pleases, there is no social or economic problem here. This is completely true, but it does not mean that the science of economics or, rather, of praxeology, cannot say anything about these non-catallactic aspects of goods. We can say a good deal about how much an owner of a piece of land or of another type of resource will take care of the general environmental aspects of that good – about what we may term his stewardship of the environment.

The concept of stewardship over the environment was first formulated as a Christian approach to environmentalism. Man's role is not simply to exercise dominion over nature but to keep it as a faithful steward and see to its own well-being (Curry 2006, 27). This thesis probably arose with Schaeffer (1970), who used the Parable of the Talents as a model for how man should tend creation,[7] and the term stewardship has been associated with specifically Christian reflections on and approaches to environmentalism since (see the recent volume on the subject published by the Acton Institute. (Acton Institute 2007)).

This does not mean that we should consider stewardship only a Christian or theological concept. Indeed, some of what we have in mind by the term is also captured by the "land ethic" of the environmentalist Aldo Leopold (1989). Leopold spoke of an ecological conscience and ethical obligations to the land, and he insisted that man has a much deeper relation to nature and the land than

7 See Anderson and Terrell (2003) for a critique of some of the approaches advocated by Schaeffer and other Christian environmentalists.

merely as a source for the production of commodities. However, Leopold conceived of this relationship as extending rights to “the biotic community.” This seems to us to confuse the issue; rights are always held by economic actors, and animals and plants, however highly they may be valued, are not that. Leopold’s reflections make much more sense if we conceive of them as an essay on what human beings’ attitudes are – and should be – to the environment. And this can be captured better by the idea of stewardship.

We therefore offer the following definition of environmental stewardship: stewardship is man’s control over land and natural resources and active intervention in their use and development to further what he considers their own well-being. Acts of stewardship can be classified as both consumption and production. They are acts of consumption insofar as there is no further end in mind apart from the exercise of stewardship. They may be considered acts of production if the actor speculates that the protected resources may yield a monetary return or be turned into consumer goods at some point in the future. Whether they are one or the other depends essentially on the ends the actor have in mind in performing them.

In order for a person to exercise that kind of stewardship, it is necessary that he personally values the environment – whether we are talking about keeping soil and water pure and unpolluted, or protecting the habitat of rare and not so rare species of plants and animals, or whatever the case may be. There are two reasons why a person might value the environment. He might speculate that while there is no demand from other people for these services of his land yet, it is quite possible that such demand might develop in the future; and he might value these services for his own enjoyment, perhaps because he feels a sense of responsibility for maintaining a flourishing environment for all, or perhaps because he simply enjoys the experience of wildlife and “unspoiled” nature.

The gains to the actor for exercising stewardship, then, is the his own satisfaction of having done his duty or his own enjoyment of the environmental values he sees in the land. What, if anything, can we say about the costs of exercising stewardship over the environment? There are two components to these: First, the cost of whatever actions are necessary to maintain the environment. These might not be very substantial or have to be performed very frequently, but they must exist, since we defined stewardship as man's active intervention in the environment. Examples of such actions might be maintaining hedges around fields or sealing off waste disposal sites and dunghills from neighboring fields or from the groundwater.[8]

The other cost component is the reduced monetary yield from the land, insofar as this is necessary to maintain the environment. E.g., it might be necessary to use less fertilizer than optimal in strictly economic terms in order not to strangle rare orchids growing among the crops, or a farmer might prefer not to use the most recent, highest-yielding GMO-type grain because he is concerned with cross-fertilization between it and the native plants. In both cases the monetary income is reduced from what it would otherwise have been, and we can therefore count this reduction as costs of stewardship.

It is impossible to say from a purely theoretical point of view to what extent actors will exercise environmental stewardship. It is conceivable that no one will do so, but it is much more likely that there will be different degrees of stewardship from one entrepreneur to the next and from one community to the next, depending not only on the personal preferences of the individual entrepreneurs, but also on the different cultural and social attitudes prevalent in the different societies. Some men and cultures may be entirely different to the environment and only focus on the monetary yield from their resources, while others are very much concerned with environmental issues. In general, we may say that the more future-oriented a man is, the more likely will he be to exercise stewardship based on the possibility of

8 It should be clear that there is more to environmental stewardship than protecting "unspoiled" nature, since hedges are man-made.

future monetary gain from the non-catallactic aspects of his lands. We can also postulate as a general sociological point that if a man is secure in his property, he will feel a sense of obligation and responsibility not only to himself, his family and community, but also to the creatures large and small that he exercises dominion over. The more well-established and secure his property rights are, the likelier he is to feel this obligation.[9]

III

So far, we have not considered the role of inflation in causing environmental problems, and it is on the face of it difficult to see what the connection might be. After all, if environmental problems are solved by correctly discovering property rights and enforcing these, there seems to be little room for a role for inflation. We can say that inflation is a form of expropriation, since it reduces people's purchasing power and redistributes it to those who receive the new money first, but this is merely speaking metaphorically – inflation does not by itself interfere with the integrity or security of property rights.[10]

Yet inflation produces more than simply economic distortions, and if we look at the cultural and social effects of inflation, we may find that it does cause environmental problems – specifically, we will argue that the willingness to exercise stewardship over the environment will be eroded in an inflationary environment.

The literature dealing with the broader cultural and social consequences of inflation is quite recent. Mises (1998, 574) dealt briefly with the psychological impact of credit expansion, Hülsmann (2008, 175–91, 2016) has examined how inflation distorts society, while Salerno (2013) has analyzed how inflation, especially hyperinflation, affects human personality. Some of the argument we intend to make

9 It may be partly this Mises had in mind when he spoke of the "myth of the soil", although he was very scornful and dismissive of the concept. See Mises (1998, 640–41)

10 Legal tender laws, on the other hand, are clearly an interference with property rights, as they restrict man's freedom in choosing what medium of exchange he would like to use. However, on their own, such laws do not create inflation and are therefore outside the scope of the present discussion.

proceeds along the lines already charted by Hülsmann and Salerno,[11] but we will have to look elsewhere for other parts of our argument. Schumpeter has formulated some keen insights that, if transplanted from his system, can hopefully tell us something about the consequences of inflation.

In *Capitalism, Socialism, and Democracy*, Schumpeter (1954) formulated the idea of the evaporation of the substance of property. In Schumpeter's system, this was connected to his ideas about the role of the entrepreneur and the importance of technological innovation. In Schumpeter's system we start from a position of general equilibrium. There are no profits and no interest and prices equal average costs. In this equilibrium an innovation intrudes: in the search for profits, an entrepreneur introduces a new production function, financed by bank credit. Interest arises, dependent on the profits of the entrepreneur. As others enter the new field of production, profits are eventually reduced to zero once again due to the pressures of competition (Clemence and Doody 1963; Schumpeter 1949). And as profits disappear, so, naturally, does the interest consequent upon profit.

The role of the entrepreneur then is to introduce technological innovations. But Schumpeter thought that this function would increasingly be taken over by R&D departments of large, centralized capitalist concerns (Schumpeter 1954, 134). The role of the entrepreneur would tend to diminish and eventually disappear, and with him would go the capitalists who had financed his ventures. The concept of property will cease to make sense and the bourgeoisie will be reduced to simply administrators of the large concerns.

There are other issues that tend to eliminate the importance of property in modern society. Instead of businessmen having direct ownership of factories, ownership increasingly becomes abstract and impersonal as more and more businesses are organized as joint-stock corporations (Schumpeter 1954,

11 Salerno (2013, 22) states: "(I)n Germany the abolition of money through hyperinflation rendered property meaningless and thereby obliterated the ontological basis for the formation of individual human personality." Our argument proceeds along similar lines, dealing not with human personality as a whole but with man's relation to the environment, and not only with the extreme case of hyperinflation but with inflation as such.

141ff). “The capitalist process, by substituting a mere parcel of shares for the walls of and machines in a factory, takes the life out of the idea of property” (Ibid., 142). Property will make less and less sense to people and they will respect it less and less: “Dematerialized, defunctionalized and absentee ownership does not impress and call forth moral allegiance as the vital form of property did. Eventually there will be *nobody* left who really cares to stand for it – nobody within and nobody without the precincts of the big concerns” (ibid.). Modern executives, even when they are themselves shareholders, do not have the will to fight and hold on to their own that a man with a fuller sense of property has (ibid., 156).

It is not just in business life that Schumpeter sees the spirit and substance of property evaporating. Even more serious in his eyes is what he terms the evaporation of consumers’ property (ibid., 157-63). Capitalism causes the rationalization of everything in life, even to the point that people introduce a sort of cost accounting in their personal lives. The heavy burdens of child-bearing and maintaining a family home are fully realized, and as a consequence people tend to have fewer children and to substitute outside services for durable consumer goods, principally the large family home. Increasingly, man becomes more and more like the *homo oeconomicus* of the economists’ models. He is steered exclusively by an individualistic utilitarianism, and his time horizon shrinks to his own life span. He becomes susceptible to anti-saving theories indicative of a short-run philosophy.

This short summary should indicate the general idea Schumpeter had of the fate of private property and also show why he thought capitalism was destined to evolve into socialism. The basic problem with his theory is that it is not true that interest is consequent upon profits and that profits are derived from technological innovation. There is not a tendency for both to disappear in advanced capitalism, since they derive from aspects of action that are universal and not dependent on special circumstances. Therefore, even though technological innovation may become increasingly automatic, this does not

have any consequences for the rate of interest or for the ability of entrepreneurs to earn profit.[12] Consequently, there will always be a role for private property in the market economy – it will not become 'defunctionalized' and 'dematerialized' as Schumpeter thought, at least not due to the development of capitalism and the market.

Although the idea of evaporation of the substance of property does not apply to developments on the unhampered market, our contention is that there is one intervention in particular that can be said to have this effect – namely, inflation. Both aspects of the idea – as it applies to industrial and to consumers' property – is applicable in this context, and it has consequences for how the environment is valued and for how stewardship over it is exercised.

How does inflation lessen the substance of property in the eyes of property owners? To answer this, we must first of all examine how the new money enter the economy. When fiat money is created in the form of credit expansion this cheapens credit as a source of finance for entrepreneurs and purchasers of durable consumers' goods leading to a greater reliance on this source of finance as compared to other sources – most notably self-financing. This is in line with the greater importance of the financial system in the economy as a whole that follows from the ability to create fiat money and fiduciary media (Hülsmann 2014). As external credit becomes more important to the individual entrepreneur, he becomes more focused on servicing his debt obligations, almost always in the form of timely money payments. But this in turn means that the monetary revenue an asset can generate becomes comparatively more important than its other characteristics.

How does this apply to our case of environmental values? It clearly means that the opportunity costs of exercising stewardship over the environment increases relative to what it would have been. The choice of exercising such stewardship always means a reduction of monetary income (increase of costs) to the

12 For a critique of Schumpeter's theory of profits and interest from the Austrian point of view see Rothbard (2011)

entrepreneur, and since he is more and more dependent on monetary income as he becomes more and more indebted, it is clear that the costs of caring for the environment increases.

In addition to this, the willingness to care for the environment on the off chance that it might be possible to exploit it for monetary profit in the future declines. After all, this is an investment in the uncertain future that might never pay off, and there is a need to maximize monetary income and current capital value now, so the costs of all actions that decrease current monetary income increase. Another way to put this is to say that there is a tendency toward short-termism in an inflationary environment (Hülsmann 2016, 85), which means that uncertain returns in the far future are more heavily discounted than they would otherwise have been.

There is also a very concrete sense in which property increasingly evaporates as fiat money inflation and credit expansion increases the reliance of firms on financial intermediaries. As equity evaporates and credit obligations constitute an ever-increasing proportion of the balance sheet, the nominal owner is reduced to the position of little more than the manager of the assets on behalf of his creditors[13] – he becomes like the disinterested executive described by Schumpeter. Therefore, there is an increasing tendency for the owner only to be interested in discharging his obligations to his creditors and he loses interest in the full substance of his property – precisely the evaporation of the substance of property that Schumpeter talked about. It is not a counter-argument to say that the creditors of the owner will assume the full sense of property since they are now the de facto owners,[14] for they too are principally interested in maximizing monetary returns, since they too have to make fixed money payments to their creditors. Somewhere down the line there are of course a group of net creditors, but their link to the property in question is practically nonexistent. Their investments are solely made with an eye to maximizing their capital. The non-commercial aspects of goods and resources do not interest them.

13 Interestingly, Max Weber formulated much the same idea: “Even the owner becomes effectively a trustee of the suppliers of credit, the banks.” (Weber 1978, 1:148)

14 On this see Rothbard (2009, 435–43)

Along with any real sense of ownership of the resources or land, the general feeling of obligation and responsibility that we described above is also reduced – what we may term, with Schumpeter's words, the evaporation of consumers' property. After all, if the owner no longer feels that he is really the owner, the one that controls a given piece of land, why should he feel it as his obligation to maintain it beyond what he is obliged to in order to fulfill his legal obligations to his creditors? He might still think that environmental stewardship is part of the obligations of ownership, but he will be increasingly hard put to explain to others as well as himself why it should be an obligation incumbent upon him.

To be clear, we do not mean to suggest that these changes take place overnight. When discussing this fuller sense of property we are talking about deep-seated cultural prejudices that do not disappear over night. But the constant inflation and increasing importance of debt will gradually undermine it, even if it will take several generations living under fiat money before it is entirely gone.

IV

We have now come full circle and are back at the importance of property rights for the protection of environmental values. After all, the limitation of such rights can be seen as not only the evaporation of such rights if not their outright destruction. If wildlife is nationalized and the individual landowner is prohibited from exercising control over it, it no longer constitutes part of his property and he will not only have less monetary incentive to care for it, but also feel less of an obligation to do so. We might say that the evaporation of the substance of property is a general problem that concerns all interventions in the market. However, in a way this problem is much worse when it comes to inflation than to more overt interference with the rights of private property. After all, a man is much more conscious of the prohibition of what he considers the legitimate use of his own property than he is of the pernicious influence of the alienation of property due to inflation. Despite the very damaging

effects of limitations or expropriations of property in the short run he is more likely to preserve a sense of ownership for longer – after all, it is *really* his land to do with as he pleases, no matter what others might say. The restrictions on private property imposed by interventions are also by their nature limited. It is only certain aspects of the land in question that are expropriated – most of the resource is left under the owner's control. This too limits the "evaporative" tendencies of interventions compared to inflation.

The effects of inflation are exactly opposite – in the short run they are not really felt, but in the long run, as we have just described, inflation tends to undermine the feeling of responsibility for the environment and the complete substance of the land or resource in question. It is also not limited to this or that aspect of the property in question, but extends to the whole property and all its aspects and uses.

How does an inflationary environment influence other interventions in their effect on the environment? That is the question we now turn to. We will do this by revisiting the schema of agricultural interventions we elaborated and analyzed in previous chapters. This time we will examine what their environmental impact, specifically on the exercise of stewardship, is, and how they will be affected by interventions in the monetary order.

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