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Deconstructing agricultural labour: a reflection on negative farm income

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This paper proceeds from the premise that five per cent of Swiss farms currently generate a financial loss. On average, this group of farms realizes a fairly high off-farm income. Challenging the notion of a 'fair' or 'adequate' agricultural income, we tackle the question of whether aiming to achieve the combination of negative farm income plus adequate off-farm income can be a rational strategy. An application of the Activity Choice Model answers this question in the affirmative. One of four interviews conducted with farmers having a negative agricultural income is analysed using objective hermeneutics. Whilst this approach shows that non-monetary utility has many dimensions, it primarily confirms the premise that negative farm income can be a rational strategy if combined with profitable off-farm work.

Keywords: Activity choice, Negative incomes, Swiss agriculture *JEL classifications:* J22

1 Introduction

Social constructivism (Berger and Luckmann, 1966; Hacking, 1999) deals with world views that are taken for granted, but which make our lives more difficult. If causal relations are not necessarily true, if definitions and concepts are arbitrary, scholars begin to dismiss or 'deconstruct' them. When reality is deconstructed, real-world phenomena become more open to alternative views and explanations, "widening the field of structural undecidability" (Laclau, 1996; 48) and emphasising "the importance of modest positions when trying to deal with complex problems" (Cilliers, 2005; 256).

This paper attempts to deconstruct the widespread premise that agricultural production should provide an 'adequate' income for farmers. Instead, it hypothesises that farming with a negative agricultural income can actually be a rational choice. The aim of the paper is to make the choice to farm with a negative income plausible, and to square this choice with the option of acting rationally. To achieve this challenging objective, it will be necessary to pursue a multistep procedure: In Section 2, the reality of an increasing percentage of Swiss farmers realising negative farm incomes will be depicted in order to demonstrate the relevance of the question. Section 3 uses Mann's activity choice model (2013) to reconcile the contradiction between the demand for 'fair incomes' in farming and the observed reality. Section 4 presents the method that a number of farmers were asked to use to position themselves vis-à-vis this issue. Section 5 presents an interview sequence and discusses the findings, whilst Section 6 sets out our conclusions.

2 Negative Farm Incomes

The issue of the 'fairness' of low or even negative farm incomes would be of little relevance if all agricultural incomes were high. This is clearly not the case in poor countries. Even in the world's most affluent countries, however, farm incomes may be extremely low or even negative, as we shall see below in the case of Switzerland. Swiss agriculture is characterised by family farms with an average size of only 20 ha (Mann, 2014). Despite a high level of public support – at 57 %, Switzerland's Producer Support Estimate (PSE) is still among the highest in the world – farmers face a substantial negative income gap: in 2012, their average gross household income of CHF 83,000 was 24 % below the average of self-employed households and 29 % below that of employed households.

The Swiss Farm Accountancy Data Network (FADN), which provided us with the figures below, has a size limit which excludes hobby farms. Despite this, it has previously been shown that approximately 5% of the 3,000 farms in this network had a negative average agricultural income during 2010-2012 (Roesch, 2013). Table 1 describes the situation of the lowest quartile of farms in terms of agricultural income, depicting the labour income per family labour unit over two different time periods as well as the household's agricultural income, off-farm income, and total income. The numbers show the averages for the group, with medians provided in parentheses. It can be seen that income distribution varied considerably between 2003-2005 and 2010-2012. Whilst the top incomes of the groups remained fairly stable, the deficit in the lowest group (≤ 5% percentile) increased by almost 80 %. Compared with the other groups, however, this group offset the lowest agricultural income with the highest off-farm income, resulting in a reasonable overall income.

Table 1: Income situation in the lowest quartile of labour income (average; median in parentheses)

Percentile	Labour Income/ Family Labour Unit 2003–2005 [CHF]	Labour Income/ Family Labour Unit 2010–2012 [CHF]	Agricultural Income 2010–2012 [CHF]	Off-farm Income 2010-2012 [CHF]	Total Income 2010-2012 [CHF]
Lowest quartile	7,800 (12,800)	2,700 (9,300)	12,800 (15,700)	35,600 (29,100)	48,400 (46,600)
≤ 5.0 %	-17,800 (-7,500)	-31,800 (-18,600)	-17,500 (-11,400)	53,200 (49,400)	35,700 (37,200)
5.1 %-10.0 %	6,400 (6,800)	1,400 (1,600)	6,800 (6,000)	39,500 (35,100)	46,300 (43,400)
10.1 %-15.0 %	12,700 (12,800)	9,200 (9,300)	17,300 (16,300)	28,800 (23,300)	46,100 (42,000)
15.1 %-20.0 %	17,000 (17,000)	15,000 (15,300)	25,400 (24,300)	28,300 (23,500)	53,700 (50,200)
20.1 %-25.0 %	20,500 (20,500)	19,600 (19,600)	31,800 (30,800)	28,200 (21,200)	60,000 (55,300)

Table 1 does not take account of the differences between farm types. Detailed analyses revealed that on farms specialising in poultry, pig, horse or sheep production as well as field crops, average labour income in the lowest quartile was below zero, whilst for farms involved in combined, cattle, or fruit and vegetable production the average was above zero. The fact that the median agricultural income in the lowest quartile exceeds the average income clearly shows that a number of farms suffered from a highly negative labour income. Whereas the average farm size in the lowest quartile was 16 ha, and thus 4 ha below the national average, the average size of farms with a negative labour income was also 16 ha, meaning that the negative agricultural income was not associated with missing economies of scale.

The fact that 5% of Swiss farms operate with a negative agricultural income must surely provoke normative musings among many readers. What distinguishes a farm with a negative income from the majority of farms? Are the former simply treated less fairly? Are they less capable of making a living from their property? Or might they perhaps have a different approach towards farming?

3 Activity Choice Model

Agricultural income has often been linked to the issue of fairness. Back in 1967, Mansholt (1967) stated that "a fair income [...] means an income and a standard of living comparable with those in other sectors in the economy." Twenty years later, Zioganas (1988) similarly defined a fair income as "a level [of income] that would ensure a 'fair' standard of living for the farm family." More recently, Hynes and Hennessy (2012; 1342) mentioned the "goals of stable markets and fair incomes to farmers of CAP."

It is worth repeating that the average off-farm income of the 5% of farms with the lowest agricultural income was CHF 53,000 – far below the average Swiss annual household income of CHF 115,000. If the families in this group stopped farming, however, their household income would immediately rise, even without family members taking up other employment, simply by "raising" agricultural income to zero. This leads to the question of whether farming was a rational choice for the families concerned – something which is certainly not necessarily the case. It is possible that the farmers firmly expected positive agricultural incomes, which then turned out negative. It is also possible that the farmers had made major investments, and needed to produce agricultural output to minimise their losses. In these two cases, the observed behaviour would not be rational, due to expectations that could not be met. However, might it also be possible that the farmers made a rational decision to continue farming despite a negative farm income?

The diagram (Fig. 1) approaches this question via a rational choice model based on several elements of microeconomic theory, such as indifference curves (Thurstone, 1931). The underlying assumption here is that individuals choose what they do based on two dimensions. The first dimension is the monetary level of utility as indicated on the Y-axis: Will they have to pay or will they be paid for what they do? If payments are involved, at what level will they be made? A budgetary restriction defines the maximum amount of money the individual may spend on an activity (as indicated by the dotted line), or stipulates a minimum amount of money the individual must earn. The second dimension of the system is the non-monetary level of utility (indicated on the u-axis), which most people would define as fun, enjoyment, or quality of time. As in conventional microeconomic models, each indifference curve describes combinations of the two dimensions generating identical levels of total utility. The innovative element of the activity choice model is that it also formally takes into account the existence of such non-monetary considerations for the sphere of 'work'. As shown by the depicted indifference curves (I1 and I2), each individual has a trade-off between the two dimensions, regardless of whether the activities belong to the sphere of 'leisure' or 'labour'.

Figure 1 describes the two dimensions for one individual. She is assumed to have four available options, all below the budgetary limit and therefore feasible: She can make mon-

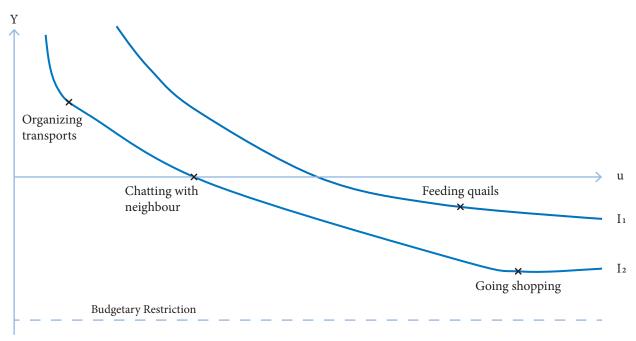


Figure 1: Activity choice model (u = non-monetary utility; Y = income; I = indifference curve)

ey by organizing transport, probably for her employer; she can remain in the non-market sphere by entering into conversation with her neighbour; or she can make one of two choices in the consumption sphere: feeding the quails on her farm or – the more expensive but also more attractive option – going shopping. The indifference curves (I1 and I2) are crucial for defining the utility-maximising choice. They are positioned to show that organising transport, chatting and shopping are all on the same utility level. Feeding the quails, however, lies on an indifference curve with a higher level of utility, and will therefore be chosen.

The individual in the diagram chooses to spend time farming with a negative income as a utility-maximising choice. Since the position of the indifference curves and the assumed utility levels of the different options are chosen arbitrarily, however, we need to show empirically, as outlined in the next section, that farming with a negative income is – at least in some cases – a rational choice.

4 Method

Because negative farm incomes are a very sensitive topic, and one about which little is actually known, a qualitative approach was chosen. Four farms were selected, and farmers were interviewed based on the following three criteria:

- Their average on-farm income was below zero in the time period 2010–2012;
- Their off-farm income was above CHF 50,000 over the same period;
- The resultant household income was above CHF 30,000.

Although the second and third criteria may at first glance appear arbitrary, it is not plausible to assume that farm households with a very low (or even negative) total income

would have chosen their economic situation deliberately. Moreover, these two criteria guarantee that the research adds something different to the rather large body of literature on precarious situations for agricultural households in the developing and developed world (Barlett, 1993; Ellis, 1993; Fluder et al., 2009; Coclanis and Stewart, 2011). The second and third criteria therefore served as a sign of a social situation that all in all might be perceived as acceptable.

The interviews took place in spring 2014 at four different farms which met the criteria. Each lasted approximately one hour, and was only loosely pre-structured, starting in each case with a narrative about the history of the farm. Some of the issues covered were off-farm employment, satisfaction with the income situation, attitude towards Swiss agricultural policy, and the likely future of the farm. Interviews were recorded and subsequently transcribed.

Because the aim of the study was to understand individual cases rather than build representative patterns, objective hermeneutics was the evaluation method used. Although this method dates back to the German sociologist Oevermann (1979; 2000), it was only introduced to the international research community much more recently (Reichertz, 2004; Ziegenspeck et al., 2004). Objective hermeneutics sets itself apart from other hermeneutical schools such as Sigmund Freud's deep hermeneutics or Soeffner's (1989) knowledge-based hermeneutics. Reichertz (1997) explains that the 'objectivity' of objective hermeneutics is not related to the claim of uncovering truth, but to the aim of reconstructing, or uncovering, the structures of objective meaning in a text. In other words, what the authors of a text thought, wished, hoped, or meant - i.e., their subjective intentions – are irrelevant, because science does not choose to understand such intentions. The only relevant issue in

objective hermeneutics is the objective meaning of a text in a defined language and interaction community. Objective hermeneutics does not rely on a certain minimum number of samples, because fully understanding the structure of a single case may well be sufficient.

As with other qualitative research methods, work with objective hermeneutics begins with the production of a text, often through the transcription of an interview. In a second step, two or three paragraphs only are used for the analysis. To avoid measuring what was said against the subjective background of an individual researcher, it is preferable for the sequence to be analysed by a group of scientists rather than by a single individual (Garz and Kraimer, 1994). As usual, therefore, the main work of analysing sequences of records was performed in a half-day-long workshop attended by three people. The work consisted of a detailed analysis of what was said. What would we have expected to be said in that particular situation? In what other contexts could what was actually said have been said? What follows from the (verbal) choice made by the individual?

5 Sequence Analysis

As a sample of the empirical work, one sequence from one of the four interviews will be looked at in some depth. This sequence is taken from an interview conducted by two researchers with a couple on their 7-hectare farm. Purchased by the husband's father in 1971, the farm was highly diversified, including activities such as horse, suckler cow, sheep, quail, and asparagus production. The husband worked full-time as a carpenter for a construction company, while the wife took care of their child and the farm business. The sequence below begins with a strong statement by one of the interviewers after touching on the income situation of the farm:

Int. A: But it's really, it's really a hobby, and it is simply is the hobby that you like so much you wouldn't replace it with anything else, isn't it, you can put it like...

He: Yes, you can put it like that, I sometimes say, this, this is hobby.

She: You say that, and I really dislike that.

Int. B: Yes. Yes, yes that is...

She: Well, it actually strongly hurts my feelings when anyone says this is hobby.

Int. B: Mm hmm...

She: Because it's really a lot, so I also have my hobby with my sheep business, but it is more. That the existence is not ruined, it simply is no base of living for a family.

Int. B: Yes, yes

She: In terms of revenue, in terms of size. But in the way that you look at the farm and everything, and, and the land, the animals, and so on, this is far more than a hobby.

Int. B: So, what is farming then?

She: This is, er, your profession, this is his profession that he learnt.

He: Yes.

She: But he must he does simply some simple additional earning, simply so as to bring in some extra money.

Int. B: Mhm (.) Yes. (..) Yes, yes, sure.

She: Well, I think if you, I don't know, if we struck pay dirt in between and this gave us enough money. The job that you do, you like to do it, but then you would just work at home.

The interviewer's opening statement is, of course, highly suggestive, e.g. his repetition of the word 'really'. Through his forceful choice of words, the interviewer seems to need to convince himself of what the farmer is doing on the farm. Only at the end of his statement does he return to the interview situation by suggesting that "you can put it like that," leaving open the possibility of there being alternative ways of describing the farm activities. The interviewer's description is then taken up by the husband. Not only does the latter acknowledge that 'hobby' is a possible term for describing his and his wife's agricultural activities: remaining on the meta-level of 'terming behaviour', he also adds that he sometimes uses this description himself. The 'sometimes' component leaves open the possibility of finding other constructions, such as, perhaps, regarding farming as hard work without income.

At this stage of transitioning from allowing for the option of 'putting' farm work as a hobby to acknowledging that the husband chooses this option occasionally, the wife intervenes. In her repetition of the farmer's acknowledgement, she omits the 'sometimes', rendering the farmer's classification more matter-of-fact and less casual. She then switches to the emotional sphere by applying the category of sympathy/antipathy towards such a statement.

The second interviewer – apparently fearful of a crisis occurring during the interview – leaps in to comfort the wife by a repeated statement of agreement and the attempt to begin a verbalisation. The wife, however, decides to continue outlining the negative emotions stirred up in her by the description of all on-farm activities as hobbies. She chooses to strengthen her point now by describing her 'dislike' as pain. On the one hand, this pain is underscored by the word 'strongly'; on the other, the conflict is slightly depersonalised by extending the antipathy to anybody (not just her husband) who characterises (her) farm work as a hobby.

At this stage, she begins arguing why work on their farm cannot be described as a hobby. Apparently, the workload ('it') is a decisive criterion, and too heavy to qualify as a hobby. Interestingly, the wife herself then chooses one of the farm's activities to label as a hobby. Rearing sheep, it would seem, requires only a moderate amount of work, and thus may qualify as a hobby.

An additional reason for farm work not being a hobby is the reference to 'existence'. It remains unclear which existence is referred to, but some sort of "existence value" of the farm is probably the most likely option. The apparent necessity of protecting this 'existence', this livelihood, is faced with the 'simple' impossibility of making a living with the farm business. Supported by the second interviewer, the wife defines two categories (size and revenue) that prevent the farm from providing a proper living. This suggests that there may be other categories (e.g. workload) that define the farm as a unit justifying the terminology of labour. The wife then outlines factors contributing to this "existence value." The sincerity with which "you look at the farm" may be the most interesting factor, but land and animals are two additional building blocks of her argument. All in all, it would appear that from the start, the term 'hobby' is not taken seriously enough to include proper farm work.

Consequently, after it has become evident that the wife does not consider 'hobby' to be the appropriate term for describing on-farm activities, one of the interviewers asks for a more appropriate classification. The woman's reference to 'profession' occurs in two steps: The first, in reminding her husband of his professional honour; the second, when addressing the interviewer. Regarding 'profession', another argument against farming being a hobby emerges: the process of education. Since the farmer studied to qualify in his profession, this education distinguishes his work from a hobby.

The most interesting characteristic of the following part of the sequence is the use three times of the term 'simply' (or the adjectival variant, 'simple'). This word is usually employed to describe states of the world that we may or (more frequently) may not like, but which are clearly facts which we must adjust to. In this case, the disliked fact is the need to earn money somewhere outside the home. The expression 'extra money', however, suggests that the farm already brings in some money. Although there is actually a net outflow of money through the farm, this choice of words is a good example of a concept expressed in all the interviews conducted on farms with negative incomes, where all farmers spoke of a 'low' farm income, rather than a 'negative' one, despite the fact that their bookkeeping data was shared with the interviewer's organisation (i.e. the farmers knew that the interviewer was aware of their financial situation). It would appear that the farmers are either in denial about their negative farm income, or that the issue is perceived as too embarrassing to be mentioned.

The sequence closes with a scenario in which the wife illustrates her preferences in a manner which is extremely helpful for the activity choice model as outlined above. She

asserts that in the absence of budgetary restrictions, her husband would prefer to switch from his off-farm job to working full-time on the farm. Given that she is convinced that his off-farm job produces positive utility for him ("you like that"), this suggestion emphasises the great enjoyment which she feels the farm provides.

All in all, the different attitudes of the husband and wife are not surprising if societal values and expectations are taken into account. The husband is able to consider the breadwinning activity as his job and his activities during the rest of the day as his hobby. This is a rather simple lifestyle construct to which his wife has difficulty subscribing. According to his description, she spends a large part of her day pursuing her hobby. In a society where self-esteem is so strongly linked to one's career, this would be unpleasant to hear. Thus, she stresses the professional background of her husband and herself, as well as the farm's livelihood value; she refers to the importance of the land and animals, so that the holy nimbus of 'labour' surrounds their farm activities, rather than the dubious whiff of anything as frivolous as a hobby. More than anything else, the sequence reflects the high status that attaches to work in our value system.

In spite of this, the wife's attempt to categorise her activity on the farm as work, rather than a hobby, in no way contradicts the supposition that their lifestyle – which involves spending a great deal of time on a farm without income-generating capacity – is the result of completely rational behavior, as suggested by the activity choice framework. Neither the couple whose interview sequence was presented nor any of the other farming couples interviewed complained that their negative farm income took them by surprise. Although they preferred to talk about 'low' rather than 'negative' incomes, they had all made peace with the notion that their livelihood came from off-farm sources.

The sequence nevertheless demonstrates the complexity of the utility axis in the activity choice model by going far beyond the mere enjoyment of working. In the case above, the upkeep of the farm, and therefore the preservation of family traditions, contributes to the non-monetary utility of farm work. Other potential contributions to non-monetary utility might, for example, involve the awareness of maintaining food security for the family.

This pattern was largely confirmed by the other interviews, all of which were conducted at extremely picturesque farms. None of the farmers were frustrated by their negative agricultural income. Farming always appeared to be much more a lifestyle decision than a breadwinning activity. Negative incomes were not mentioned in the interviews; instead, a number of interviewees spoke of 'low' incomes. Nobody, however, expected farming to turn into a significant source of income.

6 Conclusions

Every individual requires a given income to cover his or her needs. Previously, however, the very fact that someone owned or managed a farm usually led to the conclusion that their income should derive from the farm. Using a social constructivist approach to analyse the extreme case of 5% of Swiss farms generating a negative agricultural income demonstrates that this conclusion is not a foregone one, as well as being largely ideological. An active farm can certainly be a successful business; it may also be nothing more nor less than a source of enjoyment, or a valuable way of practising traditions. In life constructs based on such a concept, actors must then find a different source of income. At this point, we might add that all of the farms in the group visited were in an idyllic environment and enjoyed breathtaking views.

Despite this, many agricultural policies focus squarely on income. Previously, the criticism has been levelled that sector-specific income policies tend to predominate, particularly in the agricultural sphere (Hagedorn, 1981). Our analysis, however, takes the critique of sector-related income policies one step further, in that one may not only question whether sufficient incomes can and should be sustained within certain sectors; one can also challenge the definition of an economic sector. Agriculture, particularly Swiss multifunctional agriculture, is a very apposite case in point, as it may serve many purposes that are not limited to the economic dimension. If we imagine that the percentage of Swiss farmers with a (more or less deliberate) negative income will continue to rise, for how long would it be helpful to characterise Swiss agriculture as an economic sector, and at what point would it be more useful to describe farming simply as an activity - an activity that may contribute to national and personal income in a positive way, or otherwise?

Methodologically, social constructivism has been shown to be a powerful tool for freeing oneself from unnecessary limitations, with the combination of statistical and qualitative methods perhaps having played a role here. It will take much more, however, to dissolve the clear-cut distinction between labour and leisure that is still firmly rooted in both scientific and non-scientific discourse.

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