Fair Producer Prices

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Ruud Bronkhorst, InfoBridge Foundation, Netherlands

rbronkh@planet.nl; rbronkh@infobridge.org

Abstract

In order to ensure that peasants as well receive just remuneration for their work as described in the Universal Declaration of Human Rights, a paradigm change in thinking about producer prices is needed: from market prices to 'fair' prices. After an overview of how economists have dealt with the concept fair, this paper continues with a methodology, the 'Living Income / Fair Price' approach, that describes how to calculate producer prices that are not only based on production costs, but on the concepts 'living wages' and 'living income' as well. These prices are called 'fair prices'. These fair prices can be calculated for each agricultural product separately, based on the assumption of full employment on the specific crop.

Introduction

At a time when even political and industrial world leaders, gathered in Davos, are worried about globalization, climate change and the rising income gap, economists should accept the challenge to lead the way forwards. There is a bottom line to the amount that is needed for food, shelter etc. This leads to the question where to draw this bottom line. The World Bank has defined an International Poverty Line of US$1.90 PPP and a Lower Middle Income Class Poverty Line that has a value of US$3.20 PPP. These amounts are absolute minimum amounts to survive. Whether it is fair that people have to work hard for an amount that is just sufficient to survive, is a different issue. If we take the view that people should earn enough to have a decent life, we come to the question 'What is a 'fair' income?'

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There are a lot of possible ways to interpret 'fair'. Should 'fair' prices and wages be paid because it is an economic or social necessity, a moral value or as a charity? Does the worker have a moral or economic "right" to a fair remuneration or is it something we grant him because of our 'goodness'?

Large parts of the working entrepreneurial population, such as many artisans, small farmers etc. have too low an income because the prices they obtain for their products are not sufficient to live on.

First we will discuss how economists have dealt with the concept 'fair'. Then we will look at human rights as formulated in the UN adopted 'Universal Declaration of Human Rights'. What will be explained is how these human rights must have their effects on economic theory through the application of the concepts 'Living Wage' (LW), 'Living Income' (LI) and 'Fair Price' (FP). It is shown that this will require a paradigm change. We will also explain how to calculate these incomes and prices, which will be concretised in two case studies. After that, conclusions will be drawn.

What is "fair"?

Thinking about 'fair' prices and fair wages, though not always under that name, has been going on for a very long time.

For Aristotle the just price reflected the labour that both parties put into their goods, and was just because the goods embodied equivalent amount of labour (Springer).

In the Middle Ages Thomas of Aquino argued that prices charged had to be just. A wage pushing workers below subsistence level eroded their chances of being virtuous and were therefore unjust. Thus, a moral economy needed to be balanced against the market economy through the cultivation of virtue (Levin-Waldman)

Adam Smith (1723-1790), the most well-known classical economist, who is often quoted by neo-liberal economists because of the working of the so-called 'invisible hand', wrote in his best-known work 'Wealth of Nations': "No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable. It is but equity, besides,

that they who feed, clothe and lodge the whole body of the people should have such a share of the produce of their own labour as to be themselves tolerably well fed, clothed and lodged" (Smith).

The fact that Smith wrote this is important because it shows that Smith was also a 'moral' economist who did not take for granted that the invisible hand would solve all problems. He was in favour of freer trade that would remove restraints that lead to monopolies.

So it is good to realize that at that time already, the founder of economic science stated that the 'free' market is not the solution to all problems, and that the price determined by supply and demand does not lead to the greatest prosperity possible, unless all conditions are met, conditions such as absence of monopolies and the absence of great numbers of poor and miserable.

According to the classical economist David Ricardo wages, being the price of labour, have both a natural and a market price. "The natural price of labour is that price which is necessary to enable the labourers, one with another, to subsist and to perpetuate their race, without either increase or diminution", and

"The market price of labour is the price which is really paid for it, from the natural operation of the proportion of the supply to the demand; labour is dear when it is scarce and cheap when it is plentiful". (Ricardo)

Ricardo is of the opinion that the natural price of labour enables the labourer to keep himself and his family alive. When wages rise the number of children will increase, whereas the number will decrease when wages get lower. In case of a wage rise the supply of labourers will increase within a relative short period which will have as its consequence that wages will fall to the level of natural wages.

Marx refined the labour theory further.

Neoclassical economics replaced the classical concept with an analysis of the equilibrium of supply and demand in a stationary state. They based a theory of the relative prices of commodities on the concept of utility. The price of a commodity is governed by its marginal utility, not by its usefulness. Where water is in plentiful supply, its marginal utility is low;

where water is scarce its marginal utility is high, whereas in both cases its usefulness is undoubted. The marginal utility of diamonds is kept high by their scarcity.

Bentham measured welfare in terms of the ability to produce net pleasure. "Best" policy is one that produces the greatest overall utility. John Stuart Mill (1806-1873) writes in his "Greatest Happiness Principle" that 'Utility should be maximized by focusing on the general net happiness in society, calculated according to both quantities and qualities..' The benefits of markets should not be enjoyed on the basis of greater common good produced but on the basis of individual good (Wright).

Cambridge economist Joan Robinson criticized utility for being a circular concept: "Utility is the quality in commodities that makes individuals want to buy them, and the fact that individuals want to buy commodities shows that they have utility" (Robinson)

The criticism of John Rawls (1921-2002) on utilitarian ethic, is that it would never serve as system of justice that could bind people together. The extreme utilitarian (and economic) ethics examine only the *aggregate* welfare produced and has no concern for distribution or principles of justice (Wright).

Sen argues that there are three components that the evaluation of utilitarianism requires, namely 1. Consequentialism, all choices should be evaluated according to their results, 2. Welfarism, which limits the evaluation of labour in each case to the outcome of benefits, and 3. The highest total, adding them all without taking individual distribution into consideration (Levent).

Léon Walras further developed the marginalist approach by describing the economic system in general mathematical terms. Walras stated that for each product there is also a "supply function" that expresses the quantities producers will supply dependent on their costs of production, the prices of productive services, and the level of technical knowledge. In the market, for each product there is a point of "equilibrium" at which a single price will satisfy both consumers and producers. "'Marketing-clearing prices' ensure that all that is produced is sold. When the supply of a particular commodity is in excess of demand, however low the price, the price falls to zero – it becomes a free good. This rule also applies to labour. In a position of equilibrium, enough workers must have died off, at any time in the past when

wages were zero, to make the remainder sufficiently scarce today to command a living wage" (Robinson and Eatwell)

About the state of equilibrium, it should be noted that the demand side consists of <u>effective</u> demand only, which means that the demand of people with no or little financial resources is not taken into account. So the demand of the poorest is not taken into account in the equilibrium price. This is the case for all products, but especially for food products this is important since these are essential to survive.

Economics became more and more a mathematical instead of a moral science. At the time of the classical economists there was not yet such a strict distinction between economics, philosophy and sociology as there is now. These sciences overlapped, so economics included a moral component as well. This moral aspect has been lost in the transition to modern economics which claims to be value-free.

There have been economists who have taken much more distance from the current neo-classical theory and have published serious criticisms of this theory. Here I will mention some of those critics who have taken into account more than only market equilibrium theories, and have also introduced power relations in their studies.

Johan Galtung's 'A Structural Theory of Imperialism' has been influential, as well as Andre Gunder Frank's 'Capitalism and Underdevelopment in Latin America' (Frank). Galtung made the important differentiation between 'harmony of interest' and 'conflict of interest' between communities (Galtung). In Latin America the 'Depencia' theory was developed, with scholars like Prebisch, Furtado and Dos Santos. These theories argued that not alone there were relationships of dependency between the Center (the developed world) and the Periphery (the developing countries), but also between the centers and peripheries in both Center and Periphery.

The idea of elites, national or international, that have their own interests which may be different from the interests of other parts of the population and may lead to bad institutions, has been worked out further by authors like Daron Acemoglu and James A.

Robinson in their book 'Why Nations Fail' (Acemoglu and Robinson) and by Abhijit V. Banerjee & Esther Duflo who use the term "iron law of oligarchy" (Banerjee & Duflo).

A concept of 'Fair Trade' was developed in which fair trade relations were made central. This concept falls within the scope of neo-classical theory. With the general acceptance of some protection against complete free trade, a notion of fair trade or a "level playing field" was developed. 'Fair trade policy is usually quasi-protectionist and multifunctional in terms of its goals, creating policies that take into account economics, development issues, sociological concerns, and politics' (Balaam & Dillman). Fair Trade Organizations use their own concept of fair trade by their additional principle that aims at economically disadvantaged producers (WFTO). Although often paying higher prices than market prices, there is no consensus among fair trade organizations on what a 'fair' price to the producer is. The concept of fair trade held the promise of a change in (international) relationships, but was limited to a marginal position, whereby not even fair prices are guaranteed.

Human rights as point of departure in the analysis

After the Second World War the Universal Declaration of Human Rights was adopted (1948).

In Article 23 of the 'Universal Declaration of Human Rights' is written:
"Everyone who works has the right to just and favorable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection."

And In Article 25,

"Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control." (UN Human Rights)

These articles are at the basis of the SDGs, the Sustainable Development Goals, adopted in 2015 by the United Nations.

Goals 1 'No Poverty' and 2 'Zero Hunger' are about ending poverty and hunger, and achieving food security (UN SDG's)

In 1966 the United Nations International Covenant on Economic, Social and Cultural Rights spoke out in Article 7. "Remuneration which provides all workers, as a minimum, with … a decent living for themselves and their family" (Anker 2011)

Economics should take into account these world-wide obligations and adapt its theories so as to fit in with these requirements. A number of organizations have already taken steps in this direction.

In industry, the living wage concept has been developed which implies that every worker has a right to a decent income, sufficient for him/her and his/her family.

In June 2008 an ILO Declaration on Social Justice was adopted by The International Labour Conference that supports "policies in regard to wages and earnings, hours and other conditions of work, designed to ensure a just share of the fruits of progress to all and a *minimum living wage* (my italics) to all employed and in need of such protection" (ILO).

In 2013 the following definition of a living wage was agreed by the Global Living Wage Coalition consisting of Fairtrade International, Forest Stewardship Council (FSC), GoodWeave, Sustainable Agriculture Network/Rainforest Alliance (SAN/RA), Social Accountability International (SAI) and UTZ Certified.

"A living wage is the remuneration received for a standard work week by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, health care, transport, clothing, and other essential needs including provision for unexpected events." (Global Living Wage Coalition)

In agriculture, a similar concept has been developed, the living income. When a farmer works full-time, he or she should be able to earn such a living income.

The Living Income Community of Practice (a partnership between The Sustainable Food Lab,

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GIZ and the ISEAL Alliance) defines living income as:

"The net annual income required for a household in a particular place to afford a decent standard of living for all members of that household."

"Elements of a decent standard of living include: food, water, housing, education, healthcare, transport, clothing, and other essential needs including provision for unexpected events"

(Living Income Community of Practice).

Methodology

All these developments in thinking must have their effects on the further development of economic theory as well. For agricultural economists the adoption of these articles by the United Nations implies that these aspects should be included in their theories of rural development.

A basic question that arises immediately is how to develop a model of renumeration that is in line with Articles 23 and 25 of the 'Universal Declaration of Human Rights'.

For (agricultural) wage workers this implies that they should receive a decent (living) wage. For non-wage agriculturalists this means that they must receive a decent income for their work as well. This implies that the net revenue of their products, so revenue minus all costs, must be sufficient to attain a Living Income.

There are many ways to achieve this, such as by new production methods, improved market access, land reform, subsidies on inputs, as well as by training, schooling and medical services.

But in all these cases the farmer is faced with the problem that the net price received for his/her products must be sufficient to attain this income, because his/her income consists of (price * quantity – costs). When we only look at quantities produced we risk to overlook the danger that larger quantities may lead to lower prices, thereby not resulting in a higher income to the farmer. Therefore it is good to pay more attention to the prices paid to the producers. What are the implications for economists when we look at producer prices?

What is needed is a paradigm shift from the use of prices decided by the market with all its imperfections, such as the existence of monopsonies (one single buyer) and oligopsonies (few buyers), the existence of import and/or export restrictions, and subsidization of certain products (such as agricultural subsidies in the US and the EU), as well as political interference by governments and of pressure groups on governments, to an approach founded on ethics. 'Ethical' here implies that any worker receives a decent income for full-time, sustainable work. The market, therefore, should no longer be seen as an objective factor, but should be corrected where necessary. The idea that the market should be corrected is not new. It is practiced constantly all over the world. What is different in this approach is that the boundaries within which interventions have to take place, are clearly defined. The upper and lower limits of any intervention are governed by universally accepted Human Rights. These rights must be put in practice.

In order to arrive at such a decent income, we must look at the actual circumstances in each situation. What should be covered with an income earned at a certain date at a certain place, in what kind of circumstances, how many people must live of that income? This implies that all kinds of local circumstances have to be taken into account, among which what kind of expenditure is supposed to be covered by the income, is that only food and clothing or should schooling for the children, medical care etc. also be included?

In this paper I take as point of departure for the farmer that he/she must earn a 'Living Income'. On basis of this I define the payment of a "fair" price to the producer as such a price that it includes at least a living income, including living wages for the farmer and all workers employed, be it family labor or hired labor: a wage sufficient to enable the worker a decent life for himself and for his family, including education, health care, shelter etc. The payment should be based on a complete working week spent on this production, and the product is a product that is useful. To this must be added a certain percentage to enable the farmer to make necessary investments.

To calculate a living income for a farmer household we take the living wage multiplied by the number of family workers plus all investment and other costs (incl. depreciation). In the costs

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are also included the wages of casual labor at living wage prices. To this an additional percentage is added to enable investments to improve future yields and to adjust to climate change. In order to achieve this income on a given surface, taking into consideration weather-related conditions, the crops that can be grown, and other circumstances influencing both yields and production costs, the crops must have a certain sales price.

This price that the producer should receive for these crops in order to attain a living income, is called the 'fair' price. This price is based on the assumption of full-employment on the specific crop.

In sum, the price the producer gets for its products should be such that:

(a) the price is sufficient to pay all costs, both fixed and variable costs;

(b) this price is sufficient to guarantee continuity of the enterprise;

(c) all workers get paid at least a 'Living Wage' as well as the legal minimum wage;

(d) the producer himself has an income that equals at least both the 'Living Wage' as well as the legal minimum wage; and

(e) this price is sufficient to expand the business in a gradual way.

This price is the so-called Fair Price.

In order to calculate Living Wages[1] we need to know:

- o The average family size: adults, children below 15, children 15 – 18 years and people above the age of 60.

- o The total expenses of the household for a basic but decent life for a reference size family during the year must be known, both on food and on non-food products.

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[1] For a detailed approach see Anker and Anker

- To this some 5- 10% must be added for additional, and often unforeseen, expenses (the exact percentage depends on local circumstances)

- Average number of adult earners per household must be known

- Number of working-days per year = calendar days – Sundays – festivals – social obligations - calamities – sick days

With these data the Living Wage per adult earning family member per working day can be calculated as the cost of a basic but decent life for a family, divided by number of workers per family.

In industry, on basis of these figures the amounts of 'Fair Wages' can be decided upon, in consultation with representatives of the workers themselves, as advised by Vaughan-Whitehead, with these amounts for Living Wages as the absolute minimum that the fair wage cannot be below (Vaughan-Whitehead).

Departing from this Living Wage also Living Income (LI) can be calculated.
To calculate a living income for a farmer we take the living wage multiplied by the number of family workers plus all investment and other costs (incl. depreciation). In the costs are also included the wages of casual labor at living wage prices. To this an additional percentage is added to enable investments to improve future yields and to adjust to climate change[2]. In order to achieve this income on a given surface, taking into consideration weather-related conditions, the crops that can be grown, and other circumstances influencing both yields and production costs, the crops must have a certain sales price.

We can say that the Living Income for a household per year = (Number of Adult earners * LW + costs) * X %, whereby X is an additional percentage for investment costs. This percentage can be adapted to the specific situation. So a higher percentage can be used to enable the

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[2] Note that this addition is not part of the definition of living income by ISEAL and GIZ

farmer to make use of items like better seeds and better equipment. Additional investments needed to change to a more sustainable way of production or adapt to climate change may necessitate a higher percentage as well.

To calculate fair prices, next to the calculated living income, must also be known:

- Average farm size must be defined. Which average farm size is chosen depends on the chosen target group. The farm size must be such that all labour can be used, not only for the specific crop but for all income generating activities together.

- Then production costs must be known for all products, including investment costs and depreciation. Even for one single crop these costs may differ, depending on way of cultivation, e.g. with/without fertilizer and/or with/without improved seeds. In the production costs also costs are included of rent paying to a land-owner or sharecropping whereby part of the produce is taken by the land-owner. The amounts thus paid can be considerable

- Production per ha. must be known for each way of cultivation such as with/without fertilizer and/or improved seeds.

- Additional income must be known, both from agricultural as from non-agricultural sources.

On basis of this, Fair Prices needed to achieve Living Wages / Living Income can be calculated.

Fair price

A "fair'' price for the producer can be defined as the price for a product that includes all production costs and at least a Living Income for the farmer and Living Wages for all workers

involved: an income sufficient to enable the worker a decent life for himself and for his family, including food-security, education, health care, shelter etc.

The payment should be based on a complete working week spent on this production, and the product is a product that is useful. As a consequence of the assumption of a full working week spent on this particular crop, it is not necessary to separately calculate the number of hours spent on each crop.

As shown before, The LI concept takes into account the local context, on which a decent standard of living is defined.

This price that the producer should receive in order to attain a living income, is called the 'fair' price. 'Fair', here, does not imply that a higher price cannot be more beneficial, but that any price below this fair price is not sufficient, so this is the absolute minimum price the producer must receive.

This price is based on the assumption of full-employment on the specific crop. In case the number of working hours is not reached over a year, we call the price the farmer has to receive in order to obtain a living income, the 'not-fully employed price'.

When we know the average size of the plots needed for full employment, all production costs and the living income, we can calculate the fair price for a specific crop.

Fair Price per kg = (Living Income – additional income) divided by production in kg.

Because production costs are different in each situation, there is also a different 'fair' price for each situation

When there is a gap between income needed and actual income, it should be analysed what the underlying reasons are. The fact that a full-time working farmer does not receive the income for his/her crops that he/she needs to survive, is reason to further analyse the pricing system in the chain that the farmer depends upon.

Relationship working days and ha needed for full employment

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There is a relationship between labour available and the surface that can be taken into production in case of full employment. To be able to calculate a fair price we will consider a situation of full employment. In case we do not assume full employment we are faced with the situation of a fair price based on a hypothetical farmer possessing ½ ha where he/she works 60 days a year and the rest of the year is spent on something else, for instance another job. Then it would not be reasonable to assume that the income of the 60 days of work a year will provide him/her with an income that is sufficient to cover the whole year. In that case the additional income from the other job will have to be taken into account as well in the calculation. So a fair price for a specific crop can only be calculated when we assume that all the farmers' time is devoted to this particular crop and all additional income is taken into account as well. This means that also produce for own use (vegetable garden) must be added to the income.

Full employment means that there are a certain number of working days a year. The total number of working hours should not exceed 48 hrs/week and there must be spare time for expected and unexpected events, like marriages, funerals, illness etc.

In the following calculation examples we have estimated a number of working days per year, in the Burkina Faso case (below) 275 days a year.

These 275 days are calculated as follows:

Total days/yr	365
Sundays	52
Free days	20
Sickness	18
Total workdays	275

This total number of working days of 275 days/yr is the total number of working days for each adult member of the farmer's household. This number will be different for countries/regions because of cultural differences. In the Malawi example of tea farmers below a total of 246 working days per year is assumed. The total of working hours per year should not exceed the ILO Guidelines however.

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Results

Figure 1 shows the difference between the calculated fair prices for two different production methods for millet, and the market price in the Boucle du Mouhoun region in Burkina Faso, a region with a Sudano-Sahelian climate. This difference is calculated for two cases, one in which the farmer uses a tractor combined with local variety seeds, and another one in which a plough is used in combination with improved seeds. It appears that with the combination of plough and improved seeds in these circumstances, the "fair price" is closest to the market price.

Figure 1   Market and fair prices for millet at 4,4 ha in Burkina Faso
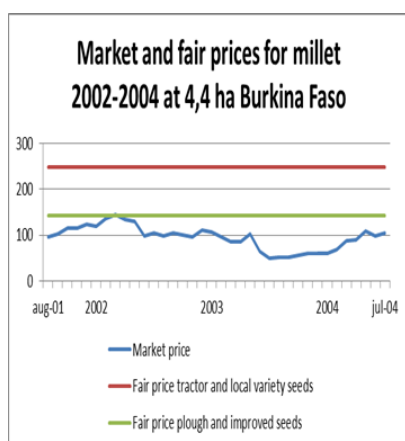
Source: Bronkhorst 2013

In this graph, calculated fair prices are given for a certain period in time. Of course these fair prices do not remain stable in time. Production costs differ from time to time due to changing prices for inputs, the season, climate change etc. Also living income changes from period to period, in the short term due to changes in food prices as well as in prices of non-food products, in the longer term also because of changing family compositions. So to follow fair prices in time both changes in cost of living and demographic changes must be recorded over time. Then you will get a fair price that also fluctuates over a longer period.

Let's now look in more detail into the case of tea farmers in Malawi[3]. On average they have a plot of 0,6 ha of which 0,4 ha is used to grow tea and the remaining 0,2 ha is used for maize and pigeon peas. As maize and pigeon peas can be grown one after another on the same plot, 0,2 ha is used for maize and 0,2 ha is used for pigeon peas. In order to be fully employed a plot of 1,39 ha is needed however, 0,93 ha for tea, 0,46 ha for maize and the same 0,46 ha for pigeon peas. This leads to the following calculation for the Fair Price for tea.

Table 1   Fair Price calculation for tea

	tea	*maize*	*pigeon peas*
Ha	0,93	0,46	0,46
Yield / ha	7500	2500	900
Yield kg	6950	1158	417
Price kg	97,30	130	350
Revenue/ha	729750	325000	315000
Revenues	676235	150583	145950
Cost/ha	603800	265700	140000
Costs	559521	123108	64867
Revenue - costs	116714	27476	81083

Source: calculations based on data Krain, Martin, Brill

So total income at market prices is 116714 + 27476 + 81083 = 225273 MKW/yr.

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[3] I am grateful to the authors Krain, Martin and Brill for their authorization to use the data they collected.

"A decent standard of living for a family of five is calculated from the updated living wage study by Richard and Martha Anker from July 2016[4]. This amounts to 1,132,257 MKW per year. If we assume that one household member works full time and another one dedicates 59% of his/her work time to productive work it will lead us to a work force of 1.59 people per household. Moreover, from the living wage study we know that a full-time tea worker is assumed to work 276 days per year. However, in our calculations we had to reduce the number of workdays by dividing this number by 1.12 which lead us to 246.43 work days per year because a tea farmer cannot make use of paid leave and sick days as this is possible for a worker employed on a tea estate. If we now divide 1,132,257 MKW by 1.59 and by 246.42 we will get to the amount that one work force must earn per day in order to reach a living income. The result is that an income of 2,889 MKW per one work force per work day is needed to provide a household of five with a decent standard of living" (Krain, Martin, Brill).

According to our definition Living Income for the household consists of
Living Wage * number of income-earners + production costs + 5 % investment costs .
Therefore Living Income for the household will be (712111 * 1,59 + 747496) * 1,05 = 1973740.

This means that the fair price for tea consists of the Living Income minus net additional income, in this case the net income from maize and pigeon peas, divided by the total tea yield, or (1.973.740 – 296533) / 6.950 = 241,32 MKW/kg. The additional investments are needed in order to be able to raise productivity and to prepare for the consequences of climate change.

Schematic:

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[4] Anker, M and Anker, R. (2016), Wages Committee progress report 2016.
http://www.malawitea2020.com/uploaded/2016/12/Malawi-Tea-2020-Wages-Committee-progress- report-2016-LR.pdf.

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Calculation model for Fair price

	Needed hh income/yr	**MWK 1.132.257**
Average number of adult earners per household		**1,6**
	LW pp/yr (per earning adult)	**MWK 712.111**
	Total working days / yr	**246**
LW per adult earning family member per working day		**MWK 2.889,71**

Size of the farm in ha	1,39

Production (kg)   **Tea**
6950

Production costs

	Tea	Maize	Pigeon Peas	Total
Total production costs	MWK 559.521,00	MWK 123.108,00	MWK 64.867,00	**MWK 747.496,00**

On basis of this Living Income (LI) can be calculated   factor>   1,05

LI/yr= (Number of Adult earners * LW + costs) x 1,05   **MWK 1.973.740,65**

Additional income	**Maize**	**Pigeon Peas**	**Total**
Total additional	MWK 150.583,00	MWK 145.950,00	**MWK 296.533,00**

FP = (LI - add income) / production   **241,32**

Note that in this case for maize and pigeon peas market prices are used because this is the additional income actually received. In order to calculate the fair price for a specific product, market prices of other products are used. As there is no non-family labour, neither the calculated living wages are used, nor the wages actually received and paid. Also included in this additional income are the quantities used for auto-consumption at market prices.

There are arguments pro and contra the use of market prices for labour instead of living wages. On one hand one could argue that the existing situation must be considered, and not a hypothetic one. On the other hand, this is about the calculation of prices that guarantee everyone a decent income, so living wages should be included.

The same problem is faced when deciding about market prices to be used for additional income, or fair prices. Usually fair prices are only calculated for the main crops and not for secondary crops, that often are used for auto consumption. Therefore, market prices for additional products are used in this case.

In the case of the Malawian tea grower, the farmer does not have 1,39 ha, but 0,4 ha only. Since there is no possibility to expand the area farmable land, he/she will have to live of the produce of this small parcel of land. When there is no alternative employment, the farmer is forced to be idle part of the year. Yet he/she must live and support his/her family. So, we can calculate a price for this situation as well, a situation where he is unable to have other income. In that case we arrive at a higher price than the above calculated fair price. This price may be considered not realizable, but it is the situation in which the farmer finds himself. It is this situation that may inspire policy makers to find solutions for this pressing problem.

In order to differentiate between the price a farmer should receive when working full-time and the price he/she needs to receive when working part-time we may call the price in case of full employment the 'fair' price, whereas the price a farmer should receive when not working full-time can be called the 'not-fully employed' price[5].

We then get the following 'Not-fully employed' Price (table 2)

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[5] In a previous publication (Bronkhorst 2018) I used the term 'survival price', but there was criticism that this term was more an indication for the (extreme) poverty line instead of for being partially employed, so I decided to replace it by 'not-fully employed' price

Table 2 'Not-fully employed' Price calculation for tea

	tea	maize	pigeon peas
ha	0,4	0,2	0,2
Yield / ha	7500	2500	900
Yield kg	3000	500	180
Price kg	97,30	130	350
Revenue/ha	729750	325000	315000
Revenues	291900	65000	63000
Cost/ha	603800	265700	140000
Costs	241520	53140	28000
Revenue - costs	50380	11860	35000

Source: calculations based on data Krain, Martin, Brill

Total income based on actual market prices is 5038 + 11860 + 35000 = 97240 MKW.

With a living Income of 1.973.741 MKW per year, the **Not-fully employed price** for tea will be

(1973741 - 11860 - 35000) / 3000 = 642,29 MKW/kg.

Figure 2 shows market prices, 'fair' prices and 'not-fully employed' prices for tea.

Figure 2
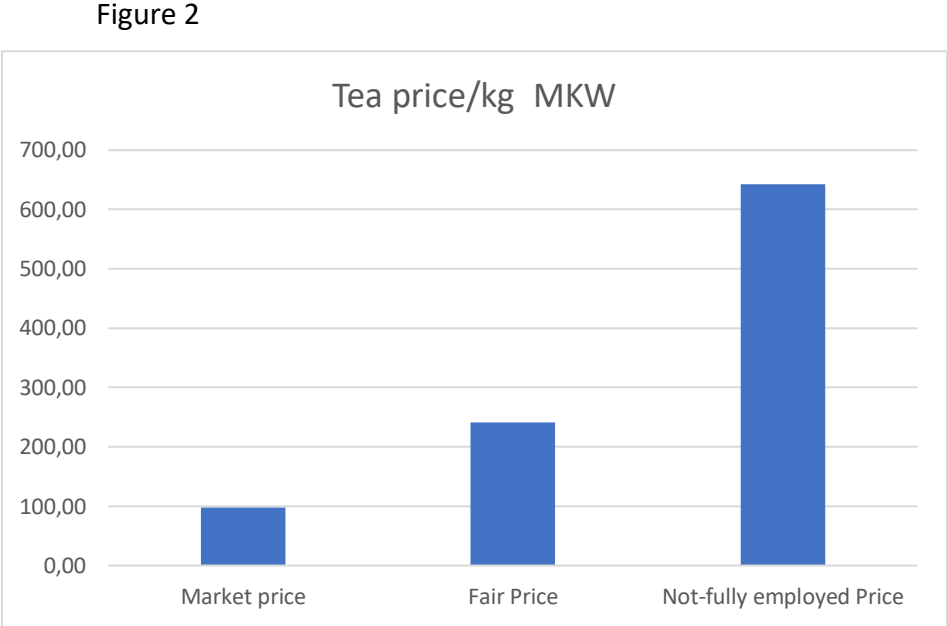
Coming back to the fair price, when we compare the actual income earned on 1,39 ha with tea, maize and pigeon peas, with the Living Income calculated and with the World Bank's Poverty Line of 3.1 US$-PPP and Extreme Poverty Line of 1.9 US$-PPP, this leads to Figure 3.

Figure 3 Income needed and actual income in MKW
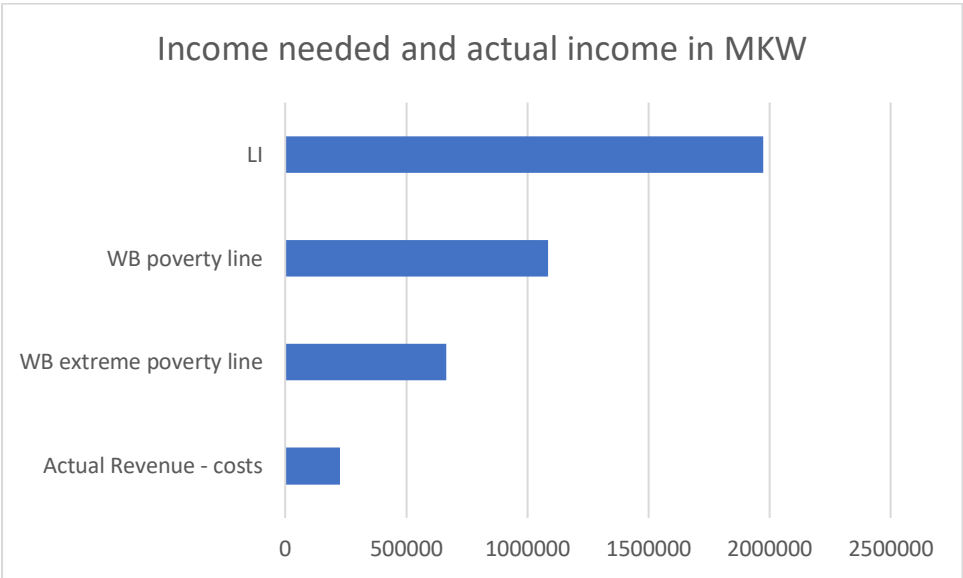
What is very clear from above, is that it is impossible for the Malawian tea grower to reach a decent income with his/her actual production level and the actual prices received for the tea.

Discussion and conclusions

Economic science needs to develop in order to find solutions for to-day's problems such as climate change, globalization, the income gap and poverty. One line of development is to look at producer prices in a different way.

Underpayment of adult labourers and payment of less than fair prices have a wide influence, including child labour. According to a study done in India, the available data suggest that the rise in wages on cottonseed farms has had a positive impact on child labour. The incidence of child labour in the locations studied has come down. According to the author increased wages, due to the increase in procurement prices paid to the farmers, have played an important factor in the reduction in the employment of child labour on cottonseed farms. One reason he gives why seed farmers could not afford to pay minimum wages to the

labourers is the low procurement prices by the seed companies. This is an example how underpayments of adult labourers even influence child labour. Because of the pay rise the proportion of child labour to the total workforce on cottonseed farms declined from 57.4% in 2003- 04 to 29.8% in 2009-10 (Venkateswarlu).

Generally market prices cannot be considered equilibrium prices since there is no perfect competition. This because of monopsonies and oligopsonies, import and/or export restrictions, and subsidies, as well as political interferences.

Besides, the demand side consists of <u>effective</u> demand only, which means that the demand of people with no or little financial resources is not taken into account. So the demand of the poorest is not taken into account in the equilibrium price. This is the case for all products, but especially for food products this is important since these are essential to survive.

The cases discussed above show that there is reason enough to reformulate policies aimed at higher producer prices. It is not only food that must be paid for according to their costs and necessities for a decent living. The results of the calculation of fair prices for export products like cocoa, coffee, tea etc., will work as an incentive for companies to analyse whether the prices they pay are in accordance with their CSR (Corporate Social Responsibility) policy.

What we can learn from the classical economists, is that economics is not only a mathematical, but also a moral science. In our times this implies that it should be in line with general accepted human rights, as formulated in the Universal Declaration of Human Rights.

The task of agricultural economists is not only to analyze and evaluate existing policies, but also to come up with alternatives when policies do not lead to poverty alleviation in a sufficient way.

In order to arrive at producer prices that lead to a living income for the farmers, the Living Income / Fair Price methodology was developed. Accompanying measures like market access, land reform, subsidies on inputs etc. are very important but should be evaluated in combination with the fair price the peasants need to receive.

This Living Income / Fair Price methodology requires a paradigm shift in the way economists think about prices, from market prices to prices based on essential human needs. Calculation

of fair prices in different circumstances should become one of the standard tools in planning agricultural development. In this paper a broad outline of the methodology is sketched, with an overview of the essential data needed for calculation. Now the method must be applied, and further refined in different circumstances.

References

Anker, Richard: *Estimating a living wage: A methodological review*, Conditions of Work and Employment Series No. 29, ILO, (2011) Geneva,

Anker, Richard and Martha, *Living Wage for rural Malawi with Focus on Tea Growing area of Southern Malawi,* January 2014,

http://www.fairtrade.net/fileadmin/user_upload/content/2009/resources/LivingWageReport_Malawi.pdf, last accessed 2-9-2017

Acemoglu, D. and J.A. Robinson, 2013. *Why Nations Fail*, (Profile Books GB, paperback edition)

Balaam, D.N. and Dillman, B, *Introduction to International Political Economy* (fifth edition, 2011, Longman/Pearson)

Banerjee, A.V. and E. Duflo, 2011. *Poor Economics*, (Random House India)

Bronkhorst, Ruud (2013). *'Fair' Prices Peasants and the possibilities of a Living Income*, InfoBridge, https://www.researchgate.net/publication/307882536

Bronkhorst, Ruud 2018. 'Fair Prices to Achieve a Living Income for Small Farmers and Its Relation to Local Food Purchase Programs', *Sociology and Anthropology 6(11): 833-839, 2018* http://www.hrpub.org/download/20181130/SA3-19612283.pdf

Frank, Andre Gunder, *'Capitalism and Underdevelopment in Latin America'*, (1971, Pelican Books)

Galtung, J. 1971. A Structural Theory of Imperialism, *Journal of Peace Research*, vol. 8, No. 2, 81 – 117

Global Living Wage Coalition, 2013. https://www.globallivingwage.org/

ILO https://www.ilo.org/wcmsp5/groups/public/---dgreports/ca binet/documents/ genericdocument/ wcms_371208.pdf13).

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Krain Eberhard, Martin Friederike, Brill Katharina. *'Living and Actual Income of Smallholder Tea Farmers in Malawi – Using a Fast-Track Method for Model Calculations'*, Working Paper, (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH, Bonn, June 2017)

Levent, Adam, Economics and Ethics: Heritage of Amartya Sen, *Turkish Journal of Business Ethics*, November 2013, 6(2), 123-133.

Levin-Waldman, Oren M*. Bookreview The Living Wage: Lessons from the History of Economic Thought by Donald R. Stabile*

https://journals.sagepub.com/doi/abs/10.1177/001979391006300313

Living Income Community of Practice https://www.living-income.com/the-concept, (last accessed 31-1-2019)

Ricardo, David *'The Principles of Political Economy and Taxation'*, (3rd edition, 1821, J.M. Dent & Sons Ltd, 1973)

Robinson, Joan (1962). *Economic Philosophy*. (Harmondsworth, Middlesex, UK: Penguin Books)

Robinson, Joan and Eatwell, John *'an introduction to modern economics'*, revised edition, 1973, (McGraw-Hill)

Smith, Adam: *Wealth of Nations*, (Wordsworth Editions Ltd, 2012)

Springer: *Aristotle to Marshall: The Evolution of Economic Value Theory*, pdf (last accessed 12-2-2019)

UN Human Rights http://www.un.org/en/universal-declara tion-human-rights/

UN SDG's https://sustainabledevelopment.un.org/?menu=%201300

Vaughan-Whitehead, Daniel, '*Fair Wages', Strengthening Corporate Social Responsibility*, (Edward Elgar, USA 2010)

Venkateswarlu, Davuluri: *The Price of Less Child Labour and Higher Wages*, (Study commissioned by India Committee of Netherlands (ICN), http://www.indianet.nl/ThePriceOfLessChildLabourAndHigherWages.html, (last accessed 11-9-2017)

WFTO https://wfto.com/fair-trade/10-principles-fair-trade, 2014

Wright, Jonathan B., *Ethics in Economics*, (Stanford University Press, California 2015).

Note: