

Once more Jesus said to them, "I am going away, and you will look for me, and you will die in your sin. Where I go, you cannot come." This made the Jews ask, "Will he kill himself? Is that why he says, 'Where I go, you cannot come'?" But he continued, "You are from below; I am from above. You are of this world; I am not of this world. I told you that you would die in your sins; if you do not believe that I am the one I claim to be, you will indeed die in your sins."

John 8:21-24

I had several arguments with Han Deqiang before, but now our views are getting closer in some respects.⁽¹⁾ More than ever, it is mine that is getting closer to his. For instance, I have been making continuous progress in understanding his positive feedback and passive feedback mechanism for the past few years although I'm exploiting wordings, such as equalization and polarization, as well as the-stronger-get-stronger and the-poorer-get-poorer, to indicate the trend of development of the world. The positive feedback and passive feedback mechanism of Han Deqiang in his expression is a natural and scientific term, while mine is a social scientific one.

The Self-Reinforcement of Wealth and Poverty

What I want to say is that the world has, indeed, come to its end. The reason is the mode of our development, because this is a mechanism that the stronger get stronger and the weaker get weaker—a mechanism of self-reinforcement of wealth and of poverty and a mechanism that is tending towards automatic destruction.

We may now try to take a look at the current process of globalization. It is actually only of capital globalization, rather than labour globalization and neither land globalization, nor technological globalization,

nor management globalization. In the many elements of production, only capital has been globalized and also only capital has been liberalized, whereas all other elements of production have been excluded. This is an exclusion of the stronger from the weaker, a set of mechanisms that has formed extensive global recognition and there is no way for a turn of direction.

Capital can always form a set of wealth generation and consumption mechanisms wherever it goes, and this set of wealth generation and consumption mechanisms caters for the desire of mankind in its pursuit of wealth and of consumption satisfaction, thereby creating mortal allurements to each and every person, and naturally generating identification with the might of capital. As almost everyone is attracted by capital, and naturally capital plays the role of a leader, it therefore becomes stronger. Gradually, this mechanism has been proliferated all over the world, thereby making globalization evolve to "capital globalization" or "global capitalization". Whoever has the capital will become the dominant force to drive and to alter the process of globalization. In the recent years of development, the Chinese always talk of the "stronger-stronger union". As a matter of fact, this was not invented by the Chinese, for the entire world mechanism is a stronger-stronger union, and it is the cooperation of the stronger with the stronger, whereas as the weaker often could not form an equal cooperation, naturally there will be no way for them to stand on equal footing as the stronger for fair play. Therefore, there comes the feast of the stronger and the tears of the weaker. This is so not only in the case of China, but is found in the development of every part of the world as well, because this is already the set world logic.

"The Stronger-Get-Stronger" Mechanism

How then is this logic formed? In my opinion, there is a kind of "the-stronger-get-stronger" mechanism that is brought into play. This mechanism may be called resource

1. This article was developed by the author based on his speech delivered at the forum entitled "A Reflection of the Theory of Mainstream Economic Development from Environmental Crisis" of the "blogChina" on June 18th 2008.

极化效应和全球大危机的即将到来

由农业特征谈粮食危机和能源危机的螺旋上升及发展主义的终结

Polarization Effect and the Coming Global Food Crisis

A Discussion about the Spiral Upswing of the Food Crisis and Energy Crisis from the Agricultural Characteristics Perspective and the End of Developmentalism

周立 • Zhou Li

耶稣又对他们说，我要去了，你们要找我，并且你们要死在罪中。我所去的地方，你们不能到。犹太人说，他说我所去的地方，你们不能到，难道他要自尽吗？耶稣对他们说，你们是从下头来的，我是从上头来的。你们是属这世界的，我不是属这世界的。所以我对你们说，你们要死在罪中，你们若不信我是基督，必要死在罪中。

—— 约翰福音8:21-24

我和韩德强原来有过好几次争论，但现在我们在一些方面，观点开始靠拢。更多的，是我在向他靠拢。比如，他提的正反馈和负反馈机制，我这几年在不断地认识，不过，我用的是均衡和极化，以及强者恒强和穷人恒穷这些字眼儿，来

表明这个世界的发展趋势。韩德强表述里的正反馈和负反馈机制，是一个自然科学名词。我用的名词，则是社会科学的。^①

财富和贫困的自增强

我想讲的是，这个世界的确已经走到了尽头。之所以走到尽头，是因为我们的发展模式。这是一个强者愈强和弱者愈弱的机制，是一个财富自增强和贫困自增强的机制，是一个自动走向毁灭的机制。

我们可以试着看一下现在的全球化，它实际上只是资本的全球化，而不是劳动的全球化，不是土地的全球化，不是技术的全球化，也不是管理的全球化。在诸多生产要素里面，

1. 本文是作者在2008年6月18日博客中国网“从环境危机反思主流经济发展理论”研讨会上的发言基础上形成的。

capitalization. We should know that God has given mankind sufficient resources for living and to multiply. People in every part of the world possess human resources attached to themselves, and also own, more or less, natural resources, financial resources and cultural resources, etc., that are adequate for their use. However, these resources, when placed in the hands of the poor, have not turned into wealth. For instance, in the mountainous areas of Guizhou Province, there is picturesque scenery, characterized by fine spring days and rich ethnic minority cultural resources, and yet the locals lack the ability or consciousness for capitalization of their resources. As these resources can be encashed, they can therefore guard these resources only for self-sufficiency and self-amusement purposes. In itself, there is nothing wrong with it. In fact, it is even admirable. But then, the greed of man and the desire of corporations for expansion won't allow this to continue. As a result, the corporations and local governments begin to join hands with each other as the stronger get stronger, enter the area to invest and develop reservoirs, power plants, factories, stores, scenic spots for tourism, etc., and forests are chopped down. In the process, these resources of the poor are turned into the wealth of the rich. As resources are capitalized, the foundation for subsistence of the poor and the future of posterity begin to hang by a thread.

As the owners of capital master the tool of resource capitalization, they can aggrandize their wealth like a snowball and realize self-reinforcement of the capital, while other elements of production, such as land, labour, technology, management, etc., are either seized or engaged by corporations. It is corporations that seize the various major elements of production rather than labour, nor land, nor technology, nor management that seizes capital. And it is also capital

that integrates the above elements and drives continuous wealth creation. Likewise, naturally, in wealth distribution, it is also the retained profits of capital that takes the major share, and naturally there appears the continuous accumulation of the retained profits of capital and the relative insufficiency of the retained profits of labour, resulting in global excess liquidity and rises in price. This is our developmentalism⁽²⁾ and also the truth of development of humankind over nearly 400 years. It could be said therefore that development of the whole human race is just a process that continually converts resources into capital.

If it is said that resource capitalization is the essence of "development", then ironing out the social repercussions brought about by resource capitalization will be the essence of "reform". The process of reform is a process that deals with the contradictions accumulated from resource capitalization. Active reform should be a reasonable distribution mechanism that actively forms value-added proceeds of resource capitalization and eliminates the prior social repercussions that mitigate against development. However, most of the reforms are passive, because intensified contradictions have appeared in the process of resource capitalization and they have to be released or dissolved through measures passively presented. If they are released or dissolved successfully, this reform will be a good one and will be carried on; if it is not, the reform will bring out elements of social instability and in the end there will be new reform mechanisms for correction to enable this development mechanism to continue. "Reform-development-stability" has become the permanent triangle of developmentalism and its internal driving mechanism is nothing other than resource capitalization. Therefore, no matter how the reform is carried on, and how the system is changed, the developmental logic of resource capitalization and the development mechanism that the stronger get stronger will never change. Reform is nothing more than adding some lubricant

2. Developmentalism is an economic theory which states that the best way for Third World countries to develop is through fostering a strong and varied internal market and to impose high tariffs on imported goods. (from Wikipedia—Editor's note).



唯独资本全球化了，唯独资本自由化了。其他生产要素，都被排斥在外。这是一个强者对弱者的排斥，是一套形成全球性的广泛认同，已无法调转方向的机制。

资本走到哪儿，就在哪儿形成一套财富的生产和消费机制。这套财富生产和消费机制，迎合了人类追逐财富、追求消费满足的欲望，从而对每个人都形成了非常大的诱惑力，自然也就产生了对资本强权的认同。由于几乎每个人都为资本所诱惑，资本自然就扮演了主导者的角色，就成了一个强者。逐渐地，这一套机制扩散到全球，使得全球化因而演变成了“资本的全球化”，或“全球的资本化”。谁拥有资本，谁就成为主导力量，去推动和改变全球化。中国人在近些年的发展过程中，常常说到“强强联合”。实际上，这不是中国人发明的，整个世界机制，就是强强联合，是强者和强者的合作，弱者则往往形不成对等的合作，自然也就无法站在与强者公平交易的对等位置上。于是，就出现了强者的盛宴，和弱者的眼泪。不仅中国如此，世界上每个地方的发展，都是这样，因为这已经是一套世界逻辑。

强者恒强的机制

这样一套逻辑，是怎样形成的呢？我认为有一种“强者恒强”的机制，在发挥作用。这个机制，可以叫做资源资本化。要知道，神给了人类足够繁衍生息的资源。每个地方的人，都拥有附在自己身上的人力资源，以及多多少少地拥有够用的自然资源、社会资源、金融资源，还有文化资源等等。但是，这些资源放在穷人手上，没有变成财富。比如说，贵州的山区，山清水秀，鸟语花香，少数民族文化资源丰富，但是，本地人没有将资源资本化的能力，或者

意识。资源换不成钱，本地人只能守着这些资源，自给自足，也自娱自乐。本来，这无可厚非，甚至是可羡慕的。但是，人们的贪欲、资本的扩张欲，不会允许这样的情况一直持续下去，于是，资本和地方政府强强联合，进入到这里，投资开发，水库电站、工厂商店，景点旅游等等，森林被砍伐，把这些穷人的资源，变成了富人的财富，资源资本化了，穷人的生存根本，子孙后代的未来，也就岌岌可危了。

资本所有者掌握了资源资本化这样一个工具，就能够使财富如滚雪球般地越滚越大，实现了财富的自增强。其他生产要素，如土地、劳动、技术、管理等等，要么为资本所占有，要么被资本所雇佣。是资本占有各大生产要素，而不是劳动占有资本，不是土地占有资本，不是技术占有资本，不是管理占有资本。是资本把上述要素整合在一起，推动了财富不断创造，而在财富的分配上，自然也是资本留利占了大头，自然就出现了资本留利的不断堆积和劳动留利的相对不足，导致了全球性的流动性过剩和物价上涨，这就是我们的发展主义，这就是近400年来人类发展的真相。可以说，整个人类发展，就是一个把资源不断转化为资本的一个过程。

如果说资源资本化是“发展”的本质，熨平资源资本化带来的社会震荡，则是“改革”的本质。改革的过程，就是处理资源资本化累积的矛盾的过程。积极的改革，应该是主动形成资源资本化增值收益的合理分配机制，去事前减轻发展的震荡。而大多数改革则是消极的，是在资源资本化过程中出现了矛盾激化，不得不被动推出措施去缓解或者化解的。缓解或者化解得好，这个改革就是一个好的改革，就会坚持下去；缓解或者化解不好，就会带来社会不稳定因素，最终会有新的改革机制纠错，使

to this huge machine for development to enable its more smooth operation. Development mode and reform mode, as two wheels, rotate together, forming a modern mechanism. Development and reform are found not only in China, but in every part of the world—it is only that the reform in China is more characteristic of government dominance. The market economy pursued by China is, in essence, a government market economy, characterized by government companization, rather than the so-called free market economy of the Washington Consensus. One month ago, I had interviews with ministers from several African countries, and one point that they admired about China was that, before the economic prescriptions presented to them by foreign corporations, foreign governments, and international organizations such as the World Bank (WB) and the International Monetary Fund (IMF), they could do nothing but accept them as what they were, whereas under the same pressure, the Chinese government can always maintain its initiative. The reason these African countries have lapsed into a food crisis and become entrapped by poverty is that they have been economized by the free market and have lost their initiative for national development. Against this basic background, our consideration of the fate of our environment and of our agriculture will be much clearer. Relative to capital where the stronger get stronger, what the environment and agriculture face is the logic that the poor are always poor and the weak are always weak. Market globalization and liberalization have pushed them to the other extreme of development. In 2005, I wrote two articles about poor economics. One article, entitled “The Logic that the Poor Is Always Poor”, is more theoretical, expounding the mechanism that the resources of the poor are capitalized by the rich, resulting in the fact that the poor are always poor. The other, entitled “It Is Always Labor That Pursues Capital—My Alternative Travel Notes of Huangshan”, is about my travel experiences in Huangshan, demonstrating positively such kind of logic.

The Risk Characteristics of Agriculture as a Weak Sector

Unfortunately, agriculture, together with the environment, the poor and poor countries, has been pushed to the other extreme of developmentalism. We often say that farmers are weak, rural areas are marginalized and agriculture is weak. Why? We know that the scale of production owned by agricultural producers is generally very small. With that small piece of land of yours, you don't have a right to speak in front of the capital, and you even won't be given a chance to speak at all. Capital owners can form powerful enterprise organizations, can persuade the government and, in front of the two powerful groups, namely, the corporations and the government, farmers are actually just a heap of loose sand in disunity—they won't have a chance for access to the negotiation table and they even don't have a negotiation table, let alone the opportunity to negotiate. The extreme dissymmetry of organizations makes it impossible to establish fair play at all, i.e. fair trade, as advocated by the market mechanism. Under such circumstances when it is impossible to form fair trade, what farmers can do is nothing but beg for employment by the powerful groups and serve them, at the same time putting itself in a position for exploitation by the powerful groups.

The rural areas are also disadvantaged. Relative to the urban segments and also to the industrial sector, the rural areas have no right to speak either.

Agriculture is a weak agriculture, and we know that for industrial product manufacturing, there is no need to give excessive consideration to the weather conditions, as whether there is a good weather for crops won't have much influence on the industry, nor on the service sector, but it will have a very big influence on agriculture, because agriculture is the only sector of mutual exchange between man and nature. The agricultural yield depends more on the farmland scale and weather conditions, and



得这套发展机制持续运行下去。“改革—发展—稳定”，成为发展主义的永恒三角，内在的驱动机制，就是资源资本化。所以，无论如何改革，体制如何转换，资源资本化的发展逻辑，强者愈强的发展机制，不会改变。改革只不过是给这个庞大的发展机器，加一些润滑油，使得这个大机器更顺畅地运转而已。发展模式和改革模式，这两个轮子一块转，构成了一个现代化机制。不仅中国在发展和改革，世界各国都在发展和改革。只不过中国的改革，有更多的政府主导的色彩。中国推行的市场经济，本质上是以政府公司化为特色的政府市场经济，而非华盛顿共识所言的自由市场经济。一个月前，我访谈非洲几个国家的部长，他们羡慕中国的一点就是，他们在外国资本、外国政府和世界银行、国际货币基金组织这些国际组织给他们开出的经济药方面前，只能全盘接受。中国政府面临同样的压力，却一直保持了政府的主导权。他们之所以陷入粮食危机、贫困陷阱，是他们被自由市场经济化，已经失去了国家发展的主导权。在这种基本背景下，我们考虑环境的命运，考虑农业的命运，就会比较清楚。相对于资本的强者恒强，环境和农业面临的，是穷人恒穷和弱者恒弱的逻辑。市场的全球化和自由化，将他们推到了发展的另外一个极端。2005年，我写了两篇关于穷人经济学的文章。一篇文章的题目，叫做《穷人恒穷的逻辑》，是偏理论的，阐述了穷人资源被富人资本化，从而导致穷人恒穷的机制。另外一篇，叫做《总是劳动在追逐资本——我的另类黄山游记》，是由黄山的游历，来实证说明这样一套逻辑的。

农业作为弱质部门的风险特征

不幸的是，农业和环境、穷人、穷国一道，被推到了发展主义的另外一端。我

们常说农民是弱者，农村是弱势，农业是弱质。为什么这么说呢？我们知道，农业生产者拥有的生产规模，通常是非常小的。你那一亩三分田，在资本面前，根本没有发言权，甚至根本就不会给你发言的机会。资本所有者会形成强大的企业组织，资本所有者会游说政府，在资本和政府这两个强势集团面前，农民实际上是一盘散沙，别说谈判了，连上谈判桌的机会都没有，甚至连谈判桌都没有。组织的极度不对称，使得市场机制所崇尚的 fair play (鲁迅、毛泽东、王蒙把它叫做费厄泼赖)，即公平交易，根本不可能形成。在公平交易不可能形成的情况下，农民就只能乞求被强势集团雇佣，为强势集团服务，同时也就处在受强势集团剥夺的位置上。

农村也是弱势的。相对于城市部门，相对于工业部门，农村同样没有发言权。

农业是一个弱质的农业，我们知道工业品的生产，不需要过多的考虑天气状况。风调雨顺与否，对工业影响不大，对服务业影响不大，但对农业却影响甚大，因为农业是唯一一个人与自然相交换的部门。农业的产出，更多的取决于耕地规模和天气变化，农作物的生长，是自然界吸收阳光、空气、雨水、养料的一个自然过程，不像工业品和服务那样，完全由人为控制。农业生产的实质，不过是人接受神恩赐的过程，是将太阳能转换为食物能的过程。也就是说，农作物的产量和质量，实际上是由神来决定的，主要不是由人来决定的。

这样，我们就能明白一个简单的道理，农业至少要比工业和服务业部门，多面临一项风险——自然风险。此外，我们还知道，在缺乏保护，缺乏组织的情况下，农民们又面临着比制造业和服务业更大的市场风险。而且，农业的自然风险，主要是由追求消费满足的、处

unlike the industrial products and services that are completely artificially controlled, the growth of farm crops is a natural process where nature absorbs sunlight, air, rainwater and nourishment. The essence of agricultural production is nothing but the process of man's acceptance of the bounty from God, a process in which the solar energy is converted into food energy. That is to say, the agricultural yield and quality is actually decided by God and principally not by man himself.

Thus, we can understand clearly a simple argument that compared with industry and the service sector, agriculture is faced at least with an extra danger—natural risks. Besides, we also know that, under circumstances when there is want of protection and organization, farmers are faced with much bigger market risks than the manufacturing industry and service industry. Moreover, the natural risks of agriculture are mainly assumed by small-scale farmers who pursue consumption satisfaction in an economic state of subsistence and they are essentially different from the market risks assumed by the enterprise sector that seeks profits. With the double superposition of natural risks and market risks, agriculture has turned into a weak sector. This is from the risk characteristics point of view of agriculture.

Supply and Demand Characteristics of Agriculture as a Weak Sector

The other side of the tragic fate of agriculture can be viewed from market supply and demand relations. We know that the capacity of people's stomachs is limited, and what agriculture is set to meet most is precisely the problem of the stomach (feeding the people), and our stomach's daily consumption of grain is limited to three meals a day or three teas and two meals as most people from Guangzhou will say. In any way, the amount of food to fill your stomach each day is limited. If we compare this with the amount of people's consumption of industrial products and services, we will know that our stomachs are limited, and this is of significance to agriculture because people's ability to consume industrial products and

tertiary industrial services is nearly unlimited. For instance, as far as industrial products are concerned, there were cell phones in the past and it was great if a company had one, as it symbolized power and prestige. And then there came the beeper and mobile phone, so much so that now everybody has one, and perhaps even more than one. This is industrial product expansion embodied in a small product. It could be said therefore that people's consumption of a certain industrial product category can sustain a very substantial and continuous expansion, and at the same time, this type of consumption has also its non-exclusivity. You may have a mobile phone, but this does not exclude you from going to watch a movie, buy a DVD, drive a car, or consume other industrial products or services. However, the fact that I'm full myself also excludes me from continuing to eat other food, because my stomach is full. Hence, the ability for industrial product consumption can, essentially speaking, be expanded endlessly. Much more, service consumption may be expanded ad infinitum. For example, in the past, we used to watch a movie once a month and this was already quite good. But now, I can watch movies once a week or several times a week and even several times a day. A couple of days ago, I came across a piece of news: an Indian lad watched movies continuously for 120 hours and broke the Guinness world record. For consumption of services, hardly is there any mutual exclusion. Through comparison, we may catch sight of the microcosmic basis of the limited capacity of agricultural expansion—everyone is limited in terms of his capacity for expansion of his agricultural needs. Or to be more explicit: what agricultural product consumption faces is the singular consumption functional restriction, which is of a physical constraint, while what industrial product and service consumption face is the multiple-consumption functional restriction, which is of a psychological constraint. The former is a kind of physiological bearing capacity and it is limited, whereas the latter is a kind of psychological desire for



于生存经济状态的小农承担的，这和追求利润的企业部门承担的市场风险，是有本质区别的。在自然风险和市场风险双重叠加的情况下，农业就变成了一个弱质部门。这是从农业的风险特征角度去谈的。

农业作为弱质部门的供求特征

农业命运悲惨的另外一面，可以从市场的供求关系去看待。我们知道，人的肚子容量有限，农业最主要满足的，却又是人的肚子(吃饭)问题，我们的胃每天所消费的粮食是有限的，一日就是三餐，顶多像广州人所讲的三茶两饭。不管怎样，你的肚子一天吃的有限。我们比照一下人们对工业品和服务的消费容量，就知道肚子有限相对于农业的意义了。因为，人们对于工业品的消费能力，对于第三产业服务的消费能力，近乎是无限的。就工业品而言，比如说过去有大哥大，一个公司有一台很不错了，很威风。后来可以过渡到有BB机，有手机，过渡到每个人都拥有一个，过渡到一个人甚至可以拥有几个，这是工业品的扩张，在一个小小产品上的体现，可以说，人们对某一类工业品的消费，可以有一个非常大幅度的持续扩张。同时，这种消费还具有非排他性。你拥有手机，并不排斥你去看电影，去买DVD，去开汽车，不排斥你去消费其他的工业品和服务。但是我吃饱了饭，就排斥了我继续吃其他东西，因为我肚子饱了。所以，对工业品的消费能力，本质上来讲可以无限的扩张。服务的消费更加可以无限的扩张。比如说我们过去是一个月看一场电影，这已经很不错了。我现在可以一周看一场，或者一周看几场，我甚至可以一天看几场。这两天，我看到一个新闻，一个印度小伙子连看了120个小时电影，破了吉尼斯世界记录。服务的消费，互相之

间也很少具有排他性。通过比较，我们可以看到农业扩张能力有限的一个微观基础——每个人在农业需求方面的扩张能力有限。或者更明白一些说，农产品消费面临的是单一消费功能约束，是生理约束，工业品和服务的消费面临的是多种消费功能约束，是心理约束。前者是一种生理承受能力，是有限的，后者则是心理上的消费欲望，近乎是无限的。经济学鼻祖亚当·斯密，在其《国富论》中(1776)也明确说明：“对食物的欲望是受每个人的胃的狭小的能力所限制的，然而对便利品、房屋的装饰、衣服、车马家具的欲望似乎没有什么界限和边界。”由此，我们可以看到农业相对于工业品和服务，在消费需求这个微观基础上的巨大差异。进一步的，农产品消费能力这个微观基础加总，成为一国，甚至整个人类对食物总消费的有限需求。我们知道，食物是供人类食用的，人类的再生产周期很长，且具有粘性，在短时间内难以出现人口爆炸性的增长。由此，也就决定了对农产品的消费需求，在短期内难有大幅度的增加。

刚才才是从需求讲的。我们再从供给上讲。上文提到，农产品的供给，主要是由农地规模、耕作条件、天气变化等自然因素决定，播种和收割在人，叫万物生长的，乃是神(哥林多前书3:7)。人们在农作上投入的资本、技术和劳动，对农产品的产出有影响，但作用有限，短期内也难有大的突破。

供给和需求都相对稳定，这是农业经济的一个基本规律。当供给和需求大体比较稳定的时候，农业本来应该成为一个相对稳定的部门，在稳定中发展。但问题来了，扩张能力有限，是不符合资本本性的。资本的本性，是要扩张的。只有在扩张中，资本才能实现利润最大化。因此，即使是农产品处于短缺经济的状况下，资本也不太愿意进

consumption and it is almost unlimited. In his book *The Wealth of Nations* (1776), Adam Smith, founder of economics, also explained clearly that “the desire for food is limited by the narrow capacity of the stomach of each person; however, the desire for convenient goods, house decorations, clothes, horses and carriages and furniture, seem to have no limits and bounds.” Hence, we can see the great difference of agriculture on the microcosmic basis of consumption requirements relative to industrial products and services. Furthermore, the summary of agricultural product consumption ability, as the microcosmic basis, has become the limited requirements of the total food consumption of a country and even of the whole human race. We know that food is for eating by human beings, and the cycle of reproduction of a human being is very long with cohesiveness, and population explosion can hardly appear in a short period of time. This also determines that agricultural product consumption requirements can hardly have considerable growth in a short period of time.

This is from the demand point of view. We now discuss from the supply point of view. As we have already mentioned above, agricultural product supply is mainly determined by natural factors, such as farmland scale, cultivation conditions, weather changes, etc., for neither he who plants nor he who waters is anything, but only God, who makes things grow (1 Corinthians 3:7). People’s input of capital, technology and labour in farming and cultivation of crops has impact on the yield of farm products, but it is limited, and hardly will there be big breakthroughs in the near term.

The relative stability of supply and demand has been a basic rule of the agricultural economy. By nature, when supply and demand are relatively stable in general, agriculture should become a relatively stable sector. But here comes the problem: its limited capacity for expansion does not accord with the nature of capital. By nature, capital is destined for expansion and only in expansion can it realize its maximum profit. Therefore, even under

economic conditions where agricultural products are in short supply, corporations are still somewhat reluctant to enter the sector, thereby making the hard work of labourers a sufficient condition for getting rich. However, when agricultural products of the majority of countries have already been in surplus economic conditions, not only corporations become more reluctant but even labourers feels an objection to excessive involvement in agriculture, because hard work is no longer a sufficient condition to get rich. Once I had an interview with a migrant worker and he told me that: now, man cannot make money, only money can make money. Confronted with the parental precepts of his peasant father, “getting rich through honest labour, and managing household through industry and thrift”, this migrant worker, who has undergone arduous training or work in the crevices of a city and country for more than ten years, expounded his own life in the era of surplus economy when labour had hardly a say, but only corporations had, and which constitutes a subversion of our established concepts. As far as the entire agricultural sector is concerned, concomitant to an agricultural product surplus is the labour force surplus, which we may call idle workforce. Idle workforce constitutes not only idle production capacity, but idle consumption capacity as well. And this has put all workforces under overproduction conditions under the threat of interruption of labour and of consumption, making it impossible for reciprocal negotiation with the capital owner. Thus the gap of income distribution between the workforce and the capital owners has become bigger and bigger. The already scarce consumption capacity of the public under overproduction conditions has become scarcer and scarcer, which further intensifies the excessive liquidity, and aggravates the polarization of wealth accumulation, as well as polarization of the extent of consumption satisfaction: a handful in excessive consumption, whereas the majority have no money in their pockets. Thus, since the mid-1990s, people have had



入，从而使得劳动者的勤劳，成为致富的一项充分条件。可是，当多数国家农产品已经进入过剩经济状态的时候，不仅是资本更加不愿意进入农业，连劳动，也不愿意过多进入农业了。因为勤劳，已不再是致富的充分条件。我曾经访谈过一位农民工，他告诉我，现在人不能赚钱，只有钱才能赚钱。这位在城市与农村的夹缝中摸爬滚打了十多年的农民工，面对他的农民父亲“勤劳致富”、“勤俭持家”的家训，用自己的生命阐述了这个劳动难以说话，惟有资本说话的过剩经济时代，对我们既有观念的颠覆。就整个农业领域而言，伴随农产品过剩的，是劳动力过剩，或曰闲置。劳动力的闲置，不仅是生产能力的闲置，同样也是消费能力的闲置。这使得所有处于生产过剩状态下的劳动者，都面临着劳动中断和消费中断的威胁，无法和资本所有者形成对等的谈判。于是，劳动者与资本所有者收入分配差距越拉越大。生产过剩条件下，大众本已稀缺的消费能力，愈加稀缺。这又进一步加剧流动性过剩，加剧财富积累的两极化，以及消费满足程度的两极化。少部分人过度消费，而大多数人则囊中羞涩。于是，20世纪90年代中期以来，人们就只能眼睁睁地看着“增产不增收”、“勤劳不致富”的城乡差距拉大、贫富差距拉大现象一再上演。正如空想社会主义者傅立叶所言：“在文明时代，贫困是由过剩本身产生的。”不幸的是，我们已经处在这样一个文明时代。

由于资本不喜欢农业这样的难以扩张的特征，又由于我们早已进入了事实上的过剩经济(不管我们把它叫做相对过剩，还是绝对过剩)。如果让资本自由选择，资本大多数投向的不是农业领域，而是工业领域，是第三产业服务领域。因为只有无限扩张的部门，才能创造不断扩

张的财富。农业领域很难创造更多的财富。如果让市场配置农业，肯定会出现农业的相对萎缩，这就是配第一克拉克定律所描述的农业小部门化问题。

农业的市场失灵 与农业补贴的必然性

认识了农业的风险特征和供求特征这两大规律之后，我们再将话题转到一个富有争议的问题——农业补贴上。一直以来，我们总是去指责发达国家，说他们在干预农业生产，提供高额补贴。要知道，可能是他们对了，而我们错了。因为他们很清楚，政府在弥补市场失灵，他不能看着让农产品供给的市场失灵继续下去，否则政府就失灵了。

所以，我们要换一个角度去理解农业补贴。很明显，农业是提供生存必需品的部门，农业已经由一个产业性的生产部门，在慢慢转变成为一个提供全社会生存必需品的公共部门。所以，将农业当作一个产业，将农产品当作私人物品，是对全人类生存必需品认识的不足，是对农业多功能性认识的不足，说可怕一点儿，是在挑战全人类、全体国民的生存权利。农产品既然不再是私人物品，或至少不再是纯私人物品，就不应该由市场来提供，或至少不应该单纯由市场来提供。在发展中国家，有一批人批驳发达国家的农业补贴政策。比如，有一些言论说，不是发展中国家的小农竞争不过美国、欧洲、日本的农民，是因为他们高补贴，我们没有补贴。政府不仅没有补贴农民，农民反过来在补贴政府。在2004年之前，中国的农民还一直交着农业税！什么时候他不补贴了，我们肯定能竞争过他们。可问题的关键是，他们永远穿着高补贴这双耐克鞋，我们至今还是光着脚，前些年腿上还绑着沙袋。他们穿着名

no option but to look on helplessly, time and again, at the widening gap between cities and rural areas and between the rich and the poor with “reduced income despite rising output” and “not getting rich despite being hardworking”. As the Utopian socialist Charles Fourier stated: “in the age of civilization, poverty is generated from surplus itself.” Unfortunately, we are already in such an age of civilization.

As corporations dislike such characteristics of agriculture due to its difficulty to expand, and also because we are already in the state of a factual surplus economy (whether we call it relative surplus or absolute surplus), if capital is free for selection, what its majority invests in will not be the agricultural sector, but the industrial sector, the tertiary industrial service sector, because continually expanding wealth can be created only in an infinitely expanding sector, and the agricultural sector can hardly create more wealth. If the market is set for agricultural distribution, it is certain that a relatively shrinking agriculture sector will appear and this is the problem of the “small section” tendency of agriculture as described by the Theorem of Petty & Clarke.

Market Failure of Agriculture and Necessity of Agricultural Subsidy

Having understood the two major rules of agriculture, namely, risk characteristics and characteristics of supply and demand, we now shift our topic to agricultural subsidy—a highly controversial issue. Ever since their creation, we have always criticized developed countries for their intervention in agricultural production and the provision of heavy subsidies. We should know that maybe they are right and we are wrong, because it is very clear that the government is making up for its market failure, and it cannot allow failure of the market which is supplied by agricultural products to continue, or else, our government will be in failure.

Therefore, we need to understand agricultural subsidy from another perspective. It is evident that agriculture is a sector that supplies the necessities for survival, and it has already turned slowly from an industrial

production sector to a public sector that provides the whole of society with the necessities for survival. Accordingly, to regard agriculture as an industry and agricultural products as personal effects demonstrates a lack of understanding of the necessities for survival of all mankind, and also an insufficient understanding of the multi-functionality of agriculture and, making it more frightening, a challenge to the right of existence of all citizens and also of all the human race. Now that agricultural products are no longer personal effects, or at least not pure personal effects, they should not be supplied by the market, or at least not purely by the market. In developing countries, some people refute the agricultural subsidy policies of the developed countries. For instance, they are saying that it is not that small-scale farmers in developing countries cannot compete with those from the United States, Europe and Japan, but rather that they have heavy subsidies, and we don't. The government is not subsidizing farmers; instead, it is farmers who are subsidizing the government. Before 2004, farmers in China had always paid agricultural tax to the government! And once a foreign government is no longer providing its farmers with subsidies, we will definitely be able to compete with them. But the key to the problem is that they will forever be wearing this pair of shoes of heavy subsidy for protection like a pair of Nike shoes as it were. To date, we are still barefoot, and some years ago our legs were even sandbagged. As they wear name brand shoes, we are barefoot, bound with sandbags, so how then can we compete with them in the one-hundred metre dash?! Letting two or even more types of agricultural modes—the nature of cultivation being completely different and yet providing the necessities for survival—compete on the same platform is a bloody killing of human beings, disregarding life or death of the farmers, and eventually the life or death of oneself. Dragging the 97% small-scale farmers, who cultivate in reliance of manpower and animal labour, to fight closely with the 3% farm lords, who operate combine tractors and receive heavy subsidies from their government, is a crime against the



牌鞋，我们光着脚，绑着沙袋，怎么和他们去进行百米比赛？！将两种，甚至多种耕作性质完全不同的、提供生存必需品的农业模式置于同台竞争，是人类不顾广大农民死活、同时也最终不顾自己死活的血腥厮杀。将97%的靠人力和畜力耕作的小农，与3%的开着联合拖拉机的农场主，又从政府手中拿着高额补贴的农场主，拉去同场厮杀，是对全人类的犯罪！在这样一套世界体制下，97%的小农，守着本已十分微薄的、还在不断被瓜分的农业利润，已经连自己的生产成本都难以补偿，处在生计都难以维系的境况，我们居然还让他们以自己的身家性命，去参加所谓的自由比武打擂，良知何在？！引用UNDP《2005年人类发展报告》中人类发展报告处处长凯文·霍金斯的一个评论：“在自由市场的花言巧语和强调公平竞技场优点的背后，铁的事实是一些世界上最穷的农民被迫进入与工业国家的财政部而不是北部农场主的竞争。”所以，要认识到农产品自由贸易之害，认识到当前粮食危机的根源，认识到人类共同把自己逼上了用食物自杀的绝路。

回到市场失灵的论述，由于农业本身经营的特征，已经决定了发达国家必然要补贴，中国也必然要走向补贴，甚至高补贴。不管有没有意识到，中国自2004年起，实际上已经开始从汲取农业，走向了补贴农业。至少领导人意识到了，粮食是本国每一个国民的生活必需品，政府有义务让每个国民获得这种生存必需品。粮食安全，是国家安全的基础。所以，中国才会愿意实行世界上最严格的耕地保护制度。世界上恐怕找不到第二个国家，像中国这样，制定了如此严格的制度，要保护耕地。这已在事实上反证了中国的粮食安全压力，十分巨大。

依然落入发展主义逻辑的农业保护

可惜，我们中央政府保护耕地的意愿虽然十分强烈，但保护的能力，却是很弱的。这里实际上牵涉到中央和地方的博弈关系，中央是要保护耕地的，因为中央知道，这是在保护国家公共物品的供给，在保护国家安全，甚至国家主权。但是地方政府却有另外一套行为逻辑：我只是一个地方政府，只在这个地方的任期内干上有限的几年，有什么义务提供国家公共物品呢？对于地方政府来说，只有利用“强者恒强”的机制，把资源资本化，才会有GDP、才会有财政收入，才会有政绩。在中国现有的短任期制度和政绩考核体制下，地方政府所遵循的，只是工业化和城市化的发展逻辑，只是上文我们所言的资源资本化的逻辑，不会愿意提供国家公共物品，甚至连地方公共物品的提供都不太愿意。

在发达国家普遍意识到农业要保护，中国也意识到农业要保护的情况下，就产生了这样一种图景：政府有意识地促进农业的发展，促进人民生活必需品的稳定供给。但是在促进的措施上，却又重新走向制度惯性的、强强联合的发展主义逻辑。在欧美发达国家，补贴只会落到商品化农业上。为什么呢？只有商品化农作，才能得到更多的农产品，去支撑更多的城市人口，才能形成农产品的国际竞争力。他们不会补贴自给自足的小农经济，只会去补贴产业化农场，通过强强联合，去挤垮这些小农场。事实上，美国政府在协助大资本挤垮小农业，最终使小农场纷纷走向破产兼并的道路。从1930年代到现在，美国的农场60%以上已经破产了，这使得美国的农场数量减少了60%以上，接近70%。在1935年，美国农场数量是681万家。1950年，下降到565万家；2006年，再下降到209万家，目前的农场数量不足1935年的31%，1950年的37%。

whole of humanity! Under such a universal system when the 97% small-scale farmers, with their miniscule yet still continually carved up agricultural profit, it can hardly compensate the farmers for even their own cost of production and are already in a sorry plight when they can hardly maintain their own livelihood. Yet we are actually making them participate in the so-called free demonstration of fight skills or open competition at the risk of their own lives and family possessions—where then is our conscience?! Quoting the comment by Kevin Hawkins, Director of the Human Development Report Office in the “Human Development Report 2005” of the United Nations Development Programme (UNDP): “behind the sweet words and stressing on the merits of fair play of the free market, the hard fact is that some poorest farmers in the world are forced to compete not with the northern farm lords but with the ministry of finance of industrialized countries.” Therefore, we should be awake to the harm to free trade of farm products, be awake to the root cause of the current food crisis and also to the fact that humanity, as a whole, is forcing itself to a dead end of food suicide.

Back to the discourse of market failure, as the operating characteristics of agriculture itself have already determined that agricultural subsidy by developed countries is a necessity, it is therefore also a necessity that China meets its obligation to provide agricultural subsidy and even heavy subsidy. In fact, whether you have realized it or not, since 2004, China has already tended towards agricultural subsidy as opposed to agricultural absorption. At least, the Chinese leadership has realized that food is a necessity of life for every citizen, and as such, the government is duty bound to let each and every citizen obtain this necessity for survival. Food safety is the basis of national security. Precisely because of this, China is willing to implement the strictest farmland protection system in the world. I’m afraid that there is no other county in the world that has established so strict a system as China has. And this has already provided factual counterevidence for the enormous pressure of China’s food security.

Agricultural Protection That Still Falls into the Logic of Developmentalism

It is a pity that although the desire of our central government for farmland protection is very strong, its ability is nevertheless very weak. In fact, here are involved the gambling relations between the central and the local governments. It is true that the central government is set to protect farmland, because the central government knows that this is protecting national public goods supply, national security and even national sovereignty. However, local government has another system of behavioural logic: I’m only local government and I will be in office here for only a limited number of years so what obligations will I have to supply public goods? As far as local government is concerned, only by exploiting the mechanism of “the stronger-get-stronger” and by resource capitalization, can it have a GDP and financial revenue, and consequently post achievements. Under the current short-term patriarchy system and the achievements assessment system of China, what the local governments follow is nothing but the logic of industrialization and urbanization development, which is simply the logic of resource capitalization as we have already mentioned above, and they are not willing to supply the national public goods, even the local public goods.

When developed countries generally realize, as China also has, that agriculture should be protected, then such view will come into the open: the government consciously promotes agricultural development and the stable supply of life’s necessities for its people, but in their measures of promotion, they once again use the logic of developmentalism of institutional inertia and of the strong-strong union. In developed countries in Europe and the United States, subsidy falls only on commercialized agriculture. Why? It is because only commercialized farming can get more and more agricultural products, to support more and more urban populations, and form international competitiveness of agricultural products. They won’t subsidize the self-sufficient small-scale peasant economy but industrialized farms only and, through the

1935年以来，470多万家农场被破产兼并，而主要农作物耕作面积并没有减少，这是因为兼并主要是在商品化作物之间进行的，小农场被不断地挤出商品化作物的生产。中国政府目前在农业上的作为，也近乎是亦步亦趋地模仿美国，也是在协助大资本挤垮小农。这又是一个强者恒强的资源资本化机制在中国的体现，一个强强联合的机制在农业领域的体现。

我们上升的梯子已经断开了

政府为什么要这么做呢？这是因为他无力自行提供粮食这种国家公共物品。于是，就想吸引资本对农业加大投入。我们又已经知道了，由于农业的风险特征和供求特征这两大基本规律的存在，资本并不愿意投入农业，那怎么办呢？就要采取办法吸引资本。要吸引资本，就要给资本开出优惠的条件。这些优惠的条件，包括了允许资本占用更多农地，去实现机械化，进行大规模标准化、产业化的生产，这样一个生产方式要耗用石油，要耗用化肥、农药，因为仅靠劳动，是不可能进行大规模生产的，不可能进行产业化和标准化生产的。通过这样的方式，就可以使农业劳均生产效率大幅度提高。而提高的代价，是消耗能源发展农业，使农业和能源紧密地联系起来。本来，主要靠人力和畜力耕作的传统农业，和能源供给，并无直接联系。但这几十年来，产业化农业体系在全球范围内的扩张，使得粮食产量与石油供应，出现了越来越紧密的相关关系。产业化农业，不仅仅是把当前的太阳能转换为食物能，还另外耗用了大量矿物能（史前的太阳能），将其转换为食物能。有一位农业专家曾说，所谓现代农业，或者所谓农业现代化，就是借助土地，把石油转化为粮食。这句话是非常深刻的，事实也大体如此。

通过能源的投入，带来粮食的产出，是产业化农业成为主流农业模式后，必然出现的现象。虽然这只是世界上3%的农民所为，97%的农民，仍主要依靠人力和畜力（关于这一点，可见我2008年的一篇文章《粮食主权、粮食政治与人类可持续发展》），但这3%的农业机械化、石油化和化学化，已经成为全球范式，成为包括中国在内的诸多后发国家模仿的对象。这会进一步加深农业和能源，及全球气候变暖之间的联系。我们已经看到，石油农业和化学农业在世界上大行其道。目前在中国，也是大行其道。

但另外一个问题接踵而至，这样的模式能不能持续？如果能源是无限供给的，石油是开采不尽的，生态环境是一直可持续的，这样的农业模式就可以一直往前走下去。可惜，这些基本假设，都不成立。当前，人类发展已经遇到了一个瓶颈，就是能源紧缺。伴随石油峰值的来临，石油价格的上涨，将会是刚性上涨。本轮石油危机，就不再是前几次那样的短期危机了。与石油危机相伴而生的，就是粮食生产危机。高油价，必然伴随着高粮价。这就带来了机械化、产业化农业生产的危机，也使得现代农业的图景，规模农业的图景，到此为止了。进入现代农业俱乐部的国家，会进一步俱乐部化。而没有进入这个俱乐部的国家，将永远被排斥在外。美国式的现代农业，可能永远会成为一个梦想，更确切的说是幻想，而不再可能是后发国家的现实了。美国梦，将永远是一个梦。因为仅仅依据资源条件，就决定了世界上只可能有一个美国。2007年，有一本书在中国热炒，题目叫《富国陷阱：发达国家为何踢开梯子？》，说的是当今发达国家，正在试图踢开那个能使发展中国家爬到顶端的“梯子”——即行之有效的政策和制度，

strong-strong union, force these small farms to close down. In fact, the US government is assisting big corporations to force small-scale farming to close down and finally these small farms will have to go bankrupt or merge one after another. Since the 1930s, more than 60% of farms in the United States have gone bankrupt, which has reduced the number of farms in the United States by more than 60%, approaching 70% in fact. In 1935, there were 6.81 million farms in the United States. By 1950, the figure had dropped to 5.65 million; in 2006, it had fallen further to 2.09 million, and its present number of farms is less than 31% of that of 1935, and 37% of that of 1950. Since 1935, more than 4.7 million farms have declared bankruptcy or been annexed and yet the cultivation area of main crops hasn't decreased at all. This is because merger or annexation has taken place mainly between commercialized crops and small farms have continually been squeezed out of the commercialized crop production. The current practice of the Chinese government in agriculture is also imitating that of the United States, almost dancing to its tune, and also assisting big corporations to squeeze and force these small farms out of the market. This is the embodiment in China of yet another resource capitalization mechanism of the stronger-get-stronger and also the embodiment in the agricultural sector of yet another strong-strong union mechanism.

Our Ascending Ladder Has Already Been Broken off

Why should the government do this? It is because it is unable to provide of its own accord the kind of public goods. And then, it starts to attract corporations to increase their agricultural input. Now we already know that corporations are not willing to invest in agriculture at all because of the two fundamental rules of agriculture—risk characteristics and characteristics of supply and demand—what then will they do? They can adopt measures to attract capital. To attract capital, it is necessary to offer preferential conditions. These preferential

conditions include: allowing corporations to occupy more and more farmland, to realize mechanization, and to carry out mass standardization and industrialization of production. Such mode of production will consume oil, fertilizer and agricultural chemicals, because mass production and industrialized and standardized production cannot rely on labour alone. Through such means, the agricultural production efficiency per worker will be increased considerably, and its cost will be consumption of energy for development of agriculture, so much so that agriculture and energy become closely linked to each other. Originally, there was no direct contact between energy supply and traditional agriculture that relies on manpower and animal labour for cultivation. However, over the past several decades, global industrial agricultural system expansion has fermented more and more closely dependent relations between grain output and oil supply. Agricultural industrialization is not only about converting the current solar energy to food energy, but also consumes a great deal of mineral energy (prehistoric solar energy) for conversion to food energy. A certain agricultural expert once said that, the so-called modern agriculture or the so-called agricultural modernization is nothing but converting oil to food grain with the help of land. This is an extremely profound statement, which generally describes the facts.

Grain output through energy input is a necessary phenomenon after agricultural industrialization has become the mainstream mode of agriculture. Although this is the act of only 3% of farmers in the world, as 97% of farmers are still mainly relying on manpower and animal labour (in this regard, please refer to my article published in 2008 entitled "Grain Sovereignty, Grain Politics and Sustainable Human Development"), the 3% agricultural mechanization, oil industrialization and chemicalization has already become the global paradigm and target of imitation by many later-developed countries, including China. This will further deepen the relationship between agriculture,



并向发展中国家介绍所谓的“好政策、好制度”，以此来阻止发展中国家的发展。但现在更为现实的情况是，后发国家上升的梯子，不仅是被发达国家踢开了。仅仅就能源的可持续供给上，这个梯子自己就已经断开了。

逃生的门是窄的

危机已经摆在面前了，我们难道没有逃生之路了吗？

的确，我们的逃生之路，是非常狭窄的。耶稣基督说：“你们要进窄门。因为引到灭亡，那门是宽的，路是大的，进去的人也多。引到永生，那门是窄的，路是小的，找着的人也少。”（马太福音 7:13-14）

耶稣基督所言的窄门，是信从天国的福音。而我们若仅就农业模式而言，这个窄门就是逐步恢复，至少是有意识的保留和保护依靠人力和畜力的小农耕作，逐步减少甚至斩断近几十年来才形成的农业对于石油、化肥、农药的依赖。可惜，让这样一部庞大的现代化大机器，停止原有的运作模式，转向对于小农耕作模式的臣服，几乎是不可能的。所以，我们说，这个门是窄的，在资本主导世界的今天，近乎不可执行。

但从现实可行性上讲，我们又别无选择，只能重提自给自足的小农经济，只能重新设想靠劳动力，靠畜力作为主要的耕作动力的制度，只能试图重建本地化的、自给自足的食物体系。这可能是惟一的选择，实际上，20世纪恰亚诺夫和斯科特的理论早已经证明了，这也是更具有生命力的农作模式。是的，机械驱动的农作模式，看来更为强大，但一切断能源供给，马上就会车轮停转，它是非常脆弱的。说大一点儿，整个现代化系统，都是非常脆弱的。2008年中国雪灾、汶川地震、南方水灾等发生后，油、电、粮食、道路、

手机信号等任何一条供应链的中断，都会带来灭顶之灾，这已清楚显现了现代化系统的脆弱。

现实问题是，我们的思维，都已经换成了发展主义的思维，换成了石油农业和化学农业的思维，就很难转回头去欣赏可持续的自给自足的小农耕作传统，我们甚至会斥之以愚昧落后的字眼儿，世界已经无法走回到这种耕作模式上了。我们也看到，美国已经走上了这条不归路，没有办法回头了，所以，他只能加强石油等能源控制、加强可替代能源研发、加强粮食体系的全球扩张，使得在这场一同奔向死亡的竞赛中，他能挺到最后。他已经走上了这条不归路，就产生了路径依赖，只能一路走下去。

甚至连朝鲜这样的后发国家，都难以走回头路了。文佳筠论述过朝鲜农业机械化的进程，和发展石油农业、化学农业的失败，以及大饥荒的来临。温铁军也去朝鲜做过调查，发现朝鲜已经有两代人没有人力和畜力农作的经验了，农民们已经不会看天时，不会堆肥，不会使用传统农具。原来依靠苏联建立的一整套现代化农业模式，在1990年苏联解散之后，几乎全部瘫痪。苏联给朝鲜建设的一整套大机械模式，无法运作了，甚至连零部件都无从更换。而且朝鲜没有油气资源，又没有钱去买石油，所以那些大型机械就停在农地边，成为一堆废铁。一半以上的农地，没办法进行机械化耕作了。而重回到靠人力劳动、靠畜力耕作的模式，又十分困难。要知道，已经是两代人仅仅只会用拖拉机，不会靠双手耕作了。这就产生了巨大的模式转换成本，也付出了生命的代价。1990年代以来，朝鲜农业大幅度减产。仅仅不懂收割、打场等收获损失，就达到了36%，由此而引发了粮食危机，出现大饥荒。更进一步，伴随粮食

energy and global warming. We have already observed that oil agriculture and chemical agriculture are becoming very popular in the world today—so too are they in China.

And yet, here comes another problem: can such a paradigm or mode be sustained? If energy could be supplied forever, if oil exploitation could not be exhausted and if the eco-environment could be sustained throughout, then such an agricultural mode would be able to continue. Unfortunately, these basic assumptions cannot stand. Currently, human development has already run into a bottleneck, namely, energy shortages. Accompanied by the coming of the peak value of oil, the rising of oil prices will be rigid. This round of the oil crisis will no longer be a short-term crisis as that of previous times. Concomitant to the oil crisis is the grain production crisis. High oil prices will certainly be followed by high grain prices. This then brings about the crisis of mechanized and industrial agricultural production, which also brings the prospect of modern agriculture and scale-agriculture to its end. Countries that have already entered the modern agricultural club will get further involved in it, whereas countries that have not entered will forever be excluded. As a result, the American style modern agriculture may forever become a dream or, to be more precise, be a dream, and it may no longer be the reality of later-developed countries. The American dream will forever be a dream, because the resource conditions alone have already determined that there may only be one United States. In 2007, there was a book on speculative sales in China entitled “Kicking Away the Ladder: Development Strategy In Historical Perspective”, describing that nowadays developed countries are trying to kick away that “ladder” which enables developing countries to climb to the top—that is the set of effective policies and systems, and recommended these countries the so-called “good policy, good system”, in order to hold back the development of these developing countries. However, the more realistic situation now is that, not only the ladder enabling the later-development countries to ascend has been kicked away by the developed countries, but

as far as sustainable supply of energy alone is concerned, this ladder itself has already been broken off.

The Way of Escape is Narrow

Now the crisis is already there, don't we have a way out?

Indeed, our way of escape is very narrow. Jesus said:

“Enter through the narrow gate. For wide is the gate and broad is the road that leads to destruction, and many enter through it. But small is the gate and narrow the road that lead to life, and only a few find it.”

(Matthew 7: 13-15)

The narrow gate referred to by Jesus Christ is good news for those who believe in Heaven. And for us, as far as the mode of agriculture is concerned, this narrow gate is to gradually restore, at least retain and protect consciously, small-scale farming that relies on manpower and animal labour, and gradually reduce and even cut down the dependency of agriculture on petroleum, fertilizer and farm chemicals that has just formed in the recent several decades. Unfortunately, it is almost impossible to let such a giant modernization machine suspend its original mode of operation and submit to the mode of small-scale farming. Therefore, we say that this gate is narrow and today when the world is dominated by capital, this is nearly non-executable.

However, from the practical feasibility point of view, we have no alternative but bring up again the self-sufficient small-scale peasant economy, re-consider the system that relies on manpower and animal labour as its main drive for cultivation, and attempt to re-establish the localized self-sufficient food system. This may be the only choice and, in fact, has already been proven by the theory of Chayanov and James Scott of the twentieth century. And this is also the mode of farming with more vital forces. Indeed, the machine-driven mode of farming seems to be more powerful, but once the energy supply is cut off, it will immediately stop operating, indicating that it is very fragile.



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极化效应与全球大危机的即将到来

我们看到，从农业，到能源，到环境，前景都是十分黯淡，因为这套模式，还在极化效应当中。人类要想改变自己的生产模式、消费模式，改变自己的思维，改变自己追逐利润、追逐财富、追逐欲望满足的行为模式，近乎是不可能的。读经济学，读懂了均衡，只是读懂了一半，还需要读懂另外一半——极化效应。否则，你的经济学只能得50分，或者说50分还不到。因为在经济社会和环境发展的大方向上，这个世界主要是在极化效应的运作模式当中。小企业和大企业、小银行和大银行、小国和大国、穷困地区和富裕地区、穷人和富人……从总体趋势上，市场是在将这个世界推向两极分化，而非协调均衡。自然，危机和矛盾只会一步步累积，最终走向灭亡，而非进步。仅就农业而言，回到勤劳致富，回到自给自足，回到本地化农业，回到依靠劳动、依靠畜力的可持续生产模式，都已是不可能的任务，遑论整个人类行为的改变呢！

所以，我们所能做的，只能是在局部上做一点努力，做一些改良性的行动，使一批先知先觉者，能够及早回转，或许还能有一点儿出路。但就一个国家，和整个世界而言，大机器已经开动了，人类走向危机的程序已经启动了，可能无法停止运转了。所以，我们就只能眼睁睁地看着粮食危机和能源

危机一并爆发，并且螺旋式发展上升，最终又和金融危机、环境危机、消费危机和生态灾难相伴随，酝酿一场更大规模的危机。当我们进一步看到，这个世界在一步步走向虚拟化，走向从依靠实物财富，到依靠虚拟财富，再到依靠纸币、衍生品、信心以至谎言，以维持市场的繁荣和政治社会的稳定，就能看到这个体系已经岌岌可危了。至于会不会酿成类似1930年代的全球性大危机，或者远远超过1930年代的大危机，我们无法左右，只好拭目以待了。

周立，复旦大学世界经济研究所和欧洲问题研究中心经济学博士，清华大学国情研究中心管理科学与工程博士后。目前担任中国人民大学农业与农村发展学院副教授，《银行家》农村金融栏目主编。曾任《中国国情分析研究报告》执行编辑，并分别在美国农业与贸易政策研究所(IATP)、法国社会科学基金会(MSH)和香港中文大学做访问学者。主要研究领域包括：中国国情分析、现代化进程、农业与农村发展、粮食安全与食品安全、农民合作、世界经济与政治、中国金融发展、农村金融、金融工程与衍生工具。在《金融研究》、《世界经济》、*China and World Economy*、《财贸经济》、《经济导报周刊》(香港)、《现代保险》(台湾)、《中国乡村研究》、《当代中国研究》(美国)等学术期刊，哈佛大学、巴黎大学、加州大学洛杉矶分校、香港中文大学、亚洲研究网络(APRN, 马尼拉)等学术会议，以及世界银行、国际货币基金组织、中央财经领导小组、中国人民银行等决策咨询会议上，发表论文100余篇，出版个人专著3部，主编或参与其他著作10余部。主持或参与完成国家自然科学基金、国家社会科学基金、教育部、中国人民银行等课题10余项。

From the macroscopic point of view, the entire modernization system is very weak. In 2008, after the Southern China snowstorm, the Wenchuan earthquake, and the floods in South China, interruption of any of the supply chain, such as oil, electric power, grain, road, mobile phone signal, etc., will bring about crowning calamities, and this has clearly demonstrated the weakness of the modernization system.

Now the practical problem is that our thinking has already been converted to that of developmentalism, of petroleum agriculture and chemical agriculture, and can therefore hardly turn round to appreciate the sustainable and self-sufficient small-scale farming traditions. In fact, we may even denounce it as ignorant and backward, and the world could no longer go back to this mode of farming. We have also observed that the United States has already trodden the path of no return and there is already no going back. As such, it cannot but strengthen energy control, such as oil, strengthen alternative energy research and development, and strengthen the food system's global expansion, in order that it can hold out to the end in this competition in which all are heading toward their doom. Now that it has already trodden this path of no return, it is developing the "path of dependency", and therefore has to go on all the way.

Indeed, even later-developed countries such as North Korea can hardly turn back. Wen Jiayun once discussed the process of agricultural mechanization, the failure of petroleum agriculture and chemical agricultural development, as well as the coming of famine in North Korea. Wen Tiejun has also been to North Korea to perform a social survey and he discovered that in North Korea two generations had already had no experience of manpower and animal labour, farmers could no longer read the climate conditions, and neither did they know how to stock manure nor how to use traditional farming tools. The whole set of modernized agriculture originally built with the help of the USSR had almost completely collapsed after the disintegration of the USSR in 1990.

The whole set of big machinery mode built by the USSR for North Korea could no longer operate, and they even don't have any spare parts for replacement. Besides, as North Korea has neither petroleum nor the money to buy it, such giant machinery has to be placed at the sides of the farmland to become a heap of scrap iron. Meanwhile, more than half of the farmland cannot undergo mechanized farming and it is also very difficult to go back again to the mode of farming that relies on manpower or animal labour. We should know that already there are two generations who have done farming only with tractors instead of using both hands. This has therefore generated enormous cost for the conversion of agricultural mode, and at the same time paid a price. Since the 1990s, the agricultural output of North Korea has fallen sharply. The loss from harvesting alone, such as not knowing how to reap and thresh, has already reached 36%, thereby causing a food crisis and famine. Furthermore, with the loss of food sovereignty, there is also the loss of national sovereignty, resulting in the fact that its national development strategists have to take orders from others. Now that your stomach is empty, in order to have something to fill it, you have to participate submissively in time-consuming "Six-Party Talks" and accept conditions prescribed by other countries. Refusing to accept food in contempt, handed out by others is just a temporary courage, uprightness and the moral integrity of the Chinese literati, but, as a country and a race, what other means are there when you have no food to eat? Selling one's own national sovereignty may be a helpless situation, but it is nevertheless a quite practical alternative.

Polarization Effect and the Coming Global Food Crisis

We've now observed that, from agriculture to energy and to environment, mankind is facing a gloomy prospect, because this mode is still in its polarization effect. It is almost impossible for human beings to change their own mode of production, mode of



consumption, way of thinking, and also their behavioural pattern of quest for profit, for wealth and for satisfaction of their desires. In understanding economics, equilibrium is just half of it, for one also needs to understand another half—the polarization effect. Or else, your economics will score 50 points only, or even less, because in the general direction of economic, social and environmental development, this world is mainly in the operating mode of the polarization effect. Small enterprises and big enterprises, small banks and big banks, small countries and big countries, poor regions and wealthy regions, the poor and the rich... from the general trend point of view, the market is actually pushing this world towards its polarization, rather than harmonization and equilibrium. Naturally, crisis and contradictions can only be accumulated step by step, and finally towards perish rather than progress. As far as agriculture alone is concerned, it is already an impossible task to return to getting rich through hard work, to self-sufficiency, to localized agriculture, and to a sustainable mode of production that relies on manpower and animal labour, much less the change of behaviour of the whole human race!

Therefore, we cannot do anything except make some partial efforts and some acts of amelioration to enable a batch of people with foresight to turn round in time, so that maybe we can still somehow have a way out. However, as far as a country and the whole world are concerned, the giant machine has already started up, and the procedure of mankind towards crisis has already been initiated, and probably there is no way to stop. Consequently, we can only look on helplessly at the simultaneous breakout of a food crisis and energy crisis and their spiral escalation, which finally, concomitant with a financial crisis, environmental crisis, consumption crisis and ecological crisis, ferment a more scaled crisis. When we further observe that, step by step, this world is tending towards virtualization, from reliance on physical wealth to virtual wealth, and further to paper currency, spinoffs, confidence,

and even lies in order to maintain market prosperity and political and social stability, then we will see that this system will already be hanging by a thread. As to whether it will result in a global crisis similar to that of the 1930s or even worse, we have no way to control it but have to wait and see. 🌸

Translated from the Chinese original
by James Jin

Zhou Li is Doctor of Economics of the Institute of World Economy and Centre for European Studies, Fudan University, and did some post doctorate studies of Management Science and Engineering at the Centre for China Study, Tsinghua University, Beijing. Currently, he is Associate Professor of the School of Agricultural Economics and Rural Development of Renmin University of China, and Editor-in-Chief of the rural finance column of *The Chinese Banker*. He acted once as Executive Editor of the *Report of China National Conditions Analysis and Research* (《中国国情分析研究报告》) and was Visiting Scholar in the Institute for Agriculture and Trade Policy (IATP) in the United States (August-September 2007), the Fondation Maison des Sciences de l'homme (MSH) in Paris (January-March 2005) and The Chinese University of Hong Kong (October-November 2004). His main fields of research include: analysis of China national conditions, modernization process, agriculture and rural development, grain security and food safety, farmers' cooperation, world economics and politics, China's financial development, rural finance, finance engineering and derivative tools. He published more than 100 academic papers in academic journals, such as the *Journal of Financial Research*, *World Economy*, *China and World Economy*, *Finance & Trade Economics*, *Economic Weekly* (Hong Kong), *Modern Insurance* (Taiwan), *China Rural Study*, and *Contemporary China Studies* (U.S.A.), etc. He took part in several academic conferences, including Harvard University, Paris University (Université de Paris), University of California, Los Angeles (UCLA), The Chinese University of Hong Kong, the Asian Studies Network (APRN, Manila), and other policy-making consultation conferences, such as World Bank (WB), International Monetary Fund (IMF), Central Financial and Economic Leading Group, CPC, and The People's Bank of China, etc. He also published three monographs, worked as Editor-in-Chief for or participated in over ten other publications. He also took charge of or participated in the completion of more than ten projects of the State Natural Science Foundation, State Social Science Foundation, The Ministry of Education, and The People's Bank of China, etc.