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给物流算经济账

（代　序）

物流是什么？从20世纪初，美国人提出这一概念开始，就有许多争论，并逐步深化与发展，到目前为止，各国对物流的定义也不完全一致，但大同小异。物流业成为发达市场经济国家的一个重要产业，已是既成的事实，物流业对经济发展的作用谁也不可否认。

早在20世纪60年代，美国经济学家彼得·杜克拉就预言，物流业是每个国家经济增长的“黑大陆”，是“降低成本的最后边界”，是降低资源消耗、提高劳动生产率之后的“第三利润源”，是“一块未被开垦的处女地”。

日本早稻田大学西泽修教授认为，物流是一块冰山，人们只看到了水面上的冰山，实际水下面的冰山更大。

1954年，美国经济学家鲍尔·康柏斯提出，物流是“市场营销的另一半”。

德国经济学家提出，未来世界上只有3种人：生产者、物流者与消费者。

中国经济学家樊刚认为，今后世界只有3个系统，即生产系统、物流系统、技术系统。其他系统都是从这3个系统分离出来的。

中国经济学家魏杰提出：“国际上，物流产业被认为是国民经济发展的动脉和基础产业，其发展程度成为衡量一国现代化程度和综合国力的重要标志之一，被喻为经济发展的加速器。”

英国著名经济学家克里斯多夫认为,“市场上只有供应链而没有企业”,“真正的竞争不是企业与企业之间的竞争,而是供应链与供应链之间的竞争”。

吴邦国副总理指出,物流业是“中国经济发展的重要产业和新的经济增长点”。

美国著名咨询公司麦肯锡公司对中国物流业进行调查后写了一个《中国物流市场白皮书》,认为物流业“将在未来中国的经济发展中起到关键作用”。

我认为,物流业将改变传统的经济运行方式,将改变传统的商品流通模式,将改变人们传统的生活方式。

物流业果真有如此功能吗?我们来算经济账。

一、从物流成本在 GDP 中的比重来分析

物流业越发展,物流成本越低,物流总成本在 GDP 中的比例就越低,物流业水平的高低成了一个国家综合国力的重要标志。

美国物流专家罗伯特·德兰雷在《2000 年美国年度物流状况报告》中指出,1999 年美国的物流成本为 9210 亿美元,而当年美国 GDP 为 92600 亿美元,物流成本在 GDP 中比重为 9.9%(1998 年为 10.6%,1990 年为 11.4%,1980 年为 15.7%)。而欧洲、日本等发达国家物流成本占 GDP 的比重一般为 10%左右。中国的物流成本在 GDP 中的比重,世界银行估计为 18%(有的资料讲 16.7%),我认为可能要达到 20%。2000 年我国 GDP 为 8.9 万亿人民币,按 15%计算为 13350 亿人民币,按 20%计算为 17800 亿人民币,可挖的潜力很大。如果我们能在 20 年的时间里,实现物流业的跨越式发展,物流成本降到 10%左右,将是我国经济从粗放经营向集约经营转轨的一个重大胜利。

二、从企业流动资金占用及周转速度来分析

1992 年,国有及国有控股工业企业流通资本总量为 10096.37

亿元人民币，周转速度年平均为1.65次；到1999年，流动资金占用猛增到31042.81亿元人民币，而周转速度降为年平均1.2次。国有商业企业1999年流动资金的周转速度也只有2.3次。而日本制造业的年周转速度为7.5～8次，非制造业（包括批发与零售业）为15～18次。跨国连锁集团沃尔玛、麦德龙、家乐福的年周转次数为20～30次。这可以说明以下问题：

第一，生产需要的原材料、半成品、外购件库存过大，依然是为库存而采购，而不是按订单采购。由于没有实行即时配送，无法做到无库存或少库存，原材料库存期普遍超过30天，从而占用了大量流动资金，并使物流成本占生产成本的30%～40%左右。这在发达的市场经济国家是不可想象的。

第二，商品库存周期过长，占销售总额的比例过高。中国工业产成品在工业企业库存一般达到45天，在商业企业达到35天。库存商品与国内生产总值的比例1996年达到6.8%。而美国1997年汽车、电子产品和零售企业商品的周转时间仅为12天。1990～1998年，美国、德国、日本制造业库存总额平均只占销售总额的1.3%～1.5%。发达国家库存商品只占国内生产总值的1%，发展中国家为5%。我国都远远落后于这些指标。

第三，许多企业有自己的车队、自己的仓库，投入很大，成本很高，但实际效益很低。据统计，目前我国自货自运车辆占社会运输车辆的70%，货运空载率达到37%左右，运输平均时速只有50公里左右。仓库大量闲置，有的年久失修，商品损耗率大。

以上说明，中国企业“大而全”、“小而全”的体系必须打破，代之以专业化、社会化分工。大部分物流活动应当从生产和营销过程中分离出来，交给第三方物流企业来进行。

三、从物流基础设施和装备条件来分析

改革开放以来，国家对物流基础设施作了大量投入，至2000年已达1.5万亿人民币。但由于原有基础太落后，仍然不适应物

流需要。到2000年,我国运输网络密度分别为1344.48公里/平方公里和1043公里/万人,分别只相当于美国的19.6%和15.8%;德国的9%和15.8%;印度的24.9%和48.3%;巴西的71.3%和8.8%。物流基础设施的落后,加上物流基础设施布局不合理,江河治理不到位,使我国交通运输矛盾日益突出,造成我国物流运输与仓储等效率与效益低下。据有关部门不完全统计,每年因包装造成损失150亿元人民币,因装卸、运输造成损失500亿元人民币,因保管不善损失30亿元人民币。

四、从一些企业的实例来分析

1. 戴尔电脑(DELL)

1983年,个人电脑(PC)还处于萌芽期的时候,学医的迈克尔·戴尔开始从本地零售商手中购买过时的IBMPC剩余存货,在他的大学宿舍里对它们进行升级,然后廉价卖给急需电脑的用户。不久,戴尔放弃了学业,集中精力经营逐渐壮大的电脑事业。现在已是美国第一、全球第二的计算机跨国集团。戴尔电脑的成功在很大程度上归功于优化供应链管理,把订单处理、采购、生产、物流紧密结合在一起,充分利用第三方物流把供应物流、生产物流与销售物流融为一体。集中力量使库存最小化和增加资本回报率,把采购和装配过程中的每一个可能不增加价值的时间消耗都压缩掉,外购零部件在工厂仓储时间必须小于15分钟,在戴尔公司接到顾客订单之前不会向供应商订购零件。为了达到这种合作和整合的水平,戴尔减少了他的供应商的数量,从1992年的204家减至47家。在戴尔公司的生产厂,总库存只相当于11天的销售量。1999年销售额达到252亿美元,存货在销售额中只占1.55%。戴尔战略中追求的不是"速度",而是"速率",他认为"追求速度,意味全速冲刺;而速率代表能够节省过程中每一个步骤的时间"。

2. 海尔集团

1999年,海尔集团进行流程再造,成立了物流推进本部,下设

三个事业部，即采购事业部、配送事业部、储运事业部，实行集中采购、集中配送、集中储运，将分散在各个环节、各个部门、各个公司和工厂中的物流元素加以集成。

海尔实行“一流三网”的物流管理模式，即以订单信息流为中心，建立全球供应链资源网络、全球用户资源网络和计算机信息网络。实现4个目标：

一是为订单而采购，消灭库存。

二是实现双赢。海尔和供应商之间不再是简单的买卖关系，供应商提前参与到海尔产品的设计阶段，与海尔共同面向客户，使订单增值。

三是3个JIT实现同步流程。由于物流技术和计算机管理的支持，海尔物流通过3个JIT，即JIT采购、JIT配送和JIT分拨物流来实现同步流程。

四是计算机网络连接新经济速度。海尔100%的采购订单在网上下达，使采购周期由原来的平均10天降低到3天，网上支付已达总额支付的20%，降低了供应链成本。

目前，海尔在国内已建立了42个配送中心，每天可将5万多台定制产品配送到1550个海尔专卖店和900多个营销店。在中心城市实现8小时配送到位，区域内24小时到位，全国4天以内到位。

海尔物流的再造，已取得明显成效，供应商由原来的2336家优化至667家，呆滞物资降低73.8%，仓库面积减少50%，库存资金由1999年的15亿元人民币降为2001年3亿元人民币，商品库存周转期由30天降至7天。2001年，海尔全球销售突破600亿元人民币，正在向世界500强快速迈进。

上面仅举国内外两个例子进行分析，如果全国所有的生产企业与流通企业都能这样做，其经济价值是非常巨大的。

五、从电子商务来分析

电子商务有 BtoC、BtoB、CtoC 等多种形式，数量最大的是 BtoB，即企业对企业。但中国电子商务刚起步则是 BtoC，即企业对消费者。据 2000 年统计，这类网站有 677 个，居民网上购物前三位是书籍、软件与电脑产品，今后将向其他消费品扩展。但网上购物后，有两个问题必须解决，一是网上支付，二是快捷安全的物流系统，使消费者不仅降低了费用，而且大大节约了时间。同时这种物流服务业可以大量容纳就业者。这笔账应当是十分清楚的。

物流对许多人来讲很生疏，好像十分神秘，但实际上，物流无处不在，无时不在。国家离不开物流，市场离不开物流，企业离不开物流，消费者离不开物流。当然要发展物流业并不是轻而易举的事，我国物流业的综合水平与发达国家相比大约要差 20 多年，但我们只要狠下决心，一定能实现我国物流业的跨越式发展。

2002 年元月

The Economic Value of the Logistics

(Preface)

What is the logistics? Since Americans produced this word at the beginning of the 20th century, the concept of logistics has been understood in many different ways and also developed regularly with many questions. The understanding and meaning of the logistics are mostly similar in every countries, although its express and definition are different. It is the fact that the logistics industry has been the significant industry in the market economy of the developed countries. It is also true that the logistics industry is playing an important role in the development of economy.

American economist Peter Duclar predicted in the sixties of the 20th century that the logistics industry would be the dark – continent of economic growth in every countries, the last way of reducing the cost, the third profit sources after controlling the materials expenses and improving the labor productivity, as well as the unopened – up virgin soil.

Japanese Waseda University professor Xizexiu describs that the logistics is the iceberg which part of the bottom is bigger than the top part.

American economist Pole Konbos putted forward in 1954 that the logistics was the another half of the marketing.

German economist advocated that there would be three kinds of people in the future: producers, logisticians and consumers.

Chinese economist Fan Gang realizes that there are three systems: production system, logistics system and technical system. Other systems come from these three systems.

Chinese economist Wei Jie considers that the logistics industry is the artery and the basic industry of the national economic development in the world. Its development level is one of the important marks to evaluate the level of state modernization and comprehensive national strength. Logistics is the accelerator of the economic development.

British famous economist Christove points out that there are not companies but only supply chains in the market. The real competition is not between the enterprises but between the supply chains.

Vice Premier Wu Bangguo states that the logistics industry is the important industry in the development of Chinese economy and the new point of the economic growth.

American Mckinsey & Company reports in its White Paper on Chinese Logistics Market after the investigation of Chinese logistics markets that Logistics industry will play the key role in the development of Chinese economy.

I think the logistics industry will change the traditional economic operation way, the circulation model and the life style.

Could the logistics industry play such great significant role? We could find out its economic value from the following analyses.

Proportion of the logistics cost in the GDP

The logistics cost will be getting lower proportion in the GDP if the level of the logistics development is growing higher. The level of logistics industry has been the important mark to evaluate the comprehensive national strength.

American logistics expert Robert Land noted in American Logistics Year Report that American logistics cost was US $ 921 billion and the GDP was US $ 9260 billion in 1999, so that the logistics cost is the 9.9% of the GDP (10.6% in 1998, 11.4% in 1990, 15.7% in 1980). The logistics cost is about 10% of GDP in the developed countries such as European countries and Japan. Chinese logistics cost is 18% of the GDP estimated by the World Bank (16.7% in other documents). I think it is up to 20%. The Chinese GDP in 2000 is 8900 billion yuan, so that the logistics cost will be 1335 billion yuan by 15% and 1780 billion yuan by 20%. So the potentiality is very great. If China could realize the leap – forward development during the 20 years and reduce the logistics cost by 10%, it is our great achievement to make the successful economic transition from extensive operation to intensive operation.

The conversion and turnover of the circulation funds in enterprises

The circulation funds of the state – owned and state – controlled industrial enterprises were 1009.637 billion yuan and the velocity of turnover period was 1.65 times on average per year by 1992. The circulation funds increased by 3104.281 billion yuan and the turnover was 1.2 times per year by 1999. The turnover in the State – owned commercial enterprises is 2.3 times. The turnover in Japanese manufacturers is 7.5 – 8 times, and 15 – 18 times in non – manufacturers (including wholesale and retail). The turnover in Wal – Mart, Metro and Carrefour is 20 – 30 times. So we could find the three following problems in China.

First, the inventory of raw materials, semi – manufactures and out – produced parts is over amount for the producing demands. The purchasing operation serves for the inventory, not for orders. There are not the JIT distribution system and the zero or lack inventory operation. The inventory period of the raw materials is over 30 days with a large amount of current funds. The logistics cost is 30 – 40% of the production cost. It is unbelievable in the market – oriented economy of developed countries.

Second, the inventory period is a long time and the high proportation of the gross sales. The finished products will stay for 45 days in manufacture's warehouses and 35 days in the commercial stores in China. The inventory commodity value was 6.8% of the GDP in 1996. The turnover period of American automobiles, electronic products and commercial goods was 12 days in 1997. The total value of Manufactures' inventory in America, Germany and Japan is 1.3 –

1.5% of gross sales on average. The inventory commodity value in developed countries is 1% of the GDP but 5% of the GDP in developing countries. Chinese level is till lower than these data.

Third, many enterprises have their own transportation and warehouses. However they could not get more profits with high investments and high production costs. According to statistics, the self – trade trucks are 70% of the social truck amount; the rate of no – load trucks is about 37%; the average speed of transportation is 50 kilometers per hour. There are also a lot of vacancy or broken warehouses. The rate of waste commodities is higher.

So the Chinese enterprises' system – big and whole, small and comprehensive must be broken and taken place of the specialization and socialization operations. The most logistics activities should be apart from the producing and marketing operation and practiced by third – part logistics enterprises.

Logistics infrastructure and equipment

Since the reform and opening – up, China has invested 1500 billion yuan in the logistics infrastructure by 2000. However, it could not meet the logistics development needs since the old facilities are backward too much. The density of the transportation networks could be separately 1344.48 kilometers per square kilometers and 1043 kilometers per 10 thousand persons in China by 2000. It is separately 19.6% and 15.8% of the density in America, 9% and 15.8% in Germany, 24.9% and 48.3% in India, 71.3% and 8.8% in Brazil. The backward logistics infrastructure and the irrational layout of logistics facilities will bring the

conflicting of Chinese transportation and make the lower efficiency of the logistics transportation and inventory. According to rough statistics, the loss of packing is up to 15 billion yuan, the loss of handling is 50 billion yuan, the loss of spoiling is 3 billion yuan.

Enterprises' logistics

Dell Group

Michael Dell, major of medicine, bought outdated IBM computers from local retailers and upgraded computers' system in his college dorm in 1983 when the PC is initial and new. He sold them cheaply to the customers who needed urgently. Nowadays the Dell Group is the first in America and the second computer inter – continental group in the world. The success in Dell owes to optimizing the supply chain management and combining the orders, procurement, production and logistics together. Dell utilizes third – part logistics fully to integrate the supply logistics, producing logistics and selling logistics as one system. Dell makes most effort to minimize the inventory and increase the rate of feed back. Dell squeezes the time with no adding values during the purchasing and installation so that the inventory period of out – purchasing parts must be less 15 minutes. Dell will not order parts from suppliers until to get its order. Dell reduced the suppliers from 204 to 47 by 1992 for these purposes. The total inventory products in Dell's plants could be sold out for 11 days. So the Dell's strategic is not for the "velocity" but the "speed" which means that the velocity is to rush totally, the rate is to save the time in every procedure.

Haier Group

Haier Group started to restructure its procedure and established the Logistics Promotion Division in 1999. There are three departments under this Division: Procurement Department, Distribution Department, Storage and Transportation Department. Haier combined the logistics elements and resources from the every links, departments, companies and manufacturers in order to realize the central of purchasing, distribution and storage – transportation.

Haier adopts the logistics management of "one flow and three networks" in order to treat the order information as a core and establish the resource networks of global supply chains, customers and computer information. There are four goals:

The first is the purchasing according to the orders and the zero inventory;

The second is the strategy of win – win. There is not a simple relationship of buying and selling between Haier and suppliers. The suppliers will take part in the activities of Haier's products design for the same customers in order to add more value in the orders.

The third is the three JIT systems within one synchronous procedure. With the logistics technical and computer management, Haier could adopt three JIT systems: JIT purchasing, JIT distribution and JIT transit logistics in order to realize the synchronous flow.

The fourth is the computer networks with the speed of new economy.

Haier's procurement orders 100% have been made on the web so that the turnover period reduced from 10 to 3 days. Haier also reduces the cost of supply chain since the payment on the web is the 20% of total payment.

Haier has set up 42 distribution centers in China and delivers 50,000 ordered products to 1550 franchised stores and 900 sub - stores. The delivery period is 8 hours for the center of city, 24 hours for near regions, and 4 days for all parts of China.

Haier's restructuring logistics has made a great achievement with the suppliers reduced from 2336 to 667, materials reduced by 73.8%, warehouses reduced by 50%, inventory funds reduced form 1.5 billion yuan in 1999 to 0.3 billion yuan in 2001 as well as the inventory turnover reduced from 30 to 7 days. Haier made global gross sales of over 60 billion yuan in 2001 and is catching up to the global top 500.

If Chinese manufacturers and circulation enterprises could learn from these two examples, they will create the huge economic values.

E - commerce

E - commerce is possessed of many models such as B to C, B to B, C to C, etc. B to B is the business between the enterprises involving the most amount. B to C is the beginning e - commerce in china between the enterprise and the customers. According to statistics in 2000, there are 677 B to C web sites. The first three goods of residents' purchasing on the web are books, software and computer products. And other consumer goods are also increasing. For the e - business on the

web, you have to solve two problems: the first is the way of payment on the web, the second is to make the logistics system safely and quickly. Consumers could not only save their money but also their time. This kind of logistics service industry could also offer a lot of jobs. Every one can see it.

Logistics is strange and mysterious for many people, in fact it is in everywhere and every time. Countries can not do without the logistics; markets can not; enterprises can not; and consumers can not yet. For developing our logistics is not an easy thing to do since our comprehensive level is still backward over 20 years compared with the developed countries. However, we definitely could realize the leap – forward development of logistics industry if we could make our most efforts to do it.

Ding Junfa

January of 2002