14th Annual "State Of Logistics Report"

The Case For Reconfiguration

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Cass and ProLogis co-sponsor the annual “State of Logistics Report” and share all the expenses in developing and presenting this research. We ask that ProLogis receive equal recognition with Cass in any publication which refers to this report.
“The Case for Reconfiguration”

Introduction

During the past three years, the state of the U. S. business logistics system has become extremely tense. Competition, overcapacity, terrorism, security, and technology have created an operating climate that can best be characterized as volatile. It has also made estimating the cost of economic activity very difficult. For example, when we reviewed the final estimation of National Income and Product Accounts for 2002, we discovered that the Bureau of Economic Analysis had retroactively increased the value of all business inventory and reduced nominal gross domestic product for 2001. We issued a revised estimate of U. S. Logistics Cost for 2001 on April 22. A copy of that explanation is in your press kits. (Figure #1)

We currently estimate that U. S. business logistics costs during 2002 were $910 billion. That is $47 billion less than the estimated logistics cost during 2001 and $93 billion below logistics cost during 2000, the record high in the history of the data. Since 2000, declining interest rates have driven the reduction of total logistics costs, but competition, over capacity and technology, have also forced us to reconfigure our logistics operations and lower costs. The commercial paper rate of interest that we use to estimate inventory carrying cost averaged 5.3 percent during the decade of the 1990s. It declined to 3.8 percent in 2001 and it declined even further to 1.6 percent during 2002. At some point, and hopefully soon, economic growth will resume and interest rates will recover to levels that can support new business generation. But, we think that the lessons that we are learning about how to lower the cost of our reconfigured operations will endure and hopefully become extended. One is not wise to turn hope into
strategy. One thing has become clear during the past three years. We are not going to succeed solely by pursuing the promise of collaboration. We will have to take a fresh look at how to streamline our own operations. That is why our 14th Annual “State of Logistics Report” selected “The Case for Reconfiguration” as our theme. We will review this exhibit in line item detail in a few minutes. First, we will provide an update on our sponsors taken from their 2002 Summary Annual Reports.

Co-Sponsors

This report is co-sponsored by Cass Information Systems, Inc. and ProLogis. (Figure #2) In a very difficult interest rate environment, uncertain business and economic conditions, Cass Information Systems, Inc. experienced an increase in all of its key indicators during 2002. Net income increased to $7,312,000, a 4.1 percent increase from the $7,025,000 experienced in 2001. This represents an increase to $2.16 diluted earnings per share from the $2.05 achieved during 2001. Total revenue increased from $55,493,000 to $56,874,000, an increase of 2.5 percent. Cass processing fee revenues increased almost 15 percent over the previous year, a clear indicator of success in implementing the company’s strategic vision. (Figure #3)

The Cass core competencies are Data Acquisition, Data Management, Information Delivery, and Financial Exchange. In Data Acquisition, the critical task is to collect relevant data from various sources to make it usable. Raw data is assembled into centralized data management systems and data warehouses to create the power of information for managing critical business functions.

In Data Management, Cass processes operational data and transforms it into information that supports finance/accounting, treasury, and transportation/logistics operations.
In Information Delivery, Cass delivers the right information to the right place at the right time in the required format. Cass delivers information through reports, digital images, data files, through the Internet, or directly into customer internal systems. When combined with the cost of labor occupancy, taxes, and transportation, Information Delivery enables customers to study the benefits of RECONFIGURATION, as we shall see when we review an actual business case later in this presentation.

In Financial Exchange, Cass utilizes the services of its Cass Commercial Bank business unit to provide payment for its customers’ processed transactions. Cass Commercial Bank supplies the security, stability, and control for handling billions of dollars of payment transactions for its business. Ford Motor Company, PPG Industries, Rohm and Haas, Moore Business Forms, and Halliburton are some of the large companies that have recently selected Cass to deliver information that can support their interest in RECONFIGURATION.

ProLogis is currently celebrating its 10th year in business. (Figure #4) ProLogis has become the leading provider of distribution facilities, with over 226 million square feet in more than 1,760 distribution facilities owned, managed, and under development. These facilities are located in over 65 markets and 14 countries throughout North America, Europe, and Japan. ProLogis continues to expand the industry’s first and only global network of distribution facilities with the objective of building shareholder value. This is accomplished through the ProLogis Operating System® and their commitment to being “The Global Distribution Solution” by providing exceptional corporate distribution facilities to meet customer expansion and RECONFIGURATION needs globally.

The financial highlights of ProLogis in 2002 includes their growth in total assets owned and managed by over 21 percent. ProLogis achieved total shareholder return of 24.2 percent,
including share price appreciation and dividends. ProLogis recycled over $1.1 billion in capital and increased total real estate assets in ProLogis funds to $4.6 billion. ProLogis grew year-over-year funds from operations per share to $2.39 from $2.35 while increasing fully diluted earnings per share to $1.20 from $0.52. (Figure #5)

Last year’s report reviewed the composition of the ProLogis Operating System®. We explained the roles played by the ProLogis Market Services Group, the Global Development Group, and the Global Services Group. With respect to our theme to make “The Case for RECONFIGURATION”, ProLogis Solutions has developed a partnership with Peach State Integrated Technologies, Inc., a nationally recognized leader with a 27 year history in providing comprehensive supply chain engineering services and solutions for optimizing logistics and distribution networks.

Network strategy includes state-of-the-art modeling to consider alternative designs, optimize costs, and maximize profit. Site selection includes knowledge of locations, tax benefits, state incentives, and negotiations. Facility design includes material handling equipment, procurement, and leasing options. Systems integration includes installation. In summary, the ProLogis Solutions Group is the industry leading approach that allows ProLogis to provide their customers with solutions as unique as they are. (Figure #6)

Agenda

Here is our agenda. We will examine the cost of the U. S. business logistics system during 2002 in twelve line items of detail. We will review the trends in transportation costs, inventory carrying costs, and total logistics costs since 1981. With the help of Armstrong & Associates, we will update the expenditures managed by third party logistics service providers
and their growth in gross revenues since 1996. We shall review an analysis of outsourcing cost savings that Logistics Development, Corp. provides to investors who are interested in understanding the third party logistics space. We shall contrast the development of two world-class leaders, UPS and FedEx. They are often compared but they are very different. We shall examine examples of the latest research on inventory efficiency that Ohio State University’s Supply Chain Management Research Group has undertaken for ProLogis. We shall review the research of Urban Wallace & Associates on the deflationary price trends in the durable goods and retail merchandising sectors. We shall discuss the strategic and marketing implications of “The Case for RECONFIGURATION.” We shall use the case of Unilever’s “Path to Growth” program, now in its third year of implementation, to illustrate the benefits of RECONFIGURATION. We will then summarize and call for questions. (Figure #7)

The Business Logistics System – 2002

During 2001, the cost of our business logistics system declined to $910 billion, or the equivalent of 8.7 percent of nominal Gross Domestic Product (GDP). The average investment in all business inventory including agriculture, mining, construction, utilities, services, manufacturing, wholesale, and retail trade declined to $1.44 trillion. Inventory investment during 2002 was $42 billion lower than the revised estimate recently reported in March, 2002 for 2001. The cost of carrying inventory during 2002 includes interest at the annualized commercial paper rate of only 1.6 percent. The cost of taxes, obsolescence, depreciation, and insurance follow the Alford-Bangs Production Handbook formula that has been used in this methodology since its publication in 1973. The cost of warehousing has been flat for the past three years and
is an estimate based on the expenditures for public warehousing reported by the Commerce
Department’s Census Bureau.

Transportation costs are the preliminary estimates to be published by the Eno
Transportation Foundation later this year. Transportation costs were equal to 6 percent of
nominal GDP throughout the decade of the 1990s and as recently as 2000. The transportation
percentage declined to 5.8 in 2001 and has declined even further to 5.5 percent of GDP in 2002.
Trucking revenues declined by $10 billion during 2002. That is the first decline in annual
revenue since the 1974-1975 recession and that decline was slight. As recently as 2000, trucking
costs were about 5 percent of GDP. Trucking declined to 4.6 percent in 2001 and 4.4 percent of
GDP during 2002. The revenues of truckload carriers increased during 2002, but less than
truckload revenue declined. The cost of local trucking was very mixed with dry vans and
refrigerated revenue either flat or down, but flatbed revenues increased. Donald A. Broughton,
of A. G. Edwards & Sons in St. Louis, is a leading financial analyst of logistics and
transportation companies. His proprietary data has reported that more than 10,000 motor carriers
have failed since 2000. Most of the trucking companies filing for Chapter 11 Bankruptcy
protection had revenues ranging between $5 million to $20 million. But, some significant and
large carriers also failed during 2002. They include the Morgan Group on October 3, 2002.
Consolidated Freightways, the third largest less-than-truckload carrier ranked by revenue, filed
for bankruptcy on Labor Day, 2002. They are currently selling their real estate and terminals.
Rocor International, a large refrigerated truckload carrier, filed for Chapter 11 Protection on
August 6, 2002. Simon Trucking, also a refrigerated truckload carrier, filed for bankruptcy in
February, 2002. A-P-A Transport, a major less-than-truckload carrier in the northeast, closed its
doors in February, 2002. Significantly higher insurance costs contributed to these failures. A
large truckload carrier had insurance costs of 2 percent of revenue during the 1990s. In the past three years, companies in the A. G. Edwards universe of carriers are paying 5 percent of their revenues for property and casualty insurance. The new engines to power tractor/trailer combinations that were mandated on October 1, 2002 are 5 to 9 percent less fuel efficient. They are also increasing the cost of maintenance. And the trucking industry faces new emissions standards in 2007. The cost of fuel became uncontrollable during 2002, as our country prepared for war. In terms of improving productivity, we are not making progress on legislation to add a sixth axle, which would permit tractor/trailer combinations to increase gross vehicle weight to 97,000 pounds. Under these pressures, every motor carrier will have to examine the ways and means of how they can reconfigure their operations in order to survive. Trucking accounts for 80 percent of our nation’s freight bill. In 2002, trucking accounted for 63 percent of total logistics cost. Trucking is the engine that drives our business logistics and it has endured three years of a freight recession. The investment banking firm, Stephens, Inc., reports that the Federal Motor Carrier Safety Administration requested an impact study be performed on their new hours-of-service rules. The findings were that the new rules will add $611 million in operating costs and require trucking companies to add 84,300 additional drivers. When it comes to the trucking industry, the road is paved with risk and uncertainty.

Railroad revenues were flat during 2002. Air freight increased during the west coast port shutdown. Total air freight revenues were up $1 billion. Water revenues declined by $1 billion due to less demand for domestic services. Freight Forwarder revenues increased by $1 billion. Shipper related costs combine the loading and unloading of transportation equipment and the operation of traffic departments. Logistics administration is imputed at 4 percent of total
logistics cost following the methodology we have consistently employed since its original publication in 1973. \textit{(Figure #8)}

Figure #8 in your press kits details the cost of the U. S. business logistics system since 1981. It is too crowded to display on the screen but it is the most important exhibit in this presentation and it may help you for future reference. \textit{(Figure #9)} Here is how the trends appear graphically with 1981 serving as the base. Transportation costs have declined by 24 percent during these 22 years. Inventory carrying costs have declined by 66 percent. We reduced inventory investment during 2002 and our inventory carrying costs declined to a record low, due to the 1.6 percent commercial paper interest rate. With the record low achieved during 2002, total logistics declined by more than 54 percent during these 22 years. \textit{(Figure #10)}

\textbf{Third Party Logistics}

In the shadow of declining logistics expenditures made by manufacturing and distribution businesses, the services that continue to receive the most attention are the third party logistics services providers. This research is updated annually by our colleague Richard Armstrong. The annual edition of “Who’s Who in Logistics? Armstrong’s Guide to Global Supply Chain Management” is now available. Dick reports that the third party contract logistics market grew by 6.9 percent during 2002. Compared to previous growth rates, lower growth is a direct reflection of our economic slowdown. At least 3PL gross revenues are growing. When you consider that expenditures for truck transportation were $10 billion lower during 2002 compared to 2001, you will appreciate the interest in the 3PL/contract logistics market among motor carriers. We invite your attention to the 11.4 percent growth rate in domestic transportation management. This comes from manufacturers and distributors who have decided to outsource
carrier selection and price negotiation. We, at Cass, know of operations where this has worked well, such as the relationship between Ford Motor Company and Penske Logistics. But, we have also observed many situations where adequate accountability and responsibility are not in place. We have often warned about these risks. The decisions are made by consenting adults. It is not our task to recite these examples now. Another segment of double-digit growth is value added warehouse/distribution. A leading example is USCO Distribution Services, Inc. and their international freight forwarding company parent, Kuehne & Nagel, Inc. (Figure #11)

This graphic displays the growth of gross third party logistics expenditures under management since 1996. Internationally, gross revenues are characterized as turnover. In our first “State of Logistics Report”© in 1990, we forecasted that a gross expenditure under management would be $50 billion by 2000. That was based on our identification of $6 billion in 1989. It appears that we were right but we were right for the wrong reason. We failed to recognize the appeal of non-asset based logistics services. We admitted as much in a paper that we presented in November, 2001 in London at the McKinsey/Morgan Stanley conference on third party logistics. The entry of investment bankers who are financially interested in doing deals to consolidate 3PLs has created confusion in this market. Foreign freight forwarders, custom house brokers, and transportation brokers, some with more than 100 years of experience, are now branded as non-asset based 3PLs in order to support extraordinary price/earnings ratios. This is merely rebranding and is confusing investors.

The April 21 edition of Transport Topics reports that 3PL customers expect their logistics service providers to offer advanced, customized information technology. Dick Armstrong advised that net income increased to 3 percent of net revenue for 3PL services in 2002. That was
up from 1.7 percent in 2001. It seems to us a 3PL service cannot afford to provide customized information technology at a margin of 3 percent. *(Figure #12)*

Logistics Development, Corp. is a consulting practice headquartered in Cleveland, Ohio. Richard Hallal is Logistics Development’s principal officer. His practice focuses on two major areas, logistics engineering and logistics strategy. In the market for third party logistics services, he focuses on the intersection between operating network metrics of the service provider and supply chain management metrics of the service user. He observes that outsourcing cost savings depend on the level of economic integration. On the rather unremarkable level of mere replication, a user can expect savings up to 5 percent. That may be adequate for many users who wish only to demonstrate that they are outsourcing to their top management without undertaking the heavy lifting and difficult work. In the middle case of blended resources, the service user leverages the third party service providers’ network and can expect savings of 5 to 15 percent. In our experience, savings above 10 percent would be difficult to achieve at this stage, but we defer to Logistics Development, Corp. They are on the ground and in the market. We are not. The largest opportunity for savings is in reengineering the process. Savings of 10 to 20 percent are possible. Before completing his graduate education in finance and information technology, Rick Hallal was an industrial engineer at United Parcel Service. He is comfortable in this reengineering echelon. It is less clear how many service users are comfortable having their supply chains reengineered. An example that Hallal frequently cites is the role that Vector SCM plays for General Motors. Another example is the services that Concentrek is providing for Cummins Engine. *(Figure #13)*

Hallal has provided an interesting comparison of business development between UPS and FedEx. “What can Brown do for you?” is a challenging question. It builds on the core unionized
network of UPS. UPS is engineered for efficiency and has the least cost per piece/pound despite being organized by the Brotherhood of International Teamsters. UPS drives integration economics primarily through their singular point of pick up and delivery. And UPS appears ready, willing, and able to customize information technology to meet the needs of individuals and develop integrated service. And, through their UPS World Ease program, they intend to do it worldwide.

In contrast, FDX operates decentralized multiple networks. “Don’t worry, there is a FedEx for that” is their claim and they are right. FedEx Express is headquartered in Memphis and staffed by non-union associates. FedEx Ground and Home Delivery is headquartered in Pittsburgh and staffed by owner operators. FedEx Custom Critical is located in Akron and is staffed by independent contractors. Although a senior management team is located in Memphis, the non-unionized FedEx Freight East operations are managed from Harrison, Arkansas and FedEx Freight West non-unionized operations are managed from San Jose, California. These are separate operating networks. The business units are insulated from labor organization. Employees are non-union company associates and independent contractors. The FedEx Supply Chain Solutions organization has invested in a full suite of information technology that is capable of redesigning their client’s supply chain, implementing that design, providing transportation and order management. FedEx has a data warehousing capability in their relationship with the Terradata Division of NCR.

It is clear that FedEx is doing a superb job of leveraging marketing, sales, and information technology. They do it so well that many observers believe that FedEx is a centralized business. But, the work gets done in the multiple operating freight networks of people, equipment, and facilities. We recall discussing the third party logistics market with
FedEx executives in November, 1993. We were asked a question to explain what shippers expect from 3PL service providers. The question went as follows. “I have a portrait. It is the Mona Lisa. I will not change the smile. I may be willing to consider changing the nose a little bit. Will that be adequate?” Our response was to expect 3PL customers to demand a high level of customization, especially in systems. “You will be painting the lady’s portrait on a new canvas every time,” I replied. FedEx has not done that. In our judgment, FedEx supply chain services have done a great job of managing information-based services while avoiding the burden of customized information technology. As we see it, FedEx can and will support RECONFIGURATION through information technology for companies who are interested in making progress but they are unlikely to invest in highly customized client specific information systems without a demonstrated return. (Figure #14)

**Inventory Efficiency**

Here is the conventional inventory-sales ratio in manufacturing, wholesale, and retail trade measured in months of supply. It is reported each month by the U. S. Department of Commerce. The analysts report that inventories have been tightly controlled during the past two years. But, at this level of aggregation, the graph no longer tells us very much. (Figure #15)

In last year’s report, we introduced you to The Ohio State University Supply Chain Management Research Group. Background on the SCMRG is Figure 15 of your press kits. (Figure #16) In order to understand how inventory investment was becoming more efficient, the Group focused on the Securities and Exchange Commission Form 10K data for approximately 8,000 U. S. publicly traded companies. Inventory was stratified into raw materials (RM), work in process (WIP), and finished goods (FG). They measured the ratio of inventory to cost of
goods sold (COGS) to eliminate the effects of and variability due to gross margin. They also eliminated companies with sales under $100 million in 1999. (Figure #17)

The companies were grouped into 14 industries and 91 sectors. They found that all industries had reduced the ratio of raw materials inventory to cost of goods sold and work in process inventory to cost of goods sold. But, in 9 of the 14 industries, the ratio of finished goods inventory to cost of goods sold has either increased or not changed in the 21 years between 1979 and 1999. Dr. Ginter observed that companies have greater control over their internal process allowing them to control raw materials and work in process through lean manufacturing. But, finished goods inventory are driven at least in part by their marketing departments and customer service commitments.

The spark was ignited.

In January of this year, ProLogis sponsored an extension of this research. We now have the data available through 2001. Work continues and it may evolve into a quarterly report, which ProLogis may make available to the public (Figure #18)

Here are the apparel industry trends. Performance of raw material and work in process inventory is favorable. But, after a brief improvement in 2000, finished goods inventory increased. (Figure #19)

Here are the computers and electronics industry trends. Due to the high cost of obsolescence, and in many companies the ability to produce to order, all echelons of inventory investment are more efficient. Professor LaLonde refers to this performance as “The Dell effect.” Automobile parts have a similar trend due to just in time delivery of raw materials and lean manufacturing control of work in process. But, the auto industry is now holding an 80 day supply of finished cars and trucks. (Figure #20)
Here are the food products industry trends. Some progress can be seen in raw material inventory and progress can be seen in managing work in process inventory. But interestingly, very little progress has been made in managing finished goods inventory. This is despite all of the claims being made about collaborative planning, forecasting, and replenishment in the foods product industry for the past 8 years. *(Figure #21)*

This year’s report includes the industrial durables industry trends. There is no significant improvement of finished goods inventory in relation to cost of goods sold. We are about to review some new findings of prices for durable goods and retail merchandise, which are challenging and surprising.

**Price Deflation**

The May 6 policy decision by the Federal Reserve to hold the overnight federal funds rate at 1.25 percent reflected the twin influence of price stability and productivity. But, their official assessment of risks in their outlook stated that, given the weakness in our economic growth, the risk of deflation was greater than the risk of inflation. Given the problems in Japan’s economy with deflation for the past 10 years and the current concern about the German economy, the potential for deflation in the United States is disarming. We have not seen deflation in the United States since the 1930s, with the exception of a nine-month period in 1949. Deflation may be uncomfortable, but the purpose of this report over the last 14 years is to share what we have learned when we learn it.

*(Figure #22)*

Our colleague, Mr. Roger Urban, is the President of Urban Wallace Associates. His firm concentrates on business strategy and operational marketing issues. Earlier this year he became
concerned about deflation. He observes that manufactures of durable and non-durable goods have been living with 20 years of price pressure relative to the rest of the U. S. economy. Today, the U. S. price index for durable goods is back to 1993 levels! This is surprising. Durable goods prices were inflating at a 2 percent annual rate between 1993 and 1996. Prices peaked in 1996. Then durable goods prices began to deflate at an annual rate of .75 percent between 1997 through 2000. During the past three years, which coincides with our freight recession and down turn in manufacturing, durable goods prices have declined by 2 percent annually. Today’s durable goods prices are at 1993 levels. The trend suggests that prices may fall even further. Indeed, durable goods prices have continued to fall through April, 2003. (Figure #23)

Urban attributes the deflation in durable goods prices between 1997 and 2000 to imports from Mexican maquilladoras. But, the deflation of durable goods prices since 2001 has resulted from Chinese imports. With the benefit of $52 billion in foreign investment last year, China’s low-cost manufacturing is exporting deflation throughout the world economy. Nearly 60 percent of world export growth in 2002 came from China. Chinese exports to the U. S. are up 45 percent year over year and have surged almost four fold in the past eight years. China’s share of the U. S. import market increased from 2 percent in 1988 to 12.3 percent at the close of 2002. (Figure #24)

Urban provided some examples. Honda is building the first car plant in China, which will be dedicated to exports. Honda expects that the quality of their cars produced in China will match their quality in Japan, but the cost in China will be 20 percent lower. Ford Motor Company will source $1 billion of auto components from China this year and expects it to grow to $10 billion by 2008. And, Wal-Mart sourced $10 billion from China during 2002. (Figure #25)
Mr. Urban continued to study the trends in the U. S. retail price deflator with the help of the Bureau of Economic Analysis. Although retail prices recovered in 1999 and 2000 during our period of growth, they have declined sharply since 2001. As was the case with durable goods, retail prices have fallen to 1993 levels. *(Figure #26)*

Urban concludes that the tension of deflation forces inventory reduction. Survival in this environment compels manufacturers and retailers to lower their operating cost. When prices are falling, earnings improvement must come from supply chain operating efficiencies. Thus, the pressure to reduce inventory, particularly finished goods inventory, is especially high. This supports the case for RECONFIGURATION of product lines, production and distribution networks, and operating systems. A leading and successful example is UNILEVER’S “Path to Growth”, A Case Study in RECONFIGURATION. *(Figure #27)*

UNILEVER, the Anglo-Dutch consumer goods giant is the world’s third largest food, home, and personal care products manufacturer. Unilever has annual sales of $46 billion and operates in 88 countries. After making a series of aggressive acquisitions during the 1990s, Unilever began a five year “Path to Growth” program in 2000. The program calls for slashing the number of its brands from more than 1600 down to 400 by 2004. By 2005, the disposal of lagging brands and the promotion of stronger more important brands and RECONFIGURATION of their production and distribution network are expected to increase annual revenues by five to 6 percent and achieve operating profit margin of 16 percent. Than may sound like a tall order, but Unilever is doing it. On February 13, Unilever reported a 16 percent increase in 2002 profit, an 18 percent increase on earnings per share on lower sales revenue because of the disposal of weaker brands. Fourth quarter sales of Unilever’s leading brands grew 8.5 percent, with 9.8
percent growth coming from the home and personal care products and 7.3 percent growth from food. *(Figure #28)*

Cass Information Systems, Inc. has been processing freight payment and delivering transportation and warehousing information to Unilever for more than 20 years. Unilever uses the Strategic Analysis of Integrated Logistics System, also known as SAILS, which was developed by Insight, Inc. The SAILS system enables Unilever to analyze alternative networks of production and distribution facilities. ProLogis has had an equity investment in Insight, Inc. since 1997. They offer Insight’s capabilities within their ProLogis Solutions platform of services.

The 2002 Summary Annual Report of ProLogis reports the progress that Home and Personal Care Products Division has achieved working with ProLogis during the past two years. Their distribution facility network, which formerly consisted of 15 warehouses, has been RECONFIGURED into five major super-regional distribution centers totaling over 4.8 million square feet. Unilever can deliver to a majority of their customers throughout the U. S. in one day. That is a 15 percent improvement in customer service and annual savings of 7 percent in transportation, administration, and facility cost.

In working as a partner with Unilever’s Home and Personal Care Division, ProLogis went beyond facilities to provide a distribution solution that included facility design, site selection, state incentive negotiations, material handling equipment procurement, and leasing. Unilever and ProLogis are preparing a case study of their relationship for publication by the Massachusetts Institute of Technology. With the help of our colleague, Ms. Maria McIntyre, the Executive Vice President of the Council of Logistics Management, the case will be presented at
their annual conference in Chicago this September. The Unilever “Path to Growth” will be positioned within the Outsourcing Track being chaired by the very able Jim Bierfeldt of USCO.

We at Cass do not have to go very far to observe the power of Unilever’s reconfiguration. In fact, all that we have to do is drive 18 miles east to Southern Illinois. One of the five super-regional distribution centers that ProLogis leases to Unilever is a 1.2 million square foot facility located in the Gateway Commerce Center owned by TRiSTAR Business Development. Unilever has selected Genco to operate third party logistics services at their Gateway Distribution Center. (Figure #29)

The Gateway Commerce Center is a superb location for efficient, low cost, reliable distribution. Another example of successful RECONFIGURATION is Procter & Gamble Company. Their 1 million square foot facility at Gateway is being managed by U S F Logistics. Procter & Gamble posted a 15 percent increase in profit in their latest fiscal second quarter. Procter & Gamble will end their five year restructuring program this month. It represents a major turnaround in profitability from their performance in 1999. The moves by Procter & Gamble’s CEO, Mr. A. G. Lafley, to cut costs, boost marketing spending, and invest in the company’s big brands have been bold. They reflect planning and execution. The lesson learned is you must always have a plan and believe in it. Nothing good happens by accident. Procter & Gamble has returned to the mission that the legendary Red Dupree defined more than 80 years ago.

Our colleague, Mr. Clifford Lynch, is the President of C. F. Lynch and Associates. Cliff observes that nearly every issue of Forum, the Grocery Manufacturing Industry’s monthly publication, devotes significant space to articles on collaborative forecasting and replenishment. Cliff makes sure that we are not missing anything, and we thank him for that. But, it seems to us
that collaboration is being over-taught, over-sold, and over-published. We see nothing in the quarterly finished goods inventory data being reported by public companies to support it. One of the best series of articles on collaboration recently appeared in a special advertising supplement published by Supply Chain Management Review. The writers were software vendors and consultants. An exception is the story on collaborative inventory management at Harley-Davidson published in the June Inventory Management Report.

We asked Jim Ginter to review their inventory data going back to 1985 when Harley-Davidson went public. He reports that Harley-Davidson’s finished good inventory is turning about 50 times a year and total inventory is turning about 10 times annual. That is very good performance. Ohio State University’s Supply Chain Management Research Group has the ability to track individual companies and their peer group on a service basis at very low cost. It is a bargain to anyone interested in inventory efficiency. *(Figure #30)*

**Summary**

Let’s summarize what we know to this point. During 2002, U S business logistics costs declined to $910 billion or the equivalent of 8.7 percent of nominal GDP. That was $47 billion less than logistics costs in 2001 and $93 billion less than the year 2000. The steep decline in logistics costs reflects our weak economy since 2000. We call your attention to our decline in manufacturing due to imports, our lower inventory investment, and record low interest rates.

It is important to understand that during this “freight recession,” transportation costs declined to 5.5 percent of nominal GDP in 2002, compared to the 6.0 percent average of the previous decade. Expenditures for trucking services were $10 billion less during 2002 than they
were during 2001. The only previous decline occurred during the 1974-1975 recession and that was slight.

The sign on the door that we must walk through to improve our logistics productivity reads “Finished Product Inventory.” The Ohio State University’s Supply Chain Management Research Group reports that, in most industries, finished goods inventories in relation to cost of goods sold have not improved during the past 23 years. We now have data through 2001 and more is coming. The food industry shows no progress in finished goods inventory despite the claims published about Collaborative Planning, Forecasting, and Replenishment (CPFR).

(Figure #30 continued)

Urban Wallace & Associates reports that the prices paid for durable goods and retail merchandise have been deflating for the past six years. Indeed, current prices in these industries are at 1993 levels. Yesterday is history. Tomorrow is a mystery. More research is needed to understand the implications of deflation and we invite our colleagues to undertake it. There is plenty of work for all of us in logistics to do. Since 1980, we have been on the right side of history. The question to be answered now is are we yesterday’s women and men.

It appears that the benefits of supply chain management collaboration have been over-sold. Instead, we have made “The Case for RECONFIGURATION.” UNILEVER’S “Path to Growth” is an appropriate model and it can be replicated and commands attention. Let’s get our people right, our products right, and our production and distribution facilities network right and get our own house in order. Let’s RECONFIGURE our businesses operationally as a first step before we consider the benefits and risks of collaboration. In our experience, you should collaborate from a position of strength, not weakness. We have to operate our way out of this challenge. We have to resist complaining about level playing fields. This is globalization.
There are no leveling playing fields. Recalling my favorite line from the award winning film *Forrest Gump*, “That’s all I’m going to say about that.”

Thank you.
Questions

1. Would you characterize deflation for the United States as being a possibility or a probability? Ann Saccomano, Journal of Commerce

Deflation. I am unsettled by it. This morning, newspaper reports say that payments during April fell by $16.1 billion. We could be in a period of declining incomes and declining prices. At a time when we’re a wash with a lot of finished goods inventory, these are not good signs. It will have to continue to be studied and analyzed. We’ve only had time ourselves to look at durable goods. That’s products three years old and older; refrigerators, washers, dryers, and cars. We also looked at retail merchandise to get another perception of it. We point this out mostly for our colleagues in education. They look for theses and subjects to assign and we think this would be a good one to get to the bottom of. These are early indications. Roger Urban sent his findings to me in March. He developed it during January and February with the help of the Federal Reserve System. It is interesting that no one said anything about it until the Fed issued the open market report on May 6. It is still relatively new.

2. Did you take a look at the cost of congestion on the roads and what that costs? Ann Saccomano, Journal of Commerce

Interesting question. We haven’t studied congestion on the roads and what that costs. The other question that came up was what are the implications of security? The costs are not in the data. Costs are going someplace but it is not in the data that we are seeing.
3. **You indicated in your study that costs spent for trucking has declined significantly. In your opinion, is part of it due to inventory? But also, the motor carriers seem to be making increases stick with their customers. So you somewhat have the economy of issues. Would you comment on that please?** Wally Weart, Trans News

The truckload side has been difficult to make prices stick. The LTL side has taken prices because of the contract with the Teamsters Union. What is interesting, that we think we are seeing, especially with the people in the 3PL space, or transportation managers, is more consolidation of orders into heavier marks and more stop off truckloads. That is a concern to me personally because I serve as a Director of USFreightways. It seems to me that the LTL sector is under attack. The only thing that actually made their earnings look even close to what we would have liked to have seen was the severe contraction in the market, particularly in the last part of the year with bankruptcies, that improved the position of some of the other people left in the market. LTL did not do well last year at all. Actual capacity in the market was very stagnant so there was no growth in capacity. Basically, they were just taking up the capacity that is out there. Interestingly enough, for the first time in I can’t remember how long, there is no driver shortage. And there is no driver shortage because there has been a decline in the amount of freight to haul. This is probably a really good indicator that freight movement is down. When the economy improves and freight improves, we will start seeing a driver shortage. That has not been the case since 2000.
4. **You say that LTL is under attack. We have heard a lot about the rise of regional versus national. Have you looked at that and do you have some opinions on the differentiation between regional and national and the performance that they have?**

*Perry Trunick, Transportation & Distribution Magazine*

One company that is really doing and extraordinary job is Fed Ex Freight. That is the former American Freightways and Viking. They have already grown to $2.3 billion after just two or three years together. They have a 90 operating ratio and they are taking share from people. They have the benefit of their information technology and the tracking and tracing and all of the other things that they have developed for the express side of the business, which they are bringing into LTL. They are changing the base of competition. Everyone in the LTL industry now has to provide far more tracking and tracing information and visibility than they ever had to before.

5. **Can you talk about the hours of service costs that you mentioned, approximately $611 million and that they are going to need more than 80,000 new drivers? How did you figure those costs and will the impact truckload more than LTL in your estimation?**

*Sean Kilkarr, Fleet Owner Magazine*

That number came out of the Federal Motor Carrier Safety Administration. It was a study reported by the investment banking firm, Stephens, Inc. It was only about three weeks old. You would have to ask the Department of Transportation for the study itself
or the Federal Motor Carrier Safety Administration. It surprised me. The operating costs didn’t surprise me; the 84,000 jobs did surprise me.

6. **Have you done any research other than rising insurance costs into the costs, if any additional, of security measures that such things like C T PAT and other federal or regulatory structures are requiring.**

   *Lisa Harrington, Transportation & Distribution Magazine*

I haven’t done anything in the area of security costs yet. It may even be exaggerated. We made big investments preparing for the Y2K challenge in a lot of new software and tracking and tracing capabilities, and we did in those days for customer service reasons. But, those investments, as it happens, are also helping us with our security requirements. There is such an explosion of meetings going on allover the country with the National Industrial Transportation League and others. We certainly have not seen pass-throughs that you can point you finger in the data and say that is where security hit. For all the headlines that it made, we are certainly not seeing it show up in the data.

7. **I want you to know that at the Alex Brown conference in Naples, Florida in February, three different speakers used the one-year-old version of Figure #8. I had a question about it that I asked one of the speakers, Mr. Schneider, and received basically a “he wasn’t sure” answer. If you look at that chart, one of the columns, just to the right of the box, is Transportation as a % of GDP. You notice, beginning in 1981 when it was 7.3%, it drops fairly steeply until about 1988 or 1989 and I assume that was the**
Teamsters monopoly rents going out of it. But then it flattens out and stays at 6% all the way until 2001. And there were a lot of things that happened in that time that you would have thought would have reduced transportation. We had intrastate deregulation in 1995. The trucks gradually got bigger; highway speeds got somewhat higher, which allowed more drive utilization; the satellite technology came in; all kinds of things that you thought would have continued the downward trend. And then in 2001 and 2002, where essentially nothing happened that would have continued the downward trend, you see it drops very significantly. And so, my question is why didn’t it continue to drop in the 90s and why did it drop in 2002? John Terry, Investor

In the 90s, we had reasonable periods of economic growth. We had the impact of deregulation mostly in the 80s, as you suggest. The intrastate deregulation that I expected to be a contributor didn’t seem to have much of an affect. It did improve the productivity of the express intermodel carriers. Right now it is competitive conditions. It is just extreme. People are aggressively pricing, going after market share. There is too much capacity chasing too little freight. Consider the more than 10,000 bankruptcies since 2000. It is Darwinian.

*What is the source of this trucking data? Is it the reports found with the DOT that comes up with the amount of money that determines the percentage?*

It is actually a wide variety of sources because one of the non-benefits of deregulation was a loss of a lot of the data. I got that data from not only looking at DOT sources, but
some private companies that collect data primarily for insurance carriers that allow me to use their data and a couple of consultants in the trucking field that I use to help me weed through and literally, in some cases, go through annual report by annual report because the numbers don’t work the way they used to when the ICC processed the data.

John, do you remember the data that Frank Smith developed in transportation, the TAA, going back to 1950? Well, he took retirement in 1990 and he selected Rosalyn as his replacement because she was the only person who could do it. So, the data methodology goes clear back to 1950; 53 years of activity. All of this was independently audited by the Federal government in 1987 and passed scrutiny. The price fixing lobby of the American Trucking engaged Dr. Michael Evans to develop this research. They paid him $100,000 and he did his best. Secretary Burnley turned it over for independent audit and it was done by the Transportation System Center in Cambridge, specifically by Dr. Gary Stone, who is a financial economist, and Fred Brier from the University of Minnesota. It has a solid foundation. It has been around for a long time.

8. I am curious of your definition of deflation. In Figure #24, you have Honda building in China with the same equivalent car and 20% lower cost. To me that is an increase in productivity. I thought deflation, the way we typically use it, is that the cost stays the same but the price drops, so your margin is declining. There is a new term being used now, disinflation, to distinguish that from deflation. I am looking for a comment on that. Rob Quartel, Freight Desk Technologies
If the world keeps investing $50 billion a year in China’s manufacturing, it appears we are going to be seeing more of it. There are problems over there with SARS, as you know. There are manufacturing systems being built where nothing but animals were there before. There is infection going on. We don’t have an answer for it. I think I said this year’s report raises questions more than answers.

9. *There a couple of trends in here, one of which you know the capacity coming out of the trucking market. At what point would you say that shippers might be in trouble with the capacity coming out of the market and eventually the economy rebounding? Are you at all worried that at some point shippers may be facing sharply higher rates, if not actually today?*  
   *John Schulz, Traffic World*

   I don’t see that happening any time soon. This is why we make the case for RECONFITURATION.

10. *You mentioned the cost of logistics and freight. Where is the railroad in this? It looks like the rail share just stays flat yet there have been some press articles about the resurgence of rail. Would you comment on your views on rail as part of this overall logistics reconfiguration and maybe their role?*

   Rail is flat is basically flat. In terms of its portion of the industry, it is basically remaining pretty flat. They have done a lot of changing in the industry, which has allowed them to keep up. I don’t see them steaming ahead. They are in just as bad a
position as everyone else with the slump in freight movement and really not in a position. There is not a segment of that market that you can say that is great for rail and they can go capture that. I don’t see any room for them to move forward.

11. **What about the affect of the EPA’s diesel engine emission requirements on trucking and increasing the costs?** *Eric Kulisch, American Shipper Magazine*

It appears that the EPA has convinced government to increase emissions standard in 2007. We don’t know enough about that yet. The problems in maintenance and fuel costs that we report relate to the engines that were mandated in October, 2002. We are just beginning to quantify that impact.

12. **Could you explain how you derive the number of $6 billion for shipper related costs in Figure #1?** *James Cooke, Logistics Management Magazine*

That follows the methodology that we have used for this report, so it is a compilation of estimates. Some of them are hard numbers but a lot of them are estimates that we bring altogether to put that cost together. Unfortunately, there is not any place where I can point you and say that is where shipper costs come from. There are a lot of things involved in that and the only thing I can say is that we have maintained consistent sources for measuring it and a consistent methodology since 1950.
I like the way you have used some examples in your material this morning. I have a question on the Unilever example. It’s cited on Page 16 that they increased operating profit margins by 16% and on Page 17 it talks about a 7% reduction in transportation, administration, and facility cost. 7% would relate to probably about 1/3 of 1% of that 16%. That would indicate to me that sales, marketing, production, and inventory have been 90% of the cost production. Is there any information on what that correlation might be? It just looks like the lion’s share of the costs have come from the sales and marketing of reducing products and reducing production costs and things like that.

Bob Murray, REM Associates

That’s really reconfiguring the system. Getting the people right, the products right, and the facilities right. What they have done will be made public when you visit the Council of Logistics Management’s Annual Conference in September. I recommend you attend that session. Nobody does it better than they do. They have learned a lot.
Cass Information Systems, Inc. and ProLogis wish to acknowledge and thank the following persons for their contributions to the 14th Annual “State of Logistics Report”©.

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C. F. Lynch & Associates  
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You have always been superb colleagues and Rosalyn Wilson and I look forward to working with you in the future.

Sincerely,

Robert V. Delaney
"The Case For Reconfiguration"

June 2, 2003
National Press Club
Washington, D.C

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bdelaney@cassinfo.com
The U. S. Business Logistics System Cost is the Equivalent of 8.7 Percent of Current GDP in 2002

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<th>Carrying Costs - $ 1.444 Trillion All Business Inventory</th>
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| Shipper Related Costs | 6         |
| Logistics Administration | 35       |

**TOTAL LOGISTICS COST** 910
## Cass Information Systems - 2002 in Review

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<th>For the Year</th>
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<td>$9,776,000,000</td>
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The Cass Strategic Edge
ProLogis 2002 Financial Highlights

- Grew total assets owned and managed by over 21%, to more than $10.3 billion, up from $8.5 billion in 2001.
- Achieved total shareholder return of 24.2%, including share price appreciation and dividends.
- Recycled over $1.1 billion in capital which, when combined with acquisitions, increased total real estate assets in ProLogis Funds to $4.6 billion from $2.9 billion in 2001.
- Grew year-over-year funds from operations per share to $2.39 from $2.35.
- Increased fully diluted earnings per share to $1.20 from $0.52.
Supporting The Case For RECONFIGURATION with Peach State

ProLogis Solutions Group

- Distribution Network Design & Optimization
- Site Selection & Incentive Negotiation
- Facility Design
- Material Handling Procurement & Leasing
- Material Handling Systems Integration
Agenda

1. The cost of the business logistics system in 2002
3. The expenditures managed by Third Party Logistics Services Providers in 2002
4. A Financial analysis of 3PLs for investors
5. The research of the Ohio State University’s Supply Chain Management Research Group
6. Research on deflationary prices paid for durable goods and retail merchandise
7. Unilever’s “Path to Growth” A Case Study in RECONFIGURATION
8. Summary, questions and clarifications
The U. S. Business Logistics System Cost is the Equivalent of 8.7 Percent of Current GDP in 2002

### Carrying Costs - $1.444 Trillion All Business Inventory

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**TOTAL LOGISTICS COST**

910
## The Cost of the Business Logistics System in Relation to Gross Domestic Product

$ Billion Except GDP

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<td>47</td>
<td>82</td>
<td>63</td>
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<td>1997</td>
<td>8.32</td>
<td>1280</td>
<td>24.5%</td>
<td>314</td>
<td>503</td>
<td>33 850</td>
<td>10.2</td>
<td>3.8</td>
<td>6.0</td>
<td>46</td>
<td>83</td>
<td>63</td>
<td>266</td>
<td>221</td>
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<td>1998</td>
<td>8.78</td>
<td>1317</td>
<td>24.4%</td>
<td>321</td>
<td>529</td>
<td>34 884</td>
<td>10.1</td>
<td>3.7</td>
<td>6.0</td>
<td>44</td>
<td>83</td>
<td>62</td>
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<td>1999</td>
<td>9.27</td>
<td>1381</td>
<td>24.1%</td>
<td>333</td>
<td>554</td>
<td>35 922</td>
<td>10.0</td>
<td>3.6</td>
<td>6.0</td>
<td>43</td>
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<td>62</td>
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<td>1478</td>
<td>25.3%</td>
<td>374</td>
<td>590</td>
<td>39 1003</td>
<td>10.2</td>
<td>3.8</td>
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<td>46</td>
<td>82</td>
<td>63</td>
<td>315</td>
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<td>2001</td>
<td>10.08</td>
<td>1486</td>
<td>22.8%</td>
<td>339</td>
<td>581</td>
<td>37 957</td>
<td>9.5</td>
<td>3.4</td>
<td>5.8</td>
<td>41</td>
<td>79</td>
<td>59</td>
<td>322</td>
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<td>2002</td>
<td>10.47</td>
<td>1444</td>
<td>20.6%</td>
<td>298</td>
<td>577</td>
<td>35 910</td>
<td>8.7</td>
<td>2.8</td>
<td>5.5</td>
<td>34</td>
<td>76</td>
<td>54</td>
<td>335</td>
<td>253</td>
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</table>

Transportation in America: Rosalyn Wilson, 2003 ENO Transportation Foundation, Washington, DC


R The Bureau of Economic Analysis increased their estimate for Nominal GDP and the Value of All Business Inventory.
Final Numbers for Trucking revenues were substantially lower that the previous three quarters indicated.
### Gross Expenditures Managed by Third Party Logistics Service Providers Grew by 6.9% in 2002

<table>
<thead>
<tr>
<th>Third Party Service Providers</th>
<th>2002 Turnover ($ Billions)</th>
<th>Current Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedicated Contract Cartage</td>
<td>9.0</td>
<td>8.4%</td>
</tr>
<tr>
<td>Domestic Transportation Management</td>
<td>19.5</td>
<td>11.4%</td>
</tr>
<tr>
<td>Value-Added Warehouse/Distribution</td>
<td>16.9</td>
<td>10.5%</td>
</tr>
<tr>
<td>International Transportation Management(^1)</td>
<td>16.6</td>
<td>5.7%</td>
</tr>
<tr>
<td>3PL Software</td>
<td>3.0</td>
<td>-25%</td>
</tr>
<tr>
<td><strong>Total Contract Logistics Market</strong></td>
<td><strong>5.0</strong></td>
<td><strong>6.9%</strong></td>
</tr>
</tbody>
</table>

\(^1\) U.S.

Source: Armstrong & Associates Inc.
3PL/Contract Logistics Market
Turnover Growth ($ Billions)

Source: Armstrong & Associates Inc.
Outsourcing: Cost Savings Depend Upon Level of Integration

1) Replication
   - Flow of materials remains unaltered, logistics provider provides buying power and limited expertise
   - **Expected savings:** 0% to 5%

2) Blended Resources
   - Shipment attributes and material flow characteristics remain largely unaltered
   - Leverages the third party's network of either demand (add density) or capacity (remove backhauls)
   - **Expected savings:** 5% to 15%

3) Reengineer
   - Involves a combination of the above with processes and technology to materially alter shipment attributes and material flow characteristics if needed.
   - 3PL likely to extend reach throughout the entire supply chain
   - **Expected savings:** 10% to 20%

Source: Logistics Development, Corp.
### UPS Development

- Emphasis on Core Network
  - Geographic Scope
  - Efficiency
  - Least Cost Per Piece/Pound
- Primarily Singular Point of Delivery & Pickup
- Developing service extensions to integrate with key shipper processes
- Developmental Issues/Challenges
  - Core Network Union Labor
  - Recapitalization of Core Hub Infrastructure
  - Addressing alternative segments

### FDX Development

- Emphasis on Multiple Networks
  - Shipment Size Breadth
  - Time in Transit Options
  - Achieving Highest ROI in each segment
- Multiple Points of Delivery & Pickup
- Developing menu of services that shippers can choose from
- Developmental Issues/Channels
  - Competitive Cost in all services
  - Operating Multiple Freight Networks Optimizing Each
  - Integrating Marketing & Information

Source: Logistics Development, Corp.
Inventory-Sales Ratio 4 Years
Manufacturing and Trade

Source: U.S. Department of Commerce
The Ohio State University’s Supply Chain Management Research Group (SCMRG)

- The purpose of the Research Group is to conduct relevant business research in the area of Supply Chain Management that will be valuable to supporting organizations, students, and faculty.
- A joint venture directed by Professors Bernard J LaLonde and James L. Ginter
- Staffed by an Administrative Assistant and MBA and PhD candidates
- SCMRG’s website is http://fisher.osu.edu/supplychain
A Historical Analysis of Inventory Levels: An Exploratory Study

- Used the COMPUSTAT database compiled by Standard and Poor
- Examined the annual financial reports to the Security and Exchange Commission by 8000 US Public Companies over 21 years
- Focused on the ratio of inventory to cost of goods sold (COGS) to eliminate the effects of and variability due to gross margins and changes or differences in gross margins
A Historical Analysis of Inventory Levels: An Exploratory Study

- Nearly all industries reduced the ratio of raw material and work in process inventories to cost of goods sold.
- But, in 9 of 14 industries the ratio of inventory investment in finished goods to cost of goods sold has either not changed or has increased in the 21 years between 1979 and 1999.
- Companies who maintain higher levels of inventory to cost of goods sold turn out to have higher profit margins.
Computers & Peripherals Sector
Inventory/COGS

Source: The Ohio State University Supply Chain Management Research Group
Source: The Ohio State University Supply Chain Management Research Group
Source: The Ohio State University Supply Chain Management Research Group
Durable Goods Prices at 1993 Levels

China

- China's low-cost manufacturing is exporting deflation throughout the world economy. Nearly 60% of world export growth in 2002 came from China.
- Chinese exports to the U.S. are up 45% year over year and have surged almost fourfold in the past eight years.
- China has been steadily gaining share of the U.S. import market, rising from 2% in 1988 to 12.3% by the end of 2002 (surpassing both Japan and Mexico).

Source: Roger Urban, Urban Wallace Associates
Examples Of Chinese Deflation

Honda: Honda is building the first car plant in China dedicated to exports. "The quality of the cars built will match those made in Japan, but the production cost in China will be 20% lower."

Ford: Ford will source $1 billion of auto components from China in 2003 and $10 billion by 2008. Components designed and sourced from China are expected to be 40% less expensive.

Wal-Mart: Wal-Mart sourced $10 Billion from China last year.

Source: Roger Urban, Urban Wallace Associates
US Retail Prices at 1993 Levels

Retail Price Index 1993 - 2002

Source: Bureau of Economic Analysis, US Department of Commerce
Roger Urban, Urban Wallace Associates
Conclusions

- Survival in this deflationary environment forces manufacturers and retailers to seek lower operating costs.
- When prices are falling, nearly all earnings improvement must come from supply chain operating efficiencies.
- Thus, the pressure to reduce inventory, particularly finished goods inventory, is especially high.

Source: Roger Urban, Urban Wallace Associates
- Slashed its brands from 1,600 to 400
- 2002 profit increased by 16 percent
- 2002 earnings per share increased by 18 percent
- Fourth quarter 2002 sales of leading brands grew by 8.5 percent
- 9.8 percent of the growth came from home and personal care products. Food Products grew by 7.3 percent.
UniLever’s Home and Personal Care product division reduced 15 warehouses to 5 super regional distribution centers.

Customer service improved 15 percent and annual logistics savings increased by 7 percent.

Cass has delivered transportation information to UniLever for more than 20 years.

That information supported the partnership between UniLever and ProLogis to provide an optimized distribution solution.
The Origin Of Rapid Response Inventory Replenishment

Concept: "Sell so that we will be filling retail shelves as they become empty"

Questions: Who conceived the concept?
When was the concept conceived?

Answers: Richard Dupree, General Sales Manager and later Chief Executive Officer of Procter & Gamble
His concept was conceived in 1919!
Summary: The 14th Annual “State of Logistics Report” “The Case For Reconfiguration”

1. 2002 Logistics Cost declined to $910 billion or the equivalent of 8.7 percent of nominal GDP
2. $910 billion was $47 billion below 2001 and $93 billion less than 2000 logistics cost
3. Lower logistics cost reflect our weak economy, decline in manufacturing, lower inventory investment, and record low interest rates.
4. But, transportation costs fell to 5.5 percent of nominal GDP during 2002, compared to 6.0 percent of GDP during the decade of 1991 to 2000. Trucking industry revenues were down by $10 billion.
5. The Supply Chain Management Research Group of the Ohio State University reports that in most industries, finished goods inventories in relation to cost of goods sold have not improved in 20 years.
6. Urban Wallace & Associates have determined that prices paid for durable goods and retail merchandise have been in deflation for 6 years. Current prices are at 1993 levels.

7. The benefits of supply chain management collaboration appear to be over published, over sold, and over taught.

8. We believe that RECONFIGURATION of production and distribution system networks and streamlining product lines are necessary. Unilever’s “Path to Growth” is an interesting model.