

**Characterizing Manufacturing Activity in the United States of America:
Composite Index of Leading Indicators**

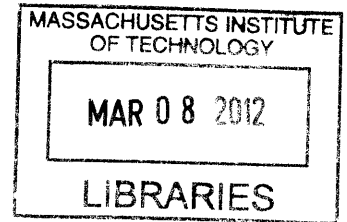
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ARCHIVES



SUBMITTED TO THE SYSTEM DESIGN AND MANAGEMENT PROGRAM IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

Master of Science in Engineering and Management

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and

Fernando Barraza

Submitted at the System Design and Management Program on November 21,
2011 in Partial Fulfillment of the Requirements for the Degree of Master of Science
in Engineering and Management

Abstract

The purpose of this work is to demonstrate that is possible to characterize the US manufacturing activity utilizing public data. Analysis of the state of the art in manufacturing metrics showed that our approach is unique since exploits a niche that is not covered by any existent report or indicator. A Composite Index of Leading Indicators (MCI) was created for the domestic manufacturing activity, exclusively based in official data from the US Census Bureau and the US Bureau of Labor Statistics. The MCI was benchmarked against the US Manufacturing Gross Domestic Product (GDP). As a result, evidence was found that MCI anticipates in 5 - 9 months to the GDP economic fluctuations, as measured through cross-correlation analysis. Additionally, the developed framework was satisfactorily applied to Canada as a second source of validation. In practice, other feature of MCI that stands out respect the existent metrics is that provides insight at the level of subsectors according to the North American Industrial Classification System (NAICS). The MCI behaves properly in 18 of the 20 subsectors analyzed, being of especial interest the subsectors like Primary Metals and Petroleum and Coal Products, which have a larger lead and correlation. Conclusions of our work show that the manufacturing sector can be effectively described using the MCI, providing managers and decision makers with a novel perspective of the upcoming manufacturing scenario.

Thesis Supervisor: David Simchi-Levi
Title: Co-Director, Leaders for Global Operations

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Dedication

To my parents for their constant support in every decision I have made in my life. To Perla for her unconditional comprehension during my studies at MIT. To God for show me a novel path where to develop myself and find new challenges.

Fernando Barraza

To Carolina, my wonderful wife, best friend, and constant companion.

Felipe Bustos

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Chapter 1 – Introduction & Objective

1. Introduction

The Council of Supply Management professionals (CSCMP) conference is a yearly event that gathers the United States (US) academia and the supply chain industry. During these events, new research results are presented and current issues discussed. In the context of 2008 meeting a government official in the area of national security and the former head of Accenture's consulting practice expressed respectively:

“Part of what you need to do in the supply chain is to help your company anticipate events, and understand the environment you operate in – physical, political, economic – around the globe.” (Supply Chain Digest, 2011)

Fran Townsend

“Who really has the fundamental information they need to manage their supply chain effectively? Take cost-to-serve, for example. Most companies don't have good information there. That goes for product profitability, customer profitability, etc. Most companies don't have that.” (Supply Chain Digest, 2011)

Bill Copacino

At first glance, it is possible to identify common points in these two comments. However, we are interested in the fact that both quotes talk about the unpredictability in supply chain and the significance of uncertainty, information and anticipation for the industry. Even though these coincidences can be attributed to a random situation, reality shows that these concerns have been part of the debate even before the first supply chain management definition was introduced in 1982.

Uncertainty is something that is not liked in the business world, and that is a fact. When the leaders of the companies try to look forward in order to plan a strategy and set the goals for the forthcoming years, they try to collect data, as much as it is available, and analyze a number of recommendations and reports from diverse sources. These practices have become somewhat a standard in most organization boards and supply chain management has not been the exception.

Historical experience demonstrates market fluctuations and trends cannot be predicted, so its effects are only realized after they happen. Nevertheless, academia and statisticians have developed theories and practical tools to minimize the risk associated with decisions for the future that need to be made in the present. The popularity of each instrument is based on its effectiveness. In brief, acceptance and validation of these developed tools are given by the accuracy of the results.

Predictive metrics can be as simple as average calculations or a variation of percentages with respect to previous years. However, these formulae that can be useful to analyze specific areas of the business, like market share decrease or revenue growth, have limitations when characterizing trends at a macro level. Conversely, econometric models incorporate a larger number of variables and its predictive capabilities are considerably better, but with significant costs in terms of its complexity and understanding. This is the genesis of the composite index concept that includes a group of the simple-single metrics in a cohesive and unique number that gathers pieces of information of every constituent by properly weighting their individual contributions.

2. Motivation, Thesis and Method

An ideal economic metric for the business management and the governmental sector would be one able to forecast the economic fluctuations accurately, at least in the short-term. Nevertheless, reality shows that such “dreamed” indicator does not exist. And in order to address this need, a large number of indexes have been created throughout time, but each of them with limited characteristics and applications.

Figure 1.1 illustrates that the manufacturing activity represents almost 12% of US GDP, so having an effective and free predictive tool for this sector emerges as a relevant opportunity.

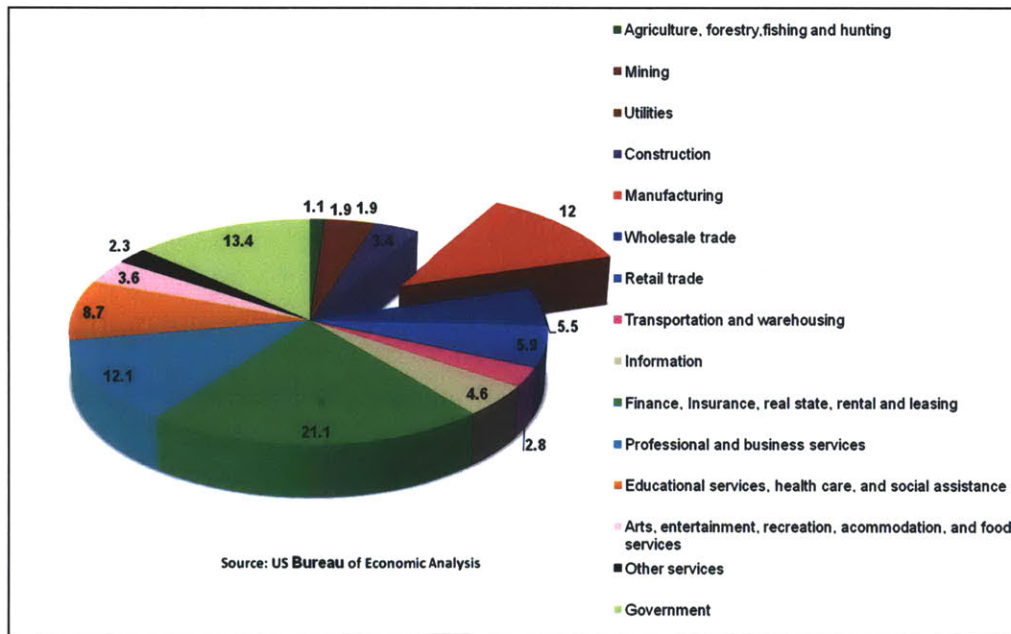


Figure 1.1 - Year 2010 U.S. GDP Composition by Industry

The thesis that drives our research states that it is possible to develop an indicator based entirely in public data and capable to anticipate US manufacturing overall situation, as well as by industry sectors. Through this indicator we want to provide

decision makers with a practical, proved, and easy-to-calculate tool that can be considered as a new element in their assessments, e.g., in Sales and Operations Planning (S&OP) or corporate definition of policies.

Somewhere above it was mentioned that essentially there are three possible approaches that can be applied to generate a predictive tool for the US manufacturing activity: simple-single metrics, econometric models and composite index. The first shows isolated numbers making it difficult to visualize a general view of the sector. Econometric models are supported by data and equations that make it complicated to understand them as well as to calculate them. In contrast, composite indexes are easy to understand because they are constructed using multiple single-simple time series, which is also the reason why they can present a holistic perspective of the situation under analysis. It follows that in our thesis the methodology selected for our research is the composite index.

3. Composite Index

Forecasting and general situation visualization boosted the development of the composite index in the 1960s. The point is that instead of just having a large number of independent metrics, it is also possible to group and weigh them properly. This new aggregated index will have the advantage of capturing each constituent value and considering them in terms of their significance to the indicator prognostic objective.

Composite indexes are common in fields like Economics, Statistics and Investment Management. For instance, in the stock trading market we found the New York Stock Exchange (NYSE) composite index, widely accepted as a stock

market state indicator and as fair signal of the overall market strength. Basically, the NYSE tracks the common stock value evolution over time, considering the price of each stock and the amount traded in a particular day in the calculation. In addition to the NYSE example, we can mention the three Business Cycle Indicators (BCI) composite indexes: leading, coincident and lagging. All of them are used to characterize the country's economy cycles and their trends.

4. United States Supply Chain & Manufacturing Metrics

Supply chain definition is a broad concept that spans beyond the exclusive logistic activities. Actually, it aggregates under the same roof operations, logistics and distribution channels. Furthermore, it includes the sequential stages involved in the generation of profits in business, covering everything from raw materials procurement to finished goods delivery to the retailer for final purchase by the customers.

The extensive range of activities involved in a supply chain makes it complex to think of it in a single metric that can possibly characterize the overall state during a specific period. Nonetheless, to deal with this complexity, the American industry and the academia have developed approaches based on individual indicators for a segmented analysis of supply chain components. Therefore, it is not unusual to find reports with specific metrics showing for example the national state of transportation, sales, industries service level, labor, raw materials consumption or production. It follows that our research and analysis focus on one section of the US supply chain indexes: manufacturing.

Respectable domestic supply chain publications such as the “CSCMP Annual State of Logistics Report” (CSCMP, 2011), “ISM Report on Business” (ISM, 2011), “MAPI Survey on the Business Outlook” (MAPI, 2011) and the “U.S. Cyclical Outlook” (ECRI, 2011) provide manufacturing indicators from diverse sources. The first report uses information reported by the industry and governmental organizations like the U.S. Census Bureau and the Department of Commerce. In contrast, ISM and MAPI reports are built through surveys conducted by each organization to some companies that are part of the manufacturing industry. Finally, the Cyclical Outlook presents metrics supported on private data sources of the Economic Cycles Research Institute (ECRI). Nevertheless, what these reports have in common, regardless of the origin of the information (surveys, and public or private data) is that they benchmark the obtained results against data from previous years to reach conclusions.

5. Manufacturing Indicator’s “Missing Link”

All the above mentioned publications show that manufacturing indexes can be classified into two different categories: Composite indexes and Individual metrics. The first ones are based on survey data gathering while in the second group we find metrics that analyze released information segmented by topics (annual/quarterly reports, financial statements, etc.). Both kinds of indexes have strengths and weaknesses (Table 1.1) but that discussion is not the objective of this research work. However, something that arises from an available indexes comparison as detailed in Figure 1.2 is that there is a niche for a new metric alternative: a manufacturing composite index built with public data that captures the positive qualities of the already described options. We will name this new

metric Manufacturing Composite Index (MCI) and will be exclusively based on public data.

Table 1.1- Current Indexes' Characteristics

Index	Type	Frequency	Strengths	Weaknesses
ECRI - U.S. Cyclical Outlook	Composite index	Monthly	<ul style="list-style-type: none"> • ECRI was founded by Geoffrey Moore who has worked and validated his research since 1950 • The index provides US manufacturing industry big picture • Forecasts the manufacturing sector situation 	<ul style="list-style-type: none"> • Information access has 60 k annual membership cost • The index is calculated at the aggregated manufacturing level, so there is no data at the subsector level
MAPI - Survey on the Business Outlook	Composite Index	Quarterly	<ul style="list-style-type: none"> • Forecasts the manufacturing sector situation • Results are benchmarked with the Industrial production index - manufacturing 	<ul style="list-style-type: none"> • Index is based completely on a survey, so no industry data is included • Index s quarterly delivered
ISM - Report on Business	Individual Metrics	Monthly	<ul style="list-style-type: none"> • Allows visualization of multiple trends in the short-term 	<ul style="list-style-type: none"> • These metrics don't give any forecast • Doesn't exist a single index that groups all the metrics and provide big picture provided in terms of one aggregated metric
CSCMP - Annual State of Logistics Report	Individual Metrics	Annually	<ul style="list-style-type: none"> • Analyzes previous years situation based in public data and surveys 	<ul style="list-style-type: none"> • No forecast is provided

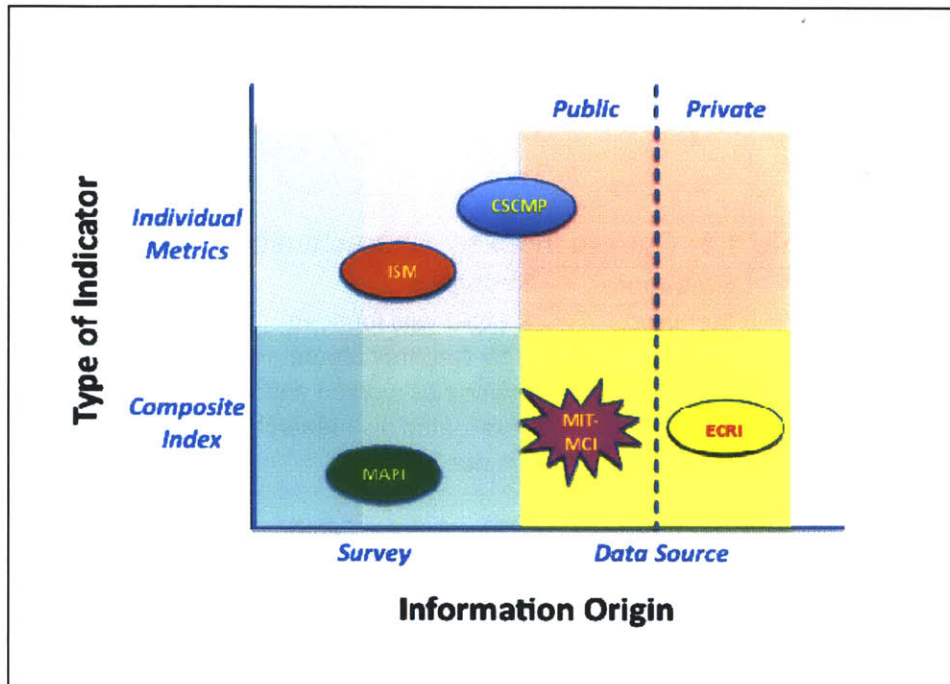


Figure 1.2 - Indexes Classification & Segment

Because it uses public official data presented by the U.S. Census Bureau, MCI avoids excessive costs associated with data collection as well as a dependency and possible biases from the management staff that will fill out the surveys. In addition, there are practically no limitations in terms of accessibility, utilization or information gathering methodology.

6. MCI Geographical and Time Scope

MCI has analyzed data from the United States and Canada based on the fact that these nations are the exclusive users of the North American Industry Classification System (NAICS), which was created by the US Census Bureau, our main data source. As a result, the time series used in the composite index generation are available for these two North American countries.

Our research comprises data from the year 1999 to 2010. The time frame definition was decided on account of three facts: first, management practices are

on continuous evolution, so 11 years of data is a reasonable period of study. Second, one of the five time series (Capacity Utilization) used to build the MCI has official public information since 1999. Finally, in the 1 years of economy history span selected two recessions, and recovery periods in within, were experienced. We estimate this is a reasonable time frame to verify the MCI performance and to draw conclusions.

7. NAICS Hierarchy

“The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy “ (US Census Bureau, 2011). NAICS was adopted in 1997 in lieu of the former system, and what it does in practice is to segment the industrial activity by its topic. This classification system assigns specific codes to each sector, subsector, industry group, industry and business area. Figure 1.3 illustrates the NAICS hierarchy meaning and how to decompose the code.

NAICS Hierarchy		
<i>Example: 513321</i>		
<u>NAICS Level</u>	<u>Code</u>	<u>Description</u>
Sector	→ 51	Information
Subsector	→ 513	Broadcasting and Telecommunications
Industry Group	→ 5133	Telecommunications
North American	→ 51332	Wireless Telecommunications Carriers
Industry		
Country - Specific	→ 513321	Paging
Industry		

Figure 1.3 - NAICS Hierarchy Decomposition

8. Organization

Our thesis is organized in three main parts. **First part** includes Chapters 1 and 2, and illustrates the relevance of our composite index research for the American industry, as well as describes the formulations, methodology selected and the initial MCI results obtained. **Second part** starts with Chapter 3 explaining the validation procedure for the obtained MCI that includes benchmarking with US economy indicator, GDP, and defining the leading time of the created manufacturing composite index respect the national economy. This section of the thesis continues with the fourth Chapter where the MCI application is extended to the NAICS manufacturing subsectors, where some examples are provided and the applicability for each subsector defined. Finally, in the **Third part** Chapter 5 talks about the practical use for decisions makers of the MCI and derived metrics, such as the Inventory Coverage. And finishing the thesis document, Chapter 6 summarizes the findings, pros and cons and the conclusions of the research.

Chapter 2 – Methodological Overview

1. Historical Notes

Modern industrial economies experience noticeable swings in economic activity. Indeed, in the US at least 25 so called cycles had been observed since 1890 by the National Bureau of Economic Research (NBER). In some years, the economy is booming and the unemployment is low; in others, firms are operating at considerable low capacity, finished goods inventories are accumulating in the shelves and massive lay-off occurs. Traditionally, periods of economic prosperity are called expansions or booms; conversely, declines are known as recessions or depressions. The back and forth of the economic activity is what economists call the Business Cycle or Economic Cycle.

The use of the word “cycle” comes from the mechanical theory of waves.

Traditionally, a cycle is defined as the length between two consecutive crests or troughs, and period is the time of the cycle. Nevertheless, it is worth noticing that in economics it is a known fact that there are no cyclical periods in the so called Business Cycle. In this text or in any economic article, words such as “cycle” or “period” do not refer to the mechanical definition of these words.

The Business Cycle has been the focus of many years of academic research. The first documented exposition of periodic crisis is attributed to Jean Charles Leonard de Sismondi in his “Nouveaux Principes d'économie politique” in 1819, yet a more practical and meaningful work was done by Wesley C. Mitchell and Arthur F. Burns in their book “Measuring Business Cycles” in 1946, which compiles more than ten years of work for the NBER. Subsequent work on Business Cycle

Indicators by the NBER led to the utilization of several time series –a sequence of observations taken sequentially in time (Box, Jenkins, & Reinsel, 2008)– and a later creation of a Composite Index. In 1972, the indicators were shifted to the Bureau of Economic Analysis (BEA) and in 1995 the research program and the production of business cycle indicators was transferred to its actual custodial: The Conference Board.

2. Toward a Composite Index

The Conference Board has maintained a methodology for aggregating several time series in a single useful statistical measure of the performance of the economy. Details about the methodology can be encountered in the “Business Cycle Indicators Handbook”, which in its fourth section explains its five-step methodology and historical revisions (The Conference Board, 2001). The Conference Board refers to this methodology as an Indicator Approach to Business Cycle Analysis, classifying cyclical indicators into three categories: leading, coincident and lagging. Each one based on the timing of their movements with respect to the aggregated economic activity. Leading indicators are series that tend to shift direction in advance of the business cycle, while lagging indicators tend to change direction after the coincident series.

The first approach for theorizing about leading indicators appears well after the practical utilization of the original work of the BEA in the mid 30s. In fact, Kajal Lahiri and Geoffrey H. Moore presented their book “Leading Economic Indicators” almost fifty years after. An excerpt from Chapter 2 summarizes the general motivation of the book: “This chapter is an attempt to supply a theoretical basis for

leading indicators” (Lahiri & Moore, 1991). The principles for selecting leading indicators were aggregated into five rationales:

1. Production Time – the fact that for many goods, it takes time from the production decision to the actual sale or delivery of finished goods.
2. Ease of adaption – the fact that some metrics are more sensitive just because of better granularity (i.e. weekly hours compared with employment).
3. Market expectations – some time series are more sensitive to anticipations of future economic activity (i.e. reducing capacity utilization in anticipation of lower demand).
4. Prime movers – the view that some fluctuations are driven by major measurable forces such as fiscal or monetary policies.
5. Change-versus-Levels – the view that changes in economic time series generally turn up or down before levels.

The system of leading indicators has survived several years of critique. Perhaps the most celebrated is the one authored by the Nobel Prize winner T.C. Koopmans in his work: “Measurement Without Theory”, where the essential claim is that the atheoretical approach of the NBER, while impeccable from an empirical perspective, could never assist policy makers with inferences about effects of stabilization policies in the way his econometric model could. Although the point of the economist holds true from an economic lens, it is also true that a tool that can forecast the economic activity would be invaluable for investors and managers; the former might update their own expectations about a certain business, while the later might decide to actuate in production or inventory levels as a preemptive

action. Despite the merit of all critiques, the system of leading indicators have been in utilization for more than seventy years, and would probably be in the toolset of investors and managers for many years ahead.

3. Leading Indicators

The guiding principle of our research project was to exploit public available information to describe and get insight into the Supply Chain industry in the US. We found early in the process that the US Census Bureau and the US Bureau of Labor Statistics provide a highly detailed and reliable source of secondary data where the most relevant reports we found were the Advanced Report on Durable Goods Manufacturers' Shipments, Inventories and Orders (M3), the Quarterly Survey of Plant Capacity Utilization and the information contained in their respective websites (<http://www.census.gov/m3> and <http://www.bls.gov/>).

The M3 is a monthly time series that reports broad-based monthly statistical data on current economic conditions. This information is widely used by BEA, the Federal Reserve Board, the Department of Treasury and the Council of Economic Advisers to develop fiscal and monetary policy, while corporate economists, trade associations, business consultants, media and researchers use M3 data for analysis and forecasting of future economic activity. The M3 reports the aggregation of surveys to manufacturing entities within the US with annual sales over \$500 million, providing time series about Shipments, New Orders, Unfilled Orders, end-of-month Total Inventory, materials and supplies, work-in-process and finished goods inventories at current market value using the 6-digit North American Industrial Classification System (NAICS).

The Quarterly Survey of Plant Capacity provides statistics on the rates of capacity utilization for the US manufacturing and publishing sectors. The survey produces “Full” and “Emergency” capacity utilizations aggregated using the NAICS. This data is used mostly by the Federal Reserve Board for benchmarking and analyzing capacity growth associated with capital investments and by the Department of Defense to assess readiness to meet goods demand under selected national emergency scenarios.

A review of these reports under the perspective of the five principles for selecting leading indicators reveals four indexes that meet the required characteristics: New Orders, Total Inventory, Shipments or Sales and Capacity Utilization.

New Orders leads economic activity simply because it takes time to translate the placement of an order into a finished good. This argument lies within the Production Time principle and is especially true for perfect “pull” systems, where only the placement of an order by the customer starts the production. A good example of this can be found in commercial jets acquisitions, which are complex, limited-volume products with lead times that can easily be longer than a year. In general, this claim is applicable to the so-called Durable-Goods such as aircraft, automobiles, machinery and electronic equipment. However, in other firms that try to anticipate demand in a build-to-stock approach this is not precisely true. As an example, toy manufacturing or seasonal garments industries such as fashion and ski clothes creates an inventory based in a demand forecast. In these businesses, the leading nature of the index will hold true only in the case of unexpected bulges

or shortfalls. Nevertheless, a recent and provocative paper claims that there is no evidence of this leading nature (Bachman, 2011).

Total Inventory tends to lead downstream economic activity. In fact, manufacturing firms with sophisticated forecast tools anticipate demand by building inventories in advance. Hence, this is a clear picture about the expectations of the firm in terms of how their products will perform in the market in terms of sales. In general, inventories are a gauge of potential activity and they set the level at which the industry will operate. Now, more than frequently demand forecast fails to predict materialized demand leading two possible scenarios: First, if the actual demand for products is less than inventory then the firm incurs in losses due to excessive inventory holding cost or has to sell at a discount; Second, if the materialized demand is higher than inventory then the company loses clients, sales and possibly market share, which is often a strategic goal of every firm. Hence, the leading nature of this indicator holds true under the assumption that firms are performing their forecast without biases or irrational acts of faith.

Shipments or Sales tend to lead the business cycle at an aggregated level since manufacturing supplies leads industrial activity downstream. It is also true that slowdowns or backlogs are more often associated with increases in demand for manufacturing supplies –as opposed to production shortages– and in that sense, it is an indicator of the expectations about future activity lying in the Production Time and Market expectation principles discussed before.

Capacity Utilization is an early indicator of future activity because it is the materialization of expectations about demand and orders. All else being equal,

increases in Capacity Utilization will lead to larger inventories, and of course, the contrary also holds.

These indicators set the dynamics of a manufacturing system. To illustrate, New Orders trigger the production process by influencing inventory coverage or days of inventory. In response, managers should affect their production planning by adjusting their Capacity Utilization, which affects directly the Finished Goods Inventory. The former is depleted according to the Shipment rate (sales). The whole production process takes a given amount of time –a delay–, which according to System Dynamics practitioners is in fact the source of all major dynamics within the system (Sterman, 2000). This point is important in our research because the very interactions within the different indexes, sets the emergent behavior that in turn allows us to exploit the information in a meaningful way by exploiting causality relationships.

Another relevant indicator is the Average Weekly Hours by production workers in manufacturing industries. This time series is collected by the Bureau of Labor Statistics through a survey of business establishments' payrolls and it is presented adjusted for predictable seasonality. It is believed that this series tends to lead the economic activity because employers adjust work-hours before increasing or decreasing their workforce (The Conference Board, 2001). In fact, it gauges employers' need to hire or lay off current employees. On the one hand, if demand for widgets decrease, managers will ask their employees to log fewer hours before laying them off; if the decline in demand is persistent then layoffs may be inevitable signaling a weakening economy. On the other hand, if managers see an

increase in demand their most likely reaction would be to ask from their current employees overtime, and once they are confident that the increased demand is persistent they would hire additional workers, signaling a strengthening in the economy.

4. Methodology

The goal of the whole process is to combine several indexes –time series– into a Composite Index of leading indicators. For the purpose of our research we will work with the American Manufacturing sector at the 3 digit-NAICS level, analyzing 20 different subsectors ranging from Food Manufacturing to Aircraft and machinery. Durable Goods Composite will be compounded by five individual indexes: New Orders, Shipments, Total Finished Goods Inventories, Capacity Utilization and Average Weekly Hours in manufacturing; Non-Durable Goods will use the same indexes except for New Orders, which is not available in the M3 Report.

The Composite Index is constructed to focus on the cyclical movements. With that purpose in mind, two main actions are carried out within the data set. First of all, the indexes in the M3 report are retrieved as “Seasonally Adjusted”, as a mean to remove data movements that are repeated consistently in a particular time of year, month or other subdivision of the calendar. Secondly, we remove trend movements that are consequences of inflation by adjusting economic series with a Chained Consumer Price Index as officially reported by the Bureau of Labor Statistics for US urban cities (C-CPI-U), selecting as the base the year 2000. The inherent randomness in the outcomes of each index is impossible to overcome by

definition, but it is partially addressed by the weighed contribution of each index into the composite. The weight is based upon the individual stability of the data set by using the inverse of the standard deviation. The removal of seasonal and trend components allows us to focus on what is left: the cycle. The hope is that the random component be not so large as to endanger our view of the cyclical movement.

A Manufacturing Composite Index of Leading Indicators is created following the traditional methodology from the NBER (The Conference Board, 2001). The procedure for computing the composite index has five steps:

1. Calculate month-to-month changes for each index:

$$r_{i,t} \text{ for each component, } X_{i,t} \text{ where } i=1, \dots, n$$

Capacity utilization, which already came in percent form, simple arithmetic differences are calculated:

$$r_{i,t} = X_{i,t} - X_{i,t-1}$$

In all other cases, a symmetric percent change formula is used:

$$r_{i,t} = 200 * (X_{i,t} - X_{i,t-1}) / (X_{i,t} + X_{i,t-1})$$

2. Compute standardized contribution of each index:

$$C_{i,t} = w_i * r_{i,t} \quad \text{Where } \sum w_i = 1 \quad \text{and } w_i = 1 / \text{STDEV}(A_i), \quad A_i = \{X_{i,1}, \dots, X_{i,t}\}$$

Aggregate adjusted contribution of all indexes:

$$S_t = \sum C_{i,t}$$

3. Compute preliminary levels of the Composite Index using the symmetric percent change formula:

$$I_n = I_{n-1}(200+S_n)/(200-S_n) \quad \text{where } I_1=100$$

4. Rebase index to average 100 in the base year (currently 2000), by multiplying the preliminary levels from step 4 by 100, and dividing by the mean of the preliminary levels of the index in the base year.

This methodology is implemented in an MS Excel® spreadsheet (Appendix “A”) and results in the graph in Figure 2.1.

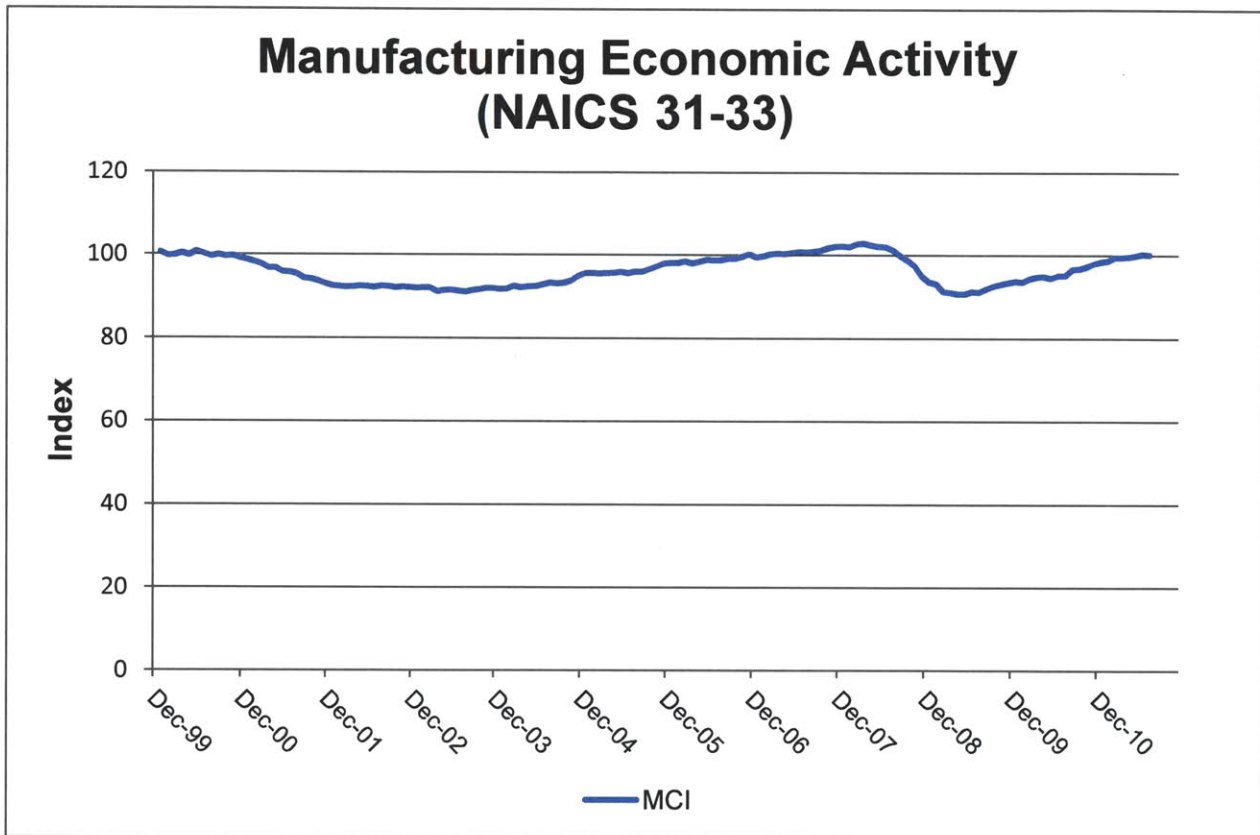


Figure 2.1 - Composite Index aggregating all manufacturing companies within the 2-digit NAICS.

5. Diffusion Indexes

Diffusion Indexes are important pieces of information related to business cycles analysis. At a lower hierarchical level, individual indexes may rise or decline without a necessary correlation with movements in the composite index, but if the growth/decline is consistent within all the indexes in a given month, then the

widespread movement of the indicators provides new information. For instance, even if the MCI is growing it may be the case that three of the indexes are declining, and the rising at the aggregated level is only based in the increasing in the remaining indicator. In this case, the declining in three of the indexes may be signaling the starting of a turning point in the business cycle. Figure 2.2 illustrates turning points in an index.

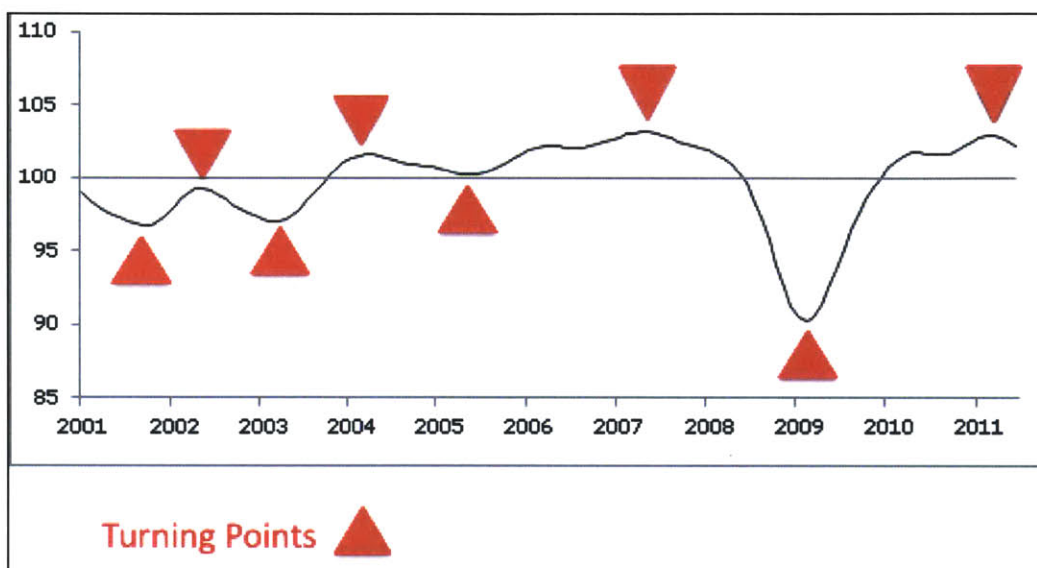


Figure 2.2- Turning Points Exemplification

A Diffusion Index (DI) is a measure of the proportion of indicators that are rising or declining (Alexander, 1958). For example, if in our composite index five of the indicators are rising we will have a DI value of 100, while if all of them are declining we will have a DI value of zero. Now, drawing the line between an indicator that is rising/declining or it is being constant is not trivial. We define a growing index when its individual monthly contribution (the result of Step 2 discussed in the methodology section) is greater than 0.05, and in this case we assign a value of 1. A declining index that has a monthly contribution lower than -

0.05 receive a value of 0, and in the rest of the cases a value of 0.5, meaning the index remain “constant”; this step allows the mitigation of the inherent noise in the indexes, and it is conservative in the sense that it only characterizes individual indicators as growing or declining when they trespass a given threshold. Finally, once the individual categorization as declining, constant or growing has been completed, the assigned values –0, 0.5 or 1– are multiplied by 100 and then divided by 5. Some of the possible results of this computation are presented in Table 2.5:

Table 2.5- Possible values of DI

Characterization	DI
5 rising	100
3 rising and 2 declining	60
2 rising, 2 declining and 1 constant	50
2 rising and 3 declining	40
5 declining	0

The fact that DI is based on the same data set of the composite index does not imply that is providing redundant information (The Conference Board, 2001). Moreover, it may be the case that they move in different directions. The MCI distinguish small and large overall movements in the individual indexes, while the DI captures the dominance or spread of that movement. The difference in information content should be useful in either forecasting or confirming a turning point. In fact, it seems that Diffusion Indexes outperform the time series they came from (Stock & Watson, 2003).

Chapter 3 – Validation

1. Gross Domestic Product as a benchmark

The Gross Domestic Product (GDP) is the natural benchmark for a Manufacturing Composite Index. In fact, the GDP by Industry Accounts facilitates time series analysis of industry output in current dollars and in inflation-adjusted dollars (Bureau of Economic Analysis, 2011). Moreover, as a worldwide accepted primary indicator of the health and size of the economy, it reveals the contribution of each industrial sector to the overall activity; allowing to fully distinguish between sectors such as Manufacturing or Services. Similarly, it is the most reliable source for measuring the economic activity given its methodology and fundamental data. Indeed, the US GDP is based on detailed census data that is available every five years, and complemented with a myriad of other monthly, quarterly and annual economic indicators to produce quarterly and annual estimates (Landefeld, 2008).

In spite of the quality and detail of the estimates, a major drawback in the methodology is the timeliness of the report. While it may be true that historical data, after all the revisions with detailed census information is truly representative of the economic activity, the most recent information –let us say the last two years– is not as precise as previous official data. A good metaphor is presented by Landefeld et al: *“The successive revisions can be significant, but the initial estimates provide a snapshot of economic activity much like the first few seconds of a Polaroid photograph in which an image is fuzzy, but as the developing process continues, the details become clearer.”* Furthermore, the latest information about each quarter is available one month after the event. For these reasons, having a Composite Index that can be monitored every month might be a powerful

aid to assist decision makers while the official information is not available yet or might change significantly. Figure 3.1 depicts how the different release schemes affect the visibility of the information the managers are receiving.

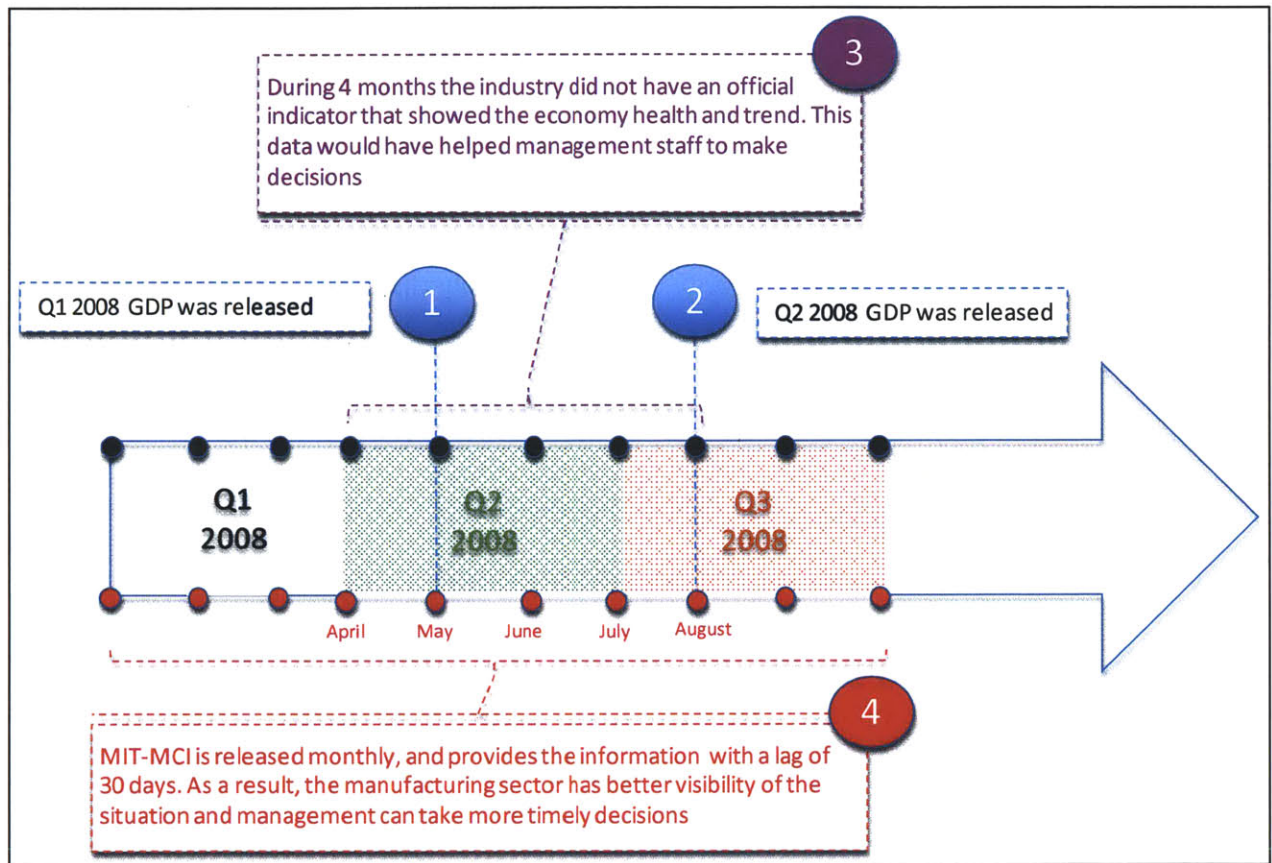


Figure 3.1- Timeline of GDP and MCI releases

The Manufacturing Composite Index (MCI) we developed serves as a proxy of the annual GDP. As can be seen in Figure 3.2, the Manufacturing Composite Index has similar peaks and troughs, as well as equivalent zones of growth and decline. Further examination reveals that the composite is slightly shifted to the left (i.e. the last peak is reached before the correspondent peak in GDP); this is a priori, a consequence of the very nature of the composite, which is composed by so called leading indicators. The similarity of these curves validates our approach; if we

would not have found a resemblance, then the composite index would not be representative of the manufacturing economic activity.

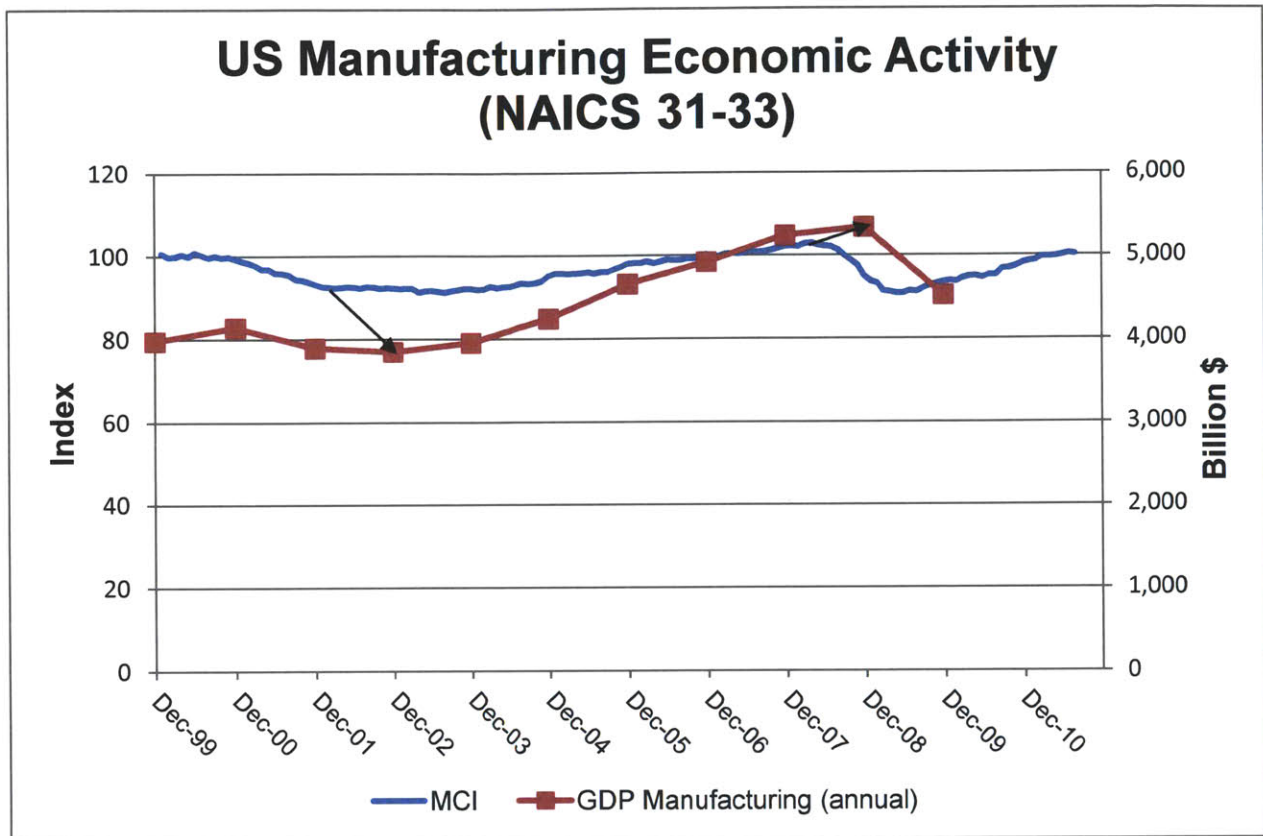


Figure 3.2 - MCI (left scale); Inflation adjusted Annual Manufacturing US GDP (right scale).

This qualitative assessment is also corroborated with a cross-correlation analysis. Cross-correlation is a standard method for analyzing the degree to which two time series are correlated (Box, Jenkins, & Reinsel, 2008). Consider two series x_i and y_i where $i=1,2,\dots,N-k$. If \bar{x} and \bar{y} are the means of the corresponding series, then the cross-correlation $r(k)$ at a lead $k=1,2,\dots$ is given by:

$$r(k) = \frac{\sum_i^{n-k} [(x_i - \bar{x})(y_{i-k} - \bar{y})]}{\sqrt{\sum_i^{n-k} (x_i - \bar{x})^2} \sqrt{\sum_i^{n-k} (y_{i-k} - \bar{y})^2}}$$

The cross-correlation analysis reveals that there is a maximum correlation with a lead of seven months. As can be seen in Figure 3.3, the cross-correlation reaches a value close to 0.7 in a relatively flat zone between 6 and 8 months. This value 0.7 is commonly considered a strong-positive correlation, and if we take all values above 0.65 then the lead lies between 5 and 9 months. On the one hand, this information confirms the notion that the MCI behaves as a composite index of leading indicators. On the other hand, it quantifies the similarity of the curves.

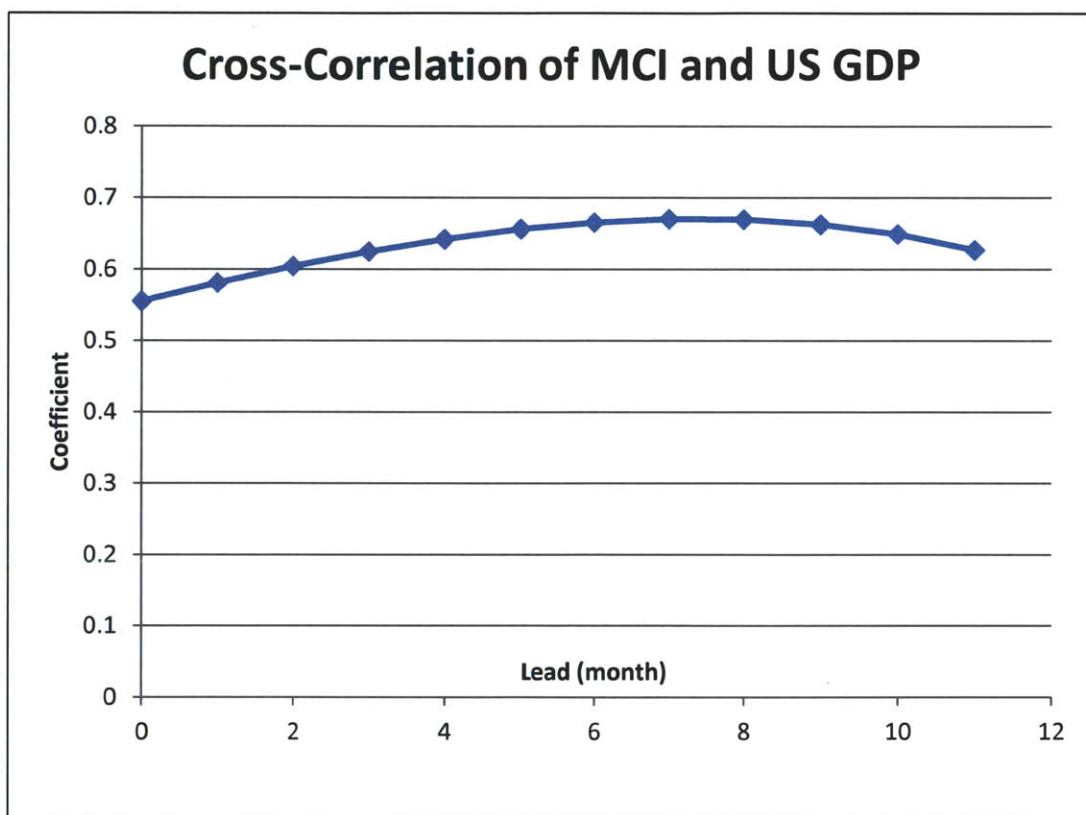


Figure 3.3 - Cross-Correlation of the Manufacturing Composite Index and the annual Gross Domestic Product for the US Manufacturing sector (NAICS 31-33).

While it may be true that a certain resemblance is noticeable, the information provided by the composite index is somehow limited. For instance, a rising from 100 to 103 in the composite index, does not necessarily correlate with a 3% increase in GDP in the same or subsequent period, hence it cannot be used to

forecast GDP. Even the fact that the curves intersect each other is meaningless, given that they are represented in a different vertical axis. Nevertheless, the composite still provides meaningful information when it is most required: the turning points from growth to decline that anticipate economic recessions.

The measure of turning points is another common technique for characterizing the leading –or lagging– nature of a composite index. The turning point is commonly defined as the region where the growing or declining trend switches direction.

Figure 3.4 depicts two turning points signaling declines in the trend and one signaling an expansion; a way to characterize the leading nature would be to average the lead in the observed turning points. In our case, we compare each local maximum in the MCI with a corresponding maximum in the benchmark and we obtain a lead of approximately six months, consistent with the cross-correlation computation.

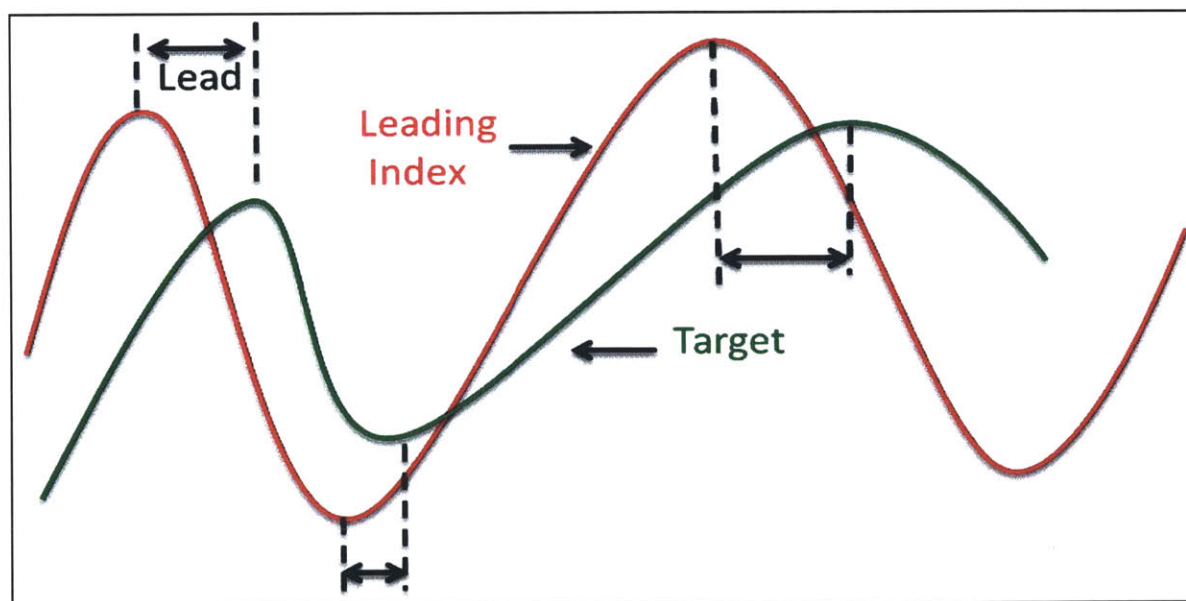


Figure 3.4 - The time difference in the turning points can signal the lead in the recessions or expansions.

2. Testing the Information abroad

It is commonly accepted among economists that one of the crucial assessments of an economic forecasting system is its ability to survive repeated tests over time or in other countries (Lahiri & Moore, 1991). A common approach is to perform historical analysis as a way to test a methodology through time, yet the evolving nature of the economy of a nation sets additional difficulties; in the case of manufacturing, it is clear that the practices in the early 1900s differ significantly from the current state of the practice, therefore managers' mental models and their expectations may diverge considerably, how they would manage their inventories is an instantiation of this issue. In that sense, we believe that data prior to this century is irrelevant in forecasting upcoming recessions, and that our model would probably not perform as well as with current data. Testing our proposed framework with data from other countries seems more relevant.

The MCI was tested using time series from Canada. This country offers superior comparative advantage against other market-oriented nations within the OECD, because they share with the US the same industrial classification system NAICS. Moreover, Canadian information is extremely comprehensive providing monthly, quarterly and annual series of several indicators such as GDP, CPI, Total Finished Goods Inventories and Average Weekly Hours, all of them separated by 3-digits NAICS.

The methodology already described was replicated with official information from Statistics Canada. The relevant time series were retrieved through their educational webpage E-STAT (<http://www.statcan.gc.ca/start-debut-eng.html>) that

provides free, full access to Statistics Canada’s Census of Population and socioeconomic data.

In general, the MCI resembles the shape of the benchmark. This is a confirmation that the methodology is delivering a consistent performance with a dataset of a foreign country. In fact, as Figure 3.5 reveals the MCI exhibits a strong-positive cross-correlation for leadings below four months.

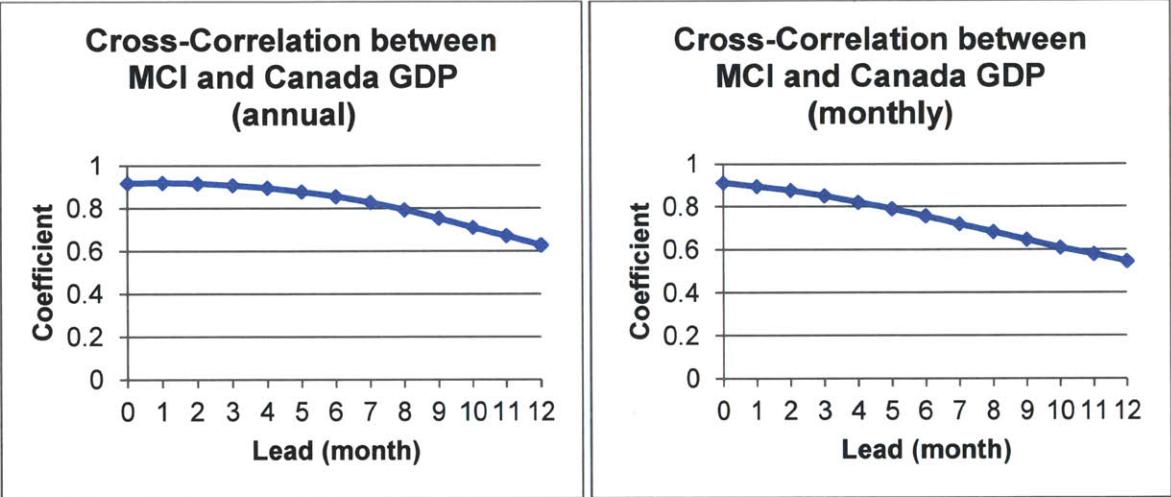


Figure 3.5 - Left: Cross-Correlation with annual Canada GDP. **Right:** Cross-Correlation with monthly Canada GDP.

However, the predictive characteristic of the MCI deteriorates with increased observations in the GDP. The cross-correlation indicates a lead of one month for the annual benchmark (Figure 3.5, left), which deteriorates to zero with a monthly observation (Figure 3.5, right). As can be seen in Figures 3.6 through 3.8, the time between troughs in June 2009 reduces when we make the transition from annual to monthly observations. Moreover, Figure 3.8 shows that at a monthly level, the composite behaves almost as a coincident indicator. Given that is highly unlikely that the GDP of a large economy be computed with a granularity inferior to a

month, we believe that our MCI may range from a leading to a coincident indicator depending of the granularity of the benchmark.

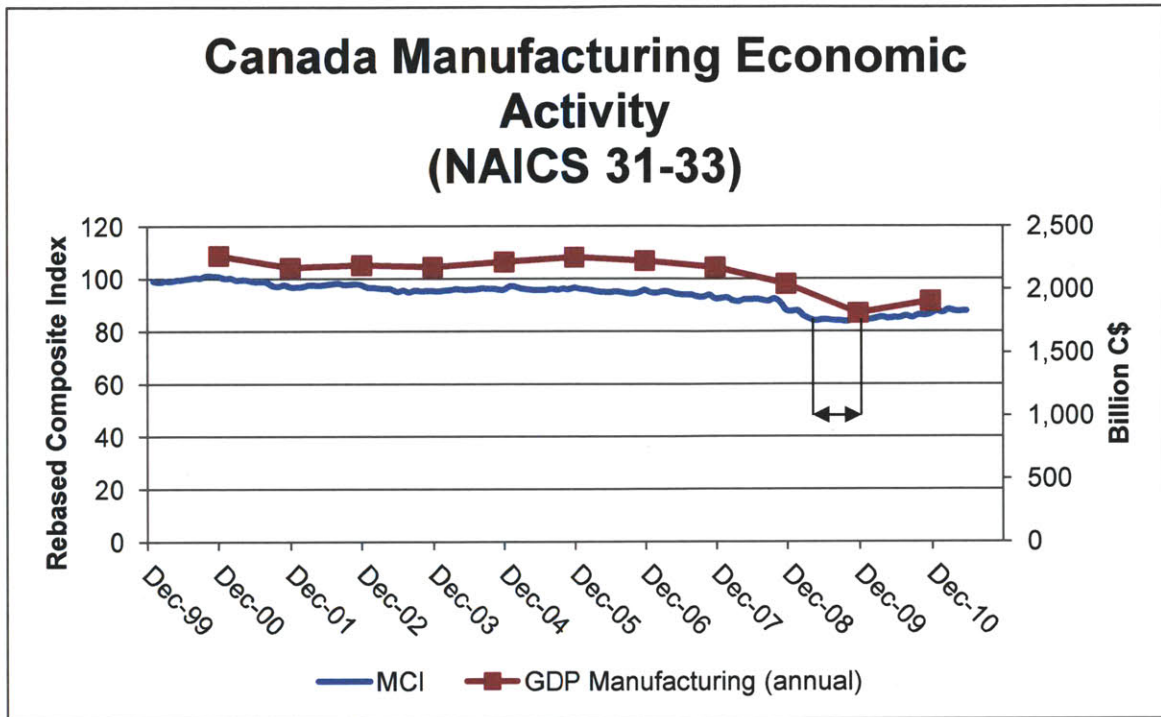


Figure 3.6 - MCI and annual Canada Manufacturing GDP between Dec-1999 and Dec-2010. Source: E-STAT

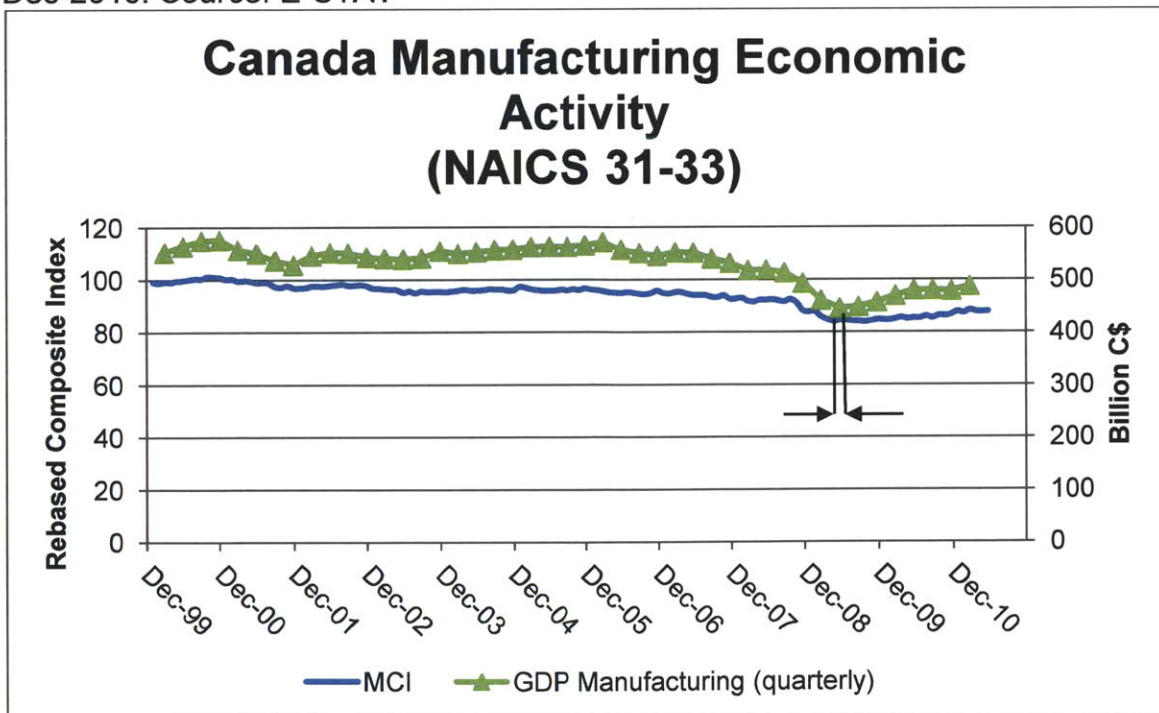


Figure 3.7 - MCI and quarterly Canada Manufacturing GDP between Dec-1999 and Dec-2010. Source: E-STAT

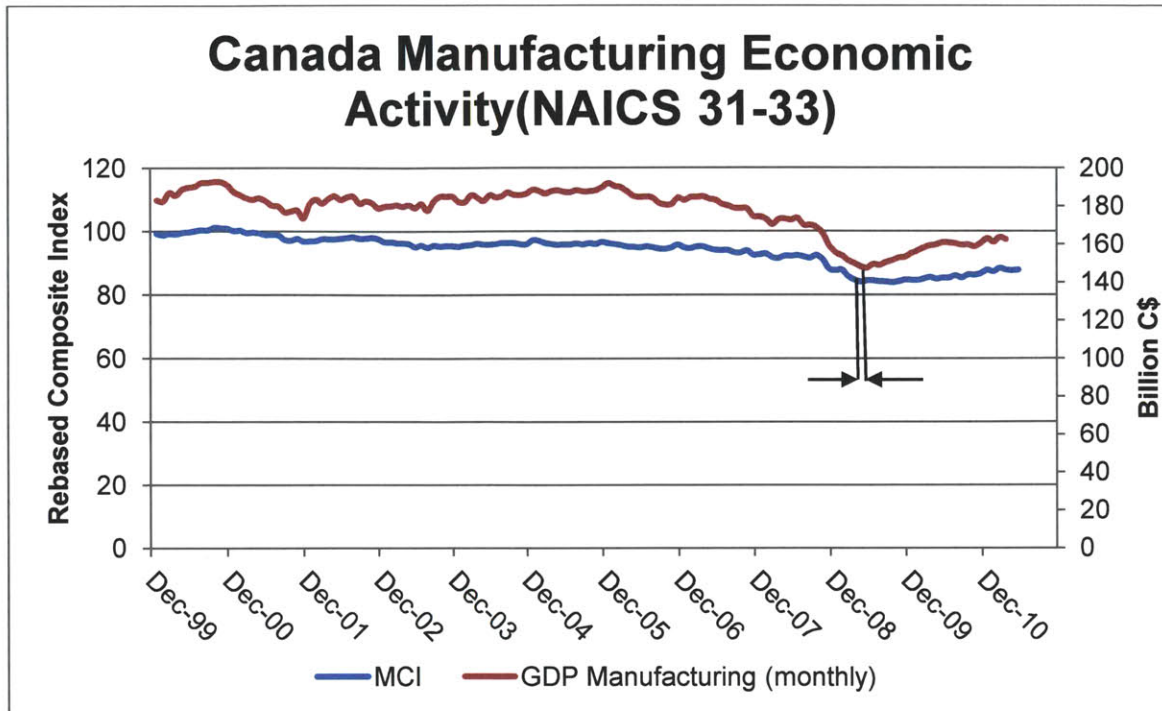


Figure 3.8 - MCI and monthly Canada Manufacturing GDP between Dec-1999 and Dec-2010. Source: E-STAT

In practical terms, the MCI is still relevant as a managerial tool within the US. The deterioration of the leading characteristic with respect to the benchmark is minor with respect to the timeliness of the release of the quarterly information of the GDP by industries (one month after the end of the quarter). Since we can run monthly computations of our composite index with a one month lag, we are still able to predict turning points before the release of the official information. This would allow managers and investors to take actions in advance.

3. Sensitivity Analysis

A parametric analysis in the weights assigned to each index (Step 2 in the Methodology section) provides more insights about the contribution of each indicator to the MCI. The response of the MCI is measured using the cross-correlation methodology by accounting for two performance metrics: lead and correlation. The individual weight assigned to each index is tested using a two

level Design of Experiment (DOE), assigning a weight 1 to the control factor, and zeros to the other four variables. This process is repeated for all five indexes. The results are summarized in Table 3.1 and Figure 3.9.

Table 3.1

Two level DOE for each individual weight. Performance measures: Lead in months and Cross-Correlation

Inventory	New Orders	Shipments	Capacity Utilization	Avg.Weekly-Hours	Lead (month)	Cross-Correlation
1	0	0	0	0	0	0.54
0	1	0	0	0	12	0.86
0	0	1	0	0	10	0.84
0	0	0	1	0	9	0.49
0	0	0	0	1	12	0.53

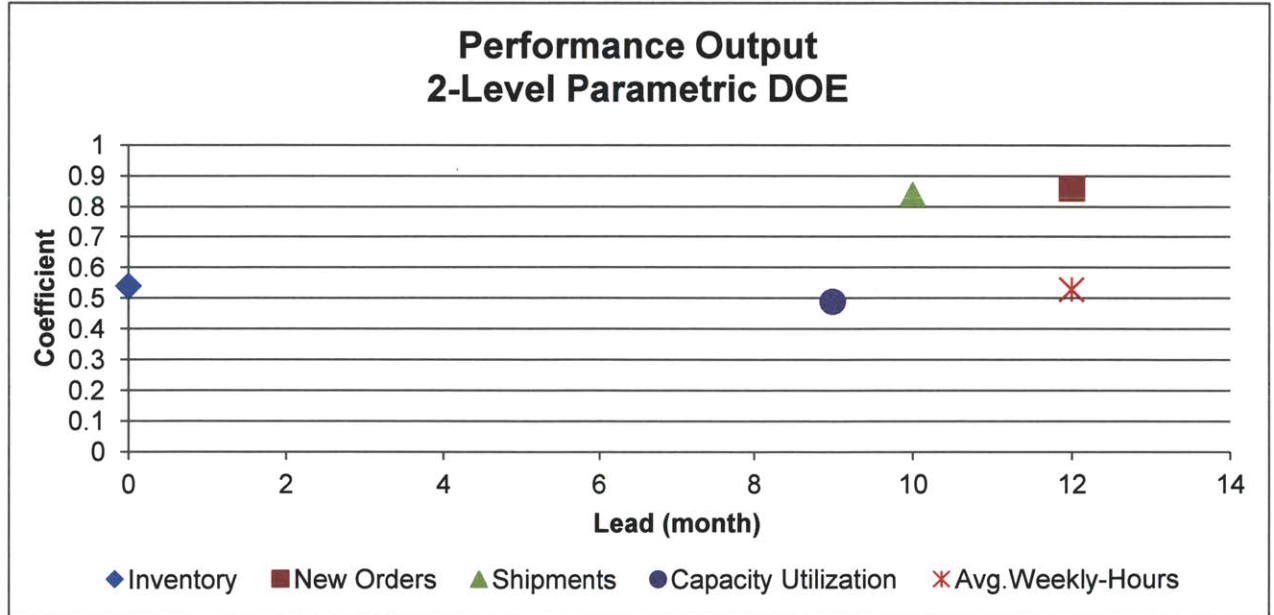


Figure 3.9 - Performance characteristic of each index.

As can be seen in Figure 3.9, the indexes aggregated at the right side of the chart exhibit a leading nature above nine months and an individual maximum correlation

above 0.5. This region is of special interest because it justifies the leading assumption of the corresponding indexes, while it also shows which indicators are contributing the most to signaling trends (correlation above 0.8 in Shipments and New Orders). On the contrary, and in contradiction with our original expectation, Total Inventory performs poorly in terms of lead and correlation. However, we believe the inclusion of the inventory is still important for another reason: it is the second most stable time series within the MCI; hence it helps the composite to be smoother in terms of data noise.

The removal of the Total Inventory time series increases the lead with respect to the US GDP to eleven months and the correlation to 0.78, from a fairly good lead of 8 months with a correlation of 0.66. Unfortunately, this action involves two caveats. On the one hand, the increased data noise originated by using less stable time series may occlude real trends, which will probably result in increased false signals of turning points. On the other hand, the sensitivity of the DI might result compromised with the elimination of a constituent index. As a result, the gains in increased lead and correlation might result in an overall deterioration as a forecasting tool.

Full charts are presented in Appendix "B".

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Chapter 4 – Application to Subsectors

1. Manufacturing Subsectors

The methodology behind the MCI may be applied at an increased level of detail within the Manufacturing Sector. Indeed, the information provided by the selected sources allows for analysis at the Subsector level, which according to the 3-digit NAICS classification in Table 4.1, decomposes Manufacturing into twenty separate entities ranging from Food Products to Furniture and Related Products. In addition, the methodology itself has a level of generality that allows the use of any time series, on condition that they are meaningful to the analysis.

Table 4.1
NAICS 3-digit codes and Subsector

NAICS	Subsector	NAICS	Subsector
311	Food Products	325	Basic Chemicals
312	Beverage and Tobacco Products	326	Plastics and Rubber Products
313	Textile Mills	327	Non Metallic Mineral Products
314	Textile Products	331	Primary Metals
315	Apparel Manufacturing	332	Fabricated Metal Products
316	Leather and Allied Products	333	Machinery Manufacturing
321	Wood Products	334	Computer and Electronic Products
322	Paper Products	335	Electrical Equipment, Appliances and Components
323	Printing	336	Transportation Equipment
324	Petroleum and Coal Products	337	Furniture and Related Products

The same indexes utilized at the Manufacturing level (NAICS 31-33) will be used. Total Inventory, Shipments, New Orders and Capacity Utilization can be retrieved directly as 3-digit NAICS, while Average Weekly Hours manufacturing is available for Durable and Non-Durable Goods, which is defined as those consumer goods intended for a sole use such as food. This includes subsectors 311 throughout 326 (except 321). Durable Goods are those products intended for several uses such as cars and ranges from subsectors 327 through 337 plus 321. It should be noted that companies between 311 and 327 do not report New Orders; hence the Census Bureau does not provide this time series and is not used in our methodology for those specific subsectors.

The data from the different reports has to be standardized to meet the 3-digit NAICS classification. Perhaps the most relevant and tedious task is to translate the information retrieved from the M3 Report into NAICS coding. This step is necessary given that the M3 Report has its own set of codes, yet the transition is clearly defined by the US Census Bureau (see Appendix "F"). Conversely, the time series Average Weekly-Hours and Capacity Utilization can be used directly, as well as the GDP also available in 3-digit NAICS.

2. Results and Analysis

As in the previous case the MCI is compared against the GDP of the correspondent subsector. It is important to notice that the US Bureau of Economic Analysis has a cautionary note on the use of this data:

"These data include detailed estimates underlying the GDP-by-industry accounts published elsewhere on this website (www.bea.gov) and in the Survey of Current

Business. The Bureau of Economic Analysis does not include these detailed estimates in the published tables because their quality is significantly less than that of the higher-level aggregates in which they are included. Compared to these aggregates, the more detailed estimates are more likely to be either based on judgmental trends, on trends in the higher-level aggregate, or on less reliable source data.” (Source: GDPbyInd_GO_NAICS_1998-2009, BEA 2011).

As an example of the kind of results obtained, two subsectors will be presented here. First, subsector 331: Primary Metals corresponding to the Durable Goods category is depicted in Figure 4.1. As it can be seen, the MCI leads the activity by approximately 6-7 months as measured in the turning points of 2003 and 2008. The cross-correlation analysis in Figure 4.2 confirms this observation with a maximum correlation of 0.94 at a lead of 7 months. Secondly, the subsector 324, Petroleum and Coal Products from the Non-Durable Goods classification is presented in Figure 4.3. Again, the analysis of turning points in 2002 and 2008 reveals a lead of 6-7 months, which is also corroborated by the cross-correlation analysis in Figure 4.4 that shows that a maximum correlation of 0.97 is achieved 8 months in advance. A full set of graphs for each analyzed subsector can be found in Appendix “C”.

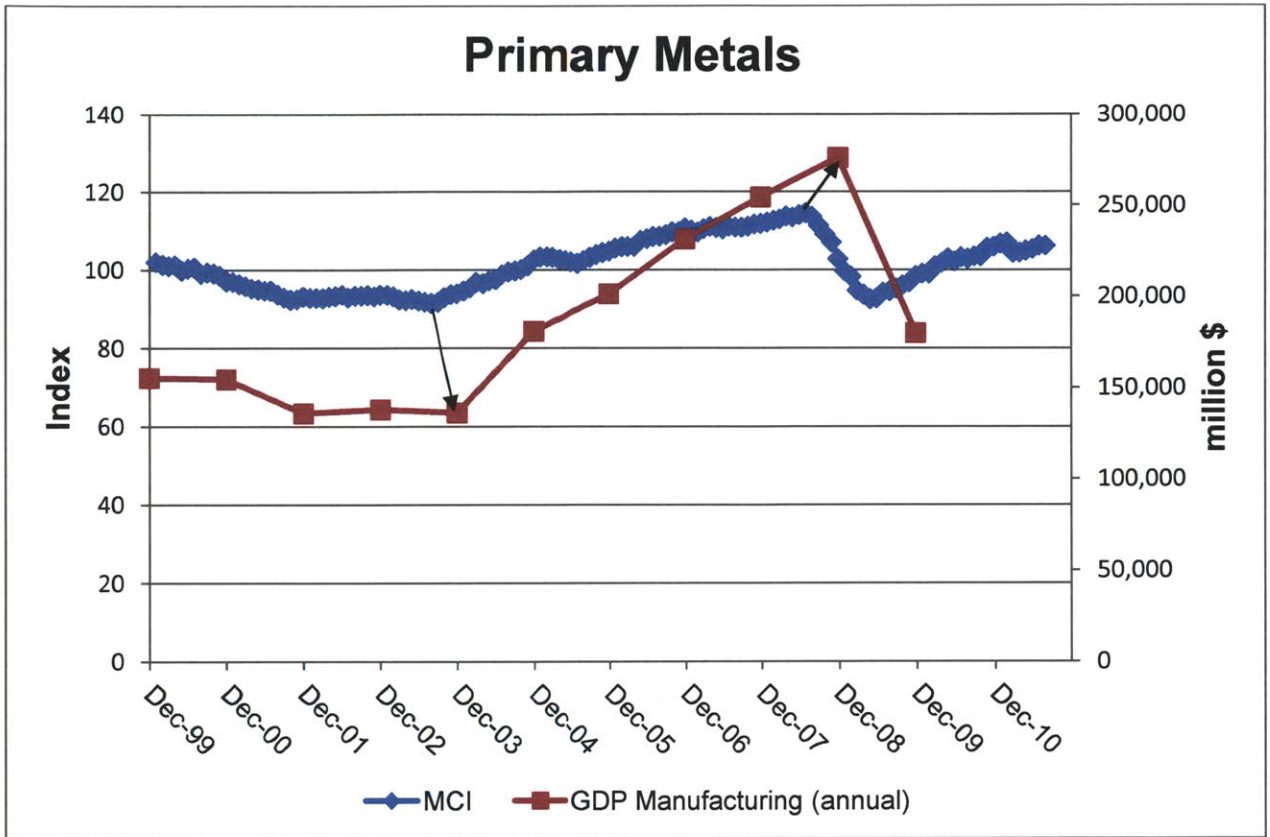


Figure 4.1 - Economic activity in Primary Metals (NAICS 331)

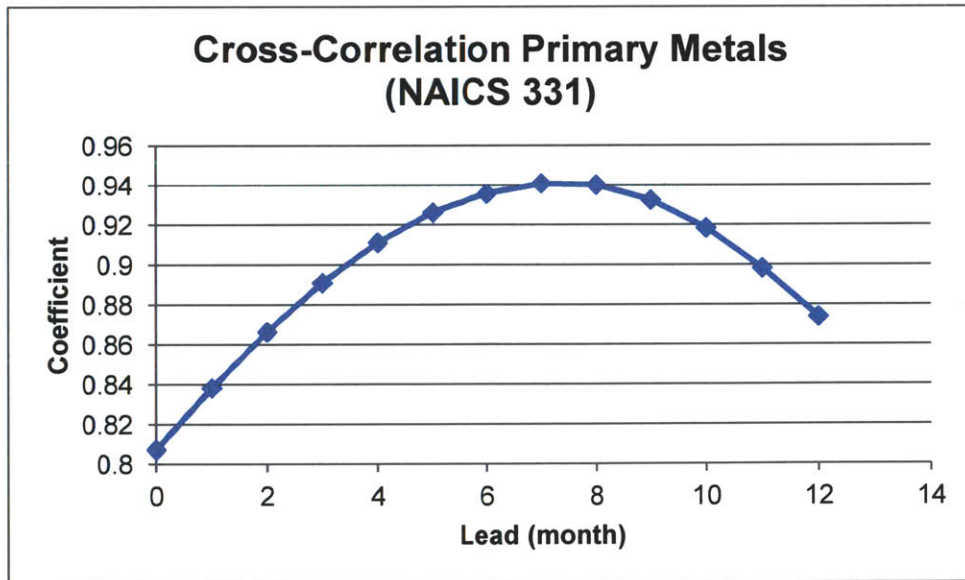


Figure 4.2 - Cross-Correlation in Primary Metals (NAICS 331)

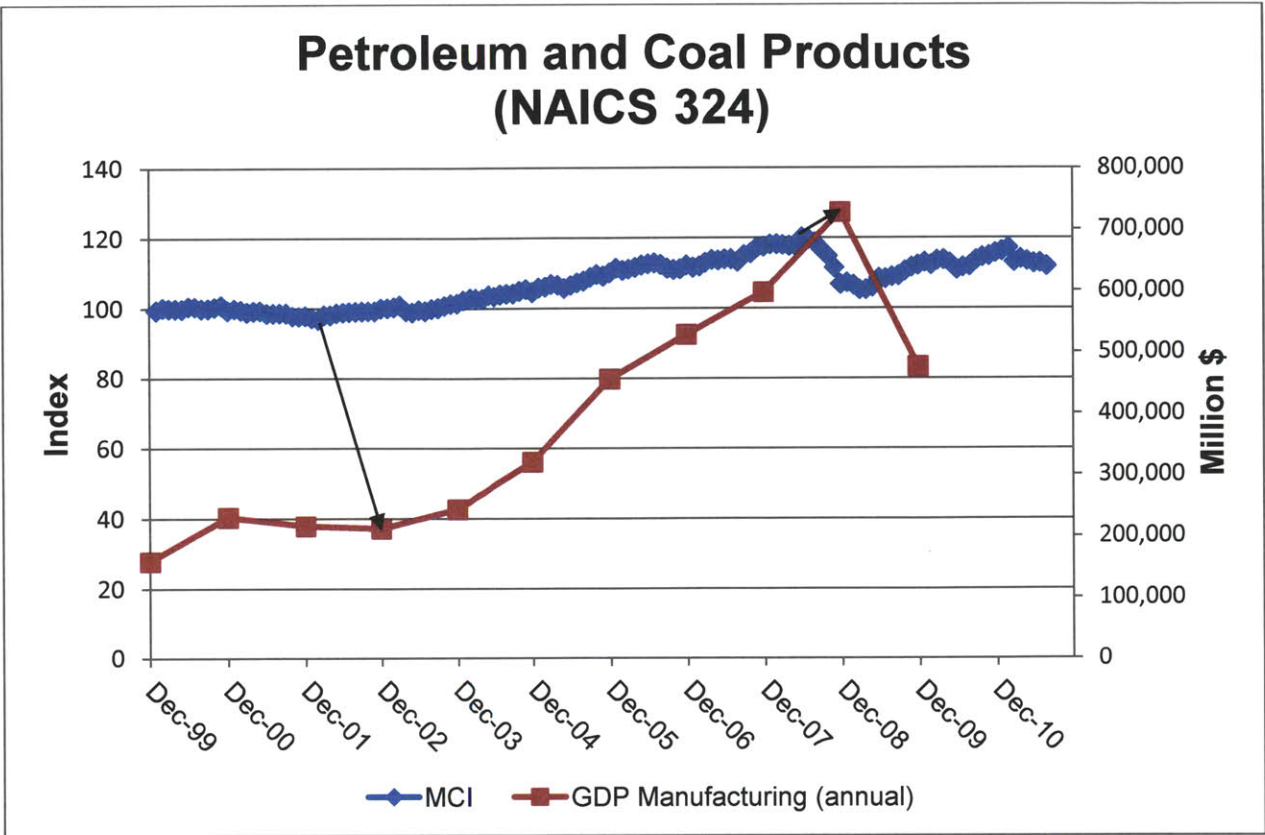


Figure 4.3 - Economic activity in Petroleum and Coal Products (NAICS 324).

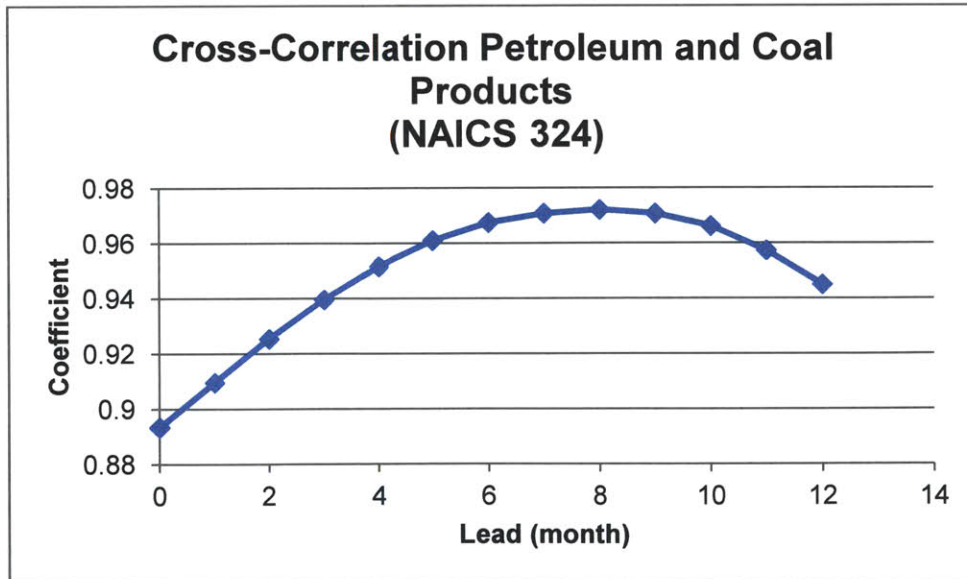


Figure 4.4 - Cross-Correlation in Petroleum and Coal Products.

The majority of the analyzed subsectors have a strong positive correlation with the correspondent GDP at a significant lead. In fact, Figure 4.5 shows a cloud of

points above a cross-correlation of 0.5 with a lead that spans from 3 to 8 months; this cloud gathers 55% of the observations including both Durable and Non-Durable Goods. A second cloud aggregates observations that behave coincidentally with the real economy. A 30% of the observations lies within this category, and is represented by subsectors such as Transportation (336), Computer and Electronic Equipment (334), and Textile and Apparel products (313,314,315 and 316), all of them with correlation above 0.5. Finally, only a couple of outliers can be observed. This corresponds to Paper Products (322), which has not correlation, and Beverage and Tobacco Products with a weak negative correlation; thus, the MCI fails the test against the benchmark in these subsectors and are disregarded in our analysis.

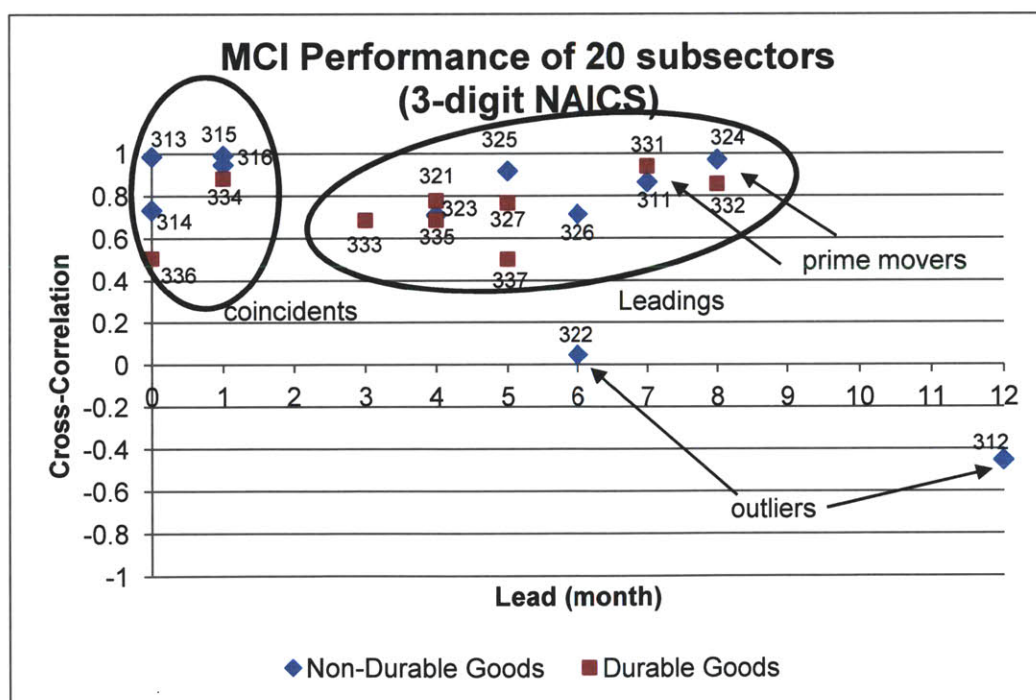


Figure 4.5 - Cross-Correlation and Lead of 20 subsectors aggregated as Durable and Non-Durable Goods.

The most interesting observations are those in the large cloud with correlations above 0.8 and a lead between 7 and 8 month. These data points correspond to subsectors 311, 324, 331 and 332 that match with Food, Petroleum and Coal, Primary Metals and Fabricated Metal Products, respectively. These subsectors are relevant because they feed their products into other subsectors, hence they might be considered prime movers within manufacturing. This means that they are going to suffer drops in demand and enjoy growth of it prior to other groups. While it may be true that the previous observation is not clearly applicable to Food products, it is also true that food and the commented subsectors are related to expectations of future demand and consumption, thus the prime mover assumption still holds true.

While this notion of prime movers is extremely appealing, the information in our research cannot provide more insight into this topic. In fact, there is a problem of causality that cannot be addressed directly. The fact that the so called prime movers lead the activity does not necessarily mean that this industry subsector has better access to information or a better forecast technique, and hence the lead is a consequence of their internal decisions based on their understanding of the economy. It may be the case that the lead is a consequence of how the industry operates; For instance, if a primary metal producer receives orders from, let's just say, car manufacturers, the prime mover is just responding to new orders. Now, the question would be what came first, if it was the order from the car builder or the anticipation of the prime mover. This question could not be solved solely from inspecting the time series. Perhaps, a better technique might be a network economic analysis of value flow within each industry, which of course is out of the scope of this report. For those prime movers in the Non-Durable Goods category

such as Food and Petroleum and Coal Products that does not respond to New Orders, it may be argued that they indeed have a pure forecast approach, but then the problem moves further away of the scope of our analysis. If they forecast future demand of their products, they must be basing their computations on another external indicator such as population growth or higher expectations of oil consumption. Again, we cannot conclude about this problem by solely relying on our time series.

The observation of these prime movers is still relevant in practical terms. The unresolved issue of causality does not occlude the fact that from a downstream client perspective, the aggregated demand the prime mover is seeing is not available to them. In a sense, the user of the prime mover's products has only certainty of what he orders, but competitors' purchases are usually unknown. To this end, tracking prime movers may be a reasonable way to feel the pulse of the industry you are involved with. As an example, an automaker planning the acquisition of raw material for the next quarter may be following the evolution of the MCI of Primary Metals, which in fact is signaling a noticeable decline in the activity in the last three months. At the same time, the planning staff is monitoring its own MCI and is noticing from the last reports that a growth in the activity should be expected for the months to come. Under this scenario of mixed signals, the manager –knowing that Primary Metals is a prime mover– would decide to postpone the purchase knowing that the declining in the activity the prime mover is seeing would allow the negotiating of a better price in the short term, thus improving its own cost structure for the forthcoming quarter.

The subsectors aggregated in the so called coincident cloud are largely consumer goods. These products according to the traditional economic definition are those intended for end customer use –as opposed to goods intended for being used in another product– and they respond tightly to the health of the economy. In that sense, it is not surprising that they have a coincident or short-lead behavior, given that goods such as automobiles, machinery and especially fashion goods are normally demanded during expansion cycles, yet the demand rapidly drops once a recession has started.

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Chapter 5 – MCI Practical Use & Development of Inventory Coverage Metric

1. Prediction of Manufacturing Activity Contractions

In the US, the official recognition of an economic recession or contraction is released by the Business Cycle Dating Committee of the NBER. These recessions are announced based on the consensus of a panel of experts, and they are usually made six to twelve months after a turning point has been recognized in the so called business cycle.

Contrarily to what is generally recognized as a recession –two consecutive quarter declines in GDP–, the NBER summarizes its definition as:

“The NBER does not define a recession in terms of two consecutive quarters of decline in real GDP. Rather, a recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales” (Quoted from <http://www.nber.org/cycles.html>).

The previous definition highlights the fact that forecasting a recession –or even recognizing it for this matter– is extremely difficult. The US economy has elements of complexity that defy human cognitive abilities. Moreover, the intricate value chain and its evolving nature are far too complicated to be addressed with an exclusive economic indicator. In this sense, it is truly ambitious to predict a contraction using just our manufacturing composite index, deliberately disregarding important pieces of information such as income, employment and wholesale-retail sales. Nevertheless, the building blocks of our composite index

contain enough information to anticipate a decline in economic activity and the spread of it by using diffusion indexes.

The prediction or confirmation of a turning point through the MCI and associated DI must be made considering a reasonable time frame. In fact, economists agree that the duration of a crisis is a crucial piece of data because the severity of the recession is directly related to its extension. Longer economy contractions have bigger effects on the perception of consumers and manufacturers, affecting the consumption and unemployment rates; hence, it is easier to classify a crisis when it is prolonged in time. The “more than a few months” part in the NBER’s definition of a recession is another confirmation of the relevance of the time frame, but also sets a vague lower bound. With this in mind, we have selected a time frame of three cumulative months in the aggregated adjusted contribution of each index (Step 3 in the methodology section) with a cumulative decline threshold of -3 to recognize a major contraction in the manufacturing activity. The three-month window is significantly shorter than the “two consecutive quarters decline in GDP” period generally accepted for the economy recession diagnosis. Similarly, in the case of the DI we utilized the last three months average to state a declining trend. Our research also sets at 30, the reasonable threshold for the 3-month DI average.

In brief, a recession in the manufacturing activity would be recognized whenever the two indicators, MCI and DI, trespass together their predefined levels of -3 and 30 respectively. In order to avoid erroneous forecasts and false alarms for contractions, it is important that both conditions be met. Once a decline has been

observed, the first signals of recuperation will be registered through a recovery of the DI and/or by a raise in the MCI; again, the sole increase in the MCI or the DI is not enough to claim the end of the manufacturing activity depression. The end of the crisis will be determined by the return of the DI and MCI parameters to the acceptable ranges.

The proposed framework is able to detect a recession well in advance of the consensus. As it can be seen in Table 5.1, the first indication of the recession in 2001 (03/2001- 11/2001) would have been observed in March with our composite index, confirmed with the DI information resumed in Table 5.2. It is worth noticing that the official beginning for the recession was declared eight months after it started, on November 26th, 2001 (Business Cycle Dating Committee, 2001). Similarly, the end of the trough would have been declared in October 2001 after a change in the tendency of the DI and MCI, from the overall declining to incipient recovery signs in the indexes. Again, the NBER official recognition of the end of the recession was released almost two years later on July 17th, 2003 (Business Cycle Dating Committee, 2003).

In the same way, our MIT- MCI would have identified the 2008 recession (12/2007 – 06/2009) 3 months in advance with respect to the NBER. In fact, Table 5.1 shows a decline in the activity as early as October 2008 and the trough in June 2009. Whereas, the NBER official recession starting and ending date releases were published in December 11th, 2008 and September 20th, 2010, correspondingly (Business Cycle Dating Committee, 2008 and 2010).

Table 5.1

Last three months cumulative aggregated weighed contributions (St). Highlighted in red all the events below a predefined threshold of -3.

-3	Last 3 months cumulative											
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000			-0.8821	-0.4327	0.75441	2.21387	-0.4981	0.05009	-1.14984	-0.45484	0.12114	-0.3127
2001	-0.7765	-1.6118	-3.1679	-3.4064	-2.7707	-3.3008	-2.4125	-2.7891	-3.13279	-2.2969	-3.0101	-1.5496
2002	-2.6174	-2.0941	-1.9222	-1.2784	-0.4437	-0.404	0.18854	0.16201	0.307525	0.077907	-0.2847	-0.1102
2003	0.03229	0.38167	-0.0007	-1.1447	-1.3382	-0.881	0.17709	-1.0471	-0.61527	-0.18941	0.73166	0.73455
2004	-0.6433	-0.611	0.67124	1.17531	1.24033	0.11822	1.21837	2.02329	1.570974	1.44627	2.01963	3.05897
2005	3.75049	2.63062	1.80414	0.18869	0.59004	0.66418	0.36958	0.27922	-0.42048	0.904967	1.78629	3.47772
2006	2.49834	1.09578	0.50094	0.14693	0.80681	0.5182	0.65069	0.57367	0.820614	1.394479	1.87237	2.22327
2007	1.51893	1.05157	0.26175	1.37028	0.95125	0.49821	0.64815	0.18443	0.640283	0.75941	1.9893	2.59774
2008	2.02751	0.52477	0.23253	0.31025	0.40572	-0.5143	-0.6936	-1.6063	-2.85917	-4.65094	-5.2197	-6.623
2009	-6.9818	-5.9095	-5.3091	-3.7916	-3.6178	-2.0615	-0.9641	-0.8628	0.928439	1.089384	2.35147	2.01726
2010	1.80556	1.56906	1.64945	1.66366	0.22914	-0.5502	-0.1489	0.84267	2.608146	2.142463	3.12088	2.80295

Table 5.2

Average Diffusion Index last 3 month

Highlighted in red all the events below a predefined threshold of 30.

30	Average Diffusion Index last 3 months											
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000			50.00	58.33	58.33	66.67	50.00	54.17	45.83	45.83	54.17	58.33
2001	50.00	50.00	29.17	29.17	29.17	29.17	29.17	29.17	29.17	45.83	37.50	50.00
2002	33.33	33.33	29.17	29.17	37.50	37.50	50.00	54.17	62.50	62.50	54.17	41.67
2003	45.83	58.33	62.50	50.00	41.67	50.00	62.50	45.83	45.83	50.00	58.33	66.67
2004	45.83	45.83	41.67	50.00	50.00	54.17	66.67	75.00	66.67	70.83	79.17	83.33
2005	83.33	75.00	70.83	50.00	58.33	66.67	70.83	62.50	45.83	62.50	70.83	91.67
2006	75.00	66.67	62.50	62.50	70.83	62.50	62.50	54.17	54.17	62.50	70.83	75.00
2007	66.67	62.50	58.33	75.00	70.83	62.50	62.50	54.17	54.17	54.17	70.83	79.17
2008	70.83	54.17	54.17	54.17	45.83	33.33	29.17	37.50	29.17	16.67	16.67	16.67
2009	16.67	25.00	25.00	33.33	25.00	50.00	58.33	58.33	58.33	66.67	83.33	83.33
2010	75.00	66.67	66.67	75.00	58.33	45.83	45.83	54.17	75.00	66.67	83.33	79.17

In this historical analysis we only used contemporary information available. For instance, in analyzing the recession starting in March 2001, only information between January 2000 and March 2001 was computed. This was done to avoid that posterior months data would have had influence in the weights assigned to each index (step 2 in the methodology section), considering that they change based on the inverse of the standard deviation of the existing dataset. Even though the influence of hindsight is minor in the weights calculations, it is worth remarking this point for preserving the consistency of our research.

The MCI methodology proves to be robust in signaling turning points in the manufacturing activity. It is true that there are only two recessions in the analyzed period and this affects the framework's potential time generalization. However, the theoretical fundamentals of the developed tools seem to resonate with the empirical work, not only in this project but also in others. In fact, The Conference Board utilizes a similar approach in predicting turning points in the whole economy. They have selected a threshold for the three-month cumulative decline of -3.5 and an analysis window for their DI of six months, and have predicted the six economic crises between 1958 and 2000, with only 3 false recessions (The Conference Board, 2001).

As a manager, forecasting the contraction of manufacturing activity in advance has several practical connotations. Perhaps the first action is to freeze or renegotiate in more convenient terms all the expansion or acquisition plans waiting for better prices. In the same context, contracts in terms of raw materials should be revisited in the light of a coming recession and a panorama of reduced demand for finished goods. Human Resources policies might be reviewed again, specially hiring plans. At a manufacturing floor level, actions might be taken such as decreasing capacity utilization or ceasing overtime production as a way to reduce cost and inventory. The sales department might come up with policies intended to equalize the inventory to a satisfactory level in preparation for the forthcoming bad days. Investors in general should update their valuation of companies given that the cash flow will be compromised.

2. MCI Time Series Utilization for Inventory Coverage Benchmarking

The MCI was developed as a tool for management to visualize changes, trends and the contemporary situation of the manufacturing industry early than current US GDP quarterly releases. Pursuing a similar idea, but using a different approach, we used the Inventory Coverage indicator to provide decision makers with an extra piece of information based in the time series we had already collected.

$$\text{Inventory Coverage} = \frac{\text{Total Inventory Value}}{\text{Average Daily Revenue}} \quad [\text{Days}]$$

where,

$$\text{Average Daily Revenue} = \frac{\text{Quarterly Revenue}}{\# \text{ Business Days in the Quarter}} \quad \left[\frac{\$}{\text{Days}} \right]$$

In simple words Inventory Coverage indicates the number of days that a company can meet a constant demand (based on the quarterly sales) with the total inventory at hand. This metric is sensitive to movements in inventory levels and the amount of sales, so it works as an efficient indicator of the company's shape with respect to the market environment.

3. Inventory Coverage Benchmark

As it was mentioned before, Inventory Coverage tracking has evident benefits and objectives. However, from the perspective of management, this indicator on itself could not be enough to realize how satisfactory the performance within the market is, and a comparison with some baseline would be deeply appreciated. Typically the first approach that comes to mind is to contrast company numbers against the competitors and evaluate depending on the distance from them. But, what if we were able to benchmark the company with its corresponding industry aggregated

Inventory Coverage? – Well, using two of the MCI time series, Total Inventory and Shipments, Inventory Coverage indexes can be constructed for each of the NAICS manufacturing subsectors (e.g., NAICS 321 - Wood Product Manufacturing).

Appendix “D” compiles the complete list of NAICS subsectors monthly Inventory Coverage ratios calculated from years 1999 to 2010. In order to facilitate data visualization and understanding, plots for each subsector were developed showing graphical representations for the historical maximum, minimum and average value of the index.

The sole limitation that Inventory Coverage benchmarking registers is related to the utilized data origin. Because the MCI time series are at a subsector concentration (3- digits) the index calculations are restricted to that level too. As a consequence, the obtained Inventory Coverage indicator does not represent an industry group independently but an aggregated one, superior in hierarchy. Despite this issue, subsectors Inventory Coverage evaluation and contrast with the companies indexes validates the NAICS three digit level as an acceptable reference by the industry groups and titles.

4. Practical Use of Inventory Coverage Ratio

Once the inventory coverage index was calculated for each sector, then its historical performance was characterized through the average, maximum and minimum values computed. Based on this information a company’s “acceptable band” was defined and plotted in each correspondent subsector graph.

Figure 5.1 shows an example of acceptable band established, in this case, for NAICS 333 subsector. Essentially, the red and green shaded areas represent the

relative warning and safety zones with respect to the market behavior. If the Inventory Coverage of a manufacturer is over the warning zone, this is a signal that at least should trigger a revision of the company's business strategy and inventory policy.

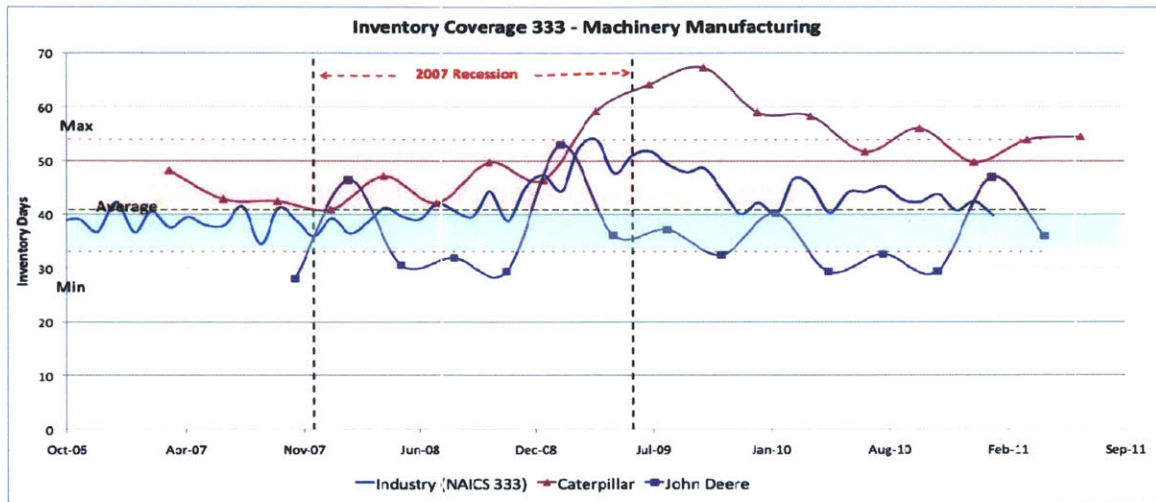


Figure 5.1 - NAICS 333 Inventory Coverage showing “acceptable band” bounds

In order to exemplify the practical use of the Inventory Coverage index we analyzed three NAICS subsectors: 325 - Chemical Manufacturing, 333 - Machinery Manufacturing and 334 - Computer and Electronic Product Manufacturing.

The objective was to give decision makers a tool to analyze the corresponding subsector inventory coverage and realize if the sales-inventory relation of a particular company could be considered a normal situation as compared to the whole industry or not.

i) 325 - Chemical Manufacturing

In this case we evaluated the Inventory Coverage for the three leading companies in the American chemical manufacturing market: Dupont, Dow Chemical and LyondellBasell. Figure 5.2 shows the results obtained for

these companies' ratios and the subsector's aggregated Inventory Coverage index.

Analysis of the Inventory Coverage outcomes corroborates the relevance of the aggregated industry ratio. As it was mentioned before, the manufacturer's high or low ratio value can have different interpretations by management depending on factors such as internal business strategy or inventory policy settings. However, once these indexes are benchmarked with the reality of the industry, subjectivity disappears and significant points can be made:

First, in terms of Inventory Coverage historical performance LyondellBassell appears as the company that has kept its ratio values closest to the industry levels. Actually its values never fall out of the band defined by the upper and lower bounds.

Prior to the 2007 recession Dow Chemical's Inventory Coverage behavior was marginally higher compared with the industry's upper limit set by the historical maximum. Nevertheless, after the recession's midpoint (Sep. 2008) the Inventory Coverage went up until it reached 42 days, more than 50% over the average subsector value of 25 days.

Third, Dupont constantly experienced ratios out of subsector's maximum Inventory Coverage value. Moreover, during the recession, the company's index achieved its peak of 57 days, doubling-up chemical manufacturing's aggregated ratio. Besides that, ratio's range of fluctuations followed an

atypical pattern compared with the whole industry and other competitors' curves.

Finally, something noticeable and common for the three companies is that Inventory Coverage's index reached the peak within the second half of the recession period. This situation is consistent with the industry's index performance.

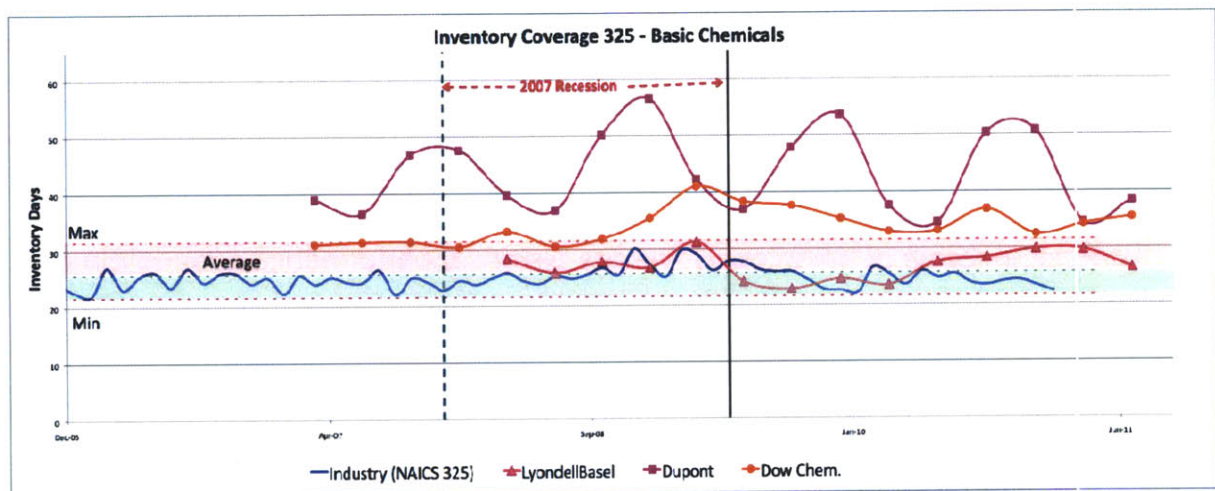


Figure 5.2 - NAICS 325 Basic Chemicals Inventory Coverage

ii) 333 - Machinery Manufacturing

Similarly to i), Figure 5.3 exhibits Inventory Coverage details for John Deere and Caterpillar, two major players in the American machinery manufacturing industry.

Before 2007 recession, Caterpillar showed a performance closed to the subsector's average, but days of inventory grew sharply after the crisis started. Company's inventory's maximum value, 1.5 times the average, was achieved about three months after the recession's end. Afterward, the index started to decline until stabilized around the upper limit value.

On the other hand, although John Deere’s inventory days also registered its peak value in the later part of the crisis, they never surpassed the subsector’s band upper bound. Furthermore, the company’s maximum index was an isolated spike and not a time-sustained trend. Actually, the analysis shows that most of the time John Deere’s performance was below the industry’s average index.

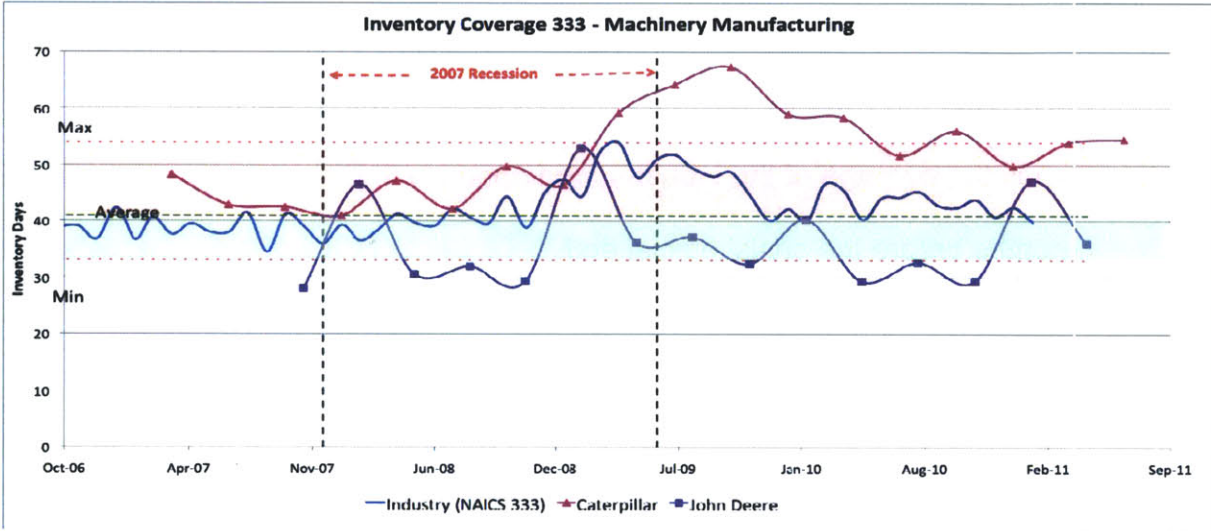


Figure 5.3 - NAICS 333 Machinery Manufacturing Inventory Coverage

iii) 334 - Computer and Electronic Product Manufacturing

As a final example, we examined the dynamic industry of computer and electronic products. According to Figure 5.4, the subsector’s aggregated Inventory Coverage had a relatively flat curve behavior around the historical average line. Besides that, once three direct competitors are benchmarked against the aggregated index completely different scenarios are visualized:

In the case of Hewlett-Packard, Inventory Coverage values moved in the proximities of the subsector’s lowest limit and did not experience dramatic variations at the time.

Taking out 2007 recession's period, Cisco's curve shape was comparable to Hewlett-Packard, but with historical values approximately a third of the average of the industry. Nonetheless, when the crisis started, the company evidenced a sharp increase of on hand inventory growing up and reaching a steady-state at three times of the pre-recession value.

The third company examined, NCR, had a completely different pattern compared with the other two companies and subsector's Inventory Coverage indicator. Additionally, NCR's highest value was more than three times the average of the industry, and opposite to Cisco, this was reached 2 months before the crisis' official end.

Finally, and similar with Dupont's situation, NCR registered large differences among index's curve turning point values, standing out in comparison with the aggregated industry's baseline.

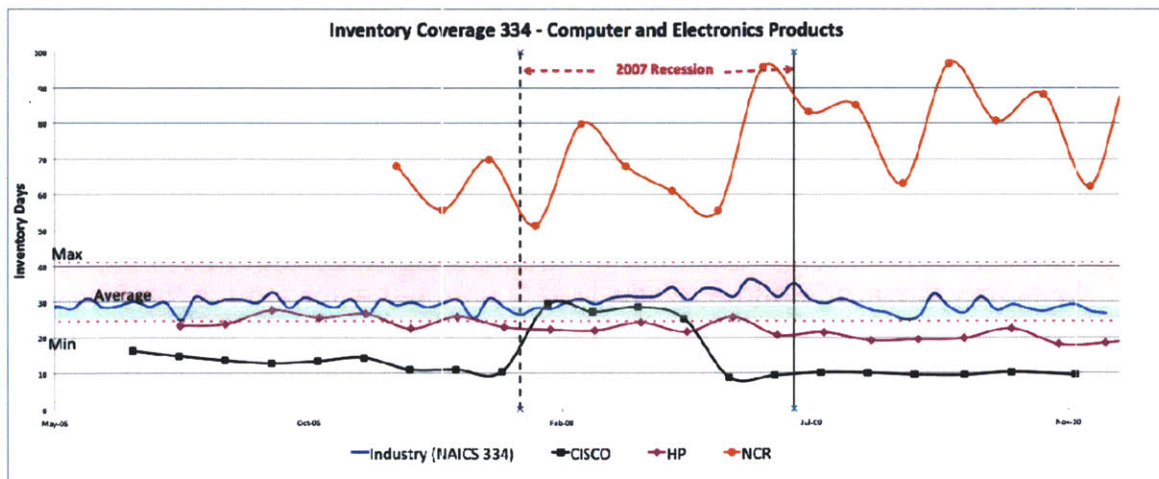


Figure 5.4 - NAICS 334 Computer and Electronics Products Inventory Coverage

Chapter 6 – Conclusions and Recommendations

1. Conclusions

The objective of this study was to demonstrate the feasibility of developing a leading indicator capable of characterizing the US manufacturing sector, utilizing public data released either by official agencies or by the industry. The results and the analysis of the MCI and its benchmark against empirical data not only completely validated our hypothesis, but also concludes that in practice our leading indicator anticipates the GDP signals of contraction and expansion for the whole economy, and in addition works consistently with 18 of the 20 manufacturing segments (NAICS subsectors).

The contribution of this work to the academia and the private sector is given by the uniqueness of our manufacturing Composite Index in its conception. Revision of a number of publications in the fields of economics and manufacturing revealed that the majority of the existent reports used data retrieved through surveys to senior managers, while others use their own private sources. Both approaches have complexities and significant costs associated with the collection and origin of the information. In contrast, MCI explored the unexploited niche of composite indexes based exclusively in public data.

In terms of formulation robustness, our manufacturing composite index of leading indicators (MCI) was created following a proven and widely accepted methodology. In fact, our research is based in the original work of the US National Bureau of Economic Research, now under the responsibility of The Conference

Board. The methodology has been used for more than sixty years in predicting the occurrence of turning points within the US Business Cycle.

As it has been mentioned above, the MCI is based exclusively in public data officially released by The US Federal Government. The solely sources are the US Census Bureau and the US Bureau of Labor Statistics through several reports released online. The time series we extracted are: New Orders, Shipments, Total Inventory, Capacity Utilization and Average Weekly Hours of Manufacturing.

MCI is able to forecast the US Manufacturing sector activity. This conclusion is supported by two independent sources. First, a cross-correlation analysis reveals that a significant lead at a large correlation exists between the MCI and the annual GDP of the manufacturing sector. Secondly, the methodology and the selected indexes were applied to a foreign large economy: Canada. The results in the foreign nation also revealed a significant lead and a strong correlation when considering annual GDP data; thus, reassuring the quality and consistency of the methodology and selected indexes.

Some Industry subsectors have a larger lead with their respective GDP. Indeed, Food Products, Petroleum and Coal Products, Primary Metals and Fabricated Metals can be seen as Prime Movers within manufacturing. These subsectors react early to changes in the expectations of future demand respect the other ones, and therefore they provide contraction/expansion signals in advance.

Finally, the benefits and applications of the MCI transcend the theoretical limits to the practical field. This work established the validity of our composite index at an

aggregated manufacturing level, as well as for the majority of the NAICS subsectors. As a result, the MCI can be truly considered as a new management resource that provides a novel perspective of the upcoming manufacturing scenario, allowing decision makers to develop strategies according to the contraction and expansion predictions.

2. Recommendations

During our work we realized that the gathered time series could be used to develop other manufacturing-related metrics, which is the case of the Inventory coverage indicator. This particular metric permits visualization of the manufacturing subsector performance in terms of their inventory and sales relation. As a consequence, the companies can compare their particular internal situation with whole subsector reality. Supported by this experience, we recommend exploring the creation of new metrics based on the gathered datasets and the identified information sources.

The leading nature of the MCI with respect to the whole economy can be significantly improved by adding time series outside manufacturing. In fact, the addition of other leading indexes derived from other sectors of the economy such as Stock prices, New Construction Permits and Money Supply, would allow incorporating prime movers that normally precede manufacturing.

We strongly recommend continuing monitoring the MCI in the future. As it was mentioned in Chapter 1, the scope of our project was originally defined for the period between 1999 and 2011. And even though we proved the effectiveness of our leading indicator benchmarked with the GDP in this period, we consider that a

larger timeframe evaluation will contribute to a better calibration and finer adjustment of the MCI.

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Appendix “A” Implementation

The following information is an attempt to facilitate the replication of the methodology used in this thesis project. Some of the steps might be executed in different order, others have a mandatory sequence. A step forward in this procedure would be to automate the retrieval of raw data, the creation of tables and graphs by implementing appropriate macros. We left that step to the curiosity of the reader.

Step 1 - Data retrieval

The Time Series can be retrieved from the links provided in Table A-1.

Table A-1

Document-Report	Source	Time Series
M3 Report (Historic Time Series – NAICS)	US Department of Commerce Census Bureau	- Shipments - New Orders - Total Inventory
http://www.census.gov/manufacturing/m3/historical_data/index.html		
Current Employment Situation (Employment, Hours and Earnings Table B-7 Average weekly hours and overtime of production and nonsupervisory employees on private nonfarm payrolls by industry sector, seasonally adjusted)	US Department of Labor Bureau of Labor Statistics	- Manufacturing - Durable Goods - Non-Durable Goods
http://www.bls.gov/webapps/legacy/cesbtab7.htm		
Consumer Price Index All urban consumer (Chained CPI) Top Picks	US Department of Labor Bureau of Labor Statistics	- C-CPI-U US all items (go to “more formatting options” and retrieve as column)
http://www.bls.gov/cpi/#tables		
Survey of Plant Capacity Utilization Historical Data	US Department of Commerce Census Bureau	- Capacity Utilization (Full utilization rates- Average 3-digit NAICS)
http://www.census.gov/manufacturing/capacity/historical_data/index.html		

Step 2 – Spreadsheet Implementation

- The Time Series from Step 1 should be copy/pasted in the green area in Figure C.1 including all period under analysis.
- Inventory, New Order and Shipments have to be adjusted by the C-CPI-U by simply dividing the value of each data point by the corresponding CPI. The corresponding formula should be implemented in the “Dollar Adjusted” area.
- Monthly variation contributions are computed using the symmetric change formula (i.e. Cell K4 has the formula “=200*(H4-H3)/(H4+H3)”).
- The inverse of the standard deviation of the monthly contributions are computed in cells K3 through O3.
- The weight of each index is computed by dividing the inverse of the standard deviation by summation of all the inverse of the standard deviations (Cells K2 through O2). The sum of all assigned weights should equal 1.
- The monthly variations are multiplied by the corresponding weight (Cells P4:T143)
- Once the weighted monthly variations have been computed, they are summed and the value is stored in Column U.
- The Index for Jan-00 is set in 100 (Cell V4), then the following values are obtained by the formula “=V4*(200+U5)/(200-U5)”, which is copied down for the entire dataset.
- The average index in year 2000 is computed in Cell V2 (“=average(V3:V15)”).

- The Rebased Index is computed by the formula “=100*V4/\$V\$2”, which should be copied down for the entire dataset.

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
2	Month	Inv	NO	Ship	CU	Avg.WH	C-CPI-U	Inv	NO	Ship	Inv	NO	Ship	CU	Avg.WH									
3	Dec-99	463529	344241	344306	71	41.4	1	463529	344241	344306	1.31	0.40	0.62	0.69	2.12									
4	Jan-00	463722	350521	352338	71	41.5	1.003	462334.995	349472.5823	351284.1476	-0.26	1.51	2.01	0.00	0.24	-0.07	0.12	0.24	0.00	0.10	0.39	100.00	100.66	
5	Feb-00	466474	332073	340160	71	41.6	1.009	462313.1814	329111.001	337125.8672	0.00	-6.00	-4.11	0.00	0.24	0.00	-0.47	-0.49	0.00	0.10	-0.86	99.14	99.80	
6	Mar-00	466898	344453	349152	71	41.6		8.5433	343653.5433	-0.60	2.97	1.92	0.00	-0.48	-0.15	0.23	0.23	0.00	-0.20	0.11	99.25	99.91		
7	Apr-00	469510	347585	354512	71	41.7		=1/STDEV(K4:K143)	1.2205	348929.1339	0.56	0.91	1.52	0.00	0.24	0.14	0.07	0.18	0.00	0.10	0.49	99.74	100.40	
8	May-00	469787	340606	350027	71	41.3	1.012	461934.12	334912.4877	344176.0079	-0.04	-2.13	-1.37	0.00	-0.48	-0.01	-0.16	-0.16	0.00	-0.20	-0.54	99.21	99.86	
9	Jun-00	473820	375483	355114	71	41.3		=200*(H4-H3)/(H4+H3)	347809.9902	0.46	9.35	1.05	0.00	0.00	0.12	0.72	0.13	0.00	0.00	0.97	100.17	100.83		
10	Jul-00	475724	343348	351491	71	41.5			343588.4653	0.21	-9.14	-1.22	0.00	0.48	0.05	-0.71	-0.15	0.00	-0.20	-0.60	99.57	100.23		
11	Aug-00	477621	341550	347221	71	41.0	1.023	466882.6979	333870.9677	339414.4673	0.40	-0.53	-1.22	0.00	-1.21	0.10	-0.04	-0.15	0.00	-0.50	-0.59	98.99	99.64	
12	Sep-00	478058	353850	355737	71	41.0	1.028	465	7.6654	-0.40	3.05	1.94	0.00	0.00	-0.10	0.24	0.23	0.00	0.00	0.37	99.35	100.01		
13	Oct-00	480193	339382	349286	71	41.1	1.029	4666	=O3/SUM(\$K\$3:\$O\$3)	2.1769	0.35	-4.27	-1.93	0.00	0.24	0.09	-0.33	-0.23	0.00	0.10	-0.37	98.98	99.64	
14	Nov-00	482493	343363	346501	71	41.1	1.028	469351.1673	334010.7004	337063.2296	0.58	1.26	-0.70	0.00	0.00	0.15	0.10	-0.08	0.00	0.00	0.16	99.14	99.79	
15	Dec-00	484123	342778	350443	71	40.4	1.026	469038.0117	334091.6129	341562.3282	-0.07	0.02	1.33	0.00	-1.72	-0.02	0.00	0.16	0.00	-0.71	-0.57	98.58	99.23	
16	Jan-01	483147	331290	342474	71	40.7	1.033	467712.4879	3207		-0.28	-4.09	-2.98	0.00	0.74	0.07	-0.32	-0.36	0.00	0.31	-0.44	98.15	98.80	
17	Feb-01	477906	334551	346204	71	40.5	1.037	460854.3877	3226	=M4*\$M\$2	-1.48	0.59	0.70	0.00	-0.49	-0.38	0.05	0.08	0.00	-0.20	-0.45	97.71	98.35	
18	Mar-01	472767	334134	340459	71	40.5	1.039	455021.1742	321591.9153	327679.4995	-1.27	-0.32	-1.87	0.00	0.00	-0.32	-0.02	-0.22	0.00	0.00	-0.57	97.15	97.79	
19	Apr-01	470030	321351	330526	71	40.5	1.042	451084.453	308398.2726	317203.4549	-0.87	-4.19	-3.25	0.00	0.00	-0.22	-0.32	-0.39	0.00	0.00	-0.94	96.24	96.88	
20	May-01	465649	330628	338811	71	40.4	1.046	445171.1281	316087.9541	32391				0.09	-0.25	-0.34	0.19	0.25	0.00	-0.10	0.00	96.75	96.88	
21	Jun-01	459958	323463	330972	71	40.3	1.048	438891.2214	308647.9008	31581	=SUM(P4:T4)				53	-0.25	-0.36	-0.18	-0.30	0.00	-0.10	-0.95	95.23	95.96
22	Jul-01	454392	318206	327969	71	40.0	1.045	434824.8804	304503.3493	313845.933	-0.93	-1.35	-0.62	0.00	0.74	-0.24	-0.10	-0.08	0.00	0.31	-0.11	95.23	95.86	
23	Aug-01	449989	321838	330804	71	40.3	1.046	430199.8088	307684.5124	316256.2141	-1.07	1.04	0.77	0.00	-0.74	-0.27	0.08	0.09	0.00	-0.31	-0.41	94.84	95.47	
24	Sep-01	445089	311090	321520	71	40.2	1.049	424298.3794	296558.6273	306501.4299	-1.38	-3.68	-3.13	0.00	-0.25	-0.35	-0.29	-0.38	0.00	-0.10	-1.12	93.79	94.41	
25	Oct-01	440129	318188	320508	71	40.1	1.047	420371.5377	303904.489	306120.3438					-0.25	-0.24	0.19	-0.01	0.00	0.10	-0.16	93.64	94.25	
26	Nov-01	434128	308889	319528	71	40.1	1.044	415831.4176	295870.6897	306061.3027					0.00	-0.28	-0.21	0.00	0.00	0.00	-0.49	93.18	93.80	
27	Dec-01	427806	312239	322291	64	40.3	1.039	411747.8345	300518.768	310193.4552	-0.99	1.56	1.34	-7.00	0.50	-0.25	0.12	0.16	-0.94	0.21	-0.71	92.53	93.14	
28	Jan-02	425185	307492	320292	64	40.2	1.042	408047.025	295097.8887	307381.9578	-0.90	-1.82	-0.91	0.00	-0.25	-0.23	-0.14	-0.11	0.00	-0.10	-0.58	91.99	92.60	
29	Feb-02	420256	315678	319887	64	40.3	1.045	402158.8517	302084.2105	306111.9617	-1.45	2.34	-0.41	0.00	0.25	-0.37	0.18	-0.05	0.00	0.10	-0.14	91.86	92.47	
30	Mar-02	417758	314951	321723	64	40.5	1.051	397486.2036	299667.9353	306111.3225						-0.30	-0.06	0.00	0.00	0.20	-0.16	91.72	92.33	
31	Apr-02	417589	318347	326698	64	40.5	1.056	395444.1288	301464.9621	309373.1061						-0.13	0.05	0.13	0.00	0.00	0.04	91.76	92.37	
32	May-02	416421	321452	328712	64	40.6	1.056	394338.0682	304405.303	311280.303	-0.28	0.97	0.61	0.00	0.25	-0.07	0.08	0.07	0.00	0.10	0.18	91.92	92.53	
33	Jun-02	416950	314866	327930	64	40.7	1.056	394839.0152	298168.5606	310539.7727	0.13	-2.07	-0.24	0.00	0.25	0.03	-0.16	-0.03	0.00	0.10	-0.06	91.87	92.48	
34	Jul-02	417439	321981	325813	64	40.4	1.057	394928.0984	304617.7862	308243.141	0.02	2.14	-0.74	0.00	-0.74	-0.01	0.17	-0.09	0.00	-0.31	-0.22	91.67	92.28	
35	Aug-02	418515	327139	329800	64	40.5	1.06	394825.4717	308621.6981	311132.0755	-0.03	1.31	0.93	0.00	0.25	-0.01	0.10	0.11	0.00	0.10	0.31	91.95	92.56	
36	Sep-02	420253	320596	331563	64	40.5	1.063	395346.19	301595.4845	311912.5118	0.13	-2.30				0.03	-0.18	0.03	0.00	0.00	-0.11	91.85	92.45	
37	Oct-02	420500	320300	330077	64	40.3	1.064	395206.7669	301033.8346	310222.7444	-0.04	-0.19				=100*V4/\$V\$2	-0.01	-0.01	-0.07	0.00	-0.20	91.58	92.18	
38	Nov-02	419863	321497	330039	64	40.4	1.063	394979.3039	302443.0856	310478.8335	-0.06	0.47	0.08	0.00	0.25	-0.01	0.04	0.01	0.00	0.10	0.13	91.70	92.31	
39	Dec-02	422953	316577	324698	63	40.5	1.06	399012.2642	298657.5472	306318.8679	1.02	-1.26	-1.35	-1.00	0.25	0.26	-0.10	-0.16	-0.13	0.10	-0.03	91.67	92.28	

Figure A.1 - Extract of the spreadsheet implemented for computing the MCI

Step 3 – Graphs Construction

- The GDPbyInd_GO_NAICS time series should be retrieved from: http://bea.gov/industry/gdpbyind_data.htm
- The rebased index and the GDP can be plot together in a scatter graph with a secondary axis. The horizontal axis being the date of the time series.

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Appendix “B” Sensitivity Analysis

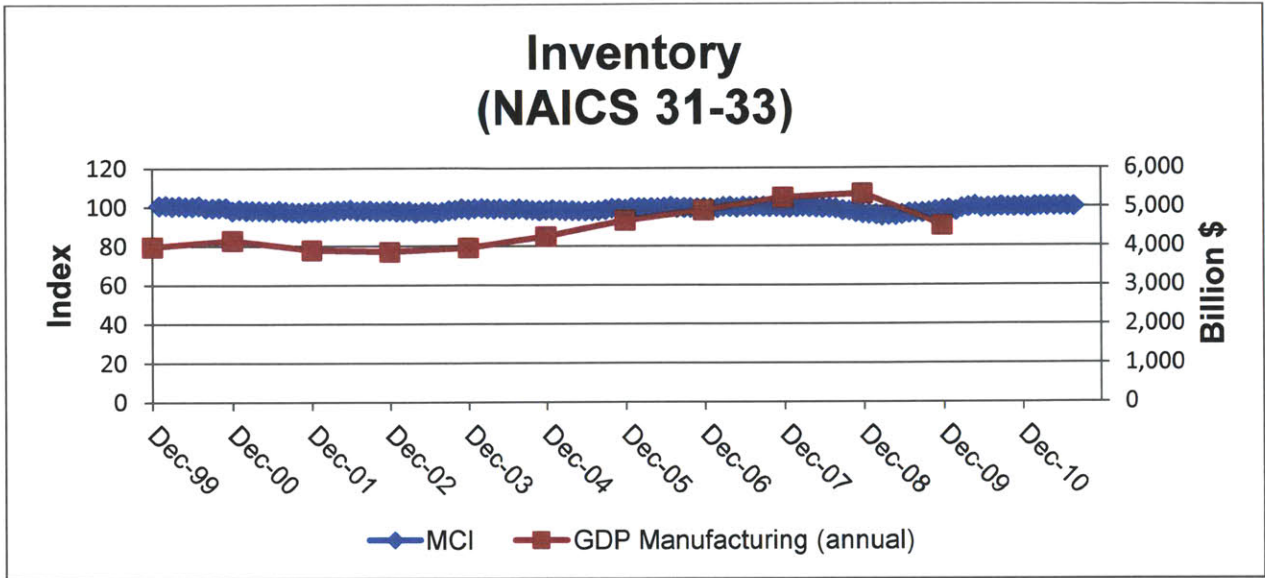


Figure B.1 – Total Inventory with a weight 1 (all other time series with a weight 0).

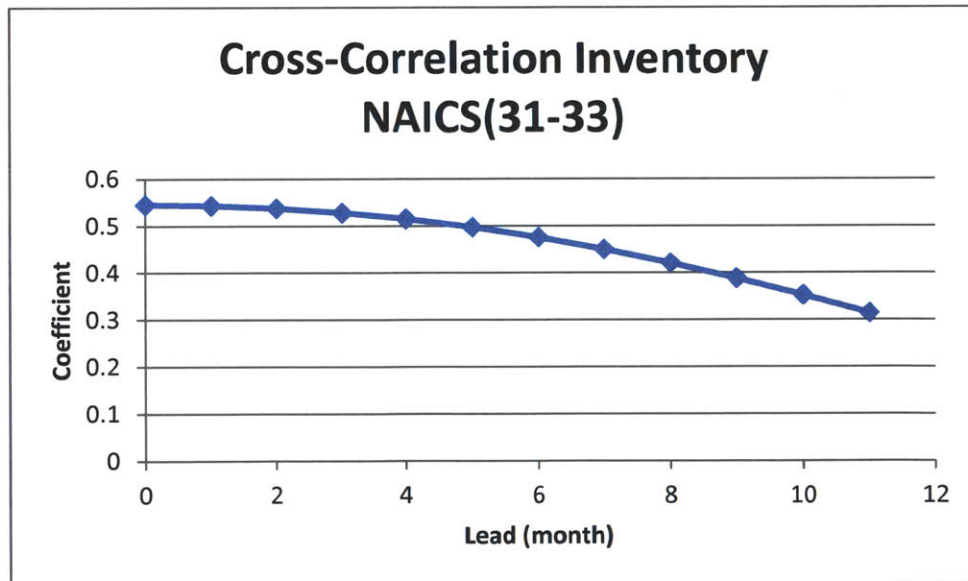


Figure B.2 – Cross-Correlation of Inventory and annual GDP.

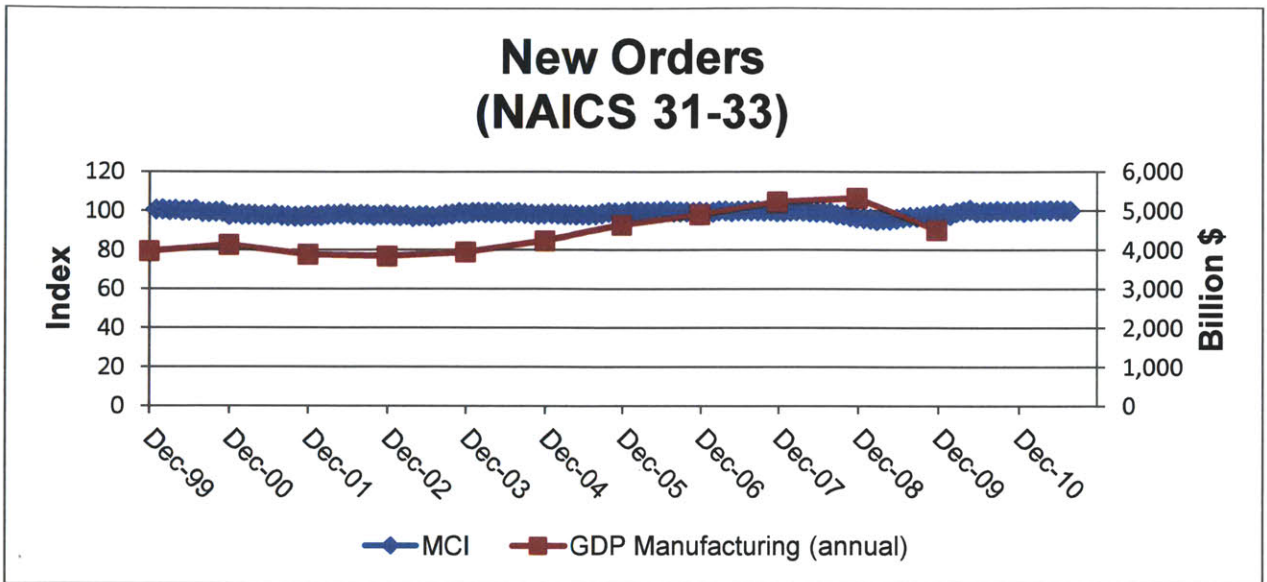


Figure B.3 – New Orders with a weight 1 (all other time series with a weight 0).

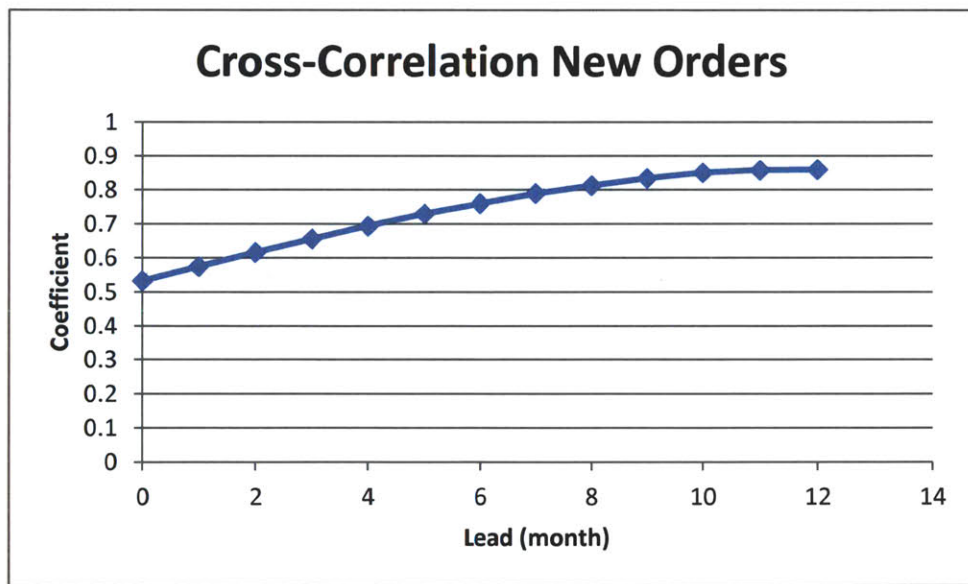


Figure B.4 – Cross-Correlation of New Orders and annual GDP.

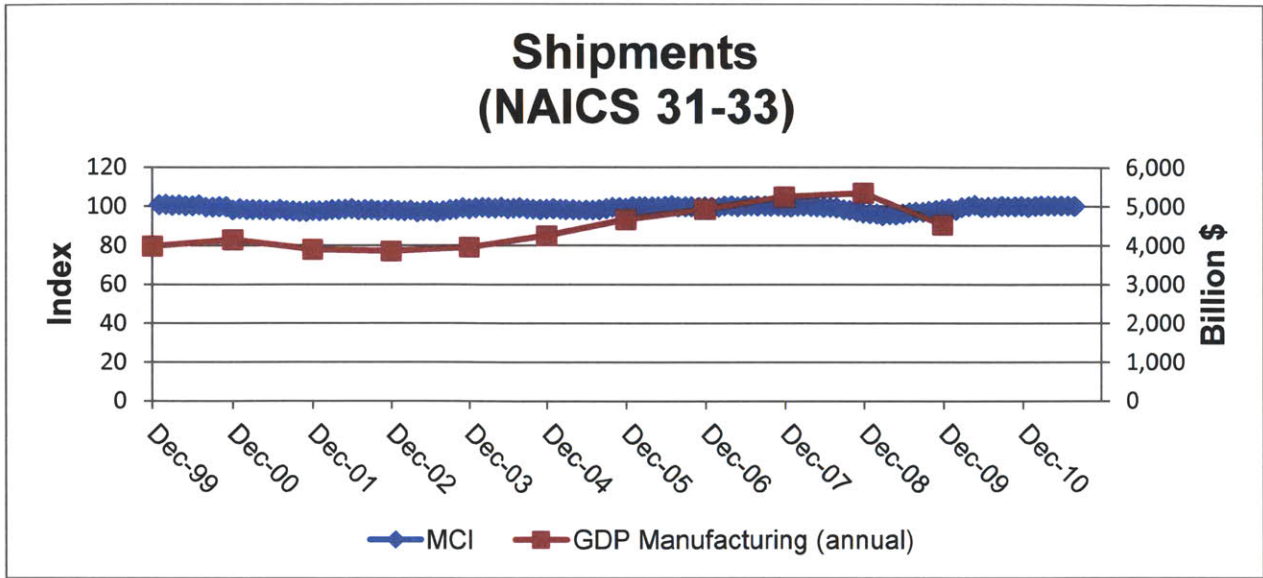


Figure B.5 – Total Shipments with a weight 1
(all other time series with a weight 0).

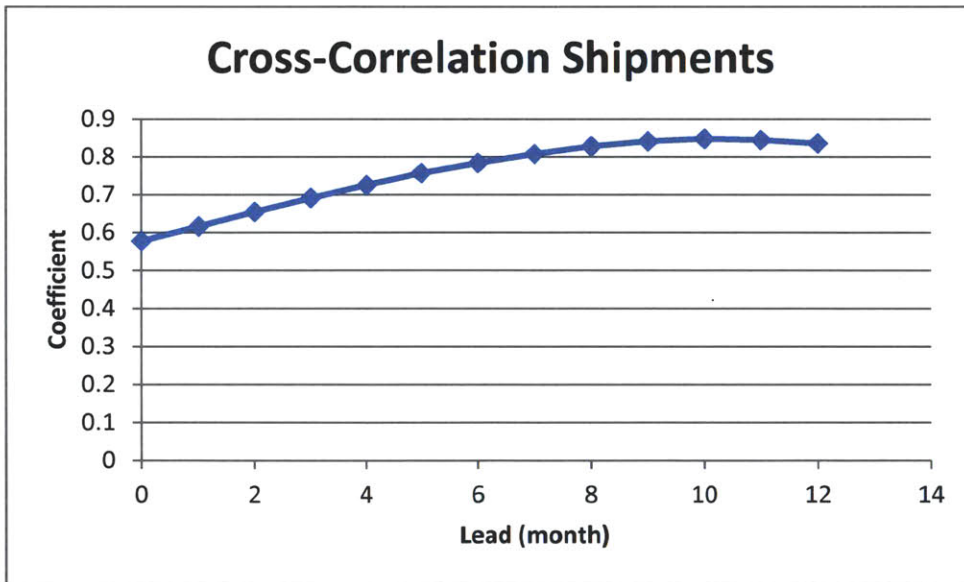


Figure B.6 – Cross-Correlation of Shipments and annual GDP.

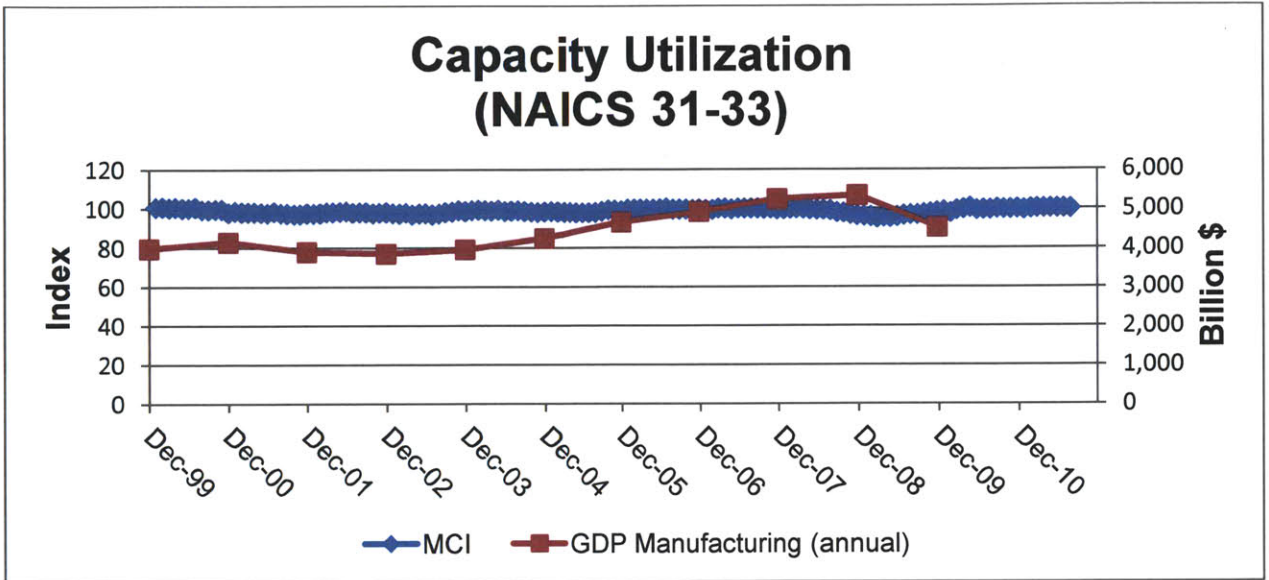


Figure B.7 – Capacity Utilization with a weight 1
(all other time series with a weight 0).

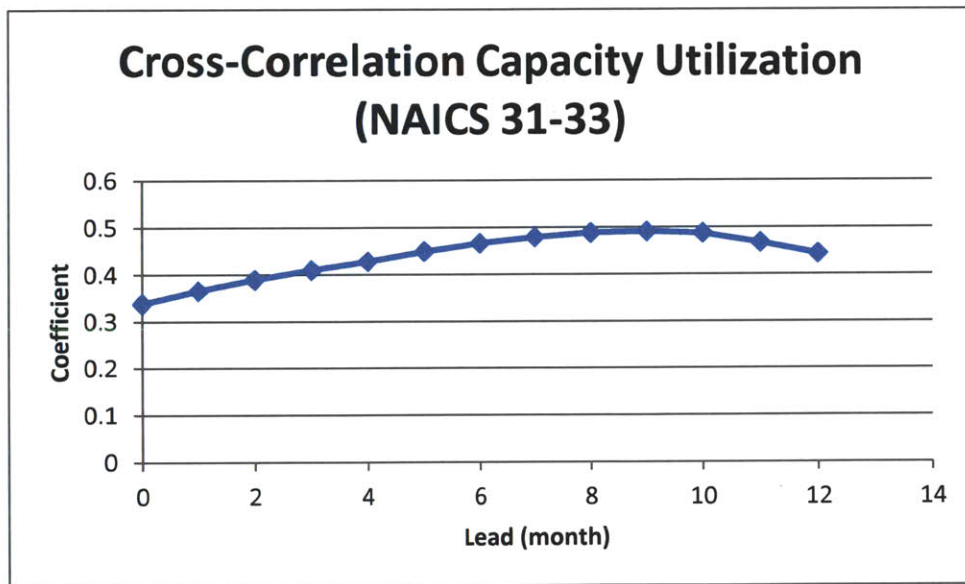


Figure B.8 – Cross-Correlation of Capacity Utilization and annual GDP.

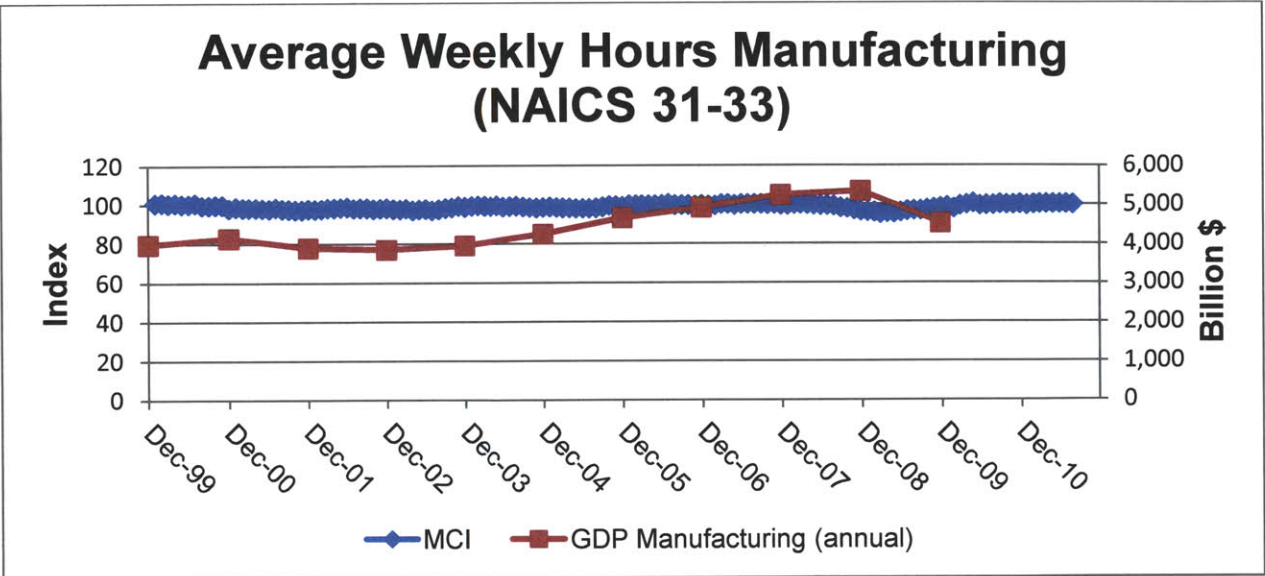


Figure B.9 – Average Weekly Hours Manufacturing with a weight 1 (all other time series with a weight 0).

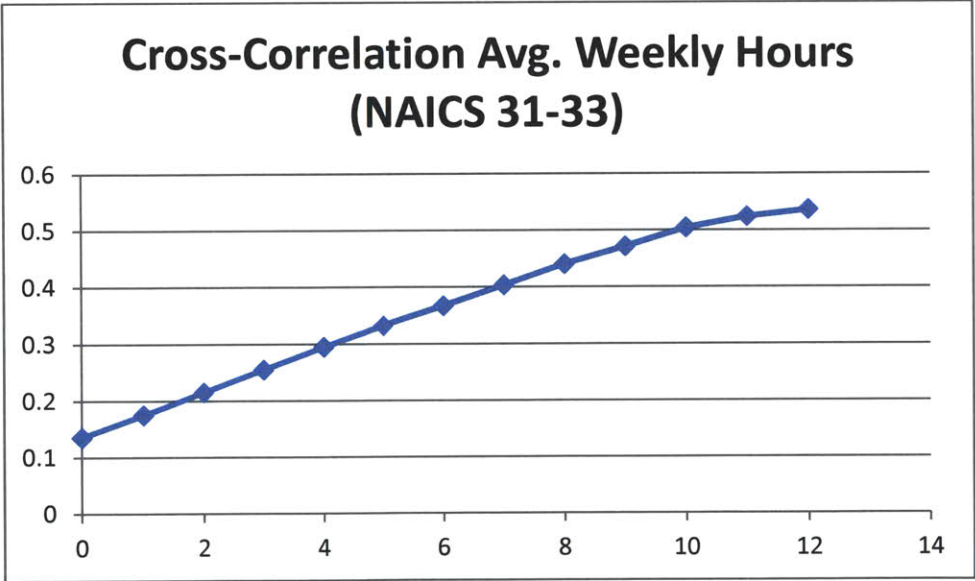


Figure B.10 – Cross-Correlation of Average Weekly Hours Manufacturing and annual GDP.

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Appendix “C” US Manufacturing Activity

NAICS 31-33

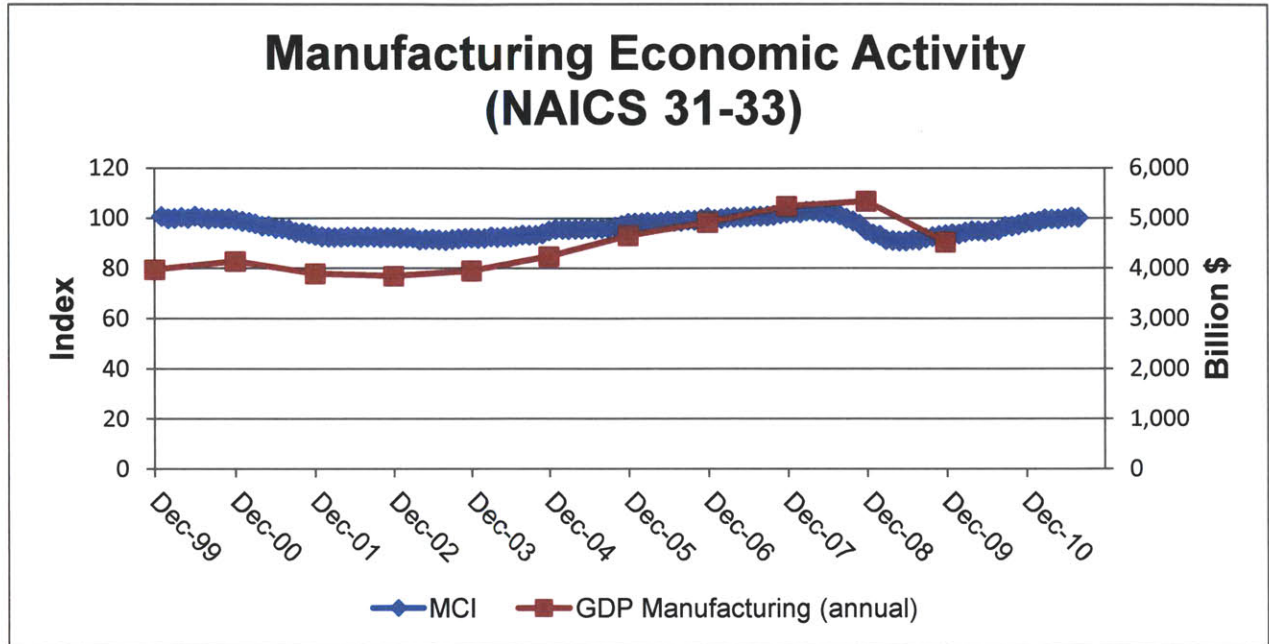


Figure C.1 – MCI and annual GDP Manufacturing including all industries gathered in the NAICS 31-33 classification.

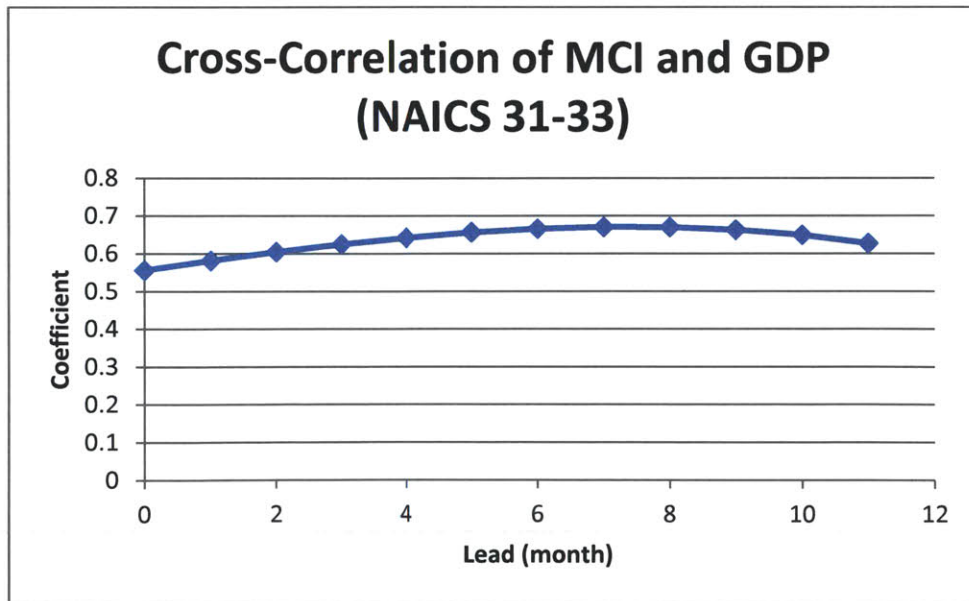


Figure C.2 – Cross-Correlation of MCI and annual GDP Manufacturing including all industries gathered in the NAICS 31-33 classification

Table C.1
MCI computations for Manufacturing (NAICS 31-33)

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W						
1	Dollar Adjusted																	99.34 ⁴							
2	Month	CU	Avg.WH	Inv	NO	Ship	Inv	NO	Ship	CU	Avg.WH												St	Index	Rebased
3	Dec-99	71	41.4	463529	344241	344306	1.31	0.40	0.62	0.69	2.12	C(I,t)													
4	Jan-00	71	41.5	462334.995	349472.6	351284.1	-0.26	1.51	2.01	0.00	0.24	-0.07	0.12	0.24	0.00	0.10	0.39	100.00	100.66						
5	Feb-00	71	41.6				0.00	-6.00	-4.11	0.00	0.24	0.00	-0.47	-0.49	0.00	0.10	-0.86	99.14	99.80						
6	Mar-00	71	41.4	=200*(H4-H3)/(H4+H3)			-0.60	2.97	1.92	0.00	-0.48	-0.15	0.23	0.23	0.00	-0.20	0.11	99.25	99.91						
7	Apr-00	71	41.5	462116.1417	342111.2	348929.1	0.56	0.91	1.52	0.00	0.24	0.14	0.07	0.18	0.00	0.10	0.49	99.74	100.40						
8	May-00	71	41.3	461934.12	334000.5	344176.0	0.00	1.13	-1.37	0.00	-0.48	-0.01	-0.16	-0.16	0.00	-0.20	-0.54	99.21	99.86						
9	Jun-00	71	41.3	464074.4368	333387.1	339414.5	-1.48	0.59	1.05	0.00	0.00	0.12	0.72	0.13	0.00	0.00	0.97	100.17	100.83						
10	Jul-00	71	41.5	465028.348	333387.1	339414.5	0.14	-1.22	0.00	0.00	0.48	0.05	-0.71	-0.15	0.00	0.20	-0.60	99.57	100.23						
11	Aug-00	71	41.0	466882.6979	333871	339414.5	0.40	-0.53	-1.22	0.00	-1.21	0.10	-0.04	-0.15	0.00	-0.50	-0.59	98.99	99.64						
12	Sep-00	71	41.0	465036.965	344212.1	333387.1	0.00	0.00	0.00	0.00	0.00	-0.10	0.24	0.23	0.00	0.00	0.37	99.35	100.01						
13	Oct-00	71	41.1	466659.8639	329817.3	333387.1	0.00	0.24	0.09	-0.33	-0.23	0.00	0.10	0.10	0.10	-0.37	98.98	99.64							
14	Nov-00	71	41.1	469351.1673	334010.7	337063.2	0.58	1.26	-0.70	0.00	0.00	0.15	0.10	-0.08	0.00	0.00	0.16	99.14	99.79						
15	Dec-00	71	40.4	469038.0117	334091.6	341562.4	-0.07	0.02	1.33	0.00	-1.72	-0.02	0.00	0.16	0.00	-0.71	-0.57	98.58	99.23						
16	Jan-01	71	40.7	467712.4879	320706.7	331533.4	-0.28	-4.09	-2.98	0.00	0.74	-0.07	-0.32	-0.36	0.00	0.31	-0.44	98.15	98.80						
17	Feb-01	71	40.5	460854.3877	322614.3	333851.5	-1.48	0.59	0.00	0.00	-0.38	0.05	0.08	0.00	0.20	-0.45	97.71	98.35							
18	Mar-01	71	40.5	455021.1742	321591.9	327679.5	-1.27	-0.32	0.00	0.00	-0.32	-0.02	-0.22	0.00	0.00	-0.57	97.15	97.79							
19	Apr-01	71	40.5	451084.453	308398.3	317203.5	-0.87	-4.19	-3.25	0.00	0.00	-0.22	-0.32	-0.39	0.00	0.00	-0.94	96.24	96.88						
20	May-01	71	40.4	445171.1281	316088	323911.1	-1.32	2.46	2.09	0.00	-0.25	-0.34	0.19	0.25	0.00	-0.10	0.00	96.25	96.88						
21	Jun-01	71	40.3	438891.2214	308647.9	315813	-1.42	-2.38	-2.53	0.00	-0.25	0.00	0.00	0.00	0.00	-0.10	-0.95	95.33	95.96						
22	Jul-01	71	40.6	434824.8804	304503.3	313845.9	-0.93	-1.35	-0.62	0.00	0.74	=SUM(P4:T4)	0.00	0.31	-0.11	95.23	95.86								
23	Aug-01	71	40.3	430199.8088	307684.5	316256.2	-1.07	1.04	0.77	0.00	-0.74	0.00	0.00	0.00	-0.31	-0.41	94.84	95.47							
24	Sep-01	71	40.2	424298.3794	296558.6	306501.4	-1.38	-3.68	-3.13	0.00	-0.25	-0.35	-0.29	-0.38	0.00	-0.10	-1.12	93.79	94.41						
25	Oct-01	71	40.1	420371.5377	303904.5	306120.3	-0.93	2.45	-0.12	0.00	-0.25	-0.24	0.00	0.00	0.00	0.00	0.00	93.64	94.25						
26	Nov-01	71	40.1	415831.4176	295870.7	306061.3	-1.09	-2.68	-0.02	0.00	0.00	-0.28	0.00	0.00	0.00	0.00	0.00	93.18	93.80						
27	Dec-01	64	40.3	411747.8345	300518.8	310193.5	-0.99	1.56	1.34	-7.00	0.50	-0.25	0.12	0.16	-0.94	0.21	-0.71	92.53	93.14						
28	Jan-02	64	40.2	408047.025	295097.9	307382	-0.90	-1.82	-0.91	0.00	-0.25	-0.23	-0.14	-0.11	0.00	-0.10	-0.58	91.99	92.60						
29	Feb-02	64	40.3	402158.8517	302084.2	306112	-1.45	2.34	-0.41	0.00	0.25	-0.37	0.18	-0.05	0.00	0.10	-0.14	91.86	92.47						
30	Mar-02	64	40.5	397486.2036	299667.9	306111.3	-1.17	-0.80	0.00	0.00	0.50	-0.30	-0.10	0.00	0.00	0.00	0.00	92.33	92.93						
31	Apr-02	64	40.5	395444.1288	301465	309373.1	-0.52	0.60	1.06	0.00	0.00	-0.13	0.00	0.00	0.00	0.00	0.00	92.37	92.93						
32	May-02	64	40.6	394338.0682	304405.3	311280.8	-0.28	0.97	0.61	0.00	0.25	-0.07	0.08	0.07	0.00	0.10	0.18	91.92	92.53						
33	Jun-02	64	40.7	394839.0152	298168.6	310539.8	0.13	-2.07	-0.24	0.00	0.25	0.03	-0.16	-0.03	0.00	0.10	-0.06	91.87	92.48						
34	Jul-02	64	40.4	394928.0984	304617.8	308243.1	0.02	2.14	-0.74	0.00	-0.74	0.01	0.17	-0.09	0.00	-0.31	-0.22	91.67	92.28						
35	Aug-02	64	40.5	394825.4717	308621.7	311132.1	-0.03	1.31	0.93	0.00	0.25	-0.01	0.10	0.11	0.00	0.10	0.31	91.95	92.56						
36	Sep-02	64	40.5	395346.19	301595.5	311912.5	0.13	-2.30	0.25	0.00	0.00	0.03	-0.18	0.03	0.00	0.00	0.00	92.45	93.05						
37	Oct-02	64	40.3	395206.7669	301033.8	310222.7	-0.04	-0.19	-0.54	0.00	-0.50	-0.01	-0.01	-0.07	0.00	0.00	0.00	92.18	92.78						
38	Nov-02	64	40.4	394979.3039	302443.1	310478.8	-0.06	0.47	0.08	0.00	0.25	-0.01	0.04	0.01	0.00	0.10	0.13	91.70	92.31						
39	Dec-02	63	40.5	399012.2642	298657.5	306318.9	1.02	-1.26	-1.35	-1.00	0.25	0.26	-0.10	-0.16	-0.13	0.10	-0.03	91.67	92.28						
40	Jan-03	63	40.3	395570.892	302425.4	309199.1	-0.87	1.25	0.94	0.00	-0.50	0.22	0.10	0.11	0.00	-0.20	-0.22	91.47	92.08						
41	Feb-03	63	40.2	396254.4268	306375.6	310093.2	0.17	1.30	0.29	0.00	-0.25	0.04	0.10	0.03	0.00	-0.10	0.08	91.54	92.15						
42	Mar-03	63	40.4	391861.9092	307590.4	312327.2	-1.11	0.40	0.72	0.00	0.50	-0.28	0.03	0.09	0.00	0.21	0.04	91.58	92.18						
43	Apr-03	63	40.0	391948.0037	298107.7	302269.3	0.02	-3.13	-3.27	0.00	-1.00	0.01	-0.24	-0.39	0.00	-0.41	-1.04	90.63	91.23						
44	May-03	63	40.2	391012.093	301062.3	305520	-0.24	0.99	1.07	0.00	0.50	-0.06	0.08	0.13	0.00	0.21	0.35	90.95	91.55						
45	Jun-03	63	40.3	387855.0186	304778.8	309092.9	-0.81	1.23	1.16	0.00	0.25	-0.21	0.10	0.14	0.00	0.10	0.13	91.07	91.67						
46	Jul-03	63	40.0	384626.7409	307671.3	312527.4	-0.84	0.94	1.11	0.00	-0.75	-0.21	0.07	0.13	0.00	-0.31	-0.32	90.78	91.38						
47	Aug-03	63	40.2	381414.9723	305211.6	307523.1	-0.84	-0.80	-1.61	0.00	0.50	-0.21	-0.06	-0.19	0.00	0.21	-0.26	90.54	91.14						
48	Sep-03	63	40.5	378318.894	309202.8	313641.5	-0.82	1.30	1.97	0.00	0.74	-0.21	0.10	0.24	0.00	0.31	0.44	90.94	91.54						
49	Oct-03	63	40.6	378425.2768	315238	314110.7	0.03	1.93	1.15	0.00	0.25	0.01	0.15	0.02	0.00	0.10	0.28	91.19	91.79						
50	Nov-03	63	40.9	378417.5926	313372.2	314928.7	0.00	-0.59	0.26	0.00	0.74	0.00	-0.05	0.03	0.00	0.30	0.29	91.45	92.06						
51	Dec-03	64	40.7	378731.9109	315496.3	316277.4	0.08	0.68	0.43	1.00	-0.49	0.02	0.05	0.05	0.13	-0.20	0.06	91.51	92.11						
52	Jan-04	64	40.9	376058.9862	309700.5	312871.9	-0.71	-1.85	-1.08	0.00	0.49	-0.18	-0.14	-0.13	0.00	0.20	-0.25	91.28	91.88						
53	Feb-04	64	41.0	376628.7809	309333.6	311494	0.15	-0.12	-0.44	0.00	0.24	0.04	-0.01	-0.05	0.00	0.10	0.08	91.35	91.95						
54	Mar-04	64	40.9	376585.2325	324274.4	323250.7	-0.01	4.72	3.70	0.00	-0.24	0.00	0.37	0.44	0.00	-0.10	0.71	91.99	92.60						
55	Apr-04	64	40.8	377332.7273	317470	319027.3	0.20	-2.12	-1.32	0.00	-0.24	0.05	-0.16	-0.16	0.00	-0.10	-0.37	91.65	92.26						
56	May-04	64	41.0	378514.4665	317179	319224.2	0.31	-0.09	0.06	0.00	0.49	0.08	-0.01	0.01	0.00	0.20	0.28	91.91	92.52						
57	Jun-04	64	40.7	381601.9856	318597.5	321393.5	0.81	0.45	0.68	0.00	-0.73	0.21	0.03	0.08	0.00	-0.30	0.02	91.93	92.54						
58	Jul-04	64	40.8	385010.8401	323598	321374																			

Table C.1 - Continued

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	71	41.1	416697.0486	357823.8	361466.1	0.57	-2.90	-0.56	0.00	0.73	0.15	-0.22	-0.07	0.00	0.30	0.16	97.51	98.16
77	Feb-06	71	41.1	417029.4627	360543.3	359149	0.08	0.76	-0.64	0.00	0.00	0.02	0.06	-0.08	0.00	0.00	0.00	97.51	98.16
78	Mar-06	71	41.1	419464.6552	370540.5	361268.1	0.58	2.73	0.59	0.00	0.00	0.15	0.21	0.07	0.00	0.00	0.43	97.93	98.58
79	Apr-06	71	41.1	420918.734	357976.9	352973.5	0.35	-3.45	-2.32	0.00	0.00	0.09	-0.27	-0.28	0.00	0.00	-0.46	97.49	98.13
80	May-06	71	41.1	422798.2979	359431.5	360287.7	0.45	0.41	2.05	0.00	0.00	0.11	0.03	0.25	0.00	0.00	0.39	97.87	98.52
81	Jun-06	71	41.2	427106.2022	364189.5	359423.1	1.01	1.32	-0.24	0.00	0.24	0.26	0.10	-0.03	0.00	0.10	0.43	98.29	98.94
82	Jul-06	71	41.4	429749.3649	355480.9	352232	0.62	-2.42	-2.02	0.00	0.48	0.16	-0.19	-0.24	0.00	0.20	-0.07	98.22	98.87
83	Aug-06	71	41.1	432305.1564	354311.9	358304.3	0.59	-0.33	1.71	0.00	-0.73	0.15	-0.03	0.21	0.00	-0.30	0.03	98.25	98.90
84	Sep-06	71	41.1	438201.1885	368717.3	350513.6	1.35	3.98	-2.20	0.00	0.00	0.34	0.31	-0.26	0.00	0.00	0.39	98.63	99.29
85	Oct-06	71	41.1	443631.0845	353195.6	350579	1.23	-4.30	0.02	0.00	0.00	0.31	-0.33	0.00	0.00	0.00	-0.02	98.62	99.27
86	Nov-06	71	41.0	446236.9547	364399.5	355536.4	0.59	3.12	1.40	0.00	-0.24	0.15	0.24	0.17	0.00	-0.10	0.46	99.07	99.72
87	Dec-06	70	41.1	446746.1538	374825.6	367027.4	0.11	2.82	3.18	-1.00	0.24	0.03	0.22	0.38	-0.13	0.10	0.60	99.66	100.32
88	Jan-07	70	41.0	447383.4484	357836.9	357594.8	0.14	-4.64	-2.60	0.00	-0.24	0.04	-0.36	-0.31	0.00	-0.10	-0.74	98.93	99.58
89	Feb-07	70	41.0	447608.1	363915.8	362577.1	0.05	1.68	1.38	0.00	0.00	0.01	0.13	0.17	0.00	0.00	0.31	99.24	99.89
90	Mar-07	70	41.3	445360.0531	371355.5	366018	-0.50	2.02	0.94	0.00	0.73	-0.13	0.16	0.11	0.00	0.30	0.44	99.68	100.34
91	Apr-07	70	41.3	446044.8248	374911	366260.3	0.15	0.95	0.07	0.00	0.00	0.04	0.07	0.01	0.00	0.00	0.12	99.80	100.46
92	May-07	70	41.1	447707.2457	370502.6	369811.8	0.37	-1.18	0.96	0.00	-0.49	0.09	-0.09	0.12	0.00	-0.20	-0.08	99.72	100.38
93	Jun-07	70	41.3	449492.2741	371706	367625.1	0.40	0.32	-0.59	0.00	0.49	0.10	0.03	-0.07	0.00	0.20	0.26	99.97	100.63
94	Jul-07	70	41.3	449810.1797	379362.3	369848.9	0.07	2.04	0.60	0.00	0.00	0.02	0.16	0.07	0.00	0.00	0.25	100.22	100.88
95	Aug-07	70	41.3	450735.7342	372861	370021.1	0.21	-1.73	0.05	0.00	0.00	0.05	-0.13	0.01	0.00	0.00	-0.08	100.15	100.81
96	Sep-07	70	41.3	454486.9776	371497.4	369847.8	0.83	-0.37	-0.05	0.00	0.00	0.21	-0.03	-0.01	0.00	0.00	0.18	100.32	100.99
97	Oct-07	70	41.2	456019.3572	377245.3	374122.5	0.34	1.54	1.15	0.00	-0.24	0.09	0.12	0.14	0.00	-0.10	0.24	100.57	101.23
98	Nov-07	70	41.3	457648.5212	385528.6	381078.5	0.36	2.17	1.84	0.00	0.24	0.09	0.17	0.22	0.00	0.10	0.58	101.15	101.82
99	Dec-07	70	41.1	463381.0132	396483	380835.2	1.24	2.80	-0.06	0.00	-0.49	0.32	0.22	-0.01	0.00	-0.20	0.33	101.48	102.15
100	Jan-08	70	41.1	467791.9371	386645.3	383629.7	0.95	-2.51	0.73	0.00	0.00	0.24	-0.19	0.09	0.00	0.00	0.13	101.62	102.29
101	Feb-08	70	41.2	468132.5153	382085.9	377515.7	0.07	-1.19	-1.61	0.00	0.24	0.02	-0.09	-0.19	0.00	0.10	-0.17	101.45	102.12
102	Mar-08	76	41.3	467283.4751	380155.4	374128.9	-0.18	-0.51	-0.90	5.70	0.24	-0.05	-0.04	-0.11	0.77	0.10	0.67	102.14	102.81
103	Apr-08	76	41.2	464778.9165	383778.9	382671.9	-0.54	0.95	2.26	0.00	-0.24	-0.14	0.07	0.27	0.00	-0.10	0.11	102.25	102.92
104	May-08	76	41.1	461443.1458	382326.6	379821.2	-0.72	-0.38	-0.75	0.00	-0.24	-0.18	-0.03	-0.09	0.00	-0.10	-0.40	101.83	102.51
105	Jun-08	73	41.0	462593.5221	383940.7	381201.4	0.25	0.42	0.36	-2.70	-0.24	0.06	0.03	0.04	-0.36	-0.10	-0.32	101.50	102.18
106	Jul-08	73	41.0	461551.553	381385.6	382376.8	-0.23	-0.67	0.31	0.00	0.00	-0.06	-0.05	0.04	0.00	0.00	-0.07	101.43	102.10
107	Aug-08	73	40.9	463691.0122	365774.8	368925.9	0.46	-4.18	-3.58	0.00	-0.24	0.12	-0.32	-0.43	0.00	-0.10	-0.74	100.69	101.35
108	Sep-08	72	40.5	459076.5778	354763.7	358629.3	-1.00	-3.06	-2.83	-1.30	-0.98	-0.25	-0.24	-0.34	-0.17	-0.41	-1.41	99.27	99.93
109	Oct-08	72	40.4	458300.3984	333525.1	346004	-0.17	-6.17	-3.58	0.00	-0.25	-0.04	-0.48	-0.43	0.00	-0.10	-1.05	98.23	98.88
110	Nov-08	72	40.1	461087.9035	314866.2	325038.2	0.61	-5.76	-6.25	0.00	-0.75	0.15	-0.45	-0.75	0.00	-0.31	-1.35	96.92	97.56
111	Dec-08	64	39.8	452623.8719	301373.8	315068.7	-1.85	-4.38	-3.11	-7.80	-0.75	-0.47	-0.34	-0.37	-1.05	-0.31	-2.54	94.48	95.10
112	Jan-09	64	39.7	446902.0025	281537.3	302588.1	-1.27	-6.81	-4.04	0.00	-0.25	-0.32	-0.53	-0.49	0.00	-0.10	-1.44	93.13	93.74
113	Feb-09	64	39.8	438559.3566	282511.9	302504.1	-1.88	0.35	-0.03	0.00	-0.25	-0.48	0.03	0.00	0.00	-0.10	-0.56	92.61	93.22
114	Mar-09	59	39.3	432783.4011	273505.5	293616.6	-1.33	-3.24	-2.98	-5.40	-0.76	-0.34	-0.25	-0.36	-0.73	-0.31	-1.99	90.79	91.39
115	Apr-09	59	39.5	427029.8164	273039.3	290487.8	-1.34	-0.17	-1.07	0.00	0.51	-0.34	0.01	-0.13	0.00	0.21	-0.27	90.54	91.14
116	May-09	59	39.4	422730.845	278981.1	288435.3	-1.01	2.15	-0.71	0.00	-0.25	-0.26	0.17	-0.09	0.00	-0.10	-0.28	90.28	90.88
117	Jun-09	60	39.6	414927.903	278969.4	291388.5	-1.86	0.00	1.02	1.10	0.51	-0.47	0.00	0.12	0.15	0.21	0.00	90.29	90.89
118	Jul-09	60	39.9	412726.3804	287857.7	295557.3	-0.53	3.14	1.42	0.00	0.75	-0.14	0.24	0.17	0.00	0.31	0.59	90.82	91.42
119	Aug-09	60	40.0	409099.663	285583.4	295803.2	-0.88	-0.79	0.08	0.00	0.25	-0.22	-0.06	0.01	0.00	0.10	-0.17	90.67	91.27
120	Sep-09	66	40.0	406383.0128	290210.6	300593.4	-0.67	1.61	1.61	5.90	0.00	-0.17	0.12	0.19	0.79	0.00	0.94	91.52	92.13
121	Oct-09	66	40.2	408980.6156	294522	303489	0.64	1.47	0.96	0.00	0.50	0.16	0.11	0.12	0.00	0.21	0.60	92.07	92.68
122	Nov-09	66	40.4	410790.3003	295531.6	307637	0.44	0.34	1.36	0.00	0.50	0.11	0.03	0.16	0.00	0.21	0.51	92.54	93.15
123	Dec-09	64	40.6	411813.4956	299951.8	312792.3	0.25	1.48	1.66	-1.40	0.49	0.06	0.12	0.20	-0.19	0.20	0.39	92.91	93.52
124	Jan-10	64	40.8	410994.6639	308481.8	312961.1	-0.20	2.80	0.05	0.00	0.49	-0.05	0.22	0.01	0.00	0.20	0.38	93.26	93.87
125	Feb-10	64	40.4	414975.2347	310550.3	311731.3	0.96	0.67	-0.39	0.00	-0.99	0.25	0.05	-0.05	0.00	-0.41	-0.16	93.11	93.73
126	Mar-10	64	41.0	414544.9621	312069	316521.4	-0.10	0.49	1.52	0.00	1.47	-0.03	0.04	0.18	0.00	0.61	0.80	93.86	94.48
127	Apr-10	64	41.2	416263.7188	316985	318848.4	0.41	1.56	0.73	0.00	0.49	0.11	0.12	0.09	0.00	0.20	0.52	94.35	94.97
128	May-10	64	41.5	415892.3817	312434.9	315398.8	-0.09	-1.45	-1.09	0.00	0.73	-0.02	-0.11	-0.13	0.00	0.30	0.03	94.38	95.00
129	Jun-10	64	41.0	419577.5915	310577.7	313629.2	0.88	-0.60	-0.56	0.00	-1.21	0.22	-0.05	-0.07	0.00	-0.50	-0.39	94.01	94.63
130	Jul-10	64	41.1	422091.6157	316897.6	320510	0.60	2.01	2.17	0.00	0.24	0.15	0.16	0.26	0.00	0.10	0.67	94.64	95.27
131	Aug-10	64	41.1	423426.2397	314392.5	319521.5	0.32	-0.79	-0.31	0.00	0.00	0.08	-0.06	-0.04	0.00	0.00	-0.02	94.63	95.25
132	Sep-10	70	41.3	427689.9715	326010.9	322498.4	1.00	3.63	0.93	5.50	0.49	0.26	0.28	0.11	0.74	0.20	1.59	96.14	96.78
133	Oct-10	70	41.2	432150.3132	322292.2	323933.7	1.04	-1.15	0.44	0.00	-0.24	0.26	-0.09	0.05	0.00	-0.10	0.13	96.26	96.90
134	Nov-10	70	41.2	436509.7252	326587.7	327568.6	1.00	1.32	1.12	0.00	0.00	0.26	0.10	0.13	0.00	0.00	0.49	96.74	97.38
135	Dec-10	70	41.3	441753.8106	330080.5	335538.1	1.19	1.06	2.40	0.00	0.24	0.30	0.08	0.29	0.00	0.10	0.78	97.49	98.14
136	Jan-11	70	41.1	445676.6369	339768.6	339926.3	0.88	2.89	1.30	0.00	-0.49	0.23	0.22	0.16	0.00	-0.20	0.40	97.89	98.53
137	Feb-11	70	41.3	448762.8405	3371														

NAICS 311- Food Products

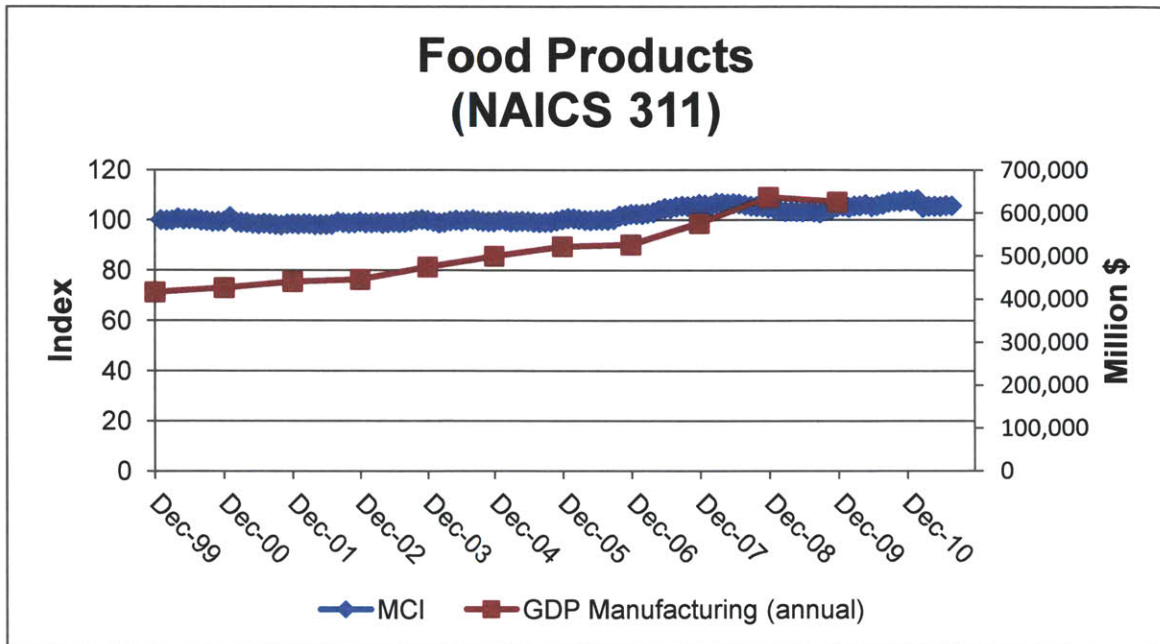


Figure C.3 – MCI and annual GDP Food Products including all industries gathered in the NAICS 311 classification.

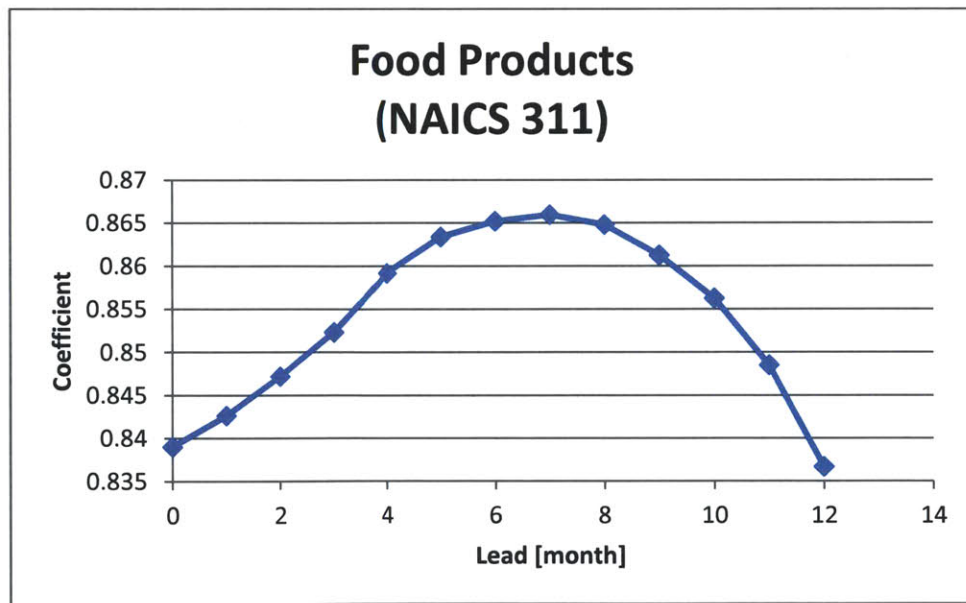


Figure C.4 – Cross-Correlation of MCI and annual GDP Food Products including all industries gathered in the NAICS 311 classification.

Table C.2
MCI computations for Food Products (NAICS 311)

1	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
2	Month	CU	Avg.WH	Dollar Adjusted		Inv	Ship	CU	Avg.WH	99.91						
3				Inventory	Ship	0.24	0.18	0.04	0.54							
4	Dec-99	73.0	40.4	30459	35624	0.97	0.75	0.16	2.20	C(I,t)						
5	Jan-00	73.0	40.5	30704.89	35423.73	0.80	-0.56	0.00	0.25	0.19	-0.10	0.00	0.13	0.22	100.00	100.09
6	Feb-00	73.0	40.6	30849.36	34561.94	0.47	-2.46	0.00	0.25	0.11	-0.45	0.00	0.13	-0.21	99.79	99.88
7	Mar-00	73.0	40.4	30975.39	35095.47	0.41	1.53	0.00	-0.49	0.10	0.28	0.00	-0.27	0.11	99.90	99.99
8	Apr-00	73.0	40.6	30947.83	36161.42	-0.09	2.99	0.00	0.49	-0.02	0.55	0.00	0.27	0.80	100.70	100.79
9	May-00	73.0	40.4	31092.43	35559.49	0.47	-1.68	0.00	-0.49	0.11	-0.31	0.00	-0.27	-0.46	100.24	100.32
10	Jun-00	73.0	40.4	30987.27	35845.25	-0.34	0.80	0.00	0.00	-0.08	0.15	0.00	0.00	0.07	100.30	100.39
11	Jul-00	73.0	40.5	30938.42	35760.51	-0.16	-0.24	0.00	0.25	-0.04	-0.04	0.00	0.13	0.05	100.35	100.44
12	Aug-00	73.0	40.3	30920.82	35342.13	-0.06	-1.18	0.00	-0.50	-0.01	-0.22	0.00	-0.27	-0.50	99.86	99.94
13	Sep-00	73.0	40.2	30623.54	35610.89	-0.97	0.76	0.00	-0.25	-0.23	0.14	0.00	-0.13	-0.22	99.63	99.72
14	Oct-00	73.0	40.2	30396.5	35292.52	-0.74	-0.90	0.00	0.00	-0.18	-0.17	0.00	0.00	-0.34	99.29	99.38
15	Nov-00	73.0	40.2	30555.45	35328.79	0.52	0.10	0.00	0.00	0.12	0.02	0.00	0.00	0.14	99.44	99.52
16	Dec-00	73.0	39.8	30925.93	35828.46	1.21	1.40	0.00	-1.00	0.29	0.26	0.00	-0.54	0.01	99.44	99.53
17	Jan-01	73.0	40.1	31820.91	37204.26	2.85	3.77	0.00	0.75	0.68	0.69	0.00	0.40	1.78	101.22	101.31
18	Feb-01	73.0	40.0	30219.86	35916.1	-5.16	-3.52	0.00	-0.25	-1.23	-0.65	0.00	-0.13	-2.01	99.21	99.30
19	Mar-01	73.0	39.9	30160.73	35904.72	-0.20	-0.03	0.00	-0.25	-0.05	-0.01	0.00	-0.13	-0.19	99.03	99.11
20	Apr-01	73.0	39.9	30035.51	35880.04	-0.42	-0.07	0.00	0.00	-0.10	-0.01	0.00	0.00	-0.11	98.91	99.00
21	May-01	73.0	39.8	29929.25	35676.86	-0.35	-0.57	0.00	-0.25	-0.08	-0.10	0.00	-0.14	-0.32	98.60	98.68
22	Jun-01	73.0	39.8	29571.56	35728.05	-1.20	0.14	0.00	0.00	-0.29	0.03	0.00	0.00	-0.26	98.34	98.43
23	Jul-01	73.0	40.0	29627.75	35764.59	0.19	0.10	0.00	0.50	0.05	0.02	0.00	0.27	0.33	98.67	98.75
24	Aug-01	73.0	39.8	29276.29	36352.77	-1.19	1.63	0.00	-0.50	-0.28	0.30	0.00	-0.27	-0.25	98.42	98.50
25	Sep-01	73.0	39.9	29110.58	35877.98	-0.57	-1.31	0.00	0.25	-0.13	-0.24	0.00	0.14	-0.24	98.18	98.27
26	Oct-01	73.0	39.8	28858.64	35944.6	-0.87	0.19	0.00	-0.25	-0.21	0.03	0.00	-0.14	-0.31	97.88	97.97
27	Nov-01	73.0	39.8	29222.22	36399.43	1.25	1.26	0.00	0.00	0.30	0.23	0.00	0.00	0.53	98.40	98.48
28	Dec-01	72.0	39.9	29112.61	36549.57	-0.38	0.41	-1.00	0.25	-0.09	0.08	-0.04	0.14	0.08	98.48	98.56
29	Jan-02	72.0	39.7	29315.74	36404.99	0.70	-0.40	0.00	-0.50	0.17	-0.07	0.00	-0.27	-0.18	98.30	98.39
30	Feb-02	72.0	39.9	29123.44	36554.07	-0.66	0.41	0.00	0.50	-0.16	0.08	0.00	0.27	0.19	98.49	98.58
31	Mar-02	72.0	40.1	28714.56	36475.74	-1.41	-0.21	0.00	0.50	-0.34	-0.04	0.00	0.27	-0.11	98.39	98.47
32	Apr-02	72.0	40.0	29036.93	35500	1.12	-2.71	0.00	-0.25	0.27	-0.50	0.00	-0.13	-0.37	98.02	98.11
33	May-02	72.0	40.2	28893.94	35511.36	-0.49	0.03	0.00	0.50	-0.12	0.01	0.00	0.27	0.16	98.18	98.26
34	Jun-02	72.0	40.2	29260.42	34882.58	1.26	-1.79	0.00	0.00	0.30	-0.33	0.00	0.00	-0.03	98.15	98.23
35	Jul-02	72.0	40.1	29438.03	34869.44	0.61	-0.04	0.00	-0.25	0.14	-0.01	0.00	-0.13	0.00	98.15	98.24
36	Aug-02	72.0	40.2	29593.4	36591.51	0.53	4.82	0.00	0.25	0.13	0.89	0.00	0.13	1.15	99.28	99.37
37	Sep-02	72.0	40.0	29492.94	36635.94	-0.34	0.12	0.00	-0.50	-0.08	0.02	0.00	-0.27	-0.33	98.96	99.05
38	Oct-02	72.0	39.9	29440.79	36486.84	-0.18	-0.41	0.00	-0.25	-0.04	-0.08	0.00	-0.13	-0.25	98.71	98.80
39	Nov-02	72.0	39.9	29511.76	36632.17	0.24	0.40	0.00	0.00	0.06	0.07	0.00	0.00	0.13	98.84	98.93
40	Dec-02	73.0	40.0	29537.74	37219.81	0.09	1.59	1.00	0.25	0.02	0.29	0.04	0.13	0.49	99.32	99.41
41	Jan-03	73.0	39.8	29523	36766.2	-0.05	-1.23	0.00	-0.50	-0.01	-0.23	0.00	-0.27	-0.51	98.82	98.91
42	Feb-03	73.0	39.8	29581.55	36627.21	0.20	-0.38	0.00	0.00	0.05	-0.07	0.00	0.00	-0.02	98.80	98.88
43	Mar-03	73.0	40.0	29573.68	36697.87	-0.03	0.19	0.00	0.50	-0.01	0.04	0.00	0.27	0.30	99.09	99.18
44	Apr-03	73.0	39.6	29359.33	37250.7	-0.73	1.50	0.00	-1.01	-0.17	0.28	0.00	-0.54	-0.44	98.66	98.75
45	May-03	73.0	39.6	29680.93	37207.44	1.09	-0.12	0.00	0.00	0.26	-0.02	0.00	0.00	0.24	98.90	98.98
46	Jun-03	73.0	39.6	29447.03	37898.7	-0.79	1.84	0.00	0.00	-0.19	0.34	0.00	0.00	0.15	99.04	99.13
47	Jul-03	73.0	39.5	29308.26	38147.63	-0.47	0.65	0.00	-0.25	-0.11	0.12	0.00	-0.14	-0.13	98.92	99.00
48	Aug-03	73.0	39.6	29197.78	38403.88	-0.38	0.67	0.00	0.25	-0.09	0.12	0.00	0.14	0.17	99.09	99.17
49	Sep-03	73.0	39.8	29122.58	38746.54	-0.26	0.89	0.00	0.50	-0.06	0.16	0.00	0.27	0.37	99.46	99.54
50	Oct-03	73.0	40.0	29418.82	38626.38	1.01	-0.31	0.00	0.50	0.24	-0.06	0.00	0.27	0.45	99.91	100.00
51	Nov-03	73.0	40.2	29718.52	38233.33	1.01	-1.02	0.00	0.50	0.24	-0.19	0.00	0.27	0.32	100.23	100.32
52	Dec-03	74.0	40.0	29217.07	38631.73	-1.70	1.04	1.00	-0.50	-0.40	0.19	0.04	-0.27	-0.44	99.79	99.87
53	Jan-04	74.0	40.1	29035.02	37801.84	-0.63	-2.17	0.00	0.25	-0.15	-0.40	0.00	0.13	-0.41	99.38	99.46
54	Feb-04	74.0	40.2	28890.01	36632.45	-0.50	-3.14	0.00	0.25	-0.12	-0.58	0.00	0.13	-0.56	98.82	98.90
55	Mar-04	74.0	40.1	28995.44	37254.33	0.36	1.68	0.00	-0.25	0.09	0.31	0.00	-0.13	0.26	99.08	99.16
56	Apr-04	74.0	40.0	28843.64	38977.27	-0.52	4.52	0.00	-0.25	-0.12	0.83	0.00	-0.13	0.57	99.65	99.73
57	May-04	74.0	40.3	28952.98	38514.47	0.38	-1.19	0.00	0.75	0.09	-0.22	0.00	0.40	0.27	99.92	100.00
58	Jun-04	74.0	40.0	29004.51	38377.26	0.18	-0.36	0.00	-0.75	0.04	-0.07	0.00	-0.40	-0.43	99.49	99.58
59	Jul-04	74.0	40.1	29130.98	38971.09	0.44	1.54	0.00	0.25	0.10	0.28	0.00	0.13	0.52	100.01	100.10
60	Aug-04	74.0	40.2	28966.58	39537.49	-0.57	1.44	0.00	0.25	-0.13	0.27	0.00	0.13	0.27	100.28	100.37
61	Sep-04	74.0	40.1	28821.62	38900	-0.50	-1.63	0.00	-0.25	-0.12	-0.30	0.00	-0.13	-0.55	99.73	99.81
62	Oct-04	74.0	39.9	28637.99	39353.94	-0.64	1.16	0.00	-0.50	-0.15	0.21	0.00	-0.27	-0.21	99.52	99.61
63	Nov-04	74.0	39.8	28576.16	39502.69	-0.22	0.38	0.00	-0.25	-0.05	0.07	0.00	-0.14	-0.12	99.40	99.49
64	Dec-04	73.0	39.8	28938.85	38746.4	1.26	-1.93	-1.00	0.00	0.30	-0.36	-0.04	0.00	-0.10	99.31	99.39
65	Jan-05	73.0	40.0	28767.3	39761.9	-0.59	2.59	0.00	0.50	-0.14	0.48	0.00	0.27	0.60	99.91	100.00
66	Feb-05	73.0	39.9	28789.99	39561.22	0.08	-0.51	0.00	-0.25	0.02	-0.09	0.00	-0.13	-0.21	99.70	99.79
67	Mar-05	73.0	39.8	28824.16	38941.39	0.12	-1.58	0.00	-0.25	0.03	-0.29	0.00	-0.14	-0.40	99.31	99.39
68	Apr-05	73.0	39.8	29160.49	38647.27	1.16	-0.76	0.00	0.00	0.28	-0.14	0.00	0.00	0.14	99.44	99.53
69	May-05	73.0														

Table C.2 - Continued

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W	X
76	Jan-06	73.0	40.5	29493.06	38826.39	1.26	-0.78	0.00	0.74	0.30	-0.14	0.00	0.40	0.55	100.73	100.82	1.504092
77	Feb-06	73.0	40.5	29507.8	38577.99	0.05	-0.64	0.00	0.00	0.01	-0.12	0.00	0.00	-0.11	100.63	100.71	0.899859
78	Mar-06	73.0	40.5	29321.55	38193.1	-0.63	-1.00	0.00	0.00	-0.15	-0.18	0.00	0.00	-0.34	100.29	100.38	0.112779
79	Apr-06	73.0	40.5	29059.88	37986.31	-0.90	-0.54	0.00	0.00	-0.21	-0.10	0.00	0.00	-0.31	99.98	100.06	-0.75436
80	May-06	73.0	40.8	28873.19	37689.36	-0.64	-0.78	0.00	0.25	-0.15	-0.14	0.00	0.13	-0.16	99.81	99.90	-0.81306
81	Jun-06	73.0	40.7	29038.23	37547.15	0.57	-0.38	0.00	0.25	0.14	-0.07	0.00	0.13	0.20	100.01	100.10	-0.27975
82	Jul-06	73.0	40.8	28934.8	37590.18	-0.36	0.11	0.00	0.25	-0.08	0.02	0.00	0.13	0.07	100.08	100.17	0.101555
83	Aug-06	73.0	40.8	29005.07	37905.33	0.24	0.83	0.00	-0.49	0.06	0.15	0.00	-0.26	-0.05	100.03	100.11	0.213499
84	Sep-06	73.0	40.8	29374.36	37911.71	1.27	0.02	0.00	0.00	0.30	0.00	0.00	0.00	0.30	100.33	100.42	0.319062
85	Oct-06	73.0	40.7	30329.63	38659.27	3.20	1.95	0.00	0.25	0.76	0.36	0.00	0.13	1.25	101.59	101.68	1.503125
86	Nov-06	73.0	40.8	30641.57	39017.96	1.02	0.92	0.00	-0.25	0.24	0.17	0.00	-0.13	0.28	101.88	101.97	1.837025
87	Dec-06	71.0	40.7	30876.07	39476.07	0.76	1.17	-2.00	0.25	0.18	0.21	-0.08	0.13	0.45	102.34	102.43	1.981248
88	Jan-07	71.0	40.7	30857.41	39544.02	-0.06	0.17	0.00	0.00	-0.01	0.03	0.00	0.00	0.02	102.36	102.44	0.746175
89	Feb-07	71.0	40.8	30875.4	39805.05	0.06	0.66	0.00	-0.25	0.01	0.12	0.00	-0.13	0.00	102.36	102.45	0.467933
90	Mar-07	71.0	40.9	30824.22	39759.32	-0.17	-0.11	0.00	0.74	-0.04	-0.02	0.00	0.40	0.34	102.70	102.79	0.355411
91	Apr-07	71.0	41.0	31109.09	39685.46	0.92	-0.19	0.00	0.24	0.22	-0.03	0.00	0.13	0.32	103.03	103.12	0.653907
92	May-07	71.0	40.8	32143.45	40508.93	3.27	2.05	0.00	-0.49	0.78	0.38	0.00	-0.26	0.89	103.95	104.04	1.543594
93	Jun-07	71.0	40.9	32697.05	40882.11	1.71	0.92	0.00	0.24	0.41	0.17	0.00	0.13	0.71	104.69	104.78	1.914467
94	Jul-07	71.0	40.9	32475.47	41052.69	-0.68	0.42	0.00	0.00	-0.16	0.08	0.00	0.00	-0.08	104.60	104.69	1.513723
95	Aug-07	71.0	40.8	33136.31	41884.48	2.01	2.01	0.00	-0.24	0.48	0.37	0.00	-0.13	0.72	105.35	105.44	1.337731
96	Sep-07	71.0	40.9	33435.57	41703.28	0.90	-0.43	0.00	0.24	0.21	-0.08	0.00	0.13	0.27	105.63	105.72	0.896938
97	Oct-07	71.0	40.8	33265.5	42014.31	-0.51	0.74	0.00	-0.24	-0.12	0.14	0.00	-0.13	-0.12	105.51	105.60	0.86578
98	Nov-07	71.0	40.9	33119.58	42186.02	-0.44	0.41	0.00	0.24	-0.10	0.08	0.00	0.13	0.10	105.62	105.71	0.251772
99	Dec-07	71.0	40.9	33707.9	42713.22	1.76	1.24	0.00	0.00	0.42	0.23	0.00	0.00	0.65	106.30	106.39	0.63331
100	Jan-08	71.0	40.8	33923.87	42698.19	0.64	-0.04	0.00	-0.74	0.15	-0.01	0.00	-0.40	-0.25	106.04	106.13	0.498638
101	Feb-08	71.0	40.8	34031.9	41935.38	0.32	-1.80	0.00	0.00	0.08	-0.33	0.00	0.00	-0.26	105.76	105.86	0.140037
102	Mar-08	72.2	40.8	34339.9	42991.98	0.90	2.49	1.20	0.49	0.21	0.46	0.05	0.26	0.98	106.81	106.90	0.477779
103	Apr-08	72.2	40.8	34226.85	43518.16	-0.33	1.22	0.00	-0.49	-0.08	0.22	0.00	-0.26	-0.12	106.68	106.78	0.609751
104	May-08	72.2	40.5	34007.88	43628.32	-0.64	0.25	0.00	-0.25	-0.15	0.05	0.00	-0.13	-0.24	106.43	106.52	0.627358
105	Jun-08	70.1	40.8	34197.63	43488.48	0.56	-0.32	-2.10	0.25	0.13	-0.06	-0.08	0.13	0.12	106.56	106.65	-0.23611
106	Jul-08	70.1	40.5	33689.47	44360.14	-1.50	1.98	0.00	-0.25	-0.36	0.37	0.00	-0.13	-0.12	106.43	106.52	-0.24046
107	Aug-08	70.1	40.4	33485	43912.03	-0.61	-1.02	0.00	-0.25	-0.14	-0.19	0.00	-0.13	-0.46	105.93	106.03	-0.46638
108	Sep-08	72.8	40.2	33207.96	44000.44	-0.83	0.20	2.70	-0.50	-0.20	0.04	0.11	-0.27	-0.32	105.60	105.69	-0.90664
109	Oct-08	72.8	40.2	33288.45	43504.38	0.24	-1.13	0.00	0.00	0.06	-0.21	0.00	0.00	-0.15	105.44	105.53	-0.93467
110	Nov-08	72.8	39.9	33740.78	43393.42	1.35	-0.26	0.00	-0.75	0.32	-0.05	0.00	-0.40	-0.13	105.30	105.39	-0.59932
111	Dec-08	71.2	39.8	33784.97	43622.33	0.13	0.53	-1.60	-0.75	0.03	0.10	-0.06	-0.41	-0.34	104.94	105.03	-0.62286
112	Jan-09	71.2	39.8	33513.25	43043.53	-0.81	-1.34	0.00	0.00	-0.19	-0.25	0.00	0.00	-0.44	104.48	104.57	-0.9095
113	Feb-09	71.2	39.5	32978.52	42425.65	-1.61	-1.45	0.00	-0.25	-0.38	-0.27	0.00	-0.14	-0.78	103.67	103.76	-1.56473
114	Mar-09	66.0	39.4	32919.39	42568.99	-0.18	0.34	-5.20	-0.25	-0.04	0.06	-0.21	-0.14	-0.33	103.33	103.42	-1.54834
115	Apr-09	66.0	39.5	32824.88	42740.93	-0.29	0.40	0.00	0.25	-0.07	0.07	0.00	0.14	0.14	103.48	103.57	-0.96825
116	May-09	66.0	39.5	33071.37	42007.83	0.75	-1.73	0.00	0.00	0.18	-0.32	0.00	0.00	-0.14	103.33	103.42	-0.32446
117	Jun-09	66.0	39.7	32508.33	42226.77	-1.72	0.52	0.00	0.51	-0.41	0.10	0.00	0.27	-0.04	103.29	103.38	-0.03911
118	Jul-09	66.0	39.9	32433.85	42144.77	-0.23	-0.19	0.00	0.50	-0.05	-0.04	0.00	0.27	0.18	103.47	103.56	-0.00132
119	Aug-09	66.0	39.9	32338.31	41726.05	-0.29	-1.00	0.00	0.00	-0.07	-0.18	0.00	0.00	-0.25	103.21	103.30	-0.11455
120	Sep-09	69.4	39.8	31660.06	41981.94	-2.12	0.61	3.40	-0.25	-0.50	0.11	0.14	-0.14	-0.39	102.81	102.90	-0.46338
121	Oct-09	69.4	40.0	32292.39	42182.53	1.98	0.48	0.00	0.50	0.47	0.09	0.00	0.27	0.83	103.67	103.76	0.183996
122	Nov-09	69.4	40.2	32533.58	42381.48	0.74	0.47	0.00	0.50	0.18	0.09	0.00	0.27	0.53	104.22	104.31	0.969743
123	Dec-09	70.4	40.5	33128.05	42647.58	1.81	0.63	1.00	0.74	0.43	0.12	0.04	0.40	0.99	105.25	105.34	2.34505
124	Jan-10	70.4	40.8	32760.79	43070.63	-1.11	0.99	0.00	0.74	-0.26	0.18	0.00	0.40	0.31	105.58	105.67	1.831451
125	Feb-10	70.4	40.2	32951.12	43442.18	0.58	0.86	0.00	-1.48	0.14	0.16	0.00	-0.80	-0.50	105.05	105.14	0.798379
126	Mar-10	70.4	40.7	32557.68	43885.83	-1.20	1.02	0.00	1.24	-0.29	0.19	0.00	0.67	0.57	105.65	105.74	0.379181
127	Apr-10	70.4	40.9	32610.94	43293.3	0.16	-1.36	0.00	0.49	0.04	-0.25	0.00	0.26	0.05	105.71	105.80	0.117692
128	May-10	70.4	41.2	32649.53	43477.33	0.12	0.42	0.00	0.73	0.03	0.08	0.00	0.39	0.50	106.23	106.33	1.118334
129	Jun-10	70.4	40.5	32749	43509.83	0.30	0.07	0.00	-1.71	0.07	0.01	0.00	-0.92	-0.84	105.35	105.44	-0.28416
130	Jul-10	70.4	40.7	32831.61	43843.97	0.25	0.77	0.00	0.49	0.06	0.14	0.00	0.27	0.47	105.84	105.93	0.129254
131	Aug-10	70.4	40.9	33147.2	43747.91	0.96	-0.22	0.00	0.49	0.23	-0.04	0.00	0.26	0.45	106.32	106.41	0.08059
132	Sep-10	71.4	41.0	33620.87	44403.81	1.42	1.49	1.00	0.24	0.34	0.27	0.04	0.13	0.78	107.16	107.25	1.699248
133	Oct-10	71.4	40.9	34021.29	44731.97	1.18	0.74	0.00	-0.24	0.28	0.14	0.00	-0.13	0.29	107.46	107.56	1.51905
134	Nov-10	71.4	40.8	34018.71	45396.11	-0.01	1.47	0.00	-0.74	0.00	0.27	0.00	-0.40	-0.13	107.33	107.42	0.941755
135	Dec-10	71.4	40.7	34584.24	45657.06	1.65	0.57	0.00	0.25	0.39	0.11	0.00	0.13	0.63	108.00	108.10	0.788714
136	Jan-11	71.4	40.5	34221.01	46046.48	-1.06	0.85	0.00	-0.49	-0.25	0.16	0.00	-0.27	-0.36	107.62	107.71	0.143529
137	Feb-11	71.4	40.8	34152.35	46612.62	-0.20	1.22	0.00	0.74	-0.05	0.22	0.00	0.40	0.57	108.24	108.33	0.844404
138	Mar-11	0.0	40.7	34174.07	46575.91	0.06	-0.08	-71.40	-0.25	0.02	-0.01	-2.87	-0.13	-3.00	105.03	105.13	-2.78772
139	Apr-11	0.0	40.9	34123.08	47211.92	-0.15	1.36	0.00	0.49	-0.04	0.25	0.00	0.26	0.48	105.54	105.63	-1.95015
140	May-11	0.0	40.9	34302.73	46937.5	0.53	-0.58	0.00	0.00	0.12	-0.11	0.00	0.00	0.02	105.56	105.65	-2.50697
141	Jun-11	0.0	40.7	34524.53	47040.61	0.64	0.22	0.00	-0.49	0.15	0.04	0.00	-0.26	-0.07	105.48	105.57	0.425266
142	Jul-11	0.0	40.8	34639.42	47387.82	0.33	0.74	0.00	0.25	0.08	0.14	0.00	0.13	0.35	105.85	105.94	0.293698
143	Aug-11	0.0	40.8	34704.97	47729.12	0.19											

NAICS 312 – Beverage and Tobacco Products

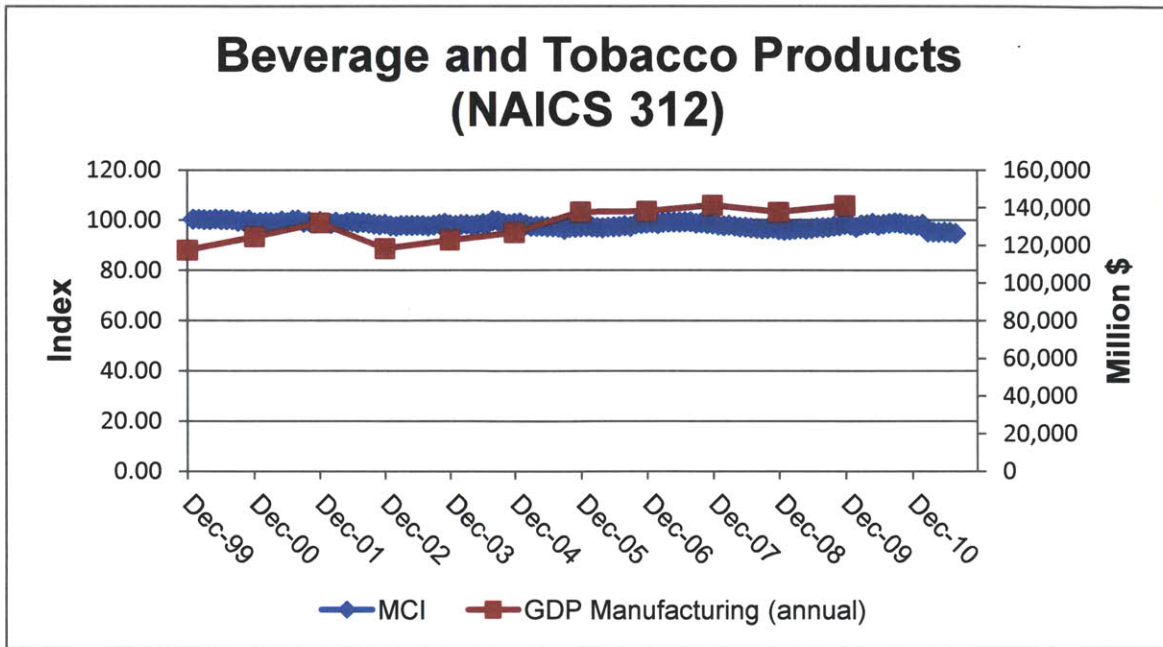


Figure C.5 – MCI and annual GDP Beverage and Tobacco Products including all industries gathered in the NAICS 312 classification.

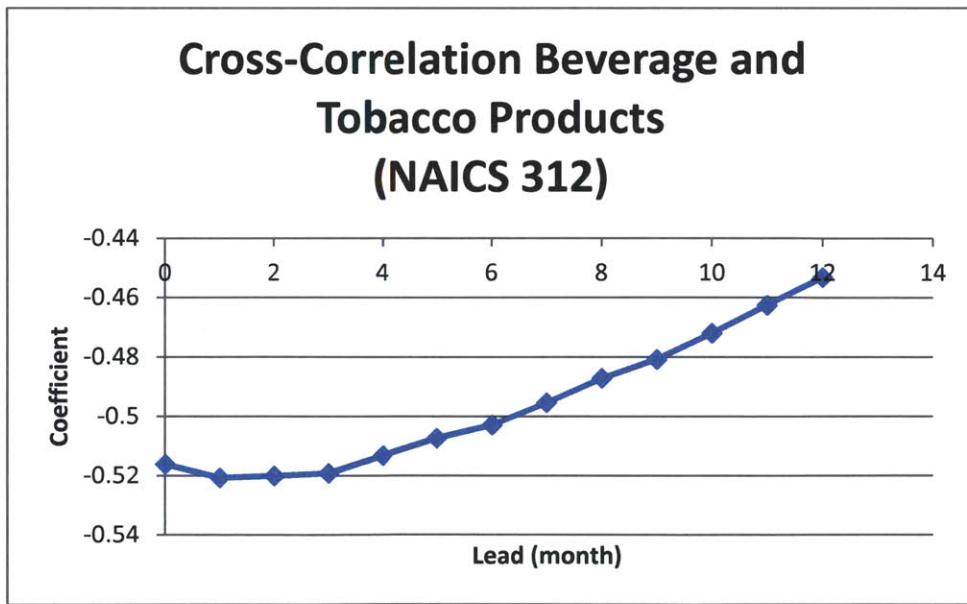


Figure C.6 – Cross-Correlation of MCI and annual GDP Beverage and Tobacco Products including all industries gathered in the NAICS 312 classification.

Table C.3
MCI computations for Beverage and Tobacco (NAICS 312)

1	A	E	F	H	J	K	M	N	O	P	Q	R	S	T	U	V	W		
2	Month	CU	Avg.WH	Dollar adjusted		0.28	0.07	0.05	0.61								99.67		
3	Dec-99	71.0	40.4	13816	8650	1.00	0.25	0.17	2.20	C(I,t)							St	Index	Rebased
4	Jan-00	71.0	40.5	13907.28	8990.03	0.66	3.86	0.00	0.25	0.18	0.00	0.27	0.00	0.15	0.60	100.00	100.33		
5	Feb-00	71.0	40.6	13938.55	8756.194	0.22	-2.64	0.00	0.25	0.06	0.00	-0.18	0.00	0.15	0.03	100.03	100.36		
6	Mar-00	71.0	40.4	13759.84	9374.016	-1.29	6.82	0.00	-0.49	-0.36	0.00	0.48	0.00	-0.30	-0.18	99.85	100.18		
7	Apr-00	71.0	40.6	13814.96	8742.126	0.40	-6.98	0.00	0.49	0.11	0.00	-0.49	0.00	0.30	-0.08	99.77	100.10		
8	May-00	71.0	40.4	13802.36	9553.589	-0.09	8.87	0.00	-0.49	-0.03	0.00	0.62	0.00	-0.30	0.30	100.07	100.40		
9	Jun-00	71.0	40.4	13856.02	9133.203	0.39	-4.50	0.00	0.00	0.11	0.00	-0.32	0.00	0.00	-0.21	99.86	100.19		
10	Jul-00	71.0	40.5	13819.16	8948.192	-0.27	-2.05	0.00	0.25	-0.07	0.00	-0.14	0.00	0.15	-0.07	99.79	100.12		
11	Aug-00	71.0	40.3	13800.59	9411.535	-0.13	5.05	0.00	-0.50	-0.04	0.00	0.35	0.00	-0.30	0.02	99.81	100.14		
12	Sep-00	71.0	40.2	13774.32	8864.786	-0.19	-5.98	0.00	-0.25	-0.05	0.00	-0.42	0.00	-0.15	-0.62	99.19	99.52		
13	Oct-00	71.0	40.2	13747.33	9171.04	-0.20	3.40	0.00	0.00	-0.05	0.00	0.24	0.00	0.00	0.18	99.37	99.70		
14	Nov-00	71.0	40.2	13849.22	9364.786	0.74	2.09	0.00	0.00	0.20	0.00	0.15	0.00	0.00	0.35	99.72	100.05		
15	Dec-00	71.0	39.8	13667.64	9101.365	-1.32	-2.85	0.00	-1.00	-0.36	0.00	-0.20	0.00	-0.61	-1.17	98.56	98.89		
16	Jan-01	71.0	40.1	13557.6	9249.758	-0.81	1.62	0.00	0.75	-0.22	0.00	0.11	0.00	0.46	0.35	98.90	99.23		
17	Feb-01	71.0	40.0	13525.55	9426.23	-0.24	1.89	0.00	-0.25	-0.07	0.00	0.13	0.00	-0.15	-0.08	98.82	99.15		
18	Mar-01	71.0	39.9	13622.71	9381.136	0.72	-0.48	0.00	-0.25	0.20	0.00	-0.03	0.00	-0.15	0.01	98.83	99.16		
19	Apr-01	71.0	39.9	13661.23	9011.516	0.28	-4.02	0.00	0.00	0.08	0.00	-0.28	0.00	0.00	-0.20	98.63	98.96		
20	May-01	71.0	39.8	13687.38	10110.9	0.19	11.50	0.00	-0.25	0.05	0.00	0.81	0.00	-0.15	0.71	99.33	99.66		
21	Jun-01	71.0	39.8	13582.06	9527.672	-0.77	-5.94	0.00	0.00	-0.21	0.00	-0.42	0.00	0.00	-0.63	98.70	99.03		
22	Jul-01	71.0	40.0	13865.07	9633.493	2.06	1.10	0.00	0.50	0.57	0.00	0.08	0.00	0.30	0.95	99.65	99.98		
23	Aug-01	71.0	39.8	13807.84	10389.1	-0.41	7.55	0.00	-0.50	-0.11	0.00	0.53	0.00	-0.30	0.11	99.76	100.09		
24	Sep-01	71.0	39.9	13705.43	9048.618	-0.74	-13.79	0.00	0.25	-0.21	0.00	-0.97	0.00	0.15	-1.02	98.74	99.07		
25	Oct-01	71.0	39.8	13650.43	9980.898	-0.40	9.80	0.00	-0.25	-0.11	0.00	0.69	0.00	-0.15	0.42	99.16	99.49		
26	Nov-01	71.0	39.8	13666.67	8924.33	0.12	-11.18	0.00	0.00	0.03	0.00	-0.78	0.00	0.00	-0.75	98.42	98.75		
27	Dec-01	68.0	39.9	13969.2	9213.667	2.19	3.19	-3.00	0.25	0.60	0.00	0.22	-0.14	0.15	0.84	99.25	99.58		
28	Jan-02	68.0	39.7	14005.76	8878.119	0.26	-3.71	0.00	-0.50	0.07	0.00	-0.26	0.00	-0.30	-0.49	98.76	99.09		
29	Feb-02	68.0	39.9	13837.32	8320.574	-1.21	-6.48	0.00	0.50	-0.33	0.00	-0.45	0.00	0.30	-0.48	98.29	98.61		
30	Mar-02	68.0	40.1	13848.72	8773.549	0.08	5.30	0.00	0.50	0.02	0.00	0.37	0.00	0.30	0.70	98.97	99.30		
31	Apr-02	68.0	40.0	13755.68	8152.462	-0.67	-7.34	0.00	-0.25	-0.19	0.00	-0.51	0.00	-0.15	-0.85	98.13	98.46		
32	May-02	68.0	40.2	13812.5	8573.864	0.41	5.04	0.00	0.50	0.11	0.00	0.35	0.00	0.30	0.77	98.89	99.22		
33	Jun-02	68.0	40.2	14021.78	8358.902	1.50	-2.54	0.00	0.00	0.41	0.00	-0.18	0.00	0.00	0.24	99.13	99.46		
34	Jul-02	68.0	40.1	13849.57	8313.15	-1.24	-0.55	0.00	-0.25	-0.34	0.00	-0.04	0.00	-0.15	-0.53	98.60	98.93		
35	Aug-02	68.0	40.2	13834.91	8341.509	-0.11	0.34	0.00	0.25	-0.03	0.00	0.02	0.00	0.15	0.15	98.75	99.08		
36	Sep-02	68.0	40.0	13948.26	8112.888	0.82	-2.78	0.00	-0.50	0.23	0.00	-0.19	0.00	-0.30	-0.27	98.48	98.81		
37	Oct-02	68.0	39.9	13837.41	8062.97	-0.80	-0.62	0.00	-0.25	-0.22	0.00	-0.04	0.00	-0.15	-0.42	98.07	98.40		
38	Nov-02	68.0	39.9	13732.83	8017.874	-0.76	-0.56	0.00	0.00	-0.21	0.00	-0.04	0.00	0.00	-0.25	97.83	98.15		
39	Dec-02	65.0	40.0	13888.68	7983.962	1.13	-0.42	-3.00	0.25	0.31	0.00	-0.03	-0.14	0.15	0.29	98.11	98.44		
40	Jan-03	65.0	39.8	13680.75	8035.681	-1.51	0.65	0.00	-0.50	-0.42	0.00	0.05	0.00	-0.30	-0.67	97.45	97.78		
41	Feb-03	65.0	39.8	13587.14	7986.021	-0.69	-0.62	0.00	0.00	-0.19	0.00	-0.04	0.00	0.00	-0.23	97.23	97.55		
42	Mar-03	65.0	40.0	13359.59	8629.286	-1.69	7.74	0.00	0.50	-0.47	0.00	0.54	0.00	0.30	0.38	97.60	97.92		
43	Apr-03	65.0	39.6	13738.16	8368.617	2.79	-3.07	0.00	-1.01	0.77	0.00	-0.21	0.00	-0.61	-0.05	97.54	97.87		
44	May-03	65.0	39.6	13696.74	8488.372	-0.30	1.42	0.00	0.00	-0.08	0.00	0.10	0.00	0.00	0.02	97.56	97.88		
45	Jun-03	65.0	39.6	13647.77	8655.204	-0.36	1.95	0.00	0.00	-0.10	0.00	0.14	0.00	0.00	0.04	97.60	97.92		
46	Jul-03	65.0	39.5	13678.74	8702.878	0.23	0.55	0.00	-0.25	0.06	0.00	0.04	0.00	-0.15	-0.05	97.55	97.87		
47	Aug-03	65.0	39.6	13568.39	8517.56	-0.81	-2.15	0.00	0.25	-0.22	0.00	-0.15	0.00	0.15	-0.22	97.33	97.65		
48	Sep-03	65.0	39.8	13600.92	8456.221	0.24	-0.72	0.00	0.50	0.07	0.00	-0.05	0.00	0.31	0.32	97.64	97.97		
49	Oct-03	65.0	40.0	13595.02	8575.646	-0.04	1.40	0.00	0.50	-0.01	0.00	0.10	0.00	0.30	0.39	98.02	98.35		
50	Nov-03	65.0	40.2	13751.85	8319.444	1.15	-3.03	0.00	0.50	0.32	0.00	-0.21	0.00	0.30	0.41	98.42	98.75		
51	Dec-03	64.0	40.0	13572.36	8485.158	-1.31	1.97	-1.00	-0.50	-0.36	0.00	0.14	-0.05	-0.30	-0.57	97.86	98.19		
52	Jan-04	64.0	40.1	13490.32	8211.982	-0.61	-3.27	0.00	0.25	-0.17	0.00	-0.23	0.00	0.15	-0.25	97.62	97.95		
53	Feb-04	64.0	40.2	13627.86	8033.914	1.01	-2.19	0.00	0.25	0.28	0.00	-0.15	0.00	0.15	0.28	97.89	98.22		
54	Mar-04	64.0	40.1	13409.3	8901.55	-1.62	10.25	0.00	-0.25	-0.45	0.00	0.72	0.00	-0.15	0.12	98.01	98.34		
55	Apr-04	64.0	40.0	13450	8456.364	0.30	-5.13	0.00	-0.25	0.08	0.00	-0.36	0.00	-0.15	-0.43	97.59	97.92		
56	May-04	64.0	40.3	13420.43	8385.172	-0.22	-0.85	0.00	0.75	-0.06	0.00	-0.06	0.00	0.45	0.33	97.92	98.25		
57	Jun-04	64.0	40.0	13634.48	8906.137	1.58	6.03	0.00	-0.75	0.44	0.00	0.42	0.00	-0.45	0.41	98.32	98.64		
58	Jul-04	64.0	40.1	13587.17	8528.455	-0.35	-4.33	0.00	0.25	-0.10	0.00	-0.30	0.00	0.15	-0.25	98.07	98.40		
59	Aug-04	64.0	40.2	14132.79	8740.741	3.94	2.46	0.00	0.25	1.09	0.00	0.17	0.00	0.15	1.41	99.46	99.80		
60	Sep-04	64.0	40.1	14150.45	8742.342	0.12	0.02	0.00	-0.25	0.03	0.00	0.00	0.00	-0.15	-0.12	99.35	99.68		
61	Oct-04	64.0	39.9	13820.79	8616.487	-2.36	-1.45	0.00	-0.50	-0.65	0.00	-0.10	0.00	-0.30	-1.06	98.31	98.64		
62	Nov-04	64.0	39.8	13824.37	8549.283	0.03	-0.78	0.00	-0.25	0.01	0.00	-0.05	0.00	-0.15	-0.20	98.11	98.44		
63	Dec-04	65.0	39.8	13857.01	8673.561	0.24	1.44	1.00	0.00	0.07	0.00	0.10	0.05	0.00	0.21	98.32	98.65		
64	Jan-05	65.0	40.0	13862.53	8553.459	0.04	-1.39	0.00	0.50	0.01	0.00	-0.10	0.00	0.30	0.22	98.53	98.86		
65	Feb-05	65.0	39.9	13567.47	8527.256	-2.15	-0.31	0.00	-0.25	-0.59	0.00	-0.02	0.00	-0.15	-0.77	97.78	98.11		
66	Mar-05	65.0	39.8	13306.39	8623.446	-1.94	1.12	0.00	-0.25	-0.54	0.00	0.08	0.00	-0.15	-0.61	97.19	97.51		
67	Apr-05	65.0	39.8	13181.66	8937.39	-0.94	3.58	0.00	0.00	-0.26	0.00	0.25	0.00	0.00	-0.01	97.18	97.50		
68	May-05	65.0	39.7	13105.91	9345.102	-0.58	4.46	0.00	-0.25	-0.16	0.00	0.31	0.00	-0.15	0.00	97.18	97.50		
69	Jun-05	65.0	39.7	12968.2	9430.212	-1.06	0.91	0.00	0.00	-0.29	0.00	0.06	0.00	0.00	-0.23	96.96	97.28		
70	Jul-05	65.0	39.7	12934.04	9412.489	-0.26	-0.19	0.00	0.00	-0.07	0.00	-0.01	0.00	0.00	-0.09	96.88	97.20		
71	Aug-05	65.0	39.7	12758.53	9693.788	-1.37	2.94	0.00	0.00	-0.38	0.00	0.21	0.00	0.00	-0.17	96.71	97.03		
72	Sep-																		

Table C.3 - Continued

	A	E	F	H	J	K	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	69.0	40.5	12506.94	9006.944	-0.40	-1.68	0.00	0.74	-0.11	0.00	-0.12	0.00	0.45	0.22	97.04	97.36
77	Feb-06	69.0	40.5	12523.4	8807.626	0.13	-2.24	0.00	0.00	0.04	0.00	-0.16	0.00	0.00	-0.12	96.92	97.24
78	Mar-06	69.0	40.5	12397.41	8868.966	-1.01	0.69	0.00	0.00	-0.28	0.00	0.05	0.00	0.00	-0.23	96.70	97.02
79	Apr-06	69.0	40.5	12394.35	8715.141	-0.02	-1.75	0.00	0.00	-0.01	0.00	-0.12	0.00	0.00	-0.13	96.57	96.89
80	May-06	69.0	40.6	12312.34	9132.766	-0.66	4.68	0.00	0.25	-0.18	0.00	0.33	0.00	0.15	0.29	96.86	97.18
81	Jun-06	69.0	40.7	12322.01	9049.278	0.08	-0.92	0.00	0.25	0.02	0.00	-0.06	0.00	0.15	0.11	96.96	97.28
82	Jul-06	69.0	40.8	12427.6	8671.465	0.85	-4.26	0.00	0.25	0.24	0.00	-0.30	0.00	0.15	0.09	97.04	97.37
83	Aug-06	69.0	40.6	12593.41	9045.647	1.33	4.22	0.00	-0.49	0.37	0.00	0.30	0.00	-0.30	0.36	97.40	97.72
84	Sep-06	69.0	40.6	12644.31	8495.756	0.40	-6.27	0.00	0.00	0.11	0.00	-0.44	0.00	0.00	-0.33	97.08	97.40
85	Oct-06	69.0	40.7	12883.86	8875.32	1.88	4.37	0.00	0.25	0.52	0.00	0.31	0.00	0.15	0.97	98.03	98.35
86	Nov-06	69.0	40.6	13011.12	8885.372	0.98	0.11	0.00	-0.25	0.27	0.00	0.01	0.00	-0.15	0.13	98.15	98.48
87	Dec-06	70.0	40.7	13116.24	8546.154	0.80	-3.89	1.00	0.25	0.22	0.00	-0.27	0.05	0.15	0.15	98.30	98.62
88	Jan-07	70.0	40.7	13191.85	8643.996	0.57	1.14	0.00	0.00	0.16	0.00	0.08	0.00	0.00	0.24	98.53	98.86
89	Feb-07	70.0	40.6	13084.83	8659.026	-0.81	0.17	0.00	-0.25	-0.22	0.00	0.01	0.00	-0.15	-0.36	98.17	98.50
90	Mar-07	70.0	40.9	13043.99	8893.897	-0.31	2.68	0.00	0.74	-0.09	0.00	0.19	0.00	0.45	0.55	98.71	99.04
91	Apr-07	70.0	41.0	13027.93	8866.345	-0.12	-0.31	0.00	0.24	-0.03	0.00	-0.02	0.00	0.15	0.09	98.81	99.13
92	May-07	70.0	40.8	13061.55	9149.403	0.26	3.14	0.00	-0.49	0.07	0.00	0.22	0.00	-0.30	-0.01	98.80	99.13
93	Jun-07	70.0	40.9	13029	9067.661	-0.25	-0.90	0.00	0.24	-0.07	0.00	-0.06	0.00	0.15	0.02	98.82	99.15
94	Jul-07	70.0	40.9	13098.02	8996.735	0.53	-0.79	0.00	0.00	0.15	0.00	-0.06	0.00	0.00	0.09	98.91	99.24
95	Aug-07	70.0	40.8	13077.78	9320.963	-0.15	3.54	0.00	-0.24	-0.04	0.00	0.25	0.00	-0.15	0.06	98.96	99.29
96	Sep-07	70.0	40.9	12948.66	8686.318	-0.99	-7.05	0.00	0.24	-0.27	0.00	-0.49	0.00	0.15	-0.62	98.35	98.68
97	Oct-07	70.0	40.8	12937.09	9192.207	-0.09	5.66	0.00	-0.24	-0.02	0.00	0.40	0.00	-0.15	0.22	98.57	98.90
98	Nov-07	70.0	40.9	12847.28	8751.163	-0.70	-4.92	0.00	0.24	-0.19	0.00	-0.34	0.00	0.15	-0.39	98.19	98.52
99	Dec-07	70.0	40.9	12849.66	8496.64	0.02	-2.95	0.00	0.00	0.01	0.00	-0.21	0.00	0.00	-0.20	97.99	98.32
100	Jan-08	70.0	40.6	12894.38	8450.196	0.35	-0.55	0.00	-0.74	0.10	0.00	-0.04	0.00	-0.45	-0.39	97.61	97.94
101	Feb-08	70.0	40.6	12915.34	8110.429	0.16	-4.10	0.00	0.00	0.04	0.00	-0.29	0.00	0.00	-0.24	97.37	97.70
102	Mar-08	72.0	40.8	12744.58	8410.434	-1.33	3.63	2.00	0.49	-0.37	0.00	0.25	0.09	0.30	0.28	97.65	97.97
103	Apr-08	72.0	40.6	12672.02	8438.074	-0.57	0.33	0.00	-0.49	-0.16	0.00	0.02	0.00	-0.30	-0.43	97.23	97.55
104	May-08	72.0	40.5	12537.25	8516.35	-1.07	0.92	0.00	-0.25	-0.29	0.00	0.06	0.00	-0.15	-0.38	96.86	97.18
105	Jun-08	76.4	40.6	12416.57	8336.83	-0.97	-2.13	4.40	0.25	-0.27	0.00	-0.15	0.21	0.15	-0.06	96.80	97.12
106	Jul-08	76.4	40.5	12304.01	8465.308	-0.91	1.53	0.00	-0.25	-0.25	0.00	0.11	0.00	-0.15	-0.29	96.52	96.84
107	Aug-08	76.4	40.4	12357.62	8295.812	0.43	-2.02	0.00	-0.25	0.12	0.00	-0.14	0.00	-0.15	-0.17	96.35	96.67
108	Sep-08	72.6	40.2	12484.29	8244.107	1.02	-0.63	-3.80	-0.50	0.28	0.00	-0.04	-0.18	-0.30	-0.24	96.12	96.44
109	Oct-08	72.6	40.2	12512.35	8341.833	0.22	1.18	0.00	0.00	0.06	0.00	0.08	0.00	0.00	0.14	96.26	96.58
110	Nov-08	72.6	39.9	12827.12	8226.326	2.48	-1.39	0.00	-0.75	0.69	0.00	-0.10	0.00	-0.45	0.13	96.39	96.71
111	Dec-08	59.1	39.6	13000.49	8518.637	1.34	3.49	-13.50	-0.75	0.37	0.00	0.24	-0.64	-0.46	-0.48	95.92	96.24
112	Jan-09	59.1	39.6	12894.06	8372.169	-0.82	-1.73	0.00	0.00	-0.23	0.00	-0.12	0.00	0.00	-0.35	95.59	95.91
113	Feb-09	59.1	39.5	13057.31	8383.497	1.26	0.14	0.00	-0.25	0.35	0.00	0.01	0.00	-0.15	0.20	95.78	96.10
114	Mar-09	65.7	39.4	13267.59	7967.232	1.60	-5.09	6.60	-0.25	0.44	0.00	-0.36	0.31	-0.15	0.24	96.01	96.33
115	Apr-09	65.7	39.5	13247.95	8198.094	-0.15	2.86	0.00	0.25	-0.04	0.00	0.20	0.00	0.15	0.31	96.32	96.64
116	May-09	65.7	39.5	13205.38	7970.703	-0.32	-2.81	0.00	0.00	-0.09	0.00	-0.20	0.00	0.00	-0.29	96.04	96.36
117	Jun-09	65.8	39.7	13135.72	8107.001	-0.53	1.70	0.10	0.51	-0.15	0.00	0.12	0.00	0.31	0.28	96.31	96.64
118	Jul-09	65.8	39.9	13207.5	7948.959	0.54	-1.97	0.00	0.50	0.15	0.00	-0.14	0.00	0.30	0.32	96.62	96.94
119	Aug-09	65.8	39.9	13211.36	7973.038	0.03	0.30	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.03	96.65	96.97
120	Sep-09	67.9	39.8	13300.08	7931.455	0.67	-0.52	2.10	-0.25	0.18	0.00	-0.04	0.10	-0.15	0.10	96.74	97.06
121	Oct-09	67.9	40.0	13360.74	8013.398	0.46	1.03	0.00	0.50	0.13	0.00	0.07	0.00	0.30	0.50	97.23	97.55
122	Nov-09	67.9	40.2	13341.83	7923.037	-0.14	-1.13	0.00	0.50	-0.04	0.00	-0.08	0.00	0.30	0.18	97.41	97.73
123	Dec-09	64.4	40.5	13414.54	8091.116	0.54	2.10	-3.50	0.74	0.15	0.00	0.15	-0.17	0.45	0.58	97.97	98.30
124	Jan-10	64.4	40.8	13129.92	7964.991	-2.14	-1.57	0.00	0.74	-0.59	0.00	-0.11	0.00	0.45	-0.25	97.73	98.05
125	Feb-10	64.4	40.2	13162.84	7798.484	0.25	-2.11	0.00	-1.48	0.07	0.00	-0.15	0.00	-0.90	-0.98	96.78	97.10
126	Mar-10	64.4	40.7	13066.41	8411.669	-0.74	7.57	0.00	1.24	-0.20	0.00	0.53	0.00	0.75	1.08	97.82	98.15
127	Apr-10	64.4	40.9	12939.4	8504.851	-0.98	1.10	0.00	0.49	-0.27	0.00	0.08	0.00	0.30	0.11	97.93	98.25
128	May-10	64.4	41.2	12989.71	8450.503	0.39	-0.64	0.00	0.73	0.11	0.00	-0.04	0.00	0.44	0.51	98.42	98.75
129	Jun-10	64.4	40.5	13014.58	8745.114	0.19	3.43	0.00	-1.71	0.05	0.00	0.24	0.00	-1.04	-0.75	97.69	98.02
130	Jul-10	64.4	40.7	12969.07	9028.574	-0.35	3.19	0.00	0.49	-0.10	0.00	0.22	0.00	0.30	0.43	98.11	98.43
131	Aug-10	64.4	40.9	12868.48	9269.158	-0.78	2.63	0.00	0.49	-0.21	0.00	0.18	0.00	0.30	0.27	98.37	98.70
132	Sep-10	71.0	41.0	12753.81	9322.479	-0.90	0.57	6.60	0.24	-0.25	0.00	0.04	0.31	0.15	0.25	98.62	98.95
133	Oct-10	71.0	40.9	12770.59	9182.629	0.13	-1.51	0.00	-0.24	0.04	0.00	-0.11	0.00	-0.15	-0.22	98.41	98.73
134	Nov-10	71.0	40.6	12789.95	9231.587	0.15	0.53	0.00	-0.74	0.04	0.00	0.04	0.00	-0.45	-0.37	98.04	98.37
135	Dec-10	65.8	40.7	12814.91	9019.393	0.19	-2.33	-5.20	0.25	0.05	0.00	-0.16	-0.25	0.15	-0.21	97.84	98.17
136	Jan-11	65.8	40.5	12874.28	8907.745	0.46	-1.25	0.00	-0.49	0.13	0.00	-0.09	0.00	-0.30	-0.26	97.59	97.91
137	Feb-11	65.8	40.8	12856.57	8944.589	-0.14	0.41	0.00	0.74	-0.04	0.00	0.03	0.00	0.45	0.44	98.02	98.35
138	Mar-11	0.0	40.7	12749.38	9408.481	-0.84	5.06	-65.80	-0.25	-0.23	0.00	0.35	-3.12	-0.15	-3.15	94.98	95.30
139	Apr-11	0.0	40.9	12689.32	9250.587	-0.47	-1.69	0.00	0.49	-0.13	0.00	-0.12	0.00	0.30	0.05	95.03	95.35
140	May-11	0.0	40.9	12607.84	9327.936	-0.64	0.83	0.00	0.00	-0.18	0.00	0.06	0.00	0.00	-0.12	94.91	95.23
141	Jun-11	0.0	40.7	12646.24	9707.257	0.30	3.99	0.00	-0.49	0.08	0.00	0.28	0.00	-0.30	0.07	94.98	95.29
142	Jul-11	0.0	40.8	12698.38	9238.821	0.41	-4.94	0.00	0.25	0.11	0.00	-0.35	0.00	0.15	-0.08	94.90	95.21
143	Aug-11	0.0	40.6	12555.85	9439.727	-1.13	2.15	0.00	-0.49	-0.31	0.00	0.15	0.00	-0.30	-0.46	94.46	94.78

NAICS 313 – Textile Mills

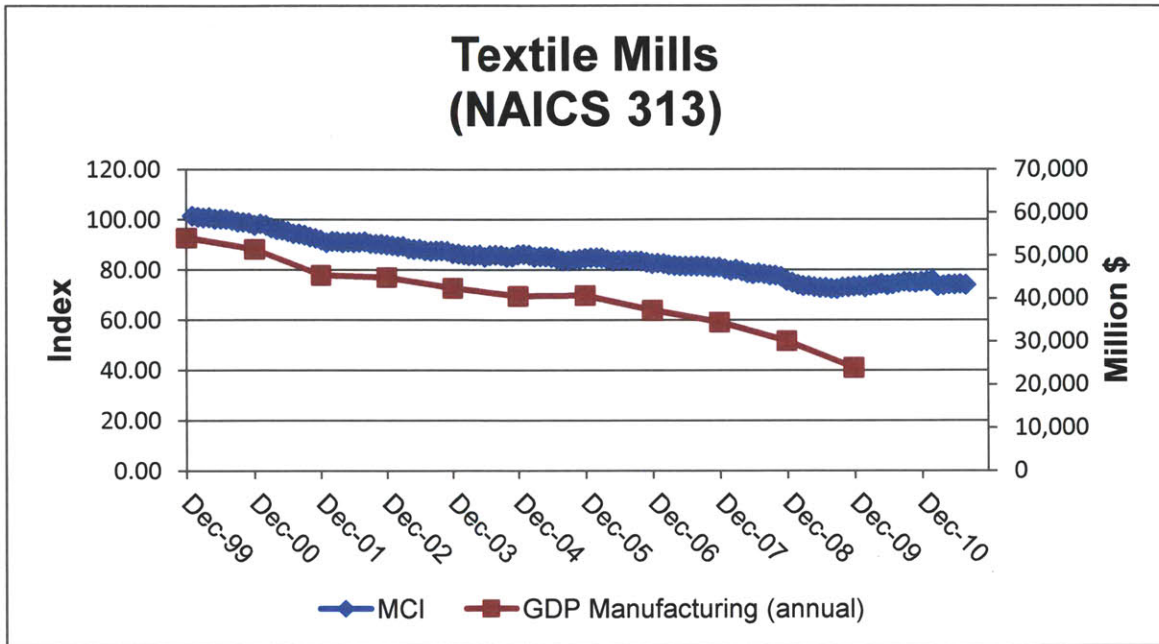


Figure C.7 – MCI and annual GDP Textile Mills including all industries gathered in the NAICS 313 classification.

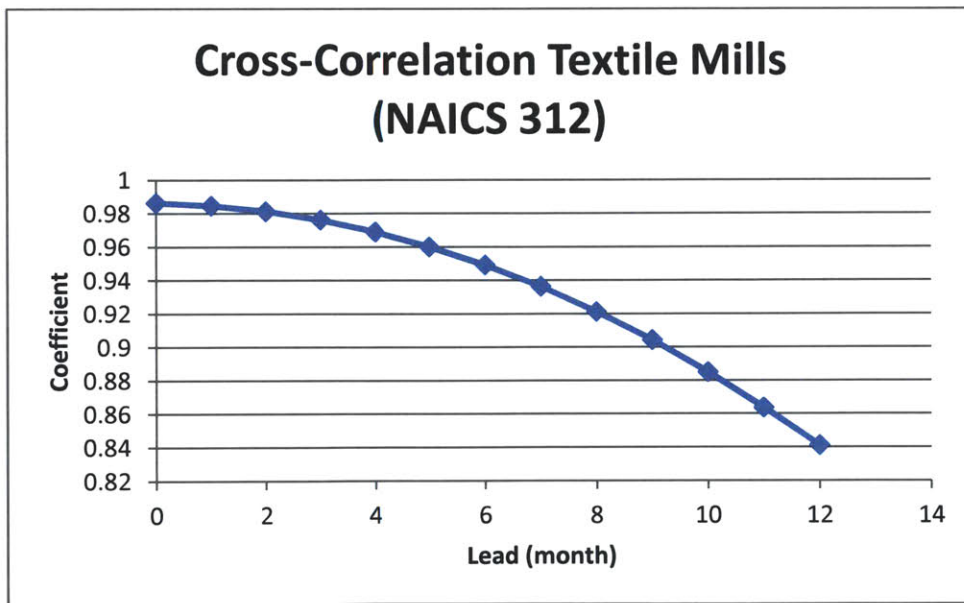


Figure C.8 – Cross-Correlation of MCI and annual GDP Textile Mills including all industries gathered in the NAICS 313 classification.

Table C.4
MCI computations for Textile Mills (NAICS 313)

1	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W		
2	Month	CU	Avg.WH	Inventory	Ship	0.20	0.12	0.05	0.63	Dollar adjusted						98.53		
3	Dec-99	77.0	40.4	6871	4532	0.72	0.43	0.17	2.20	C(I,t)						St	Index	Rebased
4	Jan-00	77.0	40.5	6738.784	4448.654	-1.94	-1.86	0.00	0.25	-0.40	-0.23	0.00	0.15	-0.47	100.00	101.50		
5	Feb-00	77.0	40.6	6642.22	4363.726	-1.44	-1.93	0.00	0.25	-0.29	-0.24	0.00	0.15	-0.38	99.62	101.12		
6	Mar-00	77.0	40.4	6611.22	4407.48	-0.47	1.00	0.00	-0.49	-0.10	0.12	0.00	-0.31	-0.28	99.34	100.83		
7	Apr-00	77.0	40.6	6620.079	4310.039	0.13	-2.24	0.00	0.49	0.03	-0.27	0.00	0.31	0.06	99.41	100.89		
8	May-00	77.0	40.4	6580.138	4258.604	-0.61	-1.20	0.00	-0.49	-0.12	-0.15	0.00	-0.31	-0.58	98.83	100.31		
9	Jun-00	77.0	40.4	6540.646	4314.398	-0.60	1.30	0.00	0.00	-0.12	0.16	0.00	0.00	0.04	98.87	100.35		
10	Jul-00	77.0	40.5	6503.421	4260.02	-0.57	-1.27	0.00	0.25	-0.12	-0.16	0.00	0.15	-0.12	98.75	100.23		
11	Aug-00	77.0	40.3	6491.691	4240.469	-0.18	-0.46	0.00	-0.50	-0.04	-0.06	0.00	-0.31	-0.40	98.35	99.83		
12	Sep-00	77.0	40.2	6387.16	4188.716	-1.62	-1.23	0.00	-0.25	-0.33	-0.15	0.00	-0.16	-0.64	97.73	99.19		
13	Oct-00	77.0	40.2	6410.107	4123.421	0.36	-1.57	0.00	0.00	0.07	-0.19	0.00	0.00	-0.12	97.61	99.07		
14	Nov-00	77.0	40.2	6405.642	4038.911	-0.07	-2.07	0.00	0.00	-0.01	-0.25	0.00	0.00	-0.27	97.35	98.81		
15	Dec-00	77.0	39.8	6284.6	4059.454	-1.91	0.51	0.00	-1.00	-0.39	0.06	0.00	-0.63	-0.95	96.43	97.87		
16	Jan-01	77.0	40.1	6385.286	3993.224	1.59	-1.64	0.00	0.75	0.32	-0.20	0.00	0.47	0.59	97.00	98.45		
17	Feb-01	77.0	40.0	6270.974	3985.535	-1.81	-0.19	0.00	-0.25	-0.37	-0.02	0.00	-0.16	-0.55	96.47	97.92		
18	Mar-01	77.0	39.9	6111.646	3846.006	-2.57	-3.56	0.00	-0.25	-0.53	-0.44	0.00	-0.16	-1.12	95.40	96.83		
19	Apr-01	77.0	39.9	6115.163	3616.123	0.06	-6.16	0.00	0.00	0.01	-0.76	0.00	0.00	-0.74	94.69	96.11		
20	May-01	77.0	39.8	5994.264	3726.577	-2.00	3.01	0.00	-0.25	-0.41	0.37	0.00	-0.16	-0.20	94.51	95.92		
21	Jun-01	77.0	39.8	5871.183	3667.939	-2.07	-1.59	0.00	0.00	-0.42	-0.19	0.00	0.00	-0.62	93.92	95.33		
22	Jul-01	77.0	40.0	5767.464	3429.665	-1.78	-6.71	0.00	0.50	-0.36	-0.82	0.00	0.31	-0.87	93.11	94.50		
23	Aug-01	77.0	39.8	5649.14	3630.975	-2.07	5.70	0.00	-0.50	-0.42	0.70	0.00	-0.31	-0.04	93.07	94.47		
24	Sep-01	77.0	39.9	5539.561	3534.795	-1.96	-2.68	0.00	0.25	-0.40	-0.33	0.00	0.16	-0.57	92.54	93.93		
25	Oct-01	77.0	39.8	5441.261	3465.138	-1.79	-1.99	0.00	-0.25	-0.37	-0.24	0.00	-0.16	-0.77	91.84	93.21		
26	Nov-01	77.0	39.8	5341.954	3409.962	-1.84	-1.61	0.00	0.00	-0.38	-0.20	0.00	0.00	-0.57	91.31	92.68		
27	Dec-01	68.0	39.9	5109.721	3550.529	-4.44	4.04	-9.00	0.25	-0.91	0.49	-0.43	0.16	-0.69	90.68	92.04		
28	Jan-02	68.0	39.7	5012.476	3405.95	-1.92	-4.16	0.00	-0.50	-0.39	-0.51	0.00	-0.31	-1.22	89.59	90.93		
29	Feb-02	68.0	39.9	4966.507	3555.981	-0.92	4.31	0.00	0.50	-0.19	0.53	0.00	0.31	0.65	90.18	91.53		
30	Mar-02	68.0	40.1	4878.211	3532.826	-1.79	-0.65	0.00	0.50	-0.37	-0.08	0.00	0.31	-0.13	90.06	91.40		
31	Apr-02	68.0	40.0	4704.545	3625	-3.62	2.58	0.00	-0.25	-0.74	0.32	0.00	-0.16	-0.58	89.54	90.88		
32	May-02	68.0	40.2	4686.553	3677.083	-0.38	1.43	0.00	0.50	-0.08	0.17	0.00	0.31	0.41	89.90	91.25		
33	Jun-02	68.0	40.2	4655.303	3630.682	-0.67	-1.27	0.00	0.00	-0.14	-0.16	0.00	0.00	-0.29	89.64	90.98		
34	Jul-02	68.0	40.1	4675.497	3686.85	0.43	1.54	0.00	-0.25	0.09	0.19	0.00	-0.16	0.12	89.75	91.09		
35	Aug-02	68.0	40.2	4716.981	3679.245	0.88	-0.21	0.00	0.25	0.18	-0.03	0.00	0.16	0.31	90.03	91.38		
36	Sep-02	68.0	40.0	4632.173	3614.299	-1.81	-1.78	0.00	-0.50	-0.37	-0.22	0.00	-0.31	-0.90	89.22	90.56		
37	Oct-02	68.0	39.9	4656.015	3589.286	0.51	-0.69	0.00	-0.25	0.10	-0.09	0.00	-0.16	-0.14	89.10	90.43		
38	Nov-02	68.0	39.9	4597.366	3646.284	-1.27	1.58	0.00	0.00	-0.26	0.19	0.00	0.00	-0.07	89.04	90.37		
39	Dec-02	66.0	40.0	4632.075	3485.849	0.75	-4.50	-2.00	0.25	0.15	-0.55	-0.10	0.16	-0.34	88.74	90.07		
40	Jan-03	66.0	39.8	4594.366	3527.7	-0.82	1.19	0.00	-0.50	-0.17	0.15	0.00	-0.31	-0.33	88.44	89.77		
41	Feb-03	66.0	39.8	4554.52	3457.596	-0.87	-2.01	0.00	0.00	-0.18	-0.25	0.00	0.00	-0.42	88.07	89.39		
42	Mar-03	66.0	40.0	4530.12	3439.296	-0.54	-0.53	0.00	0.50	-0.11	-0.07	0.00	0.31	0.14	88.19	89.51		
43	Apr-03	66.0	39.6	4553.389	3292.479	0.51	-4.36	0.00	-1.01	0.10	-0.53	0.00	-0.63	-1.06	87.26	88.57		
44	May-03	66.0	39.6	4542.326	3228.837	-0.24	-1.95	0.00	0.00	-0.05	-0.24	0.00	0.00	-0.29	87.01	88.31		
45	Jun-03	66.0	39.6	4518.587	3285.316	-0.52	1.73	0.00	0.00	-0.11	0.21	0.00	0.00	0.11	87.10	88.41		
46	Jul-03	66.0	39.5	4427.112	3238.626	-2.05	-1.43	0.00	-0.25	-0.42	-0.18	0.00	-0.16	-0.75	86.45	87.75		
47	Aug-03	66.0	39.6	4345.656	3231.054	-1.86	-0.23	0.00	0.25	-0.38	-0.03	0.00	0.16	-0.25	86.24	87.53		
48	Sep-03	66.0	39.8	4305.991	3241.475	-0.92	0.32	0.00	0.50	-0.19	0.04	0.00	0.31	0.17	86.38	87.67		
49	Oct-03	66.0	40.0	4199.262	3312.731	-2.51	2.17	0.00	0.50	-0.51	0.27	0.00	0.31	0.07	86.44	87.73		
50	Nov-03	66.0	40.2	4178.704	3201.852	-0.49	-3.40	0.00	0.50	-0.10	-0.42	0.00	0.31	-0.21	86.26	87.55		
51	Dec-03	64.0	40.0	4069.573	3179.035	-2.65	-0.72	-2.00	-0.50	-0.54	-0.09	-0.10	-0.31	-1.04	85.37	86.65		
52	Jan-04	64.0	40.1	4010.138	3172.35	-1.47	-0.21	0.00	0.25	-0.30	-0.03	0.00	0.16	-0.17	85.23	86.50		
53	Feb-04	64.0	40.2	3975.252	3057.745	-0.87	-3.68	0.00	0.25	-0.18	-0.45	0.00	0.16	-0.47	84.83	86.10		
54	Mar-04	64.0	40.1	3974.476	3039.198	-0.02	-0.61	0.00	-0.25	0.00	-0.07	0.00	-0.16	-0.23	84.63	85.89		
55	Apr-04	64.0	40.0	3975.455	3082.727	0.02	1.42	0.00	-0.25	0.01	0.17	0.00	-0.16	0.02	84.65	85.91		
56	May-04	64.0	40.3	3961.121	3054.25	-0.36	-0.93	0.00	0.75	-0.07	-0.11	0.00	0.47	0.28	84.88	86.15		
57	Jun-04	64.0	40.0	3935.018	2927.798	-0.66	-4.23	0.00	-0.75	-0.13	-0.52	0.00	-0.47	-1.12	83.94	85.19		
58	Jul-04	64.0	40.1	3950.316	3074.977	0.39	4.90	0.00	0.25	0.08	0.60	0.00	0.16	0.84	84.64	85.91		
59	Aug-04	64.0	40.2	3948.509	3062.331	-0.05	-0.41	0.00	0.25	-0.01	-0.05	0.00	0.16	0.10	84.72	85.99		
60	Sep-04	64.0	40.1	3913.514	3109.009	-0.89	1.51	0.00	-0.25	-0.18	0.19	0.00	-0.16	-0.15	84.60	85.86		
61	Oct-04	64.0	39.9	3873.656	3059.14	-1.02	-1.62	0.00	-0.50	-0.21	-0.20	0.00	-0.31	-0.72	83.99	85.25		
62	Nov-04	64.0	39.8	3888.889	3099.462	0.39	1.31	0.00	-0.25	0.08	0.16	0.00	-0.16	0.08	84.06	85.32		
63	Dec-04	72.0	39.8	3866.007	3279.676	-0.59	5.65	8.00	0.00	-0.12	0.69	0.39	0.00	0.96	84.87	86.14		
64	Jan-05	72.0	40.0	3853.549	3265.049	-0.32	-0.45	0.00	0.50	-0.07	-0.05	0.00	0.31	0.19	85.03	86.30		
65	Feb-05	72.0	39.9	3808.758	3291.332	-1.17	0.80	0.00	-0.25	-0.24	0.10	0.00	-0.16	-0.30	84.78	86.05		
66	Mar-05	72.0	39.8	3747.78	3152.753	-1.61	-4.30	0.00	-0.25	-0.33	-0.53	0.00	-0.16	-1.01	83.92	85.18		
67	Apr-05	72.0	39.8	3735.45	3240.741	-0.33	2.75	0.00	0.00	-0.07	0.34	0.00	0.00	0.27	84.15	85.41		
68	May-05	72.0	39.7	3761.695	3228.597	0.70	-0.38	0.00	-0.25	0.14	-0.05	0.00	-0.16	-0.06	84.10	85.36		
69	Jun-05	72.0	39.7	3717.314	3206.714	-1.19	-0.68	0.00	0.00	-0.24	-0.08	0.00	0.00	-0.33	83.83	85.08		
70	Jul-05	72.0	39.7	3685.136	3096.746	-0.87	-3.49	0.00	0.00	-0.18	-0.43	0.00	0.00	-0.61	83.32	84.57		
71	Aug-05	72.0	39.7	3600.175	2961.505	-2.33	-4.46	0.00	0.00	-0.48	-0.55	0.00	0.00	-1.02	82.47	83.71		
72	Sep-05	72.0	39.9	3572.664	2925.606	-0.77	-1.22	0.00	0.50	-0.16	-0.15	0.00	0.31	0.01	82.48	83.71		
73	Oct-05	72.0	40.1	3602.42	2912.705	0.83	-0.44	0.00	0.50	0.17	-0.05	0.00	0.31	0.43	82.83	84.07		
74	Nov-05	72.0	40.0	3619.669	2999.13	0.48	2.92	0.00	-0.25	0.10	0.36	0.00	-0.16	0.30	83.08	84.33		
75	Dec-05	69.0	40.2	3658.217	3021.853	1.06	0.75	-3.00	0.50	0.22	0.09	-0.14	0.31	0.48</				

Table C.4 - Continued

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
76	Jan-06	69.0	40.5	3671.875	2953.125	0.37	-2.30	0.00	0.74	0.08	-0.28	0.00	0.46	0.26	83.70	84.95
77	Feb-06	69.0	40.5	3670.711	2959.272	-0.03	0.21	0.00	0.00	-0.01	0.03	0.00	0.00	0.02	83.71	84.96
78	Mar-06	69.0	40.5	3665.517	2939.655	-0.14	-0.67	0.00	0.00	-0.03	-0.08	0.00	0.00	-0.11	83.62	84.87
79	Apr-06	69.0	40.5	3605.646	2822.07	-1.65	-4.08	0.00	0.00	-0.34	-0.50	0.00	0.00	-0.84	82.92	84.16
80	May-06	69.0	40.6	3525.106	2738.723	-2.26	-3.00	0.00	0.25	-0.46	-0.37	0.00	0.15	-0.67	82.36	83.60
81	Jun-06	69.0	40.7	3559.898	2736.619	0.98	-0.08	0.00	0.25	0.20	-0.01	0.00	0.15	0.34	82.65	83.89
82	Jul-06	69.0	40.8	3565.622	2705.334	0.16	-1.15	0.00	0.25	0.03	-0.14	0.00	0.15	0.05	82.69	83.92
83	Aug-06	69.0	40.8	3569.738	2705.833	0.12	0.02	0.00	-0.49	0.02	0.00	0.00	-0.31	-0.28	82.45	83.69
84	Sep-06	69.0	40.6	3597.623	2675.722	0.78	-1.12	0.00	0.00	0.16	-0.14	0.00	0.00	0.02	82.47	83.71
85	Oct-06	69.0	40.7	3508.967	2721.605	-2.50	1.70	0.00	0.25	-0.51	0.21	0.00	0.15	-0.15	82.35	83.58
86	Nov-06	69.0	40.6	3465.355	2686.056	-1.25	-1.31	0.00	-0.25	-0.26	-0.16	0.00	-0.15	-0.57	81.88	83.11
87	Dec-06	63.0	40.7	3450.427	2596.581	-0.43	-3.39	-6.00	0.25	-0.09	-0.42	-0.29	0.15	-0.64	81.36	82.58
88	Jan-07	63.0	40.7	3409.188	2701.781	-1.20	3.97	0.00	0.00	-0.25	0.49	0.00	0.00	0.24	81.56	82.78
89	Feb-07	63.0	40.6	3406.093	2687.547	-0.09	-0.93	0.00	-0.25	-0.02	-0.06	0.00	-0.15	-0.24	81.37	82.58
90	Mar-07	63.0	40.9	3305.778	2592.652	-2.99	-3.59	0.00	0.74	-0.61	-0.44	0.00	0.46	-0.59	80.89	82.10
91	Apr-07	63.0	41.0	3279.127	2521.184	-0.81	-2.80	0.00	0.24	-0.17	-0.34	0.00	0.15	-0.36	80.60	81.81
92	May-07	63.0	40.8	3258.737	2559.605	-0.62	1.51	0.00	-0.49	-0.13	0.19	0.00	-0.31	-0.25	80.40	81.60
93	Jun-07	63.0	40.9	3290.462	2475.112	0.97	-3.36	0.00	0.24	0.20	-0.41	0.00	0.15	-0.06	80.35	81.55
94	Jul-07	63.0	40.9	3271.389	2488.017	-0.58	0.52	0.00	0.00	-0.12	0.06	0.00	0.00	-0.05	80.31	81.51
95	Aug-07	63.0	40.8	3325.352	2462.424	1.64	-1.03	0.00	-0.24	0.33	-0.13	0.00	-0.15	0.05	80.35	81.55
96	Sep-07	63.0	40.9	3307.416	2446.161	-0.54	-0.66	0.00	0.24	-0.11	-0.08	0.00	0.15	-0.04	80.32	81.52
97	Oct-07	63.0	40.8	3281.631	2443.645	-0.78	-0.10	0.00	-0.24	-0.16	-0.01	0.00	-0.15	-0.33	80.06	81.26
98	Nov-07	63.0	40.9	3261.415	2389.674	-0.62	-2.23	0.00	0.24	-0.13	-0.27	0.00	0.15	-0.25	79.86	81.06
99	Dec-07	63.0	40.9	3294.447	2381.796	1.01	-0.33	0.00	0.00	0.21	-0.04	0.00	0.00	0.17	79.99	81.19
100	Jan-08	63.0	40.6	3252.726	2341.897	-1.27	-1.69	0.00	-0.74	-0.26	-0.21	0.00	-0.46	-0.93	79.26	80.44
101	Feb-08	63.0	40.6	3193.456	2252.761	-1.84	-3.88	0.00	0.00	-0.38	-0.48	0.00	0.00	-0.85	78.58	79.76
102	Mar-08	68.3	40.8	3219.189	2234.782	0.80	-0.80	5.30	0.49	0.16	-0.10	0.26	0.31	0.63	79.08	80.26
103	Apr-08	68.3	40.6	3134.165	2247.091	-2.68	0.55	0.00	-0.49	-0.55	0.07	0.00	-0.31	-0.79	78.46	79.63
104	May-08	68.3	40.5	3098.961	2141.87	-1.13	-4.79	0.00	-0.25	-0.23	-0.59	0.00	-0.15	-0.97	77.70	78.86
105	Jun-08	68.6	40.6	2976.082	2159.817	-4.05	0.83	0.30	0.25	-0.83	0.10	0.01	0.15	-0.55	77.27	78.43
106	Jul-08	68.6	40.5	3042.91	2201.421	2.22	1.91	0.00	-0.25	0.45	0.23	0.00	-0.15	0.53	77.68	78.85
107	Aug-08	68.6	40.4	3034.899	2141.492	-0.26	-2.76	0.00	-0.25	-0.05	-0.34	0.00	-0.15	-0.55	77.26	78.42
108	Sep-08	67.4	40.2	3047.783	2096.388	0.42	-2.13	-1.20	-0.50	0.09	-0.26	-0.06	-0.31	-0.54	76.84	77.99
109	Oct-08	67.4	40.2	3068.526	2054.98	0.68	-1.99	0.00	0.00	0.14	-0.24	0.00	0.00	-0.11	76.76	77.91
110	Nov-08	67.4	39.9	3124.898	1966.776	1.82	-4.39	0.00	-0.75	0.37	-0.54	0.00	-0.47	-0.63	76.28	77.42
111	Dec-08	57.1	39.6	3082.505	1831.24	-1.37	-7.14	-10.30	-0.75	-0.28	-0.87	-0.50	-0.47	-2.12	74.67	75.79
112	Jan-09	57.1	39.6	2998.485	1764.2	-2.76	-3.73	0.00	0.00	-0.56	-0.46	0.00	0.00	-1.02	73.92	75.02
113	Feb-09	57.1	39.5	2894.011	1738.201	-3.55	-1.48	0.00	-0.25	-0.72	-0.18	0.00	-0.16	-1.06	73.13	74.23
114	Mar-09	58.8	39.4	2810.192	1731.228	-2.94	0.40	1.70	-0.25	-0.60	-0.05	0.08	-0.16	-0.73	72.60	73.69
115	Apr-09	58.8	39.5	2789.042	1735.025	-0.76	0.22	0.00	0.25	-0.15	0.03	0.00	0.16	0.03	72.63	73.71
116	May-09	58.8	39.5	2709.294	1728.147	-2.90	-0.40	0.00	0.00	-0.59	-0.05	0.00	0.00	-0.64	72.16	73.24
117	Jun-09	59.8	39.7	2616.379	1724.706	-3.49	-0.20	1.00	0.51	-0.71	-0.02	0.05	0.32	-0.37	71.89	72.97
118	Jul-09	59.8	39.9	2555.253	1754.725	-2.36	1.73	0.00	0.50	-0.48	0.21	0.00	0.31	0.04	71.93	73.00
119	Aug-09	59.8	39.9	2481.945	1767.774	-2.91	0.74	0.00	0.00	-0.59	0.09	0.00	0.00	-0.50	71.56	72.64
120	Sep-09	64.0	39.8	2416.083	1809.857	-2.69	2.35	4.20	-0.25	-0.55	0.29	0.20	-0.16	-0.22	71.41	72.48
121	Oct-09	64.0	40.0	2448.093	1860.711	1.32	2.77	0.00	0.50	0.27	0.34	0.00	0.31	0.92	72.07	73.15
122	Nov-09	64.0	40.2	2413.694	1884.797	-1.42	1.29	0.00	0.50	-0.29	0.16	0.00	0.31	0.18	72.20	73.28
123	Dec-09	63.5	40.5	2381.488	1914.986	-1.34	1.59	-0.50	0.74	-0.27	0.19	-0.02	0.46	0.36	72.46	73.55
124	Jan-10	63.5	40.8	2343.256	1931.246	-1.62	0.85	0.00	0.74	-0.33	0.10	0.00	0.46	0.23	72.63	73.72
125	Feb-10	63.5	40.2	2357.309	1934.018	0.60	0.14	0.00	-1.48	0.12	0.02	0.00	-0.93	-0.79	72.06	73.14
126	Mar-10	63.5	40.7	2350.87	1963.705	-0.27	1.52	0.00	1.24	-0.06	0.19	0.00	0.77	0.90	72.72	73.81
127	Apr-10	63.5	40.9	2346.111	1964.371	-0.20	0.03	0.00	0.49	-0.04	0.00	0.00	0.31	0.27	72.91	74.01
128	May-10	63.5	41.2	2368.557	1978.301	0.95	0.71	0.00	0.73	0.19	0.09	0.00	0.46	0.74	73.45	74.55
129	Jun-10	63.5	40.5	2399.433	1989.444	1.30	0.56	0.00	-1.71	0.26	0.07	0.00	-1.07	-0.74	72.91	74.01
130	Jul-10	63.5	40.7	2436.927	1975.025	1.55	-0.73	0.00	0.49	0.32	-0.09	0.00	0.31	0.54	73.31	74.40
131	Aug-10	63.5	40.9	2467.427	1983.805	1.24	0.44	0.00	0.49	0.25	0.05	0.00	0.31	0.61	73.76	74.86
132	Sep-10	70.7	41.0	2502.743	1962.92	1.42	-1.06	7.20	0.24	0.29	-0.13	0.35	0.15	0.66	74.25	75.36
133	Oct-10	70.7	40.9	2498.869	1949.562	-0.15	-0.68	0.00	-0.24	-0.03	-0.08	0.00	-0.15	-0.27	74.05	75.16
134	Nov-10	70.7	40.6	2527.517	1965.67	1.14	0.82	0.00	-0.74	0.23	0.10	0.00	-0.46	-0.13	73.95	75.06
135	Dec-10	66.7	40.7	2567.576	1990.05	1.57	1.23	-4.00	0.25	0.32	0.15	-0.19	0.15	0.43	74.27	75.39
136	Jan-11	66.7	40.5	2608.607	2031.37	1.59	2.05	0.00	-0.49	0.32	0.25	0.00	-0.31	0.27	74.47	75.59
137	Feb-11	66.7	40.8	2615.574	2060.755	0.27	1.44	0.00	0.74	0.05	0.18	0.00	0.46	0.69	74.99	76.11
138	Mar-11	0.0	40.7	2635.712	2044.037	0.77	-0.81	-66.70	-0.25	0.16	-0.10	-3.21	-0.15	-3.31	72.55	73.64
139	Apr-11	0.0	40.9	2679.123	2007.604	1.63	-1.80	0.00	0.49	0.33	-0.22	0.00	0.31	0.42	72.86	73.95
140	May-11	0.0	40.9	2725.041	2037.047	1.70	1.46	0.00	0.00	0.35	0.18	0.00	0.00	0.53	73.24	74.34
141	Jun-11	0.0	40.7	2764.15	2020.163	1.42	-0.83	0.00	-0.49	0.29	-0.10	0.00	-0.31	-0.12	73.15	74.25
142	Jul-11	0.0	40.8	2794.582	2009.544	1.09	-0.53	0.00	0.25	0.22	-0.06	0.00	0.15	0.31	73.38	74.48
143	Aug-11	0.0	40.8	2798.293	1984.523	0.13	-1.25	0.00	-0.49	0.03	-0.15	0.00	-0.31	-0.43	73.07	74.16

NAICS 314 – Textile Products

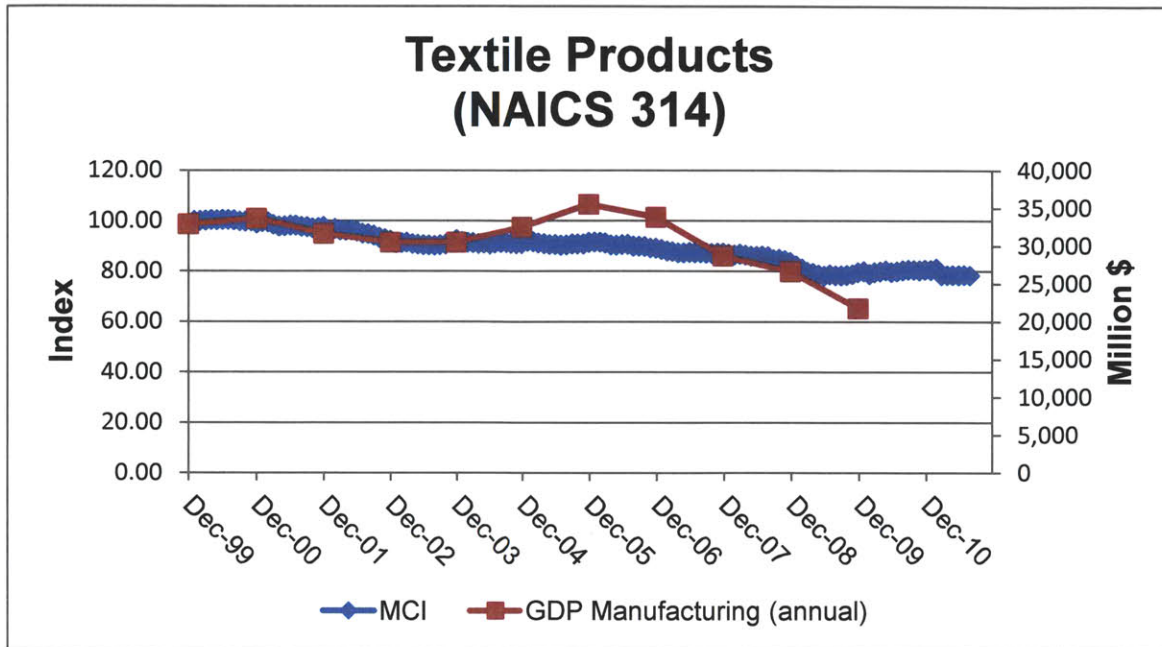


Figure C.9 – MCI and annual GDP Textile Products including all industries gathered in the NAICS 314 classification.

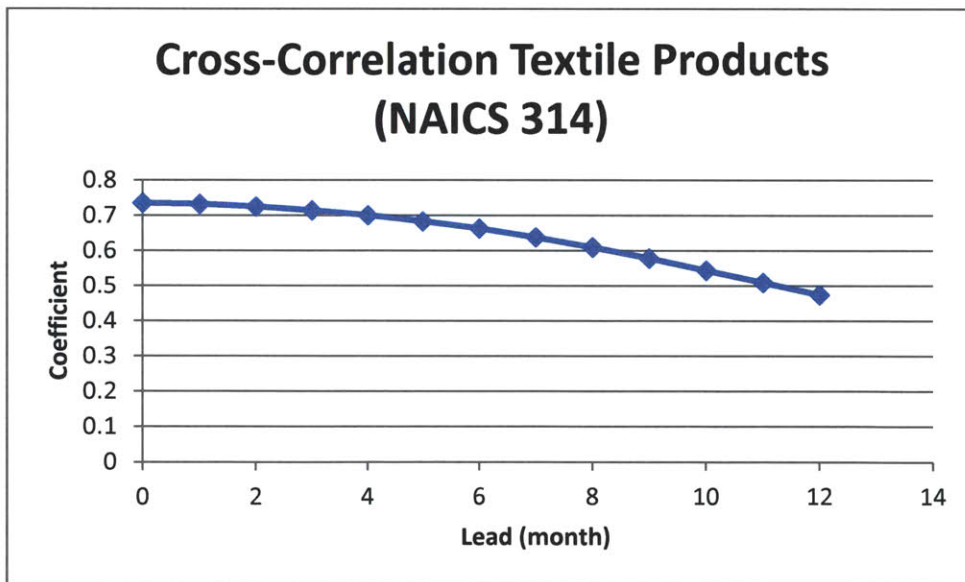


Figure C.10 – Cross-Correlation of MCI and annual GDP Textile Products including all industries gathered in the NAICS 314 classification.

MCI computations for Textile Products (NAICS 314)

	A	E	F	H	J	K	M	N	O	P	Q	R	S	T	U	V	W		
1	Dollar adjusted																		
2	Month	CU	Avg.WH	Inventory	Ship	0.19	0.12	0.06	0.64	100.05									
3	Dec-99	71.0	40.4	4414	2750	0.65	0.41	0.20	2.20	C(I,T)							St	Index	Rebased
4	Jan-00	71.0	40.5	4436.69	2853.44	0.51	3.69	0.00	0.25	0.10	0.00	0.43	0.00	0.16	0.69	100.00	99.95		
5	Feb-00	71.0	40.6	4446.977	2822.597	0.23	-1.09	0.00	0.25	0.04	0.00	-0.13	0.00	0.16	0.07	100.07	100.02		
6	Mar-00	71.0	40.4	4481.299	2893.701	0.77	2.49	0.00	-0.49	0.15	0.00	0.29	0.00	-0.31	0.12	100.20	100.14		
7	Apr-00	71.0	40.6	4527.559	2813.976	1.03	-2.79	0.00	0.49	0.19	0.00	-0.33	0.00	0.31	0.18	100.38	100.33		
8	May-00	71.0	40.4	4603.736	2801.377	1.67	-0.45	0.00	-0.49	0.32	0.00	-0.05	0.00	-0.31	-0.05	100.33	100.27		
9	Jun-00	71.0	40.4	4635.651	2788.443	0.69	-0.46	0.00	0.00	0.13	0.00	-0.05	0.00	0.00	0.08	100.40	100.35		
10	Jul-00	71.0	40.5	4672.532	2731.183	0.79	-2.07	0.00	0.25	0.15	0.00	-0.24	0.00	0.16	0.06	100.47	100.41		
11	Aug-00	71.0	40.3	4683.284	2761.486	0.23	1.10	0.00	-0.50	0.04	0.00	0.13	0.00	-0.32	-0.14	100.32	100.27		
12	Sep-00	71.0	40.2	4717.899	2655.642	0.74	-3.91	0.00	-0.25	0.14	0.00	-0.46	0.00	-0.16	-0.48	99.85	99.79		
13	Oct-00	71.0	40.2	4716.229	2643.343	-0.04	-0.46	0.00	0.00	-0.01	0.00	-0.05	0.00	0.00	-0.06	99.78	99.73		
14	Nov-00	71.0	40.2	4778.21	2603.113	1.31	-1.53	0.00	0.00	0.25	0.00	-0.18	0.00	0.00	0.07	99.85	99.80		
15	Dec-00	71.0	39.8	4782.651	2546.784	0.09	-2.19	0.00	-1.00	0.02	0.00	-0.26	0.00	-0.64	-0.88	98.98	98.93		
16	Jan-01	71.0	40.1	4758.955	2601.162	-0.50	2.11	0.00	0.75	-0.09	0.00	0.25	0.00	0.48	0.63	99.61	99.56		
17	Feb-01	71.0	40.0	4702.989	2664.417	-1.18	2.40	0.00	-0.25	-0.22	0.00	0.28	0.00	-0.16	-0.10	99.51	99.46		
18	Mar-01	71.0	39.9	4635.226	2549.567	-1.45	-4.41	0.00	-0.25	-0.27	0.00	-0.52	0.00	-0.16	-0.95	98.57	98.51		
19	Apr-01	71.0	39.9	4586.372	2439.539	-1.06	-4.41	0.00	0.00	-0.20	0.00	-0.52	0.00	0.00	-0.72	97.86	97.81		
20	May-01	71.0	39.8	4535.373	2542.065	-1.12	4.12	0.00	-0.25	-0.21	0.00	0.48	0.00	-0.16	0.11	97.97	97.92		
21	Jun-01	71.0	39.8	4555.344	2589.695	0.44	1.86	0.00	0.00	0.08	0.00	0.22	0.00	0.00	0.30	98.27	98.21		
22	Jul-01	71.0	40.0	4475.598	2589.474	-1.77	-0.01	0.00	0.50	-0.33	0.00	0.00	0.00	0.32	-0.02	98.25	98.20		
23	Aug-01	71.0	39.8	4434.99	2595.602	-0.91	0.24	0.00	-0.50	-0.17	0.00	0.03	0.00	-0.32	-0.46	97.80	97.75		
24	Sep-01	71.0	39.9	4400.381	2559.581	-0.78	-1.40	0.00	0.25	-0.15	0.00	-0.16	0.00	0.16	-0.15	97.65	97.60		
25	Oct-01	71.0	39.8	4399.236	2491.837	-0.03	-2.64	0.00	-0.25	0.00	0.00	-0.31	0.00	-0.16	-0.47	97.19	97.13		
26	Nov-01	71.0	39.8	4383.142	2516.284	-0.37	0.94	0.00	0.00	-0.07	0.00	0.11	0.00	0.00	0.04	97.22	97.17		
27	Dec-01	76.0	39.9	4372.474	2538.98	-0.24	0.90	5.00	0.25	-0.05	0.00	0.11	0.28	0.16	0.50	97.71	97.66		
28	Jan-02	76.0	39.7	4239.923	2410.749	-3.08	-5.18	0.00	-0.50	-0.58	0.00	-0.61	0.00	-0.32	-1.51	96.25	96.20		
29	Feb-02	76.0	39.9	4107.177	2629.665	-3.18	8.69	0.00	0.50	-0.60	0.00	1.02	0.00	0.32	0.74	96.96	96.91		
30	Mar-02	76.0	40.1	3965.747	2565.176	-3.50	-2.48	0.00	0.50	-0.66	0.00	-0.29	0.00	0.32	-0.63	96.35	96.30		
31	Apr-02	76.0	40.0	3928.03	2616.477	-0.96	1.98	0.00	-0.25	-0.18	0.00	0.23	0.00	-0.16	-0.11	96.25	96.20		
32	May-02	76.0	40.2	3875.947	2634.47	-1.33	0.69	0.00	0.50	-0.25	0.00	0.08	0.00	0.32	0.15	96.39	96.34		
33	Jun-02	76.0	40.2	3804.924	2596.591	-1.85	-1.45	0.00	0.00	-0.35	0.00	-0.17	0.00	0.00	-0.52	95.89	95.84		
34	Jul-02	76.0	40.1	3764.428	2488.174	-1.07	-4.26	0.00	-0.25	-0.20	0.00	-0.50	0.00	-0.16	-0.86	95.06	95.02		
35	Aug-02	76.0	40.2	3688.679	2498.113	-2.03	0.40	0.00	0.25	-0.38	0.00	0.05	0.00	0.16	-0.18	94.89	94.85		
36	Sep-02	76.0	40.0	3621.825	2504.233	-1.83	0.24	0.00	-0.50	-0.35	0.00	0.03	0.00	-0.32	-0.63	94.29	94.25		
37	Oct-02	76.0	39.9	3522.556	2460.526	-2.78	-1.76	0.00	-0.25	-0.53	0.00	-0.21	0.00	-0.16	-0.89	93.46	93.41		
38	Nov-02	76.0	39.9	3413.923	2468.485	-3.13	0.32	0.00	0.00	-0.59	0.00	0.04	0.00	0.00	-0.55	92.94	92.89		
39	Dec-02	66.0	40.0	3338.679	2493.396	-2.23	1.00	-10.00	0.25	-0.42	0.00	0.12	-0.57	0.16	-0.71	92.28	92.24		
40	Jan-03	66.0	39.8	3359.624	2304.225	0.63	-7.89	0.00	-0.50	0.12	0.00	-0.92	0.00	-0.32	-1.13	91.25	91.20		
41	Feb-03	66.0	39.8	3341.1	2342.032	-0.55	1.63	0.00	0.00	-0.10	0.00	0.19	0.00	0.00	0.09	91.33	91.28		
42	Mar-03	66.0	40.0	3298.424	2372.567	-1.29	1.30	0.00	0.50	-0.24	0.00	0.15	0.00	0.32	0.23	91.54	91.49		
43	Apr-03	66.0	39.6	3302.693	2365.831	0.13	-0.28	0.00	-1.01	0.02	0.00	-0.03	0.00	-0.64	-0.65	90.95	90.90		
44	May-03	66.0	39.6	3278.14	2343.256	-0.75	-0.96	0.00	0.00	-0.14	0.00	-0.11	0.00	0.00	-0.25	90.72	90.67		
45	Jun-03	66.0	39.8	3229.554	2352.23	-1.49	0.38	0.00	0.00	-0.28	0.00	0.04	0.00	0.00	-0.24	90.50	90.45		
46	Jul-03	66.0	39.5	3198.7	2411.328	-0.96	2.48	0.00	-0.25	-0.18	0.00	0.29	0.00	-0.16	-0.05	90.45	90.41		
47	Aug-03	66.0	39.6	3173.752	2375.231	-0.78	-1.51	0.00	0.25	-0.15	0.00	-0.18	0.00	0.16	-0.16	90.31	90.26		
48	Sep-03	66.0	39.8	3110.599	2441.475	-2.01	2.75	0.00	0.50	-0.38	0.00	0.32	0.00	0.32	0.26	90.54	90.50		
49	Oct-03	66.0	40.0	3067.343	2480.627	-1.40	1.59	0.00	0.50	-0.26	0.00	0.19	0.00	0.32	0.24	90.76	90.72		
50	Nov-03	66.0	40.2	3105.556	2501.852	1.24	0.85	0.00	0.50	0.23	0.00	0.10	0.00	0.32	0.65	91.36	91.31		
51	Dec-03	73.0	40.0	3118.738	2773.655	0.42	10.30	7.00	-0.50	0.08	0.00	1.21	0.40	-0.32	1.37	92.61	92.57		
52	Jan-04	73.0	40.1	3056.221	2624.885	-2.02	-5.51	0.00	0.25	-0.38	0.00	-0.65	0.00	0.16	-0.87	91.81	91.76		
53	Feb-04	73.0	40.2	3028.414	2555.454	-0.91	-2.68	0.00	0.25	-0.17	0.00	-0.31	0.00	0.16	-0.33	91.51	91.46		
54	Mar-04	73.0	40.1	3025.524	2560.62	-0.10	0.20	0.00	-0.25	-0.02	0.00	0.02	0.00	-0.16	-0.15	91.37	91.32		
55	Apr-04	73.0	40.0	3032.727	2490.909	0.24	-2.76	0.00	-0.25	0.04	0.00	-0.32	0.00	-0.16	-0.44	90.97	90.92		
56	May-04	73.0	40.3	3003.617	2479.204	-0.96	-0.47	0.00	0.75	-0.18	0.00	-0.06	0.00	0.48	0.24	91.19	91.14		
57	Jun-04	73.0	40.0	3017.148	2469.314	0.45	-0.40	0.00	-0.75	0.08	0.00	-0.05	0.00	-0.48	-0.44	90.79	90.74		
58	Jul-04	73.0	40.1	3037.037	2519.422	0.66	2.01	0.00	0.25	0.12	0.00	0.24	0.00	0.16	0.52	91.26	91.22		
59	Aug-04	73.0	40.2	3037.94	2546.522	0.03	1.07	0.00	0.25	0.01	0.00	0.13	0.00	0.16	0.29	91.53	91.48		
60	Sep-04	73.0	40.1	3071.171	2504.505	1.09	-1.66	0.00	-0.25	0.21	0.00	-0.20	0.00	-0.16	-0.15	91.39	91.34		
61	Oct-04	73.0	39.9	3052.867	2536.738	-0.60	1.28	0.00	-0.50	-0.11	0.00	0.15	0.00	-0.32	-0.28	91.14	91.09		
62	Nov-04	73.0	39.8	3049.283	2556.452	-0.12	0.77	0.00	-0.25	-0.02	0.00	0.09	0.00	-0.16	-0.09	91.05	91.00		
63	Dec-04	73.0	39.8	3046.763	2558.453	-0.08	0.08	0.00	0.00	-0.02	0.00	0.01	0.00	0.00	-0.01	91.05	91.00		
64	Jan-05	73.0	40.0	3114.106	2618.149	2.19	2.31	0.00	0.50	0.41	0.00	0.27	0.00	0.32	1.00	91.96	91.92		
65	Feb-05	73.0	39.9	3117.069	2605.898	0.10	-0.47	0.00	-0.25	0.02	0.00	-0.06	0.00	-0.16	-0.20	91.78	91.74		
66	Mar-05	73.0	39.8	3106.572	2540.853	-0.34	2.53	0.00	-0.25	-0.06	0.00	-0.30	0.00	-0.16	-0.52	91.31	91.26		
67	Apr-05	73.0	39.8	3048.501	2548.501	-1.89	0.30	0.00	0.00	-0.36	0.00	0.04	0.00	0.00	-0.32	91.01	90.97		
68	May-05	73.0	39.7	3043.248	2512.798	-0.17	-1.41	0.00	-0.25	-0.03	0.00	-0.17	0.00	-0.16	-0.36	90.69	90.64		
69	Jun-05	73.0	39.7	3034.452	2522.968	-0.29	0.40	0.00	0.00	-0.05	0.00	0.05	0.00	0.00	-0.01	90.68	90.63		
70	Jul-05	73.0	39.7	2983.289	2523.307	-1.70	0.01	0.00	0.00	-0.32	0.00	0.00	0.00	0.00	-0.32	90.39	90.35		
71	Aug-05	73.0	39.7	2976.378	2550.306	-0.23	1.06	0.00	0.00	-0.04	0.00	0.12	0.00	0.00	0.08	90.47	90.42</		

Table C.5 - Continued

	A	E	F	H	J	K	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	72.0	40.5	2971.354	2574.653	-2.09	0.76	0.00	0.74	-0.39	0.00	0.09	0.00	0.47	0.17	91.64	91.60
77	Feb-06	72.0	40.5	2957.539	2577.99	-0.47	0.13	0.00	0.00	-0.09	0.00	0.02	0.00	0.00	-0.07	91.58	91.53
78	Mar-06	72.0	40.5	2930.172	2545.69	-0.93	-1.26	0.00	0.00	-0.18	0.00	-0.15	0.00	0.00	-0.32	91.28	91.23
79	Apr-06	72.0	40.5	2887.938	2416.595	-1.45	-5.20	0.00	0.00	-0.27	0.00	-0.61	0.00	0.00	-0.88	90.48	90.43
80	May-06	72.0	40.6	2842.553	2424.681	-1.58	0.33	0.00	0.25	-0.30	0.00	0.04	0.00	0.16	-0.10	90.38	90.34
81	Jun-06	72.0	40.7	2898.895	2381.478	1.96	-1.80	0.00	0.25	0.37	0.00	-0.21	0.00	0.16	0.32	90.67	90.62
82	Jul-06	72.0	40.8	2914.479	2345.47	0.54	-1.52	0.00	0.25	0.10	0.00	-0.18	0.00	0.16	0.08	90.74	90.70
83	Aug-06	72.0	40.6	2892.646	2268.808	-0.75	-3.32	0.00	-0.49	-0.14	0.00	-0.39	0.00	-0.31	-0.84	89.98	89.93
84	Sep-06	72.0	40.6	2880.306	2291.171	-0.43	0.98	0.00	0.00	-0.08	0.00	0.12	0.00	0.00	0.03	90.01	89.96
85	Oct-06	72.0	40.7	2873.612	2239.966	-0.23	-2.26	0.00	0.25	-0.04	0.00	-0.27	0.00	0.16	-0.15	89.87	89.83
86	Nov-06	72.0	40.6	2830.624	2205.304	-1.51	-1.56	0.00	-0.25	-0.28	0.00	-0.18	0.00	-0.16	-0.62	89.31	89.27
87	Dec-06	70.0	40.7	2800	2215.385	-1.09	0.46	-2.00	0.25	-0.21	0.00	0.05	-0.11	0.16	-0.11	89.22	89.17
88	Jan-07	70.0	40.7	2758.033	2162.277	-1.51	-2.43	0.00	0.00	-0.29	0.00	-0.28	0.00	0.00	-0.57	88.71	88.66
89	Feb-07	70.0	40.6	2731.661	2104.736	-0.96	-2.70	0.00	-0.25	-0.18	0.00	-0.32	0.00	-0.16	-0.65	88.13	88.09
90	Mar-07	70.0	40.9	2670.86	2053.602	-2.25	-2.46	0.00	0.74	-0.43	0.00	-0.29	0.00	0.47	-0.24	87.92	87.87
91	Apr-07	70.0	41.0	2620.627	1985.526	-1.90	-3.37	0.00	0.24	-0.36	0.00	-0.40	0.00	0.16	-0.60	87.39	87.35
92	May-07	70.0	40.8	2668.507	1987.663	1.81	0.11	0.00	-0.49	0.34	0.00	0.01	0.00	-0.31	0.04	87.43	87.38
93	Jun-07	70.0	40.9	2671.892	1991.88	0.13	0.21	0.00	0.24	0.02	0.00	0.02	0.00	0.16	0.20	87.61	87.56
94	Jul-07	70.0	40.9	2674.93	1953.862	0.11	-1.93	0.00	0.00	0.02	0.00	-0.23	0.00	0.00	-0.20	87.43	87.38
95	Aug-07	70.0	40.8	2675.246	1972.765	0.01	0.96	0.00	-0.24	0.00	0.00	0.11	0.00	-0.16	-0.04	87.39	87.35
96	Sep-07	70.0	40.9	2675.774	1934.714	0.02	-1.95	0.00	0.24	0.00	0.00	-0.23	0.00	0.16	-0.07	87.33	87.29
97	Oct-07	70.0	40.8	2671.961	1946.478	-0.14	0.61	0.00	-0.24	-0.03	0.00	0.07	0.00	-0.16	-0.11	87.24	87.19
98	Nov-07	70.0	40.9	2672.023	1945.983	0.00	-0.03	0.00	0.24	0.00	0.00	0.00	0.00	0.16	0.15	87.37	87.32
99	Dec-07	70.0	40.9	2691.784	1925.883	0.74	-1.04	0.00	0.00	0.14	0.00	-0.12	0.00	0.00	0.02	87.39	87.34
100	Jan-08	70.0	40.6	2698.023	1910.279	0.23	-0.81	0.00	-0.74	0.04	0.00	-0.10	0.00	-0.47	-0.52	86.93	86.89
101	Feb-08	70.0	40.6	2682.209	1874.847	-0.59	-1.87	0.00	0.00	-0.11	0.00	-0.22	0.00	0.00	-0.33	86.64	86.60
102	Mar-08	73.3	40.8	2664.548	1869.886	-0.66	-0.26	3.30	0.49	-0.12	0.00	-0.03	0.19	0.31	0.34	86.94	86.90
103	Apr-08	73.3	40.6	2643.495	1881.305	-0.79	0.61	0.00	-0.49	-0.15	0.00	0.07	0.00	-0.31	-0.39	86.60	86.56
104	May-08	73.3	40.5	2603.638	1872.638	-1.52	-0.46	0.00	-0.25	-0.29	0.00	-0.05	0.00	-0.16	-0.50	86.17	86.13
105	Jun-08	74.6	40.6	2554.886	1870.839	-1.89	-0.10	1.30	0.25	-0.36	0.00	-0.01	0.07	0.16	-0.14	86.05	86.01
106	Jul-08	74.6	40.5	2636.348	1825.588	3.14	-2.45	0.00	-0.25	0.59	0.00	-0.29	0.00	-0.16	0.15	86.18	86.14
107	Aug-08	74.6	40.4	2646.255	1798.663	0.38	-1.49	0.00	-0.25	0.07	0.00	-0.17	0.00	-0.16	-0.26	85.96	85.91
108	Sep-08	64.3	40.2	2665.329	1707.612	0.72	-5.19	-10.30	-0.50	0.14	0.00	-0.61	-0.58	-0.32	-1.37	84.79	84.74
109	Oct-08	64.3	40.2	2716.335	1686.853	1.90	-1.22	0.00	0.00	0.36	0.00	-0.14	0.00	0.00	0.21	84.97	84.92
110	Nov-08	64.3	39.9	2766.49	1619.746	1.83	-4.06	0.00	-0.75	0.35	0.00	-0.48	0.00	-0.48	-0.61	84.45	84.41
111	Dec-08	62.5	39.6	2770.717	1567.989	0.15	-3.25	-1.80	-0.75	0.03	0.00	-0.38	-0.10	-0.48	-0.93	83.67	83.62
112	Jan-09	62.5	39.6	2551.292	1546.337	-8.25	-1.39	0.00	0.00	-1.56	0.00	-0.16	0.00	0.00	-1.72	82.24	82.20
113	Feb-09	62.5	39.5	2425.814	1510.628	-5.04	-2.34	0.00	-0.25	-0.95	0.00	-0.27	0.00	-0.16	-1.39	81.11	81.06
114	Mar-09	54.5	39.4	2366.392	1444.59	-2.48	-4.47	-8.00	-0.25	-0.47	0.00	-0.52	-0.45	-0.16	-1.61	79.81	79.77
115	Apr-09	54.5	39.5	2280.318	1445.719	-3.70	0.08	0.00	0.25	-0.70	0.00	0.01	0.00	0.16	-0.53	79.39	79.35
116	May-09	54.5	39.5	2219.936	1399.208	-2.68	-3.27	0.00	0.00	-0.51	0.00	-0.38	0.00	0.00	-0.89	78.69	78.65
117	Jun-09	55.2	39.7	2149.657	1364.02	-3.22	-2.55	0.70	0.51	-0.61	0.00	-0.30	0.04	0.32	-0.55	78.26	78.22
118	Jul-09	55.2	39.9	2140.909	1414.4	-0.41	3.63	0.00	0.50	-0.08	0.00	0.43	0.00	0.32	0.67	78.79	78.74
119	Aug-09	55.2	39.9	2120.045	1389.825	-0.98	-1.75	0.00	0.00	-0.19	0.00	-0.21	0.00	0.00	-0.39	78.48	78.44
120	Sep-09	57.2	39.8	2101.743	1411.319	-0.87	1.53	2.00	-0.25	-0.16	0.00	0.18	0.11	-0.16	-0.03	78.45	78.41
121	Oct-09	57.2	40.0	2091.497	1407.153	-0.49	-0.30	0.00	0.50	-0.09	0.00	-0.03	0.00	0.32	0.19	78.61	78.56
122	Nov-09	57.2	40.2	2081.931	1423.214	-0.46	1.13	0.00	0.50	-0.09	0.00	0.13	0.00	0.32	0.36	78.89	78.85
123	Dec-09	60.1	40.5	2087.616	1464.543	0.27	2.86	2.90	0.74	0.05	0.00	0.34	0.16	0.47	1.02	79.70	79.66
124	Jan-10	60.1	40.8	2066.45	1488.036	-1.02	1.59	0.00	0.74	-0.19	0.00	0.19	0.00	0.47	0.46	80.08	80.03
125	Feb-10	60.1	40.2	2057.244	1441.911	-0.45	-3.15	0.00	-1.48	-0.08	0.00	-0.37	0.00	-0.94	-1.40	78.96	78.92
126	Mar-10	60.1	40.7	2063.285	1447.486	0.29	0.39	0.00	1.24	0.06	0.00	0.05	0.00	0.79	0.89	79.67	79.63
127	Apr-10	60.1	40.9	2074.121	1447.431	0.52	0.00	0.00	0.49	0.10	0.00	0.00	0.00	0.31	0.41	80.00	79.96
128	May-10	60.1	41.2	2085.602	1450.542	0.55	0.21	0.00	0.73	0.10	0.00	0.03	0.00	0.47	0.60	80.47	80.43
129	Jun-10	60.1	40.5	2131.149	1425.808	2.16	-1.72	0.00	-1.71	0.41	0.00	-0.20	0.00	-1.09	-0.89	79.77	79.72
130	Jul-10	60.1	40.7	2151.822	1408.002	0.97	-1.26	0.00	0.49	0.18	0.00	-0.15	0.00	0.31	0.35	80.04	80.00
131	Aug-10	60.1	40.9	2180.276	1400.754	1.31	-0.52	0.00	0.49	0.25	0.00	-0.06	0.00	0.31	0.50	80.45	80.40
132	Sep-10	57.4	41.0	2210.968	1409.582	1.40	0.63	-2.70	0.24	0.26	0.00	0.07	-0.15	0.16	0.34	80.72	80.68
133	Oct-10	57.4	40.9	2218.659	1412.163	0.35	0.18	0.00	-0.24	0.07	0.00	0.02	0.00	0.16	-0.07	80.66	80.62
134	Nov-10	57.4	40.6	2231.516	1426.837	0.58	1.03	0.00	-0.74	0.11	0.00	0.12	0.00	-0.47	-0.24	80.47	80.43
135	Dec-10	57.3	40.7	2253.858	1421.238	1.00	-0.39	-0.10	0.25	0.19	0.00	-0.05	-0.01	0.16	0.29	80.71	80.67
136	Jan-11	57.3	40.5	2297.119	1398.144	1.90	-1.64	0.00	-0.49	0.36	0.00	-0.19	0.00	-0.31	-0.15	80.59	80.55
137	Feb-11	57.3	40.8	2284.409	1446.296	-0.55	3.39	0.00	0.74	-0.10	0.00	0.40	0.00	0.47	0.76	81.21	81.16
138	Mar-11	0.0	40.7	2278.841	1461.693	-0.24	1.06	-57.30	-0.25	-0.05	0.00	0.12	-3.24	-0.16	-3.32	78.56	78.51
139	Apr-11	0.0	40.9	2294.294	1416.45	0.68	-3.14	0.00	0.49	0.13	0.00	-0.37	0.00	0.31	0.07	78.61	78.57
140	May-11	0.0	40.9	2301.778	1409.849	0.33	-0.47	0.00	0.00	0.06	0.00	-0.05	0.00	0.00	0.01	78.62	78.58
141	Jun-11	0.0	40.7	2309.748	1427.9	0.35	1.27	0.00	-0.49	0.07	0.00	0.15	0.00	-0.31	-0.10	78.54	78.50
142	Jul-11	0.0	40.8	2332.025	1405.372	0.96	-1.59	0.00	0.25	0.18	0.00	-0.19	0.00	0.16	0.15	78.66	78.62
143	Aug-11	0.0	40.8	2339.204	1409.51	0.31	0.29	0.00	-0.49	0.06	0.00	0.03	0.00	-0.31	-0.22	78.49	78.44

NAICS 315 – Apparel

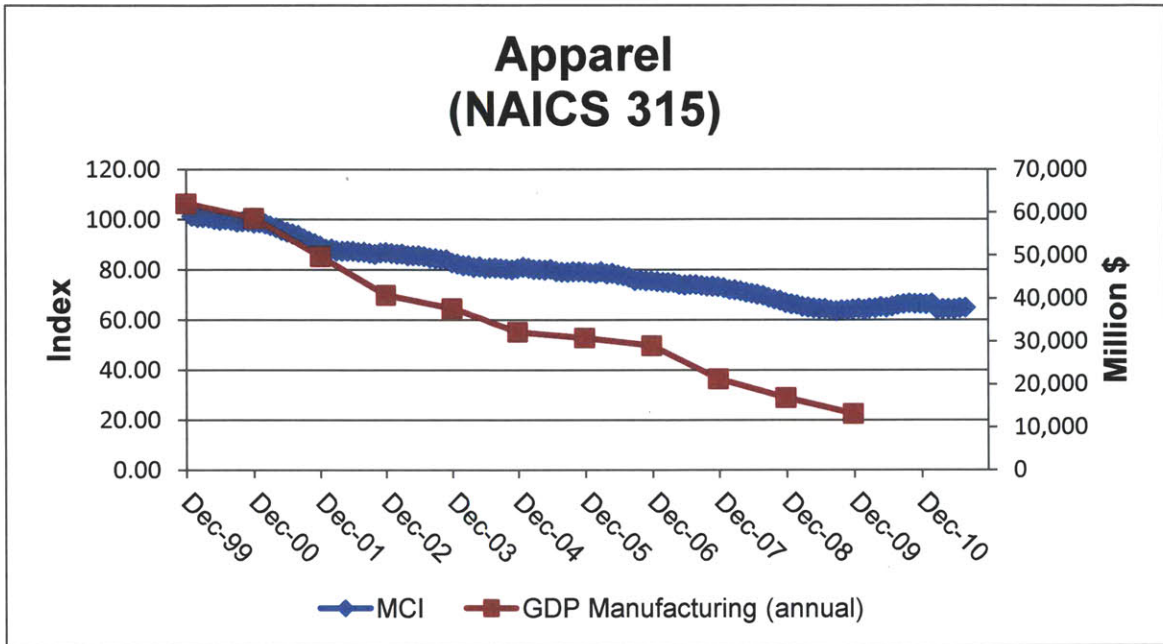


Figure C.11 – MCI and annual GDP Apparel including all industries gathered in the NAICS 315 classification.

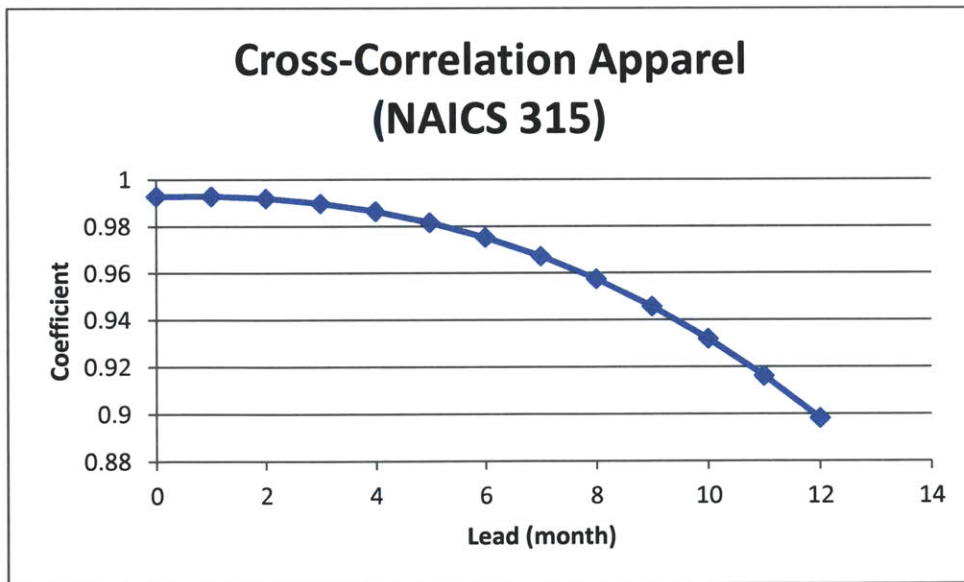


Figure C.12 – Cross-Correlation of MCI and annual GDP Apparel including all industries gathered in the NAICS 315 classification.

Table C.6
MCI computations for Apparel (NAICS 315)

1	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W			
2	Month	CU	Avg.WH	Inventory	Ship	0.16	0.09	0.06	0.69	Dollar adjusted							98.61		
3	Dec-99	75.0	40.4	9785	5060	0.51	0.29	0.18	2.20	C(I,t)							St	Index	Rebased
4	Jan-00	75.0	40.5	9762.712	5149.551	-0.23	1.75	0.00	0.25	-0.04	0.16	0.00	0.17	0.29	100.00	101.41			
5	Feb-00	75.0	40.6	9590.684	4923.687	-1.78	-4.48	0.00	0.25	-0.29	-0.41	0.00	0.17	-0.52	99.48	100.88			
6	Mar-00	75.0	40.4	9485.236	5211.614	-1.11	5.68	0.00	-0.49	-0.18	0.52	0.00	-0.34	0.00	99.48	100.88			
7	Apr-00	75.0	40.6	9390.748	5028.543	-1.00	-3.58	0.00	0.49	-0.16	-0.32	0.00	0.34	-0.14	99.33	100.73			
8	May-00	75.0	40.4	9321.534	4963.618	-0.74	-1.30	0.00	-0.49	-0.12	-0.12	0.00	-0.34	-0.58	98.76	100.15			
9	Jun-00	75.0	40.4	9234.084	4843.291	-0.94	-2.45	0.00	0.00	-0.15	-0.22	0.00	0.00	-0.37	98.39	99.78			
10	Jul-00	75.0	40.5	9274.682	4832.845	0.44	-0.22	0.00	0.25	0.07	-0.02	0.00	0.17	0.22	98.61	100.00			
11	Aug-00	75.0	40.3	9226.784	4961.877	-0.52	2.63	0.00	-0.50	-0.08	0.24	0.00	-0.34	-0.19	98.43	99.81			
12	Sep-00	75.0	40.2	9117.704	4801.556	-1.19	-3.28	0.00	-0.25	-0.19	-0.30	0.00	-0.17	-0.66	97.78	99.15			
13	Oct-00	75.0	40.2	9157.434	4840.622	0.43	0.81	0.00	0.00	0.07	0.07	0.00	0.00	0.14	97.92	99.30			
14	Nov-00	75.0	40.2	9281.128	4696.498	1.34	-3.02	0.00	0.00	0.22	-0.27	0.00	0.00	-0.06	97.86	99.24			
15	Dec-00	75.0	39.8	9257.31	4785.575	-0.26	1.88	0.00	-1.00	-0.04	0.17	0.00	-0.69	-0.56	97.31	98.68			
16	Jan-01	75.0	40.1	9155.857	4713.456	-1.10	-1.52	0.00	0.75	-0.18	-0.14	0.00	0.52	0.20	97.51	98.88			
17	Feb-01	75.0	40.0	8902.604	4781.099	-2.80	1.42	0.00	-0.25	-0.45	0.13	0.00	-0.17	-0.49	97.03	98.40			
18	Mar-01	75.0	39.9	8589.99	4790.183	-3.57	0.19	0.00	-0.25	-0.57	0.02	0.00	-0.17	-0.73	96.32	97.68			
19	Apr-01	75.0	39.9	8322.457	4625.72	-3.16	-3.49	0.00	0.00	-0.51	-0.32	0.00	0.00	-0.83	95.53	96.88			
20	May-01	75.0	39.8	8019.12	4467.495	-3.71	-3.48	0.00	-0.25	-0.60	-0.32	0.00	-0.17	-1.09	94.50	95.83			
21	Jun-01	75.0	39.8	7756.679	4332.061	-3.33	-3.08	0.00	0.00	-0.53	-0.28	0.00	0.00	-0.81	93.73	95.05			
22	Jul-01	75.0	40.0	7408.612	4210.526	-4.59	-2.85	0.00	0.50	-0.74	-0.26	0.00	0.35	-0.65	93.13	94.44			
23	Aug-01	75.0	39.8	7039.197	4486.616	-5.11	6.35	0.00	-0.50	-0.82	0.58	0.00	-0.35	-0.59	92.58	93.88			
24	Sep-01	75.0	39.9	6626.311	4203.051	-6.04	-6.53	0.00	0.25	-0.97	-0.59	0.00	0.17	-1.39	91.30	92.59			
25	Oct-01	75.0	39.8	6377.268	4046.8	-3.83	-3.79	0.00	-0.25	-0.62	-0.34	0.00	-0.17	-1.13	90.27	91.54			
26	Nov-01	75.0	39.8	6124.521	3826.628	-4.04	-5.59	0.00	0.00	-0.65	-0.51	0.00	0.00	-1.16	89.23	90.49			
27	Dec-01	69.0	39.9	5741.097	3894.129	-6.46	1.75	-6.00	0.25	-1.04	0.16	-0.34	0.17	-1.05	88.30	89.55			
28	Jan-02	69.0	39.7	5547.025	3724.568	-3.44	-4.45	0.00	-0.50	-0.55	-0.40	0.00	-0.35	-1.30	87.16	88.39			
29	Feb-02	69.0	39.9	5451.675	3733.971	-1.73	0.25	0.00	0.50	-0.28	0.02	0.00	0.35	0.09	87.24	88.47			
30	Mar-02	69.0	40.1	5339.676	3375.833	-2.08	-10.07	0.00	0.50	-0.33	-0.92	0.00	0.35	-0.90	86.46	87.67			
31	Apr-02	69.0	40.0	5258.523	3467.803	-1.53	2.69	0.00	-0.25	-0.25	0.24	0.00	-0.17	-0.17	86.30	87.52			
32	May-02	69.0	40.2	5256.629	3361.742	-0.04	-3.11	0.00	0.50	-0.01	-0.28	0.00	0.35	0.06	86.35	87.57			
33	Jun-02	69.0	40.2	5261.364	3347.538	0.09	-0.42	0.00	0.00	0.01	-0.04	0.00	0.00	-0.02	86.33	87.55			
34	Jul-02	69.0	40.1	5243.141	3250.71	-0.35	-2.93	0.00	-0.25	-0.06	-0.27	0.00	-0.17	-0.49	85.91	87.12			
35	Aug-02	69.0	40.2	5237.736	3206.604	-0.10	-1.37	0.00	0.25	-0.02	-0.12	0.00	0.17	0.03	85.93	87.14			
36	Sep-02	69.0	40.0	5279.398	3114.77	0.79	-2.91	0.00	-0.50	0.13	-0.26	0.00	-0.35	-0.48	85.52	86.73			
37	Oct-02	69.0	39.9	5336.466	2937.97	1.08	-5.84	0.00	-0.25	0.17	-0.53	0.00	-0.17	-0.53	85.07	86.27			
38	Nov-02	69.0	39.9	5374.412	3140.169	0.71	6.65	0.00	0.00	0.11	0.60	0.00	0.00	0.72	85.68	86.89			
39	Dec-02	72.0	40.0	5364.151	3092.453	-0.19	-1.53	3.00	0.25	-0.03	-0.14	0.17	0.17	0.17	85.83	87.04			
40	Jan-03	72.0	39.8	5329.577	3081.69	-0.65	-0.35	0.00	-0.50	-0.10	-0.03	0.00	-0.35	-0.48	85.42	86.62			
41	Feb-03	72.0	39.8	5278.658	3016.775	-0.96	-2.13	0.00	0.00	-0.15	-0.19	0.00	0.00	-0.35	85.12	86.32			
42	Mar-03	72.0	40.0	5226.135	2991.659	-1.00	-0.84	0.00	0.50	-0.16	-0.08	0.00	0.35	0.11	85.21	86.41			
43	Apr-03	72.0	39.6	5243.268	2953.575	0.33	-1.28	0.00	-1.01	0.05	-0.12	0.00	-0.70	-0.76	84.57	85.76			
44	May-03	72.0	39.6	5199.07	3004.651	-0.85	1.71	0.00	0.00	-0.14	0.16	0.00	0.00	0.02	84.59	85.78			
45	Jun-03	72.0	39.6	5061.338	3149.628	-2.68	4.71	0.00	0.00	-0.43	0.43	0.00	0.00	0.00	84.58	85.78			
46	Jul-03	72.0	39.5	5038.997	3096.565	-0.44	-1.70	0.00	-0.25	-0.07	-0.15	0.00	-0.17	-0.40	84.25	85.43			
47	Aug-03	72.0	39.6	4841.959	3042.514	-3.99	-1.76	0.00	0.25	-0.64	-0.16	0.00	0.17	-0.63	83.72	84.90			
48	Sep-03	72.0	39.8	4699.539	2963.134	-2.99	-2.64	0.00	0.50	-0.48	-0.24	0.00	0.35	-0.37	83.41	84.59			
49	Oct-03	72.0	40.0	4546.125	2916.052	-3.32	-1.60	0.00	0.50	-0.53	-0.15	0.00	0.35	-0.33	83.13	84.30			
50	Nov-03	72.0	40.2	4441.667	2866.667	-2.32	-1.71	0.00	0.50	-0.37	-0.16	0.00	0.35	-0.18	82.98	84.15			
51	Dec-03	66.0	40.0	4329.314	2736.549	-2.56	-4.64	-6.00	-0.50	-0.41	-0.42	-0.34	-0.35	-1.52	81.73	82.88			
52	Jan-04	66.0	40.1	4207.373	2667.281	-2.86	-2.56	0.00	0.25	-0.46	-0.23	0.00	0.17	-0.52	81.31	82.45			
53	Feb-04	66.0	40.2	4053.162	2564.62	-3.73	-3.92	0.00	0.25	-0.60	-0.36	0.00	0.17	-0.78	80.67	81.81			
54	Mar-04	66.0	40.1	4014.585	2659.07	-0.96	3.62	0.00	-0.25	-0.15	0.33	0.00	-0.17	0.00	80.67	81.81			
55	Apr-04	66.0	40.0	3930.909	2526.364	-2.11	-5.12	0.00	-0.25	-0.34	-0.47	0.00	-0.17	-0.98	79.89	81.02			
56	May-04	66.0	40.3	3883.363	2537.071	-1.22	0.42	0.00	0.75	-0.20	0.04	0.00	0.52	0.36	80.18	81.31			
57	Jun-04	66.0	40.0	3902.527	2417.87	0.49	-4.81	0.00	-0.75	0.08	-0.44	0.00	-0.52	-0.88	79.48	80.60			
58	Jul-04	66.0	40.1	3923.216	2446.251	0.53	1.17	0.00	0.25	0.08	0.11	0.00	0.17	0.36	79.77	80.89			
59	Aug-04	66.0	40.2	3935.863	2394.761	0.32	-2.13	0.00	0.25	0.05	-0.19	0.00	0.17	0.03	79.79	80.92			
60	Sep-04	66.0	40.1	3937.838	2371.171	0.05	-0.99	0.00	-0.25	0.01	-0.09	0.00	-0.17	-0.25	79.59	80.71			
61	Oct-04	66.0	39.9	3916.667	2378.136	-0.54	0.29	0.00	-0.50	-0.09	0.03	0.00	-0.35	-0.41	79.27	80.39			
62	Nov-04	66.0	39.8	3917.563	2345.878	0.02	-1.37	0.00	-0.25	0.00	-0.12	0.00	-0.17	-0.29	79.04	80.15			
63	Dec-04	74.0	39.8	3901.978	2391.187	-0.40	1.91	8.00	0.00	-0.06	0.17	0.45	0.00	0.56	79.48	80.60			
64	Jan-05	74.0	40.0	3973.944	2411.5	1.83	0.85	0.00	0.50	0.29	0.08	0.00	0.35	0.72	80.06	81.18			
65	Feb-05	74.0	39.9	3959.786	2344.057	-0.36	-2.84	0.00	-0.25	-0.06	-0.26	0.00	-0.17	-0.49	79.67	80.79			
66	Mar-05	74.0	39.8	3920.071	2264.654	-1.01	-3.45	0.00	-0.25	-0.16	-0.31	0.00	-0.17	-0.65	79.15	80.27			
67	Apr-05	74.0	39.8	3895.944	2270.723	-0.62	0.27	0.00	0.00	-0.10	0.02	0.00	0.00	-0.07	79.09	80.21			
68	May-05	74.0	39.7	3867.608	2287.732	-0.73	0.75	0.00	-0.25	-0.12	0.07	0.00	-0.17	-0.22	78.92	80.03			
69	Jun-05	74.0	39.7	3806.537	2453.18	-1.59	6.98	0.00	0.00	-0.26	0.63	0.00	0.00	0.38	79.21	80.33			
70	Jul-05	74.0	39.7	3717.678	2288.478	-2.36	-6.95	0.00	0.00	-0.38	-0.63	0.00	0.00	-1.01	78.42	79.52			
71	Aug-05	74.0	39.7	3691.164	2240.595	-0.72	-2.11	0.00	0.00	-0.11	-0.19	0.00	0.00	-0.31	78.18	79.28			
72	Sep-05	74.0	39.9	3624.567	2196.367	-1.82	-1.99	0.00	0.50	-0.29	-0.18	0.00	0.35	-0.13	78.08	79.18			
73	Oct-05	74.0	40.1	3592.913	2220.398	-0.88	1.09	0.00	0.50	-0.14	0.10	0.00	0.35	0.30	78.32	79.42			
74	Nov-05	74.0	40.0	3511.749	2330.722	-2.28	4.85	0.00	-0.25	-0.37	0.44	0.00	-0.17	-0.10	78.24	79.34			
75	Dec-05	71.0	40.2	3462.413	2336.538	-1.41	0.25	-3.00	0.50	-0.23	0.02	-0.17	0.35	-0.					

Table C.6 - Continued

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
76	Jan-06	71.0	40.5	3371.528	2200.521	-2.66	-6.00	0.00	0.74	-0.43	-0.54	0.00	0.51	-0.46	77.86	78.95
77	Feb-06	71.0	40.5	3322.357	2199.307	-1.47	-0.06	0.00	0.00	-0.24	-0.01	0.00	0.00	-0.24	77.67	78.76
78	Mar-06	71.0	40.5	3280.172	2457.759	-1.28	11.10	0.00	0.00	-0.21	1.01	0.00	0.00	0.80	78.30	79.40
79	Apr-06	71.0	40.5	3189.906	2268.606	-2.79	-8.00	0.00	0.00	-0.45	-0.73	0.00	0.00	-1.18	77.38	78.47
80	May-06	71.0	40.8	3128.511	2388.936	-1.94	5.17	0.00	0.25	-0.31	0.47	0.00	0.17	0.33	77.64	78.73
81	Jun-06	71.0	40.7	3024.639	2270.178	-3.38	-5.10	0.00	0.25	-0.54	-0.46	0.00	0.17	-0.84	76.99	78.07
82	Jul-06	71.0	40.8	2998.307	2139.712	-0.87	-5.92	0.00	0.25	-0.14	-0.54	0.00	0.17	-0.51	76.60	77.68
83	Aug-06	71.0	40.8	2998.309	2065.934	0.00	-3.51	0.00	-0.49	0.00	-0.32	0.00	-0.34	-0.66	76.10	77.17
84	Sep-06	71.0	40.8	2719.864	2028.862	-9.74	-1.81	0.00	0.00	-1.56	-0.16	0.00	0.00	-1.73	74.79	75.85
85	Oct-06	71.0	40.7	2727.583	2058.924	0.28	1.47	0.00	0.25	0.05	0.13	0.00	0.17	0.35	75.05	76.11
86	Nov-06	71.0	40.8	2751.069	1945.252	0.86	-5.68	0.00	-0.25	0.14	-0.52	0.00	-0.17	-0.55	74.64	75.70
87	Dec-06	71.0	40.7	2727.35	1949.573	-0.87	0.22	0.00	0.25	-0.14	0.02	0.00	0.17	0.05	74.68	75.73
88	Jan-07	71.0	40.7	2695.815	1897.213	-1.16	-2.72	0.00	0.00	-0.19	-0.25	0.00	0.00	-0.43	74.36	75.41
89	Feb-07	71.0	40.6	2679.064	1868.049	-0.62	-1.55	0.00	-0.25	-0.10	-0.14	0.00	-0.17	-0.41	74.05	75.10
90	Mar-07	71.0	40.9	2637.222	1808.885	-1.57	-3.22	0.00	0.74	-0.25	-0.29	0.00	0.51	-0.04	74.03	75.07
91	Apr-07	71.0	41.0	2639.012	1762.405	0.07	-2.60	0.00	0.24	0.01	-0.24	0.00	0.17	-0.06	73.99	75.03
92	May-07	71.0	40.8	2613.64	1677.585	-0.97	-4.93	0.00	-0.49	-0.16	-0.45	0.00	-0.34	-0.94	73.29	74.32
93	Jun-07	71.0	40.9	2621.244	1559.296	0.29	-7.31	0.00	0.24	0.05	-0.66	0.00	0.17	-0.45	72.96	73.99
94	Jul-07	71.0	40.9	2689.883	1540.161	2.58	-1.23	0.00	0.00	0.42	-0.11	0.00	0.00	0.30	73.19	74.22
95	Aug-07	71.0	40.8	2610.402	1656.857	-3.00	7.30	0.00	-0.24	-0.48	0.66	0.00	-0.17	0.01	73.19	74.23
96	Sep-07	71.0	40.9	2604.486	1541.803	-0.23	-7.19	0.00	0.24	-0.04	-0.65	0.00	0.17	-0.52	72.81	73.84
97	Oct-07	71.0	40.8	2603.301	1503.081	-0.05	-2.54	0.00	-0.24	-0.01	-0.23	0.00	-0.17	-0.41	72.52	73.54
98	Nov-07	71.0	40.9	2555.132	1516.286	-1.87	0.87	0.00	0.24	-0.30	0.08	0.00	0.17	-0.05	72.48	73.50
99	Dec-07	71.0	40.9	2592.028	1442.764	1.43	-4.97	0.00	0.00	0.23	-0.45	0.00	0.00	-0.22	72.32	73.34
100	Jan-08	71.0	40.6	2557.706	1477.841	-1.33	2.40	0.00	-0.74	-0.21	0.22	0.00	-0.51	-0.51	71.96	72.97
101	Feb-08	71.0	40.6	2494.888	1373.415	-2.49	-7.32	0.00	0.00	-0.40	-0.67	0.00	0.00	-1.07	71.19	72.20
102	Mar-08	74.8	40.8	2415.608	1352.546	-3.23	-1.53	3.80	0.49	-0.52	-0.14	0.22	0.34	-0.10	71.12	72.12
103	Apr-08	74.8	40.6	2365.529	1365.658	-2.09	0.96	0.00	-0.49	-0.34	0.09	0.00	-0.34	-0.59	70.70	71.70
104	May-08	74.8	40.5	2304.048	1325.387	-2.63	-2.99	0.00	-0.25	-0.42	-0.27	0.00	-0.17	-0.87	70.09	71.08
105	Jun-08	79.1	40.8	2227.113	1280.214	-3.40	-3.47	4.30	0.25	-0.55	-0.32	0.24	0.17	-0.45	69.78	70.76
106	Jul-08	79.1	40.5	2178.572	1272.475	-2.20	-0.61	0.00	-0.25	-0.35	-0.06	0.00	-0.17	-0.58	69.38	70.36
107	Aug-08	79.1	40.4	2137.542	1247.295	-1.90	-2.00	0.00	-0.25	-0.31	-0.18	0.00	-0.17	-0.66	68.92	69.89
108	Sep-08	75.1	40.2	2050.557	1251.669	-4.15	0.35	-4.00	-0.50	-0.67	0.03	-0.23	-0.34	-1.21	68.10	69.06
109	Oct-08	75.1	40.2	2015.936	1151.394	-1.70	-8.35	0.00	0.00	-0.27	-0.76	0.00	0.00	-1.03	67.40	68.35
110	Nov-08	75.1	39.9	1999.285	1156.497	-0.83	0.44	0.00	-0.75	-0.13	0.04	0.00	-0.52	-0.61	66.99	67.93
111	Dec-08	70.3	39.8	1957.107	1130.334	-2.13	-2.29	-4.80	-0.75	-0.34	-0.21	-0.27	-0.52	-1.34	66.09	67.02
112	Jan-09	70.3	39.8	1897.703	1092.592	-3.08	-3.40	0.00	0.00	-0.50	-0.31	0.00	0.00	-0.80	65.56	66.49
113	Feb-09	70.3	39.5	1866.262	1094.634	-1.67	0.19	0.00	-0.25	-0.27	0.02	0.00	-0.17	-0.43	65.29	66.20
114	Mar-09	69.7	39.4	1833.017	1021.148	-1.80	-6.95	-0.60	-0.25	-0.29	-0.63	-0.03	-0.18	-1.13	64.55	65.46
115	Apr-09	69.7	39.5	1799.225	997.1313	-1.86	-2.38	0.00	0.25	-0.30	-0.22	0.00	0.18	-0.34	64.33	65.24
116	May-09	69.7	39.5	1762.175	967.3734	-2.08	-3.03	0.00	0.00	-0.33	-0.28	0.00	0.00	-0.61	63.94	64.84
117	Jun-09	66.8	39.7	1711.853	959.955	-2.90	-0.77	-2.90	0.51	-0.47	-0.07	-0.16	0.35	-0.35	63.72	64.62
118	Jul-09	66.8	39.9	1675.074	970.2879	-2.17	1.07	0.00	0.50	-0.35	0.10	0.00	0.35	0.10	63.78	64.68
119	Aug-09	66.8	39.9	1625.742	917.1883	-2.99	-5.63	0.00	0.00	-0.48	-0.51	0.00	0.00	-0.99	63.15	64.04
120	Sep-09	67.0	39.8	1596.555	914.952	-1.81	-0.24	0.20	-0.25	-0.29	-0.02	0.01	-0.17	-0.48	62.85	63.74
121	Oct-09	67.0	40.0	1555.401	988.052	-2.61	7.68	0.00	0.50	-0.42	0.70	0.00	0.35	0.63	63.25	64.14
122	Nov-09	67.0	40.2	1541.815	969.6445	-0.88	-1.88	0.00	0.50	-0.14	-0.17	0.00	0.35	0.03	63.27	64.16
123	Dec-09	66.4	40.5	1520.748	977.1647	-1.38	0.77	-0.60	0.74	-0.22	0.07	-0.03	0.51	0.33	63.48	64.37
124	Jan-10	66.4	40.8	1544.037	952.8229	1.52	-2.52	0.00	0.74	0.24	-0.23	0.00	0.51	0.53	63.81	64.71
125	Feb-10	66.4	40.2	1554.736	968.2091	0.69	1.60	0.00	-1.48	0.11	0.15	0.00	-1.02	-0.77	63.32	64.21
126	Mar-10	66.4	40.7	1554.235	971.0981	-0.03	0.30	0.00	1.24	-0.01	0.03	0.00	0.86	0.88	63.88	64.78
127	Apr-10	66.4	40.9	1539.685	968.6655	-0.94	-0.25	0.00	0.49	-0.15	-0.02	0.00	0.34	0.17	63.98	64.89
128	May-10	66.4	41.2	1557.843	979.2155	1.17	1.08	0.00	0.73	0.19	0.10	0.00	0.51	0.79	64.49	65.40
129	Jun-10	66.4	40.5	1627.22	983.1785	4.36	0.40	0.00	-1.71	0.70	0.04	0.00	-1.19	-0.45	64.20	65.11
130	Jul-10	66.4	40.7	1671.604	976.3634	2.69	-0.70	0.00	0.49	0.43	-0.06	0.00	0.34	0.71	64.66	65.57
131	Aug-10	66.4	40.9	1714.949	995.8797	2.56	1.98	0.00	0.49	0.41	0.18	0.00	0.34	0.93	65.27	66.19
132	Sep-10	70.6	41.0	1762.573	968.3421	2.74	-2.80	4.20	0.24	0.44	-0.25	0.24	0.17	0.59	65.65	66.58
133	Oct-10	70.6	40.9	1802.71	990.657	2.25	2.28	0.00	-0.24	0.36	0.21	0.00	-0.17	0.40	65.92	66.85
134	Nov-10	70.6	40.8	1818.066	996.7226	0.85	0.61	0.00	-0.74	0.14	0.06	0.00	-0.51	-0.32	65.71	66.63
135	Dec-10	63.1	40.7	1834.775	1002.947	0.91	0.62	-7.50	0.25	0.15	0.06	-0.43	0.17	-0.05	65.67	66.60
136	Jan-11	63.1	40.5	1855.517	995.9704	1.12	-0.70	0.00	-0.49	0.18	-0.06	0.00	-0.34	-0.22	65.53	66.45
137	Feb-11	63.1	40.8	1865.352	975.4451	0.53	-2.08	0.00	0.74	0.08	-0.19	0.00	0.51	0.41	65.79	66.72
138	Mar-11	0.0	40.7	1872.211	988.1976	0.37	1.30	-63.10	-0.25	0.06	0.12	-3.58	-0.17	-3.57	63.48	64.38
139	Apr-11	0.0	40.9	1866.191	986.0287	-0.32	-0.22	0.00	0.49	-0.05	-0.02	0.00	0.34	0.27	63.65	64.55
140	May-11	0.0	40.9	1889.29	972.7342	1.23	-1.36	0.00	0.00	0.20	-0.12	0.00	0.00	0.07	63.70	64.60
141	Jun-11	0.0	40.7	1895.395	985.8211	0.32	1.34	0.00	-0.49	0.05	0.12	0.00	-0.34	-0.17	63.59	64.49
142	Jul-11	0.0	40.8	1940.276	993.6119	2.34	0.79	0.00	0.25	0.38	0.07	0.00	0.17	0.62	63.99	64.89
143	Aug-11	0.0	40.6	1965.33	1034.102	1.28	3.99	0.00	-0.49	0.21	0.36	0.00	-0.34	0.23	64.14	65.04

NAICS 316 – Leather and Allied Products

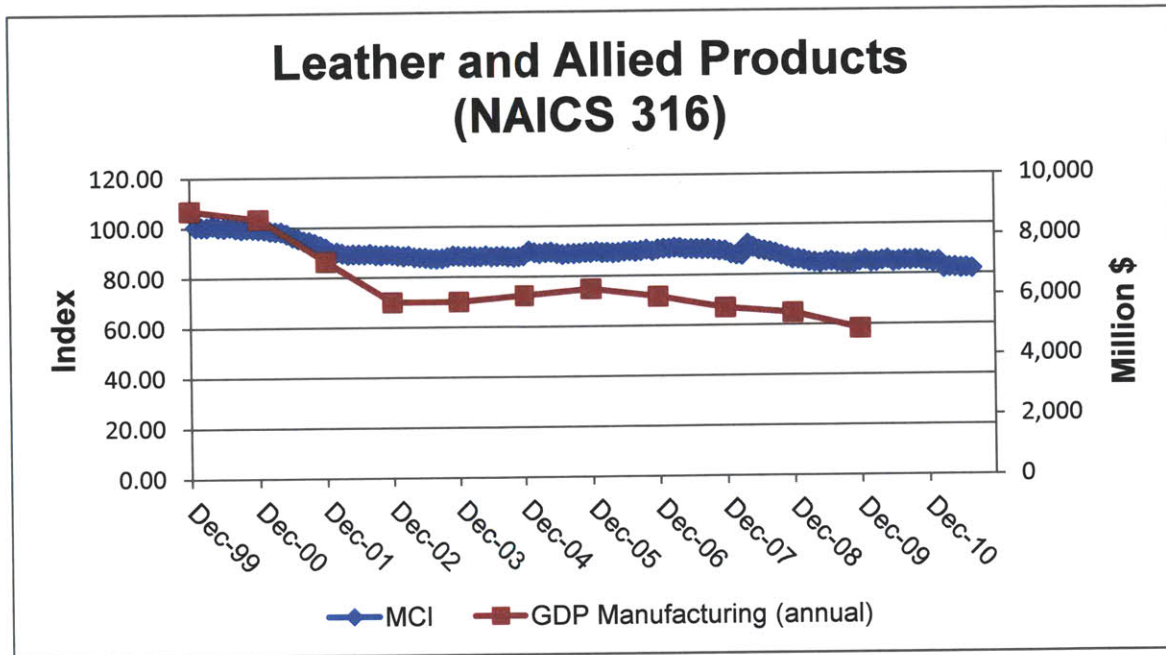


Figure C.13 – MCI and annual GDP Leather and Allied Products including all industries gathered in the NAICS 316 classification.

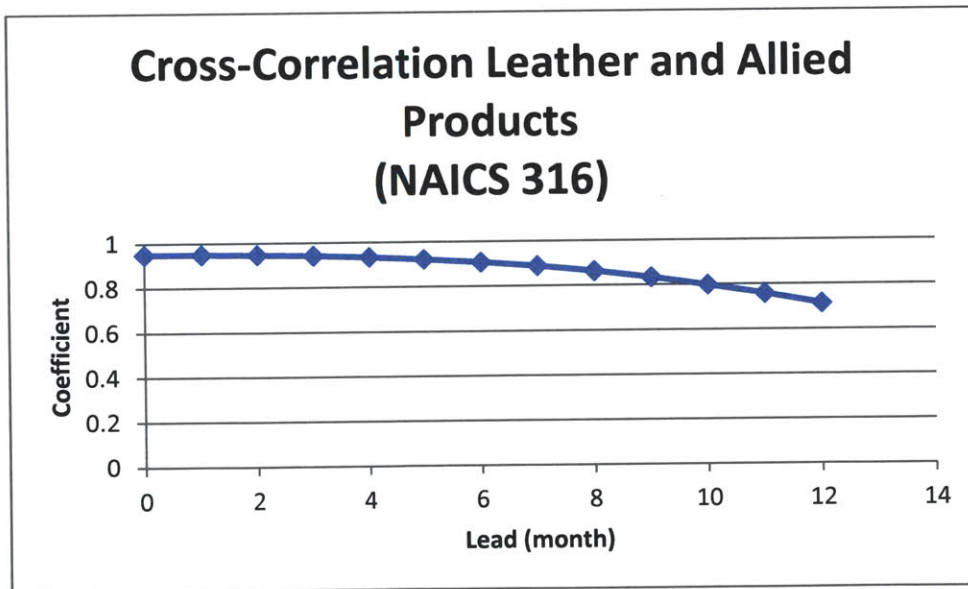


Figure C.14 – Cross-Correlation of MCI and annual GDP Leather and Allied Products including all industries gathered in the NAICS 316 classification.

Table C.7
MCI computations for Leather and Allied Products (NAICS 316)

1	A	E	F	H		J	K	M	N	O	P	Q	R	S	T	U	V	W		
2	Month	CU	Avg.WH	Dollar adjusted			0.10	0.05	0.08	0.77	99.55									
3	Dec-99	65.0	40.4	1742	890		0.29	0.14	0.23	2.20	C(I,t)					St	Index	Rebased		
4	Jan-00	65.0	40.5	1731.805	785.6431		-0.59	-12.46	0.00	0.25	-0.06	0.00	-0.63	0.00	0.19	-0.49	100.00	100.45		
5	Feb-00	65.0	40.6	1739.346	721.5064		0.43	-8.51	0.00	0.25	0.04	0.00	-0.43	0.00	0.19	-0.19	99.81	100.26		
6	Mar-00	65.0	40.4	1731.299	780.5118		-0.46	7.86	0.00	-0.49	-0.05	0.00	0.39	0.00	-0.38	-0.03	99.77	100.23		
7	Apr-00	65.0	40.6	1749.016	820.8661		1.02	5.04	0.00	0.49	0.10	0.00	0.25	0.00	0.38	0.73	100.51	100.97		
8	May-00	65.0	40.4	1708.948	790.5605		-2.32	-3.76	0.00	-0.49	-0.23	0.00	-0.19	0.00	-0.38	-0.80	99.71	100.16		
9	Jun-00	65.0	40.4	1691.479	781.5867		-1.03	-1.14	0.00	0.00	-0.10	0.00	-0.06	0.00	0.00	-0.16	99.55	100.00		
10	Jul-00	65.0	40.5	1696.97	808.4066		0.32	3.37	0.00	0.25	0.03	0.00	0.17	0.00	0.19	0.39	99.94	100.39		
11	Aug-00	65.0	40.3	1690.127	780.0587		-0.40	-3.57	0.00	-0.50	-0.04	0.00	-0.18	0.00	-0.38	-0.60	99.34	99.79		
12	Sep-00	65.0	40.2	1688.716	743.1907		-0.08	-4.84	0.00	-0.25	-0.01	0.00	-0.24	0.00	-0.19	-0.44	98.90	99.35		
13	Oct-00	65.0	40.2	1689.018	779.3975		0.02	4.76	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.24	99.14	99.59		
14	Nov-00	65.0	40.2	1680.934	771.4008		-0.48	-1.03	0.00	0.00	-0.05	0.00	-0.05	0.00	0.00	-0.10	99.04	99.49		
15	Dec-00	65.0	39.8	1665.692	884.0156		-0.91	13.61	0.00	-1.00	-0.09	0.00	0.68	0.00	-0.77	-0.18	98.87	99.32		
16	Jan-01	65.0	40.1	1634.076	801.5489		-1.92	-9.79	0.00	0.75	-0.19	0.00	-0.49	0.00	0.58	-0.11	98.76	99.21		
17	Feb-01	65.0	40.0	1591.128	790.7425		-2.66	-1.36	0.00	-0.25	-0.27	0.00	-0.07	0.00	-0.19	-0.53	98.24	98.69		
18	Mar-01	65.0	39.9	1547.642	827.719		-2.77	4.57	0.00	-0.25	-0.28	0.00	0.23	0.00	-0.19	-0.24	98.00	98.45		
19	Apr-01	65.0	39.9	1583.493	774.4722		2.29	-6.65	0.00	0.00	0.23	0.00	-0.33	0.00	0.00	-0.10	97.90	98.35		
20	May-01	65.0	39.8	1457.935	794.4551		-8.26	2.55	0.00	-0.25	-0.83	0.00	0.13	0.00	-0.19	-0.89	97.03	97.47		
21	Jun-01	65.0	39.8	1345.42	731.8702		-8.03	-8.20	0.00	0.00	-0.81	0.00	-0.41	0.00	0.00	-1.22	95.86	96.29		
22	Jul-01	65.0	40.0	1286.124	641.1483		-4.51	-13.21	0.00	0.50	-0.45	0.00	-0.66	0.00	0.39	-0.73	95.16	95.59		
23	Aug-01	65.0	39.8	1225.621	634.7992		-4.82	-1.00	0.00	-0.50	-0.48	0.00	-0.05	0.00	-0.39	-0.92	94.29	94.72		
24	Sep-01	65.0	39.9	1174.452	630.1239		-4.26	-0.74	0.00	0.25	-0.43	0.00	-0.04	0.00	0.19	-0.27	94.03	94.46		
25	Oct-01	65.0	39.8	1093.601	641.8338		-7.13	1.84	0.00	-0.25	-0.72	0.00	0.09	0.00	-0.19	-0.82	93.27	93.69		
26	Nov-01	65.0	39.8	1022.031	611.1111		-6.77	-4.90	0.00	0.00	-0.68	0.00	-0.25	0.00	0.00	-0.93	92.41	92.82		
27	Dec-01	56.0	39.9	945.1396	639.076		-7.82	4.47	-9.00	0.25	-0.79	0.00	0.22	-0.73	0.19	-1.10	91.40	91.81		
28	Jan-02	56.0	39.7	889.6353	532.6296		-6.05	-18.17	0.00	-0.50	-0.61	0.00	-0.91	0.00	-0.39	-1.91	89.67	90.08		
29	Feb-02	56.0	39.9	871.7703	522.488		-2.03	-1.92	0.00	0.50	-0.20	0.00	-0.10	0.00	0.39	0.09	89.75	90.16		
30	Mar-02	56.0	40.1	839.2008	470.0285		-3.81	-10.57	0.00	0.50	-0.38	0.00	-0.53	0.00	0.38	-0.53	89.28	89.68		
31	Apr-02	56.0	40.0	805.8712	470.6439		-4.05	0.13	0.00	-0.25	-0.41	0.00	0.01	0.00	-0.19	-0.59	88.75	89.15		
32	May-02	56.0	40.2	796.4015	461.1742		-1.18	-2.03	0.00	0.50	-0.12	0.00	-0.10	0.00	0.38	0.16	88.89	89.30		
33	Jun-02	56.0	40.2	800.1894	461.1742		0.47	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	88.93	89.34		
34	Jul-02	56.0	40.1	816.4617	438.9782		2.01	-4.93	0.00	-0.25	0.20	0.00	-0.25	0.00	-0.19	-0.24	88.72	89.13		
35	Aug-02	56.0	40.2	831.1321	438.6792		1.78	-0.07	0.00	0.25	0.18	0.00	0.00	0.00	0.19	0.37	89.05	89.45		
36	Sep-02	56.0	40.0	804.3274	454.3744		-3.28	3.51	0.00	-0.50	-0.33	0.00	0.18	0.00	-0.38	-0.54	88.57	88.98		
37	Oct-02	56.0	39.9	813.9098	439.8496		1.18	-3.25	0.00	-0.25	0.12	0.00	-0.16	0.00	-0.19	-0.24	88.37	88.77		
38	Nov-02	56.0	39.9	822.2013	467.5447		1.01	6.10	0.00	0.00	0.10	0.00	0.31	0.00	0.00	0.41	88.73	89.13		
39	Dec-02	54.0	40.0	809.434	454.717		-1.56	-2.78	-2.00	0.25	-0.16	0.00	-0.14	-0.16	0.19	-0.27	88.49	88.89		
40	Jan-03	54.0	39.8	811.2676	459.1549		0.23	0.97	0.00	-0.50	0.02	0.00	0.05	0.00	-0.39	-0.31	88.21	88.61		
41	Feb-03	54.0	39.8	790.3075	453.8677		-2.62	-1.16	0.00	0.00	-0.26	0.00	-0.06	0.00	0.00	-0.32	87.93	88.33		
42	Mar-03	54.0	40.0	794.2539	445.7831		0.50	-1.80	0.00	0.50	0.05	0.00	-0.09	0.00	0.39	0.35	88.23	88.63		
43	Apr-03	54.0	39.6	783.6583	451.2535		-1.34	1.22	0.00	-1.01	-0.13	0.00	0.06	0.00	-0.77	-0.85	87.49	87.89		
44	May-03	54.0	39.6	784.186	447.4419		0.07	-0.85	0.00	0.00	0.01	0.00	-0.04	0.00	0.00	-0.04	87.46	87.86		
45	Jun-03	54.0	39.6	776.0223	440.5204		-1.05	-1.56	0.00	0.00	-0.11	0.00	-0.08	0.00	0.00	-0.18	87.30	87.70		
46	Jul-03	54.0	39.5	745.5896	460.5385		-4.00	4.44	0.00	-0.25	-0.40	0.00	0.22	0.00	-0.19	-0.37	86.97	87.37		
47	Aug-03	54.0	39.6	731.9778	453.7893		-1.84	-1.48	0.00	0.25	-0.19	0.00	-0.07	0.00	0.19	-0.06	86.92	87.31		
48	Sep-03	54.0	39.8	733.6406	424.8848		0.23	-6.58	0.00	0.50	0.02	0.00	-0.33	0.00	0.39	0.08	86.99	87.38		
49	Oct-03	54.0	40.0	727.8598	447.417		-0.79	5.17	0.00	0.50	-0.08	0.00	0.26	0.00	0.39	0.56	87.48	87.88		
50	Nov-03	54.0	40.2	732.4074	463.8889		0.62	3.62	0.00	0.50	0.06	0.00	0.18	0.00	0.38	0.63	88.03	88.43		
51	Dec-03	58.0	40.0	737.4768	447.1243		0.69	-3.68	4.00	-0.50	0.07	0.00	-0.18	0.32	-0.38	-0.17	87.88	88.28		
52	Jan-04	58.0	40.1	722.5806	430.4147		-2.04	-3.81	0.00	0.25	-0.21	0.00	-0.19	0.00	0.19	-0.20	87.70	88.10		
53	Feb-04	58.0	40.2	725.0229	421.6315		0.34	-2.06	0.00	0.25	0.03	0.00	-0.10	0.00	0.19	0.12	87.80	88.20		
54	Mar-04	58.0	40.1	721.0574	425.7065		-0.55	0.96	0.00	-0.25	-0.06	0.00	0.05	0.00	-0.19	-0.20	87.63	88.03		
55	Apr-04	58.0	40.0	723.6364	437.2727		0.36	2.68	0.00	-0.25	0.04	0.00	0.13	0.00	-0.19	-0.02	87.61	88.01		
56	May-04	58.0	40.3	715.1899	440.3255		-1.17	0.70	0.00	0.75	-0.12	0.00	0.03	0.00	0.57	0.49	88.04	88.44		
57	Jun-04	58.0	40.0	705.7762	454.8736		-1.32	3.25	0.00	-0.75	-0.13	0.00	0.16	0.00	-0.57	-0.54	87.56	87.96		
58	Jul-04	58.0	40.1	705.5104	452.5745		-0.04	-0.51	0.00	0.25	0.00	0.00	-0.03	0.00	0.19	0.16	87.71	88.11		
59	Aug-04	58.0	40.2	700.0903	456.1879		-0.77	0.80	0.00	0.25	-0.08	0.00	0.04	0.00	0.19	0.15	87.84	88.24		
60	Sep-04	58.0	40.1	700.9009	444.1441		0.12	-2.68	0.00	-0.25	0.01	0.00	-0.13	0.00	-0.19	-0.31	87.57	87.96		
61	Oct-04	58.0	39.9	719.5341	442.6523		2.62	-0.34	0.00	-0.50	0.26	0.00	-0.02	0.00	-0.38	-0.14	87.45	87.84		
62	Nov-04	58.0	39.8	732.9749	458.7814		1.85	3.58	0.00	-0.25	0.19	0.00	0.18	0.00	-0.19	0.17	87.60	88.00		
63	Dec-04	68.0	39.8	773.3813	385.7914		5.36	-17.28	10.00	0.00	0.54	0.00	-0.87	0.81	0.00	0.48	88.02	88.42		
64	Jan-05	68.0	40.0	789.7574	511.2309		2.10	27.97	0.00	0.50	0.21	0.00	1.40	0.00	0.39	2.00	89.80	90.21		
65	Feb-05	68.0	39.9	784.6291	465.5943		-0.65	-9.34	0.00	-0.25	-0.07	0.00	-0.47	0.00	-0.19	-0.73	89.15	89.55		
66	Mar-05	68.0	39.8	784.1918	452.0426		-0.06	-2.95	0.00	-0.25	-0.01	0.00	-0.15	0.00	-0.19	-0.35	88.84	89.24		
67	Apr-05	68.0	39.8	795.4145	470.0176		1.42	3.90	0.00	0.00	0.14	0.00	0.20	0.00	0.00	0.34	89.14	89.55		
68	May-05	68.0	39.7	789.0556	512.7979		-0.80	8.71	0.00	-0.25	-0.08	0.00	0.44	0.00	-0.19	0.16	89.29	89.69		
69	Jun-05	68.0	39.7	785.3357	468.1979		-0.47	-9.09	0.00	0.00	-0.05	0.00	-0.46	0.00	0.00	-0.50	88.84	89.24		
70	Jul-05	68.0	39.7	771.3281	438.8742		-1.80	-6.47												

Table C.7 - Continued

	A	E	F	H	J	K	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	65.0	40.5	771.7014	428.8194	-0.92	0.53	0.00	0.74	-0.09	0.00	0.03	0.00	0.57	0.50	89.44	89.84
77	Feb-06	65.0	40.5	716.6378	441.9411	-7.40	3.01	0.00	0.00	-0.74	0.00	0.15	0.00	0.00	-0.59	88.91	89.31
78	Mar-06	65.0	40.5	718.1034	453.4483	0.20	2.57	0.00	0.00	0.02	0.00	0.13	0.00	0.00	0.15	89.04	89.45
79	Apr-06	65.0	40.5	715.1411	430.2823	-0.41	-5.24	0.00	0.00	-0.04	0.00	-0.26	0.00	0.00	-0.30	88.77	89.17
80	May-06	65.0	40.6	721.7021	422.9787	0.91	-1.71	0.00	0.25	0.09	0.00	-0.09	0.00	0.19	0.20	88.94	89.35
81	Jun-06	65.0	40.7	740.8666	425.6585	2.62	0.63	0.00	0.25	0.26	0.00	0.03	0.00	0.19	0.48	89.38	89.78
82	Jul-06	65.0	40.8	740.8975	428.4505	0.00	0.65	0.00	0.25	0.00	0.00	0.03	0.00	0.19	0.22	89.58	89.98
83	Aug-06	65.0	40.6	758.2418	412.5106	2.31	-3.79	0.00	-0.49	0.23	0.00	-0.19	0.00	-0.38	-0.34	89.28	89.68
84	Sep-06	65.0	40.6	782.6825	410.017	3.17	-0.61	0.00	0.00	0.32	0.00	-0.03	0.00	0.00	0.29	89.53	89.94
85	Oct-06	65.0	40.7	789.0692	437.2331	0.81	6.42	0.00	0.25	0.08	0.00	0.32	0.00	0.19	0.59	90.07	90.47
86	Nov-06	65.0	40.6	787.8529	391.7879	-0.15	-10.96	0.00	-0.25	-0.02	0.00	-0.55	0.00	-0.19	-0.75	89.39	89.79
87	Dec-06	67.0	40.7	812.8205	402.5641	3.12	2.71	2.00	0.25	0.31	0.00	0.14	0.16	0.19	0.80	90.11	90.52
88	Jan-07	67.0	40.7	819.0574	421.0347	0.76	4.49	0.00	0.00	0.08	0.00	0.23	0.00	0.00	0.30	90.38	90.79
89	Feb-07	67.0	40.6	826.285	425.8676	0.88	1.14	0.00	-0.25	0.09	0.00	0.06	0.00	-0.19	-0.04	90.34	90.75
90	Mar-07	67.0	40.9	819.9272	422.9983	-0.77	-0.68	0.00	0.74	-0.08	0.00	-0.03	0.00	0.57	0.45	90.75	91.16
91	Apr-07	67.0	41.0	817.2747	396.1025	-0.32	-6.57	0.00	0.24	-0.03	0.00	-0.33	0.00	0.19	-0.17	90.59	91.00
92	May-07	67.0	40.8	807.2025	390.7159	-1.24	-1.37	0.00	-0.49	-0.12	0.00	-0.07	0.00	-0.38	-0.57	90.08	90.49
93	Jun-07	67.0	40.9	815.3505	373.6331	1.00	-4.47	0.00	0.24	0.10	0.00	-0.22	0.00	0.19	0.06	90.14	90.55
94	Jul-07	67.0	40.9	816.6012	370.5027	0.15	-0.84	0.00	0.00	0.02	0.00	-0.04	0.00	0.00	-0.03	90.11	90.52
95	Aug-07	67.0	40.8	818.8681	369.9455	0.28	-0.15	0.00	-0.24	0.03	0.00	-0.01	0.00	-0.19	-0.17	89.96	90.37
96	Sep-07	67.0	40.9	808.2031	373.0168	-1.31	0.83	0.00	0.24	-0.13	0.00	0.04	0.00	0.19	0.10	90.05	90.46
97	Oct-07	67.0	40.8	822.2691	354.8827	1.73	-4.98	0.00	-0.24	0.17	0.00	-0.25	0.00	-0.19	-0.26	89.81	90.22
98	Nov-07	67.0	40.9	804.241	331.7391	-2.22	-6.74	0.00	0.24	-0.22	0.00	-0.34	0.00	0.19	-0.37	89.48	89.88
99	Dec-07	67.0	40.9	790.6344	328.9501	-1.71	-0.84	0.00	0.00	-0.17	0.00	-0.04	0.00	0.00	-0.21	89.29	89.69
100	Jan-08	67.0	40.6	770.5121	298.6863	-2.58	-9.64	0.00	-0.74	-0.26	0.00	-0.48	0.00	-0.57	-1.31	88.13	88.53
101	Feb-08	67.0	40.6	749.2843	287.9346	-2.79	-3.67	0.00	0.00	-0.28	0.00	-0.18	0.00	0.00	-0.46	87.72	88.12
102	Mar-08	66.7	40.8	738.7105	270.8335	-1.42	-6.12	-0.30	0.49	-0.14	0.00	-0.31	-0.02	0.38	-0.10	87.63	88.03
103	Apr-08	66.7	40.6	974.0888	444.7452	27.48	48.61	0.00	-0.49	2.76	0.00	2.44	0.00	-0.38	4.82	91.96	92.38
104	May-08	66.7	40.5	906.7596	406.6437	-7.16	-8.95	0.00	-0.25	-0.72	0.00	-0.45	0.00	-0.19	-1.36	90.72	91.14
105	Jun-08	66.0	40.6	839.2251	361.8168	-7.74	-11.67	-0.70	0.25	-0.78	0.00	-0.59	-0.06	0.19	-1.23	89.61	90.02
106	Jul-08	66.0	40.5	814.6993	367.1662	-2.97	1.47	0.00	-0.25	-0.30	0.00	0.07	0.00	-0.19	-0.41	89.24	89.65
107	Aug-08	66.0	40.4	789.1369	369.6858	-3.19	0.68	0.00	-0.25	-0.32	0.00	-0.03	0.00	-0.19	-0.48	88.82	89.22
108	Sep-08	63.7	40.2	770.4404	383.2447	-2.40	3.60	-2.30	-0.50	-0.24	0.00	0.18	-0.19	-0.38	-0.63	88.26	88.67
109	Oct-08	63.7	40.2	745.0199	342.6295	-3.35	-11.19	0.00	0.00	-0.34	0.00	-0.56	0.00	0.00	-0.90	87.47	87.87
110	Nov-08	63.7	39.9	749.3254	325.087	0.58	-5.25	0.00	-0.75	0.06	0.00	-0.26	0.00	-0.58	-0.78	86.79	87.19
111	Dec-08	61.1	39.6	741.2161	317.5465	-1.09	-2.35	-2.60	-0.75	-0.11	0.00	-0.12	-0.21	-0.58	-1.02	85.92	86.31
112	Jan-09	61.1	39.6	742.0451	313.6902	0.11	-1.22	0.00	0.00	0.01	0.00	-0.06	0.00	0.00	-0.05	85.87	86.26
113	Feb-09	61.1	39.5	734.1066	296.9053	-1.08	-5.50	0.00	-0.25	-0.11	0.00	-0.28	0.00	-0.19	-0.58	85.38	85.76
114	Mar-09	51.3	39.4	750.796	297.224	2.25	0.11	-9.80	-0.25	0.23	0.00	0.01	-0.79	-0.19	-0.76	84.73	85.12
115	Apr-09	51.3	39.5	723.2656	293.3695	-3.74	-1.31	0.00	0.25	-0.38	0.00	-0.07	0.00	0.19	-0.25	84.53	84.91
116	May-09	51.3	39.5	708.9211	279.5174	-2.00	-4.84	0.00	0.00	-0.20	0.00	-0.24	0.00	0.00	-0.44	84.15	84.53
117	Jun-09	57.8	39.7	686.0264	289.1915	-3.28	3.40	6.50	0.51	-0.33	0.00	0.17	0.53	0.39	0.76	84.79	85.17
118	Jul-09	57.8	39.9	675.0179	283.2018	-1.62	-2.09	0.00	0.50	-0.16	0.00	-0.11	0.00	0.39	0.12	84.89	85.27
119	Aug-09	57.8	39.9	661.2101	269.6196	-2.07	-4.91	0.00	0.00	-0.21	0.00	-0.25	0.00	0.00	-0.45	84.50	84.89
120	Sep-09	57.7	39.8	636.6975	277.4526	-3.78	2.86	-0.10	-0.25	-0.38	0.00	0.14	-0.01	-0.19	-0.44	84.14	84.52
121	Oct-09	57.7	40.0	605.0116	266.8462	-5.10	-3.90	0.00	0.50	-0.51	0.00	-0.20	0.00	0.39	-0.32	83.86	84.25
122	Nov-09	57.7	40.2	604.2248	265.2499	-0.13	-0.60	0.00	0.50	-0.01	0.00	-0.03	0.00	0.38	0.34	84.15	84.53
123	Dec-09	63.0	40.5	603.8027	259.3461	-0.07	-2.25	5.30	0.74	-0.01	0.00	-0.11	0.43	0.57	0.88	84.89	85.28
124	Jan-10	63.0	40.8	601.6144	260.0062	-0.36	0.25	0.00	0.74	-0.04	0.00	0.01	0.00	0.57	0.54	85.36	85.74
125	Feb-10	63.0	40.2	600.9298	261.6565	-0.11	0.63	0.00	-1.48	-0.01	0.00	0.03	0.00	-1.14	-1.12	84.41	84.79
126	Mar-10	63.0	40.7	583.9335	242.177	-2.87	-7.73	0.00	1.24	-0.29	0.00	-0.39	0.00	0.95	0.27	84.64	85.02
127	Apr-10	63.0	40.9	583.7442	248.9264	-0.03	2.75	0.00	0.49	0.00	0.00	0.14	0.00	0.38	0.51	85.07	85.46
128	May-10	63.0	41.2	582.6014	250.3676	-0.20	0.58	0.00	0.73	-0.02	0.00	0.03	0.00	0.56	0.57	85.56	85.95
129	Jun-10	63.0	40.5	590.7032	247.5858	1.38	-1.12	0.00	-1.71	0.14	0.00	-0.06	0.00	-1.32	-1.23	84.51	84.89
130	Jul-10	63.0	40.7	594.8968	246.0818	0.71	-0.61	0.00	0.49	0.07	0.00	-0.03	0.00	0.38	0.42	84.87	85.25
131	Aug-10	63.0	40.9	600.5504	241.811	0.95	-1.75	0.00	0.49	0.10	0.00	-0.09	0.00	0.38	0.38	85.19	85.58
132	Sep-10	56.0	41.0	616.9404	240.893	2.69	-0.38	-7.00	0.24	0.27	0.00	-0.02	-0.57	0.19	-0.13	85.08	85.47
133	Oct-10	56.0	40.9	640.5931	242.9015	3.76	0.83	0.00	-0.24	0.38	0.00	0.04	0.00	-0.19	0.23	85.28	85.67
134	Nov-10	56.0	40.8	658.6622	247.5935	2.78	1.91	0.00	-0.74	0.28	0.00	0.10	0.00	-0.57	-0.19	85.12	85.51
135	Dec-10	45.3	40.7	659.1248	247.964	0.07	0.15	-10.70	0.25	0.01	0.00	0.01	-0.87	0.19	-0.66	84.56	84.94
136	Jan-11	45.3	40.5	660.826	243.6697	0.26	-1.75	0.00	-0.49	0.03	0.00	-0.09	0.00	-0.38	-0.44	84.19	84.57
137	Feb-11	45.3	40.8	667.0381	242.488	0.94	-0.49	0.00	0.74	0.09	0.00	-0.02	0.00	0.57	0.64	84.72	85.11
138	Mar-11	0.0	40.7	681.8641	246.4663	2.20	1.63	-45.30	-0.25	0.22	0.00	0.08	-3.67	-0.19	-3.55	81.77	82.14
139	Apr-11	0.0	40.9	684.6563	250.3709	0.41	1.57	0.00	0.49	0.04	0.00	0.08	0.00	0.38	0.50	82.17	82.55
140	May-11	0.0	40.9	684.1461	253.9575	-0.07	1.42	0.00	0.00	-0.01	0.00	0.07	0.00	0.00	0.06	82.22	82.60
141	Jun-11	0.0	40.7	686.2239	246.4553	0.30	-3.00	0.00	-0.49	0.03	0.00	-0.15	0.00	-0.38	-0.50	81.82	82.19
142	Jul-11	0.0	40.8	690.3717	244.7472	0.60	-0.70	0.00	0.25	0.06	0.00	-0.03	0.00	0.19	0.21	81.99	82.36
143	Aug-11	0.0	40.6	692.4719	239.5246	0.30	-2.16	0.00	-0.49	0.03	0.00	-0.11	0.00	-0.38	-0.46	81.62	81.99

NAICS 321 – Wood Products

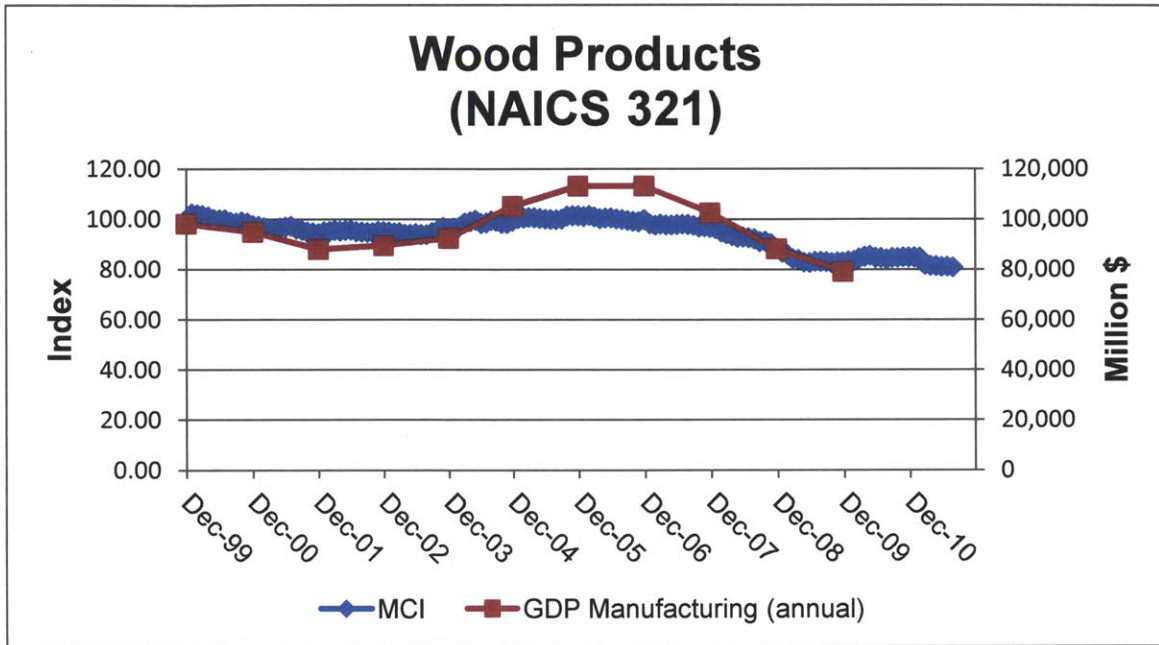


Figure C.15 – MCI and annual GDP Wood Products including all industries gathered in the NAICS 321 classification.

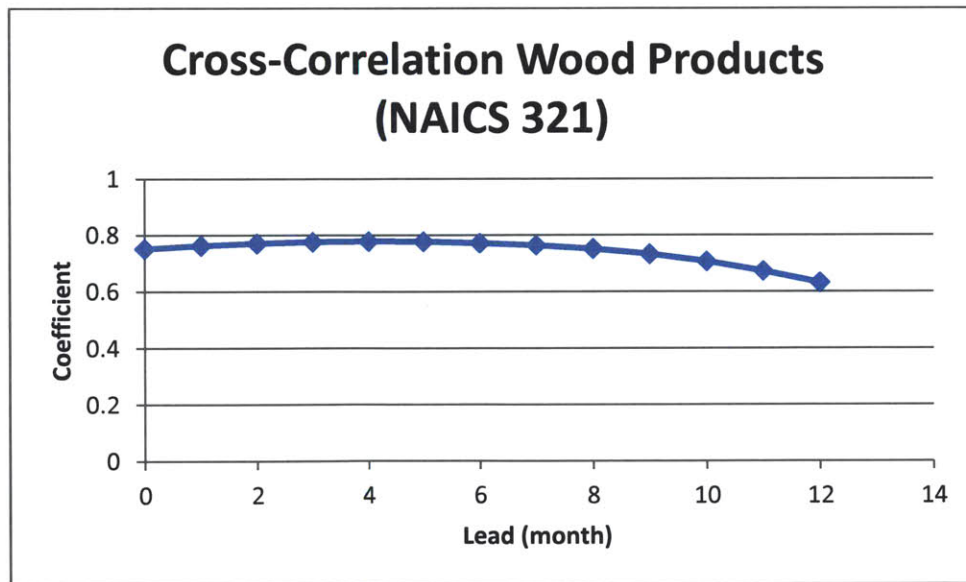


Figure C.16 – Cross-Correlation of MCI and annual GDP Wood Products including all industries gathered in the NAICS 321 classification.

Table C.8
MCI computations for Wood Products (NAICS 321)

1	A		E		F		H		J		K		M		N		O		P		R		S		T		U		V		W					
	2	Month	CU	Avg.WH	Dollar adjusted				0.22 0.10 0.07 0.61				97.75																							
					Inventory	Ship	0.22	0.10	0.07	0.61	C(I,t)								St	Index	Rebased															
3	Dec-99	69.0	42.0	10247	8242	0.66	0.30	0.22	1.85																											
4	Jan-00	69.0	42.1	10404.79	8557.328	1.53	3.75	0.00	0.24	0.33	0.38	0.00	0.15	0.85	100.00	102.30																				
5	Feb-00	69.0	42.2	10296.33	8252.725	-1.05	-3.62	0.00	0.24	-0.23	-0.36	0.00	0.14	-0.45	99.56	101.85																				
6	Mar-00	69.0	42.0	10157.48	8605.315	-1.36	4.18	0.00	-0.48	-0.29	0.42	0.00	-0.29	-0.16	99.39	101.68																				
7	Apr-00	69.0	42.1	10209.65	7912.402	0.51	-8.39	0.00	0.24	0.11	-0.84	0.00	0.15	-0.59	98.81	101.09																				
8	May-00	69.0	41.8	10014.75	7815.143	-1.93	-1.24	0.00	-0.72	-0.42	-0.12	0.00	-0.44	-0.98	97.85	100.10																				
9	Jun-00	69.0	41.9	10069.54	7513.222	0.55	-3.94	0.00	0.24	0.12	-0.40	0.00	0.15	-0.13	97.72	99.97																				
10	Jul-00	69.0	42.1	10083.09	7251.222	0.13	-3.55	0.00	0.48	0.03	-0.36	0.00	0.29	-0.04	97.69	99.94																				
11	Aug-00	69.0	41.5	10011.73	7296.188	-0.71	0.62	0.00	-1.44	-0.15	0.06	0.00	-0.88	-0.97	96.75	98.97																				
12	Sep-00	69.0	41.5	9854.086	7305.447	-1.59	0.13	0.00	0.00	-0.34	0.01	0.00	0.00	-0.33	96.43	98.65																				
13	Oct-00	69.0	41.7	9977.648	7251.701	1.25	-0.74	0.00	0.48	0.27	-0.07	0.00	0.29	0.49	96.90	99.13																				
14	Nov-00	69.0	41.6	9990.272	7015.564	0.13	-3.31	0.00	-0.24	0.03	-0.33	0.00	-0.15	-0.45	96.46	98.68																				
15	Dec-00	69.0	40.7	10046.78	7109.162	0.56	1.33	0.00	-2.19	0.12	0.13	0.00	-1.33	-1.08	95.43	97.63																				
16	Jan-01	69.0	41.0	9933.204	6800.581	-1.14	-4.44	0.00	0.73	-0.25	-0.45	0.00	0.45	-0.24	95.19	97.39																				
17	Feb-01	69.0	40.8	9755.063	6892.96	-1.81	1.35	0.00	-0.49	-0.39	0.14	0.00	-0.30	-0.56	94.67	96.85																				
18	Mar-01	69.0	40.8	9554.379	6762.271	-2.08	-1.91	0.00	0.00	-0.45	-0.19	0.00	0.00	-0.64	94.06	96.23																				
19	Apr-01	69.0	40.9	9453.935	6880.998	-1.06	1.74	0.00	0.24	-0.23	0.17	0.00	0.15	0.09	94.15	96.32																				
20	May-01	69.0	40.7	9525.813	7198.853	0.76	4.52	0.00	-0.49	0.16	0.45	0.00	-0.30	0.32	94.45	96.63																				
21	Jun-01	69.0	40.7	9678.435	7246.183	1.59	0.66	0.00	0.00	0.34	0.07	0.00	0.00	0.41	94.84	97.02																				
22	Jul-01	69.0	41.0	9659.33	7175.12	-0.20	-0.99	0.00	0.73	-0.04	-0.10	0.00	0.45	0.31	95.13	97.32																				
23	Aug-01	69.0	40.6	9535.373	7005.736	-1.29	-2.39	0.00	-0.98	-0.28	-0.24	0.00	-0.60	-1.12	94.07	96.24																				
24	Sep-01	69.0	40.4	9444.233	6970.448	-0.96	-0.50	0.00	-0.49	-0.21	-0.05	0.00	-0.30	-0.56	93.55	95.70																				
25	Oct-01	69.0	40.2	9332.378	6864.374	-1.19	-1.53	0.00	-0.50	-0.26	-0.15	0.00	-0.30	-0.71	92.88	95.02																				
26	Nov-01	69.0	40.3	9188.697	6821.839	-1.55	-0.62	0.00	0.25	-0.34	-0.06	0.00	0.15	-0.25	92.65	94.79																				
27	Dec-01	66.0	40.5	8958.614	6889.317	-2.54	0.98	-3.00	0.50	-0.55	0.10	-0.22	0.30	-0.37	92.31	94.44																				
28	Jan-02	66.0	40.5	9174.664	7048.944	2.38	2.29	0.00	0.00	0.52	0.23	0.00	0.00	0.75	93.00	95.15																				
29	Feb-02	66.0	40.6	9094.737	7126.316	-0.87	1.09	0.00	0.25	-0.19	0.11	0.00	0.15	0.07	93.07	95.21																				
30	Mar-02	66.0	40.8	9209.324	7019.029	1.25	-1.52	0.00	0.49	0.27	-0.15	0.00	0.30	0.42	93.46	95.61																				
31	Apr-02	66.0	40.8	9092.803	7061.553	-1.27	0.60	0.00	0.00	-0.28	0.06	0.00	0.00	-0.22	93.26	95.41																				
32	May-02	66.0	40.8	9193.182	7033.144	1.10	-0.40	0.00	0.00	0.24	-0.04	0.00	0.00	0.20	93.44	95.60																				
33	Jun-02	66.0	41.0	9143.939	7056.818	-0.54	0.34	0.00	0.49	-0.12	0.03	0.00	0.30	0.22	93.64	95.80																				
34	Jul-02	66.0	40.6	9060.549	7147.588	-0.92	1.28	0.00	-0.98	-0.20	0.13	0.00	-0.60	-0.67	93.02	95.16																				
35	Aug-02	66.0	40.7	8995.283	7010.377	-0.72	-1.94	0.00	0.25	-0.16	-0.19	0.00	0.15	-0.20	92.83	94.97																				
36	Sep-02	66.0	40.8	9063.029	6751.646	0.75	-3.76	0.00	0.25	0.16	-0.38	0.00	0.15	-0.06	92.77	94.91																				
37	Oct-02	66.0	40.6	9030.075	6941.729	-0.36	2.78	0.00	-0.49	-0.08	0.28	0.00	-0.30	-0.10	92.68	94.82																				
38	Nov-02	66.0	40.7	9088.429	7120.414	0.64	2.54	0.00	0.25	0.14	0.25	0.00	0.15	0.54	93.19	95.33																				
39	Dec-02	67.0	40.9	8986.792	7009.434	-1.12	-1.57	1.00	0.49	-0.24	-0.16	0.07	0.30	-0.03	93.16	95.31																				
40	Jan-03	67.0	40.6	9048.826	6976.526	0.69	-0.47	0.00	-0.74	0.15	-0.05	0.00	-0.45	-0.35	92.84	94.98																				
41	Feb-03	67.0	40.5	9126.747	6677.54	0.86	-4.38	0.00	-0.25	0.19	-0.44	0.00	-0.15	-0.40	92.46	94.59																				
42	Mar-03	67.0	40.6	9040.778	6791.474	-0.95	1.69	0.00	0.25	-0.21	0.17	0.00	0.15	0.12	92.57	94.70																				
43	Apr-03	67.0	40.3	9041.783	6714.02	0.01	-1.15	0.00	-0.74	0.00	-0.12	0.00	-0.45	-0.57	92.05	94.17																				
44	May-03	67.0	40.5	8919.07	6677.209	-1.37	-0.55	0.00	0.50	-0.30	-0.06	0.00	0.30	-0.05	92.00	94.12																				
45	Jun-03	67.0	40.7	8777.881	6923.792	-1.60	3.63	0.00	0.49	-0.35	0.36	0.00	0.30	0.32	92.30	94.42																				
46	Jul-03	67.0	40.4	8686.165	7096.565	-1.05	2.46	0.00	-0.74	-0.23	0.25	0.00	-0.45	-0.43	91.90	94.02																				
47	Aug-03	67.0	40.5	8544.362	7231.054	-1.65	1.88	0.00	0.25	-0.36	0.19	0.00	0.15	-0.02	91.88	94.00																				
48	Sep-03	67.0	40.9	8529.032	7445.161	-0.18	2.92	0.00	0.98	-0.04	0.29	0.00	0.60	0.85	92.67	94.80																				
49	Oct-03	67.0	41.0	8676.199	7654.059	1.71	2.77	0.00	0.24	0.37	0.28	0.00	0.15	0.80	93.41	95.56																				
50	Nov-03	67.0	41.4	8874.074	7861.111	2.25	2.67	0.00	0.97	0.49	0.27	0.00	0.59	1.35	94.68	96.86																				
51	Dec-03	70.0	41.2	8952.69	7395.176	0.88	-6.11	3.00	-0.48	0.19	-0.61	0.22	-0.30	-0.50	94.21	96.38																				
52	Jan-04	70.0	41.4	9014.747	7290.323	0.69	-1.43	0.00	0.48	0.15	-0.14	0.00	0.30	0.30	94.49	96.67																				
53	Feb-04	70.0	41.4	9234.647	7231.897	2.41	-0.80	0.00	0.00	0.52	-0.08	0.00	0.00	0.44	94.91	97.10																				
54	Mar-04	70.0	41.5</																																	

Table C.8 - Continued

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
76	Jan-06	70.0	41.4	10086.81	9026.91	-3.20	1.32	0.00	0.48	-0.69	0.13	0.00	0.30	-0.26	98.92	101.20
77	Feb-06	70.0	41.5	10164.64	9128.25	0.77	1.12	0.00	0.24	0.17	0.11	0.00	0.15	0.43	99.34	101.63
78	Mar-06	70.0	41.5	10068.97	8783.621	-0.95	-3.85	0.00	0.00	-0.20	-0.39	0.00	0.00	-0.59	98.76	101.03
79	Apr-06	70.0	41.5	10180.5	8028.229	1.10	-8.99	0.00	0.00	0.24	-0.90	0.00	0.00	-0.66	98.10	100.36
80	May-06	70.0	41.5	10278.3	8022.979	0.96	-0.07	0.00	0.00	0.21	-0.01	0.00	0.00	0.20	98.30	100.57
81	Jun-06	70.0	41.5	10347.49	7954.97	0.67	-0.85	0.00	0.00	0.15	-0.09	0.00	0.00	0.06	98.36	100.63
82	Jul-06	70.0	41.7	10260.8	7566.469	-0.84	-5.01	0.00	0.48	-0.18	-0.50	0.00	0.29	-0.39	97.98	100.23
83	Aug-06	70.0	41.4	10319.53	7626.374	0.57	0.79	0.00	-0.72	0.12	0.08	0.00	-0.44	-0.24	97.74	99.99
84	Sep-06	70.0	41.3	10296.26	7497.453	-0.23	-1.70	0.00	-0.24	-0.05	-0.17	0.00	-0.15	-0.37	97.38	99.63
85	Oct-06	70.0	41.3	10255.34	7306.576	-0.40	-2.58	0.00	0.00	-0.09	-0.26	0.00	0.00	-0.34	97.05	99.29
86	Nov-06	70.0	41.2	10171.09	7380.667	-0.82	1.01	0.00	-0.24	-0.18	0.10	0.00	-0.15	-0.23	96.83	99.06
87	Dec-06	65.0	41.4	10120.51	8235.043	-0.50	10.94	-5.00	0.48	-0.11	1.10	-0.36	0.30	0.92	97.73	99.98
88	Jan-07	65.0	41.2	10040.91	7303.332	-0.79	-11.99	0.00	-0.48	-0.17	-1.20	0.00	-0.30	-1.67	96.11	98.32
89	Feb-07	65.0	41.1	9981.591	7080.262	-0.59	-3.10	0.00	-0.24	-0.13	-0.31	0.00	-0.15	-0.59	95.54	97.75
90	Mar-07	65.0	41.5	9896.311	7137.992	-0.86	0.81	0.00	0.97	-0.19	0.08	0.00	0.59	0.49	96.01	98.22
91	Apr-07	65.0	41.5	9778.049	7044.607	-1.20	-1.32	0.00	0.00	-0.26	-0.13	0.00	0.00	-0.39	95.63	97.84
92	May-07	65.0	41.4	9718.019	7224.919	-0.62	2.53	0.00	-0.24	-0.13	0.25	0.00	-0.15	-0.03	95.61	97.81
93	Jun-07	65.0	41.6	9717.782	7160.471	0.00	-0.90	0.00	0.48	0.00	-0.09	0.00	0.29	0.20	95.80	98.01
94	Jul-07	65.0	41.6	9780.107	7148.376	0.64	-0.17	0.00	0.00	0.14	-0.02	0.00	0.00	0.12	95.92	98.13
95	Aug-07	65.0	41.6	9747.439	7142.857	-0.33	-0.08	0.00	0.00	-0.07	-0.01	0.00	0.00	-0.08	95.84	98.05
96	Sep-07	65.0	41.6	9602.281	7046.702	-1.50	-1.36	0.00	0.00	-0.33	-0.14	0.00	0.00	-0.46	95.40	97.60
97	Oct-07	65.0	41.4	9576.043	6855.276	-0.27	-2.75	0.00	-0.48	-0.06	-0.28	0.00	-0.29	-0.63	94.80	96.99
98	Nov-07	65.0	41.6	9501.897	6768.137	-0.78	-1.28	0.00	0.48	-0.17	-0.13	0.00	0.29	0.00	94.80	96.99
99	Dec-07	65.0	41.3	9574.179	6860.959	0.76	1.36	0.00	-0.72	0.16	0.14	0.00	-0.44	-0.14	94.67	96.85
100	Jan-08	65.0	41.5	9388.924	6644.128	-1.95	-3.21	0.00	0.48	-0.42	-0.32	0.00	0.29	-0.45	94.24	96.41
101	Feb-08	65.0	41.5	8960.327	6371.37	-4.67	-4.19	0.00	0.00	-1.01	-0.42	0.00	0.00	-1.43	92.90	95.04
102	Mar-08	67.3	41.6	8655.32	6168.355	-3.46	-3.24	2.30	0.24	-0.75	-0.32	0.17	0.15	-0.76	92.20	94.32
103	Apr-08	67.3	41.5	8437.268	6119.276	-2.55	-0.80	0.00	-0.24	-0.55	-0.08	0.00	-0.15	-0.78	91.48	93.59
104	May-08	67.3	41.4	8353.373	5887.945	-1.00	-3.85	0.00	-0.24	-0.22	-0.39	0.00	-0.15	-0.75	90.80	92.89
105	Jun-08	64.9	41.3	8383.542	6062.213	0.36	2.92	-2.40	-0.24	0.08	0.29	-0.17	-0.15	0.05	90.84	92.93
106	Jul-08	64.9	41.3	8422.761	5875.447	0.47	-3.13	0.00	0.00	0.10	-0.31	0.00	0.00	-0.21	90.65	92.74
107	Aug-08	64.9	41.1	8442.738	5745.138	0.24	-2.24	0.00	-0.49	0.05	-0.22	0.00	-0.30	-0.47	90.22	92.30
108	Sep-08	60.6	40.6	8493.809	5553.492	0.60	-3.39	-4.30	-1.22	0.13	-0.34	-0.31	-0.75	-1.27	89.08	91.14
109	Oct-08	60.6	40.6	8541.833	5611.952	0.56	1.05	0.00	0.00	0.12	0.11	0.00	0.00	0.23	89.29	91.34
110	Nov-08	60.6	40.3	8522.967	5338.741	-0.22	-4.99	0.00	-0.74	-0.05	-0.50	0.00	-0.45	-1.00	88.40	90.44
111	Dec-08	51.2	39.9	8429.79	4979.557	-1.10	-6.96	-9.40	-1.00	-0.24	-0.70	-0.69	-0.61	-2.23	86.45	88.44
112	Jan-09	51.2	39.7	8277.98	4523.527	-1.82	-9.60	0.00	-0.50	-0.39	-0.96	0.00	-0.31	-1.66	85.02	86.98
113	Feb-09	51.2	39.6	7852.494	4618.346	-5.28	2.07	0.00	-0.25	-1.14	0.21	0.00	-0.15	-1.09	84.10	86.04
114	Mar-09	44.3	39.3	7605.677	4478.718	-3.19	-3.07	-6.90	-0.76	-0.69	-0.31	-0.50	-0.46	-1.97	82.46	84.36
115	Apr-09	44.3	39.5	7398.438	4466.368	-2.76	-0.28	0.00	0.51	-0.60	-0.03	0.00	0.31	-0.32	82.20	84.10
116	May-09	44.3	39.3	7093.262	4419.616	-4.21	-1.05	0.00	-0.51	-0.91	-0.11	0.00	-0.31	-1.33	81.12	82.99
117	Jun-09	50.5	39.5	6866.691	4311.363	-3.25	-2.48	6.20	0.51	-0.70	-0.25	0.45	0.31	-0.19	80.96	82.83
118	Jul-09	50.5	39.9	6816.957	4367.1	-0.73	1.28	0.00	1.01	-0.16	0.13	0.00	0.61	0.59	81.44	83.32
119	Aug-09	50.5	40.0	6760.552	4376.505	-0.83	0.22	0.00	0.25	-0.18	0.02	0.00	0.15	-0.01	81.44	83.31
120	Sep-09	51.2	40.1	6619.569	4411.175	-2.11	0.79	0.70	0.25	-0.46	0.08	0.05	0.15	-0.17	81.29	83.17
121	Oct-09	51.2	40.2	6480.435	4331.242	-2.12	-1.83	0.00	0.25	-0.46	-0.18	0.00	0.15	-0.49	80.90	82.76
122	Nov-09	51.2	40.6	6402.859	4324.134	-1.20	-0.16	0.00	0.99	-0.26	-0.02	0.00	0.60	0.33	81.16	83.03
123	Dec-09	49.1	40.7	6445.112	4278.006	0.66	-1.07	-2.10	0.25	0.14	-0.11	-0.15	0.15	0.03	81.19	83.06
124	Jan-10	49.1	40.9	6485.756	4271.303	0.63	-0.16	0.00	0.49	0.14	-0.02	0.00	0.30	0.42	81.53	83.41
125	Feb-10	49.1	40.5	6606.227	4425.756	1.84	3.55	0.00	-0.98	0.40	0.36	0.00	-0.60	0.16	81.65	83.54
126	Mar-10	49.1	41.2	6628.8	4471.512	0.34	1.03	0.00	1.71	0.07	0.10	0.00	1.05	1.22	82.66	84.56
127	Apr-10	49.1	41.4	6608.875	4720.853	-0.30	5.42	0.00	0.48	-0.07	0.54	0.00	0.30	0.77	83.30	85.22
128	May-10	49.1	41.6	6705.878	4672.734	1.46	-1.02	0.00	0.48	0.32	-0.10	0.00	0.29	0.51	83.72	85.65
129	Jun-10	49.1	41.3	6768.408	4345.092	0.93	-7.27	0.00	-0.72	0.20	-0.73	0.00	-0.44	-0.97	82.92	84.83
130	Jul-10	49.1	41.4	6703.937	4321.961	-0.96	-0.53	0.00	0.24	-0.21	-0.05	0.00	0.15	-0.11	82.82	84.73
131	Aug-10	49.1	41.3	6671.28	4168.059	-0.49	-3.63	0.00	-0.24	-0.11	-0.36	0.00	-0.15	-0.62	82.31	84.21
132	Sep-10	55.8	41.4	6731.488	4100.746	0.90	-1.63	6.70	0.24	0.19	-0.16	0.49	0.15	0.67	82.86	84.77
133	Oct-10	55.8	41.4	6663.121	4190.447	-1.02	2.16	0.00	0.00	-0.22	0.22	0.00	0.00	0.00	82.86	84.77
134	Nov-10	55.8	41.6	6634.236	4227.342	-0.43	0.88	0.00	0.48	-0.09	0.09	0.00	0.29	0.29	83.10	85.02
135	Dec-10	50.3	41.6	6676.015	4292.233	0.63	1.52	-5.50	0.00	0.14	0.15	-0.40	0.00	-0.11	83.01	84.92
136	Jan-11	50.3	41.5	6760.455	4253.574	1.26	-0.90	0.00	-0.24	0.27	-0.09	0.00	-0.15	0.03	83.04	84.95
137	Feb-11	50.3	41.7	6806.928	4030.48	0.69	-5.39	0.00	0.48	0.15	-0.54	0.00	0.29	-0.10	82.95	84.87
138	Mar-11	0.0	41.9	6695.797	4160.382	-1.65	3.17	-50.30	0.48	-0.36	0.32	-3.67	0.29	-3.41	80.17	82.02
139	Apr-11	0.0	41.7	6671.149	4120.302	-0.37	-0.97	0.00	-0.48	-0.08	-0.10	0.00	-0.29	-0.47	79.80	81.63
140	May-11	0.0	41.8	6629.83	4043.311	-0.62	-1.89	0.00	0.24	-0.13	-0.19	0.00	0.15	-0.18	79.65	81.49
141	Jun-11	0.0	41.8	6521.053	4046.488	-1.65	0.08	0.00	0.00	-0.36	0.01	0.00	0.00	-0.35	79.37	81.20
142	Jul-11	0.0	41.8	6505.041	4109.136	-0.25	1.54	0.00	0.00	-0.05	0.15	0.00	0.00	0.10	79.45	81.29
143	Aug-11	0.0	41.7	6509.389	4040.443	0.07	-1.69	0.00	-0.24	0.01	-0.17	0.00	-0.15	-0.30	79.22	81.04

NAICS 322 – Paper Products

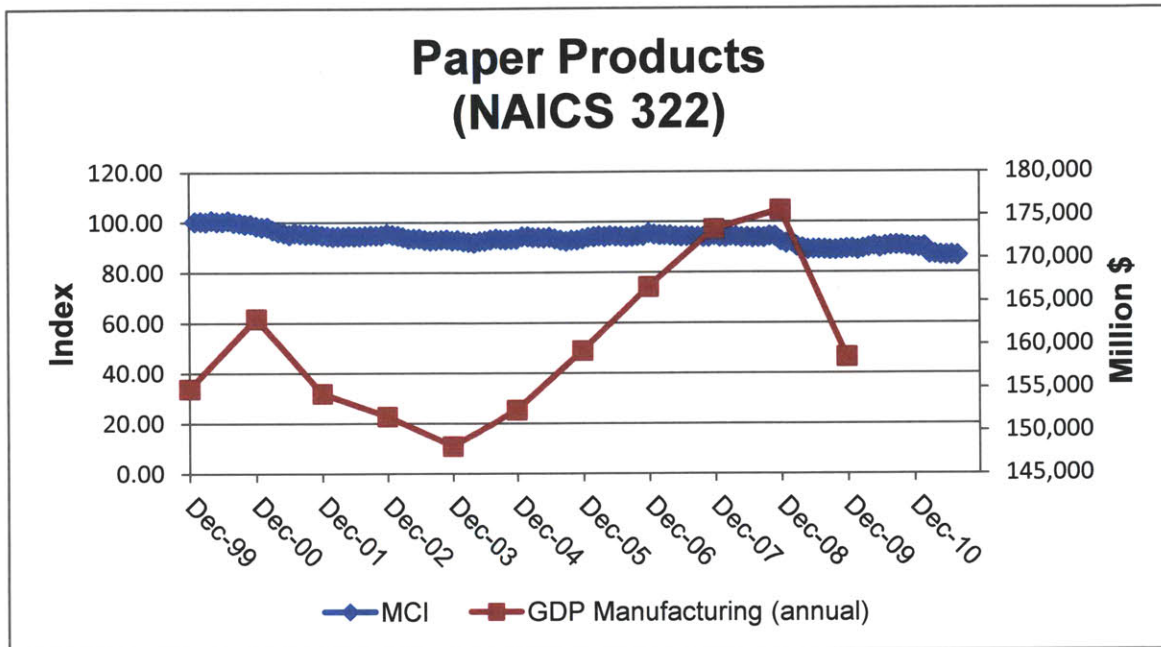


Figure C.17 – MCI and annual GDP Paper Products including all industries gathered in the NAICS 322 classification.

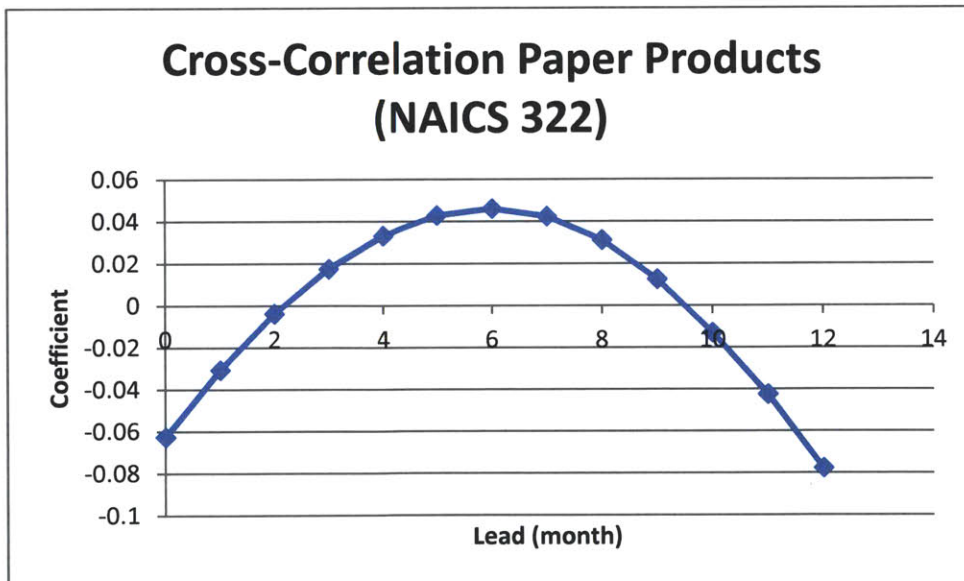


Figure C.18 – Cross-Correlation of MCI and annual GDP Paper Products including all industries gathered in the NAICS 322 classification.

Table C.9
MCI computations for Paper Products (NAICS 322)

1	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
2	Month	CU	Avg.WH	Dollar adjusted		0.26	0.12	0.04	0.58	99.67						
3	Dec-99	79	40.4	15156	13790	1.01	0.46	0.14	2.20	C(I,t)				St	Index	Rebased
4	Jan-00	79	40.5	15273.18	13677.97	0.77	-0.82	0.00	0.25	0.20	-0.10	0.00	0.14	0.25	100.00	100.33
5	Feb-00	79	40.6	15316.15	13544.1	0.28	-0.98	0.00	0.25	0.07	-0.12	0.00	0.14	0.10	100.10	100.43
6	Mar-00	79	40.4	15248.03	13739.17	-0.45	1.43	0.00	-0.49	-0.12	0.17	0.00	-0.29	-0.23	99.87	100.20
7	Apr-00	79	40.6	15362.2	13844.49	0.75	0.76	0.00	0.49	0.20	0.09	0.00	0.29	0.57	100.44	100.78
8	May-00	79	40.4	15446.41	13469.03	0.55	-2.75	0.00	-0.49	0.14	-0.33	0.00	-0.29	-0.47	99.97	100.30
9	Jun-00	79	40.4	15400.59	13498.53	-0.30	0.22	0.00	0.00	-0.08	0.03	0.00	0.00	-0.05	99.92	100.25
10	Jul-00	79	40.5	15552.3	13581.62	0.98	0.61	0.00	0.25	0.26	0.07	0.00	0.14	0.48	100.39	100.73
11	Aug-00	79	40.3	15559.14	13093.84	0.04	-3.66	0.00	-0.50	0.01	-0.44	0.00	-0.29	-0.72	99.68	100.01
12	Sep-00	79	40.2	15294.75	13540.86	-1.71	3.36	0.00	-0.25	-0.45	0.40	0.00	-0.14	-0.19	99.49	99.82
13	Oct-00	79	40.2	15214.77	13105.93	-0.52	-3.26	0.00	0.00	-0.14	-0.39	0.00	0.00	-0.53	98.96	99.29
14	Nov-00	79	40.2	15087.55	13391.05	-0.84	2.15	0.00	0.00	-0.22	0.26	0.00	0.00	0.04	99.00	99.33
15	Dec-00	79	39.8	14919.1	13452.24	-1.12	0.46	0.00	-1.00	-0.30	0.05	0.00	-0.58	-0.82	98.19	98.52
16	Jan-01	79	40.1	14762.83	12838.33	-1.05	-4.67	0.00	0.75	-0.28	-0.56	0.00	0.43	-0.41	97.79	98.12
17	Feb-01	79	40.0	14679.85	13210.22	-0.56	2.86	0.00	-0.25	-0.15	0.34	0.00	-0.14	0.05	97.84	98.17
18	Mar-01	79	39.9	14303.18	12770.93	-2.60	-3.38	0.00	-0.25	-0.69	-0.41	0.00	-0.14	-1.24	96.64	96.96
19	Apr-01	79	39.9	14131.48	12348.37	-1.21	-3.36	0.00	0.00	-0.32	-0.41	0.00	0.00	-0.72	95.94	96.26
20	May-01	79	39.8	13960.8	12294.46	-1.22	-0.44	0.00	-0.25	-0.32	-0.05	0.00	-0.15	-0.52	95.45	95.76
21	Jun-01	79	39.8	13819.66	11845.42	-1.02	-3.72	0.00	0.00	-0.27	-0.45	0.00	0.00	-0.72	94.76	95.08
22	Jul-01	79	40.0	13716.75	12573.21	-0.75	5.96	0.00	0.50	-0.20	0.72	0.00	0.29	0.81	95.54	95.86
23	Aug-01	79	39.8	13587.95	12656.79	-0.94	0.66	0.00	-0.50	-0.25	0.08	0.00	-0.29	-0.46	95.10	95.42
24	Sep-01	79	39.9	13557.67	12279.31	-0.22	-3.03	0.00	0.25	-0.06	-0.36	0.00	0.15	-0.28	94.83	95.15
25	Oct-01	79	39.8	13595.03	12463.23	0.28	1.49	0.00	-0.25	0.07	0.18	0.00	-0.15	0.11	94.94	95.25
26	Nov-01	79	39.8	13636.02	12301.72	0.30	-1.30	0.00	0.00	0.08	-0.16	0.00	0.00	-0.08	94.86	95.18
27	Dec-01	76	39.9	13625.6	11892.2	-0.08	-3.39	-3.00	0.25	-0.02	-0.41	-0.11	0.15	-0.40	94.49	94.80
28	Jan-02	76	39.7	13522.07	12090.21	-0.76	1.65	0.00	-0.50	-0.20	0.20	0.00	-0.29	-0.29	94.21	94.53
29	Feb-02	76	39.9	13439.23	11755.98	-0.61	-2.80	0.00	0.50	-0.16	-0.34	0.00	0.29	-0.21	94.01	94.33
30	Mar-02	76	40.1	13313.04	11857.28	-0.94	0.86	0.00	0.50	-0.25	0.10	0.00	0.29	0.14	94.15	94.46
31	Apr-02	76	40.0	13196.02	12038.83	-0.88	1.52	0.00	-0.25	-0.23	0.18	0.00	-0.14	-0.19	93.97	94.28
32	May-02	76	40.2	13142.05	12153.41	-0.41	0.95	0.00	0.50	-0.11	0.11	0.00	0.29	0.29	94.24	94.56
33	Jun-02	76	40.2	13230.11	11860.8	0.67	-2.44	0.00	0.00	0.18	-0.29	0.00	0.00	-0.12	94.13	94.45
34	Jul-02	76	40.1	13128.67	12232.73	-0.77	3.09	0.00	-0.25	-0.20	0.37	0.00	-0.14	0.02	94.16	94.47
35	Aug-02	76	40.2	13133.96	12281.13	0.04	0.39	0.00	0.25	0.01	0.05	0.00	0.14	0.20	94.35	94.66
36	Sep-02	76	40.0	13260.58	12471.31	0.96	1.54	0.00	-0.50	0.25	0.19	0.00	-0.29	0.15	94.49	94.80
37	Oct-02	76	39.9	13364.66	12363.72	0.78	-0.87	0.00	-0.25	0.21	-0.10	0.00	-0.14	-0.04	94.45	94.76
38	Nov-02	76	39.9	13494.83	12207.9	0.97	-1.27	0.00	0.00	0.26	-0.15	0.00	0.00	0.10	94.54	94.86
39	Dec-02	81	40.0	13625.47	12314.15	0.96	0.87	5.00	0.25	0.25	0.10	0.19	0.14	0.69	95.20	95.52
40	Jan-03	81	39.8	13580.28	12157.75	-0.33	-1.28	0.00	-0.50	-0.09	-0.15	0.00	-0.29	-0.53	94.70	95.01
41	Feb-03	81	39.8	13407.27	12135.14	-1.28	-0.19	0.00	0.00	-0.34	-0.02	0.00	0.00	-0.36	94.36	94.67
42	Mar-03	81	40.0	12985.17	12124.19	-3.20	-0.09	0.00	0.50	-0.84	-0.01	0.00	0.29	-0.56	93.82	94.14
43	Apr-03	81	39.6	13129.99	11795.73	1.11	-2.75	0.00	-1.01	0.29	-0.33	0.00	-0.58	-0.62	93.25	93.56
44	May-03	81	39.6	13133.02	11762.79	0.02	-0.28	0.00	0.00	0.01	-0.03	0.00	0.00	-0.03	93.22	93.53
45	Jun-03	81	39.6	13144.98	11803.9	0.09	0.35	0.00	0.00	0.02	0.04	0.00	0.00	0.07	93.28	93.59
46	Jul-03	81	39.5	13011.14	11613.74	-1.02	-1.62	0.00	-0.25	-0.27	-0.20	0.00	-0.15	-0.61	92.71	93.02
47	Aug-03	81	39.6	12925.14	11375.23	-0.66	-2.08	0.00	0.25	-0.17	-0.25	0.00	0.15	-0.28	92.45	92.76
48	Sep-03	81	39.8	12864.52	11354.84	-0.47	-0.18	0.00	0.50	-0.12	-0.02	0.00	0.29	0.15	92.59	92.90
49	Oct-03	81	40.0	12791.51	11427.12	-0.57	0.63	0.00	0.50	-0.15	0.08	0.00	0.29	0.22	92.79	93.10
50	Nov-03	81	40.2	12760.19	11359.26	-0.25	-0.60	0.00	0.50	-0.06	-0.07	0.00	0.29	0.15	92.93	93.24
51	Dec-03	81	40.0	12628.01	11380.33	-1.04	0.19	0.00	-0.50	-0.27	0.02	0.00	-0.29	-0.54	92.43	92.74
52	Jan-04	81	40.1	12513.36	11741.01	-0.91	3.12	0.00	0.25	-0.24	0.38	0.00	0.14	0.28	92.69	93.00
53	Feb-04	81	40.2	12362.97	11379.47	-1.21	-3.13	0.00	0.25	-0.32	-0.38	0.00	0.14	-0.55	92.18	92.49
54	Mar-04	81	40.1	12232.45	11532.36	-1.06	1.33	0.00	-0.25	-0.28	0.16	0.00	-0.14	-0.26	91.94	92.24
55	Apr-04	81	40.0	12209.09	11496.36	-0.19	-0.31	0.00	-0.25	-0.05	-0.04	0.00	-0.14	-0.23	91.72	92.03
56	May-04	81	40.3	12313.74	11419.53	0.85	-0.67	0.00	0.75	0.23	-0.08	0.00	0.43	0.58	92.25	92.56
57	Jun-04	81	40.0	12351.08	11890.79	0.30	4.04	0.00	-0.75	0.08	0.49	0.00	-0.43	0.13	92.38	92.69
58	Jul-04	81	40.1	12588.98	11786.81	1.91	-0.88	0.00	0.25	0.50	-0.11	0.00	0.14	0.54	92.88	93.19
59	Aug-04	81	40.2	12658.54	11946.7	0.55	1.35	0.00	0.25	0.15	0.16	0.00	0.14	0.45	93.30	93.61
60	Sep-04	81	40.1	12622.52	11741.44	-0.28	-1.73	0.00	-0.25	-0.08	-0.21	0.00	-0.14	-0.43	92.90	93.21
61	Oct-04	81	39.9	12741.04	11646.95	0.93	-0.81	0.00	-0.50	0.25	-0.10	0.00	-0.29	-0.14	92.77	93.08
62	Nov-04	81	39.8	12827.06	11810.93	0.67	1.40	0.00	-0.25	0.18	0.17	0.00	-0.15	0.20	92.96	93.27
63	Dec-04	77	39.8	12892.99	11932.55	0.51	1.02	-4.00	0.00	0.14	0.12	-0.15	0.00	0.11	93.06	93.37
64	Jan-05	77	40.0	13123.99	12217.43	1.78	2.36	0.00	0.50	0.47	0.28	0.00	0.29	1.04	94.03	94.35
65	Feb-05	77	39.9	13148.35	12277.03	0.19	0.49	0.00	-0.25	0.05	0.06	0.00	-0.14	-0.04	94.00	94.31
66	Mar-05	77	39.8	13069.27	12190.94	-0.60	-0.70	0.00	-0.25	-0.16	-0.08	0.00	-0.15	-0.39	93.63	93.95
67	Apr-05	77	39.8	13054.67	12164.02	-0.11	-0.22	0.00	0.00	-0.03	-0.03	0.00	0.00	-0.06	93.58	93.89
68	May-05	77	39.7	13086.5	12141.22	0.24	-0.19	0.00	-0.25	0.06	-0.02	0.00	-0.15	-0.10	93.48	93.80
69	Jun-05	77	39.7	13166.08	12207.6	0.61	0.55	0.00	0.00	0.16	0.07	0.00	0.00	0.23	93.69	94.01
70	Jul-05	77	39.7	13094.11	11732.63	-0.55	-3.97	0.00	0.00	-0.14	-0.48	0.00	0.00	-0.62	93.11	93.42
71	Aug-05	77	39.7	12929.13	11495.19	-1.27	-2.04	0.00	0.00	-0.33	-0.25	0.00	0.00	-0.58	92.57	92.88
72	Sep-05	77	39.9	12702.42	11166.96	-1.77	-2.90	0.00	0.50	-0.47	-0.35	0.00	0.29	-0.52	92.09	92.40
73	Oct-05	77	40.1	12663.79	11453.76	-0.30	2.54	0.00	0.50	-0.08	0.31	0.00	0.29	0.51	92.56	92.87
74	Nov-05	77	40.0	12601.39	11703.22	-0.49	2.15	0.00	-0.25	-0.13	0.26	0.00	-0.14	-0.02	92.55	92.86
75	Dec-05	75	40.2	12693.18	11901.22	0.73	1.68	-2.00	0.50	0.19	0.20	-0.08	0.29	0.61	93.11	93.42

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
76	Jan-06	75	40.5	12659.72	12151.91	-0.26	2.08	0.00	0.74	-0.07	0.25	0.00	0.43	0.61	93.68	94.00
77	Feb-06	75	40.5	12817.16	11994.8	1.24	-1.30	0.00	0.00	0.33	-0.16	0.00	0.00	0.17	93.84	94.16
78	Mar-06	75	40.5	12908.62	12090.52	0.71	0.79	0.00	0.00	0.19	0.10	0.00	0.00	0.28	94.11	94.42
79	Apr-06	75	40.5	12893.93	11857.14	-0.11	-1.95	0.00	0.00	-0.03	-0.23	0.00	0.00	-0.26	93.86	94.17
80	May-06	75	40.6	12866.38	12158.3	-0.21	2.51	0.00	0.25	-0.06	0.30	0.00	0.14	0.39	94.22	94.54
81	Jun-06	75	40.7	12755.31	12050.98	-0.87	-0.89	0.00	0.25	-0.23	-0.11	0.00	0.14	-0.19	94.04	94.36
82	Jul-06	75	40.8	12786.62	11750.21	0.25	-2.53	0.00	0.25	0.06	-0.30	0.00	0.14	-0.10	93.95	94.26
83	Aug-06	75	40.6	12746.41	11830.94	-0.31	0.68	0.00	-0.49	-0.08	0.08	0.00	-0.28	-0.28	93.68	94.00
84	Sep-06	75	40.6	12839.56	11818.34	0.73	-0.11	0.00	0.00	0.19	-0.01	0.00	0.00	0.18	93.85	94.17
85	Oct-06	75	40.7	12864.22	11994.02	0.19	1.48	0.00	0.25	0.05	0.18	0.00	0.14	0.37	94.20	94.51
86	Nov-06	75	40.6	12946.96	11933.28	0.64	-0.51	0.00	-0.25	0.17	-0.06	0.00	-0.14	-0.03	94.17	94.48
87	Dec-06	79	40.7	12884.62	13031.62	-0.48	8.80	4.00	0.25	-0.13	1.06	0.15	0.14	1.23	95.33	95.65
88	Jan-07	79	40.7	12938.72	12277.34	0.42	-5.96	0.00	0.00	0.11	-0.72	0.00	0.00	-0.61	94.75	95.07
89	Feb-07	79	40.6	12883.77	12248.36	-0.43	-0.24	0.00	-0.25	-0.11	-0.03	0.00	-0.14	-0.28	94.48	94.80
90	Mar-07	79	40.9	12681.54	12196.31	-1.58	-0.43	0.00	0.74	-0.42	-0.05	0.00	0.43	-0.04	94.44	94.76
91	Apr-07	79	41.0	12592.55	12208.15	-0.70	0.10	0.00	0.24	-0.19	0.01	0.00	0.14	-0.03	94.41	94.73
92	May-07	79	40.8	12518.7	12256.01	-0.59	0.39	0.00	-0.49	-0.16	0.05	0.00	-0.28	-0.39	94.04	94.36
93	Jun-07	79	40.9	12404.62	12213.65	-0.92	-0.35	0.00	0.24	-0.24	-0.04	0.00	0.14	-0.14	93.91	94.23
94	Jul-07	79	40.9	12442.58	12312.15	0.31	0.80	0.00	0.00	0.08	0.10	0.00	0.00	0.18	94.08	94.39
95	Aug-07	79	40.8	12431	12212.36	-0.09	-0.81	0.00	-0.24	-0.02	-0.10	0.00	-0.14	-0.26	93.83	94.14
96	Sep-07	79	40.9	12363.43	12282.2	-0.54	0.57	0.00	0.24	-0.14	0.07	0.00	0.14	0.07	93.89	94.21
97	Oct-07	79	40.8	12309.22	12310.05	-0.44	0.23	0.00	-0.24	-0.12	0.03	0.00	-0.14	-0.23	93.68	93.99
98	Nov-07	79	40.9	12256.24	12372.31	-0.43	0.50	0.00	0.24	-0.11	0.06	0.00	0.14	0.09	93.76	94.07
99	Dec-07	79	40.9	12561.11	12407.77	2.46	0.29	0.00	0.00	0.65	0.03	0.00	0.00	0.68	94.40	94.72
100	Jan-08	79	40.6	12391.38	12519.39	-1.36	0.90	0.00	-0.74	-0.36	0.11	0.00	-0.43	-0.68	93.76	94.08
101	Feb-08	79	40.6	12421.27	12229.86	0.24	-2.34	0.00	0.00	0.06	-0.28	0.00	0.00	-0.22	93.56	93.87
102	Mar-08	83.5	40.8	12523.21	12087.77	0.82	-1.17	4.50	0.49	0.22	-0.14	0.17	0.28	0.53	94.06	94.37
103	Apr-08	83.5	40.6	12529.41	12196.65	0.05	0.90	0.00	-0.49	0.01	0.11	0.00	-0.28	-0.16	93.90	94.22
104	May-08	83.5	40.5	12546.04	11862.97	0.13	-2.77	0.00	-0.25	0.03	-0.33	0.00	-0.14	-0.44	93.49	93.80
105	Jun-08	88	40.6	12524.25	11796.65	-0.17	-0.56	4.50	0.25	-0.05	-0.07	0.17	0.14	0.20	93.68	93.99
106	Jul-08	88	40.5	12421.41	11854.9	-0.82	0.49	0.00	-0.25	-0.22	0.06	0.00	-0.14	-0.30	93.39	93.71
107	Aug-08	88	40.4	12510.07	12029.01	0.71	1.46	0.00	-0.25	0.19	0.18	0.00	-0.14	0.22	93.60	93.91
108	Sep-08	91.5	40.2	12536.45	12005.44	0.21	-0.20	3.50	-0.50	0.06	-0.02	0.13	-0.29	-0.12	93.49	93.80
109	Oct-08	91.5	40.2	12923.51	11859.76	3.04	-1.22	0.00	0.00	0.80	-0.15	0.00	0.00	0.65	94.10	94.42
110	Nov-08	91.5	39.9	13143.27	11761.65	1.69	-0.83	0.00	-0.75	0.44	-0.10	0.00	-0.43	-0.09	94.02	94.33
111	Dec-08	84	39.6	12729.83	11406.17	-3.20	-3.07	-7.50	-0.75	-0.84	-0.37	-0.28	-0.44	-1.93	92.22	92.53
112	Jan-09	84	39.6	12482.9	10889.88	-1.96	-4.63	0.00	0.00	-0.52	-0.56	0.00	0.00	-1.07	91.23	91.54
113	Feb-09	84	39.5	12302	11804.43	-1.46	8.06	0.00	-0.25	-0.38	0.97	0.00	-0.15	0.44	91.63	91.94
114	Mar-09	77.5	39.4	12049.38	11013.57	-2.07	-6.93	-6.50	-0.25	-0.55	-0.83	-0.25	-0.15	-1.77	90.02	90.32
115	Apr-09	77.5	39.5	11777.04	10870.11	-2.29	-1.31	0.00	0.25	-0.60	-0.16	0.00	0.15	-0.61	89.47	89.77
116	May-09	77.5	39.5	11478.04	10790.18	-2.57	-0.74	0.00	0.00	-0.68	-0.09	0.00	0.00	-0.77	88.79	89.08
117	Jun-09	79.2	39.7	11392.54	10769.97	-0.75	-0.19	1.70	0.51	-0.20	-0.02	0.06	0.29	0.14	88.91	89.21
118	Jul-09	79.2	39.9	11283.82	10756.84	-0.96	-0.12	0.00	0.50	-0.25	-0.01	0.00	0.29	0.02	88.93	89.23
119	Aug-09	79.2	39.9	11259.03	10664.42	-0.22	-0.86	0.00	0.00	-0.06	-0.10	0.00	0.00	-0.16	88.79	89.08
120	Sep-09	82.8	39.8	11179.9	10669.09	-0.71	0.04	3.60	-0.25	-0.19	0.01	0.14	-0.15	-0.19	88.62	88.91
121	Oct-09	82.8	40.0	10996.79	10766.8	-1.65	0.91	0.00	0.50	-0.44	0.11	0.00	0.29	-0.04	88.59	88.88
122	Nov-09	82.8	40.2	10945.76	10831.17	-0.47	0.60	0.00	0.50	-0.12	0.07	0.00	0.29	0.24	88.80	89.09
123	Dec-09	82.2	40.5	10815.45	11000.93	-1.20	1.56	-0.60	0.74	-0.32	0.19	-0.02	0.43	0.28	89.04	89.34
124	Jan-10	82.2	40.8	10727.46	10964.26	-0.82	-0.33	0.00	0.74	-0.22	-0.04	0.00	0.43	0.17	89.20	89.49
125	Feb-10	82.2	40.2	10723.92	11156.01	-0.03	1.73	0.00	-1.48	-0.01	0.21	0.00	-0.86	-0.66	88.61	88.91
126	Mar-10	82.2	40.7	10634.28	11342.49	-0.84	1.66	0.00	1.24	-0.22	0.20	0.00	0.71	0.69	89.23	89.53
127	Apr-10	82.2	40.9	10784.16	11250.99	1.40	-0.81	0.00	0.49	0.37	-0.10	0.00	0.28	0.55	89.73	90.03
128	May-10	82.2	41.2	10847.67	11346.82	0.59	0.85	0.00	0.73	0.15	0.10	0.00	0.42	0.68	90.34	90.64
129	Jun-10	82.2	40.5	10887.41	11325.26	0.37	-0.19	0.00	-1.71	0.10	-0.02	0.00	-0.99	-0.92	89.51	89.81
130	Jul-10	82.2	40.7	10967.76	11580.98	0.74	2.23	0.00	0.49	0.19	0.27	0.00	0.28	0.75	90.18	90.49
131	Aug-10	82.2	40.9	10972.97	11594.2	0.05	0.11	0.00	0.49	0.01	0.01	0.00	0.28	0.31	90.46	90.77
132	Sep-10	80.4	41.0	10983.29	11616.13	0.09	0.19	-1.80	0.24	0.02	0.02	-0.07	0.14	0.12	90.57	90.88
133	Oct-10	80.4	40.9	11042.49	11548.93	0.54	-0.58	0.00	-0.24	0.14	-0.07	0.00	-0.14	-0.07	90.51	90.81
134	Nov-10	80.4	40.6	11065.52	11469.45	0.21	-0.69	0.00	-0.74	0.05	-0.08	0.00	-0.43	-0.45	90.10	90.40
135	Dec-10	80.6	40.7	10843.08	11543.4	-2.03	0.64	0.20	0.25	-0.54	0.08	0.01	0.14	-0.31	89.82	90.12
136	Jan-11	80.6	40.5	10904.42	11536.85	0.56	-0.06	0.00	-0.49	0.15	-0.01	0.00	-0.28	-0.14	89.69	89.99
137	Feb-11	80.6	40.8	10903.33	11426.76	-0.01	-0.96	0.00	0.74	0.00	-0.12	0.00	0.43	0.31	89.97	90.27
138	Mar-11	0	40.7	10847.63	11365.44	-0.51	-0.54	-80.60	-0.25	-0.14	-0.06	-3.05	-0.14	-3.39	86.97	87.27
139	Apr-11	0	40.9	10775.22	11183.23	-0.67	-1.62	0.00	0.49	-0.18	-0.19	0.00	0.28	-0.09	86.90	87.19
140	May-11	0	40.9	10716.24	11029.45	-0.55	-1.38	0.00	0.00	-0.14	-0.17	0.00	0.00	-0.31	86.63	86.92
141	Jun-11	0	40.7	10738.52	11069.69	0.21	0.36	0.00	-0.49	0.05	0.04	0.00	-0.28	-0.18	86.47	86.76
142	Jul-11	0	40.8	10768.11	11082.12	0.28	0.11	0.00	0.25	0.07	0.01	0.00	0.14	0.23	86.66	86.95
143	Aug-11	0	40.6	10782.45	10982.82	0.13	-0.90	0.00	-0.49	0.04	-0.11	0.00	-0.28	-0.36	86.36	86.64

NAICS 323 –Printing

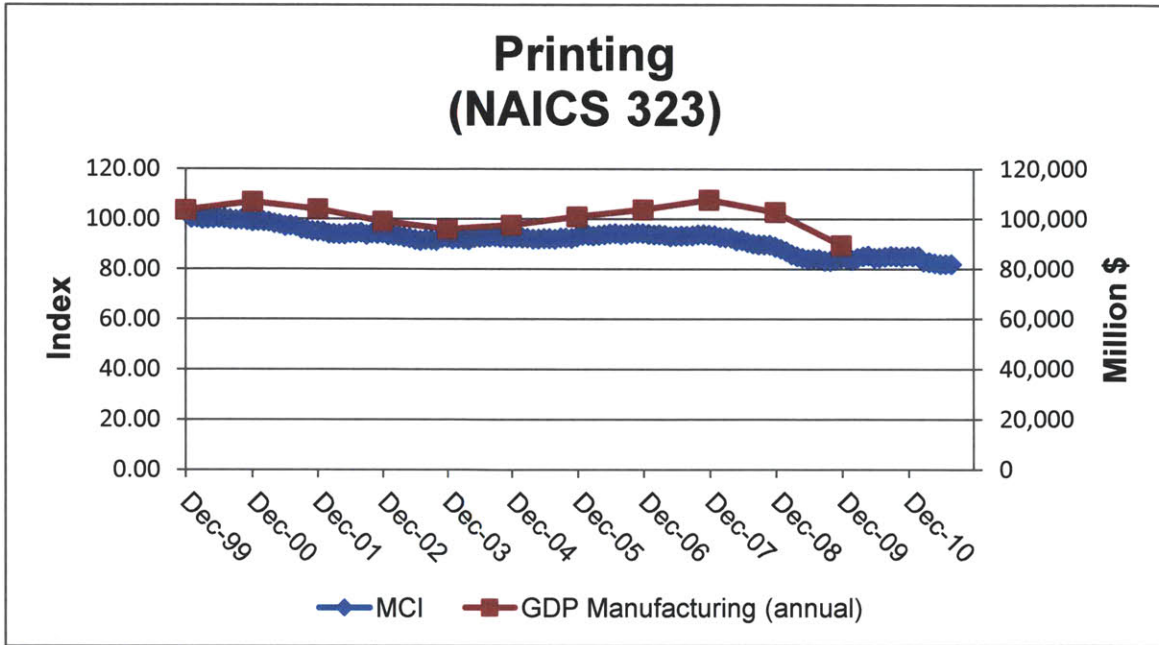


Figure C.19 – MCI and annual GDP Printing including all industries gathered in the NAICS 323 classification.

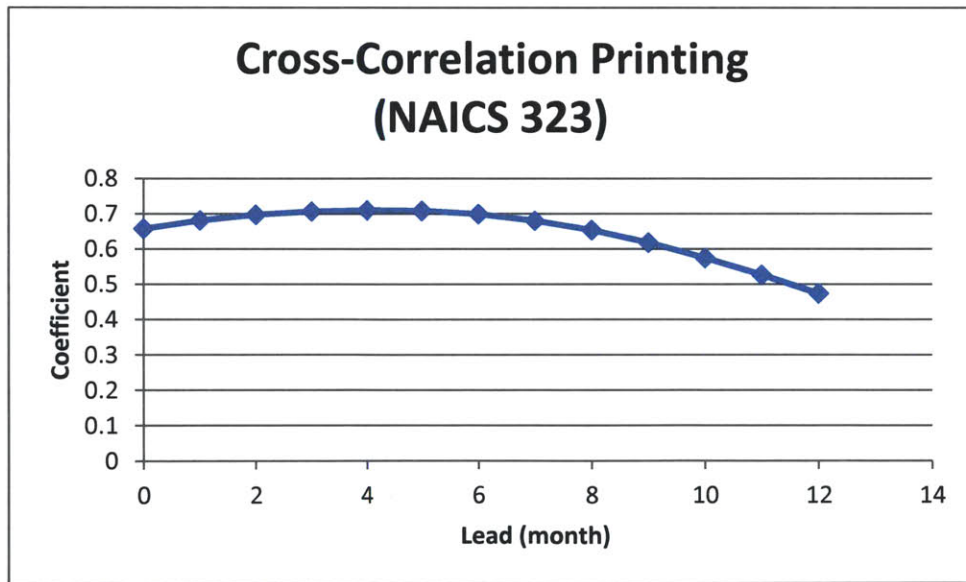


Figure C.20– Cross-Correlation of MCI and annual GDP Printing including all industries gathered in the NAICS 323 classification.

Table C.10
MCI computations for Printing (NAICS 323)

1	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W	
2	Month	CU	Avg.WH	Dollar adjusted		0.18	0.18	0.05	0.59	C(I,t)					St	99.54	
3	Dec-99	75.0	40.4	6865	8582	0.68	0.65	0.17	2.20							Index	Rebased
4	Jan-00	75.0	40.5	6891.326	8546.361	0.38	-0.42	0.00	0.25	0.07	-0.07	0.00	0.15	0.14	100.00	100.46	
5	Feb-00	75.0	40.6	6994.054	8409.316	1.48	-1.62	0.00	0.25	0.27	-0.29	0.00	0.15	0.13	100.13	100.60	
6	Mar-00	75.0	40.4	6943.898	8313.976	-0.72	-1.14	0.00	-0.49	-0.13	-0.20	0.00	-0.29	-0.63	99.51	99.97	
7	Apr-00	75.0	40.6	6729.331	8548.228	-3.14	2.78	0.00	0.49	-0.57	0.49	0.00	0.29	0.21	99.72	100.18	
8	May-00	75.0	40.4	6753.196	8714.848	0.35	1.93	0.00	-0.49	0.06	0.34	0.00	-0.29	0.11	99.83	100.29	
9	Jun-00	75.0	40.4	6784.525	8747.307	0.46	0.37	0.00	0.00	0.08	0.07	0.00	0.00	0.15	99.98	100.44	
10	Jul-00	75.0	40.5	6686.217	8732.16	-1.46	-0.17	0.00	0.25	-0.27	-0.03	0.00	0.15	-0.15	99.83	100.29	
11	Aug-00	75.0	40.3	6811.339	8513.196	1.85	-2.54	0.00	-0.50	0.34	-0.45	0.00	-0.29	-0.40	99.43	99.89	
12	Sep-00	75.0	40.2	6808.366	8457.198	-0.04	-0.66	0.00	-0.25	-0.01	-0.12	0.00	-0.15	-0.27	99.15	99.61	
13	Oct-00	75.0	40.2	6905.734	8397.473	1.42	-0.71	0.00	0.00	0.26	-0.13	0.00	0.00	0.13	99.29	99.75	
14	Nov-00	75.0	40.2	6857.004	8338.521	-0.71	-0.70	0.00	0.00	-0.13	-0.12	0.00	0.00	-0.25	99.04	99.50	
15	Dec-00	75.0	39.8	6737.817	8548.733	-1.75	2.49	0.00	-1.00	-0.32	0.44	0.00	-0.59	-0.48	98.57	99.02	
16	Jan-01	75.0	40.1	6753.146	8446.273	0.23	-1.21	0.00	0.75	0.04	-0.21	0.00	0.45	0.28	98.84	99.30	
17	Feb-01	75.0	40.0	6675.024	8513.018	-1.16	0.79	0.00	-0.25	-0.21	0.14	0.00	-0.15	-0.22	98.62	99.08	
18	Mar-01	75.0	39.9	6760.346	8410.01	1.27	-1.22	0.00	-0.25	0.23	-0.21	0.00	-0.15	-0.13	98.49	98.95	
19	Apr-01	75.0	39.9	6699.616	8191.939	-0.90	-2.63	0.00	0.00	-0.17	-0.46	0.00	0.00	-0.63	97.87	98.33	
20	May-01	75.0	39.8	6634.799	8222.753	-0.97	0.38	0.00	-0.25	-0.18	0.07	0.00	-0.15	-0.26	97.62	98.07	
21	Jun-01	75.0	39.8	6503.817	8003.817	-1.99	-2.70	0.00	0.00	-0.36	-0.48	0.00	0.00	-0.84	96.80	97.25	
22	Jul-01	75.0	40.0	6451.675	8055.502	-0.80	0.64	0.00	0.50	-0.15	0.11	0.00	0.30	0.26	97.06	97.51	
23	Aug-01	75.0	39.8	6487.572	7981.836	0.55	-0.92	0.00	-0.50	0.10	-0.16	0.00	-0.30	-0.36	96.71	97.16	
24	Sep-01	75.0	39.9	6207.817	7782.65	-4.41	-2.53	0.00	0.25	-0.81	-0.45	0.00	0.15	-1.10	95.65	96.09	
25	Oct-01	75.0	39.8	6170.965	7787.011	-0.60	0.06	0.00	-0.25	-0.11	0.01	0.00	-0.15	-0.25	95.41	95.85	
26	Nov-01	75.0	39.8	6029.693	7706.897	-2.32	-1.03	0.00	0.00	-0.42	-0.18	0.00	0.00	-0.61	94.83	95.27	
27	Dec-01	71.0	39.9	6000	7726.66	-0.49	0.26	-4.00	0.25	-0.09	0.05	-0.18	0.15	-0.08	94.76	95.20	
28	Jan-02	71.0	39.7	6097.889	7667.946	1.62	-0.76	0.00	-0.50	0.30	-0.13	0.00	-0.30	-0.14	94.63	95.07	
29	Feb-02	71.0	39.9	5777.99	7576.077	-5.39	-1.21	0.00	0.50	-0.99	-0.21	0.00	0.30	-0.90	93.78	94.22	
30	Mar-02	71.0	40.1	5652.712	7601.332	-2.19	0.33	0.00	0.50	-0.40	0.06	0.00	0.30	-0.04	93.74	94.17	
31	Apr-02	71.0	40.0	5714.015	7496.212	1.08	-1.39	0.00	-0.25	0.20	-0.25	0.00	-0.15	-0.20	93.56	93.99	
32	May-02	71.0	40.2	5641.098	7427.083	-1.28	-0.93	0.00	0.50	-0.23	-0.16	0.00	0.30	-0.10	93.46	93.89	
33	Jun-02	71.0	40.2	5786.932	7482.955	2.55	0.75	0.00	0.00	0.47	0.13	0.00	0.00	0.60	94.02	94.46	
34	Jul-02	71.0	40.1	5802.271	7442.763	0.26	-0.54	0.00	-0.25	0.05	-0.10	0.00	-0.15	-0.19	93.84	94.27	
35	Aug-02	71.0	40.2	5740.566	7630.189	-1.07	2.49	0.00	0.25	-0.20	0.44	0.00	0.15	0.39	94.21	94.64	
36	Sep-02	71.0	40.0	5604.892	7539.981	-2.39	-1.19	0.00	-0.50	-0.44	-0.21	0.00	-0.30	-0.94	93.32	93.75	
37	Oct-02	71.0	39.9	5769.737	7620.301	2.90	1.06	0.00	-0.25	0.53	0.19	0.00	-0.15	0.57	93.85	94.29	
38	Nov-02	71.0	39.9	5793.979	7537.159	0.42	-1.10	0.00	0.00	0.08	-0.19	0.00	0.00	-0.12	93.74	94.18	
39	Dec-02	69.0	40.0	5829.245	7565.094	0.61	0.37	-2.00	0.25	0.11	0.07	-0.09	0.15	0.23	93.96	94.40	
40	Jan-03	69.0	39.8	5840.376	7347.418	0.19	-2.92	0.00	-0.50	0.03	-0.52	0.00	-0.30	-0.78	93.23	93.67	
41	Feb-03	69.0	39.8	5739.981	7406.337	-1.73	0.80	0.00	0.00	-0.32	0.14	0.00	0.00	-0.18	93.07	93.50	
42	Mar-03	69.0	40.0	5687.674	7325.301	-0.92	-1.10	0.00	0.50	-0.17	-0.19	0.00	0.30	-0.06	93.01	93.44	
43	Apr-03	69.0	39.6	5638.812	7372.331	-0.86	0.64	0.00	-1.01	-0.16	0.11	0.00	-0.60	-0.64	92.42	92.84	
44	May-03	69.0	39.6	5624.186	7265.116	-0.26	-1.46	0.00	0.00	-0.05	-0.26	0.00	0.00	-0.31	92.13	92.56	
45	Jun-03	69.0	39.6	5511.152	7100.372	-2.03	-2.29	0.00	0.00	-0.37	-0.40	0.00	0.00	-0.78	91.42	91.84	
46	Jul-03	69.0	39.5	5558.96	6939.647	0.86	-2.29	0.00	-0.25	0.16	-0.40	0.00	-0.15	-0.40	91.06	91.48	
47	Aug-03	69.0	39.6	5537.893	7093.346	-0.38	2.19	0.00	0.25	-0.07	0.39	0.00	0.15	0.47	91.49	91.91	
48	Sep-03	69.0	39.8	5470.046	7012.903	-1.23	-1.14	0.00	0.50	-0.23	-0.20	0.00	0.30	-0.13	91.37	91.79	
49	Oct-03	69.0	40.0	5383.764	6880.074	-1.59	-1.91	0.00	0.50	-0.29	-0.34	0.00	0.30	-0.33	91.07	91.49	
50	Nov-03	69.0	40.2	5470.37	7150	1.60	3.85	0.00	0.50	0.29	0.68	0.00	0.30	1.27	92.23	92.66	
51	Dec-03	78.0	40.0	5458.256	7111.317	-0.22	-0.54	9.00	-0.50	-0.04	-0.10	0.41	-0.30	-0.02	92.21	92.64	
52	Jan-04	78.0	40.1	5336.406	6975.115	-2.26	-1.93	0.00	0.25	-0.41	-0.34	0.00	0.15	-0.61	91.65	92.08	
53	Feb-04	78.0	40.2	5397.8	6907.424	1.14	-0.98	0.00	0.25	0.21	-0.17	0.00	0.15	0.19	91.82	92.25	
54	Mar-04	78.0	40.1	5323.61	6978.122	-1.38	1.02	0.00	-0.25	-0.25	0.18	0.00	-0.15	-0.22	91.62	92.05	
55	Apr-04	78.0	40.0	5297.273	6925.455	-0.50	-0.76	0.00	-0.25	-0.09	-0.13	0.00	-0.15	-0.37	91.28	91.70	
56	May-04	78.0	40.3	5432.188	6953.888	2.51	0.41	0.00	0.75	0.46	0.07	0.00	0.44	0.98	92.17	92.60	
57	Jun-04	78.0	40.0	5388.087	7189.531	-0.82	3.33	0.00	-0.75	-0.15	0.59	0.00	-0.44	-0.01	92.17	92.60	
58	Jul-04	78.0	40.1	5430.894	7132.791	0.79	-0.79	0.00	0.25	0.14	-0.14	0.00	0.15	0.15	92.31	92.74	
59	Aug-04	78.0	40.2	5541.102	6990.063	2.01	-2.02	0.00	0.25	0.37	-0.36	0.00	0.15	0.16	92.46	92.89	
60	Sep-04	78.0	40.1	5552.252	7106.306	0.20	1.65	0.00	-0.25	0.04	0.29	0.00	-0.15	0.18	92.62	93.05	
61	Oct-04	78.0	39.9	5581.541	7075.269	0.53	-0.44	0.00	-0.50	0.10	-0.08	0.00	-0.30	-0.28	92.37	92.80	
62	Nov-04	78.0	39.8	5571.685	7058.244	-0.18	-0.24	0.00	-0.25	-0.03	-0.04	0.00	-0.15	-0.22	92.16	92.59	
63	Dec-04	65.0	39.8	5625	7215.827	0.95	2.21	-13.00	0.00	0.17	0.39	-0.59	0.00	-0.03	92.13	92.56	
64	Jan-05	65.0	40.0	5484.277	7311.77	-2.53	1.32	0.00	0.50	-0.46	0.23	0.00	0.30	0.07	92.19	92.62	
65	Feb-05	65.0	39.9	5550.492	7243.968	1.20	-0.93	0.00	-0.25	0.22	-0.16	0.00	-0.15	-0.09	92.11	92.54	
66	Mar-05	65.0	39.8	5611.901	7185.613	1.10	-0.81	0.00	-0.25	0.20	-0.14	0.00	-0.15	-0.09	92.02	92.45	
67	Apr-05	65.0	39.8	5566.138	7077.601	-0.82	-1.51	0.00	0.00	-0.15	-0.27	0.00	0.00	-0.42	91.64	92.07	
68	May-05	65.0	39.7	5619.594	7084.731	0.96	0.10	0.00	-0.25	0.17	0.02	0.00	-0.15	0.04	91.68	92.11	
69	Jun-05	65.0	39.7	5674.912	7099.823	0.98	0.21	0.00	0.00	0.18	0.04	0.00	0.00	0.22	91.88	92.31	
70	Jul-05	65.0	39.7	5718.558	7030.783	0.77	-0.98	0.00	0.00	0.14	-0.17	0.00	0.00	-0.03	91.85	92.28	
71	Aug-05	65.0	39.7	5608.924	7083.99	-1.94	0.75	0.00	0.00	-0.35	0.13	0.00	0.00	-0.22	91.65	92.07	
72	Sep-05	65.0	39.9	5648.789	7144.464	0.71	0.85	0.00	0.50	0.13	0.15	0.00	0.30	0.58	92.18	92.61	
73	Oct-05	65.0	40.1	5590.32	7088.159	-1.04	-0.79	0.00	0.50	-0.19	-0.14	0.00	0.30	-0.03	92.15	92.58	
74	Nov-05	65.0	40.0	5653.612	6981.723	1.13	-1.51	0.00	-0.25	0.21	-0.27	0.00	-0.15	-0.21	91.96	92.38	
75	Dec-05	73.0	40.2	5635.49	7022.727	-0.32	0.59	8.00	0.50	-0.06	0.10	0.37	0.30	0.71	9		

Table C.10 - Continued

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
76	Jan-06	73.0	40.5	5649.306	7080.729	0.24	0.82	0.00	0.74	0.04	0.15	0.00	0.44	0.63	93.20	93.63
77	Feb-06	73.0	40.5	5631.716	7106.586	-0.31	0.36	0.00	0.00	-0.06	0.06	0.00	0.00	0.01	93.20	93.64
78	Mar-06	73.0	40.5	5614.655	7012.931	-0.30	-1.33	0.00	0.00	-0.06	-0.23	0.00	0.00	-0.29	92.93	93.36
79	Apr-06	73.0	40.5	5661.249	7100.941	0.83	1.25	0.00	0.00	0.15	0.22	0.00	0.00	0.37	93.28	93.71
80	May-06	73.0	40.6	5618.723	7175.319	-0.75	1.04	0.00	0.25	-0.14	0.18	0.00	0.15	0.19	93.46	93.89
81	Jun-06	73.0	40.7	5701.784	7144.435	1.47	-0.43	0.00	0.25	0.27	-0.08	0.00	0.15	0.34	93.78	94.21
82	Jul-06	73.0	40.8	5752.752	7074.513	0.89	-0.98	0.00	0.25	0.16	-0.17	0.00	0.15	0.14	93.90	94.34
83	Aug-06	73.0	40.6	5725.275	7062.553	-0.48	-0.17	0.00	-0.49	-0.09	-0.03	0.00	-0.29	-0.41	93.52	93.95
84	Sep-06	73.0	40.6	5779.287	7038.2	0.94	-0.35	0.00	0.00	0.17	-0.06	0.00	0.00	0.11	93.62	94.06
85	Oct-06	73.0	40.7	5805.295	7086.251	0.45	0.68	0.00	0.25	0.08	0.12	0.00	0.15	0.35	93.95	94.39
86	Nov-06	73.0	40.6	5739.093	7264.328	-1.15	2.48	0.00	-0.25	-0.21	0.44	0.00	-0.15	0.08	94.03	94.46
87	Dec-06	71.0	40.7	5670.94	7294.872	-1.19	0.42	-2.00	0.25	-0.22	0.07	-0.09	0.15	-0.09	93.94	94.38
88	Jan-07	71.0	40.7	5634.535	7206.171	-0.64	-1.22	0.00	0.00	-0.12	-0.22	0.00	0.00	-0.33	93.63	94.06
89	Feb-07	71.0	40.6	5604.995	7210.058	-0.53	0.05	0.00	-0.25	-0.10	0.01	0.00	-0.15	-0.23	93.41	93.84
90	Mar-07	71.0	40.9	5515.797	7196.017	-1.60	-0.19	0.00	0.74	-0.29	-0.03	0.00	0.44	0.11	93.51	93.95
91	Apr-07	71.0	41.0	5443.484	7115.639	-1.32	-1.12	0.00	0.24	-0.24	-0.20	0.00	0.15	-0.29	93.24	93.67
92	May-07	71.0	40.8	5383.567	7093.572	-1.11	-0.31	0.00	-0.49	-0.20	-0.05	0.00	-0.29	-0.55	92.73	93.16
93	Jun-07	71.0	40.9	5406.056	7088.236	0.42	-0.08	0.00	0.24	0.08	-0.01	0.00	0.15	0.21	92.92	93.35
94	Jul-07	71.0	40.9	5394.718	7119.3	-0.21	0.44	0.00	0.00	-0.04	0.08	0.00	0.00	0.04	92.96	93.39
95	Aug-07	71.0	40.8	5421.156	7172.785	0.49	0.75	0.00	-0.24	0.09	0.13	0.00	-0.15	0.08	93.03	93.46
96	Sep-07	71.0	40.9	5458.479	7082.346	0.69	-1.27	0.00	0.24	0.13	-0.22	0.00	0.15	0.05	93.07	93.51
97	Oct-07	71.0	40.8	5522.604	7253.175	1.17	2.38	0.00	-0.24	0.21	0.42	0.00	-0.15	0.49	93.53	93.96
98	Nov-07	71.0	40.9	5442.826	7325.425	-1.46	0.99	0.00	0.24	-0.27	0.17	0.00	0.15	0.05	93.58	94.02
99	Dec-07	71.0	40.9	5577.312	7046.457	2.44	-3.88	0.00	0.00	0.45	-0.69	0.00	0.00	-0.24	93.36	93.79
100	Jan-08	71.0	40.6	5582.315	7149.598	0.09	1.45	0.00	-0.74	0.02	0.26	0.00	-0.44	-0.17	93.20	93.64
101	Feb-08	71.0	40.6	5596.728	6832.72	0.26	-4.53	0.00	0.00	0.05	-0.80	0.00	0.00	-0.75	92.50	92.93
102	Mar-08	57.0	40.8	5599.929	6899.767	0.06	0.98	-14.00	0.49	0.01	0.17	-0.64	0.29	-0.16	92.35	92.78
103	Apr-08	57.0	40.6	5557.704	7003.932	-0.76	1.50	0.00	-0.49	-0.14	0.26	0.00	-0.29	-0.17	92.20	92.63
104	May-08	57.0	40.5	5492.486	6682.059	-1.18	-4.70	0.00	-0.25	-0.22	-0.83	0.00	-0.15	-1.19	91.11	91.53
105	Jun-08	70.1	40.6	5352.039	6619.586	-2.59	-0.94	13.10	0.25	-0.47	-0.17	0.60	0.15	0.11	91.20	91.63
106	Jul-08	70.1	40.5	5231.724	6509.715	-2.27	-1.67	0.00	-0.25	-0.42	-0.30	0.00	-0.15	-0.86	90.42	90.84
107	Aug-08	70.1	40.4	5203.248	6381.029	-0.55	-2.00	0.00	-0.25	-0.10	-0.35	0.00	-0.15	-0.60	89.88	90.30
108	Sep-08	74.1	40.2	5168.667	6320.772	-0.67	-0.95	4.00	-0.50	-0.12	-0.17	0.18	-0.30	-0.40	89.52	89.94
109	Oct-08	74.1	40.2	5127.49	6352.191	-0.80	0.50	0.00	0.00	-0.15	0.09	0.00	0.00	-0.06	89.47	89.88
110	Nov-08	74.1	39.9	5331.426	6237.606	3.90	-1.82	0.00	-0.75	0.71	-0.32	0.00	-0.45	-0.05	89.42	89.84
111	Dec-08	68.2	39.6	5325.074	6192.157	-0.12	-0.73	-5.90	-0.75	-0.02	-0.13	-0.27	-0.45	-0.87	88.65	89.06
112	Jan-09	68.2	39.6	5121.422	6117.368	-3.90	-1.22	0.00	0.00	-0.71	-0.21	0.00	0.00	-0.93	87.83	88.24
113	Feb-09	68.2	39.5	4973.164	5972.365	-2.94	-2.40	0.00	-0.25	-0.54	-0.42	0.00	-0.15	-1.11	86.86	87.26
114	Mar-09	55.5	39.4	4852.487	5875.264	-2.46	-1.64	-12.70	-0.25	-0.45	-0.29	-0.58	-0.15	-1.47	85.59	85.99
115	Apr-09	55.5	39.5	4695.538	5727.613	-3.29	-2.55	0.00	0.25	-0.60	-0.45	0.00	0.15	-0.90	84.82	85.22
116	May-09	55.5	39.5	4601.1	5643.012	-2.03	-1.49	0.00	0.00	-0.37	-0.26	0.00	0.00	-0.63	84.29	84.68
117	Jun-09	55.3	39.7	4415.793	5535.607	-4.11	-1.92	-0.20	0.51	-0.75	-0.34	-0.01	0.30	-0.80	83.62	84.01
118	Jul-09	55.3	39.9	4426.637	5585.994	0.25	0.91	0.00	0.50	0.04	0.16	0.00	0.30	0.50	84.04	84.43
119	Aug-09	55.3	39.9	4376.505	5523.19	-1.14	-1.13	0.00	0.00	-0.21	-0.20	0.00	0.00	-0.41	83.70	84.09
120	Sep-09	49.2	39.8	4338.203	5480.891	-0.88	-0.77	-6.10	-0.25	-0.16	-0.14	-0.28	-0.15	-0.72	83.09	83.48
121	Oct-09	49.2	40.0	4295.182	5404.236	-1.00	-1.41	0.00	0.50	-0.18	-0.25	0.00	0.30	-0.13	82.98	83.37
122	Nov-09	49.2	40.2	4307.305	5450.845	0.28	0.86	0.00	0.50	0.05	0.15	0.00	0.30	0.50	83.40	83.79
123	Dec-09	56.3	40.5	4267.568	5544.225	-0.93	1.70	7.10	0.74	-0.17	0.30	0.32	0.44	0.90	84.15	84.54
124	Jan-10	56.3	40.8	4213.701	5395.329	-1.27	-2.72	0.00	0.74	-0.23	-0.48	0.00	0.44	-0.27	83.92	84.31
125	Feb-10	56.3	40.2	4200.107	5461.98	-0.32	1.23	0.00	-1.48	-0.06	0.22	0.00	-0.88	-0.72	83.31	83.70
126	Mar-10	56.3	40.7	4166.401	5636.989	-0.81	3.15	0.00	1.24	-0.15	0.56	0.00	0.74	1.14	84.27	84.67
127	Apr-10	56.3	40.9	4189.598	5714.967	0.56	1.37	0.00	0.49	0.10	0.24	0.00	0.29	0.64	84.81	85.21
128	May-10	56.3	41.2	4204.586	5690.101	0.36	-0.44	0.00	0.73	0.07	-0.08	0.00	0.43	0.42	85.17	85.57
129	Jun-10	56.3	40.5	4240.803	5623.622	0.86	-1.18	0.00	-1.71	0.16	-0.21	0.00	-1.02	-1.07	84.26	84.66
130	Jul-10	56.3	40.7	4227.192	5584.225	-0.32	-0.70	0.00	0.49	-0.06	-0.12	0.00	0.29	0.11	84.36	84.75
131	Aug-10	56.3	40.9	4257.942	5566.426	0.72	-0.32	0.00	0.49	0.13	-0.06	0.00	0.29	0.37	84.67	85.06
132	Sep-10	61.8	41.0	4222.385	5600.96	-0.84	0.62	5.50	0.24	-0.15	0.11	0.25	0.15	0.35	84.97	85.36
133	Oct-10	61.8	40.9	4273.002	5511.323	1.19	-1.61	0.00	-0.24	0.22	-0.28	0.00	-0.15	-0.21	84.79	85.18
134	Nov-10	61.8	40.6	4295.589	5542.285	0.53	0.56	0.00	-0.74	0.10	0.10	0.00	-0.44	-0.24	84.58	84.97
135	Dec-10	62.1	40.7	4350.857	5550.274	1.28	0.14	0.30	0.25	0.23	0.03	0.01	0.15	0.42	84.94	85.33
136	Jan-11	62.1	40.5	4406.558	5540.529	1.27	-0.18	0.00	-0.49	0.23	-0.03	0.00	-0.29	-0.09	84.86	85.25
137	Feb-11	62.1	40.8	4368.707	5467.358	-0.86	-1.33	0.00	0.74	-0.16	-0.23	0.00	0.44	0.05	84.90	85.29
138	Mar-11	0.0	40.7	4388.966	5580.09	0.46	2.04	-62.10	-0.25	0.08	0.36	-2.84	-0.15	-2.54	82.77	83.15
139	Apr-11	0.0	40.9	4369.127	5439.386	-0.45	-2.55	0.00	0.49	-0.08	-0.45	0.00	0.29	-0.24	82.57	82.95
140	May-11	0.0	40.9	4243.399	5431.612	-2.92	-0.14	0.00	0.00	-0.53	-0.03	0.00	0.00	-0.56	82.11	82.49
141	Jun-11	0.0	40.7	4257.515	5361.173	0.33	-1.31	0.00	-0.49	0.06	-0.23	0.00	-0.29	-0.46	81.73	82.11
142	Jul-11	0.0	40.8	4273.07	5304.395	0.36	-1.06	0.00	0.25	0.07	-0.19	0.00	0.15	0.02	81.75	82.13
143	Aug-11	0.0	40.6	4241.582	5426.154	-0.74	2.27	0.00	-0.49	-0.14	0.40	0.00	-0.29	-0.03	81.73	82.11

NAICS 324 – Petroleum and Coal Products

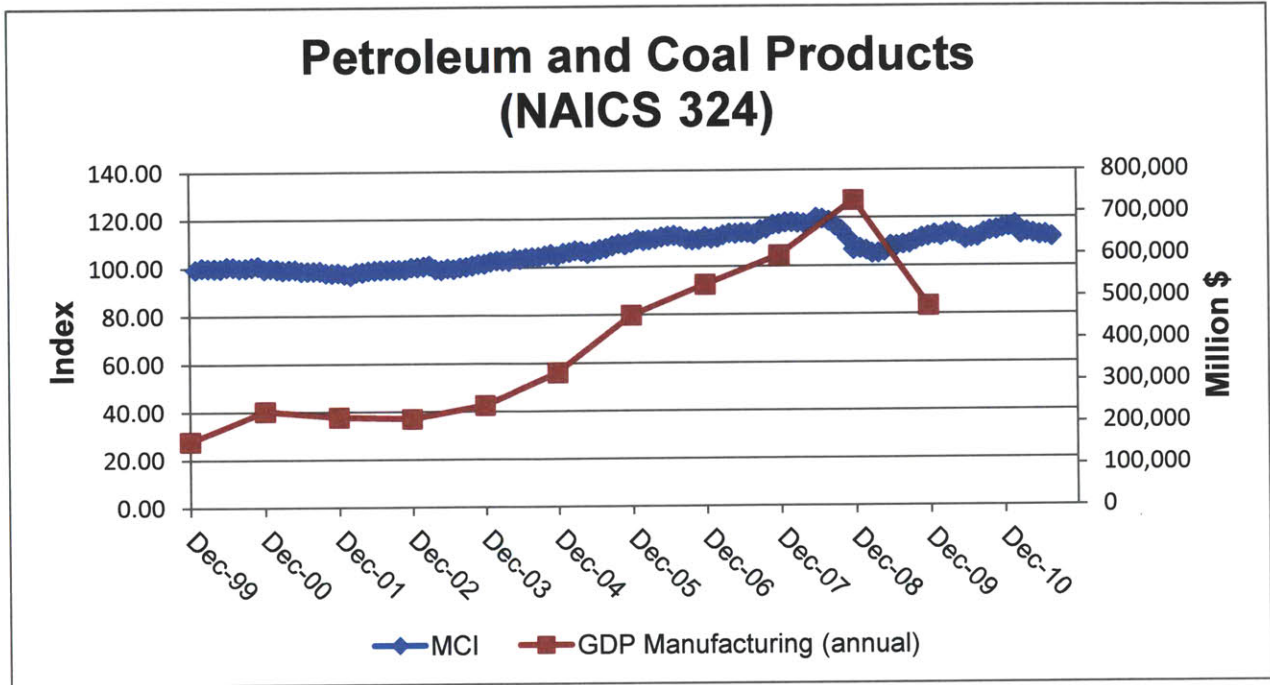


Figure C.21 – MCI and annual GDP Petroleum and Coal Products including all industries gathered in the NAICS 324 classification.

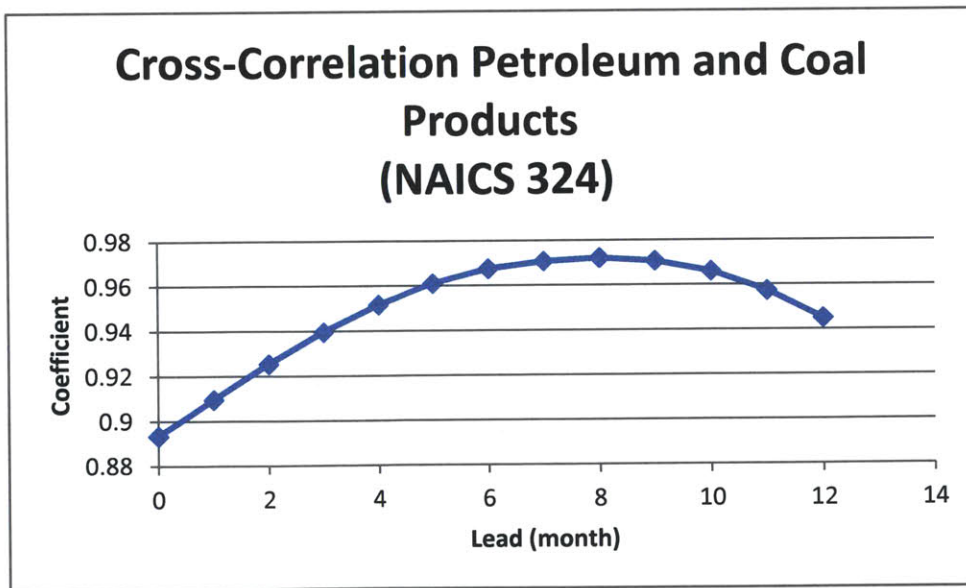


Figure C.22 – Cross-Correlation of MCI and annual GDP Petroleum and Coal Products including all industries gathered in the NAICS 324 classification.

Table C.11
MCI computations for Petroleum and Coal Products (NAICS 324)

1	2	A	E	F	H		J				K				M				N				O				P				R				S				T				U				V				W			
					Month	CU	Avg.WH	Dollar adjusted		Inventory	Ship	0.09	0.06	0.06	0.79	C(I,t)				St	100.65				Index	Rebased																												
3	Dec-99	83.0	40.4	12191	17185	0.25	0.16	0.16	2.20																																													
4	Jan-00	83.0	40.5	12474.58	17668.99	2.30	2.78	0.00	0.25	0.21	0.16	0.00	0.20	0.56	100.00	99.35																																						
5	Feb-00	83.0	40.6	12780.97	18649.16	2.43	5.40	0.00	0.25	0.22	0.31	0.00	0.20	0.73	100.73	100.08																																						
6	Mar-00	83.0	40.4	12696.85	19479.33	-0.66	4.35	0.00	-0.49	-0.06	0.25	0.00	-0.39	-0.20	100.53	99.87																																						
7	Apr-00	83.0	40.6	12871.06	17696.85	1.36	-9.59	0.00	0.49	0.12	-0.55	0.00	0.39	-0.03	100.49	99.84																																						
8	May-00	83.0	40.4	13041.3	18164.21	1.31	2.61	0.00	-0.49	0.12	0.15	0.00	-0.39	-0.12	100.37	99.72																																						
9	Jun-00	83.0	40.4	13373.16	19974.53	2.51	9.49	0.00	0.00	0.23	0.54	0.00	0.00	0.77	101.15	100.49																																						
10	Jul-00	83.0	40.5	13301.08	19190.62	-0.54	-4.00	0.00	0.25	-0.05	-0.23	0.00	0.20	-0.08	101.06	100.41																																						
11	Aug-00	83.0	40.3	13217.01	18811.34	-0.63	-2.00	0.00	-0.50	-0.06	-0.11	0.00	-0.39	-0.57	100.49	99.84																																						
12	Sep-00	83.0	40.2	13326.85	19481.52	0.83	3.50	0.00	-0.25	0.08	0.20	0.00	-0.20	0.08	100.57	99.92																																						
13	Oct-00	83.0	40.2	13662.78	20087.46	2.49	3.06	0.00	0.00	0.23	0.18	0.00	0.00	0.40	100.98	100.32																																						
14	Nov-00	83.0	40.2	13918.29	21142.02	1.85	5.12	0.00	0.00	0.17	0.29	0.00	0.00	0.46	101.45	100.79																																						
15	Dec-00	83.0	39.8	13463.94	19939.57	-3.32	-5.85	0.00	-1.00	-0.30	-0.34	0.00	-0.79	-1.43	100.00	99.36																																						
16	Jan-01	83.0	40.1	13423.04	19698.94	-0.30	-1.21	0.00	0.75	-0.03	-0.07	0.00	0.60	0.50	100.50	99.85																																						
17	Feb-01	83.0	40.0	13405.01	18952.75	-0.13	-3.86	0.00	-0.25	-0.01	-0.22	0.00	-0.20	-0.43	100.07	99.42																																						
18	Mar-01	83.0	39.9	13479.31	17712.22	0.55	-6.77	0.00	-0.25	0.05	-0.39	0.00	-0.20	-0.54	99.53	98.89																																						
19	Apr-01	83.0	39.9	13565.26	18440.5	0.64	4.03	0.00	0.00	0.06	0.23	0.00	0.00	0.29	99.82	99.18																																						
20	May-01	83.0	39.8	13587.95	19317.4	0.17	4.64	0.00	-0.25	0.02	0.27	0.00	-0.20	0.08	99.90	99.26																																						
21	Jun-01	83.0	39.8	13428.44	17290.08	-1.18	-11.08	0.00	0.00	-0.11	-0.64	0.00	0.00	-0.74	99.17	98.52																																						
22	Jul-01	83.0	40.0	13268.9	16539.71	-1.20	-4.44	0.00	0.50	-0.11	-0.25	0.00	0.40	0.03	99.20	98.56																																						
23	Aug-01	83.0	39.8	13508.6	17450.29	1.79	5.36	0.00	-0.50	0.16	0.31	0.00	-0.40	0.07	99.27	98.63																																						
24	Sep-01	83.0	39.9	13238.32	17320.31	-2.02	-0.75	0.00	0.25	-0.18	-0.04	0.00	0.20	-0.03	99.24	98.60																																						
25	Oct-01	83.0	39.8	12919.77	16065.9	-2.44	-7.51	0.00	-0.25	-0.22	-0.43	0.00	-0.20	-0.85	98.40	97.77																																						
26	Nov-01	83.0	39.8	12937.74	15768.2	0.14	-1.87	0.00	0.00	0.01	-0.11	0.00	0.00	-0.09	98.31	97.67																																						
27	Dec-01	80.0	39.9	13089.51	15934.55	1.17	1.05	-3.00	0.25	0.11	0.06	-0.17	0.20	0.19	98.50	97.86																																						
28	Jan-02	80.0	39.7	12753.36	16019.19	-2.60	0.53	0.00	-0.50	-0.24	0.03	0.00	-0.40	-0.61	97.91	97.27																																						
29	Feb-02	80.0	39.9	11963.64	15032.54	-6.39	-6.35	0.00	0.50	-0.58	-0.36	0.00	0.40	-0.55	97.37	96.74																																						
30	Mar-02	80.0	40.1	12598.48	16366.32	5.17	8.50	0.00	0.50	0.47	0.49	0.00	0.40	1.35	98.70	98.06																																						
31	Apr-02	80.0	40.0	12885.42	16318.18	2.25	-0.29	0.00	-0.25	0.20	-0.02	0.00	-0.20	-0.01	98.69	98.05																																						
32	May-02	80.0	40.2	12920.45	16821.02	0.27	3.03	0.00	0.50	0.02	0.17	0.00	0.40	0.59	99.28	98.64																																						
33	Jun-02	80.0	40.2	13217.8	16835.23	2.28	0.08	0.00	0.00	0.21	0.00	0.00	0.00	0.21	99.49	98.85																																						
34	Jul-02	80.0	40.1	13544.94	17170.29	2.44	1.97	0.00	-0.25	0.22	0.11	0.00	-0.20	0.14	99.63	98.98																																						
35	Aug-02	80.0	40.2	13480.19	16975.47	-0.48	-1.14	0.00	0.25	-0.04	-0.07	0.00	0.20	0.09	99.71	99.07																																						
36	Sep-02	80.0	40.0	13900.28	17569.14	3.07	3.44	0.00	-0.50	0.28	0.20	0.00	-0.40	0.08	99.79	99.15																																						
37	Oct-02	80.0	39.9	14072.37	18064.85	1.23	2.78	0.00	-0.25	0.11	0.16	0.00	-0.20	0.07	99.87	99.22																																						
38	Nov-02	80.0	39.9	14026.34	17946.38	-0.33	-0.66	0.00	0.00	-0.03	-0.04	0.00	0.00	-0.07	99.80	99.15																																						
39	Dec-02	80.0	40.0	14669.81	18816.04	4.48	4.73	0.00	0.25	0.41	0.27	0.00	0.20	0.88	100.68	100.03																																						
40	Jan-03	80.0	39.8	15019.72	19586.85	2.36	4.01	0.00	-0.50	0.21	0.23	0.00	-0.40	0.05	100.73	100.08																																						
41	Feb-03	80.0	39.8	15302.89	20096.92	1.87	2.57	0.00	0.00	0.17	0.15	0.00	0.00	0.32	101.05	100.39																																						
42	Mar-03	80.0	40.0	15329.94	20362.37	0.18	1.31	0.00	0.50	0.02	0.08	0.00	0.40	0.49	101.54	100.89																																						
43	Apr-03	80.0	39.6	15584.96	17117.92	1.65	-17.31	0.00	-1.01	0.15	-0.99	0.00	-0.80	-1.64	99.89	99.24																																						
44	May-03	80.0	39.6	14666.05	17815.81	-6.08	4.00	0.00	0.00	-0.55	0.23	0.00	0.00	-0.32	99.57	98.92																																						
45	Jun-03	80.0	39.6	15364.31	18616.17	4.65	4.39	0.00	0.00	0.42	0.25	0.00	0.00	0.68	100.24	99.59																																						
46	Jul-03	80.0	39.5	15096.56	18658.31	-1.76	0.23	0.00	-0.25	-0.16	0.01	0.00	-0.20	-0.35	99.89	99.25																																						
47	Aug-03	80.0	39.6	15573.01	19338.26	3.11	3.58	0.00	0.25	0.28	0.21	0.00	0.20	0.69	100.58	99.93																																						
48	Sep-03	80.0	39.8	15639.63	18638.71	0.43	-3.68	0.00	0.50	0.04	-0.21	0.00	0.40	0.23	100.81	100.16																																						
49	Oct-03	80.0	40.0	15756.46	19114.39	0.74	2.52	0.00	0.50	0.07	0.14	0.00	0.40	0.61	101.43	100.78																																						
50	Nov-03	80.0	40.2	15757.41	19612.04	0.01	2.57	0.00	0.50	0.00	0.15	0.00	0.40	0.54	101.98	101.32																																						
51	Dec-03	80.0	40.0	15993.51	20852.5	1.49	6.13	0.00	-0.50	0.14	0.35	0.00	-0.40	0.09	102.08	101.42																																						
52	Jan-04	80.0	40.1	16843.32	21739.17	5.18	4.16	0.00	0.25	0.47	0.24	0.00	0.20	0.91	103.01	102.34																																						
53	Feb-04	80.0	40.2	17278.64	21875.34	2.55	0.62	0.00	0.25	0.23	0.04	0.00	0.20	0.47	103.49	102.82																																						
54	Mar-04	80.0	40.1	17224.25	22722.88	-0.32	3.80	0.00	-0.25	-0.03	0.22	0.00	-0.20	-0.01	103.48	102.81																																						
55	Apr-04	80.0	40.0	17180.91	23003.64	-0.25	1.23	0.00	-0.25	-0.02	0.07	0.00	-0.20	-0.15	103.32	102.66																																						
56	May-04	80.0	40.3	17685.35	24010.85	2.89	4.28	0.00	0.75	0.26	0.25	0.00	0.59	1.10	104.47	103.79																																						
57	Jun-04	80.0	40.0	18183.21	23619.13	2.78	-1.64	0.00	-0.75	0.25	-0.09	0.00	-0.59	-0.44	104.02	103.34																																						
58	Jul-04	80.0	40.1	18514	24409.21	1.80	3.29	0.00	0.25	0.16	0.19	0.00	0.20	0.55	104.59	103.92																																						
59	Aug-04	80.0	40.2	18350.5	24896.12	-0.89	1.98	0.00	0.25	-0.08	0.11	0.00	0.20	0.23	104.83	104.15																																						
60	Sep-04	80.0	40.1	18530.63	25657.66	0.98	3.01	0.00	-0.25	0.09	0.17	0.00	-0.20	0.06	104.90	104.22																																						
61	Oct-04	80.0	39.9	19724.91	28003.58	6.24	8.74	0.00	-0.50	0.57	0.50	0.00	-0.40	0.67	105.61	104.92																																						
62	Nov-04	80.0	39.8	20729.39	29190.86	4.97	4.15	0.00	-0.25	0.45	0.24	0.00	-0.20	0.49	106.13	105.44																																						
63	Dec-04	76.0	39.8	19531.47	28917.27	-5.95	-0.94	-4.00	0.00	-0.54	-0.05	-0.23	0.00	-0.83	105.26	104.57																																						
64	Jan-05	76.0	40.0	21151.84	29225.52	7.97	1.06	0.00	0.50	0.73	0.06	0.00	0.40	1.18	106.51	105.82																																						
65	Feb-05	76.0	39.9	21801.61	30105.45	3.03	2.97	0.00	-0.25	0.28	0.17	0.00	-0.20	0.25	106.77	106.08																																						
66	Mar-05	76.0	39.8	22410.3	33903.2	2.75	11.87	0.00	-0.25	0.25	0.68	0.00	-0.20	0.73	107.56	106.86																																						
67	Apr-05	76.0	39.8	22284.83	32887.13	-0.56	-3.04	0.00	0.00	-0.05	-0.17	0.00	0.00	-0.23	107.31	106.62																																						
68	May-05	76.0	39.7	21211.83	31610.77	-4.93	-3.96	0.00	-0.25	-0.45	-0.23	0.00	-0.20	-0.88	106.38	105.69																																						
69	Jun-05	76.0	39.7	22286.22	33643.11	4.94	6.23	0.00	0.00	0.45	0.36	0.00	0.00	0.81	107.24	106.55																																						
70	Jul-05	76.0	39.7	23544.42	34683.38	5.49	3.04	0.00	0.00	0.50	0.17	0.00	0.00	0.67	107.97	107.27																																						
71	Aug-05	76.0	39.7	23636.05	37249.34	0.39	7.13	0.00	0.00	0.04	0.41	0.00	0.00	0.44	108.45	107.75																																						
72	Sep-05	76.0	39.9	24176.47	39828.72	2.26	6.69	0.00	0.50	0.21	0.38	0.00	0.40	0.99	109.52	108.82																																						
73	Oct-05	76.0	40.1	25734.66	38450.3	6.24	-3.52	0.00	0.50	0.57	-0.20	0.00	0.40	0.76	110.36	109.65																																						
74	Nov-05	76.0	40.0	25725.85	36710.18	-0.03	-4.63	0.00	-0.25	0																																												

Table C.11 - Continued

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
76	Jan-06	76.0	40.5	26892.36	41032.99	2.95	5.63	0.00	0.74	0.27	0.32	0.00	0.59	1.18	112.10	111.38
77	Feb-06	76.0	40.5	26859.62	37443.67	-0.12	-9.15	0.00	0.00	-0.01	-0.52	0.00	0.00	-0.54	111.50	110.78
78	Mar-06	76.0	40.5	26856.03	39462.07	-0.01	5.25	0.00	0.00	0.00	0.30	0.00	0.00	0.30	111.84	111.11
79	Apr-06	76.0	40.5	27970.06	39872.54	4.06	1.03	0.00	0.00	0.37	0.06	0.00	0.00	0.43	112.32	111.59
80	May-06	76.0	40.6	28800	40724.26	2.92	2.11	0.00	0.25	0.27	0.12	0.00	0.20	0.58	112.97	112.24
81	Jun-06	76.0	40.7	29237.89	40757.01	1.51	0.08	0.00	0.25	0.14	0.00	0.00	0.20	0.34	113.36	112.62
82	Jul-06	76.0	40.8	28937.34	41785.77	-1.03	2.49	0.00	0.25	-0.09	0.14	0.00	0.19	0.24	113.63	112.90
83	Aug-06	76.0	40.8	29289.1	40819.95	1.21	-2.34	0.00	-0.49	0.11	-0.13	0.00	-0.39	-0.41	113.16	112.43
84	Sep-06	76.0	40.8	28651.1	35693.55	-2.20	-13.40	0.00	0.00	-0.20	-0.77	0.00	0.00	-0.97	112.07	111.35
85	Oct-06	76.0	40.7	27760.03	34120.41	-3.16	-4.51	0.00	0.25	-0.29	-0.26	0.00	0.20	-0.35	111.68	110.96
86	Nov-06	76.0	40.8	27881.09	36087.25	0.44	5.60	0.00	-0.25	0.04	0.32	0.00	-0.20	0.17	111.86	111.14
87	Dec-06	81.0	40.7	28094.02	38953.85	0.76	7.64	5.00	0.25	0.07	0.44	0.29	0.20	0.99	112.98	112.25
88	Jan-07	81.0	40.7	27515.55	36490.24	-2.08	-6.53	0.00	0.00	-0.19	-0.37	0.00	0.00	-0.56	112.34	111.62
89	Feb-07	81.0	40.6	28157.32	38449.4	2.31	5.23	0.00	-0.25	0.21	0.30	0.00	-0.20	0.31	112.70	111.97
90	Mar-07	81.0	40.9	28401.44	40284.91	0.86	4.66	0.00	0.74	0.08	0.27	0.00	0.58	0.93	113.75	113.01
91	Apr-07	81.0	41.0	29773.7	40614.71	4.72	0.82	0.00	0.24	0.43	0.05	0.00	0.19	0.67	114.51	113.77
92	May-07	81.0	40.8	30293.79	41114.12	1.73	1.22	0.00	-0.49	0.16	0.07	0.00	-0.39	-0.16	114.33	113.59
93	Jun-07	81.0	40.9	30827.22	40745.94	1.75	-0.90	0.00	0.24	0.16	-0.05	0.00	0.19	0.30	114.68	113.93
94	Jul-07	81.0	40.9	30638.74	41339.29	-0.61	1.45	0.00	0.00	-0.06	0.08	0.00	0.00	0.03	114.71	113.96
95	Aug-07	81.0	40.8	30240.76	39250.8	-1.31	-5.18	0.00	-0.24	-0.12	-0.30	0.00	-0.19	-0.61	114.01	113.27
96	Sep-07	81.0	40.9	33079.96	43589.91	8.97	10.48	0.00	0.24	0.82	0.60	0.00	0.19	1.61	115.86	115.11
97	Oct-07	81.0	40.8	34507.18	45636.76	4.22	4.59	0.00	-0.24	0.38	0.26	0.00	-0.19	0.45	116.39	115.63
98	Nov-07	81.0	40.9	35707.64	53348.26	3.42	15.58	0.00	0.24	0.31	0.89	0.00	0.19	1.40	118.03	117.26
99	Dec-07	81.0	40.9	36843.23	52176.1	3.13	-2.22	0.00	0.00	0.28	-0.13	0.00	0.00	0.16	118.21	117.45
100	Jan-08	81.0	40.6	41331.12	53399.2	11.48	2.32	0.00	-0.74	1.05	0.13	0.00	-0.58	0.59	118.92	118.15
101	Feb-08	81.0	40.6	41955.01	52552.15	1.50	-1.60	0.00	0.00	0.14	-0.09	0.00	0.00	0.04	118.97	118.20
102	Mar-08	65.1	40.8	42535.46	54477.27	1.37	3.60	-15.90	0.49	0.13	0.21	-0.91	0.39	-0.19	118.74	117.98
103	Apr-08	65.1	40.6	41870.51	57661.38	-1.58	5.68	0.00	-0.49	-0.14	0.33	0.00	-0.39	-0.21	118.50	117.73
104	May-08	65.1	40.5	41519.2	59405.13	-0.84	2.98	0.00	-0.25	-0.08	0.17	0.00	-0.20	-0.10	118.38	117.61
105	Jun-08	77.8	40.6	45958.66	61891.26	10.15	4.10	12.70	0.25	0.92	0.24	0.73	0.20	2.08	120.87	120.09
106	Jul-08	77.8	40.5	45237.87	61534.22	-1.58	-0.58	0.00	-0.25	-0.14	-0.03	0.00	-0.20	-0.37	120.42	119.64
107	Aug-08	77.8	40.4	44545.56	56888.95	-1.54	-7.85	0.00	-0.25	-0.14	-0.45	0.00	-0.20	-0.79	119.48	118.70
108	Sep-08	75.1	40.2	42713.21	49771.24	-4.20	-13.35	-2.70	-0.50	-0.38	-0.77	-0.15	-0.39	-1.70	117.46	116.70
109	Oct-08	75.1	40.2	39082.07	43415.94	-8.88	-13.64	0.00	0.00	-0.81	-1.78	0.00	0.00	-1.59	115.61	114.86
110	Nov-08	75.1	39.9	35952.99	32965.44	-8.34	-27.36	0.00	-0.75	-0.76	-1.57	0.00	-0.59	-2.92	112.28	111.55
111	Dec-08	67.1	39.6	28878.63	26282.32	-21.82	-22.56	-8.00	-0.75	-1.99	-1.29	-0.46	-0.60	-4.34	107.51	106.82
112	Jan-09	67.1	39.6	28290.27	29284.57	-2.06	10.81	0.00	0.00	-0.19	0.62	0.00	0.00	0.43	107.98	107.28
113	Feb-09	67.1	39.5	26551	29812.07	-6.34	1.79	0.00	-0.25	-0.58	0.10	0.00	-0.20	-0.68	107.25	106.56
114	Mar-09	56.1	39.4	26865.79	27348.68	1.18	-8.62	-11.00	-0.25	0.11	-0.49	-0.63	-0.20	-1.22	105.95	105.27
115	Apr-09	56.1	39.5	26357.75	27471.9	-1.91	0.45	0.00	0.25	-0.17	0.03	0.00	0.20	0.05	106.01	105.32
116	May-09	56.1	39.5	26889.58	29877.58	2.00	8.39	0.00	0.00	0.18	0.48	0.00	0.00	0.66	106.71	106.02
117	Jun-09	67.4	39.7	28327.11	34306.14	5.21	13.80	11.30	0.51	0.47	0.79	0.65	0.40	2.31	109.21	108.50
118	Jul-09	67.4	39.9	28033.76	32058.12	-1.04	-6.77	0.00	0.50	-0.09	-0.39	0.00	0.40	-0.08	109.12	108.41
119	Aug-09	67.4	39.9	28095.81	34994.38	0.22	8.76	0.00	0.00	0.02	0.50	0.00	0.00	0.52	109.69	108.98
120	Sep-09	72.6	39.8	27753.28	36493.83	-1.23	4.19	5.20	-0.25	-0.11	0.24	0.30	-0.20	0.23	109.94	109.23
121	Oct-09	72.6	40.0	29549.41	38263.98	6.27	4.74	0.00	0.50	0.57	0.27	0.00	0.40	1.24	111.31	110.59
122	Nov-09	72.6	40.2	30341.06	40764.34	2.64	6.33	0.00	0.50	0.24	0.36	0.00	0.40	1.00	112.43	111.70
123	Dec-09	63.1	40.5	31605.7	41186.25	4.08	1.03	-9.50	0.74	0.37	0.06	-0.54	0.59	0.48	112.97	112.24
124	Jan-10	63.1	40.8	31819.96	41863.4	0.68	1.63	0.00	0.74	0.06	0.09	0.00	0.59	0.74	113.81	113.07
125	Feb-10	63.1	40.2	33668.07	41878.65	5.64	0.04	0.00	-1.48	0.51	0.00	0.00	-1.18	-0.66	113.06	112.33
126	Mar-10	63.1	40.7	33322.45	43602.22	-1.03	4.03	0.00	1.24	-0.09	0.23	0.00	0.98	1.12	114.33	113.59
127	Apr-10	63.1	40.9	33018.93	42810.56	-0.92	-1.83	0.00	0.49	-0.08	-0.11	0.00	0.39	0.20	114.56	113.82
128	May-10	63.1	41.2	29610.14	39595.44	-10.89	-7.80	0.00	0.73	-0.99	-0.45	0.00	0.58	-0.86	113.58	112.85
129	Jun-10	63.1	40.5	29353.65	38242.86	-0.87	-3.48	0.00	-1.71	-0.08	-0.20	0.00	-1.36	-1.64	111.74	111.01
130	Jul-10	63.1	40.7	29959.07	38666.7	2.04	1.10	0.00	0.49	0.19	0.06	0.00	0.39	0.64	112.45	111.73
131	Aug-10	63.1	40.9	29206.64	39209.18	-2.54	1.39	0.00	0.49	-0.23	0.08	0.00	0.39	0.24	112.72	111.99
132	Sep-10	74.7	41.0	30870.08	40425.5	5.54	3.05	11.60	0.24	0.50	0.18	0.67	0.19	1.54	114.47	113.73
133	Oct-10	74.7	40.9	32628.97	43726.24	5.54	7.84	0.00	-0.24	0.50	0.45	0.00	-0.19	0.76	115.34	114.60
134	Nov-10	74.7	40.6	34781.33	45820.67	6.39	4.68	0.00	-0.74	0.58	0.27	0.00	-0.58	0.26	115.65	114.90
135	Dec-10	66.6	40.7	36943.47	49788.48	6.03	8.30	-8.10	0.25	0.55	0.48	-0.46	0.20	0.76	116.53	115.77
136	Jan-11	66.6	40.5	38639.39	53589.2	4.49	7.35	0.00	-0.49	0.41	0.42	0.00	-0.39	0.44	117.04	116.28
137	Feb-11	66.6	40.8	39897.51	53032.67	3.20	-1.04	0.00	0.74	0.29	-0.06	0.00	0.59	0.82	118.00	117.24
138	Mar-11	0.0	40.7	40829.43	55777.57	2.31	5.05	-66.60	-0.25	0.21	0.29	-3.82	-0.19	-3.52	113.92	113.19
139	Apr-11	0.0	40.9	42776.34	55345.88	4.66	-0.78	0.00	0.49	0.42	-0.04	0.00	0.39	0.77	114.80	114.06
140	May-11	0.0	40.9	41364.29	53499.61	-3.36	-3.39	0.00	0.00	-0.31	-0.19	0.00	0.00	-0.50	114.23	113.49
141	Jun-11	0.0	40.7	40370.15	53274.39	-2.43	-0.42	0.00	-0.49	-0.22	-0.02	0.00	-0.39	-0.63	113.51	112.77
142	Jul-11	0.0	40.8	39546.68	54538.6	-2.06	2.35	0.00	0.25	-0.19	0.13	0.00	0.19	0.14	113.67	112.93
143	Aug-11	0.0	40.6	38237.19	53046.26	-3.37	-2.77	0.00	-0.49	-0.31	-0.16	0.00	-0.39	-0.86	112.70	111.97

NAICS 325 – Basic Chemicals

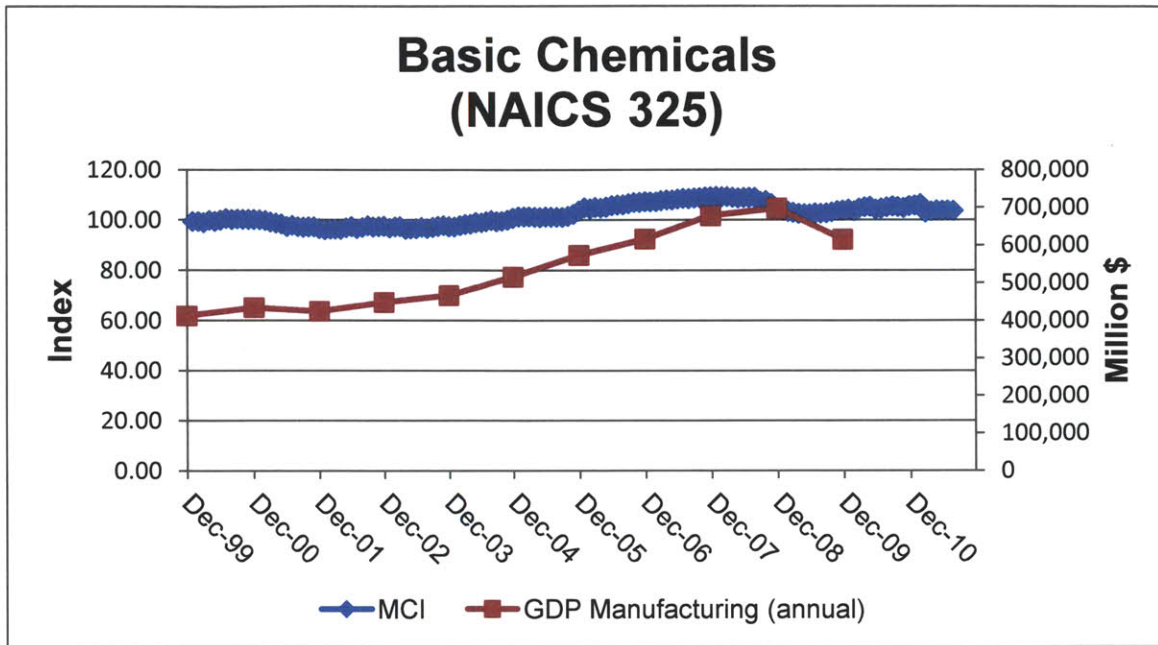


Figure C.23 – MCI and annual GDP Basic Chemicals including all industries gathered in the NAICS 325 classification.

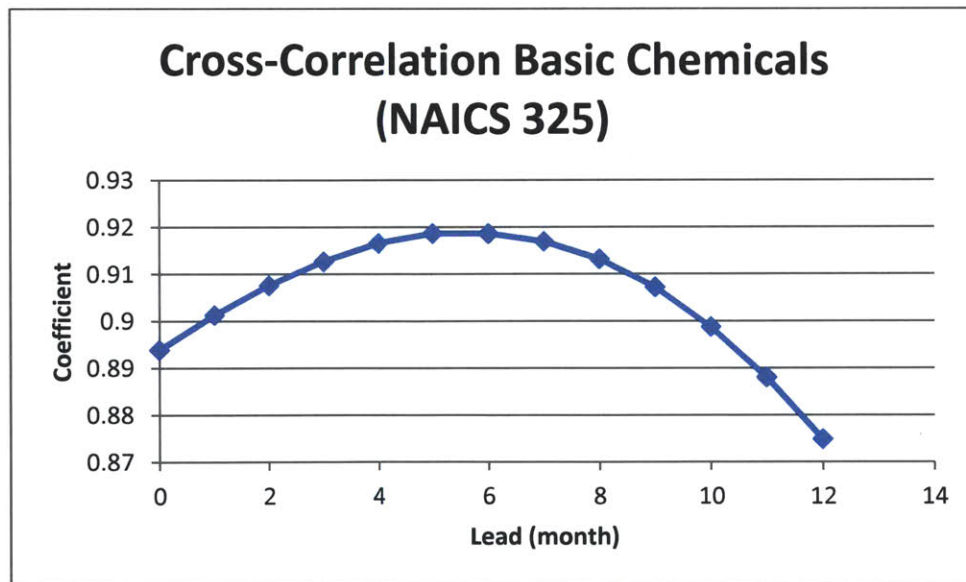


Figure C.24 – Cross-Correlation of MCI and annual GDP Basic Chemicals including all industries gathered in the NAICS 325 classification.

Table C.12
MCI computations for Basic Chemicals (NAICS 325)

1	A	E	F	H		J	K	M	N	O	P	R	S	T	U	V	W
2	Month	CU	Avg.WH	Inventory		Ship	0.25	0.13	0.04	0.58	100.52						
3	Dec-99	78.0	40.4	48518	35930		0.94	0.49	0.16	2.20	C(I,t)				St	Index	Rebased
4	Jan-00	78.0	40.5	48313.06	36231.31		-0.42	0.84	0.00	0.25	-0.10	0.11	0.00	0.14	0.15	100.00	99.48
5	Feb-00	78.0	40.6	48293.36	35809.71		-0.04	-1.17	0.00	0.25	-0.01	-0.15	0.00	0.14	-0.02	99.98	99.46
6	Mar-00	78.0	40.4	48019.69	35871.06		-0.57	0.17	0.00	-0.49	-0.14	0.02	0.00	-0.29	-0.41	99.58	99.06
7	Apr-00	78.0	40.6	48474.41	37000.98		0.94	3.10	0.00	0.49	0.23	0.40	0.00	0.29	0.92	100.50	99.97
8	May-00	78.0	40.4	48652.9	36310.72		0.37	-1.88	0.00	-0.49	0.09	-0.24	0.00	-0.29	-0.44	100.06	99.54
9	Jun-00	78.0	40.4	49157.69	37039.18		1.03	1.99	0.00	0.00	0.26	0.25	0.00	0.00	0.51	100.57	100.05
10	Jul-00	78.0	40.5	50094.82	36967.74		1.89	-0.19	0.00	0.25	0.47	-0.02	0.00	0.14	0.59	101.16	100.64
11	Aug-00	78.0	40.3	50162.27	36769.31		0.13	-0.54	0.00	-0.50	0.03	-0.07	0.00	-0.29	-0.32	100.83	100.31
12	Sep-00	78.0	40.2	50406.61	37401.75		0.49	1.71	0.00	-0.25	0.12	0.22	0.00	-0.14	0.19	101.03	100.51
13	Oct-00	78.0	40.2	50697.76	36555.88		0.58	-2.29	0.00	0.00	0.14	-0.29	0.00	0.00	-0.15	100.88	100.35
14	Nov-00	78.0	40.2	50952.33	36157.59		0.50	-1.10	0.00	0.00	0.12	-0.14	0.00	0.00	-0.02	100.86	100.34
15	Dec-00	78.0	39.8	51138.4	37448.34		0.36	3.51	0.00	-1.00	0.09	0.45	0.00	-0.58	-0.04	100.82	100.29
16	Jan-01	78.0	40.1	50818.01	36416.26		-0.63	-2.79	0.00	0.75	-0.16	-0.36	0.00	0.44	-0.08	100.74	100.22
17	Feb-01	78.0	40.0	49955.64	37074.25		-1.71	1.79	0.00	-0.25	-0.42	0.23	0.00	-0.15	-0.34	100.40	99.88
18	Mar-01	78.0	39.9	49846.97	35923		-0.22	-3.15	0.00	-0.25	-0.05	-0.40	0.00	-0.15	-0.60	99.79	99.28
19	Apr-01	78.0	39.9	49400.19	35361.8		-0.90	-1.57	0.00	0.00	-0.22	-0.20	0.00	0.00	-0.42	99.37	98.86
20	May-01	78.0	39.8	48895.79	35459.85		-1.03	0.28	0.00	-0.25	-0.25	0.04	0.00	-0.15	-0.36	99.01	98.50
21	Jun-01	78.0	39.8	48084.92	33854.01		-1.67	-4.63	0.00	0.00	-0.41	-0.59	0.00	0.00	-1.01	98.02	97.51
22	Jul-01	78.0	40.0	48013.4	34438.28		-0.15	1.71	0.00	0.50	-0.04	0.22	0.00	0.29	0.47	98.48	97.97
23	Aug-01	78.0	39.8	47342.26	34677.82		-1.41	0.69	0.00	-0.50	-0.35	0.09	0.00	-0.29	-0.55	97.94	97.43
24	Sep-01	78.0	39.9	47402.29	33662.54		0.13	-2.97	0.00	0.25	0.03	-0.38	0.00	0.15	-0.20	97.74	97.23
25	Oct-01	78.0	39.8	47745.94	33994.27		0.72	0.98	0.00	-0.25	0.18	0.13	0.00	-0.15	0.16	97.90	97.39
26	Nov-01	78.0	39.8	47086.21	34804.6		-1.39	2.36	0.00	0.00	-0.34	0.30	0.00	0.00	-0.04	97.86	97.35
27	Dec-01	61.0	39.9	46978.83	34781.52		-0.23	-0.07	-17.00	0.25	-0.06	-0.01	-0.71	0.15	-0.63	97.24	96.74
28	Jan-02	61.0	39.7	46492.32	34877.16		-1.04	0.27	0.00	-0.50	-0.26	0.04	0.00	-0.29	-0.52	96.74	96.24
29	Feb-02	61.0	39.9	46185.65	35027.75		-0.66	0.43	0.00	0.50	-0.16	0.06	0.00	0.29	0.18	96.92	96.42
30	Mar-02	61.0	40.1	45659.37	35250.24		-1.15	0.63	0.00	0.50	-0.28	0.08	0.00	0.29	0.09	97.01	96.50
31	Apr-02	61.0	40.0	45581.44	35411.93		-0.17	0.46	0.00	-0.25	-0.04	0.06	0.00	-0.15	-0.13	96.88	96.38
32	May-02	61.0	40.2	45455.49	36678.03		-0.28	3.51	0.00	0.50	-0.07	0.45	0.00	0.29	0.67	97.54	97.03
33	Jun-02	61.0	40.2	45174.24	38501.89		-0.62	4.85	0.00	0.00	-0.15	0.62	0.00	0.00	0.47	98.00	97.49
34	Jul-02	61.0	40.1	45736.99	35600.76		1.24	-7.83	0.00	-0.25	0.31	-1.00	0.00	-0.15	-0.84	97.17	96.67
35	Aug-02	61.0	40.2	46166.04	36034.91		0.93	1.21	0.00	0.25	0.23	0.16	0.00	0.15	0.53	97.69	97.18
36	Sep-02	61.0	40.0	46378.17	38509.88		0.46	6.64	0.00	-0.50	0.11	0.85	0.00	-0.29	0.67	98.35	97.84
37	Oct-02	61.0	39.9	46536.65	37256.58		0.34	-3.31	0.00	-0.25	0.08	-0.42	0.00	-0.15	-0.49	97.88	97.37
38	Nov-02	61.0	39.9	46919.1	37129.82		0.82	-0.34	0.00	0.00	0.20	-0.04	0.00	0.00	0.16	98.03	97.52
39	Dec-02	63.0	40.0	46478.3	37388.68		-0.94	0.69	2.00	0.25	-0.23	0.09	0.08	0.15	0.08	98.11	97.60
40	Jan-03	63.0	39.8	45715.49	37429.11		-1.65	0.11	0.00	-0.50	-0.41	0.01	0.00	-0.29	-0.69	97.44	96.94
41	Feb-03	63.0	39.8	46375.58	37796.83		1.43	0.98	0.00	0.00	0.35	0.13	0.00	0.00	0.48	97.91	97.40
42	Mar-03	63.0	40.0	45870.25	38016.68		-1.10	0.58	0.00	0.50	-0.27	0.07	0.00	0.29	0.10	98.00	97.50
43	Apr-03	63.0	39.6	45927.58	36639.74		0.12	-3.69	0.00	-1.01	0.03	-0.47	0.00	-0.59	-1.03	97.00	96.50
44	May-03	63.0	39.6	46093.95	36670.7		0.36	0.08	0.00	0.00	0.09	0.01	0.00	0.00	0.10	97.10	96.60
45	Jun-03	63.0	39.6	45993.49	37122.68		-0.22	1.22	0.00	0.00	-0.05	0.16	0.00	0.00	0.10	97.20	96.69
46	Jul-03	63.0	39.5	46256.27	38916.43		0.57	4.72	0.00	-0.25	0.14	0.61	0.00	-0.15	0.60	97.78	97.28
47	Aug-03	63.0	39.6	46017.56	37398.34		-0.52	-3.98	0.00	0.25	-0.13	-0.51	0.00	0.15	-0.49	97.30	96.80
48	Sep-03	63.0	39.8	45634.1	38449.77		-0.84	2.77	0.00	0.50	-0.21	0.36	0.00	0.29	0.44	97.74	97.23
49	Oct-03	63.0	40.0	45661.44	38702.95		0.06	0.66	0.00	0.50	0.01	0.08	0.00	0.29	0.39	98.12	97.61
50	Nov-03	63.0	40.2	46242.59	37901.85		1.26	-2.09	0.00	0.50	0.31	-0.27	0.00	0.29	0.34	98.45	97.94
51	Dec-03	63.0	40.0	45744.9	38090.91		-1.08	0.50	0.00	-0.50	-0.27	0.06	0.00	-0.29	-0.49	97.96	97.45
52	Jan-04	63.0	40.1	45073.73	38492.17		-1.48	1.05	0.00	0.25	-0.37	0.13	0.00	0.15	-0.09	97.88	97.37
53	Feb-04	63.0	40.2	46069.66	38199.82		2.19	-0.76	0.00	0.25	0.54	-0.10	0.00	0.15	0.59	98.46	97.94
54	Mar-04	63.0	40.1	46567	39288.06		1.07	2.81	0.00	-0.25	0.27	0.36	0.00	-0.15	0.48	98.93	98.42
55	Apr-04	63.0	40.0	47106.36	39313.64		1.15	0.07	0.00	-0.25	0.29	0.01	0.00	-0.15	0.15	99.08	98.56
56	May-04	63.0	40.3	47153.71	39698.01		0.10	0.97	0.00	0.75	0.02	0.12	0.00	0.44	0.58	99.66	99.14
57	Jun-04	63.0	40.0	47444.95	40425.99		0.62	1.82	0.00	-0.75	0.15	0.23	0.00	-0.44	-0.05	99.61	99.09
58	Jul-04	63.0	40.1	47651.31	41106.59		0.43	1.67	0.00	0.25	0.11	0.21	0.00	0.15	0.47	100.08	99.56
59	Aug-04	63.0	40.2	48181.57	41321.59		1.11	0.52	0.00	0.25	0.27	0.07	0.00	0.15	0.49	100.56	100.04
60	Sep-04	63.0	40.1	47514.41	41268.47		-1.39	-0.13	0.00	-0.25	-0.35	-0.02	0.00	-0.15	-0.51	100.05	99.53
61	Oct-04	63.0	39.9	47458.78	42899.64		-0.12	3.88	0.00	-0.50	-0.03	0.50	0.00	-0.29	0.18	100.23	99.71
62	Nov-04	63.0	39.8	48389.78	43265.23		1.94	0.85	0.00	-0.25	0.48	0.11	0.00	-0.15	0.44	100.68	100.15
63	Dec-04	67.0	39.8	49650.18	43208.63		2.57	-0.13	4.00	0.00	0.64	-0.02	0.17	0.00	0.79	101.47	100.94
64	Jan-05	67.0	40.0	49539.08	44204.85		-0.22	2.28	0.00	0.50	-0.06	0.29	0.00	0.29	0.53	102.01	101.48
65	Feb-05	67.0	39.9	49844.5	44038.43		0.61	-0.38	0.00	-0.25	0.15	-0.05	0.00	-0.15	-0.04	101.97	101.44
66	Mar-05	67.0	39.8	50111.9	44374.78		0.54	0.76	0.00	-0.25	0.13	0.10	0.00	-0.15	0.08	102.05	101.52
67	Apr-05	67.0	39.8	49625.22	44605.82		-0.98	0.52	0.00	0.00	-0.24	0.07	0.00	0.00	-0.17	101.87	101.35
68	May-05	67.0	39.7	49744.92	44411.3		0.24	-0.44	0.00	-0.25	0.06	-0.06	0.00	-0.15	-0.14	101.73	101.20
69	Jun-05	67.0	39.7	50407.24	44068.9		1.32	-0.77	0.00	0.00	0.33	-0.10	0.00	0.00	0.23	101.96	101.43
70	Jul-05	67.0	39.7	49756.38	44785.4		-1.30	1.61	0.00	0.00	-0.32	0.21	0.00	0.00	-0.11	101.84	101.32
71	Aug-05	67.0	39.7	49345.58	45376.2		-0.83	1.31	0.00	0.00	-0.21	0.17	0.00	0.00	-0.04	101.81	101.28
72	Sep-05	67.0	39.9	49204.15	44522.49		-0.29	-1.90	0.00	0.50	-0.07	-0.24	0.00	0.29	-0.02	101.78	101.26
73	Oct-05	67.0	40.1	49383.75	44633.54		0.36	0.25	0.00	0.50	0.09	0.03	0.00	0.29	0.41	102	

Table C.12 - Continued

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
76	Jan-06	68.0	40.5	53323.78	47391.49	1.87	2.76	0.00	0.74	0.46	0.35	0.00	0.43	1.25	105.62	105.07
77	Feb-06	68.0	40.5	53129.12	46273.83	-0.37	-2.39	0.00	0.00	-0.09	-0.31	0.00	0.00	-0.40	105.21	104.66
78	Mar-06	68.0	40.5	54085.34	46403.45	1.78	0.28	0.00	0.00	0.44	0.04	0.00	0.00	0.48	105.71	105.16
79	Apr-06	68.0	40.5	53558.6	46555.18	-0.98	0.33	0.00	0.00	-0.24	0.04	0.00	0.00	-0.20	105.50	104.95
80	May-06	68.0	40.6	53672.34	46891.91	0.21	0.72	0.00	0.25	0.05	0.09	0.00	0.14	0.29	105.80	105.25
81	Jun-06	68.0	40.7	54950.72	46516.57	2.35	-0.80	0.00	0.25	0.58	-0.10	0.00	0.14	0.62	106.46	105.91
82	Jul-06	68.0	40.8	54983.07	46947.5	0.06	0.92	0.00	0.25	0.01	0.12	0.00	0.14	0.28	106.76	106.20
83	Aug-06	68.0	40.6	55397.3	47533.39	0.75	1.24	0.00	-0.49	0.19	0.16	0.00	-0.29	0.06	106.82	106.26
84	Sep-06	68.0	40.6	56799.66	46713.92	2.50	-1.74	0.00	0.00	0.62	-0.22	0.00	0.00	0.40	107.24	106.69
85	Oct-06	68.0	40.7	57439.8	46658.41	1.12	-0.12	0.00	0.25	0.28	-0.02	0.00	0.14	0.41	107.68	107.12
86	Nov-06	68.0	40.6	57773.31	46775.02	0.58	0.25	0.00	-0.25	0.14	0.03	0.00	-0.14	0.03	107.71	107.15
87	Dec-06	67.0	40.7	57478.63	47788.03	-0.51	2.14	-1.00	0.25	-0.13	0.27	-0.04	0.14	0.25	107.98	107.42
88	Jan-07	67.0	40.7	57382.6	47732.89	-0.17	-0.12	0.00	0.00	-0.04	-0.01	0.00	0.00	-0.06	107.92	107.36
89	Feb-07	67.0	40.6	57201.15	48672.77	-0.32	1.95	0.00	-0.25	-0.08	0.25	0.00	-0.14	0.03	107.95	107.39
90	Mar-07	67.0	40.9	57044.23	48977.82	-0.27	0.62	0.00	0.74	-0.07	0.08	0.00	0.43	0.44	108.43	107.87
91	Apr-07	67.0	41.0	56999.48	49390.8	-0.08	0.84	0.00	0.24	-0.02	0.11	0.00	0.14	0.23	108.68	108.12
92	May-07	67.0	40.8	57352.94	49822.1	0.62	0.87	0.00	-0.49	0.15	0.11	0.00	-0.28	-0.02	108.66	108.09
93	Jun-07	67.0	40.9	57896.53	49697.36	0.94	-0.25	0.00	0.24	0.23	-0.03	0.00	0.14	0.34	109.03	108.47
94	Jul-07	67.0	40.9	58271.1	50098.44	0.64	0.80	0.00	0.00	0.16	0.10	0.00	0.00	0.26	109.32	108.75
95	Aug-07	67.0	40.8	58253.52	50109.74	-0.03	0.02	0.00	-0.24	-0.01	0.00	0.00	-0.14	-0.13	109.16	108.59
96	Sep-07	67.0	40.9	58598.45	49958.55	0.59	-0.30	0.00	0.24	0.15	-0.04	0.00	0.14	0.25	109.43	108.86
97	Oct-07	67.0	40.8	58563.92	51070.03	-0.06	2.20	0.00	-0.24	-0.01	0.28	0.00	-0.14	0.13	109.57	109.00
98	Nov-07	67.0	40.9	59127.76	50666.36	0.96	-0.79	0.00	0.24	0.24	-0.10	0.00	0.14	0.28	109.87	109.30
99	Dec-07	67.0	40.9	59004.08	51315.39	-0.21	1.27	0.00	0.00	-0.05	0.16	0.00	0.00	0.11	110.00	109.42
100	Jan-08	67.0	40.6	60213.18	51229.62	2.03	-0.17	0.00	-0.74	0.50	-0.02	0.00	-0.43	0.05	110.05	109.48
101	Feb-08	67.0	40.6	60341.1	50565.24	0.21	-1.31	0.00	0.00	0.05	-0.17	0.00	0.00	-0.11	109.93	109.36
102	Mar-08	74.9	40.8	59478.77	49892.56	-1.44	-1.34	7.90	0.49	-0.36	-0.17	0.33	0.29	0.09	110.02	109.45
103	Apr-08	74.9	40.6	59147.89	50549.49	-0.56	1.31	0.00	-0.49	-0.14	0.17	0.00	-0.29	-0.26	109.74	109.17
104	May-08	74.9	40.5	58880.25	50632.33	-0.45	0.16	0.00	-0.25	-0.11	0.02	0.00	-0.14	-0.23	109.48	108.91
105	Jun-08	75.4	40.6	58363.35	51382.74	-0.88	1.47	0.50	0.25	-0.22	0.19	0.02	0.14	0.13	109.63	109.06
106	Jul-08	75.4	40.5	58730.83	51502.54	0.63	0.23	0.00	-0.25	0.16	0.03	0.00	-0.14	0.04	109.68	109.11
107	Aug-08	75.4	40.4	59536.79	50586.13	1.36	-1.80	0.00	-0.25	0.34	-0.23	0.00	-0.14	-0.04	109.64	109.07
108	Sep-08	71.3	40.2	58571.64	48124.47	-1.63	-4.99	-4.10	-0.50	-0.40	-0.64	-0.17	-0.29	-1.50	108.00	107.44
109	Oct-08	71.3	40.2	59047.01	48739.44	0.81	1.27	0.00	0.00	0.20	0.16	0.00	0.00	0.36	108.39	107.83
110	Nov-08	71.3	39.9	59713.6	45022.92	1.12	-7.93	0.00	-0.75	0.28	-1.02	0.00	-0.44	-1.18	107.13	106.57
111	Dec-08	60.1	39.6	58689.34	43229.93	-1.73	-4.06	-11.20	-0.75	-0.43	-0.52	-0.47	-0.44	-1.86	105.16	104.61
112	Jan-09	60.1	39.6	57859.86	42534.91	-1.42	-1.62	0.00	0.00	-0.35	-0.21	0.00	0.00	-0.56	104.57	104.02
113	Feb-09	60.1	39.5	56750.52	42757.63	-1.94	0.52	0.00	-0.25	-0.48	0.07	0.00	-0.15	-0.56	103.98	103.44
114	Mar-09	60.6	39.4	57045.02	41714.78	0.52	-2.47	0.50	-0.25	0.13	-0.32	0.02	-0.15	-0.32	103.66	103.12
115	Apr-09	60.6	39.5	55897.87	41469.12	-2.03	-0.59	0.00	0.25	-0.50	-0.08	0.00	0.15	-0.43	103.21	102.68
116	May-09	60.6	39.5	55396.31	41840.12	-0.90	0.89	0.00	0.00	-0.22	0.11	0.00	0.00	-0.11	103.10	102.56
117	Jun-09	64.0	39.7	54212.96	42098.24	-2.16	0.62	3.40	0.51	-0.53	0.08	0.14	0.29	-0.02	103.08	102.54
118	Jul-09	64.0	39.9	54123.72	42273.5	-0.16	0.42	0.00	0.50	-0.04	0.05	0.00	0.29	0.31	103.39	102.86
119	Aug-09	64.0	39.9	54082.01	42118.44	-0.08	0.37	0.00	0.00	-0.02	-0.05	0.00	0.00	-0.07	103.33	102.79
120	Sep-09	68.4	39.8	54128.11	42359.63	0.09	0.57	4.40	-0.25	0.02	0.07	0.18	-0.15	0.13	103.46	102.92
121	Oct-09	68.4	40.0	54069.6	42679.36	-0.11	0.75	0.00	0.50	-0.03	0.10	0.00	0.29	0.36	103.84	103.30
122	Nov-09	68.4	40.2	54122.99	43232.52	0.10	1.29	0.00	0.50	0.02	0.17	0.00	0.29	0.48	104.34	103.79
123	Dec-09	69.3	40.5	53374.71	43538.83	-1.39	0.71	0.90	0.74	-0.34	0.09	0.04	0.43	0.22	104.56	104.02
124	Jan-10	69.3	40.8	53222.88	43388.24	-0.28	-0.35	0.00	0.74	-0.07	-0.04	0.00	0.43	0.31	104.89	104.35
125	Feb-10	69.3	40.2	53114.67	44291.97	-0.20	2.06	0.00	-1.48	-0.05	0.26	0.00	-0.86	-0.65	104.21	103.67
126	Mar-10	69.3	40.7	53633.45	44782.04	0.97	1.10	0.00	1.24	0.24	0.14	0.00	0.72	1.10	105.37	104.82
127	Apr-10	69.3	40.9	53673.45	45167.01	0.07	0.86	0.00	0.49	0.02	0.11	0.00	0.29	0.41	105.81	105.26
128	May-10	69.3	41.2	53789.29	44446.21	0.22	-1.61	0.00	0.73	0.05	-0.21	0.00	0.43	0.27	106.09	105.54
129	Jun-10	69.3	40.5	53618.65	44428.52	-0.32	-0.04	0.00	-1.71	-0.08	-0.01	0.00	-1.00	-1.08	104.95	104.41
130	Jul-10	69.3	40.7	53660.96	44591.77	0.08	0.37	0.00	0.49	0.02	0.05	0.00	0.29	0.35	105.32	104.78
131	Aug-10	69.3	40.9	53568.3	45413.54	-0.17	1.83	0.00	0.49	-0.04	0.23	0.00	0.29	0.48	105.83	105.28
132	Sep-10	70.4	41.0	53446.44	46152.87	-0.23	1.61	1.10	0.24	-0.06	0.21	0.05	0.14	0.34	106.19	105.64
133	Oct-10	70.4	40.9	54017.8	44987.58	1.06	-2.56	0.00	-0.24	0.26	-0.33	0.00	-0.14	-0.21	105.97	105.42
134	Nov-10	70.4	40.8	53627.01	45714.33	-0.73	1.60	0.00	-0.74	-0.18	0.21	0.00	-0.43	-0.40	105.54	104.99
135	Dec-10	71.3	40.7	54613.87	46136.36	1.82	0.92	0.90	0.25	0.45	0.12	0.04	0.14	0.75	106.34	105.78
136	Jan-11	71.3	40.5	55429.73	46701.78	1.48	1.22	0.00	-0.49	0.37	0.16	0.00	-0.29	0.24	106.59	106.03
137	Feb-11	71.3	40.8	55533.67	46609.48	0.19	-0.20	0.00	0.74	0.05	-0.03	0.00	0.43	0.45	107.07	106.51
138	Mar-11	0.0	40.7	55053.72	47351.07	-0.87	1.58	-71.30	-0.25	-0.21	0.20	-2.97	-0.14	-3.13	103.77	103.23
139	Apr-11	0.0	40.9	55369.84	47365.7	0.57	0.03	0.00	0.49	0.14	0.00	0.00	0.29	0.43	104.22	103.68
140	May-11	0.0	40.9	55909.9	47946.41	0.97	1.22	0.00	0.00	0.24	0.16	0.00	0.00	0.40	104.64	104.09
141	Jun-11	0.0	40.7	56210.29	48041.07	0.54	0.20	0.00	-0.49	0.13	0.03	0.00	-0.29	-0.13	104.50	103.96
142	Jul-11	0.0	40.8	56385.75	47585.62	0.31	-0.95	0.00	0.25	0.08	-0.12	0.00	0.14	0.10	104.60	104.06
143	Aug-11	0.0	40.6	56560.83	47590.93	0.31	0.01	0.00	-0.49	0.08	0.00	0.00	-0.29	-0.21	104.39	103.84

NAICS 326 – Plastics and Rubber Products

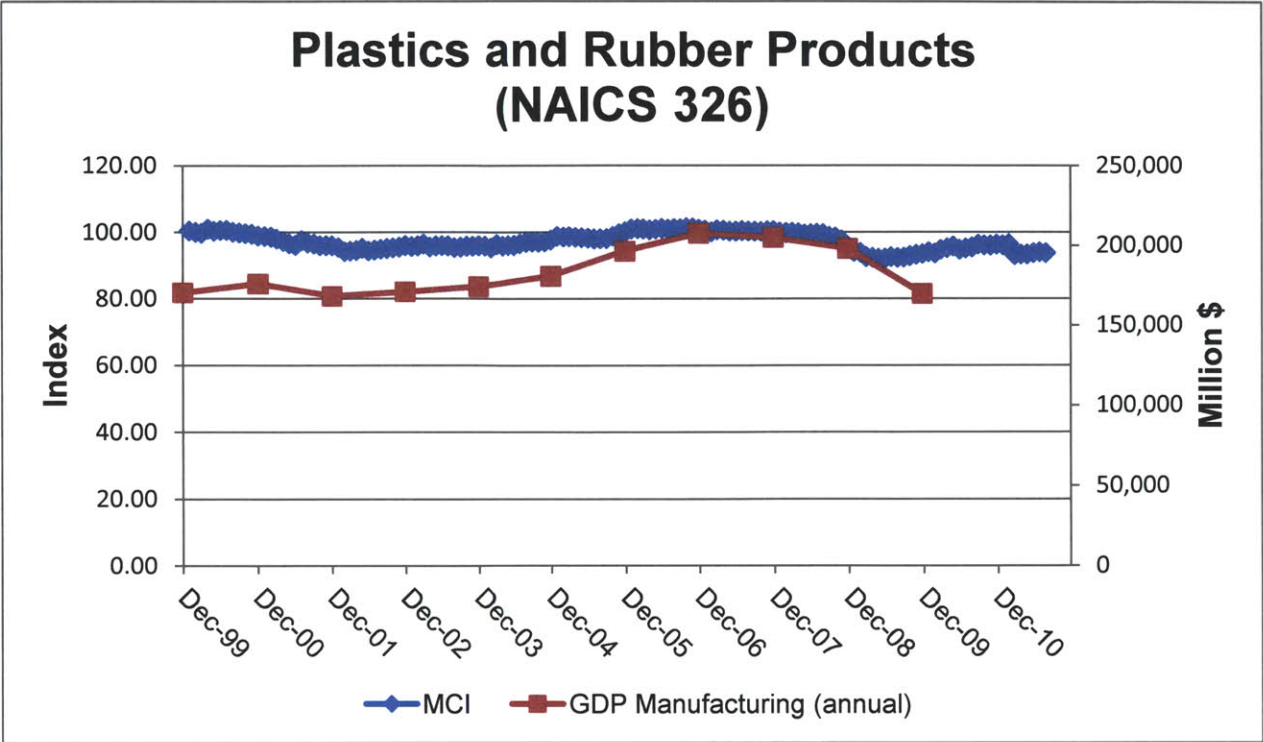


Figure C.25 – MCI and annual GDP Plastics and Rubber Products including all industries gathered in the NAICS 326 classification.

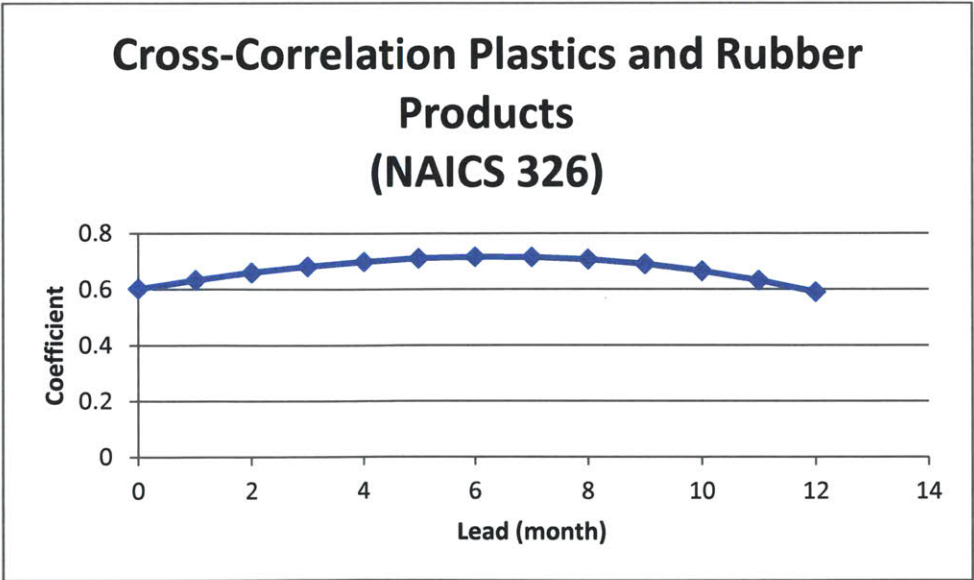


Figure C.26 – Cross-Correlation of MCI and annual GDP Plastics and Rubber Products including all industries gathered in the NAICS 326 classification.

Table C.13

MCI computations for Plastics and Rubber (NAICS 326)

	A	E	F	H	J	K	M	N	O	P	R	T	U	V	W
1	Dollar adjusted														
2	Month	CU	Avg.WH	Inventory	Ship	0.19	0.14	0.05	0.63				99.60		
3	Dec-99	71.0	40.4	17229	14834	0.65	0.48	0.16	2.20	C(I,t)			St	Index	Rebased
4	Jan-00	71.0	40.5	17192.42	14993.02	-0.21	1.07	0.00	0.25	-0.04	0.15	0.16	0.26	100.00	100.40
5	Feb-00	71.0	40.6	17183.35	14403.37	-0.05	-4.01	0.00	0.25	-0.01	-0.55	0.16	-0.40	99.60	100.00
6	Mar-00	71.0	40.4	16937.99	14675.2	-1.44	1.87	0.00	-0.49	-0.27	0.26	-0.31	-0.32	99.28	99.68
7	Apr-00	71.0	40.6	17405.51	15158.46	2.72	3.24	0.00	0.49	0.51	0.44	0.31	1.26	100.54	100.94
8	May-00	71.0	40.4	17514.26	14648.97	0.62	-3.42	0.00	-0.49	0.12	-0.47	-0.31	-0.66	99.87	100.28
9	Jun-00	71.0	40.4	17533.79	14883.45	0.11	1.59	0.00	0.00	0.02	0.22	0.00	0.24	100.11	100.51
10	Jul-00	71.0	40.5	17671.55	14600.2	0.78	-1.92	0.00	0.25	0.15	-0.26	0.16	0.04	100.15	100.55
11	Aug-00	71.0	40.3	17641.25	14370.48	-0.17	-1.59	0.00	-0.50	-0.03	-0.22	-0.31	-0.56	99.59	99.99
12	Sep-00	71.0	40.2	17516.54	14445.53	-0.71	0.52	0.00	-0.25	-0.13	0.07	-0.16	-0.22	99.37	99.77
13	Oct-00	71.0	40.2	17572.4	14202.14	0.32	-1.70	0.00	0.00	0.06	-0.23	0.00	-0.17	99.20	99.60
14	Nov-00	71.0	40.2	17475.68	14090.47	-0.55	-0.79	0.00	0.00	-0.10	-0.11	0.00	-0.21	98.99	99.39
15	Dec-00	71.0	39.8	17567.25	14108.19	0.52	0.13	0.00	-1.00	0.10	0.02	-0.63	-0.52	98.48	98.88
16	Jan-01	71.0	40.1	17387.22	13676.67	-1.03	-3.11	0.00	0.75	-0.19	-0.43	0.47	-0.14	98.34	98.74
17	Feb-01	71.0	40.0	17181.29	13876.57	-1.19	1.45	0.00	-0.25	-0.22	0.20	-0.16	-0.18	98.16	98.56
18	Mar-01	71.0	39.9	16954.76	13668.91	-1.33	-1.51	0.00	-0.25	-0.25	-0.21	-0.16	-0.61	97.56	97.96
19	Apr-01	71.0	39.9	16718.81	13233.21	-1.40	-3.24	0.00	0.00	-0.26	-0.44	0.00	-0.71	96.88	97.27
20	May-01	71.0	39.8	16239.01	13218.93	-2.91	-0.11	0.00	-0.25	-0.54	-0.01	-0.16	-0.72	96.19	96.57
21	Jun-01	71.0	39.8	15971.37	13008.59	-1.66	-1.60	0.00	0.00	-0.31	-0.22	0.00	-0.53	95.68	96.06
22	Jul-01	71.0	40.0	15858.37	14300.48	-0.71	9.46	0.00	0.50	-0.13	1.30	0.32	1.48	97.11	97.50
23	Aug-01	71.0	39.8	15726.58	14006.69	-0.83	-2.08	0.00	-0.50	-0.16	-0.28	-0.32	-0.76	96.37	96.76
24	Sep-01	71.0	39.9	15571.02	13734.99	-0.99	-1.96	0.00	0.25	-0.19	-0.27	0.16	-0.30	96.09	96.48
25	Oct-01	71.0	39.8	15392.55	13584.53	-1.15	-1.10	0.00	-0.25	-0.21	-0.15	-0.16	-0.52	95.59	95.97
26	Nov-01	71.0	39.8	15344.83	13648.47	-0.31	0.47	0.00	0.00	-0.06	0.06	0.00	0.01	95.59	95.98
27	Dec-01	66.0	39.9	15223.29	13827.72	-0.80	1.30	-5.00	0.25	-0.15	0.18	0.16	-0.04	95.56	95.94
28	Jan-02	66.0	39.7	15149.71	13716.89	-0.48	-0.80	0.00	-0.50	-0.09	-0.11	-0.32	-0.52	95.06	95.45
29	Feb-02	66.0	39.9	13846.89	13735.89	-8.99	0.14	0.00	0.50	-1.67	0.02	0.32	-1.34	93.80	94.18
30	Mar-02	66.0	40.1	13790.68	13662.23	-0.41	-0.54	0.00	0.50	-0.08	-0.07	0.32	0.17	93.96	94.34
31	Apr-02	66.0	40.0	13717.8	14093.75	-0.53	3.11	0.00	-0.25	-0.10	0.43	-0.16	0.17	94.12	94.50
32	May-02	66.0	40.2	13990.53	14122.16	1.97	0.20	0.00	0.50	0.37	0.03	0.31	0.71	94.78	95.17
33	Jun-02	66.0	40.2	13655.3	13726.33	-2.43	-2.84	0.00	0.00	-0.45	-0.39	0.00	-0.84	93.99	94.37
34	Jul-02	66.0	40.1	13845.79	13884.58	1.39	1.15	0.00	-0.25	0.26	0.16	-0.16	0.26	94.23	94.61
35	Aug-02	66.0	40.2	14034.91	13749.06	1.36	-0.98	0.00	0.25	0.25	-0.13	0.16	0.28	94.49	94.88
36	Sep-02	66.0	40.0	14568.2	13587.02	3.73	-1.19	0.00	-0.50	0.69	-0.16	-0.31	0.22	94.70	95.08
37	Oct-02	66.0	39.9	14763.16	13739.66	1.33	1.12	0.00	-0.25	0.25	0.15	-0.16	0.24	94.93	95.31
38	Nov-02	66.0	39.9	14919.1	13722.48	1.05	-0.13	0.00	0.00	0.20	-0.02	0.00	0.18	95.10	95.48
39	Dec-02	68.0	40.0	15172.64	13654.72	1.69	-0.50	2.00	0.25	0.31	-0.07	0.16	0.50	95.57	95.96
40	Jan-03	68.0	39.8	15078.87	13776.53	-0.62	0.89	0.00	-0.50	-0.12	0.12	-0.32	-0.31	95.28	95.66
41	Feb-03	68.0	39.8	15286.11	13707.36	1.36	-0.50	0.00	0.00	0.25	-0.07	0.00	0.19	95.45	95.84
42	Mar-03	68.0	40.0	15235.4	14098.24	-0.33	2.81	0.00	0.50	-0.06	0.39	0.32	0.64	96.06	96.45
43	Apr-03	68.0	39.6	15457.75	13507.89	1.45	-4.28	0.00	-1.01	0.27	-0.59	-0.63	-0.95	95.16	95.54
44	May-03	68.0	39.6	15560	13730.23	0.66	1.63	0.00	0.00	0.12	0.22	0.00	0.35	95.49	95.87
45	Jun-03	68.0	39.6	15606.88	13746.28	0.30	0.12	0.00	0.00	0.06	0.02	0.00	0.07	95.55	95.94
46	Jul-03	68.0	39.5	15359.33	14116.06	-1.60	2.65	0.00	-0.25	-0.30	0.36	-0.16	-0.09	95.47	95.85
47	Aug-03	68.0	39.6	15131.24	13689.46	-1.50	-3.07	0.00	0.25	-0.28	-0.42	0.16	-0.54	94.95	95.34
48	Sep-03	68.0	39.8	14940.09	13783.41	-1.27	0.68	0.00	0.50	-0.24	0.09	0.32	0.17	95.12	95.50
49	Oct-03	68.0	40.0	14834.87	13874.54	-0.71	0.66	0.00	0.50	-0.13	0.09	0.32	0.27	95.38	95.77
50	Nov-03	68.0	40.2	14806.48	13587.96	-0.19	-2.09	0.00	0.50	-0.04	-0.29	0.31	-0.01	95.37	95.76
51	Dec-03	73.0	40.0	14857.14	13839.52	0.34	1.83	5.00	-0.50	0.06	0.25	-0.31	0.23	95.59	95.98
52	Jan-04	73.0	40.1	14741.01	13719.82	-0.78	-0.87	0.00	0.25	-0.15	-0.12	0.16	-0.11	95.49	95.87
53	Feb-04	73.0	40.2	14649.86	13126.49	-0.62	-4.42	0.00	0.25	-0.12	-0.61	0.16	-0.56	94.95	95.34
54	Mar-04	73.0	40.1	14781.22	14169.55	0.89	7.64	0.00	-0.25	0.17	1.05	-0.16	1.06	95.96	96.35
55	Apr-04	73.0	40.0	14770	13834.55	-0.08	-2.39	0.00	-0.25	-0.01	-0.33	-0.16	-0.50	95.48	95.87
56	May-04	73.0	40.3	14736.89	13621.16	-0.22	-1.55	0.00	0.75	-0.04	-0.21	0.47	0.22	95.69	96.08
57	Jun-04	73.0	40.0	14930.51	13865.52	1.31	1.78	0.00	-0.75	0.24	0.24	-0.47	0.02	95.70	96.09
58	Jul-04	73.0	40.1	15183.38	13900.63	1.68	0.25	0.00	0.25	0.31	0.03	0.16	0.51	96.19	96.58
59	Aug-04	73.0	40.2	15377.6	13959.35	1.27	0.42	0.00	0.25	0.24	0.06	0.16	0.45	96.62	97.01
60	Sep-04	73.0	40.1	15545.95	13982.88	1.09	0.17	0.00	-0.25	0.20	0.02	-0.16	0.07	96.69	97.08
61	Oct-04	73.0	39.9	15758.96	13948.03	1.36	-0.25	0.00	-0.50	0.25	-0.03	-0.32	-0.10	96.60	96.99
62	Nov-04	73.0	39.8	15908.6	14112.01	0.95	1.17	0.00	-0.25	0.18	0.16	-0.16	0.18	96.77	97.16
63	Dec-04	76.0	39.8	15998.2	14454.14	0.56	2.40	3.00	0.00	0.10	0.33	0.00	0.57	97.32	97.72
64	Jan-05	76.0	40.0	16559.75	14601.98	3.45	1.02	0.00	0.50	0.64	0.14	0.32	1.10	98.40	98.79
65	Feb-05	76.0	39.9	16611.26	14507.6	0.31	-0.65	0.00	-0.25	0.06	-0.09	-0.16	-0.19	98.21	98.61
66	Mar-05	76.0	39.8	16759.33	14572.82	0.89	0.45	0.00	-0.25	0.17	0.06	-0.16	0.07	98.28	98.68
67	Apr-05	76.0	39.8	16603.17	14576.72	-0.94	0.03	0.00	0.00	-0.17	0.00	0.00	-0.17	98.11	98.51
68	May-05	76.0	39.7	16706.97	14488.97	0.62	-0.60	0.00	-0.25	0.12	-0.08	-0.16	-0.13	97.99	98.38
69	Jun-05	76.0	39.7	16644.88	14377.21	-0.37	-0.77	0.00	0.00	-0.07	-0.11	0.00	-0.18	97.82	98.21
70	Jul-05	76.0	39.7	16475.81	14306.95	-1.02	-0.49	0.00	0.00	-0.19	-0.07	0.00	-0.26	97.56	97.96
71	Aug-05	76.0	39.7	16440.94	14426.95	-0.21	0.84	0.00	0.00	-0.04	0.11	0.00	0.08	97.64	98.03
72	Sep-05	76.0	39.9	15929.07	14795.85	-3.16	2.52	0.00	0.50	-0.59	0.35	0.32	0.07	97.71	98.10
73	Oct-05	76.0	40.1	16132.24	14952.46	1.27	1.05	0.00	0.50	0.24	0.14	0.32	0.70	98.39	98.79
74	Nov-05	76.0	40.0	16577.89	15434.29	2.72	3.17	0.00	-0.25	0.51	0.43	-0.16	0.78	99.17	99.57
75	Dec-05	75.0	40.2	16831.29	15378.5	1.52	-0.36	-1.00	0.50	0.28	-0.05	0.31	0.50	99.67	100.07

Table C.13 - Continued

	A	E	F	H	J	K	M	N	O	P	R	T	U	V	W
76	Jan-06	75.0	40.5	17164.06	15408.85	1.96	0.20	0.00	0.74	0.36	0.03	0.47	0.86	100.53	100.93
77	Feb-06	75.0	40.5	17275.56	15422.01	0.65	0.09	0.00	0.00	0.12	0.01	0.00	0.13	100.66	101.07
78	Mar-06	75.0	40.5	17275.56	15276.72	0.00	-0.95	0.00	0.00	0.00	-0.13	0.00	-0.13	100.53	100.94
79	Apr-06	75.0	40.5	17341.32	14906.76	0.38	-2.45	0.00	0.00	0.07	-0.34	0.00	-0.26	100.26	100.67
80	May-06	75.0	40.6	17232.34	15110.64	-0.63	1.36	0.00	0.25	-0.12	0.19	0.16	0.22	100.49	100.90
81	Jun-06	75.0	40.7	17204.76	15206.46	-0.16	0.63	0.00	0.25	-0.03	0.09	0.16	0.21	100.70	101.11
82	Jul-06	75.0	40.8	17278.58	14724.81	0.43	-3.22	0.00	0.25	0.08	-0.44	0.15	-0.21	100.49	100.90
83	Aug-06	75.0	40.6	17366.86	15158.92	0.51	2.91	0.00	-0.49	0.09	0.40	-0.31	0.18	100.68	101.09
84	Sep-06	75.0	40.6	17568.76	14924.45	1.16	-1.56	0.00	0.00	0.22	-0.21	0.00	0.00	100.68	101.09
85	Oct-06	75.0	40.7	17829.21	14751.49	1.47	-1.17	0.00	0.25	0.27	-0.16	0.16	0.27	100.95	101.36
86	Nov-06	75.0	40.6	17842.6	14775.88	0.08	0.17	0.00	-0.25	0.01	0.02	-0.16	-0.12	100.83	101.24
87	Dec-06	69.0	40.7	17336.75	15063.25	-2.88	1.93	-6.00	0.25	-0.54	0.26	0.16	-0.39	100.44	100.85
88	Jan-07	69.0	40.7	17334.87	14800.99	-0.01	-1.76	0.00	0.00	0.00	-0.24	0.00	-0.24	100.20	100.60
89	Feb-07	69.0	40.6	17218.8	14587.24	-0.67	-1.45	0.00	-0.25	-0.13	-0.20	-0.16	-0.48	99.72	100.12
90	Mar-07	69.0	40.9	17117.56	14813.35	-0.59	1.54	0.00	0.74	-0.11	0.21	0.46	0.57	100.28	100.69
91	Apr-07	69.0	41.0	16976.42	14664.98	-0.83	-1.01	0.00	0.24	-0.15	-0.14	0.15	-0.14	100.14	100.55
92	May-07	69.0	40.8	17045.19	14649.35	0.40	-0.11	0.00	-0.49	0.08	-0.01	-0.31	-0.25	99.90	100.30
93	Jun-07	69.0	40.9	17101.6	14410.61	0.33	-1.64	0.00	0.24	0.06	-0.23	0.15	-0.01	99.89	100.29
94	Jul-07	69.0	40.9	17201.79	14459.57	0.58	0.34	0.00	0.00	0.11	0.05	0.00	0.16	100.04	100.45
95	Aug-07	69.0	40.8	17229.48	14461.96	0.16	0.02	0.00	-0.24	0.03	0.00	-0.15	-0.12	99.92	100.32
96	Sep-07	69.0	40.9	17215.97	14300.63	-0.08	-1.12	0.00	0.24	-0.01	-0.15	0.15	-0.01	99.91	100.31
97	Oct-07	69.0	40.8	17038.51	14580.8	-1.04	1.94	0.00	-0.24	-0.19	0.27	-0.15	-0.08	99.82	100.23
98	Nov-07	69.0	40.9	17102.26	14522.44	0.37	-0.40	0.00	0.24	0.07	-0.05	0.15	0.17	99.99	100.40
99	Dec-07	69.0	40.9	17406.32	14154.75	1.76	-2.56	0.00	0.00	0.33	-0.35	0.00	-0.02	99.97	100.38
100	Jan-08	69.0	40.6	17356.63	14289.35	-0.29	0.95	0.00	-0.74	-0.05	0.13	-0.46	-0.39	99.58	99.99
101	Feb-08	69.0	40.6	17478.12	14077.71	0.70	-1.49	0.00	0.00	0.13	-0.20	0.00	-0.07	99.51	99.91
102	Mar-08	69.0	40.8	17470.38	13769.53	-0.04	-2.21	0.00	0.49	-0.01	-0.30	0.31	0.00	99.51	99.91
103	Apr-08	69.0	40.6	17498.15	13988.53	0.16	1.58	0.00	-0.49	0.03	0.22	-0.31	-0.06	99.44	99.85
104	May-08	69.0	40.5	17268.38	13857.84	-1.32	-0.94	0.00	-0.25	-0.25	-0.13	-0.16	-0.53	98.92	99.32
105	Jun-08	70.9	40.6	17189.07	13893.13	-0.46	0.25	1.90	0.25	-0.09	0.03	0.16	0.19	99.11	99.51
106	Jul-08	70.9	40.5	17446.7	13870.37	1.49	-0.16	0.00	-0.25	0.28	-0.02	-0.16	0.10	99.21	99.61
107	Aug-08	70.9	40.4	17899.74	13428.76	2.56	-3.24	0.00	-0.25	0.48	-0.44	-0.16	-0.12	99.08	99.49
108	Sep-08	67.7	40.2	17560.51	13474.41	-1.91	0.34	-3.20	-0.50	-0.36	0.05	-0.31	-0.77	98.33	98.72
109	Oct-08	67.7	40.2	17678.09	13113.15	0.67	-2.72	0.00	0.00	0.12	-0.37	0.00	-0.25	98.08	98.48
110	Nov-08	67.7	39.9	17722.12	12678.39	0.25	-3.37	0.00	-0.75	0.05	-0.46	-0.47	-0.89	97.21	97.61
111	Dec-08	60.1	39.6	16818.45	12509.36	-5.23	-1.34	-7.60	-0.75	-0.97	-0.18	-0.48	-1.98	95.31	95.69
112	Jan-09	60.1	39.6	16412.63	11509.89	-2.44	-8.32	0.00	0.00	-0.45	-1.14	0.00	-1.60	93.80	94.18
113	Feb-09	60.1	39.5	15992.92	11814.22	-2.59	2.61	0.00	-0.25	-0.48	0.36	-0.16	-0.28	93.53	93.91
114	Mar-09	57.0	39.4	15457.28	11423.99	-3.41	-3.36	-3.10	-0.25	-0.63	-0.46	-0.16	-1.40	92.23	92.61
115	Apr-09	57.0	39.5	15279.59	11270.75	-1.16	-1.35	0.00	0.25	-0.22	-0.19	0.16	-0.24	92.01	92.39
116	May-09	57.0	39.5	15021.83	11271.44	-1.70	0.01	0.00	0.00	-0.32	0.00	0.00	-0.32	91.72	92.09
117	Jun-09	55.4	39.7	14858.02	11264.01	-1.10	-0.07	-1.60	0.51	-0.20	-0.01	0.32	0.03	91.75	92.12
118	Jul-09	55.4	39.9	14667.76	11608.06	-1.29	3.01	0.00	0.50	-0.24	0.41	0.32	0.49	92.20	92.58
119	Aug-09	55.4	39.9	14604.4	11490.13	-0.43	-1.02	0.00	0.00	-0.08	-0.14	0.00	-0.22	92.00	92.37
120	Sep-09	58.5	39.8	14644.04	11520.7	0.27	0.27	3.10	-0.25	0.05	0.04	-0.16	0.07	92.06	92.44
121	Oct-09	58.5	40.0	14685.35	11622.63	0.28	0.88	0.00	0.50	0.05	0.12	0.32	0.49	92.52	92.89
122	Nov-09	58.5	40.2	14667.28	11730.29	-0.12	0.92	0.00	0.50	-0.02	0.13	0.31	0.42	92.90	93.28
123	Dec-09	58.1	40.5	14427.03	11827.15	-1.65	0.82	-0.40	0.74	-0.31	0.11	0.47	0.26	93.14	93.52
124	Jan-10	58.1	40.8	14625.95	11713.88	1.37	-0.96	0.00	0.74	0.26	-0.13	0.47	0.59	93.69	94.07
125	Feb-10	58.1	40.2	14795.2	11969.79	1.15	2.16	0.00	-1.48	0.21	0.30	-0.93	-0.42	93.29	93.67
126	Mar-10	58.1	40.7	14912.21	12172.58	0.79	1.68	0.00	1.24	0.15	0.23	0.78	1.16	94.38	94.76
127	Apr-10	58.1	40.9	15041.36	12204.55	0.86	0.26	0.00	0.49	0.16	0.04	0.31	0.51	94.86	95.24
128	May-10	58.1	41.2	15189.76	12138.46	0.98	-0.54	0.00	0.73	0.18	-0.07	0.46	0.57	95.40	95.79
129	Jun-10	58.1	40.5	15285.04	12063.24	0.63	-0.62	0.00	-1.71	0.12	-0.09	-1.08	-1.05	94.40	94.79
130	Jul-10	58.1	40.7	15363.79	12065.18	0.51	0.02	0.00	0.49	0.10	0.00	0.31	0.41	94.79	95.17
131	Aug-10	58.1	40.9	15375.68	12081.01	0.08	0.13	0.00	0.49	0.01	0.02	0.31	0.34	95.12	95.50
132	Sep-10	72.5	41.0	15456.9	12091.56	0.53	0.09	14.40	0.24	0.10	0.01	0.15	0.92	96.00	96.38
133	Oct-10	72.5	40.9	15427.42	11993.46	-0.19	-0.81	0.00	-0.24	-0.04	-0.11	-0.15	-0.30	95.71	96.09
134	Nov-10	72.5	40.6	15561.89	12208.26	0.87	1.78	0.00	-0.74	0.16	0.24	-0.46	-0.06	95.65	96.04
135	Dec-10	71.5	40.7	15498.94	12463.16	-0.41	2.07	-1.00	0.25	-0.08	0.28	0.16	0.32	95.95	96.34
136	Jan-11	71.5	40.5	15639.02	12386.15	0.90	-0.62	0.00	-0.49	0.17	-0.08	-0.31	-0.23	95.74	96.12
137	Feb-11	71.5	40.8	15691.88	12278.99	0.34	-0.87	0.00	0.74	0.06	-0.12	0.47	0.41	96.13	96.52
138	Mar-11	0.0	40.7	15476.84	12414.28	-1.38	1.10	-71.50	-0.25	-0.26	0.15	-0.15	-3.52	92.80	93.18
139	Apr-11	0.0	40.9	15530.72	12258.9	0.35	-1.26	0.00	0.49	0.06	-0.17	0.31	0.20	92.99	93.36
140	May-11	0.0	40.9	15606.07	12195.35	0.48	-0.52	0.00	0.00	0.09	-0.07	0.00	0.02	93.00	93.38
141	Jun-11	0.0	40.7	16054.25	12412.1	2.83	1.76	0.00	-0.49	0.53	0.24	-0.31	0.46	93.43	93.81
142	Jul-11	0.0	40.8	16074.04	12471.33	0.12	0.48	0.00	0.25	0.02	0.07	0.15	0.24	93.66	94.04
143	Aug-11	0.0	40.6	16168.68	12404.61	0.59	-0.54	0.00	-0.49	0.11	-0.07	-0.31	-0.27	93.40	93.78

NAICS 327 – Nonmetallic Mineral Products

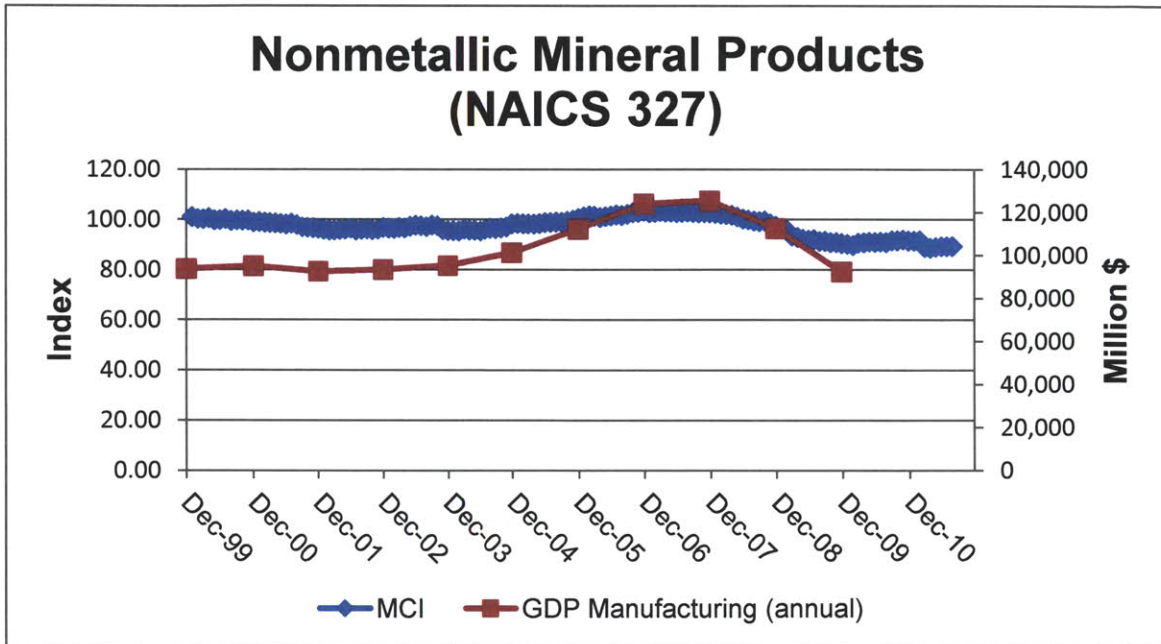


Figure C.27 – MCI and annual GDP Nonmetallic Mineral Products including all industries gathered in the NAICS 327 classification.

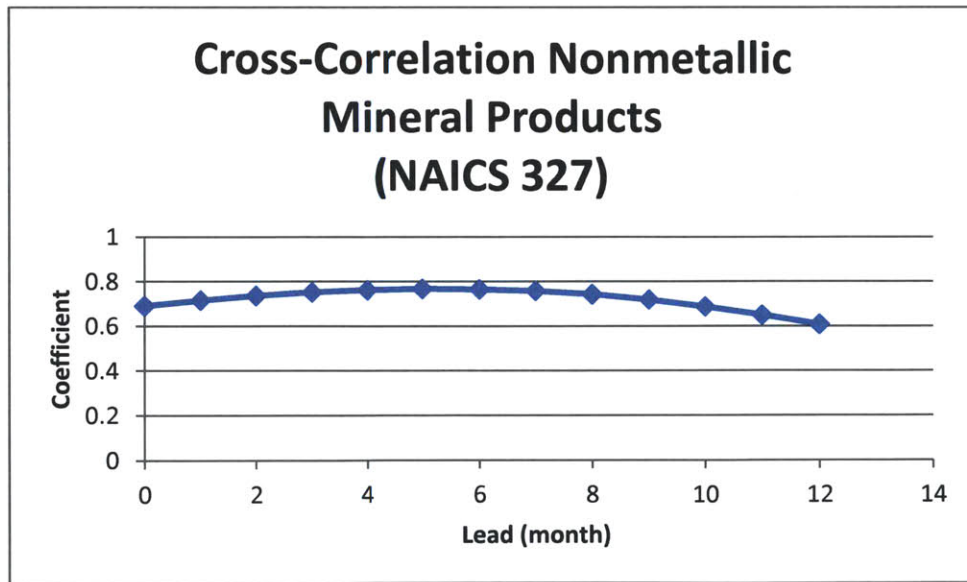


Figure C.28 – Cross-Correlation of MCI and annual GDP Nonmetallic Mineral Products including all industries gathered in the NAICS 327 classification.

Table C.14
MCI computations for Nonmetallic Mineral Products (NAICS 327)

1	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
2	Month	CU	Avg.WH	Dollar adjusted		0.290	0.131	0.059	0.520	98.95						
3	Dec-99	70.0	42.0	9449	8216	1.030	0.466	0.211	1.851	C(I,t)				St	Index	Rebased
4	Jan-00	70.0	42.1	9437.687	8313.061	-0.120	1.174	0.000	0.238	-0.03	0.15	0.00	0.12	0.24	100.00	101.06
5	Feb-00	70.0	42.2	9436.075	7815.659	-0.017	-6.168	0.000	0.237	0.00	-0.81	0.00	0.12	-0.69	99.31	100.37
6	Mar-00	70.0	42.0	9312.992	8106.299	-1.313	3.651	0.000	-0.475	-0.38	0.48	0.00	-0.25	-0.15	99.17	100.22
7	Apr-00	70.0	42.1	9368.11	8202.756	0.590	1.183	0.000	0.238	0.17	0.15	0.00	0.12	0.45	99.61	100.67
8	May-00	70.0	41.8	9350.049	7931.17	-0.193	-3.367	0.000	-0.715	-0.06	-0.44	0.00	-0.37	-0.87	98.75	99.80
9	Jun-00	70.0	41.9	9340.842	7900.098	-0.099	-0.393	0.000	0.239	-0.03	-0.05	0.00	0.12	0.04	98.79	99.85
10	Jul-00	70.0	42.1	9340.176	8049.853	-0.007	1.878	0.000	0.476	0.00	0.25	0.00	0.25	0.49	99.28	100.34
11	Aug-00	70.0	41.5	9426.197	7840.665	0.917	-2.633	0.000	-1.435	0.27	-0.34	0.00	-0.75	-0.83	98.46	99.51
12	Sep-00	70.0	41.5	9416.342	8006.809	-0.105	2.097	0.000	0.000	-0.03	0.27	0.00	0.00	0.24	98.70	99.76
13	Oct-00	70.0	41.7	9397.473	7857.143	-0.201	-1.887	0.000	0.481	-0.06	-0.25	0.00	0.25	-0.06	98.65	99.70
14	Nov-00	70.0	41.6	9542.802	7695.525	1.535	-2.078	0.000	-0.240	0.44	-0.27	0.00	-0.12	0.05	98.70	99.75
15	Dec-00	70.0	40.7	9687.135	7650.097	1.501	-0.592	0.000	-2.187	0.43	-0.08	0.00	-1.14	-0.78	97.93	98.97
16	Jan-01	70.0	41.0	9658.277	7579.864	-0.298	-0.922	0.000	0.734	-0.09	-0.12	0.00	0.38	0.17	98.10	99.15
17	Feb-01	70.0	40.8	9597.878	7694.311	-0.627	1.499	0.000	-0.489	-0.18	0.20	0.00	-0.25	-0.24	97.87	98.91
18	Mar-01	70.0	40.8	9646.776	7512.993	0.508	-2.385	0.000	0.000	0.15	-0.31	0.00	0.00	-0.17	97.70	98.74
19	Apr-01	70.0	40.9	9580.614	7502.879	-0.688	-0.135	0.000	0.245	-0.20	-0.02	0.00	0.13	-0.09	97.62	98.66
20	May-01	70.0	40.7	9461.759	7731.358	-1.248	3.000	0.000	-0.490	-0.36	0.39	0.00	-0.26	-0.22	97.40	98.44
21	Jun-01	70.0	40.7	9427.481	7637.405	-0.363	-1.223	0.000	0.000	-0.11	-0.16	0.00	0.00	-0.27	97.14	98.18
22	Jul-01	70.0	41.0	9427.751	7629.665	0.003	-0.101	0.000	0.734	0.00	-0.01	0.00	0.38	0.37	97.50	98.54
23	Aug-01	70.0	40.6	9369.981	7672.084	-0.615	0.554	0.000	-0.980	-0.18	0.07	0.00	-0.51	-0.62	96.90	97.93
24	Sep-01	70.0	40.4	9301.239	7418.494	-0.736	-3.361	0.000	-0.494	-0.21	-0.44	0.00	-0.26	-0.91	96.02	97.05
25	Oct-01	70.0	40.2	9253.104	7538.682	-0.519	1.607	0.000	-0.496	-0.15	0.21	0.00	-0.26	-0.20	95.83	96.85
26	Nov-01	70.0	40.3	9204.023	7484.674	-0.532	-0.719	0.000	0.248	-0.15	-0.09	0.00	0.13	-0.12	95.72	96.74
27	Dec-01	66.0	40.5	9081.809	7509.143	-1.337	0.326	-4.000	0.495	-0.39	0.04	-0.24	0.26	-0.32	95.41	96.43
28	Jan-02	66.0	40.5	8979.846	7508.637	-1.129	-0.007	0.000	0.000	-0.33	0.00	0.00	0.00	-0.33	95.10	96.11
29	Feb-02	66.0	40.6	8868.9	7473.684	-1.243	-0.467	0.000	0.247	-0.36	-0.06	0.00	0.13	-0.29	94.82	95.83
30	Mar-02	66.0	40.8	8811.608	7422.455	-0.648	-0.688	0.000	0.491	-0.19	-0.09	0.00	0.26	-0.02	94.80	95.81
31	Apr-02	66.0	40.8	8782.197	7606.061	-0.334	2.443	0.000	0.000	-0.10	0.32	0.00	0.00	0.22	95.01	96.02
32	May-02	66.0	40.8	8801.136	7643.939	0.215	0.497	0.000	0.000	0.06	0.07	0.00	0.00	0.13	95.13	96.15
33	Jun-02	66.0	41.0	8855.114	7629.735	0.611	-0.186	0.000	0.489	0.18	-0.02	0.00	0.25	0.41	95.52	96.54
34	Jul-02	66.0	40.6	8842.952	7505.203	-0.137	-1.646	0.000	-0.980	-0.04	-0.22	0.00	-0.51	-0.77	94.79	95.80
35	Aug-02	66.0	40.7	8863.208	7575.472	0.229	0.932	0.000	0.246	0.07	0.12	0.00	0.13	0.32	95.09	96.11
36	Sep-02	66.0	40.8	8893.697	7533.396	0.343	-0.557	0.000	0.245	0.10	-0.07	0.00	0.13	0.15	95.24	96.25
37	Oct-02	66.0	40.6	8945.489	7371.241	0.581	-2.176	0.000	-0.491	0.17	-0.28	0.00	-0.26	-0.37	94.89	95.90
38	Nov-02	66.0	40.7	9004.704	7333.02	0.660	-0.520	0.000	0.246	0.19	-0.07	0.00	0.13	0.25	95.12	96.14
39	Dec-02	66.0	40.9	9158.491	7335.849	1.693	0.039	0.000	0.490	0.49	0.01	0.00	0.26	0.75	95.84	96.86
40	Jan-03	66.0	40.6	9144.601	7421.596	-0.152	1.162	0.000	-0.736	-0.04	0.15	0.00	-0.38	-0.25	95.58	96.60
41	Feb-03	66.0	40.5	9215.284	7290.774	0.770	-1.778	0.000	-0.247	0.22	-0.23	0.00	-0.13	-0.14	95.45	96.46
42	Mar-03	66.0	40.6	9280.816	7327.155	0.709	0.498	0.000	0.247	0.21	0.07	0.00	0.13	0.40	95.83	96.85
43	Apr-03	66.0	40.3	9355.617	7313.835	0.803	-0.182	0.000	-0.742	0.23	-0.02	0.00	-0.39	-0.18	95.66	96.68
44	May-03	66.0	40.5	9432.558	7449.302	0.819	1.835	0.000	0.495	0.24	0.24	0.00	0.26	0.74	96.36	97.39
45	Jun-03	66.0	40.7	9428.439	7507.435	-0.044	0.777	0.000	0.493	-0.01	0.10	0.00	0.26	0.35	96.70	97.73
46	Jul-03	66.0	40.4	9424.327	7628.598	-0.044	1.601	0.000	-0.740	-0.01	0.21	0.00	-0.38	-0.19	96.52	97.54
47	Aug-03	66.0	40.5	9284.658	7574.861	-1.493	-0.707	0.000	0.247	-0.43	-0.09	0.00	0.13	-0.40	96.13	97.16
48	Sep-03	66.0	40.9	9230.415	7785.253	-0.586	2.739	0.000	0.983	-0.17	0.36	0.00	0.51	0.70	96.81	97.84
49	Oct-03	66.0	41.0	9035.055	7919.742	-2.139	1.713	0.000	0.244	-0.62	0.22	0.00	0.13	-0.27	96.55	97.58
50	Nov-03	66.0	41.4	8726.852	7268.519	-3.470	-8.575	0.000	0.971	-1.00	-1.12	0.00	0.51	-1.62	95.00	96.01
51	Dec-03	61.0	41.2	8718.924	7383.117	-0.091	1.564	-5.000	-0.484	-0.03	0.20	-0.30	-0.25	-0.37	94.65	95.65
52	Jan-04	61.0	41.4	8672.811	7277.419	-0.530	-1.442	0.000	0.484	-0.15	-0.19	0.00	0.25	-0.09	94.56	95.57
53	Feb-04	61.0	41.4	8647.113	7233.731	-0.297	-0.602	0.000	0.000	-0.09	-0.08	0.00	0.00	-0.16	94.40	95.41
54	Mar-04	61.0	41.5	8578.851	7785.779	-0.793	7.351	0.000	0.241	-0.23	0.96	0.00	0.13	0.86	95.22	96.23
55	Apr-04	61.0	41.3	8548.182	7724.545	-0.358	-0.790	0.000	-0.483	-0.10	-0.10	0.00	-0.25	-0.46	94.78	95.79
56	May-04	61.0	41.5	8556.058	7553.345	0.092	-2.241	0.000	0.483	0.03	-0.29	0.00	0.25	-0.02	94.77	95.78
57	Jun-04	61.0	41.2	8546.029	7621.841	-0.117	0.903	0.000	-0.726	-0.03	0.12	0.00	-0.38	-0.29	94.49	95.50
58	Jul-04	61.0	41.3	8614.273	7831.075	0.795	2.708	0.000	0.242	0.23	0.35	0.00	0.13	0.71	95.16	96.18
59	Aug-04	61.0	41.3	8724.481	7869.015	1.271	0.483	0.000	0.000	0.37	0.06	0.00	0.00	0.43	95.58	96.59
60	Sep-04	61.0	41.1	8781.982	7812.613	0.657	-0.719	0.000	-0.485	0.19	-0.09	0.00	-0.25	-0.16	95.43	96.44
61	Oct-04	61.0	41.1	8891.577	7798.387	1.240	-0.182	0.000	0.000	0.36	-0.02	0.00	0.00	0.34	95.75	96.77
62	Nov-04	61.0	40.9	8963.262	8028.674	0.803	2.910	0.000	-0.488	0.23	0.38	0.00	-0.25	0.36	96.09	97.12
63	Dec-04	70.0	41.1	9025.18	8234.712	0.688	2.534	9.000	0.488	0.20	0.33	0.53	0.25	1.32	97.37	98.40
64	Jan-05	70.0	41.2	9044.924	8175.202	0.219	-0.725	0.000	0.243	0.06	-0.09	0.00	0.13	0.09	97.46	98.50
65	Feb-05	70.0	41.0	9107.239	8159.071	0.687	-0.198	0.000	-0.487	0.20	-0.03	0.00	-0.25	-0.08	97.38	98.42
66	Mar-05	70.0	40.9	9089.698	8227.353	-0.193	0.833	0.000	-0.244	-0.06	0.11	0.00	-0.13	-0.07	97.31	98.35
67	Apr-05	70.0	40.9	9049.383	8281.305	-0.445	0.654	0.000	0.000	-0.13	0.09	0.00	-0.00	-0.04	97.27	98.30
68	May-05	70.0	40.9	9124.448	8278.023	0.826	-0.040	0.000	0.000	0.24	-0.01	0.00	0.00	0.23	97.50	98.53
69	Jun-05	70.0	40.8	9232.332	8359.541	1.175	0.980	0.000	-0.245	0.34	0.13	0.00	-0.13	0.34	97.83	98.87
70	Jul-05	70.0	40.9	9245.383	8312.225	0.141	-0.568	0.000	0.245	0.04	-0.07	0.00	0.13	0.09	97.92	98.96
71	Aug-05	70.0	41.0	9199.475	8417.323	-0.498	1.256	0.000	0.244	-0.14	0.16	0.00	0.13	0.15	98.07	99.11
72	Sep-05	70.0	41.3	9044.118	8423.875	-1.703	0.078	0.000	0.729	-0.49	0.01	0.00	0.38	-0.10	97.96	99.01
73	Oct-05	70.0	41.6	8963.699	8582.541	-0.893	1.866	0.000	0.724	-0.26	0.24	0.00	0.38	0.36	98.32	99.37
74	Nov-05</															

Table C.14 - Continued

	A	E	F	H	J	K	M	N	O	P	R	S	T	U	V	W
76	Jan-06	72.0	41.4	9247.396	9292.535	0.294	2.222	0.000	0.484	0.09	0.29	0.00	0.25	0.63	100.12	101.18
77	Feb-06	72.0	41.5	9291.161	9402.946	0.472	1.181	0.000	0.241	0.14	0.15	0.00	0.13	0.42	100.53	101.60
78	Mar-06	72.0	41.5	9320.69	9220.69	0.317	-1.957	0.000	0.000	0.09	-0.26	0.00	0.00	-0.16	100.37	101.44
79	Apr-06	72.0	41.5	9371.257	8789.564	0.541	-4.788	0.000	0.000	0.16	-0.63	0.00	0.00	-0.47	99.90	100.96
80	May-06	72.0	41.5	9391.489	8954.894	0.216	1.863	0.000	0.000	0.06	0.24	0.00	0.00	0.31	100.20	101.27
81	Jun-06	72.0	41.5	9477.485	8949.023	0.912	-0.066	0.000	0.000	0.26	-0.01	0.00	0.00	0.26	100.46	101.53
82	Jul-06	72.0	41.7	9586.791	8823.878	1.147	-1.408	0.000	0.481	0.33	-0.18	0.00	0.25	0.40	100.86	101.93
83	Aug-06	72.0	41.4	9665.258	8762.468	0.815	-0.698	0.000	-0.722	0.24	-0.09	0.00	-0.38	-0.23	100.63	101.70
84	Sep-06	72.0	41.3	9859.932	8792.869	1.994	0.346	0.000	-0.242	0.58	0.05	0.00	-0.13	0.50	101.13	102.21
85	Oct-06	72.0	41.3	10000.85	8959.863	1.419	1.881	0.000	0.000	0.41	0.25	0.00	0.00	0.66	101.80	102.88
86	Nov-06	72.0	41.2	10105.22	8899.059	1.038	-0.681	0.000	-0.242	0.30	-0.09	0.00	-0.13	0.09	101.88	102.97
87	Dec-06	67.0	41.4	10098.29	9288.034	-0.069	4.277	-5.000	0.484	-0.02	0.56	-0.30	0.25	0.50	102.39	103.48
88	Jan-07	67.0	41.2	10069.04	9111.054	-0.290	-1.924	0.000	-0.484	-0.08	-0.25	0.00	-0.25	-0.59	101.79	102.87
89	Feb-07	67.0	41.1	10080.85	9218.083	0.117	1.168	0.000	-0.243	0.03	0.15	0.00	-0.13	0.06	101.85	102.94
90	Mar-07	67.0	41.5	10018.25	9271.484	-0.623	0.578	0.000	0.969	-0.18	0.08	0.00	0.50	0.40	102.26	103.35
91	Apr-07	67.0	41.5	10018.72	9111.193	0.005	-1.744	0.000	0.000	0.00	-0.23	0.00	0.00	-0.23	102.03	103.11
92	May-07	67.0	41.4	10013.97	9158.548	-0.047	0.518	0.000	-0.241	-0.01	0.07	0.00	-0.13	-0.07	101.95	103.04
93	Jun-07	67.0	41.6	10005.06	8898.28	-0.089	-2.883	0.000	0.482	-0.03	-0.38	0.00	0.25	-0.15	101.80	102.88
94	Jul-07	67.0	41.6	10049.26	8829.76	0.441	-0.773	0.000	0.000	0.13	-0.10	0.00	0.00	0.03	101.83	102.91
95	Aug-07	67.0	41.6	10134.84	8802.208	0.848	-0.313	0.000	0.000	0.25	-0.04	0.00	0.00	0.20	102.03	103.12
96	Sep-07	67.0	41.6	10127.82	8645.7	-0.069	-1.794	0.000	0.000	-0.02	-0.23	0.00	0.00	-0.25	101.77	102.86
97	Oct-07	67.0	41.4	10143.52	8674.36	0.155	0.331	0.000	-0.482	0.04	0.04	0.00	-0.25	-0.16	101.61	102.69
98	Nov-07	67.0	41.6	10190.07	8542.077	0.458	-1.537	0.000	0.482	0.13	-0.20	0.00	0.25	0.18	101.79	102.88
99	Dec-07	67.0	41.3	10375.53	8352.364	1.804	-2.246	0.000	-0.724	0.52	-0.29	0.00	-0.38	-0.15	101.64	102.73
100	Jan-08	67.0	41.5	10296.47	8253.26	-0.765	-1.194	0.000	0.483	-0.22	-0.16	0.00	0.25	-0.13	101.51	102.60
101	Feb-08	67.0	41.5	10231.49	8193.047	-0.633	-0.732	0.000	0.000	-0.18	-0.10	0.00	0.00	-0.28	101.23	102.31
102	Mar-08	68.1	41.6	10198.42	7987.156	-0.324	-2.545	1.100	0.241	-0.09	-0.33	0.07	0.13	-0.24	100.99	102.07
103	Apr-08	68.1	41.5	10135.68	8007.831	-0.617	0.259	0.000	-0.241	-0.18	0.03	0.00	-0.13	-0.27	100.72	101.79
104	May-08	68.1	41.4	10011.1	7901.191	-1.237	-1.341	0.000	-0.241	-0.36	-0.18	0.00	-0.13	-0.66	100.06	101.12
105	Jun-08	63.6	41.3	9902.856	7836.462	-1.087	-0.823	-4.500	-0.242	-0.31	-0.11	-0.27	-0.13	-0.81	99.25	100.30
106	Jul-08	63.6	41.3	9837.06	7760.129	-0.667	-0.979	0.000	0.000	-0.19	-0.13	0.00	0.00	-0.32	98.93	99.98
107	Aug-08	63.6	41.1	9871.716	7559.6	0.352	-2.618	0.000	-0.485	0.10	-0.34	0.00	-0.25	-0.49	98.44	99.49
108	Sep-08	70.3	40.6	9877.441	7553.476	0.058	-0.081	6.700	-1.224	0.02	-0.01	0.40	-0.64	-0.23	98.21	99.26
109	Oct-08	70.3	40.6	9980.08	7541.036	1.034	-0.165	0.000	0.000	0.30	-0.02	0.00	0.00	0.28	98.48	99.53
110	Nov-08	70.3	40.3	10089.89	6957.674	1.094	-8.047	0.000	-0.742	0.32	-1.05	0.00	-0.39	-1.12	97.38	98.42
111	Dec-08	61.8	39.9	10198.51	6809.151	1.071	-2.158	-8.500	-0.998	0.31	-0.28	-0.50	-0.52	-0.99	96.42	97.45
112	Jan-09	61.8	39.7	10202.71	6521.152	0.041	-4.321	0.000	-0.503	0.01	-0.57	0.00	-0.26	-0.82	95.64	96.66
113	Feb-09	61.8	39.6	9954.485	6532.733	-2.463	0.177	0.000	-0.252	-0.71	0.02	0.00	-0.13	-0.82	94.86	95.87
114	Mar-09	49.8	39.3	9801.063	6078.842	-1.553	-7.198	-12.000	-0.760	-0.45	-0.94	-0.71	-0.40	-2.50	92.51	93.50
115	Apr-09	49.8	39.5	9648.688	5932.403	-1.567	-2.438	0.000	0.508	-0.45	-0.32	0.00	0.26	-0.51	92.05	93.03
116	May-09	49.8	39.3	9474.426	5951.696	-1.823	0.325	0.000	-0.508	-0.53	0.04	0.00	-0.26	-0.75	91.36	92.33
117	Jun-09	49.3	39.5	9237.258	5946.098	-2.535	-0.094	-0.500	0.508	-0.73	-0.01	-0.03	0.26	-0.51	90.89	91.86
118	Jul-09	49.3	39.9	9026.252	6164.466	-2.311	3.606	0.000	1.008	-0.67	0.47	0.00	0.52	0.33	91.19	92.16
119	Aug-09	49.3	40.0	8802.76	6079.281	-2.507	-1.391	0.000	0.250	-0.73	-0.18	0.00	0.13	-0.78	90.48	91.45
120	Sep-09	53.8	40.1	8712.492	6073.485	-1.031	-0.095	4.500	0.250	-0.30	-0.01	0.27	0.13	0.09	90.56	91.52
121	Oct-09	53.8	40.2	8609.595	5914.689	-1.188	-2.649	0.000	0.249	-0.34	-0.35	0.00	0.13	-0.56	90.05	91.01
122	Nov-09	53.8	40.6	8439.113	5930.859	-2.000	0.273	0.000	0.990	-0.58	0.04	0.00	0.52	-0.03	90.03	90.99
123	Dec-09	47.5	40.7	8334.404	6001.895	-1.249	1.191	-6.300	0.246	-0.36	0.16	-0.37	0.13	-0.45	89.62	90.58
124	Jan-10	47.5	40.9	8236.998	5900.142	-1.176	-1.710	0.000	0.490	-0.34	-0.22	0.00	0.26	-0.31	89.35	90.30
125	Feb-10	47.5	40.5	8206.573	5961.288	-0.370	1.031	0.000	-0.983	-0.11	0.14	0.00	-0.51	-0.48	88.92	89.86
126	Mar-10	47.5	41.2	8206.137	6004.238	-0.005	0.718	0.000	1.714	0.00	0.09	0.00	0.89	0.98	89.79	90.75
127	Apr-10	47.5	41.4	8092.095	6122.952	-1.399	1.958	0.000	0.484	-0.41	0.26	0.00	0.25	0.10	89.89	90.84
128	May-10	47.5	41.6	8103.167	6163.017	0.137	0.652	0.000	0.482	0.04	0.09	0.00	0.25	0.38	90.23	91.19
129	Jun-10	47.5	41.3	8144.062	6199.199	0.503	0.585	0.000	-0.724	0.15	0.08	0.00	-0.38	-0.15	90.09	91.05
130	Jul-10	47.5	41.4	8197.152	6132.136	0.650	-1.088	0.000	0.242	0.19	-0.14	0.00	0.13	0.17	90.24	91.20
131	Aug-10	47.5	41.3	8166.691	6143.909	-0.372	0.192	0.000	-0.242	-0.11	0.03	0.00	-0.13	-0.21	90.05	91.01
132	Sep-10	56.1	41.4	8232.497	6116.932	0.803	-0.440	8.600	0.242	0.23	-0.06	0.51	0.13	0.81	90.79	91.75
133	Oct-10	56.1	41.4	8218.167	6128.103	-0.174	0.182	0.000	0.000	-0.05	0.02	0.00	0.00	-0.03	90.76	91.73
134	Nov-10	56.1	41.6	8278.511	6088.261	0.732	-0.652	0.000	0.482	0.21	-0.09	0.00	0.25	0.38	91.10	92.07
135	Dec-10	50.7	41.6	8254.904	6068.384	-0.286	-0.327	-5.400	0.000	-0.08	-0.04	-0.32	0.00	-0.45	90.70	91.67
136	Jan-11	50.7	41.5	8216.164	6188.738	-0.470	1.964	0.000	-0.241	-0.14	0.26	0.00	-0.13	0.00	90.70	91.66
137	Feb-11	50.7	41.7	8227.327	6128.118	0.136	-0.984	0.000	0.481	0.04	-0.13	0.00	0.25	0.16	90.84	91.81
138	Mar-11	0.0	41.9	8201.029	6061.36	-0.320	-1.095	-50.700	0.478	-0.09	-0.14	-3.00	0.25	-2.99	88.17	89.10
139	Apr-11	0.0	41.7	8239.058	5951.719	0.463	-1.825	0.000	-0.478	0.13	-0.24	0.00	-0.25	-0.35	87.85	88.79
140	May-11	0.0	41.8	8289.019	5998.015	0.605	0.775	0.000	0.240	0.18	0.10	0.00	0.12	0.40	88.21	89.15
141	Jun-11	0.0	41.8	8347.132	6038.925	0.699	0.680	0.000	0.000	0.20	0.09	0.00	0.00	0.29	88.47	89.41
142	Jul-11	0.0	41.8	8346.032	6029.4	-0.013	-0.158	0.000	0.000	0.00	-0.02	0.00	0.00	-0.02	88.44	89.39
143	Aug-11	0.0	41.7	8384.13	6053.371	0.455	0.397	0.000	-0.240	0.13	0.05	0.00	-0.12	0.06	88.50	89.44

NAICS 331 – Primary Metals

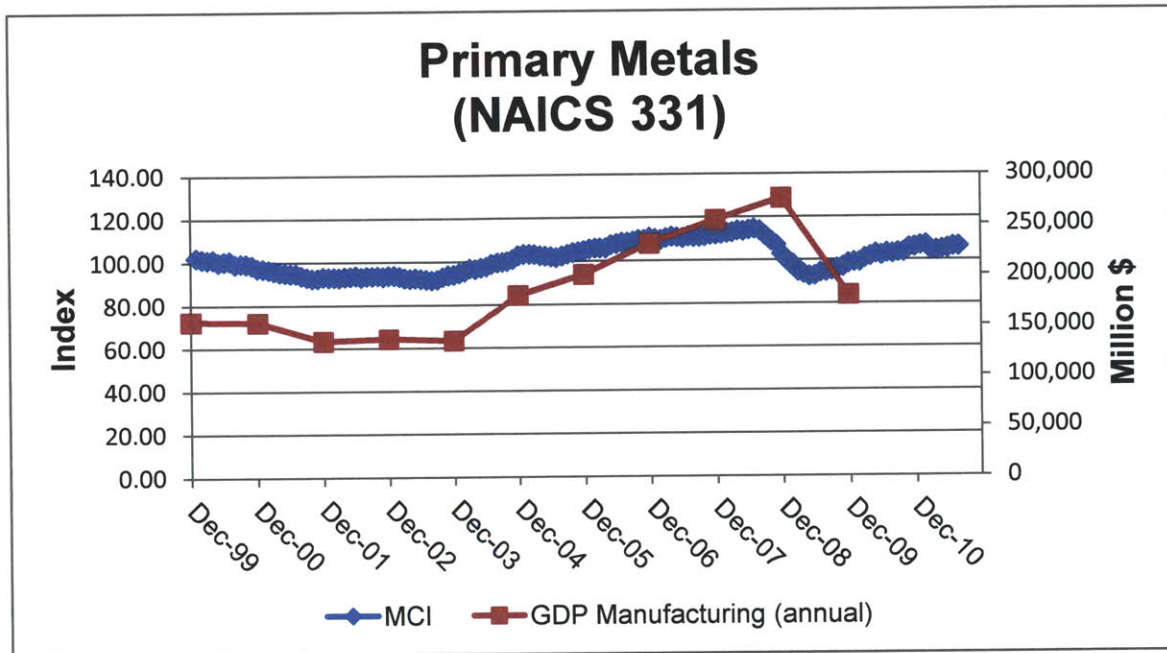


Figure C.29 – MCI and annual GDP Primary Metals including all industries gathered in the NAICS 331 classification.

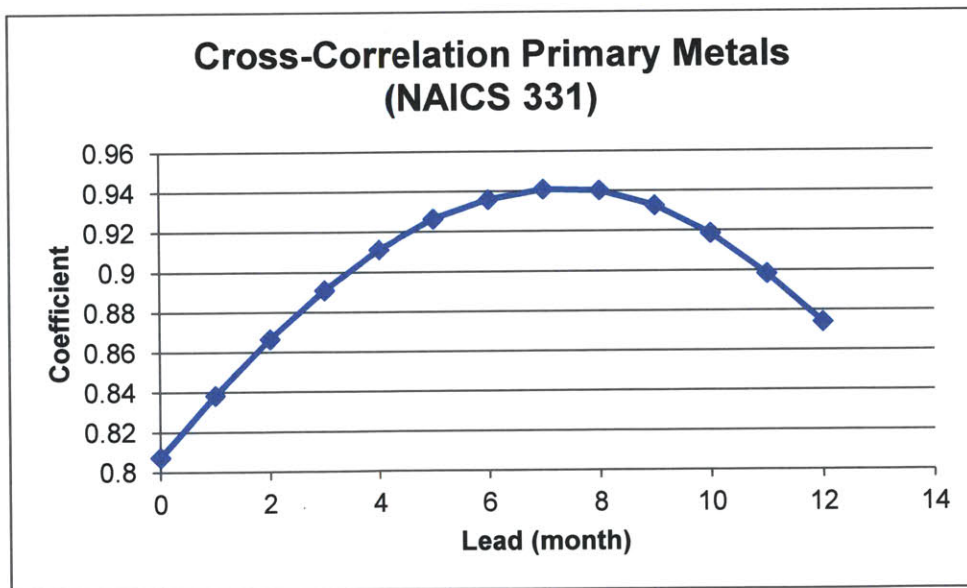


Figure C.30 – Cross-Correlation of MCI and annual GDP Primary Metals including all industries gathered in the NAICS 331 classification.

Table C.15

MCI computations for Primary Metals (NAICS 331)

1	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
2	Month	CU	Avg.WH	Dollar adjusted			0.19	0.06	0.10	0.06	0.60	97.97						St	Index	Rebased
3	Dec-99	61.0	42.0	Inventory	NO	Ship	0.59	0.18	0.30	0.18	1.85	C(I,r)						0.48	100.00	102.07
4	Jan-00	61.0	42.1	22306.08	13769.69	13835.49	0.70	2.35	0.70	0.00	0.24	0.13	0.14	0.07	0.00	0.14	0.48	100.00	102.07	
5	Feb-00	61.0	42.2	22202.18	13213.08	13153.62	-0.47	-4.13	-5.05	0.00	0.24	-0.09	-0.24	-0.48	0.00	0.14	-0.67	99.33	101.38	
6	Mar-00	61.0	42.0	22128.94	13159.45	13179.13	-0.33	-0.41	0.19	0.00	-0.48	-0.06	-0.02	0.02	0.00	-0.28	-0.35	98.98	101.03	
7	Apr-00	61.0	42.1	22181.1	13015.75	13315.94	0.24	-1.10	1.03	0.00	0.24	0.04	-0.06	0.10	0.00	0.14	0.22	99.20	101.25	
8	May-00	61.0	41.8	22264.5	12042.28	12593.9	0.38	-7.77	-5.57	0.00	-0.72	0.07	-0.46	-0.53	0.00	-0.43	-1.35	97.87	99.89	
9	Jun-00	61.0	41.9	22198.82	12313.42	12938.3	-0.30	2.23	2.70	0.00	0.24	-0.06	0.13	0.26	0.00	0.14	0.48	98.34	100.37	
10	Jul-00	61.0	42.1	22152.49	12457.48	12904.2	-0.21	1.16	-0.26	0.00	0.48	-0.04	0.07	-0.03	0.00	0.29	0.29	98.62	100.66	
11	Aug-00	61.0	41.5	22058.65	11912.02	12382.21	-0.42	-4.48	-4.13	0.00	-1.44	-0.08	-0.26	-0.40	0.00	-0.86	-1.60	97.05	99.06	
12	Sep-00	61.0	41.5	21861.87	12586.58	12613.81	-0.90	5.51	1.85	0.00	0.00	-0.17	0.32	0.18	0.00	0.00	0.33	97.38	99.39	
13	Oct-00	61.0	41.7	21761.9	12109.82	12340.14	-0.46	-3.86	-2.19	0.00	0.48	-0.09	-0.23	-0.21	0.00	0.29	-0.24	97.15	99.16	
14	Nov-00	61.0	41.6	21657.59	11831.71	12081.71	-0.48	-2.32	-2.12	0.00	-0.24	-0.09	-0.14	-0.20	0.00	-0.14	-0.57	96.59	98.59	
15	Dec-00	61.0	40.7	21399.61	11946.39	12069.2	-1.20	0.96	-0.10	0.00	-2.19	-0.23	0.06	-0.01	0.00	-1.31	-1.49	95.16	97.13	
16	Jan-01	61.0	41.0	21320.43	11711.52	11566.31	-0.37	-1.99	-4.26	0.00	0.73	-0.07	-0.12	-0.41	0.00	0.44	-0.16	95.01	96.98	
17	Feb-01	61.0	40.8	21123.43	11397.3	11617.16	-0.93	-2.72	0.44	0.00	-0.49	-0.18	-0.16	0.04	0.00	-0.29	-0.59	94.46	96.41	
18	Mar-01	61.0	40.8	20815.21	11277.19	11361.89	-1.47	-1.06	-2.22	0.00	0.00	-0.28	-0.06	-0.21	0.00	0.00	-0.55	93.94	95.88	
19	Apr-01	61.0	40.9	20541.27	10977.93	10919.39	-1.32	-2.69	-3.97	0.00	0.24	-0.25	-0.16	-0.38	0.00	0.15	-0.64	93.33	95.27	
20	May-01	61.0	40.7	20159.66	11331.74	11165.39	-1.88	3.17	2.23	0.00	-0.49	-0.36	0.19	0.21	0.00	-0.29	-0.25	93.10	95.03	
21	Jun-01	61.0	40.7	19769.08	11585.88	11064.89	-1.96	2.22	-0.90	0.00	0.00	-0.37	0.13	-0.09	0.00	0.00	-0.33	92.80	94.72	
22	Jul-01	61.0	41.0	19551.2	11029.67	11142.58	-1.11	-4.92	0.70	0.00	0.73	-0.21	-0.29	0.07	0.00	0.44	0.01	92.80	94.73	
23	Aug-01	61.0	40.6	19341.3	10805.93	11010.52	-1.08	-2.05	-1.19	0.00	-0.98	-0.20	-0.12	-0.11	0.00	-0.59	-1.03	91.86	93.76	
24	Sep-01	61.0	40.4	19105.82	10679.69	10734.99	-1.22	-1.18	-2.53	0.00	-0.49	-0.23	-0.07	-0.24	0.00	-0.30	-0.84	91.09	92.97	
25	Oct-01	61.0	40.2	19107.93	10229.23	10689.59	0.01	-4.31	-0.42	0.00	-0.50	0.00	-0.25	-0.04	0.00	-0.30	-0.59	90.55	92.43	
26	Nov-01	61.0	40.3	18971.26	10376.44	10659	-0.72	1.43	-0.29	0.00	0.25	-0.14	0.08	-0.03	0.00	0.15	0.07	90.62	92.49	
27	Dec-01	70.0	40.5	18833.49	10727.62	10546.68	-0.73	3.33	-1.06	9.00	0.50	-0.14	0.20	-0.10	0.51	0.30	0.76	91.31	93.20	
28	Jan-02	70.0	40.5	18493.28	10591.17	10612.28	-1.82	-1.28	0.62	0.00	0.00	-0.35	-0.08	0.06	0.00	0.00	-0.36	90.98	92.86	
29	Feb-02	70.0	40.6	18286.12	10795.22	10578.95	-1.13	1.91	-0.31	0.00	0.25	-0.21	-0.11	-0.03	0.00	0.15	0.02	91.00	92.88	
30	Mar-02	70.0	40.8	17837.3	10620.36	10753.57	-2.48	-1.63	1.64	0.00	0.49	-0.47	0.10	0.16	0.00	0.29	-0.12	90.89	92.77	
31	Apr-02	70.0	40.8	17705.49	11228.22	11015.15	-0.74	5.56	2.40	0.00	0.00	-0.14	0.33	0.23	0.00	0.00	0.42	91.27	93.16	
32	May-02	70.0	40.8	17670.45	11401.52	11128.79	-0.20	1.53	1.03	0.00	0.00	-0.04	0.09	0.10	0.00	0.00	0.15	91.41	93.30	
33	Jun-02	70.0	41.0	17821.97	11251.89	11169.51	0.85	-1.32	0.37	0.00	0.49	0.16	-0.08	0.04	0.00	0.29	0.41	91.79	93.69	
34	Jul-02	70.0	40.6	17823.08	10977.29	11122.04	0.01	-2.47	-0.43	0.00	-0.98	0.00	-0.15	-0.04	0.00	-0.59	-0.77	91.08	92.97	
35	Aug-02	70.0	40.7	17940.57	11200	11250.94	0.66	2.01	1.15	0.00	0.25	0.12	0.12	0.11	0.00	0.15	0.50	91.54	93.43	
36	Sep-02	70.0	40.8	17956.73	11078.08	11136.41	0.09	-1.09	-1.02	0.00	0.25	0.02	-0.06	-0.10	0.00	0.15	0.00	91.54	93.43	
37	Oct-02	70.0	40.6	18079.89	11484.02	11269.74	0.68	3.60	1.19	0.00	-0.49	0.13	0.21	0.11	0.00	-0.29	0.16	91.69	93.59	
38	Nov-02	70.0	40.7	18252.12	10518.34	11079.96	0.95	-8.78	-1.70	0.00	0.25	0.18	-0.52	-0.16	0.00	0.15	-0.35	91.36	93.26	
39	Dec-02	71.0	40.9	18416.98	10631.13	10932.08	0.90	1.07	-1.34	1.00	0.49	0.17	0.06	-0.13	0.06	0.29	0.45	91.78	93.68	
40	Jan-03	71.0	40.6	18452.58	11049.77	11072.3	0.19	3.86	1.27	0.00	-0.74	0.04	0.23	0.12	0.00	-0.44	-0.05	91.73	93.63	
41	Feb-03	71.0	40.5	18549.86	10972.97	10713.89	0.53	-0.70	-3.29	0.00	-0.25	0.10	-0.04	-0.32	0.00	-0.15	-0.40	91.36	93.25	
42	Mar-03	71.0	40.6	18265.99	9783.133	10666.36	-1.54	-11.46	-0.44	0.00	0.25	-0.29	-0.68	-0.04	0.00	0.15	-0.86	90.57	92.45	
43	Apr-03	71.0	40.3	18277.62	10440.11	10444.75	0.06	6.50	-2.10	0.00	-0.74	0.01	0.38	-0.20	0.00	-0.44	-0.25	90.35	92.22	
44	May-03	71.0	40.5	18198.14	10444.65	10556.28	-0.44	0.04	1.06	0.00	0.50	-0.08	0.00	0.10	0.00	0.30	0.32	90.64	92.51	
45	Jun-03	71.0	40.7	17692.38	10603.16	10277.88	-2.82	1.51	-2.67	0.00	0.49	-0.53	0.09	-0.26	0.00	0.30	-0.41	90.27	92.14	
46	Jul-03	71.0	40.4	17498.61	10723.31	10538.53	-1.10	1.13	2.50	0.00	-0.74	-0.21	0.07	0.24	0.00	-0.44	-0.34	89.96	91.82	
47	Aug-03	71.0	40.5	17211.65	10757.86	10318.85	-1.65	0.32	-2.11	0.00	0.25	-0.31	0.02	-0.20	0.00	0.15	-0.35	89.64	91.50	
48	Sep-03	71.0	40.9	16939.17	10567.74	10468.2	-1.60	-1.78	1.44	0.00	0.98	-0.30	-0.11	0.14	0.00	0.59	0.32	89.93	91.79	
49	Oct-03	71.0	41.0	16833.95	12370.85	10867.16	-0.62	15.72	3.74	0.00	0.24	-0.12	0.93	0.36	0.00	0.15	1.31	91.12	93.01	
50	Nov-03	71.0	41.4	17024.07	11987.96	11109.26	1.12	-3.14	2.20	0.00	0.97	0.21	-0.19	0.21	0.00	0.58	0.82	91.87	93.77	
51	Dec-03	72.0	41.2	17190.17	11782	11487.01	0.97	-1.73	3.34	1.00	-0.48	0.18	-0.10	0.32	0.06	-0.29	0.17	92.03	93.93	
52	Jan-04	72.0	41.4	17247	12318.89	11703.23	0.33	4.46	1.86	0.00	0.48	0.06	0.26	0.18	0.00	0.29	0.79	92.76	94.68	
53	Feb-04	72.0	41.4	17378.55	13119.16	12108.16	0.76	6.29	3.40	0.00	0.00	0.14	0.37	0.33	0.00	0.84	93.54	95.48		
54	Mar-04	72.0	41.5	17651.78	13984.5	12944.39	1.56	6.39	6.68	0.00	0.24	0.30	0.38	0.64	0.00	1.46	94.92	96.88		
55	Apr-04	72.0	41.3	17939.09	13047.27	13005.45	1.61	-6.93	0.47	0.00	-0.48	0.31	-0.41	0.05	0.00	-0.29	-0.35	94.59	96.55	
56	May-04	72.0	41.5	18029.84	13749.55	13050.63	0.50	5.24	0.35	0.00	0.48	0.10	0.31	0.03	0.00	0.29	0.73	95.28	97.25	
57	Jun-04	72.0	41.2	18472.92	13739.17	13537	2.43	-0.08	3.66	0.00	-0.73	0.46	0.00	0.35	0.00	-0.43	0.37	95.63	97.61	
58	Jul-04	72.0	41.3	18753.39	15071.36	13982.84	1.51	9.25	3.24	0.00	0.24	0.29	0.55	0.31	0.00	0.15	1.29	96.87	98.88	
59	Aug-04	72.0	41.3	19264.68	14887.99	14334.24	2.69	-1.22	2.48	0.00	0.00	0.51	-0.07	0.24	0.00	0.00	0.68	97.53	99.55	
60	Sep-04	72.0	41.1	19818.02	14582.88	14540.54	2.83	-2.07	1.43	0.00	-0.49	0.54	-0.12	0.14	0.00	-0.29	0.62	97.78	99.81	
61	Oct-04	72.0	41.1	20520.61	13848.57	14490.14	3.48	-5.17	-0.35	0.00	0.00	0.66	-0.30	-0.03	0.00	0.00	0.32	98.10	100.13	
62	Nov-04	72.0	40.9	21152.33	14862.01	14922.94	3.03	7.06	2.94	0.00	-0.49	0.57	0.42	0.28	0.00	-0.29	0.98	99.07	101.12	
63	Dec-04	74.0	41.1	21781.47	15446.94	15508.99	2.93	3.86	3.85	2.00	0.49	0.56	0.23	0.37	0.11	0.29	1.56	100.62	102.71	
64	Jan-05	74.0	41.2	22																

Table C.15 - Continued

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	79.0	41.4	23210.07	16658.85	16184.9	1.51	-0.12	1.92	0.00	0.48	0.29	-0.01	0.18	0.00	0.29	0.75	103.45	105.60
77	Feb-06	79.0	41.5	23713.17	16234.84	16077.12	2.14	-2.58	-0.67	0.00	0.24	0.41	-0.15	-0.06	0.00	0.14	0.33	103.80	105.95
78	Mar-06	79.0	41.5	23743.1	16236.21	16088.79	0.13	0.01	0.07	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.03	103.83	105.98
79	Apr-06	79.0	41.5	23985.46	16262.62	15774.17	1.02	0.16	-1.97	0.00	0.00	0.19	0.01	-0.19	0.00	0.00	0.01	103.85	106.00
80	May-06	79.0	41.5	24632.34	17367.66	16671.49	2.66	6.57	5.53	0.00	0.00	0.50	0.39	0.53	0.00	0.00	1.42	105.33	107.52
81	Jun-06	79.0	41.5	24987.26	17242.99	17016.99	1.43	-0.72	2.05	0.00	0.00	0.27	-0.04	0.20	0.00	0.00	0.43	105.78	107.97
82	Jul-06	79.0	41.7	25408.98	17130.4	16940.73	1.67	-0.66	-0.45	0.00	0.48	0.32	-0.04	-0.04	0.00	0.29	0.52	106.34	108.54
83	Aug-06	79.0	41.4	25943.36	16841.08	17256.13	2.08	-1.70	1.84	0.00	-0.72	0.39	-0.10	0.18	0.00	-0.43	0.04	106.38	108.58
84	Sep-06	79.0	41.3	26887.1	16974.53	16930.39	3.57	0.79	-1.91	0.00	-0.24	0.68	0.05	-0.18	0.00	-0.14	0.40	106.80	109.01
85	Oct-06	79.0	41.3	27649.02	17456.02	16896.67	2.79	2.80	-0.20	0.00	0.00	0.53	0.16	-0.02	0.00	0.00	0.68	107.52	109.75
86	Nov-06	79.0	41.2	28004.28	16918.73	17069.29	1.28	-3.13	1.02	0.00	-0.24	0.24	-0.18	0.10	0.00	-0.15	0.01	107.53	109.76
87	Dec-06	73.0	41.4	28229.06	17961.54	17845.3	0.80	5.98	4.45	-6.00	0.48	0.15	0.35	0.43	-0.34	0.29	0.88	108.49	110.73
88	Jan-07	73.0	41.2	28226.37	17899.09	17448.22	-0.01	-0.35	-2.25	0.00	-0.48	0.00	-0.02	-0.22	0.00	-0.29	-0.53	107.91	110.15
89	Feb-07	73.0	41.1	28198.89	17227.28	17390.16	-0.10	-3.83	-0.33	0.00	-0.24	-0.02	-0.23	-0.03	0.00	-0.15	-0.42	107.46	109.68
90	Mar-07	73.0	41.5	28199.61	17707.06	17444.69	0.00	2.75	0.31	0.00	0.97	0.00	0.16	0.03	0.00	0.58	0.77	108.29	110.54
91	Apr-07	73.0	41.5	28196.81	18849.97	17741.05	-0.01	6.25	1.68	0.00	0.00	0.00	0.00	0.37	0.16	0.00	0.53	108.87	111.12
92	May-07	73.0	41.4	28059.22	18135.87	18121.74	-0.49	-3.86	2.12	0.00	-0.24	-0.09	-0.23	0.20	0.00	-0.14	-0.26	108.58	110.83
93	Jun-07	73.0	41.6	28415.21	16192.43	17721	1.26	-11.32	-2.24	0.00	0.48	0.24	-0.67	-0.21	0.00	0.29	-0.36	108.20	110.44
94	Jul-07	73.0	41.6	28748.02	17370.43	17762.53	1.16	7.02	0.23	0.00	0.00	0.22	0.41	0.02	0.00	0.00	0.66	108.91	111.17
95	Aug-07	73.0	41.6	28764.3	17235.3	17453.11	0.06	-0.78	-1.76	0.00	0.00	0.01	-0.05	-0.17	0.00	0.00	-0.20	108.69	110.94
96	Sep-07	73.0	41.6	28227.42	17840.98	17701.72	-1.88	3.45	1.41	0.00	0.00	-0.36	0.20	0.14	0.00	0.00	-0.02	108.67	110.92
97	Oct-07	73.0	41.4	27977	19045.37	18268.6	-0.89	6.53	3.15	0.00	-0.48	-0.17	0.39	0.30	0.00	-0.29	0.23	108.92	111.18
98	Nov-07	73.0	41.6	27964.87	19522.39	18454.74	-0.04	2.47	1.01	0.00	0.48	-0.01	0.15	0.10	0.00	0.29	0.52	109.49	111.76
99	Dec-07	73.0	41.3	28338.35	19782.35	18854.03	1.33	1.32	2.14	0.00	-0.72	0.25	0.08	0.21	0.00	-0.43	0.10	109.60	111.87
100	Jan-08	73.0	41.5	28186.47	19862.64	19055.2	-0.54	0.41	1.06	0.00	0.48	-0.10	0.02	0.10	0.00	0.29	0.31	109.95	112.22
101	Feb-08	73.0	41.5	28304.29	20397.55	19423.31	0.42	2.66	1.91	0.00	0.00	0.08	0.16	0.18	0.00	0.00	0.42	110.41	112.70
102	Mar-08	76.0	41.6	28604.56	20150.34	19088.09	1.06	-1.22	-1.74	3.00	0.24	0.20	-0.07	-0.17	0.17	0.14	0.28	110.71	113.01
103	Apr-08	76.0	41.5	28885.08	20843.4	19988.56	0.98	3.38	4.61	0.00	-0.24	0.18	0.20	0.44	0.00	-0.14	0.68	111.47	113.78
104	May-08	76.0	41.4	29225.62	19836.06	19936.73	1.17	-4.95	-0.26	0.00	-0.24	0.22	-0.29	-0.02	0.00	-0.14	-0.24	111.21	113.51
105	Jun-08	78.2	41.3	29287.37	20869.79	20363.08	0.21	5.08	2.12	2.20	-0.24	0.04	0.30	0.20	0.12	-0.14	0.52	111.79	114.10
106	Jul-08	78.2	41.3	29598.64	21168.79	20660.58	1.06	1.42	1.45	0.00	0.00	0.20	0.08	0.14	0.00	0.00	0.42	112.26	114.59
107	Aug-08	78.2	41.1	30397.97	18579.08	20192.9	2.66	-13.03	-2.29	0.00	-0.49	0.50	-0.77	-0.22	0.00	-0.29	-0.77	111.40	113.70
108	Sep-08	75.8	40.6	30255.79	16925.19	19119.56	-0.47	-9.32	-5.46	-2.40	-1.22	-0.09	-0.55	-0.52	-0.14	-0.73	-2.03	109.16	111.42
109	Oct-08	75.8	40.6	30137.85	14167.33	17417.53	-0.39	-17.74	-9.32	0.00	0.00	-0.07	-1.05	-0.89	0.00	0.00	-2.01	106.98	109.19
110	Nov-08	75.8	40.3	29686.13	13600.01	15740.71	-1.51	-4.09	-10.11	0.00	-0.74	-0.29	-0.24	-0.97	0.00	-0.44	-1.94	104.92	107.09
111	Dec-08	62.0	39.9	28695.18	11548.49	14055.13	-3.39	-16.32	-11.31	-13.80	-1.00	-0.64	-0.96	-1.09	-0.78	-0.60	-4.07	100.73	102.82
112	Jan-09	62.0	39.7	27506.45	10350.96	12208.53	-4.23	-10.94	-14.06	0.00	-0.50	-0.80	-0.65	-1.35	0.00	-0.30	-3.10	97.66	99.69
113	Feb-09	62.0	39.6	26318.54	10250.58	11818.3	-4.41	-0.97	-3.25	0.00	-0.25	-0.84	-0.06	-0.31	0.00	-0.15	-1.36	96.35	98.34
114	Mar-09	52.2	39.3	24935.87	8963.136	10788.82	-5.40	-13.40	-9.11	-9.80	-0.76	-1.02	-0.79	-0.87	-0.56	-0.46	-3.70	92.85	94.77
115	Apr-09	52.2	39.5	23664.6	9208.227	10149.29	-5.23	2.70	-6.11	0.00	0.51	-0.99	0.16	-0.59	0.00	0.30	-1.11	91.82	93.72
116	May-09	52.2	39.3	22649.83	9513.316	9864.13	-4.38	3.26	-2.85	0.00	-0.51	-0.83	0.19	-0.27	0.00	-0.30	-1.22	90.71	92.59
117	Jun-09	52.1	39.5	21686.95	10842.27	9881.512	-4.34	13.06	0.18	-0.10	0.51	-0.82	0.77	0.02	-0.01	0.30	0.26	90.95	92.83
118	Jul-09	52.1	39.9	21156.46	11650.7	11030.39	-2.48	7.19	10.99	0.00	1.01	-0.47	0.42	1.05	0.00	0.60	1.61	92.43	94.34
119	Aug-09	52.1	40.0	20953.3	11911.41	11275.08	-0.96	2.21	2.19	0.00	0.25	-0.18	0.13	0.21	0.00	0.15	0.31	92.71	94.63
120	Sep-09	58.1	40.1	21009.41	11738.01	11547.96	0.27	-1.47	2.39	6.00	0.25	0.05	-0.09	0.23	0.34	0.15	0.68	93.35	95.28
121	Oct-09	58.1	40.2	20833.23	12464.84	12247.68	-0.84	6.01	5.88	0.00	0.25	-0.16	0.35	0.56	0.00	0.15	0.91	94.20	96.15
122	Nov-09	58.1	40.6	20818.51	12505.21	12533.26	-0.07	0.32	2.30	0.00	0.99	-0.01	0.02	0.22	0.00	0.59	0.82	94.98	96.94
123	Dec-09	61.2	40.7	21038.35	13376	13474.76	1.05	6.73	7.24	3.10	0.25	0.20	0.40	0.69	0.18	0.15	1.61	96.52	98.52
124	Jan-10	61.2	40.9	21150.91	14245.94	13261.92	0.53	6.30	-1.59	0.00	0.49	0.10	0.37	-0.15	0.00	0.29	0.61	97.12	99.13
125	Feb-10	61.2	40.5	21461.44	14448.72	13653.35	1.46	1.41	2.91	0.00	-0.98	0.28	0.08	0.28	0.00	-0.59	0.05	97.17	99.18
126	Mar-10	61.2	41.2	21682.02	14868.4	14211.17	1.02	2.86	4.00	0.00	1.71	0.19	0.17	0.38	0.00	1.03	1.77	98.90	100.95
127	Apr-10	61.2	41.4	22328.61	14642.12	14386.83	2.94	-1.53	1.23	0.00	0.48	0.56	-0.09	0.12	0.00	0.29	0.87	99.77	101.84
128	May-10	61.2	41.6	23074.36	14983.11	14596.03	3.28	2.30	1.44	0.00	0.48	0.62	0.14	0.14	0.00	0.29	1.19	100.96	103.05
129	Jun-10	61.2	41.3	23214.16	13848.89	14582.09	0.60	-7.87	-0.10	0.00	-0.72	0.11	-0.46	-0.01	0.00	-0.43	-0.79	100.16	102.24
130	Jul-10	61.2	41.4	23373.79	15614.65	14694.03	0.69	11.99	0.76	0.00	0.24	0.13	0.71	0.07	0.00	0.14	1.05	101.23	103.32
131	Aug-10	61.2	41.3	23318.06	15016.15	14788.65	-0.24	-3.91	0.64	0.00	-0.24	-0.05	-0.23	0.06	0.00	-0.14	-0.36	100.86	102.95
132	Sep-10	65.5	41.4	23297.45	15262.92	14953.65	-0.09	1.63	1.11	4.30	0.24	-0.02	0.10	0.11	0.24	0.14	0.57	101.45	103.55
133	Oct-10	65.5	41.4	23541.6	14859.86	14947.17	1.04	-2.68	-0.04	0.00	0.00	0.20	-0.16	0.00	0.00	0.00	0.04	101.48	103.58
134	Nov-10	65.5	41.6	23949.91	17651.35	15642.04	1.72	17.17	4.54	0.00	0.48	0.33	1.01	0.44	0.00	0.29	2.06	103.60	105.74
135	Dec-10	63.4	41.6	24262.45	17047.72	16193.71	1.30	-3.48	3.47	-2.10	0.00	0.25	-0.21	0.33	-0.12	0.00	0.25	103.86	106.01
136	Jan-11	63.4	41.5	24670.57	17891.19	16695.71	1.67	4.83	3.05	0.00	-0.24	0.32	0.28	0.29	0.00	-0.14	0.75	104.64	106.81
137	Feb-11	63.4	41.																

NAICS 332 – Fabricated Metal Products

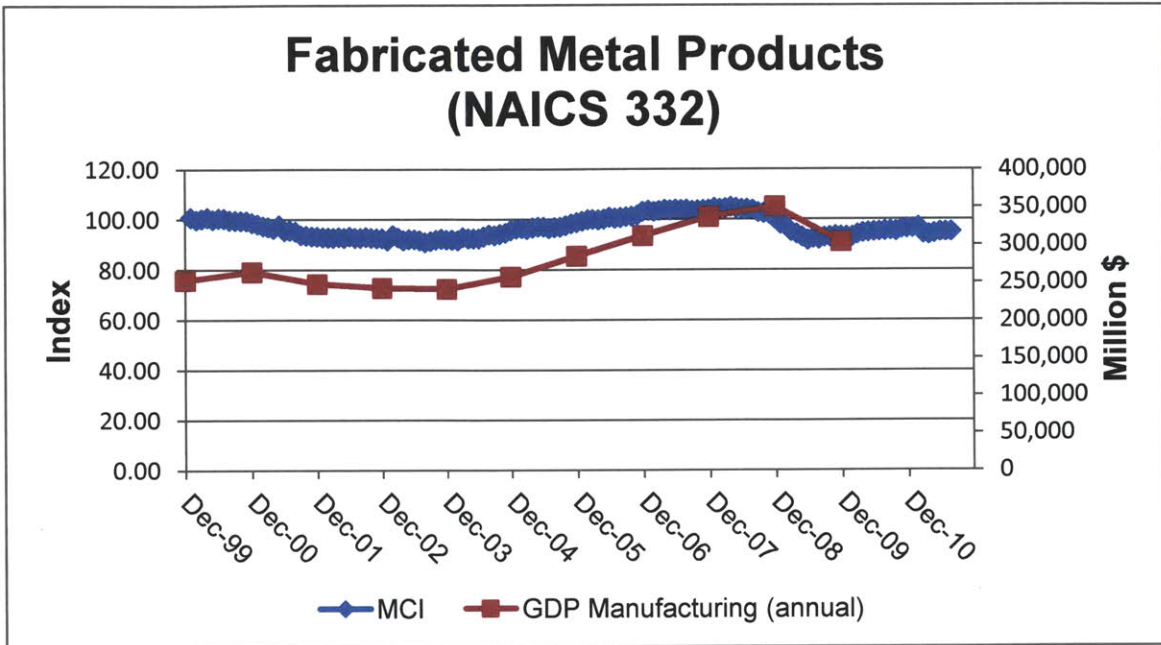


Figure C.31 – MCI and annual GDP Fabricated Metal Products including all industries gathered in the NAICS 332 classification.

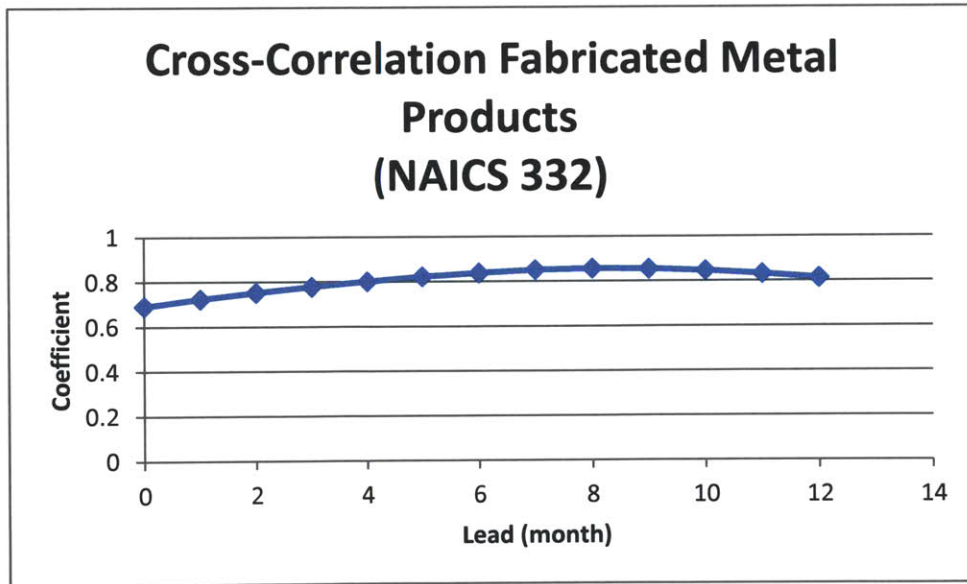


Figure C.32 – Cross-Correlation of MCI and annual GDP Fabricated Metal Products including all industries gathered in the NAICS 332 classification.

Table C.16
MCI computations for Fabricated Metal Products (NAICS 332)

1	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
2	Month	CU	Avg.WH	Dollar adjusted			0.25	0.07	0.12	0.05	0.51							99.17		
3	Dec-99	68.0	42.0	Inventory	NO	Ship	0.90	0.27	0.44	0.19	1.85	C(I,t)						St	Index	Rebased
4	Jan-00	68.0	42.1	33541.38	22731.8	22497.51	0.33	-1.11	2.30	0.00	0.24	0.08	-0.08	0.28	0.00	0.12	0.39	100.00	100.84	
5	Feb-00	68.0	42.2	33464.82	21311.2	21448.96	-0.23	-6.45	-4.77	0.00	0.24	-0.06	-0.48	-0.57	0.00	0.12	-0.99	99.01	99.84	
6	Mar-00	68.0	42.0	33269.69	22402.56	22267.72	-0.58	4.99	3.75	0.00	-0.48	-0.14	0.37	0.45	0.00	-0.24	0.44	99.45	100.28	
7	Apr-00	68.0	42.1	33447.83	22848.43	22504.92	0.53	1.97	1.06	0.00	0.24	0.13	0.15	0.13	0.00	0.12	0.53	99.97	100.81	
8	May-00	68.0	41.8	33719.76	21943.95	21890.86	0.81	-4.04	-2.77	0.00	-0.72	0.20	-0.30	-0.33	0.00	-0.36	-0.80	99.18	100.01	
9	Jun-00	68.0	41.9	33880.51	22185.11	22224.29	0.48	1.09	1.51	0.00	0.24	0.12	0.08	0.18	0.00	0.12	0.50	99.68	100.51	
10	Jul-00	68.0	42.1	33824.05	21730.21	22002.93	-0.17	-2.07	-1.00	0.00	0.48	-0.04	-0.16	-0.12	0.00	0.24	-0.07	99.60	100.44	
11	Aug-00	68.0	41.5	34035.19	22082.11	21664.71	0.62	1.61	-1.55	0.00	-1.44	0.15	0.12	-0.19	0.00	-0.73	-0.64	98.97	99.80	
12	Sep-00	68.0	41.5	33801.56	21882.3	21831.71	-0.69	-0.91	0.77	0.00	0.00	-0.17	-0.07	0.09	0.00	0.00	-0.15	98.82	99.65	
13	Oct-00	68.0	41.7	33828.96	21733.72	21319.73	0.08	-0.68	-2.37	0.00	0.48	0.02	-0.05	-0.28	0.00	0.24	-0.07	98.75	99.58	
14	Nov-00	68.0	41.6	33962.06	21501.95	21326.85	0.39	-1.07	0.03	0.00	-0.24	0.10	-0.08	0.00	0.00	-0.12	-0.10	98.65	99.48	
15	Dec-00	68.0	40.7	33890.84	22148.15	21690.06	-0.21	2.96	1.69	0.00	-2.19	-0.05	0.22	0.20	0.00	-1.11	-0.74	97.93	98.75	
16	Jan-01	68.0	41.0	33687.32	21027.11	21015.49	-0.60	-5.19	-3.16	0.00	0.73	-0.15	-0.39	-0.38	0.00	0.37	-0.54	97.40	98.21	
17	Feb-01	68.0	40.8	33193.83	20517.84	20989.39	-1.48	-2.45	-0.12	0.00	-0.49	-0.36	-0.18	-0.01	0.00	-0.25	-0.81	96.61	97.42	
18	Mar-01	68.0	40.8	32911.45	20575.55	20731.47	-0.85	0.28	-1.24	0.00	0.00	-0.21	0.02	-0.15	0.00	0.00	-0.34	96.28	97.09	
19	Apr-01	68.0	40.9	32634.36	19943.38	20177.54	-0.85	-3.12	-2.71	0.00	0.24	-0.12	-0.23	-0.32	0.00	0.12	-0.64	95.67	96.47	
20	May-01	68.0	40.7	32326.96	21909.18	22264.82	-0.95	9.39	9.84	0.00	-0.49	-0.23	0.70	1.18	0.00	-0.25	1.40	97.02	97.83	
21	Jun-01	68.0	40.7	31872.14	20169.85	19864.5	-1.42	-8.27	-11.39	0.00	0.00	-0.35	-0.62	-1.37	0.00	0.00	-2.33	94.78	95.57	
22	Jul-01	68.0	41.0	31652.63	19999.04	19854.55	-0.69	-0.85	-0.05	0.00	0.73	-0.17	-0.06	-0.01	0.00	0.37	0.13	94.91	95.70	
23	Aug-01	68.0	40.6	31432.12	20123.33	20251.43	-0.70	0.62	1.98	0.00	-0.98	-0.17	0.05	0.24	0.00	-0.50	-0.39	94.54	95.33	
24	Sep-01	68.0	40.4	31144.9	18659.68	19397.52	-0.92	-7.55	-4.31	0.00	-0.49	-0.23	-0.57	-0.52	0.00	-0.25	-1.56	93.08	93.86	
25	Oct-01	68.0	40.2	31029.61	18840.5	19503.34	-0.37	0.96	0.54	0.00	-0.50	-0.09	0.07	0.07	0.00	-0.25	-0.21	92.89	93.67	
26	Nov-01	68.0	40.3	30695.4	18712.64	19287.36	-1.08	-0.68	-1.11	0.00	0.25	-0.27	-0.05	-0.13	0.00	0.13	-0.32	92.59	93.36	
27	Dec-01	60.0	40.5	30315.69	19684.31	19313.76	-1.24	5.06	0.14	-8.00	0.50	-0.31	0.38	0.02	-0.41	0.25	-0.07	92.52	93.30	
28	Jan-02	60.0	40.5	30174.66	19065.26	19358.93	-0.47	3.20	0.23	0.00	0.00	-0.11	-0.24	0.03	0.00	0.00	-0.33	92.22	93.00	
29	Feb-02	60.0	40.6	29862.2	19125.36	19396.17	-1.04	0.31	0.19	0.00	0.25	-0.26	0.02	0.02	0.00	0.13	-0.08	92.14	92.92	
30	Mar-02	60.0	40.8	29680.3	19028.54	19128.45	-0.61	-0.51	-1.39	0.00	0.49	-0.15	-0.04	-0.17	0.00	0.25	-0.11	92.05	92.82	
31	Apr-02	60.0	40.8	29391.1	19520.83	19705.49	-0.98	2.55	2.97	0.00	0.00	-0.24	0.19	0.36	0.00	0.00	0.31	92.33	93.10	
32	May-02	60.0	40.8	28910.98	19835.23	19564.39	-1.65	1.60	-0.72	0.00	0.00	-0.41	0.12	-0.09	0.00	0.00	-0.37	91.99	92.76	
33	Jun-02	60.0	41.0	29597.54	19173.3	19673.3	2.35	-3.39	0.56	0.00	0.49	0.58	-0.25	0.07	0.00	0.25	0.64	92.58	93.35	
34	Jul-02	60.0	40.6	29396.4	19667.93	19486.28	-0.68	2.55	-0.96	0.00	-0.98	-0.17	0.19	-0.11	0.00	-0.50	-0.59	92.03	92.80	
35	Aug-02	60.0	40.7	29367.92	18891.51	19759.43	-0.10	-4.03	1.39	0.00	0.25	-0.02	-0.30	0.17	0.00	0.12	-0.03	92.00	92.77	
36	Sep-02	60.0	40.8	29435.56	19666.04	19546.57	0.23	4.02	-1.08	0.00	0.25	0.06	0.30	-0.13	0.00	0.12	0.35	92.33	93.10	
37	Oct-02	60.0	40.6	29282.89	19576.13	19616.54	-0.52	-0.46	0.36	0.00	-0.49	-0.13	-0.03	0.04	0.00	-0.25	-0.37	91.99	92.76	
38	Nov-02	60.0	40.7	29296.33	19226.72	19370.65	0.05	-1.80	-1.26	0.00	0.25	0.01	-0.13	-0.15	0.00	0.12	-0.15	91.85	92.62	
39	Dec-02	59.0	40.9	29606.6	18480.19	19094.34	1.05	-3.96	-1.44	-1.00	0.49	0.26	-0.30	-0.17	-0.05	0.25	-0.01	91.84	92.61	
40	Jan-03	59.0	40.6	29175.59	18435.68	18804.69	-1.47	-0.24	-1.53	0.00	-0.74	-0.36	-0.02	-0.18	0.00	-0.37	-0.94	90.98	91.74	
41	Feb-03	59.0	40.5	30296.37	20876.98	19527.49	3.77	12.42	3.77	0.00	-0.25	0.93	0.93	0.45	0.00	-0.13	2.18	92.99	93.77	
42	Mar-03	59.0	40.6	30189.99	18983.32	19198.33	-0.35	-9.50	-1.70	0.00	0.25	-0.09	-0.71	-0.20	0.00	0.13	-0.88	92.18	92.95	
43	Apr-03	59.0	40.3	29680.59	18273.91	18882.08	-1.70	-3.81	-1.66	0.00	-0.74	-0.42	-0.29	-0.20	0.00	-0.38	-1.28	91.01	91.77	
44	May-03	59.0	40.5	29672.56	18760	18962.79	-0.03	2.63	0.43	0.00	0.50	-0.01	0.20	0.05	0.00	0.25	0.49	91.46	92.22	
45	Jun-03	59.0	40.7	29296.47	19109.67	18805.76	-1.28	1.85	-0.83	0.00	0.49	-0.31	0.14	-0.10	0.00	0.25	-0.03	91.43	92.20	
46	Jul-03	59.0	40.4	28753.95	19395.54	19246.98	-1.87	1.48	2.32	0.00	-0.74	-0.46	0.11	0.28	0.00	-0.38	-0.45	91.03	91.79	
47	Aug-03	59.0	40.5	28389.09	18722.74	18548.06	-1.28	-3.53	-3.70	0.00	0.25	-0.31	-0.26	-0.44	0.00	0.13	-0.90	90.21	90.97	
48	Sep-03	59.0	40.9	28060.83	19182.49	18702.3	-1.16	2.43	0.83	0.00	0.98	-0.29	0.18	0.10	0.00	0.50	0.49	90.66	91.42	
49	Oct-03	59.0	41.0	28037.82	19911.44	19053.51	-0.08	3.73	1.86	0.00	0.24	-0.02	0.28	0.22	0.00	0.12	0.61	91.21	91.98	
50	Nov-03	59.0	41.4	28046.3	19882.41	18952.78	0.03	-0.15	-0.53	0.00	0.97	0.01	-0.01	-0.06	0.00	0.49	0.43	91.60	92.37	
51	Dec-03	61.0	41.2	27745.83	19807.05	19127.09	-1.08	-0.38	0.92	2.00	-0.48	-0.27	-0.03	0.11	0.10	-0.25	-0.33	91.30	92.07	
52	Jan-04	61.0	41.4	27520.74	20258.06	18672.81	-0.81	2.25	-2.40	0.00	0.48	-0.20	0.17	-0.29	0.00	0.25	-0.07	91.23	92.00	
53	Feb-04	61.0	41.4	27627.86	19631.53	18416.13	0.39	-3.14	-1.38	0.00	0.00	0.10	-0.24	-0.17	0.00	0.00	-0.31	90.96	91.72	
54	Mar-04	61.0	41.5	27557.89	20848.68	19893.35	-0.25	6.01	7.71	0.00	0.24	-0.06	0.45	0.92	0.00	0.12	1.43	92.27	93.04	
55	Apr-04	61.0	41.3	27560	20798.18	19442.73	0.01	-0.24	-2.29	0.00	-0.48	0.00	-0.02	-0.27	0.00	-0.25	-0.54	91.78	92.55	
56	May-04	61.0	41.5	27890.6	19381.56	19424.95	1.19	-7.05	-0.09	0.00	0.48	0.29	-0.53	-0.01	0.00	0.25	0.00	91.78	92.55	
57	Jun-04	61.0	41.2	28174.19	19831.23	19354.69	1.01	2.29	-0.36	0.00	-0.73	0.25	0.17	-0.04	0.00	-0.37	0.01	91.78	92.55	
58	Jul-04	61.0	41.3	28706.41	19626.02	19812.1	1.87	-1.04	2.34	0.00	0.24	0.46	-0.08	0.28	0.00	0.12	0.79	92.51	93.28	
59	Aug-04	61.0	41.3	29301.72	20683.83	19796.75	2.05	5.25	-0.08	0.00	0.00	0.51	0.39	-0.01	0.00	0.00	0.89	93.33	94.12	
60	Sep-04	61.0	41.1	29586.49	19373.87	19989.19	0.97	-6.54	0.97	0.00	-0.49	0.24	-0.49	0.12	0.00	-0.25	-0.38	92.98	93.76	
61	Oct-04	61.0	41.1	29657.71	20919.35	19831.54	0.24	7.67	-0.79	0.00	0.00	0.06	0.57	-0.09	0.00	0.00	0.54	93.48	94.26	
62	Nov-04	61.0	40.9	30110.22	21008.06	20443.55	1.51	0.42	3.04	0.00	-0.49	0.37	0.03	0.36	0.00	-0.25	0.52	93.97	94.76	
63	Dec-04	66.0	41.1	30696.94	20993.71	20575.54	1.93	-0.07	0.64	5.00	0.49	0.47	-0.01	0.08	0.26	0.25	1.05	94.96	95.76	
64	Jan-05	66.0	41.2	31053.01	21352.2	20888.59</														

Table C.16 - Continued

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	68.0	41.4	32626.74	23065.1	22575.52	0.94	0.26	0.60	0.00	0.48	0.23	0.02	0.07	0.00	0.25	0.57	98.63	99.45
77	Feb-06	68.0	41.5	32942.81	23333.62	22783.36	0.96	1.16	0.92	0.00	0.24	0.24	0.09	0.11	0.00	0.12	0.56	99.18	100.01
78	Mar-06	68.0	41.5	33168.1	23137.07	22753.45	0.68	-0.85	-0.13	0.00	0.00	0.17	-0.06	-0.02	0.00	0.00	0.09	99.27	100.10
79	Apr-06	68.0	41.5	33293.41	23024.81	22275.45	0.38	-0.49	-2.12	0.00	0.00	0.09	-0.04	-0.25	0.00	0.00	-0.20	99.07	99.90
80	May-06	68.0	41.5	33486.81	23243.4	22447.66	0.58	0.94	0.77	0.00	0.00	0.14	0.07	0.09	0.00	0.00	0.31	99.37	100.21
81	Jun-06	68.0	41.5	33887	24200.51	22655.06	1.19	4.03	0.92	0.00	0.00	0.29	0.30	0.11	0.00	0.00	0.70	100.08	100.91
82	Jul-06	68.0	41.7	34204.91	22664.69	22038.1	0.93	-6.55	-2.76	0.00	0.48	0.23	-0.49	-0.33	0.00	0.24	-0.35	99.73	100.56
83	Aug-06	68.0	41.4	34655.11	22879.12	22438.72	1.31	0.94	1.80	0.00	-0.72	0.32	0.07	0.22	0.00	-0.37	0.24	99.97	100.81
84	Sep-06	68.0	41.3	35155.35	23096.77	22484.72	1.43	0.95	0.20	0.00	-0.24	0.35	0.07	0.02	0.00	-0.12	0.33	100.29	101.14
85	Oct-06	68.0	41.3	35749.79	22236.55	22552.52	1.68	-3.80	0.30	0.00	0.00	0.41	-0.28	0.04	0.00	0.00	0.16	100.46	101.30
86	Nov-06	68.0	41.2	36100.09	22878.53	22823.78	0.98	2.85	1.20	0.00	-0.24	0.24	0.21	0.14	0.00	-0.12	0.47	100.94	101.78
87	Dec-06	70.0	41.4	36486.32	24095.73	23604.27	1.06	5.18	3.36	2.00	0.48	0.26	0.39	0.40	0.10	0.25	1.40	102.36	103.22
88	Jan-07	70.0	41.2	37013.55	24829.97	23705.79	1.43	3.00	0.43	0.00	-0.48	0.35	0.22	0.05	0.00	-0.25	0.38	102.75	103.62
89	Feb-07	70.0	41.1	37039.46	23815.5	23704.37	0.07	-4.17	-0.01	0.00	-0.24	0.02	-0.31	0.00	0.00	-0.12	-0.42	102.32	103.18
90	Mar-07	70.0	41.5	36958.11	23497.85	23739.2	-0.22	-1.34	0.15	0.00	0.97	-0.05	-0.10	0.02	0.00	0.49	0.36	102.69	103.55
91	Apr-07	70.0	41.5	36916.92	24446.38	23991.78	-0.11	3.96	1.06	0.00	0.00	-0.03	0.30	0.13	0.00	0.00	0.40	103.09	103.96
92	May-07	70.0	41.4	36746.42	24275.93	24102.18	-0.46	-0.70	0.46	0.00	-0.24	-0.11	-0.05	0.06	0.00	-0.12	-0.23	102.85	103.72
93	Jun-07	70.0	41.6	36744.74	24664.77	23984.76	0.00	1.59	-0.49	0.00	0.48	0.00	0.12	-0.06	0.00	0.24	0.30	103.17	104.03
94	Jul-07	70.0	41.6	36722.13	24221.4	24083.5	-0.06	-1.81	0.41	0.00	0.00	-0.02	-0.14	0.05	0.00	0.00	-0.10	103.06	103.93
95	Aug-07	70.0	41.6	36465.82	24675.78	24411.41	-0.70	1.86	1.35	0.00	0.00	-0.17	0.14	0.16	0.00	0.00	0.13	103.20	104.06
96	Sep-07	70.0	41.6	36597.09	23684.08	23789.35	0.36	-4.10	-2.58	0.00	0.00	0.09	-0.31	-0.31	0.00	0.00	-0.53	102.65	103.51
97	Oct-07	70.0	41.4	36824.25	24542.33	24005.46	0.62	3.56	0.90	0.00	-0.48	0.15	0.27	0.11	0.00	-0.24	0.28	102.94	103.81
98	Nov-07	70.0	41.6	36570.33	24533.05	24072.9	-0.69	-0.04	0.28	0.00	0.48	-0.17	0.00	0.03	0.00	0.24	0.11	103.05	103.92
99	Dec-07	70.0	41.3	36984.21	25238.47	24031.49	1.13	2.83	-0.17	0.00	-0.72	0.28	0.21	-0.02	0.00	-0.37	0.10	103.15	104.02
100	Jan-08	70.0	41.5	36946.01	25293.15	24799.17	-0.10	0.22	3.14	0.00	0.48	-0.03	0.02	0.38	0.00	0.25	0.61	103.79	104.66
101	Feb-08	70.0	41.5	37018.4	24521.06	24516.16	0.20	-1.30	-1.15	0.00	0.00	0.05	-0.23	-0.14	0.00	0.00	-0.32	103.46	104.32
102	Mar-08	75.5	41.6	36886.06	25260.49	23856.86	-0.36	2.97	-2.73	5.50	0.24	-0.09	0.22	-0.33	0.28	0.12	0.21	103.67	104.54
103	Apr-08	75.5	41.5	37016.18	25238.49	25033.03	0.35	-0.09	4.81	0.00	-0.24	0.09	-0.01	0.58	0.00	-0.12	0.53	104.23	105.10
104	May-08	75.5	41.4	37148.38	24842.82	24488.1	0.36	-1.58	-2.20	0.00	-0.24	0.09	-0.12	-0.26	0.00	-0.12	-0.42	103.80	104.67
105	Jun-08	72.2	41.3	36991.62	24920.23	24369.99	-0.42	0.31	-0.48	-3.30	-0.24	-0.10	0.02	-0.06	-0.17	-0.12	-0.43	103.35	104.22
106	Jul-08	72.2	41.3	37491.14	23969.02	24440.19	1.34	-3.89	0.29	0.00	0.00	0.33	-0.29	0.03	0.00	0.00	0.07	103.43	104.29
107	Aug-08	72.2	41.1	37934.66	23634.61	23869.22	1.18	-1.40	-2.36	0.00	-0.49	0.29	-0.11	-0.28	0.00	-0.25	-0.35	103.07	103.93
108	Sep-08	71.9	40.6	38021.03	22872.99	23532.01	0.23	-3.28	-1.42	-0.30	-1.22	0.06	-0.25	-0.17	-0.02	-0.62	-1.00	102.05	102.90
109	Oct-08	71.9	40.6	38125.9	22414.34	23152.19	0.28	-2.03	-1.63	0.00	0.00	0.07	-0.15	-0.20	0.00	0.00	-0.28	101.76	102.62
110	Nov-08	71.9	40.3	38617.08	21673.55	22885.31	1.28	-3.36	-1.16	0.00	-0.74	0.32	-0.25	-0.14	0.00	-0.38	-0.45	101.30	102.15
111	Dec-08	67.1	39.9	38277.52	21300.3	21778.26	-0.88	-1.74	-4.96	-4.80	-1.00	-0.22	-0.13	-0.59	-0.24	-0.51	-1.69	99.60	100.44
112	Jan-09	67.1	39.7	37662.48	18420.08	20968.1	-1.62	-14.50	-3.79	0.00	-0.50	-0.40	-1.09	-0.45	0.00	-0.26	-2.19	97.44	98.26
113	Feb-09	67.1	39.6	36874.17	18359.19	20417.14	-2.12	-0.33	-2.66	0.00	-0.25	-0.52	-0.02	-0.32	0.00	-0.13	-0.99	96.48	97.29
114	Mar-09	61.4	39.3	35764.6	17607.06	19826.88	-3.06	-4.18	-2.93	-5.70	-0.76	-0.75	-0.31	-0.35	-0.29	-0.39	-2.09	94.48	95.27
115	Apr-09	61.4	39.5	34731.38	17754.95	18958.5	-2.93	0.84	-4.48	0.00	0.51	-0.72	0.06	-0.54	0.00	0.26	-0.94	93.60	94.38
116	May-09	61.4	39.3	33892.1	17480.78	18412.5	-2.45	-1.56	-2.92	0.00	-0.51	-0.60	-0.12	-0.35	0.00	-0.26	-1.33	92.36	93.14
117	Jun-09	54.6	39.5	32766.2	16723.3	18236.74	-3.38	-4.43	-0.96	-6.80	0.51	-0.83	-0.33	-0.11	-0.35	0.26	-1.37	91.11	91.87
118	Jul-09	54.6	39.9	32265.69	17788.61	18559.37	-1.54	6.17	1.75	0.00	1.01	-0.38	0.46	0.21	0.00	0.51	0.81	91.85	92.62
119	Aug-09	54.6	40.0	31742.1	17722.68	18344.57	-1.64	-0.37	-1.16	0.00	0.25	-0.40	-0.03	-0.14	0.00	0.13	-0.44	91.44	92.21
120	Sep-09	65.8	40.1	31491.67	18667.91	18431.35	-0.79	5.19	0.47	11.20	0.25	-0.19	0.39	0.06	0.57	0.13	0.95	92.31	93.09
121	Oct-09	65.8	40.2	31383.67	19014.99	18484.51	-0.34	1.84	0.29	0.00	0.25	-0.08	0.14	0.03	0.00	0.13	0.21	92.51	93.29
122	Nov-09	65.8	40.6	31531.88	18614.77	18473.73	0.47	-2.13	-0.06	0.00	0.99	0.12	-0.16	-0.01	0.00	0.50	0.45	92.93	93.71
123	Dec-09	60.3	40.7	31506.94	18468.97	18456.93	-0.08	-0.79	-0.09	-5.50	0.25	-0.02	-0.06	-0.01	-0.28	0.12	-0.24	92.70	93.48
124	Jan-10	60.3	40.9	31460.76	18092.43	18375.64	-0.15	-2.06	-0.44	0.00	0.49	-0.04	-0.15	-0.05	0.00	0.25	0.01	92.71	93.49
125	Feb-10	60.3	40.5	31385.98	18888.08	18565.61	-0.24	4.30	1.03	0.00	-0.98	-0.06	0.32	0.12	0.00	-0.50	-0.11	92.60	93.38
126	Mar-10	60.3	41.2	31644.73	18798.2	18424.57	0.82	-0.48	-0.76	0.00	1.71	0.20	-0.04	-0.09	0.00	0.87	0.95	93.48	94.27
127	Apr-10	60.3	41.4	31829.97	19008.27	18697.31	0.58	1.11	1.47	0.00	0.48	0.14	0.08	0.18	0.00	0.25	0.65	94.09	94.88
128	May-10	60.3	41.6	31888.09	18388.9	18936.53	0.18	-3.31	1.27	0.00	0.48	0.04	-0.25	0.15	0.00	0.24	0.19	94.28	95.07
129	Jun-10	60.3	41.3	32494.25	18868.27	18790.25	1.88	2.57	-0.78	0.00	-0.72	0.46	0.19	-0.09	0.00	-0.37	0.20	94.46	95.25
130	Jul-10	60.3	41.4	32732.86	18732.48	18609.84	0.73	-0.72	-0.96	0.00	0.24	0.18	-0.05	-0.12	0.00	0.12	0.13	94.59	95.38
131	Aug-10	60.3	41.3	32839.37	19087.96	18763.42	0.32	1.88	0.82	0.00	-0.24	0.08	0.14	0.10	0.00	-0.12	0.20	94.77	95.57
132	Sep-10	63.3	41.4	32843.33	18848.48	18807.94	0.01	-1.26	0.24	3.00	0.24	0.00	-0.09	0.03	0.15	0.12	0.21	94.97	95.77
133	Oct-10	63.3	41.4	32939.35	18049.33	18731.99	0.29	-4.33	-0.40	0.00	0.00	0.07	-0.32	-0.05	0.00	0.00	-0.30	94.69	95.48
134	Nov-10	63.3	41.6	33142.61	19250.39	18885.35	0.62	6.44	0.82	0.00	0.48	0.15	0.48	0.10	0.00	0.24	0.98	95.62	96.42
135	Dec-10	60.3	41.6	33315.9	19240.58	19185.92	0.52	-0.05	1.58	-3.00	0.00	0.13	0.00	0.19	-0.15	0.00	0.16	95.77	96.57
136	Jan-11	60.3	41.5	33486.05	19412.35	19233.35	0.51	0.89	0.25	0.00	-0.24	0.13	0.07	0.03	0.00	-0.12	0.10	95.87	96.67
137	Feb-11	60.3	41.7	33630.49	20128.07	19130.65													

NAICS 333 – Machinery

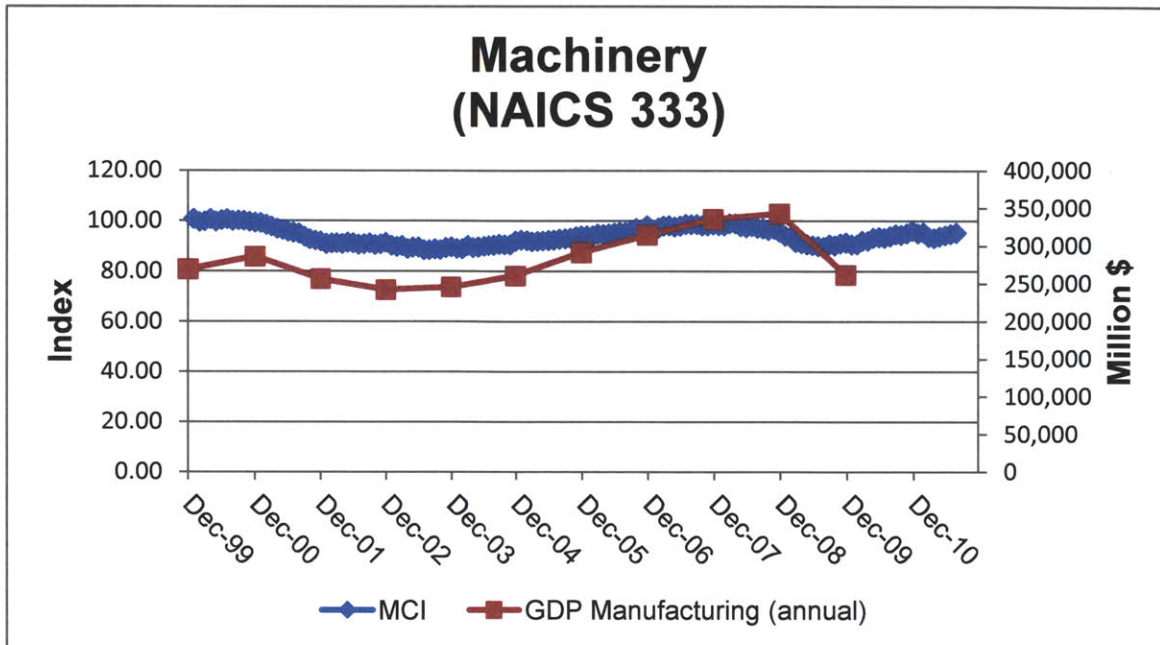


Figure C.33 – MCI and annual GDP Machinery including all industries gathered in the NAICS 333 classification.

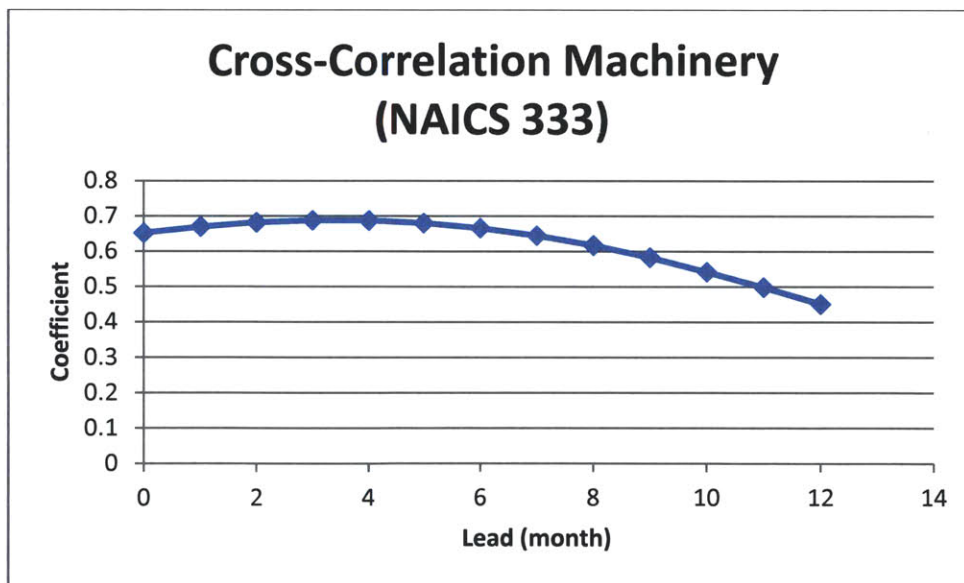


Figure C.34 – Cross-Correlation of MCI and annual GDP Machinery including all industries gathered in the NAICS 333 classification.

Table C.17
MCI computations for Machinery (NAICS 333)

1	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
2	Dollar adjusted																99.33		
3	Month	CU	Avg.WH	Inventory	NO	Ship	0.27	0.06	0.09	0.05	0.53	C(I,t)					St	Index	Rebased
4	Jan-00	68.0	42.1	47393.82	25356.93	24364.91	-0.10	4.81	-0.51	0.00	0.24	-0.03	0.27	-0.04	0.00	0.13	0.33	100.00	100.68
5	Feb-00	68.0	42.2	47324.08	22529.24	22655.1	-0.15	-11.81	-7.27	0.00	0.24	-0.04	-0.67	-0.62	0.00	0.13	-1.20	98.81	99.48
6	Mar-00	68.0	42.0	46649.61	24333.66	23935.04	-1.44	7.70	5.49	0.00	-0.48	-0.39	0.44	0.47	0.00	-0.25	0.26	99.06	99.74
7	Apr-00	68.0	42.1	47654.53	24541.34	24457.68	2.13	0.85	2.16	0.00	0.24	0.58	0.05	0.18	0.00	0.13	0.94	100.00	100.68
8	May-00	68.0	41.8	47162.24	24275.32	23529.99	-1.04	-1.09	-3.87	0.00	-0.72	-0.28	-0.06	-0.33	0.00	-0.38	-1.05	98.95	99.62
9	Jun-00	68.0	41.9	47518.12	24926.54	23923.6	0.75	2.65	1.66	0.00	0.24	0.20	0.15	0.14	0.00	0.13	0.62	99.57	100.24
10	Jul-00	68.0	42.1	47787.88	24667.64	24046.92	0.57	-1.04	0.51	0.00	0.48	0.15	-0.06	0.04	0.00	0.25	0.39	99.96	100.64
11	Aug-00	68.0	41.5	48252.2	24392.96	23734.12	0.97	-1.12	-1.31	0.00	-1.44	0.26	-0.06	-0.11	0.00	-0.77	-0.68	99.28	99.95
12	Sep-00	68.0	41.5	48028.21	24903.7	24228.6	-0.47	2.07	2.06	0.00	0.00	-0.13	0.12	0.18	0.00	0.00	0.17	99.45	100.12
13	Oct-00	68.0	41.7	48599.61	23015.55	23492.71	1.18	-7.88	-3.08	0.00	0.48	0.32	-0.45	-0.26	0.00	0.26	-0.13	99.32	99.99
14	Nov-00	68.0	41.6	48627.43	22412.45	23155.64	0.06	-2.66	-1.45	0.00	-0.24	0.02	-0.15	-0.12	0.00	-0.13	-0.39	98.93	99.60
15	Dec-00	68.0	40.7	49260.23	23137.43	23964.91	1.29	3.18	3.43	0.00	-2.19	0.35	0.18	0.29	0.00	-1.17	-0.34	98.59	99.26
16	Jan-01	68.0	41.0	48971.93	22925.46	23189.74	-0.59	-0.92	-3.29	0.00	0.73	-0.16	-0.05	-0.28	0.00	0.39	-0.10	98.50	99.16
17	Feb-01	68.0	40.8	48261.33	22525.55	23034.72	-1.46	-1.76	-0.67	0.00	-0.49	-0.40	-0.10	-0.06	0.00	-0.26	-0.81	97.70	98.36
18	Mar-01	68.0	40.8	48045.24	21255.05	22614.05	-0.45	-5.80	-1.84	0.00	0.00	-0.12	-0.33	-0.16	0.00	0.00	-0.61	97.11	97.77
19	Apr-01	68.0	40.9	47354.13	20557.58	21395.39	-1.45	-3.34	-5.54	0.00	0.24	-0.39	-0.19	-0.47	0.00	0.13	-0.92	96.21	96.87
20	May-01	68.0	40.7	46301.15	21582.22	21696.94	-2.25	4.86	1.40	0.00	-0.49	-0.61	0.27	0.12	0.00	-0.26	-0.48	95.76	96.41
21	Jun-01	68.0	40.7	45589.69	21072.52	21314.89	-1.55	-2.39	-1.78	0.00	0.00	-0.42	-0.14	-0.15	0.00	0.00	-0.71	95.08	95.73
22	Jul-01	68.0	41.0	44892.82	20267.94	20853.59	-1.54	-3.89	-2.19	0.00	0.73	-0.42	-0.22	-0.19	0.00	0.39	-0.43	94.67	95.32
23	Aug-01	68.0	40.6	44266.73	21277.25	21385.28	-1.40	4.86	2.52	0.00	-0.98	-0.38	0.27	0.21	0.00	-0.52	-0.41	94.28	94.92
24	Sep-01	68.0	40.4	43550.05	20717.83	20256.43	-1.63	-2.66	-5.42	0.00	-0.49	-0.44	-0.15	-0.46	0.00	-0.26	-1.32	93.05	93.68
25	Oct-01	68.0	40.2	42802.29	19092.65	20426.93	-1.73	-8.16	0.84	0.00	-0.50	-0.47	-0.46	0.07	0.00	-0.26	-1.12	92.01	92.63
26	Nov-01	68.0	40.3	42103.45	19579.5	19706.9	-1.65	2.52	-3.59	0.00	0.25	-0.45	0.14	-0.31	0.00	0.13	-0.48	91.57	92.19
27	Dec-01	68.0	40.5	41548.6	19713.19	19970.16	-1.33	0.68	1.33	-8.00	0.50	-0.36	0.04	0.11	-0.43	0.26	-0.37	91.23	91.85
28	Jan-02	68.0	40.5	41047.98	18215.93	19211.13	-1.21	-7.90	-3.87	0.00	0.00	-0.33	-0.45	-0.33	0.00	0.00	-1.11	90.23	90.84
29	Feb-02	68.0	40.6	40677.51	18286.12	19927.27	-0.91	0.38	3.66	0.00	0.25	-0.25	0.02	0.31	0.00	0.13	0.22	90.42	91.04
30	Mar-02	68.0	40.8	40349.19	18537.58	19885.82	-0.81	1.37	-0.21	0.00	0.49	-0.22	0.08	-0.02	0.00	0.26	0.10	90.52	91.13
31	Apr-02	68.0	40.8	39828.6	19172.35	19540.72	-1.30	3.37	-1.75	0.00	0.00	-0.35	0.19	-0.15	0.00	0.00	-0.31	90.24	90.85
32	May-02	68.0	40.8	39663.83	20000.95	20526.52	-0.41	4.23	4.92	0.00	0.00	-0.11	0.24	0.42	0.00	0.00	0.55	90.73	91.35
33	Jun-02	68.0	41.0	39260.42	18909.09	20659.09	-1.02	-5.61	0.64	0.00	0.49	-0.28	-0.32	0.05	0.00	0.26	-0.28	90.48	91.09
34	Jul-02	68.0	40.6	39288.55	19814.57	19878.9	0.07	4.68	-3.85	0.00	-0.98	0.02	0.26	-0.33	0.00	-0.52	-0.57	89.97	90.58
35	Aug-02	68.0	40.7	39075.47	19710.38	20517.92	-0.54	-0.53	3.16	0.00	0.25	-0.15	-0.03	0.27	0.00	0.13	0.22	90.17	90.78
36	Sep-02	68.0	40.8	39021.64	20113.83	20887.11	-0.14	2.03	1.78	0.00	0.25	-0.04	0.11	0.15	0.00	0.13	0.36	90.49	91.11
37	Oct-02	68.0	40.6	38954.89	19812.03	20107.14	-0.17	-1.51	-3.81	0.00	-0.49	-0.05	-0.09	-0.32	0.00	-0.26	-0.72	89.84	90.45
38	Nov-02	68.0	40.7	38986.83	19705.55	20513.64	0.08	-0.54	2.00	0.00	0.25	0.02	-0.03	0.17	0.00	0.13	0.29	90.11	90.72
39	Dec-02	59.0	40.9	39776.42	19640.57	20395.28	2.00	-0.33	-0.58	-1.00	0.49	0.54	-0.02	-0.05	-0.05	0.26	0.68	90.73	91.34
40	Jan-03	59.0	40.6	39030.05	19524.88	19535.21	-1.89	-0.59	-4.31	0.00	-0.74	-0.51	-0.03	-0.37	0.00	-0.39	-1.31	89.55	90.16
41	Feb-03	59.0	40.5	38633.74	19223.67	19575.02	-1.02	-1.55	0.20	0.00	-0.25	-0.28	-0.09	0.02	0.00	-0.13	-0.48	89.12	89.73
42	Mar-03	59.0	40.6	37881.37	20775.72	20467.1	-1.97	7.76	4.46	0.00	0.25	-0.53	0.44	0.38	0.00	0.13	0.42	89.49	90.10
43	Apr-03	59.0	40.3	37847.73	19044.57	19457.75	-0.09	-8.69	-5.06	0.00	-0.74	-0.02	-0.49	-0.43	0.00	-0.40	-1.34	88.30	88.90
44	May-03	59.0	40.5	37566.51	19626.05	20431.63	-0.75	3.01	4.88	0.00	0.50	-0.20	0.17	0.42	0.00	0.26	0.65	88.88	89.48
45	Jun-03	59.0	40.7	37019.52	19972.12	20546.47	-1.47	1.75	0.56	0.00	0.49	-0.40	0.10	0.05	0.00	0.26	0.01	88.89	89.49
46	Jul-03	59.0	40.4	36651.81	19436.4	19620.24	-1.00	-2.72	-4.61	0.00	-0.74	-0.27	-0.15	-0.39	0.00	-0.39	-1.21	87.81	88.41
47	Aug-03	59.0	40.5	36073.01	20159.89	19818.85	-1.59	3.65	1.01	0.00	0.25	-0.43	0.21	0.09	0.00	0.13	-0.01	87.81	88.40
48	Sep-03	59.0	40.9	35798.16	20094.01	20121.66	-0.76	-0.33	1.52	0.00	0.98	-0.21	-0.02	0.13	0.00	0.52	0.43	88.19	88.78
49	Oct-03	59.0	41.0	35921.59	19238.01	19393.91	0.34	-4.35	-3.68	0.00	0.24	0.09	-0.25	-0.31	0.00	0.13	-0.34	87.89	88.49
50	Nov-03	59.0	41.4	35613.89	20671.3	19896.3	-0.86	7.18	2.56	0.00	0.97	-0.23	0.41	0.22	0.00	0.52	0.91	88.69	89.29
51	Dec-03	61.0	41.2	35993.51	21012.06	20218	1.06	1.64	1.60	2.00	-0.48	0.29	0.09	0.14	0.11	-0.26	0.37	89.02	89.62
52	Jan-04	61.0	41.4	35776.96	19734.56	19241.47	-0.60	-6.27	-4.95	0.00	0.48	-0.16	-0.35	-0.42	0.00	0.26	-0.68	88.41	89.01
53	Feb-04	61.0	41.4	35729.61	20023.83	18836.85	-0.13	1.46	-2.13	0.00	0.00	-0.04	0.08	-0.18	0.00	0.00	-0.14	88.29	88.89
54	Mar-04	61.0	41.5	35674.57	22096.63	20836.83	-0.15	9.84	10.08	0.00	0.24	-0.04	0.56	0.86	0.00	0.13	1.50	89.63	90.24
55	Apr-04	61.0	41.3	35653.64	20455.45	20097.27	-0.06	-7.71	-3.61	0.00	-0.48	-0.02	-0.44	-0.31	0.00	-0.26	-1.02	88.72	89.32
56	May-04	61.0	41.5	35888.79	20595.84	19625.68	0.66	0.68	-2.37	0.00	0.48	0.18	0.04	-0.20	0.00	0.26	0.27	88.96	89.57
57	Jun-04	61.0	41.2	36234.66	21079.42	20541.52	0.96	2.32	4.56	0.00	-0.73	0.26	0.13	0.39	0.00	-0.39	0.39	89.31	89.92
58	Jul-04	61.0	41.3	36612.47	20635.05	20631.44	1.04	-2.13	0.44	0.00	0.24	0.28	-0.12	0.04	0.00	0.13	0.33	89.61	90.21
59	Aug-04	61.0	41.3	36892.5	20598.92	20495.93	0.76	-0.18	-0.66	0.00	0.00	0.21	-0.01	-0.06	0.00	0.00	0.14	89.73	90.34
60	Sep-04	61.0	41.1	36951.35	22077.48	21159.46	0.16	6.93	3.19	0.00	-0.49	0.04	0.39	0.27	0.00	-0.26	0.45	90.13	90.75
61	Oct-04	61.0	41.1	36759.86	21731.18	21144.27	-0.52	-1.58	-0.07	0.00	0.00	-0.14	-0.09	-0.01	0.00	0.00	-0.24	89.92	90.53
62	Nov-04	61.0	40.9	37365.59	21451.61	20683.69	1.63	-1.29	-2.20	0.00	-0.49	0.44	-0.07	-0.19	0.00	-0.26	-0.08	89.85	90.46
63	Dec-04	66.0	41.1	37706.83	22866.91	22091.73	0.91	6.39	6.58	5.00	0.49	0.25	0.36	0.56	0.27	0.26	1.70	91.39	92.01
64	Jan-05	66.0	41.2	38175.2	22455.53	22120.4	1.23	-1.82	0.13	0.00	0.24	0.33	-0.10	0.01	0.00				

Table C.17 - Continued

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	68.0	41.4	39288.19	24523.44	22818.58	0.45	0.11	-3.22	0.00	0.48	0.12	0.01	-0.27	0.00	0.26	0.11	93.50	94.13
77	Feb-06	68.0	41.5	39438.47	23488.73	22615.25	0.38	-4.31	-0.90	0.00	0.24	0.10	-0.24	-0.08	0.00	0.13	-0.09	93.41	94.05
78	Mar-06	68.0	41.5	39844.83	24404.31	23414.66	1.03	3.82	3.47	0.00	0.00	0.28	0.22	0.30	0.00	0.00	0.79	94.16	94.80
79	Apr-06	68.0	41.5	40042.77	23633.02	22886.23	0.50	-3.21	-2.28	0.00	0.00	0.13	-0.18	-0.19	0.00	0.00	-0.24	93.93	94.57
80	May-06	68.0	41.5	40426.38	24075.74	22650.21	0.95	1.86	-1.04	0.00	0.00	0.26	0.10	-0.09	0.00	0.00	0.27	94.19	94.83
81	Jun-06	68.0	41.5	40661	24033.98	23308.41	0.58	-0.17	2.86	0.00	0.00	0.16	-0.01	0.24	0.00	0.00	0.39	94.56	95.20
82	Jul-06	68.0	41.7	40994.07	23719.73	22879.76	0.82	-1.32	-1.86	0.00	0.48	0.22	-0.07	-0.16	0.00	0.26	0.24	94.79	95.43
83	Aug-06	68.0	41.4	41426.04	23431.11	23371.09	1.05	-1.22	2.12	0.00	-0.72	0.28	-0.07	0.18	0.00	-0.39	0.01	94.80	95.44
84	Sep-06	68.0	41.3	42489.81	24084.89	23270.8	2.54	2.75	-0.43	0.00	-0.24	0.69	0.16	-0.04	0.00	-0.13	0.68	95.44	96.09
85	Oct-06	68.0	41.3	43211.78	25724.17	23791.63	1.68	6.58	2.21	0.00	0.00	0.46	0.37	0.19	0.00	0.00	1.02	96.42	97.07
86	Nov-06	68.0	41.2	43172.8	24223.27	23702.31	-0.09	-6.01	-0.38	0.00	-0.24	-0.02	-0.34	-0.03	0.00	-0.13	-0.53	95.91	96.56
87	Dec-06	70.0	41.4	44021.37	26187.18	24435.04	1.95	7.79	3.04	2.00	0.48	0.53	0.44	0.26	0.11	0.26	1.59	97.45	98.11
88	Jan-07	70.0	41.2	44168.58	23031.62	22243.25	0.33	-12.82	-9.39	0.00	-0.48	0.09	-0.72	-0.80	0.00	-0.26	-1.69	95.82	96.47
89	Feb-07	70.0	41.1	44325.87	24405.95	23524.52	0.36	5.79	5.60	0.00	-0.24	0.10	0.33	0.48	0.00	-0.13	0.77	96.56	97.21
90	Mar-07	70.0	41.5	43927.07	25495.95	24317.78	-0.90	4.37	3.32	0.00	0.97	-0.24	0.25	0.28	0.00	0.52	0.80	97.34	98.00
91	Apr-07	70.0	41.5	43919.74	24980.36	24970.33	-0.02	-2.04	2.65	0.00	0.00	0.00	-0.12	0.23	0.00	0.00	0.11	97.44	98.10
92	May-07	70.0	41.4	43792.6	24318.33	24570.21	-0.29	-2.69	-1.62	0.00	-0.24	-0.08	-0.15	-0.14	0.00	-0.13	-0.50	96.96	97.61
93	Jun-07	70.0	41.6	43861.21	24652.31	24632.39	0.16	1.36	0.25	0.00	0.48	0.04	0.08	0.02	0.00	0.26	0.40	97.34	98.00
94	Jul-07	70.0	41.6	44255.13	26020.75	24920.87	0.89	5.40	1.16	0.00	0.00	0.24	0.31	0.10	0.00	0.00	0.65	97.97	98.64
95	Aug-07	70.0	41.6	44380.99	25577.78	24793.83	0.28	-1.72	-0.51	0.00	0.00	0.08	-0.10	0.04	0.00	0.00	-0.06	97.91	98.58
96	Sep-07	70.0	41.6	44520.8	25311.26	24926.64	0.31	-1.05	0.53	0.00	0.00	0.09	-0.06	0.05	0.00	0.00	0.07	97.98	98.65
97	Oct-07	70.0	41.4	44620.09	25053.56	24148.57	0.22	-1.02	-3.17	0.00	-0.48	0.06	-0.06	-0.27	0.00	-0.26	-0.53	97.47	98.13
98	Nov-07	70.0	41.6	44321.33	24858.21	24174.15	-0.67	-0.78	0.11	0.00	0.48	-0.18	-0.04	0.01	0.00	0.26	0.04	97.51	98.17
99	Dec-07	70.0	41.3	44343.13	26959.07	24806.46	0.05	8.11	2.58	0.00	-0.72	0.01	0.46	0.22	0.00	-0.39	0.31	97.81	98.47
100	Jan-08	70.0	41.5	44441.07	26136.69	23900.65	0.22	-3.10	-3.72	0.00	0.48	0.06	-0.18	-0.32	0.00	0.26	-0.17	97.64	98.30
101	Feb-08	70.0	41.5	44539.06	23970.55	24732.92	0.22	-8.65	3.42	0.00	0.00	0.06	-0.49	0.29	0.00	0.00	-0.14	97.50	98.16
102	Mar-08	75.5	41.6	44816.46	25348.88	24482.86	0.62	5.59	-1.02	5.50	0.24	0.17	0.32	-0.09	0.29	0.13	0.82	98.30	98.97
103	Apr-08	75.5	41.5	44527.7	27049.7	24261.18	-0.65	6.49	-0.91	0.00	-0.24	-0.18	0.37	-0.08	0.00	-0.13	-0.01	98.29	98.96
104	May-08	75.5	41.4	44230.69	24883.56	23385.61	-0.67	-8.34	-3.68	0.00	-0.24	-0.18	-0.47	-0.31	0.00	-0.13	-1.10	97.22	97.88
105	Jun-08	72.2	41.3	43862.18	24566.33	23705.73	-0.84	-1.28	1.36	-3.30	-0.24	-0.23	-0.07	0.12	-0.18	-0.13	-0.49	96.75	97.40
106	Jul-08	72.2	41.3	44141.89	25949.83	23540.4	0.64	5.48	-0.70	0.00	0.00	0.17	0.31	-0.06	0.00	0.00	0.42	97.16	97.81
107	Aug-08	72.2	41.1	44380.46	24040.63	23212.79	0.54	-7.64	-1.40	0.00	-0.49	0.15	-0.43	-0.12	0.00	-0.26	-0.66	96.51	97.17
108	Sep-08	71.9	40.6	44589.93	24060.66	24117.55	0.47	0.08	3.82	-0.30	-1.22	0.13	0.00	0.33	-0.02	-0.65	-0.21	96.31	96.96
109	Oct-08	71.9	40.6	45094.02	21898.8	23108.37	1.12	-9.41	-4.27	0.00	0.00	0.30	-0.53	-0.36	0.00	0.00	-0.59	95.74	96.39
110	Nov-08	71.9	40.3	46111.96	22384.68	23364	2.23	2.19	1.10	0.00	-0.74	0.60	0.12	0.09	0.00	-0.40	0.43	96.15	96.80
111	Dec-08	67.1	39.9	46657.12	19953.6	23440.03	1.18	-11.48	0.32	-4.80	-1.00	0.32	-0.65	0.03	-0.26	-0.53	-1.09	95.11	95.75
112	Jan-09	67.1	39.7	46988	17788.61	20777.26	0.71	-11.47	-12.04	0.00	-0.50	0.19	-0.65	-1.03	0.00	-0.27	-1.75	93.45	94.09
113	Feb-09	67.1	39.6	45977.91	18501.93	20742.59	-2.17	3.93	-0.17	0.00	-0.25	-0.59	0.22	-0.01	0.00	-0.13	-0.52	92.97	93.60
114	Mar-09	61.4	39.3	44941.08	17157.56	19832.58	-2.28	-7.54	-4.49	-5.70	-0.76	-0.62	-0.43	-0.38	-0.31	-0.41	-2.14	91.01	91.62
115	Apr-09	61.4	39.5	44329.68	16917.91	19025.14	-1.37	-1.41	-4.16	0.00	0.51	-0.37	-0.08	-0.35	0.00	0.27	-0.53	90.52	91.13
116	May-09	61.4	39.3	43476.71	18084.37	18998.27	-1.94	6.67	-0.14	0.00	-0.51	-0.53	0.38	-0.01	0.00	-0.27	-0.43	90.13	90.74
117	Jun-09	54.6	39.5	42420.37	18720.33	19162.15	-2.46	3.46	0.86	-6.80	0.51	-0.67	0.20	0.07	-0.36	0.27	-0.49	89.69	90.30
118	Jul-09	54.6	39.9	41592.04	18030.78	18829.7	-1.97	-3.75	-1.75	0.00	1.01	-0.53	-0.21	-0.15	0.00	0.54	-0.36	89.37	89.97
119	Aug-09	54.6	40.0	41203.66	17766.81	18400.74	-0.94	-1.47	-2.30	0.00	0.25	-0.25	-0.08	-0.20	0.00	0.13	-0.40	89.01	89.61
120	Sep-09	65.8	40.1	40767.89	19325.45	18925.31	-1.06	8.40	2.81	11.20	0.25	-0.29	0.47	0.24	0.60	0.13	1.16	90.05	90.66
121	Oct-09	65.8	40.2	40458.05	18379.53	18725.71	-0.76	-5.02	-1.06	0.00	0.25	-0.21	-0.28	-0.09	0.00	0.13	-0.45	89.65	90.26
122	Nov-09	65.8	40.6	40379.68	18972.98	19144.47	-0.19	3.18	2.21	0.00	0.99	-0.05	0.18	0.19	0.00	0.53	0.84	90.41	91.02
123	Dec-09	60.3	40.7	40269.3	19953.59	19948.77	-0.27	5.04	4.11	-5.50	0.25	-0.07	0.28	0.35	-0.29	0.13	0.40	90.77	91.38
124	Jan-10	60.3	40.9	39812.16	18623.65	19014.06	-1.14	-6.89	-4.80	0.00	0.49	-0.31	-0.39	-0.41	0.00	0.26	-0.85	90.00	90.61
125	Feb-10	60.3	40.5	39578.95	19956.31	19810.68	-0.59	6.91	4.10	0.00	-0.98	-0.16	0.39	0.35	0.00	-0.52	0.06	90.05	90.66
126	Mar-10	60.3	41.2	39375.28	21788.76	20510.96	-0.52	8.78	3.47	0.00	1.71	-0.14	0.50	0.30	0.00	0.91	1.57	91.48	92.10
127	Apr-10	60.3	41.4	39541.91	20647.37	20268.01	0.42	-5.38	-1.19	0.00	0.48	0.11	-0.30	-0.10	0.00	0.26	-0.03	91.45	92.07
128	May-10	60.3	41.6	39853.75	22710.33	20987.16	0.79	9.52	3.49	0.00	0.48	0.21	0.54	0.30	0.00	0.26	1.31	92.65	93.28
129	Jun-10	60.3	41.3	40191.7	23873.33	21391.1	0.84	4.99	1.91	0.00	-0.72	0.23	0.28	0.16	0.00	-0.39	0.29	92.91	93.54
130	Jul-10	60.3	41.4	40919.66	21494.33	20582.47	1.79	-10.49	-3.85	0.00	0.24	0.49	-0.59	-0.33	0.00	0.13	-0.31	92.63	93.26
131	Aug-10	60.3	41.3	41255.03	22511.49	21404.25	0.82	4.62	3.91	0.00	-0.24	0.22	0.26	0.33	0.00	-0.13	0.69	93.27	93.90
132	Sep-10	63.3	41.4	41470.96	23349.13	21858.45	0.52	3.65	2.10	3.00	0.24	0.14	0.21	0.18	0.16	0.13	0.82	94.03	94.67
133	Oct-10	63.3	41.4	41863.99	22587.46	21146.72	0.94	-3.32	-3.31	0.00	0.00	0.26	-0.19	-0.28	0.00	0.00	-0.21	93.83	94.47
134	Nov-10	63.3	41.6	42278.97	22653.22	21293.04	0.99	0.29	0.69	0.00	0.48	0.27	0.02	0.06	0.00	0.26	0.60	94.40	95.04
135	Dec-10	60.3	41.6	42233.1	25524.45	22994.9	-0.11	11.92	7.69	-3.00	0.00	-0.03	0.67	0.66	-0.16	0.00	1.14	95.48	96.13
136	Jan-11	60.3	41.5	42519.97	23079.23	21349.88	0.68	-10.06	-7.42	0.00	-0.24	0.18	-0.57	-0.63	0.00	-0.13	-1.15	94.39	95.03
137	Feb-11	60.3	41.7	42761.85	22705.98	21575.94	0.57	-1.63	1.05	0.00	0.48	0.15	-0.0						

NAICS 334 – Computer and Electronic Products

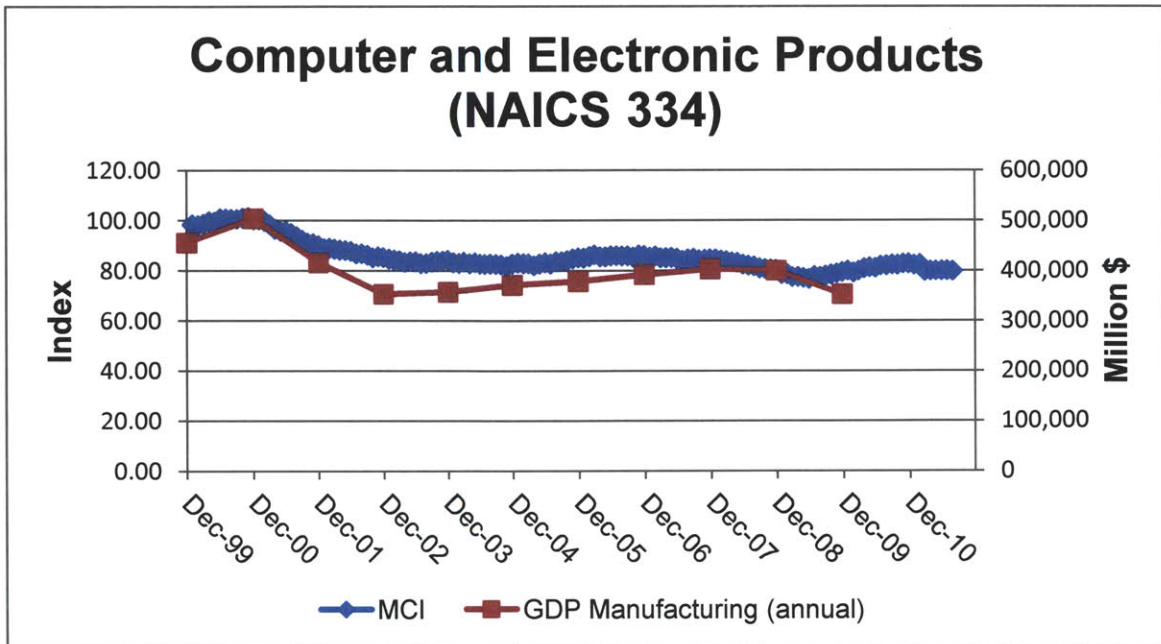


Figure C.35 – MCI and annual GDP Computer and Electronic Products including all industries gathered in the NAICS 334 classification.

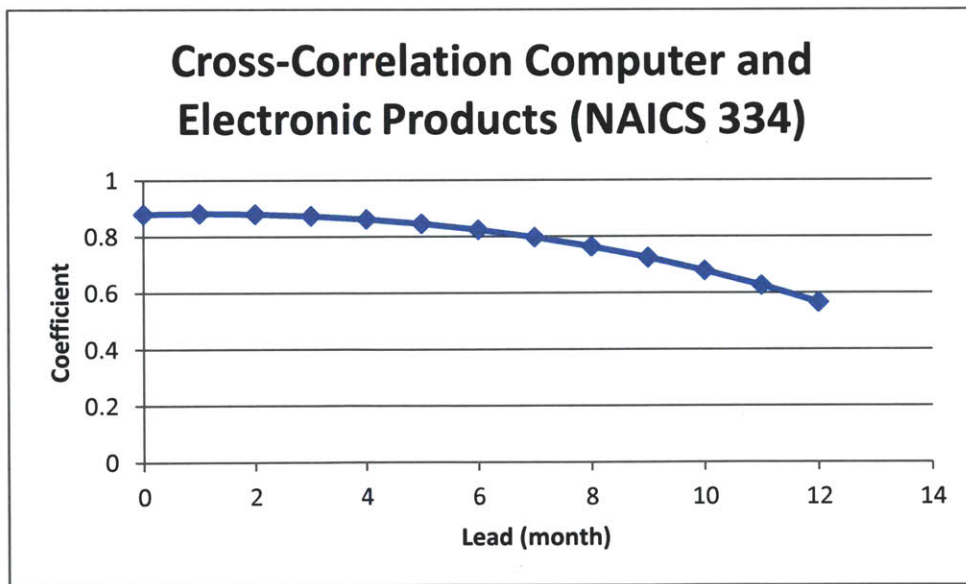


Figure C.36 – Cross-Correlation of MCI and annual GDP Computer and Electronic Products including all industries gathered in the NAICS 334 classification.

Table C.18

MCI computations for Computer and Electronic Products (NAICS 334)

1	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
2	Month	CU	Avg.WM	Dollar adjusted			0.23	0.06	0.08	0.05	0.58	101.66							
3	Dec-99	73.0	42.0	Inventory	NO	Ship	0.72	0.19	0.26	0.15	1.85	C(I,t)					St	Index	Rebased
4	Jan-00	73.0	42.1	54369.89	34398.8	40087.74	-1.00	-4.82	4.06	0.00	0.24	-0.23	-0.29	0.34	0.00	0.14	-0.04	100.00	98.37
5	Feb-00	73.0	42.2	54624.38	32732.41	39373.64	0.47	-4.96	-1.80	0.00	0.24	0.11	-0.30	-0.15	0.00	0.14	-0.20	99.80	98.17
6	Mar-00	73.0	42.0	55010.83	35538.39	40028.54	0.70	8.22	1.65	0.00	-0.48	0.16	0.49	0.14	0.00	-0.28	0.51	100.31	98.67
7	Apr-00	73.0	42.1	56036.42	36362.2	41497.05	1.85	2.29	3.60	0.00	0.24	0.42	0.14	0.30	0.00	0.14	1.00	101.31	99.66
8	May-00	73.0	41.8	57139.63	35268.44	41899.71	1.95	-3.05	0.97	0.00	-0.72	0.44	-0.18	0.08	0.00	-0.42	-0.07	101.24	99.59
9	Jun-00	73.0	41.9	58042.12	40696.38	41336.92	1.57	14.29	-1.35	0.00	0.24	0.36	0.85	-0.11	0.00	0.14	1.23	102.49	100.82
10	Jul-00	73.0	42.1	58919.84	35410.56	42125.12	1.50	-13.89	1.89	0.00	0.48	0.34	-0.83	0.16	0.00	0.28	-0.05	102.44	100.77
11	Aug-00	73.0	41.5	60036.17	36797.65	42191.59	1.88	3.84	0.16	0.00	-1.44	0.43	0.23	0.01	0.00	-0.84	-0.17	102.27	100.60
12	Sep-00	73.0	41.5	59710.12	36313.23	43298.64	-0.54	-1.33	2.59	0.00	0.00	-0.12	-0.08	0.22	0.00	0.00	0.01	102.28	100.62
13	Oct-00	73.0	41.7	61044.7	35176.87	42508.26	2.21	-3.18	-1.84	0.00	0.48	0.50	-0.19	-0.12	0.00	0.28	0.44	102.74	101.06
14	Nov-00	73.0	41.6	62582.68	35419.26	41560.31	2.49	0.69	-2.26	0.00	-0.24	0.57	0.04	-0.19	0.00	-0.14	0.28	103.02	101.34
15	Dec-00	73.0	40.7	63654.97	32670.57	43432.75	1.70	-8.07	4.41	0.00	-2.19	0.39	-0.48	0.37	0.00	-1.27	-1.00	102.00	100.33
16	Jan-01	73.0	41.0	64215.88	32181.03	40875.12	0.88	-1.51	-6.07	0.00	0.73	0.20	-0.09	-0.51	0.00	0.43	0.03	102.03	100.37
17	Feb-01	73.0	40.8	63732.88	32431.05	40187.08	-0.75	0.77	-1.70	0.00	-0.49	-0.17	0.05	-0.14	0.00	-0.28	-0.55	101.47	99.81
18	Mar-01	73.0	40.8	61866.22	30318.58	38819.06	-2.97	-6.73	-3.46	0.00	0.00	-0.68	-0.40	-0.29	0.00	0.00	-1.36	100.09	98.46
19	Apr-01	73.0	40.9	60633.4	26642.99	35235.12	-2.01	-12.91	-9.68	0.00	0.24	-0.46	-0.77	-0.81	0.00	0.14	-1.89	98.22	96.62
20	May-01	73.0	40.7	59548.76	27812.62	33874.76	-1.80	4.30	-3.94	0.00	-0.49	-0.41	0.26	-0.33	0.00	-0.29	-0.77	97.47	95.88
21	Jun-01	73.0	40.7	58950.38	27967.56	34682.25	-1.01	0.56	2.36	0.00	0.00	-0.23	0.03	0.20	0.00	0.00	0.00	97.47	95.88
22	Jul-01	73.0	41.0	57438.28	26397.13	32919.62	-2.60	-7.58	-5.21	0.00	0.73	-0.59	-0.34	-0.43	0.00	0.43	-0.94	96.55	94.98
23	Aug-01	73.0	40.6	56247.61	26613.77	31496.18	-2.09	0.82	-4.42	0.00	-0.98	-0.48	0.05	-0.37	0.00	-0.57	-1.37	95.24	93.69
24	Sep-01	73.0	40.4	53930.41	25558.63	31621.54	-4.21	-4.04	0.40	0.00	-0.49	-0.96	-0.24	0.03	0.00	-0.29	-1.45	93.87	92.34
25	Oct-01	73.0	40.2	52331.42	24904.49	30859.6	-2.01	-2.59	-2.44	0.00	-0.50	-0.68	-0.15	-0.20	0.00	-0.29	-1.33	92.63	91.12
26	Nov-01	73.0	40.3	51099.62	25751.92	30656.13	-2.38	3.35	-0.66	0.00	0.25	-0.54	0.20	-0.06	0.00	0.14	-0.25	92.40	90.89
27	Dec-01	57.0	40.5	49305.1	26102.98	31900.87	-3.57	1.35	3.98	-16.00	0.50	-0.81	0.08	0.33	-0.76	0.29	-0.87	91.59	90.10
28	Jan-02	57.0	40.5	49144.91	22840.69	30152.59	-0.33	-13.33	-5.63	0.00	0.00	-0.07	-0.79	-0.47	0.00	0.00	-1.34	90.38	88.90
29	Feb-02	57.0	40.6	48310.05	24239.23	30436.36	-1.71	5.94	0.94	0.00	0.25	-0.39	0.35	0.08	0.00	0.14	0.19	90.55	89.07
30	Mar-02	57.0	40.8	47555.66	23147.48	30217.89	-1.57	-4.61	-0.72	0.00	0.49	-0.36	-0.27	-0.06	0.00	0.29	-0.41	90.18	88.71
31	Apr-02	57.0	40.4	47060.61	23578.6	29002.84	-1.05	1.85	-4.10	0.00	0.00	-0.24	0.11	-0.34	0.00	0.00	-0.47	89.76	88.29
32	May-02	57.0	40.8	46590.91	23803.98	29041.67	-1.00	0.95	0.13	0.00	0.00	-0.23	0.06	0.01	0.00	0.00	-0.16	89.61	88.15
33	Jun-02	57.0	41.0	45845.64	22906.25	28809.66	-1.61	-3.84	-0.80	0.00	0.49	-0.37	-0.23	-0.07	0.00	0.28	-0.38	89.27	87.82
34	Jul-02	57.0	40.6	45596.97	22150.43	27999.05	-0.54	-3.35	-2.85	0.00	-0.98	-0.12	-0.20	-0.24	0.00	-0.57	-1.13	88.27	86.83
35	Aug-02	57.0	40.7	45323.58	22390.57	28050	-0.60	1.08	0.18	0.00	0.25	-0.14	0.06	0.02	0.00	0.14	0.09	88.35	86.90
36	Sep-02	57.0	40.8	44759.17	21054.56	27499.53	-1.25	-6.15	-1.98	0.00	0.25	-0.29	-0.37	-0.17	0.00	0.14	-0.67	87.75	86.32
37	Oct-02	57.0	40.6	44206.77	20121.24	26310.15	-1.24	-4.53	-4.42	0.00	-0.49	-0.28	-0.27	-0.37	0.00	-0.29	-1.21	86.70	85.29
38	Nov-02	57.0	40.7	43945.44	21194.73	26968.02	-0.59	5.20	2.47	0.00	0.25	-0.13	0.31	0.21	0.00	0.14	0.52	87.15	85.73
39	Dec-02	52.0	40.9	43557.55	21389.62	25892.45	-0.89	0.92	-4.07	-5.00	0.49	-0.20	0.05	-0.34	-0.24	0.24	-0.44	86.77	85.36
40	Jan-03	52.0	40.6	42615.02	21503.29	26308.92	-2.19	0.53	1.60	0.00	-0.74	-0.50	0.03	0.13	0.00	-0.43	-0.76	86.12	84.71
41	Feb-03	52.0	40.5	42032.62	21449.21	26586.21	-1.38	-0.25	1.05	0.00	-0.25	-0.31	-0.01	0.09	0.00	-0.14	-0.38	85.79	84.39
42	Mar-03	52.0	40.6	41172.38	21514.37	26577.39	-2.07	0.30	-0.03	0.00	0.25	-0.47	0.02	0.00	0.00	0.14	-0.31	85.52	84.12
43	Apr-03	52.0	40.3	40498.61	21450.32	26480.97	-1.65	-0.30	-0.36	0.00	-0.74	-0.38	-0.02	-0.03	0.00	-0.43	-0.86	84.79	83.41
44	May-03	52.0	40.5	40091.16	22235.35	26638.14	-1.01	3.59	0.59	0.00	0.50	-0.23	0.21	0.05	0.00	0.29	0.32	85.06	83.68
45	Jun-03	52.0	40.7	39401.49	22012.08	27506.51	-1.74	-1.01	3.21	0.00	0.49	-0.39	-0.06	0.27	0.00	0.29	0.10	85.15	83.76
46	Jul-03	52.0	40.4	38807.8	22356.55	26752.09	-1.52	1.55	-2.78	0.00	-0.74	-0.35	0.09	-0.23	0.00	-0.43	-0.92	84.37	82.99
47	Aug-03	52.0	40.5	38096.12	22866.91	27360.44	-1.85	2.26	2.25	0.00	0.25	-0.42	0.13	0.19	0.00	0.14	0.04	84.41	83.03
48	Sep-03	52.0	40.9	37785.25	23442.4	27780.65	-0.82	2.49	1.52	0.00	0.98	-0.19	0.15	0.13	0.00	0.57	0.66	84.97	83.58
49	Oct-03	52.0	41.0	37869.93	24539.67	27971.4	0.22	4.57	0.68	0.00	0.24	0.05	0.27	0.06	0.00	0.14	0.52	85.41	84.02
50	Nov-03	52.0	41.4	37560.19	22866.67	28218.52	-0.82	-7.06	0.88	0.00	0.97	-0.19	-0.42	0.07	0.00	0.57	0.03	85.44	84.05
51	Dec-03	53.0	41.2	38132.65	23987.01	28370.13	1.51	4.78	0.54	1.00	-0.48	0.34	0.28	0.04	0.05	-0.28	0.44	85.82	84.42
52	Jan-04	53.0	41.4	36705.07	22247.93	27418.43	-3.82	-7.52	-3.41	0.00	0.48	-0.87	-0.45	-0.28	0.00	0.28	-1.32	84.69	83.31
53	Feb-04	53.0	41.4	36184.23	22532.54	27514.21	-1.43	1.27	0.35	0.00	0.00	-0.33	0.08	0.03	0.00	0.00	-0.22	84.51	83.13
54	Mar-04	53.0	41.5	36372.84	23790.34	27460.35	0.52	5.43	-0.20	0.00	0.24	0.12	0.32	-0.02	0.00	0.14	0.57	84.99	83.60
55	Apr-04	53.0	41.3	36390	22308.18	27224.55	0.05	-6.43	-0.86	0.00	-0.48	0.01	-0.38	-0.07	0.00	-0.28	-0.72	84.37	83.00
56	May-04	53.0	41.5	36093.13	23050.63	27686.26	-0.82	3.27	1.68	0.00	0.48	-0.19	0.19	0.14	0.00	0.28	0.43	84.74	83.35
57	Jun-04	53.0	41.2	36293.32	22107.4	27322.2	0.55	-4.18	-1.32	0.00	-0.73	0.13	-0.25	-0.11	0.00	-0.42	-0.66	84.18	82.81
58	Jul-04	53.0	41.3	36277.33	21305.33	27336.04	-0.04	-3.70	0.05	0.00	0.24	-0.01	-0.22	0.00	0.00	0.14	-0.08	84.11	82.74
59	Aug-04	53.0	41.3	36029.81	21599.82	27921.41	-0.68	1.37	2.12	0.00	0.00	-0.16	0.08	0.18	0.00	0.00	0.10	84.20	82.82
60	Sep-04	53.0	41.1	35671.17	23932.43	27193.69	-1.00	10.25	-2.64	0.00	-0.49	-0.23	0.61	-0.22	0.00	-0.28	-0.12	84.10	82.72
61	Oct-04	53.0	41.1	35633.51	22657.71	27495.52	-0.11	-5.47	1.10	0.00	0.00	-0.02	-0.33	0.09	0.00	0.00	-0.26	83.88	82.51
62	Nov-04	53.0	40.9	35111.11	21810.04	27788.53	-1.48	-3.81	1.06	0.00	-0.49	-0.34	-0.23	0.09	0.00	-0.28	-0.76	83.25	81.89
63	Dec-04	67.0	41.1	35068.35	22564.75	27803.06	-0.12	3.40	0.05	14.00	0.49	-0.03	0.20	0.00	0.66	0.28	1.13	84.19	82.82
64	Jan-05	67.0																	

Table C.18 - Continued

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	69.0	41.4	39518.23	21855.03	26822.92	0.65	-0.14	-7.36	0.00	0.48	0.15	-0.01	-0.61	0.00	0.28	-0.19	86.53	85.12
77	Feb-06	69.0	41.5	38679.38	23051.99	29548.53	-2.15	5.33	9.67	0.00	0.24	-0.49	0.32	0.81	0.00	0.14	0.78	87.21	85.78
78	Mar-06	69.0	41.5	39377.59	25651.72	28655.17	1.79	10.68	-3.07	0.00	0.00	0.41	0.63	-0.26	0.00	0.00	0.79	87.90	86.46
79	Apr-06	69.0	41.5	39433.7	23898.2	26862.28	0.14	-7.08	-6.46	0.00	0.00	0.03	-0.42	-0.54	0.00	0.00	-0.93	87.09	85.66
80	May-06	69.0	41.5	39311.49	22497.87	28097.87	-0.31	-6.04	4.50	0.00	0.00	-0.07	-0.36	0.37	0.00	0.00	-0.05	87.04	85.62
81	Jun-06	69.0	41.5	39389.97	23753.61	28353.44	0.20	5.43	0.91	0.00	0.00	0.05	0.32	0.08	0.00	0.00	0.44	87.42	86.00
82	Jul-06	69.0	41.7	39673.16	24207.45	26845.89	0.72	1.89	-5.46	0.00	0.48	0.16	0.11	-0.46	0.00	0.28	0.10	87.51	86.08
83	Aug-06	69.0	41.4	39819.1	23409.13	28098.9	0.37	-3.35	4.56	0.00	-0.72	0.08	-0.20	0.38	0.00	-0.42	-0.16	87.38	85.95
84	Sep-06	69.0	41.3	39820.88	24179.12	28208.83	0.00	3.24	0.39	0.00	-0.24	0.00	0.19	0.03	0.00	-0.14	0.09	87.45	86.02
85	Oct-06	69.0	41.3	39988.04	22682.32	27057.22	0.42	-6.39	-4.17	0.00	0.00	0.10	-0.38	-0.35	0.00	0.00	-0.63	86.90	85.48
86	Nov-06	69.0	41.2	40286.57	25139.44	28318.22	0.74	10.28	4.55	0.00	-0.24	0.17	0.61	0.38	0.00	-0.14	1.02	87.79	86.36
87	Dec-06	72.0	41.4	39736.75	24105.98	27857.26	-1.37	-4.20	-1.64	3.00	0.48	-0.31	-0.25	-0.14	0.14	0.28	-0.27	87.55	86.12
88	Jan-07	72.0	41.2	40058.81	22058.3	27424.36	0.81	-8.87	-1.57	0.00	-0.48	0.18	-0.53	-0.13	0.00	-0.28	-0.76	86.89	85.47
89	Feb-07	72.0	41.1	39697.31	24405.1	28526.35	-0.91	10.10	3.94	0.00	-0.24	-0.21	0.60	0.33	0.00	-0.14	0.58	87.39	85.97
90	Mar-07	72.0	41.5	39103.38	21350.06	27581.51	-1.51	-13.35	-3.37	0.00	0.97	-0.34	-0.79	-0.28	0.00	0.56	-0.85	86.65	85.24
91	Apr-07	72.0	41.5	38685.17	22394.83	27498.2	-1.08	4.78	-0.30	0.00	0.00	-0.24	0.28	-0.03	0.00	0.00	0.01	86.66	85.25
92	May-07	72.0	41.4	38562	23452.93	27724.2	-0.32	4.62	0.82	0.00	-0.24	-0.07	0.27	0.07	0.00	-0.14	0.13	86.78	85.36
93	Jun-07	72.0	41.6	38027.55	21899.88	27782.53	-1.40	-6.85	0.21	0.00	0.48	-0.32	-0.41	0.02	0.00	0.28	-0.43	86.41	85.00
94	Jul-07	72.0	41.6	36843.42	22781.76	26058.13	-3.16	3.95	-6.41	0.00	0.00	-0.72	0.23	-0.53	0.00	0.00	-1.02	85.53	84.14
95	Aug-07	72.0	41.8	37016.16	23345.64	27506.48	0.47	2.44	5.41	0.00	0.00	0.11	0.15	0.45	0.00	0.00	0.70	86.13	84.73
96	Sep-07	72.0	41.6	37473.27	23374.89	27719.29	1.23	0.13	0.77	0.00	0.00	0.28	0.01	0.06	0.00	0.00	0.35	86.44	85.03
97	Oct-07	72.0	41.4	37355.34	22870.5	26571.53	-0.32	-2.18	-4.23	0.00	-0.48	-0.07	-0.13	-0.35	0.00	-0.28	-0.83	85.72	84.32
98	Nov-07	72.0	41.8	37358.93	21906.31	27459.44	0.01	-4.31	3.29	0.00	0.48	0.00	-0.26	0.27	0.00	0.00	0.30	85.98	84.57
99	Dec-07	72.0	41.3	37596.77	22633.25	28362.26	0.63	3.26	3.23	0.00	-0.72	0.14	0.19	0.27	0.00	-0.42	0.19	86.14	84.73
100	Jan-08	72.0	41.5	37158.54	22414.6	28211.9	-1.17	-0.97	-0.53	0.00	0.48	-0.27	-0.06	-0.04	0.00	0.28	-0.09	86.06	84.66
101	Feb-08	72.0	41.5	37144.38	21991	26900.61	-0.04	-1.91	-4.76	0.00	0.00	-0.01	-0.11	-0.40	0.00	0.00	-0.52	85.62	84.22
102	Mar-08	66.5	41.6	37011.75	21986.17	26800.35	-0.36	-0.02	-0.37	-5.49	0.24	-0.08	0.00	-0.03	-0.26	0.14	-0.23	85.42	84.02
103	Apr-08	66.5	41.5	36727.74	21378.39	26463.15	-0.77	-2.80	-1.27	0.00	-0.24	-0.18	-0.17	-0.11	0.00	-0.14	-0.59	84.92	83.53
104	May-08	66.5	41.4	36281.57	22092.98	26443.03	-1.22	3.29	-0.08	0.00	-0.24	-0.28	0.20	-0.01	0.00	-0.14	-0.23	84.72	83.34
105	Jun-08	67.8	41.3	35577.6	22282.22	24998.61	-1.96	0.85	-5.62	1.30	-0.24	-0.45	0.05	-0.47	0.06	-0.14	-0.94	83.93	82.56
106	Jul-08	67.8	41.3	35419.72	20146.08	25878.13	-0.44	-10.07	3.46	0.00	0.00	-0.10	-0.60	0.29	0.00	0.00	-0.41	83.58	82.22
107	Aug-08	67.8	41.1	35609.11	20473.32	24783.96	0.53	1.61	-4.32	0.00	-0.49	0.12	0.10	-0.36	0.00	-0.28	-0.43	83.23	81.87
108	Sep-08	67.2	40.6	35343.06	20368.07	24669.9	-0.75	-0.52	-0.46	-0.58	-1.22	-0.17	-0.03	-0.04	-0.03	-0.71	-0.98	82.42	81.07
109	Oct-08	67.2	40.6	35639.84	19082.87	24442.23	0.84	-6.52	-0.93	0.00	0.00	0.19	-0.39	-0.08	0.00	0.00	-0.27	82.19	80.85
110	Nov-08	67.2	40.3	36114.72	20326.06	23319.3	1.32	6.31	-4.70	0.00	-0.74	0.30	0.38	-0.39	0.00	-0.43	-0.15	82.07	80.73
111	Dec-08	63.0	39.9	36519.49	18993.56	25140.47	1.11	-6.78	7.52	-4.22	-1.00	0.25	-0.40	0.63	-0.20	-0.58	-0.30	81.82	80.49
112	Jan-09	63.0	39.7	35989.19	17100.62	22406.32	-1.46	-10.49	-11.50	0.00	-0.50	-0.33	-0.62	-0.96	0.00	-0.29	-2.21	80.03	78.73
113	Feb-09	63.0	39.8	35931.25	18420.37	21862.51	-0.16	7.43	-2.46	0.00	-0.25	-0.04	0.44	-0.20	0.00	-0.15	0.05	80.08	78.77
114	Mar-09	54.1	39.3	35219.82	18374.14	21343.13	-2.00	-0.25	-2.40	-8.89	-0.76	-0.45	-0.01	-0.20	-0.42	-0.44	-1.53	78.86	77.57
115	Apr-09	54.1	39.5	35491.21	16895.97	21666.27	0.77	-8.38	1.50	0.00	0.51	0.17	-0.50	0.13	0.00	0.30	0.10	78.93	77.65
116	May-09	54.1	39.3	35053.11	17518.05	21306.52	-1.24	3.62	-1.67	0.00	-0.51	-0.28	0.21	-0.14	0.00	-0.30	-0.50	78.54	77.26
117	Jun-09	56.2	39.5	34028.2	17723.42	20535.81	-2.97	1.17	-3.68	2.06	0.51	-0.67	0.07	-0.31	0.10	0.30	-0.52	78.13	76.86
118	Jul-09	56.2	39.9	33898.93	17900.44	23097.04	-0.38	0.99	11.74	0.00	1.01	-0.09	0.06	0.98	0.00	0.59	1.54	79.34	78.05
119	Aug-09	56.2	40.0	33663.94	17301.4	22307.82	-0.70	-3.40	-3.48	0.00	0.25	-0.16	-0.20	-0.29	0.00	0.15	-0.50	78.94	77.65
120	Sep-09	60.9	40.1	34024.83	17984.7	21559.51	1.07	3.87	-3.41	4.71	0.25	0.24	0.23	-0.28	0.22	0.15	0.56	79.38	78.09
121	Oct-09	60.9	40.2	34125.06	17764.9	22931.14	0.29	-1.23	6.17	0.00	0.25	0.07	-0.07	0.51	0.00	0.15	0.65	79.90	78.60
122	Nov-09	60.9	40.6	34375.1	17840.66	22421.23	0.73	0.43	-2.25	0.00	0.99	0.17	0.03	-0.19	0.00	0.58	0.58	80.37	79.06
123	Dec-09	64.4	40.7	34969.17	17778.46	22348.73	1.71	-0.35	-0.32	3.51	0.25	0.39	-0.02	-0.03	0.17	0.14	0.65	80.89	79.57
124	Jan-10	64.4	40.9	34383.23	18282.04	24174.98	-1.69	2.79	7.85	0.00	0.49	-0.38	0.17	0.65	0.00	0.29	0.72	81.48	80.15
125	Feb-10	64.4	40.5	34549.06	18215.93	22832.13	0.48	-0.36	-5.71	0.00	-0.98	0.11	-0.02	-0.48	0.00	-0.57	-0.96	80.70	79.38
126	Mar-10	64.4	41.2	34251.32	19253.08	22163.18	-0.87	5.54	-2.97	0.00	1.71	-0.20	0.33	-0.25	0.00	1.00	0.88	81.42	80.09
127	Apr-10	64.4	41.4	34336.73	19486.24	24269.13	0.25	1.20	9.07	0.00	0.48	0.06	0.07	0.76	0.00	0.28	1.17	82.37	81.03
128	May-10	64.4	41.6	34749.43	19496.88	24053.57	1.19	0.05	-0.89	0.00	0.48	0.27	0.00	-0.07	0.00	0.28	0.48	82.77	81.42
129	Jun-10	64.4	41.3	35759.83	19649.24	22676	2.87	0.78	-5.90	0.00	-0.72	0.65	0.05	-0.49	0.00	-0.42	-0.21	82.59	81.24
130	Jul-10	64.4	41.4	35829.99	19598.15	25283.51	0.20	-0.26	10.87	0.00	0.24	0.04	-0.02	0.91	0.00	0.14	1.08	83.48	82.12
131	Aug-10	64.4	41.3	35972.57	20563.48	24991.65	0.40	4.81	-1.16	0.00	-0.24	0.09	0.29	-0.10	0.00	-0.14	0.14	83.60	82.24
132	Sep-10	70.1	41.4	36089.42	20808.22	24621.17	0.32	1.18	-1.49	5.70	0.24	0.07	0.07	-0.12	0.27	0.14	0.43	83.96	82.59
133	Oct-10	70.1	41.4	36510.63	18960.6	24817.23	1.16	-9.29	0.79	0.00	0.00	0.26	-0.55	0.07	0.00	0.00	-0.22	83.78	82.41
134	Nov-10	70.1	41.6	36448.62	20070.95	24840.29	-0.17	5.69	0.09	0.00	0.48	-0.04	0.34	0.01	0.00	0.28	0.59	84.27	82.89
135	Dec-10	73.8	41.6	36311.28	20710.14	24107.17	-0.38	3.13	-3.00	3.70	0.00	-0.09	0.19	-0.25	0.18	0.00	0.03	84.29	82.92
136	Jan-11	73.8	41.5	36202.7	19186.82	24456.08	-0.30	-7.64	1.44	0.00	-0.24	-0.07	-0.45	0.12	0.00	-0.14	-0.54	83.84	82.47
137	Feb-11	73.8	41.7	36472.86	19349.6	23738.71	0.74	0.84	-2.98	0.00	0.48	0.17	0.						

NAICS 335 – Electrical Equipment, Appliances and Components

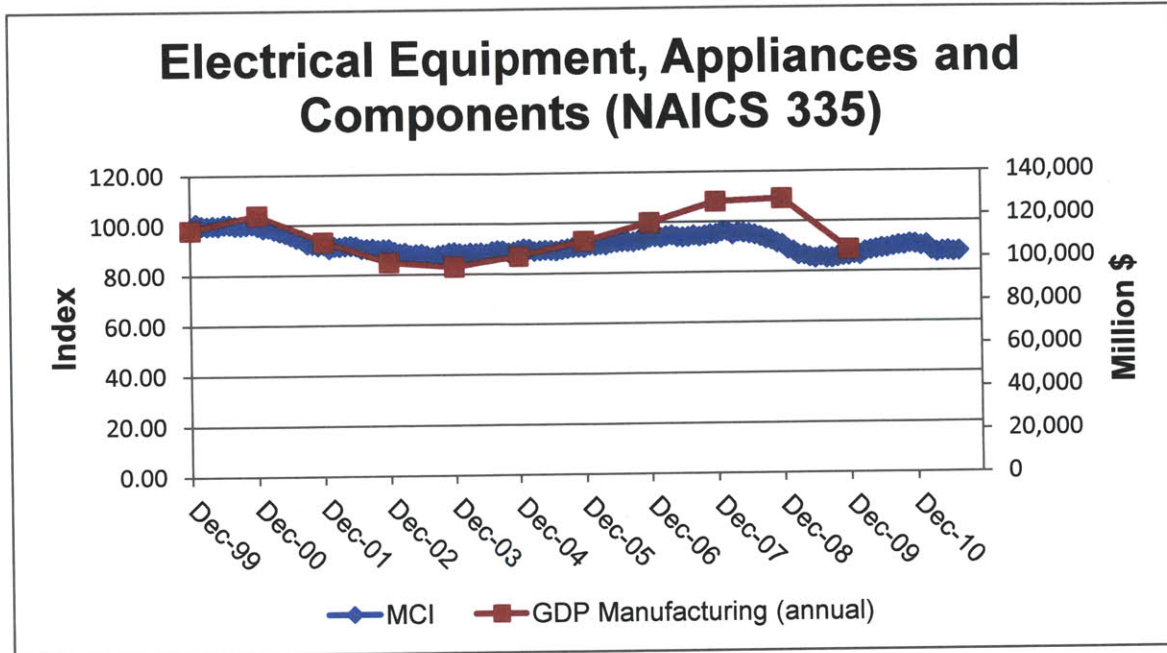


Figure C.37 – MCI and annual GDP Electrical Equipment, Appliances and Components including all industries gathered in the NAICS 335 classification.

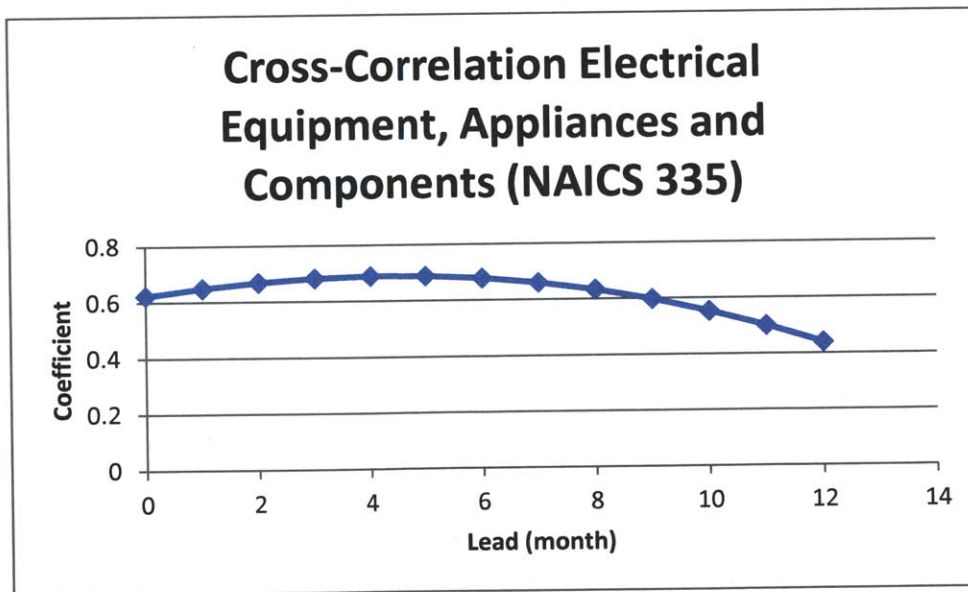


Figure C.38 – Cross-Correlation of MCI and annual GDP Electrical Equipment, Appliances and Components including all industries gathered in the NAICS 335 classification.

Table C.19
MCI computations for Manufacturing (NAICS 335)

1	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
2	Dollar adjusted																	99.13	
3	Month	CU	Avg.WH	Inventory	NO	Ship	0.25	0.05	0.12	0.06	0.52	C(I,t)					St	Index	Rebased
4	Dec-99	70.0	42.0	13989	10468	9937	0.89	0.19	0.42	0.20	1.85	0.13	0.19	0.74	0.00	0.12	1.19	100.00	100.88
5	Jan-00	70.0	42.1	14061.81	10846.46	10585.24	-0.19	-8.32	-5.02	0.00	0.24	-0.05	-0.46	-0.59	0.00	0.12	-0.97	99.04	99.90
6	Feb-00	70.0	42.2	14034.69	9980.178	10066.4	-1.63	2.05	2.26	0.00	-0.48	-0.41	0.11	0.26	0.00	-0.25	-0.28	98.76	99.62
7	Mar-00	70.0	42.0	13807.09	10187.01	10296.26	0.72	0.48	-0.11	0.00	0.24	0.18	0.03	-0.01	0.00	0.12	0.32	99.07	99.94
8	Apr-00	70.0	42.1	13906.5	10236.22	10285.43	0.73	0.68	-1.20	0.00	-0.72	0.18	0.04	-0.14	0.00	-0.37	-0.29	98.78	99.65
9	May-00	70.0	41.8	14008.85	10305.8	10163.23	0.09	4.64	1.89	0.00	0.24	0.02	0.25	0.22	0.00	0.12	0.62	99.40	100.27
10	Jun-00	70.0	42.1	14130.99	10113.39	10282.5	0.78	-6.52	-0.73	0.00	0.48	0.20	-0.36	-0.09	0.00	0.25	0.00	99.40	100.27
11	Jul-00	70.0	41.5	14381.23	10042.03	10122.19	1.76	-0.71	-1.57	0.00	-1.44	0.44	-0.04	-0.18	0.00	-0.75	-0.53	98.88	99.74
12	Aug-00	70.0	41.5	14371.6	10064.2	10131.32	-0.07	0.22	0.09	0.00	0.00	-0.02	0.01	0.01	0.00	0.00	0.01	98.88	99.75
13	Sep-00	70.0	41.7	14463.56	10026.24	10054.42	0.64	-0.38	-0.76	0.00	0.48	0.16	-0.02	-0.09	0.00	0.25	0.30	99.18	100.05
14	Oct-00	70.0	41.6	14353.11	10531.13	10263.62	-0.77	4.91	2.06	0.00	-0.24	-0.19	0.27	0.24	0.00	-0.13	0.19	99.37	100.24
15	Nov-00	70.0	40.7	14622.81	10587.72	10317.74	1.86	0.54	0.53	0.00	-2.19	0.47	0.03	0.06	0.00	-1.14	-0.58	98.80	99.66
16	Dec-00	70.0	41.0	14425.94	9416.263	9938.045	-1.36	-11.71	-3.75	0.00	0.73	-0.34	-0.64	-0.44	0.00	0.38	-1.04	97.78	98.63
17	Jan-01	70.0	40.8	14419.48	9916.104	10188.04	-0.04	5.17	2.48	0.00	-0.49	-0.01	0.28	0.29	0.00	-0.25	0.31	98.08	98.94
18	Feb-01	70.0	40.8	14245.43	9490.857	9897.016	-1.21	-4.38	-2.90	0.00	0.00	-0.30	-0.24	-0.34	0.00	0.00	-0.88	97.21	98.07
19	Mar-01	70.0	40.9	14117.08	9117.083	9549.904	-0.91	-4.02	-3.57	0.00	0.24	-0.23	-0.22	-0.42	0.00	0.13	-0.74	96.50	97.35
20	Apr-01	70.0	40.7	13839.39	9186.424	9554.493	-1.99	0.76	0.05	0.00	-0.49	-0.50	0.04	0.01	0.00	-0.26	-0.71	95.82	96.66
21	May-01	70.0	40.7	13513.36	9014.313	9392.176	-2.38	-1.89	-1.71	0.00	0.00	-0.60	-0.10	-0.20	0.00	0.00	-0.90	94.96	95.79
22	Jun-01	70.0	41.0	13206.7	8838.278	8831.579	-2.30	-1.97	-6.15	0.00	0.73	-0.58	-0.11	-0.72	0.00	0.38	-1.02	93.99	94.82
23	Jul-01	70.0	40.6	13107.07	8722.753	8938.815	-0.76	-1.32	1.21	0.00	-0.98	-0.19	-0.07	0.14	0.00	-0.51	-0.63	93.40	94.22
24	Aug-01	70.0	40.4	12926.6	8002.86	8300.286	-1.39	-8.61	-7.41	0.00	-0.49	-0.35	-0.47	-0.87	0.00	-0.26	-1.94	91.60	92.41
25	Sep-01	70.0	40.2	12889.21	7995.224	8366.762	-0.29	-0.10	0.80	0.00	-0.50	-0.07	-0.01	0.09	0.00	-0.26	-0.24	91.38	92.18
26	Oct-01	70.0	40.3	12658.05	8299.808	8022.031	-1.81	3.74	-4.21	0.00	0.25	-0.45	0.20	-0.49	0.00	0.13	-0.61	90.82	91.62
27	Nov-01	70.0	40.5	12566.89	8746.872	8471.607	-0.72	5.25	5.45	-8.00	0.50	-0.18	0.29	0.64	-0.45	0.26	0.55	91.33	92.13
28	Dec-01	62.0	40.5	12431.86	7341.651	8006.718	-1.08	-17.47	-5.64	0.00	0.00	-0.27	-0.96	-0.66	0.00	0.00	-1.89	89.62	90.40
29	Jan-02	62.0	40.6	12412.44	8294.737	8190.431	-0.16	12.19	2.27	0.00	0.25	-0.04	0.67	0.27	0.00	0.13	1.02	90.54	91.33
30	Feb-02	62.0	40.8	12287.35	7925.785	8249.286	-1.01	-4.55	0.72	0.00	0.49	-0.25	-0.25	0.08	0.00	0.26	-0.16	90.39	91.18
31	Mar-02	62.0	40.8	12265.15	8476.326	8297.348	-0.18	6.71	0.58	0.00	0.00	-0.05	0.37	0.07	0.00	0.00	0.39	90.74	91.54
32	Apr-02	62.0	40.8	12256.63	8468.75	8375.947	-0.07	-0.09	0.94	0.00	0.00	-0.02	0.00	0.11	0.00	0.00	0.09	90.82	91.62
33	May-02	62.0	41.0	12203.6	8374.053	8180.871	-0.43	-1.12	-2.36	0.00	0.49	-0.11	-0.06	-0.28	0.00	0.25	-0.19	90.65	91.44
34	Jun-02	62.0	40.6	12224.22	7644.276	8052.034	0.17	-9.11	-1.59	0.00	-0.98	0.04	-0.50	-0.19	0.00	-0.51	-1.15	89.61	90.40
35	Jul-02	62.0	40.7	12084.91	7965.094	7983.962	-1.15	4.11	-0.85	0.00	0.25	-0.29	0.22	-0.10	0.00	0.13	-0.03	89.58	90.37
36	Aug-02	62.0	40.8	12046.1	8118.532	7965.193	-0.32	1.91	-0.24	0.00	0.25	-0.08	0.10	-0.03	0.00	0.13	0.12	89.69	90.48
37	Sep-02	62.0	40.8	11967.11	7933.271	7976.504	-0.66	-2.31	0.14	0.00	-0.49	-0.17	-0.13	0.02	0.00	-0.26	-0.53	89.22	90.00
38	Oct-02	62.0	40.7	11941.67	7934.149	8105.362	-0.21	0.01	1.60	0.00	0.25	-0.05	0.00	0.19	0.00	0.13	0.26	89.45	90.24
39	Nov-02	60.0	40.9	11843.4	8304.717	7998.113	-0.83	4.56	-1.33	-2.00	0.49	-0.21	0.25	-0.16	-0.11	0.26	0.03	89.48	90.26
40	Dec-02	60.0	40.6	11764.32	7442.254	7937.089	-0.67	-10.95	-0.77	0.00	-0.74	-0.17	-0.60	-0.09	0.00	-0.38	-1.24	88.37	89.15
41	Jan-03	60.0	40.5	11622.55	7536.813	7680.336	-1.21	1.26	-3.29	0.00	-0.25	-0.30	0.07	-0.39	0.00	-0.13	-0.75	87.71	88.48
42	Feb-03	60.0	40.6	11510.66	7953.661	7724.745	-0.97	5.38	0.58	0.00	0.25	-0.24	0.29	0.07	0.00	0.13	0.25	87.93	88.70
43	Mar-03	60.0	40.3	11504.18	7480.037	7539.461	-0.06	-6.14	-2.43	0.00	-0.74	-0.01	-0.34	-0.28	0.00	-0.39	-1.02	87.04	87.80
44	Apr-03	60.0	40.5	11495.81	7421.395	7585.116	-0.07	-0.79	0.60	0.00	0.50	-0.02	-0.04	0.07	0.00	0.26	0.27	87.27	88.04
45	May-03	60.0	40.7	11335.5	7793.68	7654.275	-1.40	4.89	0.91	0.00	0.49	-0.35	0.27	0.11	0.00	0.26	0.28	87.52	88.28
46	Jun-03	60.0	40.4	11151.35	7526.462	7755.803	-1.64	-3.49	1.32	0.00	-0.74	-0.41	-0.19	0.15	0.00	-0.39	-0.83	86.79	87.55
47	Jul-03	60.0	40.5	10997.23	7576.71	7439.926	-1.39	0.67	-4.16	0.00	0.25	-0.35	0.04	-0.49	0.00	0.13	-0.67	86.21	86.97
48	Aug-03	60.0	40.9	10858.06	7823.963	7739.171	-1.27	3.21	3.94	0.00	0.98	-0.32	0.18	0.46	0.00	0.51	0.83	86.93	87.69
49	Sep-03	60.0	41.0	10851.48	7927.122	7773.985	-0.06	1.31	0.45	0.00	0.24	-0.02	0.07	0.05	0.00	0.13	0.24	87.13	87.90
50	Oct-03	60.0	41.4	10909.26	7836.111	7953.704	0.53	-1.15	2.29	0.00	0.97	0.13	-0.06	0.27	0.00	0.51	0.84	87.87	88.64
51	Nov-03	64.0	41.2	10943.41	7968.46	7975.881	0.31	1.67	0.28	4.00	-0.48	0.08	0.09	0.03	0.23	-0.25	0.18	88.03	88.80
52	Dec-04	64.0	41.4	10895.85	7602.765	7719.816	-0.44	-4.70	-3.26	0.00	0.48	-0.11	-0.26	-0.38	0.00	0.25	-0.50	87.59	88.36
53	Jan-04	64.0	41.4	10707.61	7899.175	7675.527	-1.74	3.82	-0.58	0.00	0.00	-0.44	0.21	-0.07	0.00	0.00	-0.30	87.33	88.10
54	Feb-04	64.0	41.5	10709.21	8178.669	7803.099	0.01	3.48	1.65	0.00	0.24	0.00	0.19	0.19	0.00	0.13	0.51	87.78	88.55
55	Mar-04	64.0	41.3	10665.45	8337.273	7839.091	-0.41	1.92	0.46	0.00	-0.48	-0.10	0.11	0.05	0.00	-0.25	-0.20	87.61	88.38
56	Apr-04	64.0	41.5	10783.91	7969.259	7846.293	1.10	-4.51	0.09	0.00	0.48	0.28	-0.25	0.01	0.00	0.25	0.29	87.87	88.64
57	May-04	64.0	41.2	10862.82	7510.83	7776.173	0.73	-5.92	-0.90	0.00	-0.73	0.18	-0.32	-0.11	0.00	-0.38	-0.62	87.32	88.09
58	Jun-04	64.0	41.3	10972	8112.918	8042.457	1.00	7.71	3.37	0.00	0.24	0.25	0.42	0.39	0.00	0.13	1.19	88.37	89.14
59	Jul-04	64.0	41.3	11140.92	8209.575	8011.743	1.53	1.18	-0.38	0.00	0.00	0.38	0.06	-0.04	0.00	0.00	0.40	88.72	89.50
60	Aug-04	64.0	41.1	11127.03	8307.207	8037.838	-0.12	1.18	0.33	0.00	-0.49	-0.03	0.06	0.04	0.00	-0.25	-0.18	88.56	89.34
61	Sep-04	64.0	41.1	11040.32	7715.054	7904.122	-0.78	-7.39	-1.68	0.00	0.00	-0.20	-0.40	-0.20	0.00	0.00	-0.80	87.86	88.63
62	Oct-04	64.0	40.9	11026.88	8386.201	8086.022	-0.12	8.34	2.28	0.00	-0.49	-0.03	0.46	0.27	0.00	-0.25	0.44	88.25	89.02
63	Nov-04	69.0	41.1	11105.22	7973.921	8107.014	0.71	-5.04	0.26	5.00	0.49	0.18	-0.28	0.03	0.28	0.25	0.47	88.66	89.44
64	Dec-04	69.0	41.2	11148.25	8402.516	8309.973	0.39	5.23	2.47	0.00	0.24	0.10	0.29	0.29	0.00	0.13	0		

Table C.19 - Continued

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	68.0	41.4	11276.91	9017.361	8528.646	1.37	1.99	1.95	0.00	0.48	0.34	0.11	0.23	0.00	0.25	0.93	90.43	91.22
77	Feb-06	68.0	41.5	11342.29	8748.7	8377.816	0.58	-3.02	-1.78	0.00	0.24	0.15	-0.17	-0.21	0.00	0.13	-0.10	90.33	91.13
78	Mar-06	68.0	41.5	11450	8602.586	8428.448	0.95	-1.68	0.60	0.00	0.00	0.24	-0.09	0.07	0.00	0.00	0.22	90.53	91.32
79	Apr-06	68.0	41.5	11475.62	8822.07	8262.618	0.22	2.52	-1.99	0.00	0.00	0.06	0.14	-0.23	0.00	0.00	-0.04	90.49	91.29
80	May-06	68.0	41.5	11488.51	9160.851	8692.766	0.11	3.77	5.07	0.00	0.00	0.03	0.21	0.59	0.00	0.00	0.83	91.25	92.05
81	Jun-06	68.0	41.5	11713.68	9010.195	8581.138	1.94	-1.66	-1.29	0.00	0.00	0.49	-0.09	-0.15	0.00	0.00	0.24	91.47	92.27
82	Jul-06	68.0	41.7	11839.12	8977.985	8443.692	1.07	-0.36	-1.61	0.00	0.48	0.27	-0.02	-0.19	0.00	0.25	0.31	91.75	92.56
83	Aug-06	68.0	41.4	12110.74	8172.443	8604.396	2.27	-9.39	1.89	0.00	-0.72	0.57	-0.51	0.22	0.00	-0.38	-0.10	91.66	92.47
84	Sep-06	68.0	41.3	11988.12	8798.812	8483.871	-1.02	7.38	-1.41	0.00	-0.24	-0.26	0.40	-0.17	0.00	-0.13	-0.14	91.53	92.33
85	Oct-06	68.0	41.3	12198.12	9070.026	8556.789	1.74	3.04	0.86	0.00	0.00	0.44	0.17	0.10	0.00	0.00	0.70	92.18	92.99
86	Nov-06	68.0	41.2	12331.05	8903.336	8485.885	1.08	-1.85	-0.83	0.00	-0.24	0.27	-0.10	-0.10	0.00	-0.13	-0.05	92.13	92.94
87	Dec-06	69.0	41.4	12600.85	8800	8748.718	2.16	-1.17	3.05	1.00	0.48	0.54	-0.06	0.36	0.06	0.25	1.15	93.19	94.01
88	Jan-07	69.0	41.2	12567.97	9388.051	8909.06	-0.26	6.47	1.82	0.00	-0.48	-0.07	0.35	0.21	0.00	-0.25	0.25	93.42	94.24
89	Feb-07	69.0	41.1	12568.19	9133.249	8872.808	0.00	-2.75	-0.41	0.00	-0.24	0.00	-0.15	-0.05	0.00	-0.13	-0.32	93.12	93.94
90	Mar-07	69.0	41.5	12488.96	9286.621	9051.996	-0.63	1.67	2.00	0.00	0.97	-0.16	0.09	0.23	0.00	0.50	0.67	93.75	94.57
91	Apr-07	69.0	41.5	12493.11	9585.847	9179.717	0.03	3.17	1.40	0.00	0.00	0.01	0.17	0.16	0.00	0.00	0.35	94.07	94.90
92	May-07	69.0	41.4	12451.37	9079.573	8964.021	-0.33	-5.42	-2.38	0.00	-0.24	-0.08	-0.30	-0.28	0.00	-0.13	-0.79	93.33	94.15
93	Jun-07	69.0	41.6	12418.73	8826.875	8888.317	-0.26	-2.82	-0.85	0.00	0.48	-0.07	-0.15	-0.10	0.00	0.25	-0.07	93.27	94.09
94	Jul-07	69.0	41.6	12526.48	8700.167	8893.726	0.86	-1.45	0.06	0.00	0.00	0.22	-0.08	0.01	0.00	0.00	0.14	93.41	94.23
95	Aug-07	69.0	41.6	12599.76	8982.608	9094.008	0.58	3.19	2.23	0.00	0.00	0.15	0.17	0.26	0.00	0.00	0.58	93.95	94.78
96	Sep-07	69.0	41.6	12417.31	8789.105	9045.243	-1.46	-2.18	-0.54	0.00	0.00	-0.37	-0.12	-0.06	0.00	0.00	-0.55	93.44	94.26
97	Oct-07	69.0	41.4	12755.1	8861.314	9054.887	2.68	0.82	0.11	0.00	-0.48	0.67	0.04	0.01	0.00	-0.25	0.48	93.89	94.71
98	Nov-07	69.0	41.6	12960.05	8947.078	8888.633	1.59	0.96	-1.85	0.00	0.48	0.40	0.05	-0.22	0.00	0.25	0.49	94.34	95.17
99	Dec-07	69.0	41.3	13127.5	9058.906	8897.316	1.28	1.24	0.10	0.00	-0.72	0.32	0.07	0.01	0.00	-0.38	0.02	94.37	95.20
100	Jan-08	69.0	41.5	13272.67	9369.23	9159.986	1.10	3.37	2.91	0.00	0.48	0.28	0.18	0.34	0.00	0.25	1.05	95.37	96.20
101	Feb-08	69.0	41.5	13483.84	9703.067	8886.708	1.58	3.50	-3.03	0.00	0.00	0.40	0.19	-0.35	0.00	0.00	0.23	95.59	96.43
102	Mar-08	71.0	41.6	13268.41	7774.705	8789.926	-1.61	-22.07	-1.10	2.00	0.24	-0.40	-1.21	-0.13	0.11	0.13	-1.50	94.16	94.99
103	Apr-08	71.0	41.5	13379.42	9102.775	8905.379	0.83	15.74	1.30	0.00	-0.24	0.21	0.86	0.15	0.00	-0.13	1.10	95.20	96.04
104	May-08	71.0	41.4	13132.43	9279.306	8975.721	-1.86	1.92	0.79	0.00	-0.24	-0.47	0.11	0.09	0.00	-0.13	-0.40	94.83	95.66
105	Jun-08	70.5	41.3	13104.58	9427.031	8812.655	-0.21	1.58	-1.83	-0.50	-0.24	-0.05	0.09	-0.21	-0.03	-0.13	-0.34	94.51	95.34
106	Jul-08	70.5	41.3	12921.73	8831.687	9039.695	-1.41	-6.52	2.54	0.00	0.00	-0.35	-0.36	0.30	0.00	0.00	-0.41	94.12	94.95
107	Aug-08	70.5	41.1	12958.75	8573.866	8727.112	0.29	-2.96	-3.52	0.00	-0.49	0.07	-0.16	-0.41	0.00	-0.25	-0.76	93.41	94.23
108	Sep-08	67.9	40.6	12905.47	8364.217	8719.805	-0.41	-2.48	-0.08	-2.60	-1.22	-0.10	-0.14	-0.01	-0.15	-0.64	-1.03	92.45	93.26
109	Oct-08	67.9	40.6	13028.69	7604.781	8609.562	0.95	-9.51	-1.27	0.00	0.00	0.24	-0.52	-0.15	0.00	0.00	-0.43	92.05	92.86
110	Nov-08	67.9	40.3	13168.46	7352.654	7881.733	1.07	-3.37	-8.83	0.00	-0.74	0.27	-0.18	-1.03	0.00	-0.39	-1.34	90.83	91.63
111	Dec-08	63.2	39.9	13130.47	7559.417	7925.5	-0.29	2.77	0.55	-4.70	-1.00	-0.07	0.15	0.06	-0.27	-0.52	-0.64	90.25	91.04
112	Jan-09	63.2	39.7	12667.19	7123.142	7485.974	-3.59	-5.94	-5.70	0.00	-0.50	-0.90	-0.33	-0.67	0.00	-0.26	-2.16	88.33	89.10
113	Feb-09	63.2	39.6	12415.37	6843.505	7442.209	-2.01	-4.00	-0.59	0.00	-0.25	-0.50	-0.22	-0.07	0.00	-0.13	-0.92	87.52	88.28
114	Mar-09	56.5	39.3	12214.69	6705.862	7151.291	-1.63	-2.03	-3.99	-6.70	-0.76	-0.41	-0.11	-0.47	-0.38	-0.40	-1.76	85.99	86.74
115	Apr-09	56.5	39.5	11981.83	6733.684	7275.727	-1.92	0.41	1.73	0.00	0.51	-0.48	0.02	0.20	0.00	0.26	0.01	85.99	86.75
116	May-09	56.5	39.3	11808.6	6678.442	7064.905	-1.46	-0.82	-2.94	0.00	-0.51	-0.37	-0.05	-0.34	0.00	-0.26	-1.02	85.12	85.87
117	Jun-09	56.1	39.5	11441.54	6608.828	7048.239	-3.16	-1.05	-2.24	-0.40	0.51	-0.79	-0.06	-0.03	-0.02	0.26	-0.64	84.58	85.32
118	Jul-09	56.1	39.9	11300.72	7144.409	7216.818	-1.24	7.79	2.36	0.00	1.01	-0.31	0.43	0.28	0.00	0.52	0.92	85.36	86.11
119	Aug-09	56.1	40.0	11141.07	6884.128	6953.94	-1.42	-3.71	-3.71	0.00	0.25	-0.36	-0.20	-0.43	0.00	0.13	-0.86	84.63	85.37
120	Sep-09	58.7	40.1	11021.92	6847.305	6978.012	-1.08	-0.54	0.35	2.60	0.25	-0.27	-0.03	0.04	0.15	0.13	0.02	84.64	85.38
121	Oct-09	58.7	40.2	10878.99	7381.943	7186.416	-1.31	7.51	2.94	0.00	0.25	-0.33	0.41	0.34	0.00	0.13	0.56	85.12	85.86
122	Nov-09	58.7	40.6	10886.46	7254.704	7203.417	0.07	-1.74	0.24	0.00	0.99	0.02	-0.10	0.03	0.00	0.52	0.47	85.51	86.26
123	Dec-09	59.6	40.7	10872.46	7182.201	7199.865	-0.13	-1.00	-0.05	0.90	0.25	-0.03	-0.05	-0.01	0.05	0.13	0.09	85.59	86.34
124	Jan-10	59.6	40.9	10956.26	7511.38	7200.973	0.77	4.48	0.02	0.00	0.49	0.19	0.25	0.00	0.00	0.26	0.69	86.18	86.94
125	Feb-10	59.6	40.5	10968.77	7348.787	7299.977	0.11	-2.19	1.37	0.00	-0.98	0.03	-0.12	0.16	0.00	-0.51	-0.44	85.80	86.55
126	Mar-10	59.6	41.2	11023.04	8002.199	7440.571	0.49	8.51	1.91	0.00	1.71	0.12	0.47	0.22	0.00	0.89	1.71	87.28	88.04
127	Apr-10	59.6	41.4	11041.83	7776.364	7688.087	0.17	-2.86	3.27	0.00	0.48	0.04	-0.16	0.38	0.00	0.25	0.52	87.73	88.50
128	May-10	59.6	41.6	11207.73	7782.061	7571.434	1.49	0.07	-1.53	0.00	0.48	0.37	0.00	-0.18	0.00	0.25	0.45	88.13	88.90
129	Jun-10	59.6	41.3	11418.4	8166.352	7645.705	1.86	4.82	0.98	0.00	-0.72	0.47	0.26	0.11	0.00	-0.38	0.47	88.54	89.32
130	Jul-10	59.6	41.4	11549.12	7771.885	7618.979	1.14	-4.95	-0.35	0.00	0.24	0.29	-0.27	-0.04	0.00	0.13	0.10	88.63	89.41
131	Aug-10	59.6	41.3	11721.47	7991.696	7732.385	1.48	2.79	1.48	0.00	-0.24	0.37	0.15	0.17	0.00	-0.13	0.57	89.14	89.92
132	Sep-10	60.7	41.4	11839.53	8200.696	7707.78	1.00	2.58	-0.32	1.10	0.24	0.25	0.14	-0.04	0.06	0.13	0.54	89.63	90.41
133	Oct-10	60.7	41.4	11899	7861.753	7791.899	0.50	-4.22	1.09	0.00	0.00	0.13	-0.23	0.13	0.00	0.00	0.02	89.65	90.43
134	Nov-10	60.7	41.6	11894.01	8407.863	7834.906	-0.04	6.71	0.55	0.00	0.48	-0.01	0.37	0.06	0.00	0.25	0.67	90.25	91.04
135	Dec-10	57.3	41.6	11822.26	8452.958	7929.303	-0.61	0.53	1.20	-3.40	0.00	-0.15	0.03	0.14	-0.19	0.00	-0.17	90.09	90.88
136	Jan-11	57.3	41.5	11771.06	7893.637	7835.282	-0.43	-6.84	-1.19	0.00	-0.24	-0.11	-0.37	-0.14	0.00	-0.13	-0.75	89.42	90.21
137	Feb-11	57.3	41.7	11866.22	8121.385	7757.261	0.81	2.84	-1.00	0.00	0.48	0.20	0.						

NAICS 336 – Transportation Equipment

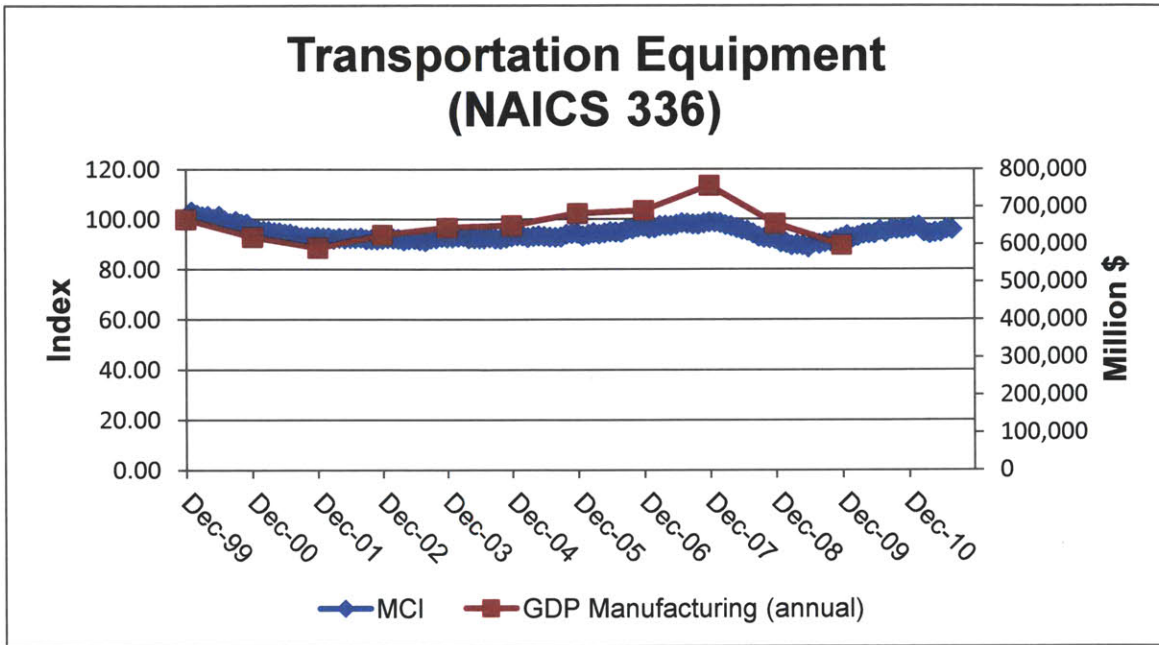


Figure C.39 – MCI and annual GDP Transportation Equipment including all industries gathered in the NAICS 336 classification.

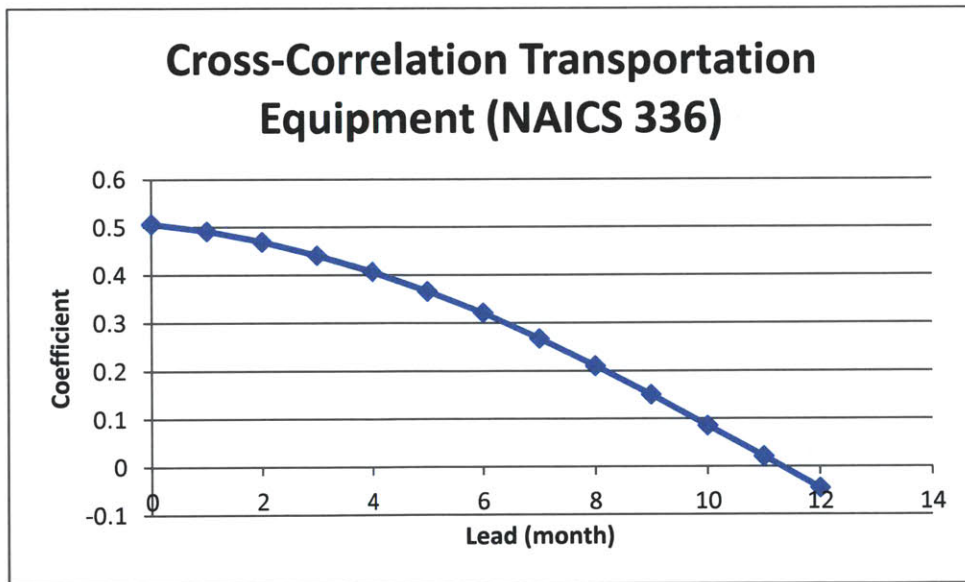


Figure C.40 – Cross-Correlation of MCI and annual GDP Transportation Equipment including all industries gathered in the NAICS 336 classification.

Table C.20
MCI computations for Transportation (NAICS 3136)

1	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	
2				Dollar adjusted								96.93								
3	Month	CU	Avg.WH	Inventory	NO	Ship	0.25	0.03	0.08	0.06	0.58	C(I,t)						St	Index	Rebased
4	Dec-99	68.0	42.0	79600	57741	56042	0.81	0.08	0.24	0.20	1.85									
5	Jan-00	68.0	42.1	77970.09	61379.86	59110.67	-2.07	6.11	5.33	0.00	0.24	-0.52	0.16	0.41	0.00	0.14	0.18	100.00	103.16	
6	Feb-00	68.0	42.2	77733.4	51065.41	52704.66	-0.30	-18.35	-11.46	0.00	0.24	-0.08	-0.49	-0.87	0.00	0.14	-1.30	98.71	101.83	
7	Mar-00	68.0	42.0	76880.91	51391.73	52268.7	-1.10	0.64	-0.83	0.00	-0.48	-0.28	0.02	-0.06	0.00	-0.28	-0.60	98.12	101.22	
8	Apr-00	68.0	42.1	75886.81	52929.13	54870.08	-1.30	2.95	4.86	0.00	0.24	-0.33	0.08	0.37	0.00	0.14	0.26	98.37	101.48	
9	May-00	68.0	41.8	74152.41	49993.12	53597.84	-2.31	-5.71	-2.35	0.00	-0.72	-0.58	-0.15	-0.18	0.00	-0.42	-1.33	97.07	100.14	
10	Jun-00	68.0	41.9	74209.6	75205.68	54175.32	0.08	40.28	1.07	0.00	0.24	0.02	1.07	0.08	0.00	0.14	1.31	98.35	101.46	
11	Jul-00	68.0	42.1	72922.78	49691.1	50728.25	-1.75	-40.86	-6.57	0.00	0.48	-0.44	-1.08	-0.50	0.00	0.28	-1.75	96.64	99.70	
12	Aug-00	68.0	41.5	72467.25	49064.52	49419.35	-0.63	-1.27	-2.61	0.00	-1.44	-0.16	-0.03	-0.20	0.00	-0.83	-1.23	95.47	98.49	
13	Sep-00	68.0	41.5	72289.88	56862.84	52653.7	-0.25	14.72	6.34	0.00	0.00	-0.06	0.39	0.48	0.00	0.00	0.81	96.24	99.29	
14	Oct-00	68.0	41.7	71300.29	47098.15	49582.12	-1.38	-18.79	-6.01	0.00	0.48	-0.35	-0.50	-0.46	0.00	0.28	-1.02	95.26	98.28	
15	Nov-00	68.0	41.6	71615.76	51929.96	48375.49	0.44	9.76	-2.46	0.00	-0.24	0.11	0.26	-0.19	0.00	-0.14	-0.04	95.30	98.32	
16	Dec-00	68.0	40.7	70010.72	52586.74	48874.27	-2.27	1.26	1.03	0.00	-2.19	-0.57	0.03	0.08	0.00	-1.27	-1.73	93.67	96.63	
17	Jan-01	68.0	41.0	68943.85	44216.84	45458.86	-1.54	-17.29	-7.24	0.00	0.73	-0.39	-0.46	-0.55	0.00	0.43	-0.97	92.76	95.70	
18	Feb-01	68.0	40.8	67486.02	46681.77	48390.55	-2.14	5.42	6.25	0.00	-0.49	-0.54	0.14	0.48	0.00	-0.28	-1.21	92.57	95.50	
19	Mar-01	68.0	40.8	65695.86	54715.11	48943.21	-2.69	15.85	1.14	0.00	0.00	-0.68	0.42	0.09	0.00	0.00	-0.17	92.41	95.33	
20	Apr-01	68.0	40.9	66021.11	48533.59	46439.54	0.49	-11.97	-5.25	0.00	0.24	0.12	-0.32	-0.40	0.00	0.14	-0.45	92.00	94.91	
21	May-01	68.0	40.7	65178.78	49029.64	49487.57	-1.28	1.02	6.35	0.00	-0.49	-0.32	0.03	0.48	0.00	-0.28	-1.10	91.91	94.81	
22	Jun-01	68.0	40.7	63824.43	48963.74	49313.93	-2.10	-0.13	-0.35	0.00	0.00	-0.53	0.00	-0.03	0.00	0.00	-0.56	91.39	94.28	
23	Jul-01	68.0	41.0	63674.64	45895.69	48225.84	-0.23	-6.47	-2.23	0.00	0.73	-0.06	-0.17	-0.17	0.00	0.43	0.03	91.41	94.31	
24	Aug-01	68.0	40.6	63437.86	45525.81	48418.74	-0.37	-0.81	0.40	0.00	-0.98	-0.09	-0.02	0.03	0.00	-0.57	-0.65	90.82	93.69	
25	Sep-01	68.0	40.4	63087.7	43311.73	46424.21	-0.55	-4.98	-4.21	0.00	-0.49	-0.14	-0.13	-0.32	0.00	-0.29	-0.88	90.02	92.87	
26	Oct-01	68.0	40.2	62976.12	53247.37	46559.69	-0.18	20.58	0.29	0.00	-0.50	-0.04	0.55	0.02	0.00	-0.29	0.23	90.23	93.09	
27	Nov-01	68.0	40.3	62219.35	44130.27	48715.52	-1.21	-18.73	4.53	0.00	0.25	-0.31	-0.50	0.34	0.00	0.14	-0.31	89.95	92.80	
28	Dec-01	64.0	40.5	62100.1	45693.94	50293.55	-0.19	3.48	3.19	-4.00	0.50	-0.05	0.09	0.24	-0.25	0.29	0.32	90.24	93.09	
29	Jan-02	64.0	40.5	60957.77	47140.12	50311.9	-1.86	3.12	0.04	0.00	0.00	-0.47	0.08	0.00	0.00	0.00	-0.38	89.89	92.74	
30	Feb-02	64.0	40.6	60643.06	52859.33	49034.45	-0.52	11.44	-2.57	0.00	0.25	-0.13	0.30	-0.20	0.00	0.14	0.12	90.00	92.85	
31	Mar-02	64.0	40.8	58937.2	50984.78	48173.17	-2.85	-3.61	-1.77	0.00	0.49	-0.72	-0.10	-0.13	0.00	0.29	-0.67	89.40	92.23	
32	Apr-02	64.0	40.8	58683.71	50030.3	52109.85	-0.43	-1.89	7.85	0.00	0.00	-0.11	-0.05	0.60	0.00	0.00	-0.44	89.80	92.64	
33	May-02	64.0	40.8	58721.59	48866.48	50559.66	0.06	-2.35	-3.02	0.00	0.00	0.02	-0.06	-0.23	0.00	0.00	-0.28	89.55	92.38	
34	Jun-02	64.0	41.0	59108.9	45690.34	49964.96	0.66	-6.72	-1.18	0.00	0.49	0.17	-0.18	-0.09	0.00	0.28	0.18	89.71	92.55	
35	Jul-02	64.0	40.6	58693.47	54393.57	51628.19	-0.71	17.39	3.27	0.00	-0.98	-0.18	0.46	0.25	0.00	-0.57	-0.04	89.68	92.51	
36	Aug-02	64.0	40.7	58751.89	56580.19	51497.17	0.10	3.94	-0.25	0.00	0.25	0.03	0.10	-0.02	0.00	0.14	0.25	89.91	92.75	
37	Sep-02	64.0	40.8	58359.36	47206.96	50593.6	-0.67	-18.06	-1.77	0.00	0.25	-0.17	-0.48	-0.13	0.00	0.14	-0.64	89.33	92.16	
38	Oct-02	64.0	40.6	58448.31	48406.02	51513.16	0.15	2.51	1.80	0.00	-0.49	0.04	0.07	0.14	0.00	-0.29	-0.04	89.29	92.12	
39	Nov-02	64.0	40.7	57738.48	50278.46	50911.57	-1.22	3.79	-1.17	0.00	0.25	-0.31	0.10	-0.09	0.00	0.14	-0.16	89.15	91.97	
40	Dec-02	64.0	40.9	59969.81	45192.45	46964.15	3.79	-10.65	-8.07	0.00	0.49	0.96	-0.28	-0.61	0.00	0.28	0.35	89.47	92.29	
41	Jan-03	64.0	40.6	59406.57	49670.42	50759.62	-0.94	9.44	7.77	0.00	-0.74	-0.24	0.25	0.59	0.00	-0.43	0.17	89.62	92.46	
42	Feb-03	64.0	40.5	59256.29	51214.35	51213.42	-0.25	3.06	0.89	0.00	-0.25	-0.06	0.08	0.07	0.00	-0.14	-0.06	89.57	92.40	
43	Mar-03	64.0	40.6	58321.59	52508.8	51270.62	-1.59	2.50	0.11	0.00	0.25	-0.40	0.07	0.01	0.00	0.14	-0.18	89.40	92.23	
44	Apr-03	64.0	40.3	58771.59	50632.31	48873.72	0.77	-3.64	-4.79	0.00	-0.74	0.19	-0.10	-0.36	0.00	-0.43	-0.70	88.78	91.59	
45	May-03	64.0	40.5	59093.02	50785.12	49611.16	0.55	0.30	1.50	0.00	0.50	0.14	0.01	0.11	0.00	0.29	0.55	89.27	92.09	
46	Jun-03	64.0	40.7	58483.27	51155.2	50293.68	-1.04	0.73	1.37	0.00	0.49	-0.26	0.02	0.10	0.00	0.29	0.15	89.40	92.23	
47	Jul-03	64.0	40.4	57746.52	51428.04	51712.16	-1.27	0.53	2.78	0.00	-0.74	-0.32	0.01	0.21	0.00	-0.43	-0.52	88.93	91.75	
48	Aug-03	64.0	40.5	57768.02	49577.63	48420.52	0.04	-3.66	-6.57	0.00	0.25	0.01	-0.10	-0.50	0.00	0.14	-0.44	88.54	91.34	
49	Sep-03	64.0	40.9	57399.08	51588.94	52332.72	-0.64	3.98	7.77	0.00	0.98	-0.16	0.11	0.59	0.00	0.57	1.11	89.52	92.35	
50	Oct-03	64.0	41.0	57612.55	53069.19	51122.69	0.37	2.83	-2.34	0.00	0.24	0.09	0.07	-0.18	0.00	0.14	0.13	89.64	92.48	
51	Nov-03	64.0	41.4	57132.41	53225	52287.04	-0.84	0.29	2.25	0.00	0.97	-0.21	0.01	0.17	0.00	0.56	0.53	90.12	92.97	
52	Dec-03	66.0	41.2	57638.22	52521.34	50787.57	0.88	-1.33	-2.91	2.00	-0.48	0.22	-0.04	-0.22	0.13	-0.28	-0.19	89.95	92.80	
53	Jan-04	66.0	41.4	57599.08	49376.04	50176.04	-0.07	-6.17	-1.21	0.00	0.48	-0.02	-0.16	-0.09	0.00	0.28	0.01	89.96	92.80	
54	Feb-04	66.0	41.4	57547.2	51519.71	52167.74	-0.09	4.25	3.89	0.00	0.00	-0.02	0.11	0.30	0.00	0.00	0.39	90.31	93.16	
55	Mar-04	66.0	41.5	56866.91	54465.82	53471.29	-1.19	5.56	2.47	0.00	0.24	-0.30	0.15	0.19	0.00	0.14	0.17	90.46	93.32	
56	Apr-04	66.0	41.3	57113.64	50785.45	49618.18	0.43	-6.99	-7.48	0.00	-0.48	0.11	-0.19	-0.57	0.00	-0.28	-0.93	89.63	92.47	
57	May-04	66.0	41.5	56860.76	49960.22	49357.14	-0.44	-1.64	-0.53	0.00	0.48	-0.11	-0.04	-0.04	0.00	0.28	0.08	89.71	92.54	
58	Jun-04	66.0	41.2	57388.99	50637.18	49271.66	0.92	1.35	-0.17	0.00	-0.73	0.23	0.04	-0.01	0.00	-0.42	-0.17	89.56	92.39	
59	Jul-04	66.0	41.3	58167.12	53532.07	46186.09	1.35	5.56	-6.46	0.00	0.24	0.34	0.15	-0.49	0.00	0.14	0.14	89.68	92.52	
60	Aug-04	66.0	41.3	58439.93	49055.1	48947.61	0.47	-8.73	5.81	0.00	0.00	0.12	-0.23	0.44	0.00	0.00	0.33	89.98	92.82	
61	Sep-04	66.0	41.1	58033.33	49140.54	49216.22	-0.70	0.17	0.55	0.00	-0.49	-0.18	0.00	0.04	0.00	-0.28	-0.41	89.61	92.44	
62	Oct-04	66.0	41.1	57872.76	47502.69	48681.9	-0.28	-3.39	-1.09	0.00	0.00	-0.07	-0.09	-0.08	0.00	0.00	-0.24	89.39	92.22	
63	Nov-04	66.0	40.9	59133.51	53132.62	48603.94	2.16	11.19	-0.16	0.00	-0.49	0.55	0.30	-0.01	0.00	-0.28	0.55	89.88	92.72	
64	Dec-04	70.0	41.1	59102.52	50590.83	49462.23	-0.05	-4.90	1.75	4.00	0.49	-0.01	-0.13	0.13	0.25	0.28	0.53			

Table C.20 - Continued

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	73.0	41.4	58225.69	48373.26	50098.09	-1.03	-26.50	-6.57	0.00	0.48	-0.26	-0.70	-0.50	0.00	0.28	-1.18	90.55	93.41
77	Feb-06	73.0	41.5	58464.47	56291.16	50467.07	0.41	15.13	0.73	0.00	0.24	0.10	0.40	0.06	0.00	0.14	0.70	91.18	94.07
78	Mar-06	73.0	41.5	59018.97	62066.38	51228.45	0.94	9.76	1.50	0.00	0.00	0.24	0.26	0.11	0.00	0.00	0.61	91.74	94.65
79	Apr-06	73.0	41.5	59572.28	53888.79	48451.67	0.93	-14.10	-5.57	0.00	0.00	0.24	-0.37	-0.42	0.00	0.00	-0.56	91.23	94.12
80	May-06	73.0	41.5	60052.77	52423.83	51068.09	0.80	-2.76	5.26	0.00	0.00	0.20	-0.07	0.40	0.00	0.00	0.53	91.72	94.62
81	Jun-06	73.0	41.5	61239.59	56292.27	49661	1.96	7.12	-2.79	0.00	0.00	0.50	0.19	-0.21	0.00	0.00	0.47	92.15	95.06
82	Jul-06	73.0	41.7	62462.32	49491.11	45909.4	1.98	-12.86	-7.85	0.00	0.48	0.50	-0.34	-0.60	0.00	0.28	-0.16	92.00	94.91
83	Aug-06	73.0	41.4	62023.67	49928.15	48730.35	-0.70	0.88	5.96	0.00	-0.72	-0.18	0.02	0.45	0.00	-0.42	-0.12	91.89	94.80
84	Sep-06	73.0	41.3	63968.59	68168.93	47908.32	3.09	30.89	-1.70	0.00	-0.24	0.78	0.82	-0.13	0.00	-0.14	1.33	93.12	96.07
85	Oct-06	73.0	41.3	65639.62	53345.86	49042.7	2.58	-24.40	2.34	0.00	0.00	0.65	-0.65	0.18	0.00	0.00	0.18	93.29	96.24
86	Nov-06	73.0	41.2	66385.8	61404.62	50153.12	1.13	14.05	2.24	0.00	-0.24	0.29	0.37	0.17	0.00	-0.14	0.69	93.94	96.91
87	Dec-06	68.0	41.4	66188.03	61989.74	52784.62	-0.30	0.95	5.11	-5.00	0.48	-0.08	0.03	0.39	-0.32	0.28	0.30	94.22	97.20
88	Jan-07	68.0	41.2	66632.57	53545.56	51004.01	0.67	-14.62	-3.43	0.00	-0.48	0.17	-0.39	-0.26	0.00	-0.28	-0.76	93.51	96.46
89	Feb-07	68.0	41.1	66902.79	55623.23	51125.33	0.40	3.81	0.24	0.00	-0.24	0.10	0.10	0.02	0.00	-0.14	0.08	93.58	96.54
90	Mar-07	68.0	41.5	66837.1	62306.06	52033	-0.10	11.33	1.76	0.00	0.97	-0.02	0.30	0.13	0.00	0.56	0.97	94.50	97.49
91	Apr-07	68.0	41.5	67369.18	62992.83	51353.77	0.79	1.10	-1.31	0.00	0.00	0.20	0.03	-0.10	0.00	0.00	0.13	94.62	97.61
92	May-07	68.0	41.4	67522.36	57456.85	52778.24	0.23	-9.19	2.74	0.00	-0.24	0.06	-0.24	0.21	0.00	-0.14	-0.12	94.51	97.50
93	Jun-07	68.0	41.6	67855.93	62786.97	51988.14	0.49	8.87	-1.51	0.00	0.48	0.12	0.23	-0.11	0.00	0.28	0.52	95.01	98.01
94	Jul-07	68.0	41.6	68125.97	66541.78	54370.02	0.40	5.81	4.48	0.00	0.00	0.10	0.15	0.34	0.00	0.00	0.60	95.57	98.59
95	Aug-07	68.0	41.6	68647.75	60066.67	53526.54	0.76	-10.23	-1.56	0.00	0.00	0.19	-0.27	-0.12	0.00	0.00	-0.20	95.38	98.40
96	Sep-07	68.0	41.6	69244.35	56614	50891.92	0.87	-5.92	-5.05	0.00	0.00	0.22	-0.16	-0.38	0.00	0.00	-0.32	95.08	98.08
97	Oct-07	68.0	41.4	69376.68	56480.95	51819.5	0.19	-0.24	1.81	0.00	-0.48	0.05	-0.01	0.14	0.00	-0.28	-0.10	94.98	97.99
98	Nov-07	68.0	41.6	70083.39	58814.96	51082.89	1.01	4.05	-1.43	0.00	0.48	0.26	0.11	-0.11	0.00	0.28	0.53	95.49	98.51
99	Dec-07	68.0	41.3	71849.62	67016.78	49955.89	2.49	13.04	-2.23	0.00	-0.72	0.63	0.35	-0.17	0.00	-0.42	0.38	95.86	98.89
100	Jan-08	68.0	41.5	71379.45	56838.19	51628.41	-0.66	-16.44	3.29	0.00	0.48	-0.17	-0.44	0.25	0.00	0.28	-0.07	95.79	98.82
101	Feb-08	68.0	41.5	71070.76	58871.17	50380.37	-0.43	3.51	-2.45	0.00	0.00	-0.11	0.09	-0.19	0.00	0.00	-0.20	95.60	98.62
102	Mar-08	65.1	41.6	70865.13	55408.97	46873.66	-0.29	-6.06	-7.21	-2.90	0.24	-0.07	-0.16	-0.55	-0.18	0.14	-0.83	94.81	97.81
103	Apr-08	65.1	41.5	70018.37	50617.16	48486.9	-1.20	-9.04	3.38	0.00	-0.24	-0.30	-0.24	0.26	0.00	-0.14	-0.43	94.41	97.39
104	May-08	65.1	41.4	69103.07	51295.43	46379.75	-1.32	1.33	-4.44	0.00	-0.24	-0.33	0.04	-0.34	0.00	-0.14	-0.78	93.68	96.64
105	Jun-08	62.6	41.3	68247.21	48973.53	46162.13	-1.25	-4.63	-0.47	-2.50	-0.24	-0.32	-0.12	-0.04	-0.16	-0.14	-0.77	92.96	95.90
106	Jul-08	62.6	41.3	67382.88	48259.51	45839.05	-1.27	-1.47	-0.70	0.00	0.00	-0.32	-0.04	-0.05	0.00	0.00	-0.41	92.57	95.50
107	Aug-08	62.6	41.1	67369.7	44567.67	42306.9	-0.02	-7.95	-8.01	0.00	-0.49	0.00	-0.21	-0.61	0.00	-0.28	-1.11	91.55	94.45
108	Sep-08	56.4	40.6	66200.98	46540.13	42680.03	-1.75	4.33	0.88	-6.20	-1.22	-0.44	0.11	0.07	-0.39	-0.71	-1.37	90.31	93.17
109	Oct-08	56.4	40.6	66828.69	40058.17	40572.11	0.94	-14.97	-5.06	0.00	0.00	0.24	-0.40	-0.39	0.00	0.00	-0.54	89.82	92.66
110	Nov-08	56.4	40.3	68604.73	37175.32	39125.84	2.62	-7.47	-3.63	0.00	-0.74	0.66	-0.20	-0.28	0.00	-0.43	-0.24	89.61	92.44
111	Dec-08	52.7	39.9	69664.44	39097.71	39687.55	1.53	5.04	1.43	-3.70	-1.00	0.39	0.13	0.11	-0.23	-0.58	-0.18	89.44	92.27
112	Jan-09	52.7	39.7	69645.77	29153.53	37035.91	-0.03	-29.14	-6.91	0.00	-0.50	-0.01	-0.77	-0.53	0.00	-0.29	-1.60	88.02	90.81
113	Feb-09	52.7	39.6	69758.07	27370.76	37179.24	0.16	-6.31	0.39	0.00	-0.25	0.04	-0.17	0.03	0.00	-0.15	-0.24	87.81	90.59
114	Mar-09	43.2	39.3	69331.37	27831.57	37738.49	-0.61	1.67	1.49	-9.50	-0.76	-0.16	0.04	0.11	-0.60	-0.44	-1.04	86.90	89.65
115	Apr-09	43.2	39.5	69668.35	29202.05	36982.44	0.48	4.81	-2.02	0.00	0.51	0.12	0.13	-0.15	0.00	0.29	0.39	87.24	90.00
116	May-09	43.2	39.3	69995.22	32018.93	34959.13	0.47	9.20	-5.62	0.00	-0.51	0.12	0.24	-0.43	0.00	-0.29	-0.36	86.93	89.68
117	Jun-09	43.7	39.5	68658.07	26012.77	34013.74	-1.93	-20.70	-2.74	0.50	0.51	-0.49	-0.55	-0.21	0.03	0.29	-0.92	86.13	88.86
118	Jul-09	43.7	39.9	69928.31	34081.57	35471.02	1.83	26.85	4.19	0.00	1.01	0.46	0.71	0.32	0.00	0.59	2.08	87.94	90.72
119	Aug-09	43.7	40.0	68644.68	31103.35	35588.99	-1.85	-9.14	0.33	0.00	0.25	-0.47	-0.24	0.03	0.00	0.15	-0.54	87.47	90.23
120	Sep-09	49.5	40.1	67765.79	30941.57	38282.04	-1.29	-0.52	7.29	5.80	0.25	-0.33	-0.01	0.55	0.37	0.15	0.73	88.11	90.89
121	Oct-09	49.5	40.2	69137.2	32272.36	36662.9	2.00	4.21	-4.32	0.00	0.25	0.51	0.11	-0.33	0.00	0.14	0.43	88.49	91.29
122	Nov-09	49.5	40.6	69883.32	29735.23	37269.61	1.07	-8.18	1.64	0.00	0.99	0.27	-0.22	0.12	0.00	0.58	0.76	89.16	91.98
123	Dec-09	54.9	40.7	69625.19	30538.6	38847.32	-0.37	2.67	4.15	5.40	0.25	-0.09	0.07	0.32	0.34	0.14	0.78	89.86	92.70
124	Jan-10	54.9	40.9	70415.29	38664.93	38017.71	1.13	23.49	-2.16	0.00	0.49	0.29	0.62	-0.16	0.00	0.28	1.03	90.79	93.66
125	Feb-10	54.9	40.5	71925.14	36583.1	34593.07	2.12	-5.53	-9.43	0.00	-0.98	0.54	-0.15	-0.72	0.00	-0.57	-0.90	89.97	92.82
126	Mar-10	54.9	41.2	71897.9	30520.68	34970.68	-0.04	-18.07	1.09	0.00	1.71	-0.01	-0.48	0.08	0.00	1.00	0.59	90.51	93.37
127	Apr-10	54.9	41.4	72400.19	36740.1	35143.95	0.70	18.49	0.49	0.00	0.48	0.18	0.49	0.04	0.00	0.28	0.98	91.40	94.29
128	May-10	54.9	41.6	72968.25	34337.72	34543.58	0.78	-6.76	-1.72	0.00	0.48	0.20	-0.18	-0.13	0.00	0.28	0.17	91.56	94.45
129	Jun-10	54.9	41.3	73992.34	33032.41	35366.56	1.39	-3.88	2.35	0.00	-0.72	0.35	-0.10	0.18	0.00	-0.42	0.01	91.56	94.46
130	Jul-10	54.9	41.4	74089.74	39113.47	38977.29	0.13	16.86	9.71	0.00	0.24	0.03	0.45	0.74	0.00	0.14	1.36	92.82	95.75
131	Aug-10	54.9	41.3	75068.8	33263.34	35849.28	1.31	-16.17	-8.36	0.00	-0.24	0.33	-0.43	-0.64	0.00	-0.14	-0.87	92.01	94.92
132	Sep-10	56.7	41.4	76512.54	40899.33	35972.56	1.90	20.59	0.34	1.80	0.24	0.48	0.55	0.03	0.11	0.14	1.31	93.22	96.17
133	Oct-10	56.7	41.4	76972.78	39097.61	35747.8	0.60	-4.50	-0.63	0.00	0.00	0.15	-0.12	-0.05	0.00	0.00	-0.02	93.21	96.16
134	Nov-10	56.7	41.6	78294.3	33679.86	34371.06	1.70	-14.89	-3.93	0.00	0.48	0.43	-0.39	-0.30	0.00	0.28	0.02	93.22	96.17
135	Dec-10	56.1	41.6	79429.29	29609.91	35718.7	1.44	-12.86	3.85	-0.60	0.00	0.36	-0.34	0.29	-0.04	0.00	0.28	93.48	96.44
136	Jan-11	56.1	41.5	79944.96	37818.49	35829.7	0.65	24.35	0.31	0.00	-0.24	0.16	0.64	0.02	0.00	-0.14	0.69	94.13	97.11
137	Feb-11	56.1	41.7	80580.56	36716.13	35880.37	0.79	-2.96	0.14	0.00	0								

NAICS 337 – Furniture and Related Products

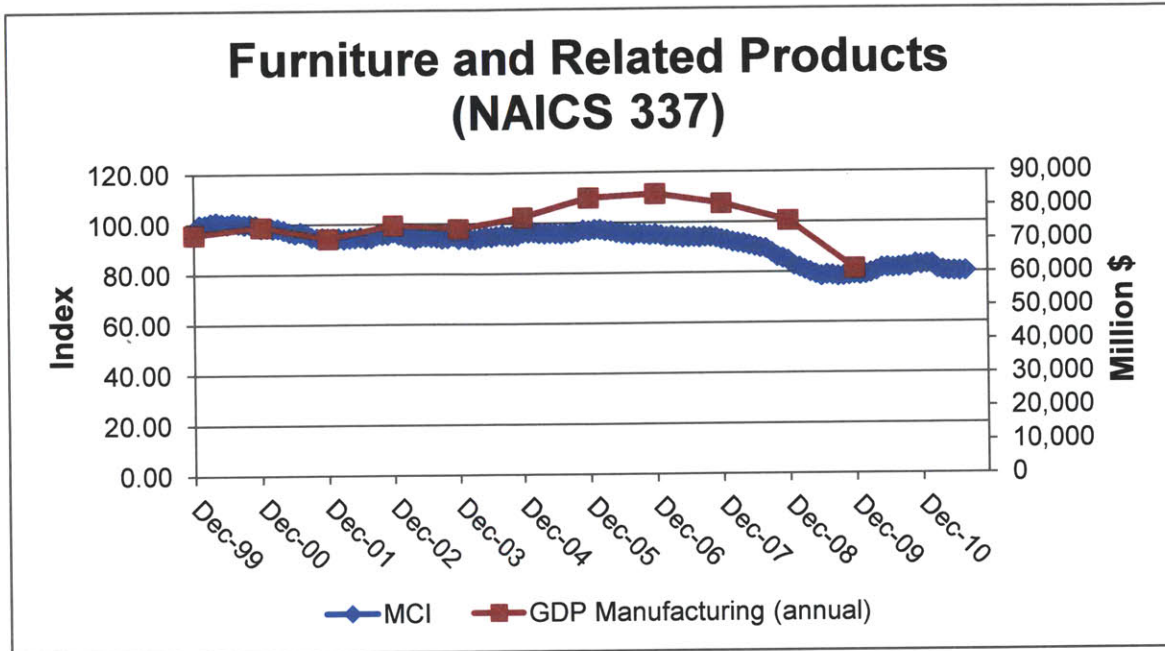


Figure C.41 – MCI and annual GDP Furniture and Related Products including all industries gathered in the NAICS 337 classification.

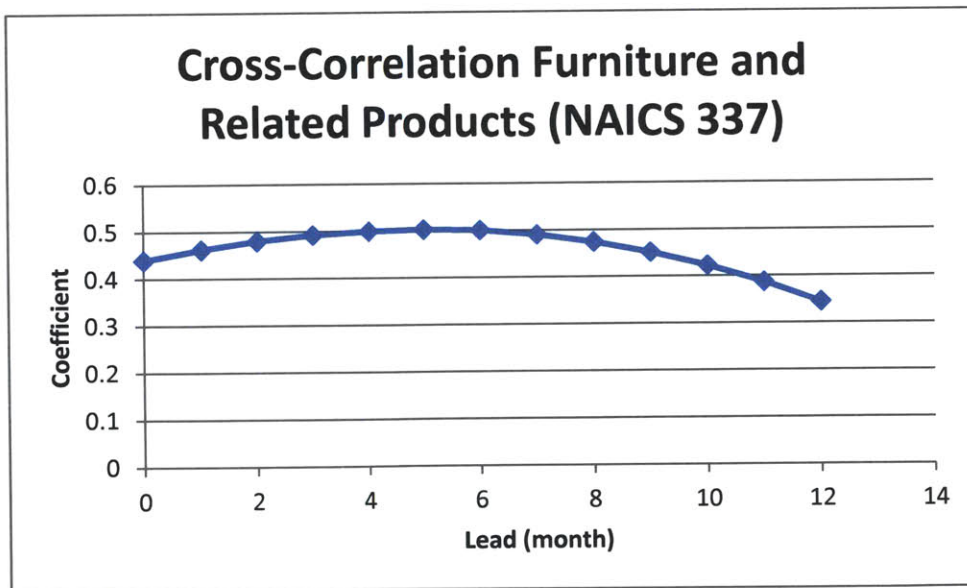


Figure C.42 – Cross-Correlation of MCI and annual GDP Furniture and Related Products including all industries gathered in the NAICS 337 classification.

Table C.21
MCI computations for Furniture and Related Products (NAICS 337)

1	A E F			H I J			K L M N O					P Q R S T U V W								
	Dollar adjusted			Inventory NO Ship			0.23 0.08 0.13 0.05 0.50					100.31								
	2	Month	CU	Avg.WH																
3	Dec-99	68.0	42.0		8186	6292	6142	0.85	0.30	0.48	0.20	1.85								
4	Jan-00	68.0	42.1		8221.336	6011.964	5912.263	0.43	-4.55	-3.81	0.00	0.24	0.10	-0.37	-0.50	0.00	0.12	-0.66	100.00	99.69
5	Feb-00	68.0	42.2		8237.859	5998.018	5891.972	0.20	-0.23	-0.34	0.00	0.24	0.05	-0.02	-0.05	0.00	0.12	0.10	100.10	99.79
6	Mar-00	68.0	42.0		8223.425	6392.717	6118.11	-0.18	6.37	3.77	0.00	-0.48	-0.04	0.52	0.50	0.00	-0.24	0.74	100.84	100.53
7	Apr-00	68.0	42.1		8234.252	6288.386	6292.323	0.13	-1.65	2.81	0.00	0.24	0.03	-0.14	0.37	0.00	0.12	0.38	101.23	100.92
8	May-00	68.0	41.8		8278.269	6151.426	6224.189	0.53	-2.20	-1.09	0.00	-0.72	0.12	-0.18	-0.14	0.00	-0.36	-0.56	100.67	100.35
9	Jun-00	68.0	41.9		8300.686	5866.797	6149.853	0.27	-4.74	-1.20	0.00	0.24	0.06	-0.39	-0.16	0.00	0.12	-0.37	100.30	99.99
10	Jul-00	68.0	42.1		8261.975	6195.503	6182.796	-0.47	5.45	0.53	0.00	0.48	-0.11	0.45	0.07	0.00	0.24	0.65	100.95	100.64
11	Aug-00	68.0	41.5		8357.771	6171.065	6217.009	1.15	-0.40	0.55	0.00	-1.44	0.27	-0.03	0.07	0.00	-0.72	-0.42	100.54	100.22
12	Sep-00	68.0	41.5		8329.767	6073.93	6137.16	-0.34	-1.59	-1.29	0.00	0.00	-0.08	-0.13	-0.17	0.00	0.00	-0.38	100.16	99.84
13	Oct-00	68.0	41.7		8293.489	6026.239	6189.504	-0.44	-0.79	0.85	0.00	0.48	-0.10	-0.06	0.11	0.00	0.24	0.19	100.34	100.03
14	Nov-00	68.0	41.6		8342.412	5840.467	6101.167	0.59	-3.13	-1.44	0.00	-0.24	0.14	-0.26	-0.19	0.00	-0.12	-0.43	99.91	99.60
15	Dec-00	68.0	40.7		8269.006	5985.38	6055.556	-0.88	2.45	-0.75	0.00	-2.19	-0.20	0.20	-0.10	0.00	-1.10	-1.20	98.72	98.41
16	Jan-01	68.0	41.0		8223.621	5995.16	5998.064	-0.55	0.16	-0.95	0.00	0.73	-0.13	0.01	-0.13	0.00	0.37	0.13	98.85	98.54
17	Feb-01	68.0	40.8		8164.899	5956.606	6006.75	-0.72	-0.65	0.14	0.00	-0.49	-0.17	-0.05	0.02	0.00	-0.25	-0.44	98.41	98.10
18	Mar-01	68.0	40.8		8358.037	5885.467	5881.617	2.34	-1.20	-2.11	0.00	0.00	0.54	-0.10	-0.28	0.00	0.00	0.16	98.57	98.26
19	Apr-01	68.0	40.9		8243.762	5566.219	5846.449	-1.38	-5.58	-0.60	0.00	0.24	-0.32	-0.46	-0.08	0.00	0.12	-0.73	97.85	97.55
20	May-01	68.0	40.7		8088.91	5607.075	5741.874	-1.90	0.73	-1.80	0.00	-0.49	-0.44	0.06	-0.24	0.00	-0.25	-0.86	97.01	96.71
21	Jun-01	68.0	40.7		7986.641	5682.252	5555.344	-1.27	1.33	-3.30	0.00	0.00	-0.29	0.11	-0.43	0.00	0.00	-0.62	96.42	96.11
22	Jul-01	68.0	41.0		7881.34	5820.096	5725.359	-1.33	2.40	3.01	0.00	0.73	-0.31	0.20	0.40	0.00	0.37	0.66	97.05	96.75
23	Aug-01	68.0	40.6		7717.017	5838.432	5858.509	-2.11	0.31	2.30	0.00	-0.98	-0.49	0.03	0.30	0.00	-0.49	-0.65	96.42	96.12
24	Sep-01	68.0	40.4		7680.648	5498.57	5577.693	-0.47	-6.00	-4.91	0.00	-0.49	-0.11	-0.49	-0.65	0.00	-0.25	-1.50	94.99	94.69
25	Oct-01	68.0	40.2		7573.066	5484.241	5710.602	-1.41	-0.26	2.35	0.00	-0.50	-0.33	-0.02	0.31	0.00	-0.25	-0.29	94.72	94.42
26	Nov-01	68.0	40.3		7488.506	5655.172	5665.709	-1.12	3.07	-0.79	0.00	0.25	-0.26	0.25	-0.10	0.00	0.12	0.01	94.73	94.44
27	Dec-01	62.0	40.5		7326.275	5926.853	5743.985	-2.19	4.69	1.37	-6.00	0.50	-0.51	0.39	0.18	-0.32	0.25	-0.01	94.72	94.43
28	Jan-02	62.0	40.5		7260.077	5919.386	5835.893	-0.91	-0.13	1.59	0.00	0.00	-0.21	-0.01	0.21	0.00	0.00	-0.01	94.71	94.42
29	Feb-02	62.0	40.6		7208.612	5882.297	5887.081	-0.71	-0.63	0.87	0.00	0.25	-0.16	-0.05	0.11	0.00	0.12	0.02	94.73	94.44
30	Mar-02	62.0	40.8		7096.099	5645.1	5850.618	-1.57	-4.12	-0.62	0.00	0.49	-0.36	-0.34	-0.08	0.00	0.25	-0.54	94.23	93.93
31	Apr-02	62.0	40.8		7015.152	5855.114	5979.167	-1.15	3.65	2.17	0.00	0.00	-0.26	0.30	0.29	0.00	0.00	0.32	94.53	94.24
32	May-02	62.0	40.8		7044.508	5918.561	5946.023	0.42	1.08	-0.56	0.00	0.00	0.10	0.09	-0.07	0.00	0.00	0.11	94.64	94.34
33	Jun-02	62.0	41.0		7057.765	5851.326	6012.311	0.19	-1.14	1.11	0.00	0.49	0.04	-0.09	0.15	0.00	0.25	0.34	94.96	94.66
34	Jul-02	62.0	40.6		7090.823	5855.251	5906.339	0.47	0.07	-1.78	0.00	-0.98	0.11	0.01	-0.23	0.00	-0.49	-0.61	94.38	94.08
35	Aug-02	62.0	40.7		7087.736	5852.83	5974.528	-0.04	-0.04	1.15	0.00	0.25	-0.01	0.00	0.15	0.00	0.12	0.26	94.63	94.33
36	Sep-02	62.0	40.8		7301.035	6006.585	6086.548	2.96	2.59	1.86	0.00	0.25	0.68	0.21	0.24	0.00	0.12	1.26	95.83	95.53
37	Oct-02	62.0	40.6		7324.248	6174.812	6085.526	0.32	2.76	-0.02	0.00	-0.49	0.07	0.23	0.00	0.00	-0.25	0.05	95.88	95.58
38	Nov-02	62.0	40.7		7381.938	6079.962	6028.222	0.78	-1.55	-0.95	0.00	0.25	0.18	-0.13	-0.12	0.00	0.12	0.05	95.93	95.63
39	Dec-02	61.0	40.9		7465.094	6204.717	6217.925	1.12	2.03	3.10	-1.00	0.49	0.26	0.17	0.41	-0.05	0.25	1.03	96.92	96.62
40	Jan-03	61.0	40.6		7540.845	5980.282	6012.207	1.01	-3.68	-3.36	0.00	-0.74	0.23	-0.30	-0.44	0.00	-0.37	-0.88	96.07	95.77
41	Feb-03	61.0	40.5		7460.391	5874.185	5931.966	-1.07	-1.79	-1.34	0.00	-0.25	-0.25	-0.15	-0.18	0.00	-0.12	-0.70	95.40	95.10
42	Mar-03	61.0	40.6		7448.563	5637.627	5797.034	-0.16	-4.11	-2.30	0.00	0.25	-0.04	-0.34	-0.30	0.00	0.12	-0.55	94.88	94.58
43	Apr-03	61.0	40.3		7457.753	5795.729	5539.461	0.12	2.77	-4.54	0.00	-0.74	0.03	0.23	-0.60	0.00	-0.37	-0.71	94.20	93.91
44	May-03	61.0	40.5		7424.186	5823.256	5773.023	-0.45	0.47	4.13	0.00	0.50	-0.10	0.04	0.54	0.00	0.25	0.73	94.89	94.59
45	Jun-03	61.0	40.7		7375.465	5907.993	5776.952	-0.66	1.44	0.07	0.00	0.49	-0.15	0.12	0.01	0.00	0.25	0.22	95.10	94.80
46	Jul-03	61.0	40.4		7428.041	5745.59	5844.94	0.71	-2.79	1.17	0.00	-0.74	0.16	-0.23	0.15	0.00	-0.37	-0.28	94.83	94.53
47	Aug-03	61.0	40.5		7247.689	5878.004	5900.185	-2.46	2.28	0.94	0.00	0.25	-0.57	0.19	0.12	0.00	0.12	-0.13	94.71	94.41
48	Sep-03	61.0	40.9		7037.788	5797.235	5837.788	-2.94	-1.38	-1.06	0.00	0.98	-0.68	-0.11	-0.14	0.00	0.49	-0.44	94.29	94.00
49	Oct-03	61.0	41.0		7036.9	5840.406	5852.399	-0.01	0.74	0.25	0.00	0.24	0.00	0.06	0.03	0.00	0.12	0.21	94.50	94.20
50	Nov-03	61.0	41.4		7002.778	6098.148	5928.704	-0.49	4.32	1.30	0.00	0.97	-0.11	0.35	0.17	0.00	0.49	0.90	95.35	95.05
51	Dec-03	62.0	41.2		6948.98	5853.432	5690.167	-0.77	-4.10	-4.11	1.00	-0.48	-0.18	-0.34	-0.54	0.05	-0.24	-1.24	94.17	93.88
52	Jan-04	62.0	41.4		6915.207	6097.696	5929.954	-0.49	4.09	4.13	0.00	0.48	-0.11	0.34	0.54	0.00	-0.24	1.01	95.13	94.83
53	Feb-04	62.0	41.4		6874.427	5745.188	5736.022	-0.59	-5.95	-3.32	0.00	0.00	-0.14	-0.49	-0.44	0.00	0.00	-1.06	94.12	93.83
54	Mar-04	62.0	41.5		6796.718	5783.956	5701.914	-1.14	0.67	-0.60	0.00	0.24	-0.26	0.06	-0.08	0.00	0.12	-0.16	93.97	93.67
55	Apr-04	62.0	41.3		6934.545	5866.364	5804.545	2.01	1.41	1.78	0.00	-0.48	0.46	0.12	0.23	0.00	-0.24	0.57	94.50	94.21
56	May-04	62.0	41.5		6961.121	5993.671	5871.609	0.38	2.15	1.15	0.00	0.48	0.09	0.18	0.15	0.00	0.24	0.66	95.13	

Table C.21 - Continued

	A	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
76	Jan-06	70.0	41.4	7204.861	6316.84	6387.153	-0.71	4.29	0.00	0.00	0.48	-0.16	0.35	0.00	0.00	0.24	0.43	97.67	97.36
77	Feb-06	70.0	41.5	7155.113	6467.938	6323.224	-0.69	2.36	-1.01	0.00	0.24	-0.16	0.19	-0.13	0.00	0.12	0.02	97.69	97.39
78	Mar-06	70.0	41.5	7205.172	6093.966	6237.069	0.70	-5.95	-1.37	0.00	0.00	0.16	-0.49	-0.18	0.00	0.00	-0.51	97.20	96.89
79	Apr-06	70.0	41.5	7111.206	6224.979	6246.364	-1.31	2.13	0.15	0.00	0.00	-0.30	0.17	0.02	0.00	0.00	-0.11	97.09	96.79
80	May-06	70.0	41.5	7040	6103.83	6115.745	-1.01	-1.97	-2.11	0.00	0.00	-0.23	-0.16	-0.28	0.00	0.00	-0.67	96.44	96.14
81	Jun-06	70.0	41.5	7050.127	5895.497	6060.323	0.14	-3.47	-0.91	0.00	0.00	0.03	-0.29	-0.12	0.00	0.00	-0.37	96.08	95.78
82	Jul-06	70.0	41.7	6982.218	5960.203	5887.384	-0.97	1.09	-2.89	0.00	0.48	-0.22	0.09	-0.38	0.00	0.24	-0.27	95.82	95.52
83	Aug-06	70.0	41.4	6978.022	5811.496	5952.663	-0.06	-2.53	1.10	0.00	-0.72	-0.01	-0.21	0.15	0.00	-0.36	-0.44	95.40	95.10
84	Sep-06	70.0	41.3	6982.173	6241.935	6007.64	0.06	7.14	0.92	0.00	-0.24	0.01	0.59	0.12	0.00	-0.12	0.60	95.98	95.68
85	Oct-06	70.0	41.3	7034.159	5927.412	5996.584	0.74	-5.17	-0.18	0.00	0.00	0.17	-0.42	-0.02	0.00	0.00	-0.28	95.71	95.41
86	Nov-06	70.0	41.2	7012.831	5854.577	5960.65	-0.30	-1.24	-0.60	0.00	-0.24	-0.07	-0.10	-0.08	0.00	-0.12	-0.37	95.35	95.06
87	Dec-06	68.0	41.4	6862.393	6147.863	6091.453	-2.17	4.89	2.17	-2.00	0.48	-0.50	0.40	0.29	-0.11	0.24	0.32	95.66	95.36
88	Jan-07	68.0	41.2	6879.741	6158.698	5951.59	0.25	0.18	-2.32	0.00	-0.48	0.06	0.01	-0.31	0.00	-0.24	-0.48	95.21	94.91
89	Feb-07	68.0	41.1	6885.143	5817.081	5918.033	0.08	-5.71	-0.57	0.00	-0.24	0.02	-0.47	-0.07	0.00	-0.12	-0.65	94.59	94.30
90	Mar-07	68.0	41.5	6722.562	5932.068	6018.686	-2.39	1.96	1.69	0.00	0.97	-0.55	0.16	0.22	0.00	0.49	0.32	94.90	94.60
91	Apr-07	68.0	41.5	6671.903	6006.719	5900.59	-0.76	1.25	-1.98	0.00	0.00	-0.17	0.10	-0.26	0.00	0.00	-0.33	94.58	94.29
92	May-07	68.0	41.4	6651.315	6018.688	5833.306	-0.31	0.20	-1.15	0.00	-0.24	-0.07	0.02	-0.15	0.00	-0.12	-0.33	94.27	93.98
93	Jun-07	68.0	41.6	6649.009	5891.779	5873.513	-0.03	-2.13	0.69	0.00	0.48	-0.01	-0.18	0.09	0.00	0.24	0.15	94.41	94.12
94	Jul-07	68.0	41.6	6642.465	5865.738	5934.689	-0.10	-0.44	1.04	0.00	0.00	-0.02	-0.04	0.14	0.00	0.00	0.08	94.49	94.19
95	Aug-07	68.0	41.6	6616.62	5693.003	5945.73	-0.39	-2.99	0.19	0.00	0.00	-0.09	-0.25	0.02	0.00	0.00	-0.31	94.19	93.90
96	Sep-07	68.0	41.6	6591.621	6042.872	5911.073	-0.38	5.96	-0.58	0.00	0.00	-0.09	0.49	-0.08	0.00	0.00	0.33	94.50	94.20
97	Oct-07	68.0	41.4	6603.797	6128.138	5966.828	0.18	1.40	0.94	0.00	-0.48	0.04	0.12	0.12	0.00	-0.24	0.04	94.54	94.24
98	Nov-07	68.0	41.6	6561.52	5895.572	5900.511	-0.64	-3.87	-1.12	0.00	0.48	-0.15	-0.32	-0.15	0.00	0.24	-0.37	94.19	93.89
99	Dec-07	68.0	41.3	6585.597	5687.786	5804.856	0.37	-3.59	-1.63	0.00	-0.72	0.08	-0.29	-0.22	0.00	-0.36	-0.79	93.45	93.15
100	Jan-08	68.0	41.5	6502.991	5634.831	5717.709	-1.26	-0.94	-1.51	0.00	0.48	-0.29	-0.08	-0.20	0.00	0.24	-0.32	93.14	92.85
101	Feb-08	68.0	41.5	6382.004	5642.536	5591.002	-1.88	0.14	-2.24	0.00	0.00	-0.43	0.01	-0.29	0.00	0.00	-0.72	92.48	92.19
102	Mar-08	72.6	41.6	6284.31	5526.139	5495.325	-1.54	-2.08	-1.73	4.60	0.24	-0.36	-0.17	-0.23	0.24	0.12	-0.39	92.12	91.83
103	Apr-08	72.6	41.5	6139.418	5614.909	5590.738	-2.33	1.59	1.72	0.00	-0.24	-0.54	0.13	0.23	0.00	-0.12	-0.30	91.84	91.56
104	May-08	72.6	41.4	6115.634	5438.161	5510.861	-0.39	-3.20	-1.44	0.00	-0.24	-0.09	-0.26	-0.19	0.00	-0.12	-0.66	91.24	90.95
105	Jun-08	70.8	41.3	5981.458	5599.056	5479.506	-2.22	2.92	-0.57	-1.80	-0.24	-0.51	0.24	-0.08	-0.10	-0.12	-0.56	90.72	90.44
106	Jul-08	70.8	41.3	5958.178	5414.52	5349.123	-0.39	-3.35	-2.41	0.00	0.00	-0.09	-0.28	-0.32	0.00	0.00	-0.68	90.11	89.82
107	Aug-08	70.8	41.1	5917.342	5458.395	5320.947	-0.69	0.81	-0.53	0.00	-0.49	-0.16	0.07	-0.07	0.00	-0.24	-0.41	89.74	89.46
108	Sep-08	66.4	40.6	5849.025	5131.528	5277.714	-1.16	-6.17	-0.82	-4.40	-1.22	-0.27	-0.51	-0.11	-0.23	-0.61	-1.73	88.20	87.92
109	Oct-08	66.4	40.6	5762.55	4610.359	5011.952	-1.49	-10.70	-5.17	0.00	0.00	-0.34	-0.88	-0.68	0.00	0.00	-1.90	86.54	86.27
110	Nov-08	66.4	40.3	5759.728	4534.15	4912.064	-0.05	-1.67	-2.01	0.00	-0.74	-0.01	-0.14	-0.26	0.00	-0.37	-0.79	85.86	85.59
111	Dec-08	63.2	39.9	5729.822	4617.587	4736.872	-0.52	1.82	-3.63	-3.20	-1.00	-0.12	0.15	-0.48	-0.17	-0.50	-1.12	84.90	84.64
112	Jan-09	63.2	39.7	5675.089	4267.169	4333.511	-0.96	-7.89	-8.89	0.00	-0.50	-0.22	-0.65	-1.17	0.00	-0.25	-2.29	82.98	82.72
113	Feb-09	63.2	39.6	5489.486	4189.302	4363.04	-3.32	-1.84	0.68	0.00	-0.25	-0.77	-0.15	0.09	0.00	-0.13	-0.96	82.19	81.93
114	Mar-09	63.3	39.3	5392.376	4229.538	4237.681	-1.78	0.96	-2.92	0.10	-0.76	-0.41	0.08	-0.38	0.01	-0.38	-1.09	81.30	81.04
115	Apr-09	63.3	39.5	5222.953	4047.037	4126.677	-3.19	-4.41	-2.65	0.00	0.51	-0.74	-0.36	-0.35	0.00	0.26	-1.19	80.33	80.08
116	May-09	63.3	39.3	5096.13	3991.833	4087.436	-2.46	-1.37	-0.96	0.00	-0.51	-0.57	-0.11	-0.13	0.00	-0.26	-1.06	79.49	79.24
117	Jun-09	62.3	39.5	4920.272	3871.149	4035.828	-3.51	-3.07	-1.27	-1.00	0.51	-0.81	-0.25	-0.17	-0.05	0.26	-1.03	78.67	78.43
118	Jul-09	62.3	39.9	4848.222	4005.053	4112.058	-1.48	3.40	1.87	0.00	1.01	-0.34	0.28	0.25	0.00	0.51	0.69	79.22	78.97
119	Aug-09	62.3	40.0	4792.168	4010.592	4050.714	-1.16	0.14	-1.50	0.00	0.25	-0.27	0.01	-0.20	0.00	0.13	-0.33	78.96	78.71
120	Sep-09	64.4	40.1	4764.005	3816.978	3969.336	-0.59	-4.95	-2.03	2.10	0.25	-0.14	-0.41	-0.27	0.11	0.13	-0.57	78.51	78.26
121	Oct-09	64.4	40.2	4728.706	3939.387	3947.4	-0.74	3.16	-0.55	0.00	0.25	-0.17	0.26	-0.07	0.00	0.13	0.14	78.62	78.37
122	Nov-09	64.4	40.6	4726.416	3908.228	3918.646	-0.05	-0.79	-0.73	0.00	0.99	-0.01	-0.07	-0.10	0.00	0.50	0.32	78.87	78.63
123	Dec-09	60.0	40.7	4738.085	4109.391	3990.558	0.25	5.02	1.82	-4.40	0.25	0.06	0.41	0.24	-0.23	0.12	0.60	79.35	79.10
124	Jan-10	60.0	40.9	4685.712	4028.097	3920.094	-1.11	-2.00	-1.78	0.00	0.49	-0.26	-0.16	-0.23	0.00	0.25	-0.41	79.02	78.78
125	Feb-10	60.0	40.5	4709.017	4151.297	4052.875	0.50	3.01	3.33	0.00	-0.98	0.11	0.25	0.44	0.00	-0.49	0.31	79.27	79.02
126	Mar-10	63.2	41.2	4690.587	4093.111	4058.855	-0.39	-1.41	0.15	3.20	1.71	-0.09	-0.12	0.02	0.17	0.86	0.84	79.94	79.69
127	Apr-10	63.2	41.4	4896.612	4012.247	4036.106	4.30	-2.00	-0.56	0.00	0.48	0.99	-0.16	-0.07	0.00	0.24	1.00	80.74	80.49
128	May-10	63.2	41.6	5004.968	4186.305	4148.949	2.19	4.25	2.76	0.00	0.48	0.50	0.35	0.36	0.00	0.24	1.46	81.93	81.67
129	Jun-10	63.2	41.3	5073.519	4173.931	4200.202	1.36	-0.30	1.23	0.00	-0.72	0.31	-0.02	0.16	0.00	-0.36	0.09	82.00	81.74
130	Jul-10	63.2	41.4	5127.899	3965.979	4136.404	1.07	-5.11	-1.53	0.00	0.24	0.25	-0.42	-0.20	0.00	0.12	-0.25	81.79	81.53
131	Aug-10	63.2	41.3	5186.21	4100.447	4113.969	1.13	3.33	-0.54	0.00	-0.24	0.26	0.27	-0.07	0.00	-0.12	0.34	82.07	81.81
132	Sep-10	62.6	41.4	5224.118	4200.919	4146.062	0.73	2.42	0.78	-0.60	0.24	0.17	0.20	0.10	-0.03	0.12	0.56	82.53	82.27
133	Oct-10	62.6	41.4	5252.546	4134.088	4042.801	0.54	-1.60	-2.52	0.00	0.00	0.13	-0.13	-0.33	0.00	0.00	-0.34	82.25	81.99
134	Nov-10	62.6	41.6	5270.091	4379.707	4235.277	0.33	5.77	4.65	0.00	0.48	0.08	0.47	0.61	0.00	0.24	1.41	83.41	83.15
135	Dec-10	58.8	41.6	5272.206	4274.012	4195.583	0.04	-2.44	-0.94	-3.80	0.00	0.01	-0.20	-0.12	-0.20	0.00	-0.52	82.98	82.72
136	Jan-11	58.8	41.5	5322.094	4262.249	4303.254	0.94	-0.28	2.53	0.00	-0.24	0.22	-0.02	0.33	0.00	-0.12	0.41	83.32	83.06
137	Feb-11	58.8	41.7	5294.713	4272.968	4238.439	-0.52	0.25	-1.52	0.00	0.48	-0.12	0						

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Appendix “D” Subsectors’ Inventory Coverage

NAICS Subsector 311

Table D.1 – Inventory Coverage calculations for Subsector 311

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	0.866789	0.892582	0.882604	0.855825	0.874378	0.864473	0.865156	0.8749	0.859949	0.861273	0.864888	0.863166
2001	0.855303	0.841402	0.840021	0.837109	0.838898	0.827685	0.82841	0.805339	0.811377	0.802864	0.802821	0.796524
2002	0.805267	0.796722	0.787223	0.817942	0.813653	0.838826	0.844236	0.80875	0.805028	0.806888	0.805624	0.793603
2003	0.802993	0.807638	0.805869	0.788155	0.797715	0.776993	0.768285	0.760282	0.751618	0.761625	0.77293	0.756297
2004	0.768085	0.788645	0.778311	0.740012	0.751743	0.755773	0.747502	0.732636	0.740916	0.727703	0.723398	0.746878
2005	0.723489	0.727733	0.740193	0.754529	0.729585	0.73423	0.739859	0.741668	0.737652	0.753441	0.741402	0.744276
2006	0.759614	0.764887	0.767718	0.765009	0.766083	0.77338	0.769744	0.765198	0.77481	0.784537	0.78532	0.782146
2007	0.77859	0.775665	0.77527	0.783891	0.793491	0.799789	0.791068	0.791136	0.801749	0.791766	0.785084	0.789168
2008	0.794504	0.811532	0.798751	0.786496	0.779491	0.786361	0.759454	0.762547	0.754719	0.765175	0.777555	0.774488
2009	0.77859	0.777325	0.773319	0.767996	0.787267	0.769851	0.769582	0.775015	0.754135	0.76554	0.767637	0.776786
2010	0.760629	0.758505	0.741872	0.753256	0.750955	0.75268	0.748828	0.757687	0.757162	0.760559	0.749975	0.757478
2011	0.743184	0.732685	0.733728	0.722764	0.730817	0.73393	0.730977	0.727124	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1771.186	1728.097	1525.89	1808.071	1616.34	1629.33	1788.025	1536.614	1780.545	1680.596	1682.324	1791.423
2001	1691.103	1890.321	1632.033	1708.573	1621.676	1701.336	1703.076	1580.555	1888.315	1633.846	1733.306	1827.478
2002	1654.772	1923.898	1736.94	1613.636	1614.153	1744.129	1584.975	1663.25	1831.797	1658.493	1831.609	1772.377
2003	1671.191	1927.748	1747.518	1693.213	1771.783	1804.7	1733.983	1828.756	1845.074	1755.745	2012.281	1755.988
2004	1800.088	1928.024	1619.753	1771.694	1925.723	1744.421	1855.766	1797.159	1852.381	1967.697	1881.08	1845.067
2005	1988.095	2082.169	1693.104	1840.346	1885.765	1788.709	1949.252	1684.659	1844.002	1905.92	1859.381	1863.428
2006	1941.319	2030.421	1660.57	1899.316	1713.153	1706.689	1879.509	1648.058	1895.586	1840.917	1857.998	1973.803
2007	1883.049	2095.003	1807.242	1889.784	1841.315	1946.767	1954.89	1821.064	2194.909	1909.741	2008.858	2135.661
2008	2033.247	2096.769	2047.237	1978.098	2077.539	2070.88	2016.37	2091.049	2095.259	1977.477	2283.864	1982.833
2009	2152.177	2232.929	1934.954	1942.77	2100.391	1919.399	1915.671	1986.955	1999.14	2008.692	2119.074	2244.609
2010	2266.875	2286.431	1908.079	1967.877	2173.866	1977.719	2087.808	1988.541	2114.467	2236.599	2161.72	2174.146
2011	2302.324	2453.296	2025.039	2248.187	2235.119	2138.21	2369.391	2075.179	0	0	0	0

Inventory coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	17.3	17.9	20.3	17.1	19.2	19.0	17.3	20.1	17.2	18.1	18.2	17.3
2001	18.8	16.0	18.5	17.6	18.5	17.4	17.4	18.5	15.4	17.7	16.9	15.9
2002	17.7	15.1	16.5	18.0	17.9	16.8	18.6	17.8	16.1	17.8	16.1	16.7
2003	17.7	15.3	16.9	17.3	16.8	16.3	16.9	16.0	15.8	16.8	14.8	16.6
2004	16.1	15.0	17.9	16.3	15.0	16.6	15.7	16.1	15.6	14.6	15.2	15.7
2005	14.5	13.8	17.0	15.8	15.3	16.2	14.8	17.1	15.5	15.1	15.6	15.6
2006	15.2	14.5	17.7	15.3	16.9	17.0	15.4	17.6	15.5	16.5	16.5	15.6
2007	16.4	14.7	17.1	16.5	17.5	16.8	16.6	18.2	15.2	17.4	16.5	15.8
2008	16.7	16.2	16.8	17.3	16.4	16.5	16.7	16.0	15.8	16.8	14.8	17.0
2009	15.6	14.8	17.0	16.9	15.7	16.9	16.9	16.3	15.8	16.1	15.4	14.8
2010	14.5	14.4	17.1	16.6	15.0	16.6	15.7	16.7	15.9	15.2	15.7	15.9
2011	14.9	13.9	16.9	15.2	15.3	16.1	14.6	16.7	0.0	0.0	0.0	0.0

Average	16.5
Max	20.3
Min	13.8

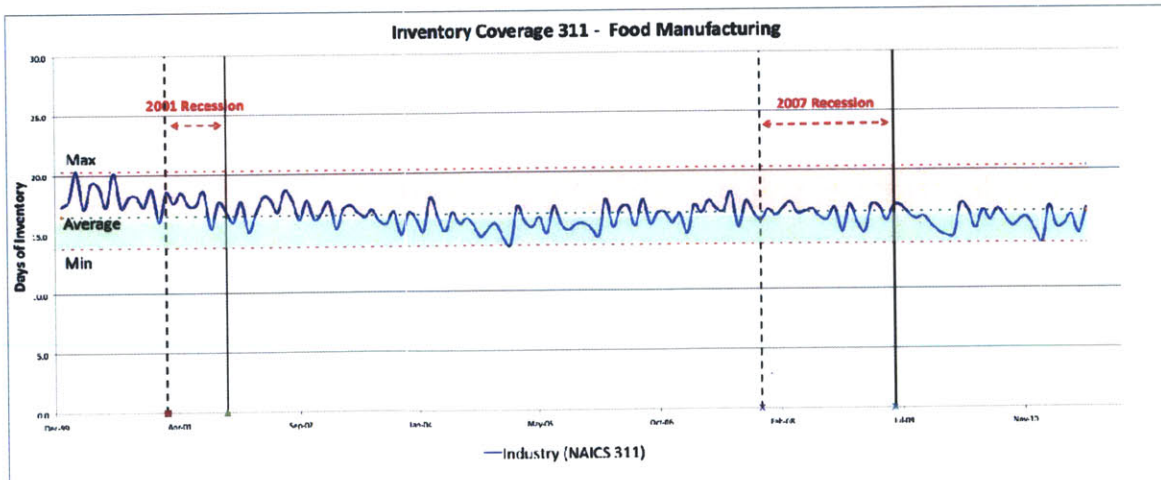


Figure D.1 – Inventory Coverage for Subsector 311

NAICS Subsector 312

Table D.2 – Inventory Coverage calculations for Subsector 312

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.546967	1.591851	1.467871	1.580275	1.44473	1.517105	1.544352	1.466348	1.553824	1.498993	1.478862	1.501713
2001	1.465725	1.434885	1.452139	1.515974	1.353725	1.425538	1.439257	1.32907	1.514644	1.367656	1.531394	1.516139
2002	1.577559	1.663025	1.578462	1.687304	1.611001	1.677467	1.665984	1.658561	1.719272	1.716167	1.712777	1.739572
2003	1.702501	1.701365	1.548169	1.641629	1.613589	1.576828	1.571749	1.59299	1.608392	1.585306	1.652977	1.599541
2004	1.642761	1.696292	1.5064	1.590518	1.600496	1.530908	1.593158	1.616887	1.618611	1.603993	1.617021	1.597615
2005	1.620693	1.591071	1.543048	1.474889	1.402437	1.375176	1.374136	1.316155	1.373087	1.384455	1.379824	1.370932
2006	1.388589	1.421881	1.397842	1.422163	1.34815	1.361656	1.433161	1.392206	1.488309	1.45165	1.46433	1.534753
2007	1.526129	1.51112	1.466623	1.469369	1.427585	1.436865	1.455863	1.40305	1.490696	1.407397	1.468065	1.512323
2008	1.525927	1.592436	1.51533	1.501766	1.472139	1.489364	1.453462	1.489621	1.51433	1.499952	1.559277	1.526123
2009	1.54011	1.557501	1.66527	1.615979	1.656739	1.620293	1.661538	1.657005	1.676878	1.6673	1.683928	1.657934
2010	1.648453	1.687872	1.553367	1.521414	1.537152	1.488211	1.436447	1.388312	1.368071	1.390733	1.385455	1.420817
2011	1.44529	1.437357	1.355095	1.371732	1.351621	1.302761	1.374459	1.330107	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	449.5015	437.8097	407.5659	437.1063	434.254	415.1456	447.4096	409.1972	443.2393	436.7162	445.9422	455.0682
2001	420.4435	496.1173	426.4153	429.1198	459.5863	453.6987	458.7378	451.7001	476.243	453.6772	424.9681	460.6833
2002	403.5509	437.925	417.788	370.5665	389.7211	417.9451	377.8705	379.1595	405.6444	366.4986	400.8937	380.1887
2003	365.2582	420.3169	410.9184	380.3917	404.2082	412.1526	395.5854	405.5981	402.6772	389.8021	437.8655	385.689
2004	391.0467	422.8376	387.0239	384.3802	419.2586	404.8244	406.1169	397.3064	416.302	430.8244	407.1087	413.0267
2005	427.673	448.803	374.9324	425.59	445.0048	428.646	470.6245	421.4691	430.7135	455.9205	437.1089	436.1888
2006	450.3472	463.5592	385.6072	435.7571	415.1257	411.3308	433.5732	393.289	424.7878	422.6343	423.113	427.3077
2007	411.6188	455.7382	404.2681	422.2069	415.882	431.7934	428.416	405.2593	457.1746	417.8276	416.722	424.832
2008	402.3903	405.5215	400.4969	383.5488	405.5405	396.9919	384.7867	395.0387	392.5765	379.1742	432.9645	387.2108
2009	418.6085	441.2367	362.1469	372.6406	398.5352	368.5	361.3163	379.6685	377.6883	381.5904	396.1519	425.8482
2010	419.2101	410.4466	365.7247	386.5841	422.5251	397.5052	429.9321	421.3254	443.9276	459.1314	439.5994	429.4949
2011	445.3872	470.7678	409.0644	440.5042	444.1874	441.239	461.941	410.4229	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	30.9	31.8	33.8	31.6	31.8	33.4	30.9	33.7	31.1	31.5	31.1	30.0
2001	32.2	27.3	31.9	31.8	29.8	29.9	30.2	30.6	28.8	30.1	32.2	30.3
2002	34.7	31.6	33.1	37.1	35.4	33.5	36.7	36.5	34.4	37.8	34.3	36.5
2003	37.5	32.3	32.5	36.1	33.9	33.1	34.6	33.5	33.8	34.9	31.4	35.2
2004	34.5	32.2	34.6	35.0	32.0	33.7	33.5	35.6	34.0	32.1	34.0	33.5
2005	32.4	30.2	35.5	31.0	29.5	30.3	27.5	30.3	28.8	27.7	29.0	28.8
2006	27.8	27.0	32.2	28.4	29.7	30.0	28.7	32.0	29.8	30.5	30.8	30.7
2007	32.0	28.7	32.3	30.9	31.4	30.2	30.6	32.3	28.3	31.0	30.8	30.2
2008	32.0	31.8	31.8	33.0	30.9	31.3	32.0	31.3	31.8	33.0	29.6	33.6
2009	30.8	29.6	36.6	35.6	33.1	35.6	36.6	34.8	35.2	35.0	33.7	31.5
2010	31.3	32.1	35.7	33.5	30.7	32.7	30.2	30.5	28.7	27.8	29.1	29.8
2011	28.9	27.3	31.2	28.8	28.4	28.7	27.5	30.6	0.0	0.0	0.0	0.0

Average														31.9
Max														37.8
Min														27.0

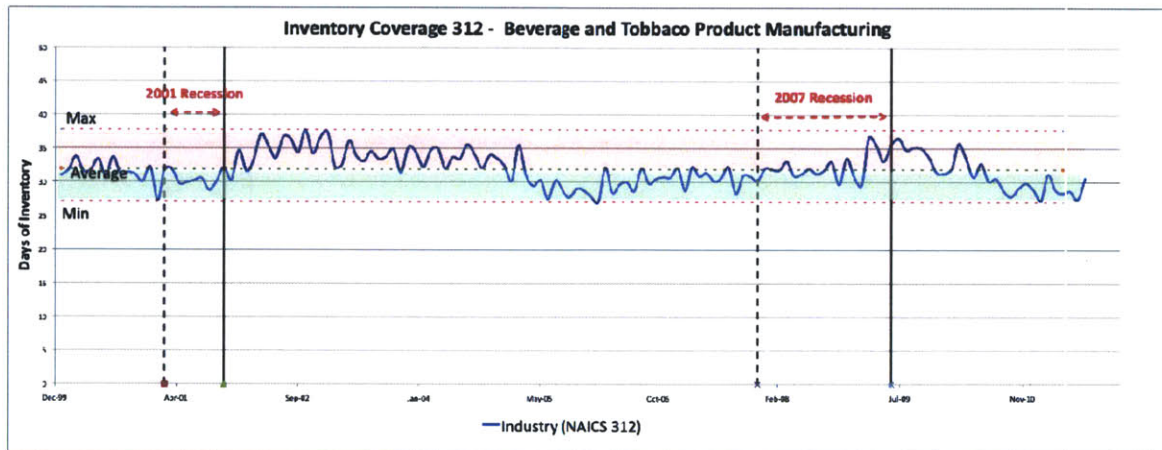


Figure D.2 – Inventory Coverage for Subsector 312

NAICS Subsector 313

Table D.3 – Inventory Coverage calculations for Subsector 313

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.514792	1.522144	1.5	1.535967	1.54514	1.516005	1.526618	1.53089	1.524849	1.55456	1.585983	1.548139
2001	1.59903	1.573433	1.589089	1.691083	1.608517	1.600676	1.681641	1.555819	1.567152	1.570287	1.566573	1.439143
2002	1.471682	1.396663	1.380824	1.297806	1.27453	1.282212	1.268155	1.282051	1.281624	1.297198	1.260836	1.328823
2003	1.302369	1.317251	1.317165	1.382967	1.406799	1.375389	1.369972	1.344966	1.328405	1.267613	1.30509	1.280128
2004	1.264091	1.30006	1.307738	1.28959	1.296921	1.34402	1.284665	1.289381	1.258766	1.266257	1.254698	1.178777
2005	1.180242	1.157209	1.188732	1.152653	1.165118	1.159229	1.190003	1.215657	1.221171	1.236795	1.206907	1.210587
2006	1.243386	1.24041	1.246921	1.27766	1.287135	1.300838	1.317997	1.319275	1.344543	1.2893	1.290127	1.328835
2007	1.26183	1.267361	1.275057	1.30063	1.273141	1.32942	1.314858	1.350439	1.352084	1.342925	1.364795	1.383178
2008	1.388928	1.417574	1.440493	1.394765	1.446848	1.377933	1.382248	1.417189	1.453826	1.493214	1.588843	1.683288
2009	1.699629	1.664946	1.623236	1.607494	1.567745	1.517	1.456213	1.403995	1.334958	1.315676	1.280612	1.243606
2010	1.213339	1.218866	1.19716	1.194332	1.197268	1.206082	1.233871	1.243785	1.27501	1.281759	1.28583	1.290207
2011	1.284161	1.269231	1.289464	1.334488	1.337741	1.368281	1.390655	1.410058	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	222.4327	218.1863	191.6296	215.502	193.5729	196.109	213.001	184.3682	209.4358	196.3534	192.3291	202.9727
2001	181.5102	209.765	174.8184	172.1963	169.3899	174.6638	163.3174	157.8685	186.0418	157.5063	162.3791	177.5265
2002	154.8159	187.1569	168.2298	164.7727	167.1402	181.5341	167.5841	167.2384	180.715	163.1494	182.3142	165.9928
2003	160.35	181.9787	163.776	149.6581	153.7542	156.4436	147.2103	153.8597	154.3559	150.5787	168.5185	144.5016
2004	151.0643	160.934	132.139	140.124	152.7125	133.0817	146.4275	139.1968	148.048	152.957	147.5934	156.1751
2005	163.2525	173.228	137.0762	154.321	153.7427	145.7597	154.8373	128.7611	139.3145	145.6353	142.8157	143.8978
2006	147.6563	155.7512	127.8111	141.1035	124.4874	124.3918	135.2667	117.6449	133.7861	129.6003	127.9075	129.8291
2007	128.6563	141.4499	117.8478	120.0564	116.3457	117.8625	118.477	107.0619	128.7453	111.0748	113.794	119.0898
2008	111.5189	112.638	106.4182	102.1405	101.9938	102.8484	100.0646	101.9758	99.828	93.40819	103.5145	83.23817
2009	88.21	91.48428	78.69218	78.86476	86.40735	78.39572	79.76021	84.17972	86.18366	88.60529	94.23983	100.7887
2010	101.6445	101.7904	85.37849	89.28959	98.91507	90.42926	94.04883	90.17296	93.47238	97.47811	93.60334	94.76427
2011	101.5685	108.4608	88.87119	95.60018	97.00224	91.8256	100.4772	86.28361	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	30.3	30.4	34.5	30.7	34.0	33.4	30.5	35.2	30.5	32.6	33.3	31.0
2001	35.2	29.9	35.0	35.5	35.4	33.6	35.3	35.8	29.8	34.5	32.9	28.8
2002	32.4	26.5	29.0	28.6	28.0	25.6	27.9	28.2	25.6	28.5	25.2	27.9
2003	28.7	25.0	27.7	30.4	29.5	28.9	30.1	28.2	27.9	27.9	24.8	28.2
2004	26.5	24.7	30.1	28.4	25.9	29.6	27.0	28.4	26.4	25.3	26.3	24.8
2005	23.6	22.0	27.3	24.2	24.5	25.5	23.8	28.0	25.6	24.7	25.3	25.4
2006	24.9	23.6	28.7	25.6	28.3	28.6	26.4	30.3	26.9	27.1	27.1	26.6
2007	26.5	24.1	28.1	27.3	28.0	27.9	27.6	31.1	25.7	29.5	28.7	27.7
2008	29.2	28.4	30.3	30.7	30.4	28.9	30.4	29.8	30.5	32.9	30.2	37.0
2009	34.0	31.6	35.7	35.4	31.4	33.4	32.0	29.5	28.0	27.6	25.6	23.6
2010	23.1	23.2	27.5	26.3	23.9	26.5	25.9	27.4	26.8	25.6	27.0	27.1
2011	25.7	24.1	29.7	28.0	28.1	30.1	27.8	32.4	0.0	0.0	0.0	0.0

	Average	Max	Min
	28.6	37.0	22.0

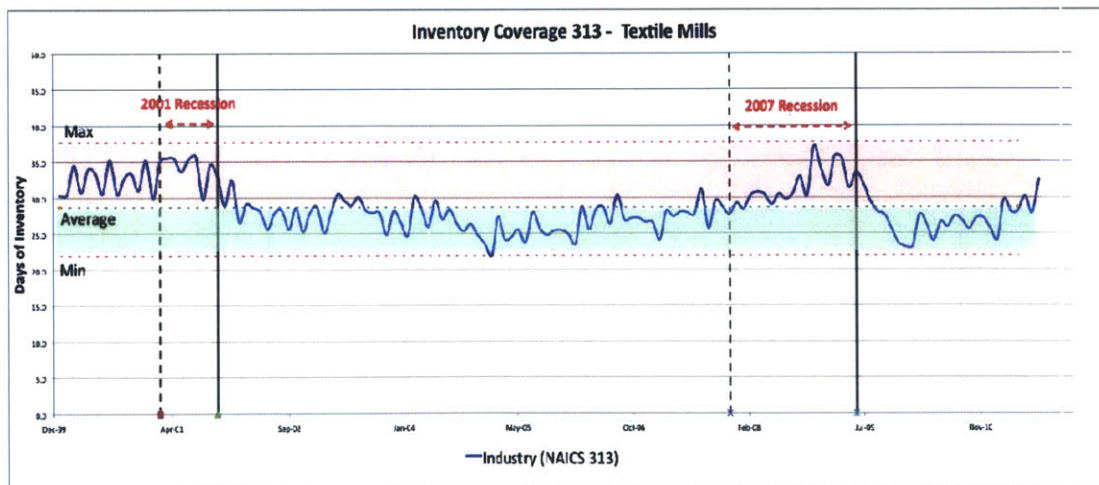


Figure D.3 – Inventory Coverage for Subsector 313

NAICS Subsector 314

Table D.4 – Inventory Coverage calculations for Subsector 314

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.554857	1.575492	1.548639	1.608954	1.643384	1.662452	1.710809	1.695929	1.776557	1.784191	1.835575	1.877918
2001	1.82955	1.76511	1.818045	1.880016	1.784129	1.759027	1.728381	1.708656	1.719181	1.764751	1.741911	1.722138
2002	1.758758	1.561863	1.545994	1.501267	1.471244	1.465354	1.512928	1.476586	1.446281	1.431627	1.383003	1.339009
2003	1.458028	1.426582	1.390234	1.395997	1.398968	1.372975	1.326531	1.336187	1.274066	1.236519	1.241303	1.124415
2004	1.164326	1.185079	1.181559	1.217518	1.211524	1.221857	1.20545	1.192976	1.226259	1.203462	1.19278	1.190861
2005	1.18943	1.196159	1.222649	1.196194	1.211099	1.202731	1.182293	1.167067	1.091675	1.151587	1.112401	1.187479
2006	1.15408	1.147227	1.151033	1.195044	1.172341	1.217267	1.242599	1.274963	1.257132	1.282882	1.283553	1.263889
2007	1.275522	1.297864	1.300573	1.319865	1.342535	1.341392	1.369048	1.356089	1.383033	1.372716	1.373096	1.397688
2008	1.412371	1.430628	1.424978	1.405139	1.390358	1.365637	1.444109	1.471234	1.560851	1.610298	1.707978	1.767051
2009	1.649894	1.605832	1.638106	1.577291	1.586566	1.575972	1.513652	1.525404	1.489205	1.486333	1.462838	1.425439
2010	1.38871	1.426748	1.425427	1.432967	1.437808	1.494696	1.528281	1.556502	1.568528	1.571107	1.56396	1.585842
2011	1.642978	1.57949	1.559043	1.619749	1.632642	1.617584	1.659365	1.659586	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	142.672	141.1298	125.8131	140.6988	127.3353	126.7474	136.5591	120.0646	132.7821	125.8735	123.9578	127.3392
2001	118.2346	140.2325	115.8894	116.1685	115.5484	123.3188	123.3083	112.8523	134.7148	113.3108	119.823	126.949
2002	109.5795	138.4034	122.1512	118.9308	119.7486	129.8295	113.0988	113.5506	125.2117	111.8421	123.4243	118.7332
2003	104.7375	123.2648	112.9794	107.5378	111.5836	112.011	109.6058	113.1062	116.2607	112.7558	131.6764	126.0752
2004	124.9945	134.4976	111.3313	113.2231	123.9602	112.2415	119.9725	115.751	119.2621	126.8369	121.7358	121.8311
2005	130.9075	137.1525	110.4719	121.3572	119.657	114.6804	126.1653	110.8829	127.1626	128.0035	124.9948	121.67
2006	128.7326	135.6837	110.6822	120.8298	110.2128	108.249	117.2735	98.64383	114.5586	106.665	105.0145	110.7692
2007	102.9656	110.7756	93.34556	94.54888	90.34833	94.85141	93.04103	85.77241	101.827	88.47628	92.66587	96.29416
2008	90.96568	93.74233	89.04221	85.51384	89.17325	89.08755	82.98128	85.65064	81.31485	76.67512	85.24978	71.27221
2009	77.31684	79.50675	65.66319	65.71448	69.96038	62.0009	64.2909	66.18215	67.20569	67.00727	71.16069	77.08119
2010	78.31767	75.89008	62.93417	65.79233	72.52712	64.80945	67.04772	63.67064	67.12294	70.60813	67.94461	67.67799
2011	69.90718	76.12082	63.55186	67.45001	67.13566	64.90456	70.26861	61.28306	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	31.1	31.5	35.6	32.2	36.2	36.6	34.2	39.0	35.5	37.5	38.5	37.6
2001	40.3	33.5	40.0	39.5	39.3	36.9	36.3	39.3	32.7	38.8	36.6	34.4
2002	38.7	29.7	32.5	33.0	32.4	29.3	33.3	32.5	28.9	31.5	27.7	28.1
2003	32.1	27.1	29.2	30.7	29.4	28.8	29.2	28.1	26.8	27.2	23.6	24.7
2004	24.5	22.5	27.2	26.8	24.2	26.9	25.3	26.2	25.8	24.1	25.0	25.0
2005	23.8	22.7	28.1	25.1	25.4	26.5	23.6	26.8	22.9	23.0	23.4	24.9
2006	23.1	21.8	26.5	23.9	25.8	26.8	24.9	29.3	25.1	26.9	27.0	25.3
2007	26.8	24.7	28.6	27.7	29.5	28.2	28.8	31.2	26.3	30.2	28.8	28.0
2008	29.7	28.6	29.9	30.9	29.2	28.7	31.8	30.9	32.8	35.4	32.5	38.9
2009	33.0	30.5	36.0	34.7	31.7	34.7	33.3	32.0	31.3	31.2	29.3	27.1
2010	26.4	27.1	32.8	31.5	28.8	32.9	32.1	34.2	32.9	31.4	32.8	33.3
2011	32.9	30.0	35.9	34.0	34.3	35.6	33.2	38.2	0.0	0.0	0.0	0.0

	Average	30.3
	Max	40.3
	Min	21.8

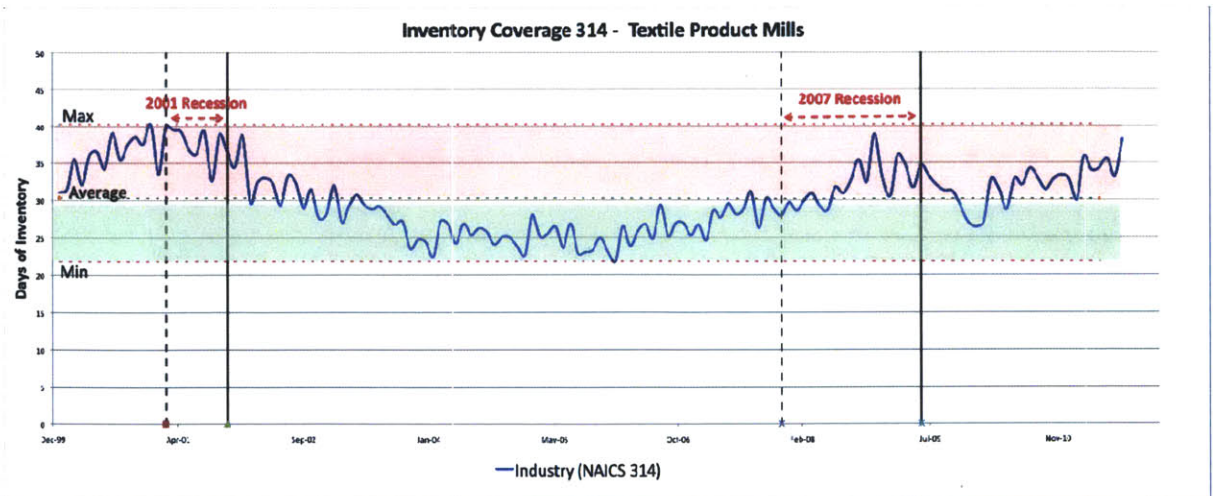


Figure D.4 – Inventory Coverage for Subsector 314

NAICS Subsector 315

Table D.5 – Inventory Coverage calculations for Subsector 315

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.895837	1.947866	1.820019	1.867489	1.877971	1.906572	1.919094	1.859535	1.898906	1.891789	1.976181	1.934442
2001	1.942493	1.862041	1.793249	1.79917	1.794993	1.790529	1.759545	1.568932	1.576548	1.575879	1.600501	1.474296
2002	1.489307	1.460021	1.581736	1.516384	1.563662	1.571711	1.612922	1.633422	1.694956	1.816379	1.711504	1.734594
2003	1.729433	1.749768	1.746902	1.775228	1.730341	1.606964	1.627286	1.591434	1.586003	1.559	1.549419	1.582034
2004	1.577402	1.580415	1.50977	1.555955	1.530649	1.614035	1.603767	1.643531	1.660714	1.646948	1.669977	1.631816
2005	1.647914	1.689287	1.73098	1.715728	1.690586	1.551674	1.62452	1.647403	1.650256	1.618139	1.506721	1.481856
2006	1.53215	1.510638	1.334619	1.406109	1.309583	1.332335	1.401266	1.451309	1.340586	1.324762	1.414248	1.398948
2007	1.777095	1.778517	1.813367	1.809973	1.86489	1.939747	1.946748	1.809637	1.764081	1.814661	1.814347	1.890366
2008	1.730705	1.816557	1.785971	1.732153	1.738397	1.739641	1.712074	1.713743	1.638258	1.750865	1.728742	1.731441
2009	1.736882	1.704918	1.795056	1.804401	1.821608	1.783264	1.726368	1.772528	1.744961	1.574209	1.590083	1.556286
2010	1.620487	1.605785	1.600492	1.589491	1.590909	1.655061	1.712072	1.722045	1.820197	1.819712	1.824045	1.829384
2011	1.863025	1.912309	1.894571	1.892633	1.942247	1.922656	1.95275	1.90052	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	257.4776	246.1843	226.5919	251.4272	225.619	220.1496	241.6422	215.7338	240.0778	230.5058	223.6428	239.2788
2001	214.248	251.6368	217.7356	220.2724	203.068	206.2886	200.5013	195.0702	221.2132	183.9455	182.2204	194.7064
2002	169.2986	196.5248	160.7539	157.6274	152.8065	167.3769	147.7595	145.7547	155.7385	133.5441	157.0085	147.2597
2003	140.0768	158.7777	142.4599	134.2534	143.0786	149.9823	140.7529	144.8816	141.1016	132.5478	150.8772	124.3886
2004	127.0134	134.98	115.6117	114.8347	126.8535	109.9032	116.4881	108.8528	112.9129	118.9068	111.7085	113.8661
2005	120.575	123.3714	98.4632	108.1297	108.9396	111.5082	114.4239	97.41717	104.5889	111.0199	110.9868	111.2637
2006	110.026	115.753	106.8591	113.4303	108.588	103.1899	106.9856	89.82322	101.4431	98.044	92.63106	97.47863
2007	90.34348	98.31836	82.22207	83.92406	76.25384	74.25217	73.34102	72.03726	81.14751	68.32188	72.20412	72.13818
2008	70.37336	68.67076	64.40694	62.07536	63.11366	60.96258	57.83978	59.39498	59.6033	52.33611	60.86826	51.37881
2009	54.62959	57.61234	46.4158	45.32415	48.36867	43.63432	44.104	43.67563	43.56914	47.0501	48.48223	51.42972
2010	50.14857	50.95838	42.22166	44.03025	48.96078	44.68993	46.4935	45.26726	46.11153	49.53285	47.46298	47.75938
2011	49.79852	51.33922	42.96511	46.95375	46.32068	44.81005	49.6806	44.96094	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	37.9	39.0	41.9	37.3	41.3	41.9	38.4	42.8	38.0	39.7	41.5	38.7
2001	42.7	35.4	39.5	37.8	39.5	37.6	37.0	36.1	30.0	34.7	33.6	29.5
2002	32.8	27.7	33.2	33.4	34.4	31.4	35.5	35.9	33.9	40.0	34.2	36.4
2003	38.0	33.2	36.7	39.1	36.3	33.7	35.8	33.4	33.3	34.3	29.4	34.8
2004	33.1	30.0	34.7	34.2	30.6	35.5	33.7	36.2	34.9	32.9	35.1	34.3
2005	33.0	32.1	39.8	36.0	35.5	34.1	32.5	37.9	34.7	32.4	31.6	31.1
2006	30.6	28.7	30.7	28.1	28.8	29.3	28.0	33.4	26.8	27.8	29.7	28.0
2007	37.3	33.8	39.9	38.0	41.0	40.7	40.9	41.6	33.5	39.9	38.1	37.8
2008	36.3	36.3	37.5	38.1	36.5	36.5	37.7	36.0	34.4	38.5	32.8	38.1
2009	34.7	32.4	39.5	39.7	36.4	39.2	38.0	37.2	36.6	33.1	31.8	29.6
2010	30.8	30.5	36.8	35.0	31.8	36.4	36.0	37.9	38.2	36.4	38.3	38.4
2011	37.3	36.3	43.6	39.7	40.8	42.3	39.1	43.7	0.0	0.0	0.0	0.0

Average	35.6
Max	43.7
Min	26.8

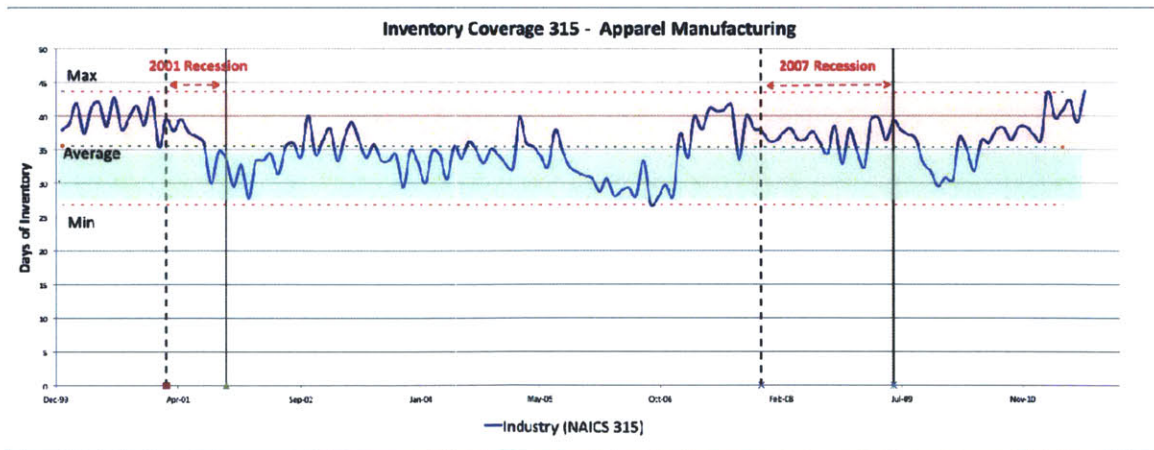


Figure D.5 – Inventory Coverage for Subsector 315

NAICS Subsector 316

Table D.6 – Inventory Coverage calculations for Subsector 316

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	2.204315	2.410714	2.218159	2.130695	2.161692	2.16416	2.099154	2.166667	2.272251	2.167082	2.179067	1.884234
2001	2.038647	2.012195	1.869767	2.04461	1.835138	1.838331	2.00597	1.930723	1.863843	1.703869	1.672414	1.478916
2002	1.67027	1.668498	1.785425	1.712274	1.726899	1.735113	1.859914	1.894624	1.770186	1.850427	1.758551	1.780083
2003	1.766871	1.741273	1.781705	1.736626	1.752599	1.761603	1.618952	1.613035	1.726681	1.626804	1.578842	1.649378
2004	1.678801	1.719565	1.69379	1.654886	1.62423	1.551587	1.558882	1.534653	1.578093	1.625506	1.597656	2.004662
2005	1.544815	1.685221	1.734774	1.692308	1.538726	1.677358	1.757515	1.743689	1.850716	1.910448	1.771654	1.82582
2006	1.799595	1.621569	1.58365	1.662028	1.706237	1.740519	1.729249	1.838115	1.908903	1.804688	2.010917	2.019108
2007	1.945344	1.940239	1.93837	2.063291	2.065957	2.182222	2.204036	2.213483	2.166667	2.317016	2.424318	2.403509
2008	2.57967	2.602273	2.727545	2.190217	2.229862	2.319475	2.218884	2.134615	2.010309	2.174419	2.305	2.334197
2009	2.365535	2.472527	2.526027	2.465374	2.536232	2.372222	2.383523	2.452381	2.294798	2.267267	2.277946	2.328173
2010	2.313846	2.296636	2.411184	2.345048	2.326984	2.385852	2.417476	2.483553	2.561056	2.637255	2.660256	2.658147
2011	2.711974	2.750809	2.766562	2.734568	2.693939	2.784375	2.820755	2.891026	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	39.28215	36.07532	33.9353	41.04331	35.93457	35.52667	40.42033	33.91559	37.15953	37.11417	36.73337	44.20078
2001	36.43404	41.61803	37.62359	36.87963	36.11159	34.85096	30.53087	27.59997	33.16442	29.17426	29.10053	31.9538
2002	24.21043	27.49937	22.38231	21.39291	20.96247	23.05871	19.95356	19.93997	22.71872	19.99316	23.37723	21.65319
2003	20.87068	23.88777	21.22777	20.51152	21.30676	20.97716	20.93357	21.60901	20.23261	20.33714	24.4152	20.32383
2004	20.49594	22.19113	18.50898	19.87603	22.01627	20.67607	21.55117	20.73581	21.14972	22.13262	21.84673	18.37102
2005	25.56155	24.50496	19.65403	22.38179	24.41895	21.28172	21.94371	19.58994	20.14335	20.26793	21.0535	20.31302
2006	21.44097	23.26006	19.71514	21.51411	19.22631	19.34811	21.42252	17.93524	20.50085	20.82063	18.65656	20.12821
2007	20.04927	22.41409	19.71514	18.86202	17.75981	17.79205	17.64298	16.08459	19.63246	16.13103	15.7971	16.4475
2008	14.22316	14.39673	12.89683	20.21569	19.36399	17.22937	16.68937	17.60408	18.24975	15.57407	17.10984	14.43393
2009	15.68451	15.6266	13.51018	13.33498	13.97587	13.14507	12.87281	12.83903	13.21203	12.70696	13.26249	13.64979
2010	13.68454	13.7714	10.52944	11.31483	12.51838	11.2539	11.71818	10.99141	11.47109	12.14507	11.79017	11.80781
2011	12.18349	12.76252	10.71593	11.92242	12.09321	11.20251	12.23736	10.41411	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	44.1	48.2	51.0	42.6	47.6	47.6	42.0	49.8	45.4	45.5	45.8	37.7
2001	44.9	38.2	41.1	42.9	40.4	38.6	42.1	44.4	35.4	37.5	35.1	29.6
2002	36.7	31.7	37.5	37.7	38.0	34.7	40.9	41.7	35.4	40.7	35.2	37.4
2003	38.9	33.1	37.4	38.2	36.8	37.0	35.6	33.9	36.3	35.8	30.0	36.3
2004	35.3	32.7	39.0	36.4	32.5	34.1	32.7	33.8	33.1	32.5	33.6	42.1
2005	30.9	32.0	39.9	35.5	32.3	36.9	35.2	40.1	38.9	38.2	37.2	38.3
2006	36.0	30.8	36.4	33.2	37.5	38.3	34.6	42.3	38.2	37.9	42.2	40.4
2007	40.9	36.9	42.6	43.3	45.5	45.8	46.3	50.9	41.2	51.0	50.9	48.1
2008	54.2	52.0	57.3	48.2	46.8	48.7	48.8	44.8	42.2	47.8	43.8	51.4
2009	47.3	47.0	55.6	54.2	50.7	52.2	52.4	51.5	48.2	47.6	45.6	44.2
2010	44.0	43.6	55.5	51.6	46.5	52.5	50.8	54.6	53.8	52.7	55.9	55.8
2011	54.2	52.3	63.6	57.4	56.6	61.3	56.4	66.5	0.0	0.0	0.0	0.0
Average												42.9
Max												66.5
Min												29.6

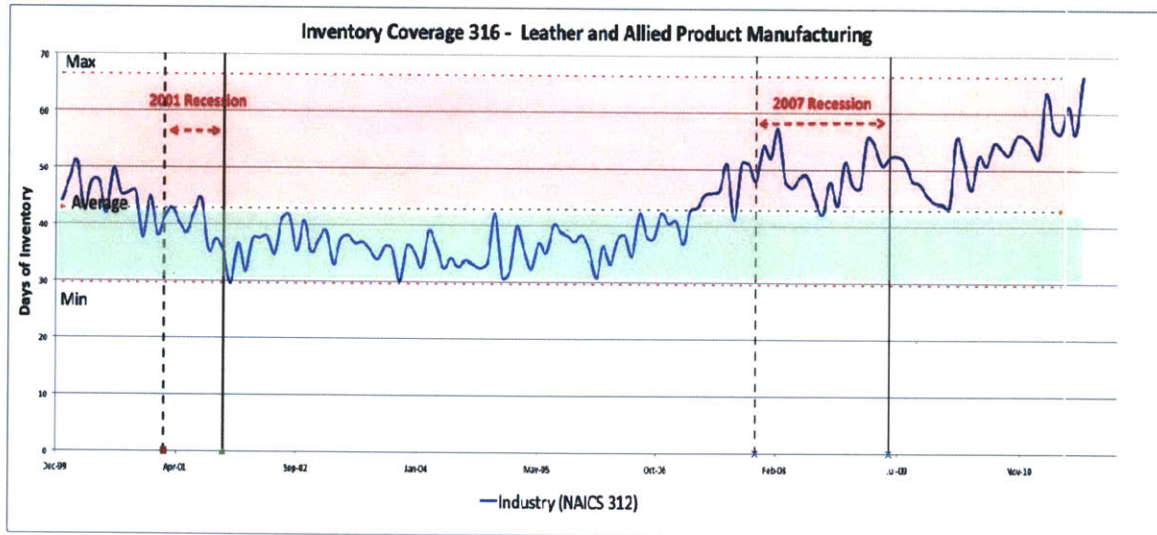


Figure D.6 – Inventory Coverage for Subsector 316

NAICS Subsector 321

Table D.7 – Inventory Coverage calculations for Subsector 321

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.215892	1.247628	1.180373	1.290335	1.281454	1.340242	1.390537	1.372186	1.348868	1.375905	1.424016	1.413216
2001	1.460641	1.415221	1.412895	1.373919	1.32324	1.33566	1.346276	1.361081	1.354896	1.359538	1.346953	1.300363
2002	1.301566	1.276219	1.312051	1.287649	1.307123	1.29576	1.267637	1.283138	1.342344	1.300839	1.276391	1.2821
2003	1.297039	1.366783	1.331195	1.346702	1.335748	1.267785	1.223996	1.181621	1.145581	1.133542	1.128857	1.210612
2004	1.236536	1.276933	1.226637	1.210419	1.201062	1.249621	1.242748	1.166272	1.25	1.287716	1.286347	1.211762
2005	1.304903	1.279637	1.329986	1.317417	1.335225	1.307896	1.282516	1.272559	1.223466	1.179809	1.168858	1.169071
2006	1.117415	1.113537	1.146334	1.268087	1.281107	1.300758	1.356088	1.353137	1.373302	1.403576	1.378071	1.228957
2007	1.37484	1.409777	1.386428	1.388019	1.34507	1.357143	1.368158	1.364642	1.362663	1.396887	1.403916	1.395458
2008	1.413116	1.406342	1.403181	1.378802	1.418725	1.382938	1.433552	1.469545	1.529454	1.522079	1.596438	1.69288
2009	1.829984	1.700283	1.698182	1.656477	1.60495	1.592696	1.56098	1.544738	1.500636	1.496207	1.480726	1.506569
2010	1.518449	1.492678	1.482451	1.399933	1.435108	1.557713	1.551133	1.600573	1.641528	1.590074	1.569364	1.555371
2011	1.589359	1.688863	1.609419	1.619092	1.639703	1.611534	1.583068	1.611058		0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	427.8664	412.6363	374.1441	395.6201	355.2338	341.5101	362.5611	317.2256	365.2724	345.3191	334.0745	355.4581
2001	309.1173	362.7874	307.376	327.6666	327.2206	345.0563	341.6724	304.5972	366.8657	312.017	324.8495	344.4658
2002	320.4066	375.0693	334.2395	320.9797	319.6884	352.8409	324.8903	318.6535	337.5823	315.5332	356.0207	333.7826
2003	317.1148	351.4495	323.4035	305.1827	317.9623	329.7044	322.5711	344.3359	354.5315	347.9118	413.7427	336.1444
2004	347.1582	380.8262	337.1646	365.6612	408.5443	352.0266	370.7145	381.0462	380.4376	380.4211	366.2741	386.6478
2005	397.664	430.0833	349.8726	384.3117	377.6321	364.1182	402.6825	349.0433	390.056	430.2074	416.0139	424.2008
2006	451.3455	480.4342	381.8966	401.4115	364.6809	361.5896	378.3235	331.5815	374.8727	347.9322	351.4603	411.7521
2007	347.7777	372.6453	324.4542	335.4575	328.4054	340.9748	340.3988	310.559	370.879	311.6034	322.2922	343.0479
2008	316.3871	318.5685	293.7312	278.1489	280.3783	288.6768	267.0658	273.578	264.452	255.0887	280.9863	226.3435
2009	226.1763	243.0708	203.5781	203.0167	220.9808	195.971	198.5046	208.405	210.056	206.2496	216.2067	225.1582
2010	224.8054	232.9345	194.4136	214.5842	233.6367	197.5042	205.8077	189.4572	195.2736	209.5224	201.302	204.3921
2011	212.6787	212.1305	180.8862	196.2048	192.5386	183.9313	205.4568	175.6714		0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	24.3	25.0	27.1	25.8	28.2	29.5	27.8	31.6	27.0	28.9	29.9	28.3
2001	32.1	26.9	31.1	28.9	29.1	28.0	28.3	31.3	25.7	29.9	28.3	26.0
2002	28.6	24.2	27.6	28.3	28.8	25.9	27.9	28.2	26.8	28.6	25.5	26.9
2003	28.5	26.0	28.0	29.6	28.1	26.6	26.9	24.8	24.1	24.9	21.4	26.6
2004	26.0	24.3	28.2	26.6	24.0	27.5	26.1	25.7	26.3	25.8	27.0	25.4
2005	26.1	24.3	30.6	27.7	28.0	28.8	25.7	29.3	25.7	23.6	24.5	24.6
2006	22.3	21.2	26.4	25.4	28.2	28.6	27.1	31.1	27.5	29.5	28.9	24.6
2007	28.9	26.8	30.5	29.1	29.6	28.5	28.7	31.4	25.9	30.7	29.5	27.9
2008	29.7	28.1	29.5	30.3	29.8	29.0	31.5	30.9	32.1	33.5	30.3	37.2
2009	36.6	32.3	37.4	36.4	32.1	35.0	34.3	32.4	31.5	31.4	29.6	28.6
2010	28.9	28.4	34.1	30.8	28.7	34.3	32.6	35.2	34.5	31.8	33.0	32.7
2011	31.8	32.1	37.0	34.0	34.4	35.5	31.7	37.1	0.0	0.0	0.0	0.0

Average	28.92808
Max	37.36
Min	21.15721

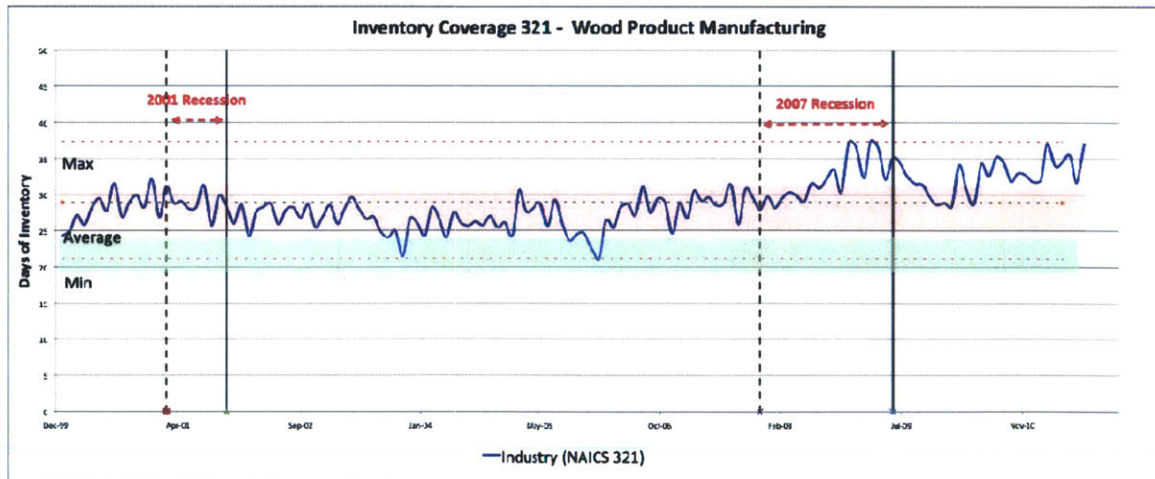


Figure D.7 – Inventory Coverage for Subsector 321

NAICS Subsector 322

Table D.8 – Inventory Coverage calculations for Subsector 322

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.116627	1.130836	1.109822	1.109626	1.14681	1.140908	1.145099	1.188279	1.129526	1.160908	1.126589	1.109042
2001	1.149902	1.111249	1.119979	1.1444	1.135537	1.166667	1.090951	1.073571	1.104107	1.090812	1.108464	1.145759
2002	1.118431	1.143183	1.122773	1.096122	1.081346	1.115449	1.073241	1.069442	1.063287	1.080958	1.105417	1.106489
2003	1.117006	1.104831	1.071014	1.113114	1.116489	1.113613	1.120323	1.136253	1.132955	1.119399	1.123329	1.109635
2004	1.065782	1.086428	1.060707	1.061996	1.078306	1.03871	1.068056	1.059584	1.07504	1.093938	1.086033	1.080488
2005	1.074202	1.070971	1.072048	1.07322	1.077857	1.078515	1.116042	1.124743	1.137501	1.105644	1.076746	1.066544
2006	1.041789	1.068559	1.067665	1.08744	1.058239	1.058446	1.088204	1.077379	1.08641	1.072553	1.084946	0.988719
2007	1.05387	1.051877	1.039785	1.031487	1.021434	1.015636	1.010593	1.017903	1.006614	0.999933	0.990619	1.012359
2008	0.989775	1.015651	1.036023	1.027282	1.05758	1.061678	1.047787	1.039992	1.044231	1.089694	1.117468	1.116048
2009	1.146285	1.04215	1.094048	1.083433	1.063748	1.057806	1.04899	1.055756	1.047877	1.021361	1.01058	0.98314
2010	0.978402	0.961268	0.937561	0.958507	0.95601	0.961338	0.94705	0.946419	0.94552	0.956148	0.964782	0.939332
2011	0.945181	0.954193	0.954444	0.963516	0.971602	0.970083	0.971665	0.981756	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	683.8983	677.2052	597.3554	692.2244	612.2285	613.5696	679.0811	569.2575	677.0428	624.0918	637.6691	672.6121
2001	583.5607	695.2748	580.497	588.0175	558.8389	564.0676	598.7241	550.2951	646.2797	566.5104	585.7964	594.6102
2002	549.5551	618.7358	564.6323	547.2194	552.4277	593.0398	556.0334	558.2333	623.5654	561.9874	610.3951	586.3881
2003	552.6248	638.6913	577.3423	536.1695	560.1329	562.0906	527.8974	541.6777	540.7066	519.4146	597.8558	517.2879
2004	559.0959	598.9194	501.407	522.562	570.9765	540.4906	561.2767	543.0319	559.1163	582.3477	562.4253	568.2169
2005	610.8715	646.1596	530.0409	579.2391	578.1532	554.8908	586.6315	499.7908	531.7598	572.688	557.2962	566.7249
2006	607.5955	631.3053	525.6747	592.8571	552.6499	547.7717	587.5106	514.3886	590.9168	571.1439	568.2513	651.5812
2007	584.6351	644.6506	554.3778	581.3403	557.0914	581.6025	586.293	530.972	646.4316	559.5476	589.1574	620.3883
2008	596.1612	611.4928	575.6081	554.3934	564.9034	561.7454	538.859	572.8098	571.6875	535.08	619.034	518.4623
2009	544.494	621.286	500.617	494.096	539.5092	489.5442	488.9473	507.8295	508.0521	512.7049	541.5585	578.9964
2010	577.0665	587.1584	493.1517	511.4088	567.3409	514.7846	551.475	527.0092	553.149	577.4467	546.1644	549.6856
2011	576.8427	601.4082	494.1495	532.535	525.212	503.1679	554.1061	477.5139	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	22.3	22.6	25.5	22.2	25.2	25.1	22.9	27.3	22.6	24.4	23.7	22.2
2001	25.3	21.1	24.6	24.0	25.0	24.5	22.9	24.7	21.0	24.0	23.3	22.9
2002	24.6	21.7	23.6	24.1	23.8	22.3	23.6	23.5	21.3	23.8	22.1	23.2
2003	24.6	21.0	22.5	24.5	23.4	23.4	24.6	23.9	23.8	24.6	21.3	24.4
2004	22.4	20.6	24.4	23.4	21.6	22.9	22.4	23.3	22.6	21.9	22.8	22.7
2005	21.5	20.3	24.7	22.5	22.6	23.7	22.3	25.9	23.9	22.1	22.6	22.4
2006	20.8	20.3	24.6	21.7	23.3	23.3	21.8	24.8	21.7	22.5	22.8	19.8
2007	22.1	20.0	22.9	21.7	22.5	21.3	21.2	23.4	19.1	22.0	20.8	20.2
2008	20.8	20.3	21.8	22.6	22.2	22.3	23.1	21.8	21.9	24.0	21.2	24.6
2009	22.9	19.8	24.1	23.8	21.3	23.3	23.1	22.2	22.0	21.4	20.2	18.7
2010	18.6	18.3	21.6	21.1	19.1	21.1	19.9	20.8	19.9	19.1	20.3	19.7
2011	18.9	18.1	22.0	20.2	20.4	21.3	19.4	22.6	0.0	0.0	0.0	0.0

	Average	Max	Min
2000	22.4	27.3	18.1
2001	22.4	27.3	18.1
2002	22.4	27.3	18.1
2003	22.4	27.3	18.1
2004	22.4	27.3	18.1
2005	22.4	27.3	18.1
2006	22.4	27.3	18.1
2007	22.4	27.3	18.1
2008	22.4	27.3	18.1
2009	22.4	27.3	18.1
2010	22.4	27.3	18.1
2011	22.4	27.3	18.1

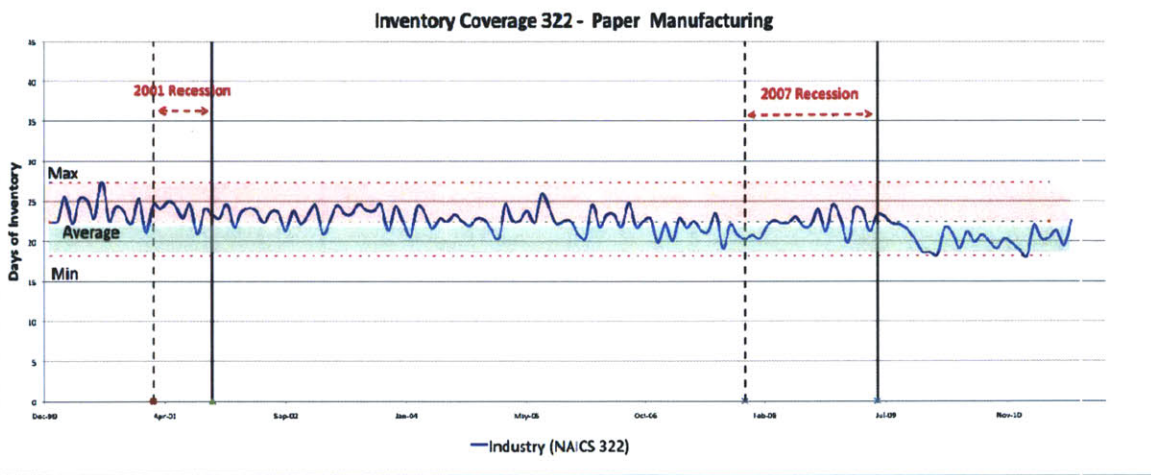


Figure D.8 – Inventory Coverage for Subsector 322

NAICS Subsector 323

Table D.9 – Inventory Coverage calculations for Subsector 323

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	0.806346	0.831703	0.835208	0.787219	0.774907	0.775613	0.7657	0.800092	0.805038	0.822359	0.822329	0.788166
2001	0.799542	0.784096	0.803845	0.81783	0.806883	0.812589	0.800903	0.812792	0.797648	0.792469	0.782376	0.776532
2002	0.795244	0.762663	0.743648	0.762254	0.759531	0.773349	0.779586	0.752349	0.743356	0.757153	0.768722	0.770545
2003	0.794888	0.775009	0.776442	0.764861	0.774136	0.776178	0.801044	0.780717	0.779997	0.782515	0.765087	0.767545
2004	0.765063	0.781449	0.7629	0.764899	0.781173	0.749435	0.761398	0.792711	0.781313	0.78888	0.789387	0.779536
2005	0.750061	0.766223	0.780991	0.786444	0.793198	0.799303	0.81336	0.791775	0.790653	0.788684	0.809773	0.802465
2006	0.797842	0.792464	0.800615	0.797253	0.783063	0.798073	0.813166	0.810652	0.821131	0.819234	0.790038	0.777387
2007	0.781904	0.777386	0.766507	0.765003	0.758936	0.76268	0.75776	0.755795	0.770716	0.761405	0.743005	0.791506
2008	0.780787	0.819107	0.811611	0.793512	0.821975	0.808516	0.803679	0.815425	0.817727	0.8072	0.854723	0.859971
2009	0.837194	0.832696	0.825918	0.819807	0.815363	0.797707	0.792453	0.792387	0.791514	0.794781	0.790209	0.769732
2010	0.780991	0.768972	0.739118	0.733092	0.73893	0.754105	0.756988	0.764933	0.753868	0.775313	0.775057	0.7839
2011	0.795332	0.799053	0.786654	0.803239	0.781241	0.794139	0.805572	0.781692	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	427.318	420.4658	361.4772	427.4114	396.1294	397.6048	436.608	370.139	422.8599	399.8797	397.0724	427.4366
2001	383.9215	448.0536	382.2732	390.0923	373.7615	381.1341	383.5954	347.0363	409.6132	353.955	366.9951	386.333
2002	348.543	398.7409	361.9682	340.7369	337.5947	374.1477	338.3074	346.8268	376.9991	346.3773	376.8579	360.2426
2003	333.9735	389.8072	348.8239	335.1059	345.9579	338.1129	315.4385	337.7784	333.9478	312.7306	376.3158	323.2417
2004	332.1483	363.5487	303.3966	314.7934	347.6944	326.7968	339.6567	317.7301	338.3955	353.7634	336.1068	343.6108
2005	365.5885	381.2615	312.4179	337.0286	337.3681	322.7192	351.5391	307.9995	340.2126	354.408	332.463	334.4156
2006	354.0365	374.0308	304.91	355.047	326.1509	324.747	353.7257	307.0675	351.91	337.4405	345.9204	364.7436
2007	343.151	379.4767	327.0917	338.8399	322.4351	337.535	339.0143	311.8602	372.755	329.6898	348.8298	352.3228
2008	340.457	341.636	328.5603	318.3605	318.1933	315.2184	295.8961	303.8585	300.9891	288.736	328.2951	281.4617
2009	305.8684	314.335	267.0574	260.3461	282.1506	251.6185	253.9088	263.0091	260.9948	257.3446	272.5422	291.8013
2010	283.9647	287.4726	245.0865	259.7712	284.505	255.6192	265.9155	253.0194	266.7124	275.5662	263.9183	264.2988
2011	277.0264	287.7557	242.6126	259.0184	258.6482	243.6897	265.2197	235.9197	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	16.1	16.6	19.2	15.7	17.0	17.1	15.3	18.4	16.1	17.3	17.3	15.8
2001	17.6	14.9	17.7	17.2	17.8	17.1	16.8	18.7	15.2	17.4	16.4	15.5
2002	17.5	14.5	15.6	16.8	16.7	15.5	17.2	16.6	14.9	16.7	15.4	16.2
2003	17.5	14.7	16.3	16.8	16.3	16.3	17.6	16.4	16.4	17.2	14.5	16.9
2004	16.1	14.8	17.5	16.8	15.6	16.5	16.0	17.4	16.4	15.8	16.6	16.4
2005	15.0	14.6	18.0	16.5	16.7	17.6	16.3	18.2	16.6	15.8	17.0	16.9
2006	16.0	15.1	18.4	15.9	17.2	17.6	16.3	18.6	16.4	17.2	16.6	15.5
2007	16.4	14.8	16.9	16.1	16.7	16.0	15.9	17.4	14.6	16.8	15.6	15.8
2008	16.4	16.4	17.0	17.5	17.3	17.0	17.7	17.1	17.2	17.8	16.2	18.9
2009	16.7	15.8	18.2	18.0	16.3	17.5	17.4	16.6	16.6	16.7	15.8	14.6
2010	14.8	14.6	17.0	16.1	14.8	16.6	15.9	16.8	15.8	15.5	16.3	16.5
2011	15.9	15.2	18.1	16.9	16.4	17.5	16.1	18.0	0.0	0.0	0.0	0.0

Average	16.5
Max	19.2
Min	14.5

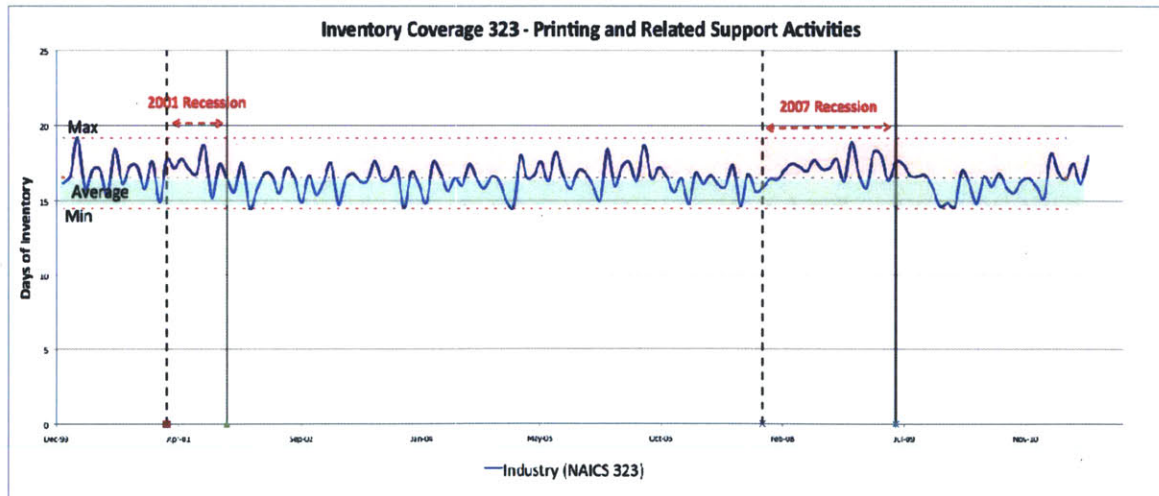


Figure D.9 – Inventory Coverage for Subsector 323

NAICS Subsector 324

Table D.10 – Inventory Coverage calculations for Subsector 324

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	0.706015	0.685338	0.651811	0.727308	0.717967	0.669511	0.693103	0.702609	0.684076	0.680164	0.658323	0.675237
2001	0.681409	0.707286	0.761017	0.735623	0.703405	0.776656	0.802245	0.774119	0.764324	0.804173	0.820496	0.821454
2002	0.79613	0.79585	0.769781	0.789636	0.768113	0.785128	0.788859	0.794098	0.791176	0.778992	0.781569	0.779644
2003	0.766826	0.761454	0.752856	0.910447	0.823204	0.825321	0.809107	0.805295	0.839094	0.824324	0.803456	0.766983
2004	0.774791	0.789868	0.758013	0.746878	0.736557	0.769851	0.758484	0.737083	0.722226	0.704371	0.710133	0.675426
2005	0.723746	0.724175	0.661009	0.677616	0.671032	0.66243	0.678839	0.634536	0.607011	0.669297	0.700782	0.673157
2006	0.655384	0.717334	0.680553	0.701487	0.707195	0.717371	0.692517	0.717519	0.802697	0.81359	0.772602	0.721213
2007	0.754052	0.732321	0.705014	0.733077	0.736822	0.756572	0.741153	0.770449	0.75889	0.756127	0.669331	0.706132
2008	0.744003	0.79835	0.780793	0.726145	0.698916	0.742571	0.735166	0.783026	0.858191	0.900178	1.090627	1.098786
2009	0.966047	0.890613	0.982343	0.959444	0.899992	0.825715	0.874467	0.802866	0.760492	0.772251	0.744304	0.767385
2010	0.76009	0.803944	0.764237	0.77128	0.747817	0.767559	0.774803	0.744893	0.763629	0.74621	0.759075	0.742008
2011	0.721029	0.75232	0.732004	0.772891	0.77317	0.757778	0.725114	0.720827	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	883.4497	932.4579	846.9274	884.8425	825.6458	907.9334	959.5308	817.8843	974.0759	956.5459	1006.763	996.9786
2001	895.4061	997.5131	805.1011	878.119	878.0636	823.337	787.6054	758.7081	911.595	730.2683	750.8666	796.7276
2002	728.1452	791.1861	779.3485	741.7355	764.5919	841.7614	780.4679	771.6123	878.4572	821.1295	897.3189	896.0018
2003	890.3116	1057.733	969.6368	778.0873	848.3721	886.4843	848.105	920.8696	887.5576	868.836	1032.212	947.8411
2004	1035.199	1151.334	987.9513	1045.62	1200.542	1073.597	1162.344	1131.642	1221.793	1400.179	1390.041	1377.013
2005	1461.276	1584.497	1474.052	1566.054	1505.275	1529.232	1734.169	1619.537	1896.606	1922.515	1748.104	1847.028
2006	2051.649	1970.72	1715.742	1993.627	1851.103	1852.591	2089.289	1774.78	1784.677	1624.781	1718.441	1947.692
2007	1737.631	2023.653	1831.132	1934.034	1868.824	1940.283	1968.538	1706.556	2294.206	2074.398	2540.393	2608.805
2008	2542.819	2627.607	2594.156	2620.972	2828.816	2947.203	2797.01	2708.998	2370.059	1973.452	1735.023	1194.651
2009	1464.229	1569.056	1243.122	1248.723	1493.879	1559.37	1457.187	1666.399	1737.802	1822.094	2038.217	2167.697
2010	2203.337	2204.139	1895.749	1945.935	1979.772	1738.312	1841.271	1782.236	1925.024	2186.312	2181.937	2370.88
2011	2679.46	2791.193	2425.112	2635.518	2547.601	2421.563	2726.93	2306.359	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	14.1	13.7	15.0	14.5	15.8	14.7	13.9	16.2	13.7	14.3	13.8	13.5
2001	15.0	13.4	16.7	15.4	15.5	16.3	16.8	17.8	14.5	17.7	17.2	16.4
2002	17.5	15.1	16.2	17.4	16.9	15.7	17.4	17.5	15.8	17.1	15.6	16.4
2003	16.9	14.5	15.8	20.0	17.3	17.3	17.8	16.9	17.6	18.1	15.3	16.9
2004	16.3	15.0	17.4	16.4	14.7	16.9	15.9	16.2	15.2	14.1	14.9	14.2
2005	14.5	13.8	15.2	14.2	14.1	14.6	13.6	14.6	12.7	13.4	14.7	14.1
2006	13.1	13.6	15.7	14.0	15.6	15.8	13.9	16.5	16.1	17.1	16.2	14.4
2007	15.8	13.9	15.5	15.4	16.2	15.9	15.6	17.7	14.4	16.6	14.1	14.1
2008	16.3	16.0	16.4	16.0	14.7	15.6	16.2	16.4	18.0	19.8	20.7	24.2
2009	19.3	16.9	21.6	21.1	18.0	18.2	19.2	16.9	16.0	16.2	14.9	14.6
2010	14.4	15.3	17.6	17.0	15.0	16.9	16.3	16.4	16.0	14.9	15.9	15.6
2011	14.4	14.3	16.8	16.2	16.2	16.7	14.5	16.6	0.0	0.0	0.0	0.0

Average	16.0
Max	24.2
Min	12.7

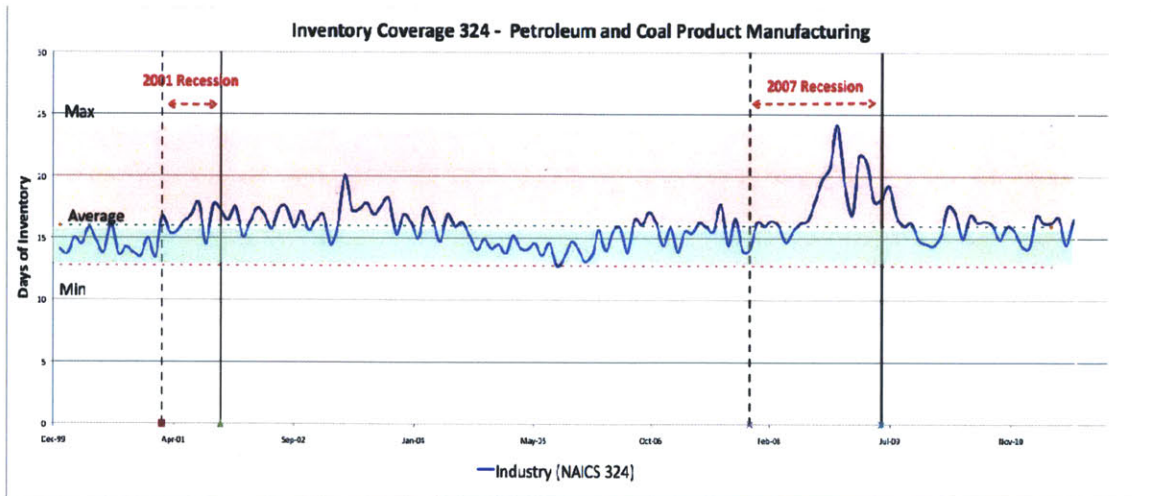


Figure D.10 – Inventory Coverage for Subsector 324

NAICS Subsector 325

Table D.11 – Inventory Coverage calculations for Subsector 325

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.333462	1.348611	1.338675	1.310084	1.339905	1.327181	1.355095	1.364243	1.347707	1.386857	1.409174	1.365572
2001	1.395476	1.347448	1.387606	1.396993	1.378906	1.420361	1.394187	1.365203	1.408162	1.404529	1.352873	1.350683
2002	1.333031	1.318544	1.295293	1.287177	1.239311	1.173299	1.28472	1.281148	1.204319	1.249086	1.26365	1.243112
2003	1.221389	1.22697	1.20582	1.253491	1.25697	1.23896	1.188605	1.230471	1.18685	1.179792	1.220062	1.20094
2004	1.170985	1.206018	1.185271	1.198219	1.18781	1.173625	1.159213	1.166014	1.151349	1.106275	1.118445	1.14908
2005	1.120671	1.131841	1.129288	1.112528	1.120096	1.143828	1.110995	1.087477	1.105153	1.106427	1.07339	1.135254
2006	1.125176	1.148146	1.165546	1.150433	1.144597	1.181315	1.171161	1.16544	1.215904	1.231071	1.235132	1.202783
2007	1.202161	1.175219	1.164695	1.15405	1.151155	1.164982	1.163132	1.162519	1.172941	1.146738	1.167002	1.149832
2008	1.175359	1.193332	1.192137	1.170099	1.162898	1.135855	1.140348	1.176939	1.217086	1.211483	1.326293	1.357609
2009	1.360291	1.327261	1.367502	1.347939	1.324	1.287772	1.280323	1.284046	1.277823	1.266879	1.251905	1.225911
2010	1.226666	1.199194	1.197655	1.188333	1.210211	1.206852	1.203385	1.179567	1.158031	1.200727	1.173309	1.183749
2011	1.186887	1.191467	1.162671	1.168986	1.166092	1.170047	1.184932	1.188479	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1811.565	1790.486	1559.611	1850.049	1650.487	1683.599	1848.387	1598.665	1870.088	1740.756	1721.79	1872.417
2001	1655.285	1951.276	1632.864	1683.895	1611.811	1612.096	1639.918	1507.731	1771.712	1545.194	1657.362	1799.076
2002	1585.325	1843.566	1678.583	1609.633	1667.183	1925.095	1618.216	1637.95	1925.494	1693.481	1856.491	1780.413
2003	1701.323	1989.307	1810.318	1665.443	1746.224	1767.747	1768.929	1780.873	1830.941	1759.225	1994.834	1731.405
2004	1832.96	2010.517	1708.176	1786.983	1984.901	1837.545	1957.457	1878.254	1965.165	2144.982	2060.249	2057.554
2005	2210.243	2317.812	1929.338	2124.087	2114.824	2003.132	2239.27	1972.878	2126.119	2231.677	2220.44	2195.221
2006	2369.575	2435.465	2017.541	2327.759	2131.451	2114.389	2347.375	2066.669	2335.696	2221.829	2227.382	2389.402
2007	2272.995	2561.725	2226.265	2351.943	2264.641	2366.541	2385.64	2178.684	2629.398	2321.365	2412.684	2565.769
2008	2439.506	2528.262	2375.836	2297.704	2411.064	2446.797	2341.025	2408.863	2291.642	2215.429	2369.627	1964.997
2009	2126.746	2250.402	1896.126	1884.96	2092.006	1913.557	1921.523	2005.64	2017.125	2032.35	2161.626	2291.517
2010	2283.592	2331.156	1947.045	2053.046	2222.311	2019.478	2123.418	2064.252	2197.756	2249.379	2176.873	2196.969
2011	2335.089	2453.131	2058.742	2255.509	2283.162	2183.685	2379.281	2069.171	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	26.7	27.0	30.8	26.2	29.5	29.2	27.1	31.4	27.0	29.1	29.6	27.3
2001	30.7	25.6	30.5	29.3	30.3	29.8	29.3	31.4	26.8	30.9	28.4	27.0
2002	29.3	25.1	27.2	28.3	27.3	23.5	28.3	28.2	24.1	27.5	25.3	26.1
2003	26.9	23.3	25.3	27.6	26.4	26.0	26.1	25.8	24.9	26.0	23.2	26.4
2004	24.6	22.9	27.3	26.4	23.8	25.8	24.3	25.7	24.2	22.1	23.5	24.1
2005	22.4	21.5	26.0	23.4	23.5	25.2	22.2	25.0	23.2	22.1	22.5	23.8
2006	22.5	21.8	26.8	23.0	25.2	26.0	23.4	26.8	24.3	25.9	25.9	24.1
2007	25.2	22.3	25.6	24.2	25.3	24.5	24.4	26.7	22.3	25.2	24.5	23.0
2008	24.7	23.9	25.0	25.7	24.4	23.9	25.1	24.7	25.6	26.7	25.2	29.9
2009	27.2	25.2	30.1	29.7	26.5	28.3	28.2	27.0	26.8	26.6	25.0	23.3
2010	23.3	22.8	27.5	26.1	24.2	26.6	25.3	26.0	24.3	24.0	24.6	24.9
2011	23.7	22.6	26.7	24.5	24.5	25.7	23.7	27.3	0.0	0.0	0.0	0.0

	Average	Max	Min
	25.8	31.4	21.5

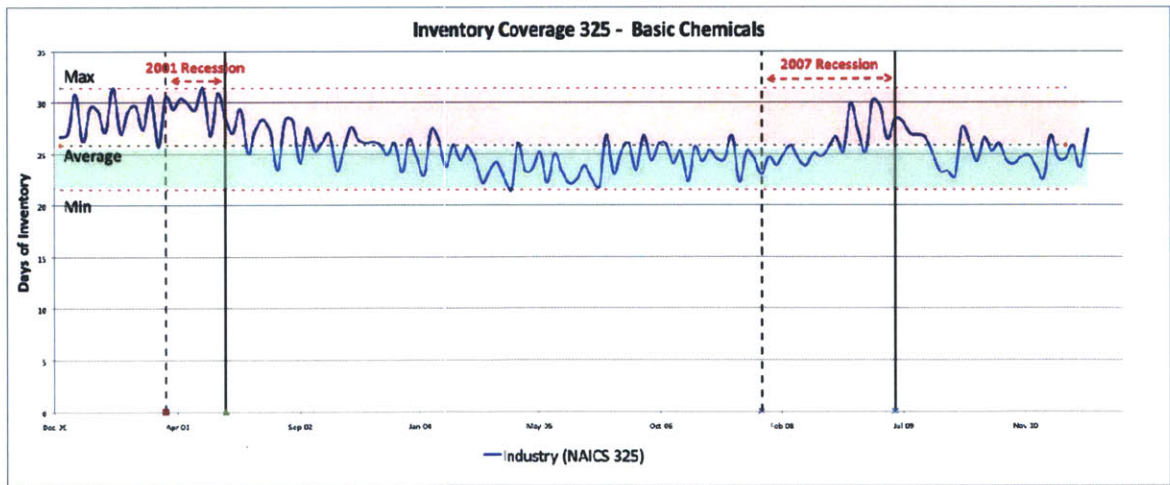


Figure D.11 – Inventory Coverage for Subsector 325

NAICS Subsector 326

Table D.12– Inventory Coverage calculations for Subsector 326

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.146695	1.193009	1.154192	1.148237	1.195597	1.178073	1.210364	1.227604	1.212593	1.237307	1.240249	1.245181
2001	1.271305	1.238151	1.240389	1.263398	1.228466	1.227756	1.10894	1.12279	1.133676	1.133094	1.124289	1.100926
2002	1.104457	1.008081	1.009402	0.973325	0.990679	0.994826	0.997206	1.02079	1.072215	1.074492	1.087201	1.111165
2003	1.094534	1.115175	1.08066	1.14435	1.133266	1.135353	1.088075	1.10532	1.083918	1.069215	1.089676	1.07353
2004	1.074432	1.116053	1.043168	1.067617	1.081912	1.076808	1.09228	1.101598	1.111784	1.129834	1.12731	1.106825
2005	1.134076	1.145004	1.15004	1.13902	1.153082	1.157727	1.151595	1.1396	1.07659	1.078902	1.074095	1.094469
2006	1.113909	1.120189	1.130805	1.163319	1.140411	1.131411	1.173433	1.145653	1.17718	1.208637	1.207549	1.150931
2007	1.171197	1.180401	1.155549	1.157616	1.163546	1.186737	1.189647	1.191366	1.20386	1.168558	1.177644	1.229716
2008	1.214655	1.241546	1.268771	1.250893	1.246109	1.237235	1.257839	1.332941	1.303249	1.348119	1.397821	1.344469
2009	1.425959	1.353701	1.353054	1.355685	1.332734	1.31907	1.263585	1.271038	1.271107	1.263514	1.250376	1.219823
2010	1.2486	1.236045	1.225065	1.232438	1.251375	1.267076	1.273399	1.272715	1.278322	1.286319	1.274701	1.24358
2011	1.262622	1.277945	1.246696	1.266894	1.279674	1.293435	1.288879	1.303441	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	749.651	720.1685	638.052	757.9232	665.8622	676.5203	730.0098	624.8034	722.2763	676.2923	670.9746	705.4094
2001	621.6668	730.3456	621.3142	630.1526	600.8604	619.4566	680.9752	608.9866	722.894	617.4785	649.927	691.3859
2002	623.495	722.9413	650.5822	640.625	641.9163	686.3163	631.1177	624.9571	679.3509	624.5301	686.1242	650.2246
2003	626.2057	721.4401	671.3447	613.9951	653.8206	654.5849	641.6392	651.8792	656.3529	630.6609	715.1559	629.069
2004	653.3246	690.8679	616.0675	628.843	681.0579	630.2511	661.9349	634.5159	665.8516	697.4014	672.0003	688.2922
2005	730.0988	763.5577	633.6011	694.1295	689.9508	653.5095	715.3474	627.2585	704.5642	747.6232	734.9662	732.3094
2006	770.4427	811.6848	664.2054	745.3379	686.8472	691.2026	736.2405	659.0834	746.2224	702.4521	703.6132	753.1624
2007	704.809	767.7494	673.3341	698.3326	665.8797	686.2197	688.5511	628.7808	752.665	662.7636	691.5446	707.7373
2008	680.4452	703.8855	655.692	635.8421	659.8973	661.5778	630.4715	639.4646	641.6385	596.0522	667.2838	568.6072
2009	575.4945	621.8012	519.2722	512.307	563.572	512.0004	527.6389	547.149	548.6046	553.4587	586.5147	622.4813
2010	616.5201	629.9887	529.2427	554.7522	606.9229	548.3292	574.5322	549.1367	575.7883	596.673	581.3459	593.4839
2011	619.3075	646.2629	539.7513	583.7572	580.7308	564.1865	623.5665	539.331	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	22.9	23.9	26.5	23.0	26.3	25.9	24.2	28.2	24.3	26.0	26.0	24.9
2001	28.0	23.5	27.3	26.5	27.0	25.8	23.3	25.8	21.5	24.9	23.6	22.0
2002	24.3	19.2	21.2	21.4	21.8	19.9	21.9	22.5	21.4	23.6	21.7	23.3
2003	24.1	21.2	22.7	25.2	23.8	23.8	23.9	23.2	22.8	23.5	20.7	23.6
2004	22.6	21.2	24.0	23.5	21.6	23.7	22.9	24.2	23.3	22.6	23.7	23.2
2005	22.7	21.8	26.5	23.9	24.2	25.5	23.0	26.2	22.6	21.6	22.6	23.0
2006	22.3	21.3	26.0	23.3	25.1	24.9	23.5	26.4	23.5	25.4	25.4	23.0
2007	24.6	22.4	25.4	24.3	25.6	24.9	25.0	27.4	22.9	25.7	24.7	24.6
2008	25.5	24.8	26.6	27.5	26.2	26.0	27.7	28.0	27.4	29.7	26.6	29.6
2009	28.5	25.7	29.8	29.8	26.7	29.0	27.8	26.7	26.7	26.5	25.0	23.2
2010	23.7	23.5	28.2	27.1	25.0	27.9	26.7	28.0	26.8	25.7	26.8	26.1
2011	25.3	24.3	28.7	26.6	26.9	28.5	25.8	30.0	0.0	0.0	0.0	0.0

Average	24.7
Max	29.8
Min	19.2

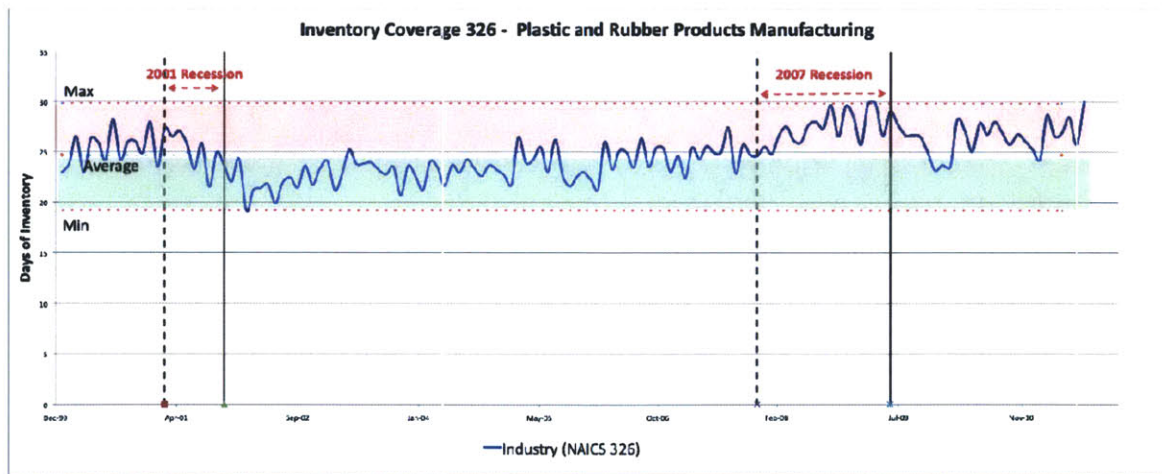


Figure D.12 – Inventory Coverage for Subsector 326

NAICS Subsector 327

Table D.13 – Inventory Coverage calculations for Subsector 327

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.135284	1.207329	1.148859	1.142069	1.178899	1.18237	1.160291	1.202219	1.176042	1.196042	1.240046	1.266276
2001	1.274202	1.247399	1.284012	1.276925	1.223816	1.234383	1.23567	1.221308	1.253791	1.227417	1.229716	1.209433
2002	1.195936	1.186684	1.187155	1.154631	1.151388	1.160606	1.178243	1.169988	1.180569	1.213566	1.227967	1.248457
2003	1.232161	1.263965	1.266633	1.279167	1.266234	1.25588	1.235394	1.22572	1.185628	1.140827	1.200637	1.180927
2004	1.191743	1.195388	1.101862	1.106626	1.132751	1.121255	1.100012	1.108713	1.124077	1.140182	1.116406	1.095992
2005	1.106385	1.11621	1.104814	1.092748	1.10225	1.104407	1.112263	1.092922	1.073629	1.044411	1.02555	1.014523
2006	0.995142	0.988112	1.010845	1.06618	1.048755	1.059053	1.08646	1.103029	1.121355	1.116184	1.135538	1.087237
2007	1.105145	1.093595	1.080544	1.099606	1.093401	1.124382	1.138113	1.151398	1.171429	1.169369	1.192927	1.242227
2008	1.247564	1.248802	1.276853	1.265721	1.267037	1.26369	1.267641	1.305852	1.307668	1.323436	1.450181	1.497765
2009	1.564557	1.523786	1.612324	1.626438	1.591887	1.553499	1.464239	1.447994	1.434513	1.455629	1.422916	1.388629
2010	1.396068	1.376644	1.366724	1.3216	1.314805	1.313728	1.336753	1.329234	1.345854	1.341062	1.35975	1.360313
2011	1.327599	1.342553	1.353002	1.384316	1.38196	1.382222	1.384223	1.385035	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	415.653	390.783	352.4478	410.1378	360.5077	359.0954	402.4927	340.8985	400.3405	374.1497	366.4536	382.5049
2001	344.5393	404.9637	341.4997	357.28	351.4253	363.6859	363.3174	333.5689	390.447	342.6674	356.4131	375.4572
2002	341.3017	393.3518	353.4502	345.73	347.4518	381.4867	341.1456	344.3396	376.6698	335.0564	366.651	349.3261
2003	337.3453	383.7249	348.9121	332.447	354.7287	357.4969	346.7545	360.7077	370.7264	359.9883	382.5536	335.5962
2004	346.5438	380.7227	338.5121	351.1157	377.6673	346.4473	372.9083	357.6825	372.0292	389.9194	382.3178	392.1292
2005	408.7601	429.4248	357.711	394.3479	394.1916	379.9791	415.6113	365.9706	401.1369	429.1271	420.1169	432.7756
2006	464.6267	494.8919	400.8996	439.4782	407.0406	406.7738	441.1939	380.9769	439.6435	426.6602	423.7647	464.4017
2007	433.8597	485.1623	421.4311	433.8663	416.2976	423.7276	420.4648	382.7047	455.0369	394.2891	406.7655	417.6182
2008	393.0124	409.6524	380.3407	363.9923	376.2472	373.1649	352.7331	359.981	359.6894	342.7744	366.1934	309.5069
2009	326.0576	343.8281	276.311	269.6547	297.5848	270.2772	280.203	289.4896	289.2136	281.6519	296.5429	315.8892
2010	310.5338	313.752	261.0538	278.316	308.1509	281.7818	292.0065	279.2686	291.2825	306.4051	289.9172	288.9707
2011	309.4369	322.5325	263.5374	283.4152	285.6197	274.4966	301.47	263.19	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	22.7	24.1	26.4	22.8	25.9	26.0	23.2	27.7	23.5	25.1	26.0	25.3
2001	28.0	23.7	28.2	26.8	26.9	25.9	25.9	28.1	23.8	27.0	25.8	24.2
2002	26.3	22.5	24.9	25.4	25.3	23.2	25.9	25.7	23.6	26.7	24.6	26.2
2003	27.1	24.0	26.6	28.1	26.6	26.4	27.2	25.7	24.9	25.1	22.8	26.0
2004	25.0	22.7	25.3	24.3	22.7	24.7	23.1	24.4	23.6	22.8	23.4	23.0
2005	22.1	21.2	25.4	22.9	23.1	24.3	22.2	25.1	22.5	20.9	21.5	21.3
2006	19.9	18.8	23.2	21.3	23.1	23.3	21.7	25.4	22.4	23.4	23.8	21.7
2007	23.2	20.8	23.8	23.1	24.1	23.6	23.9	26.5	22.3	25.7	25.1	24.8
2008	26.2	25.0	26.8	27.8	26.6	26.5	27.9	27.4	27.5	29.1	27.6	33.0
2009	31.3	29.0	35.5	35.8	31.8	34.2	32.2	30.4	30.1	30.6	28.5	26.4
2010	26.5	26.2	31.4	29.1	26.3	28.9	28.1	29.2	28.3	26.8	28.6	28.6
2011	26.6	25.5	31.1	29.1	29.0	30.4	27.7	31.9	0.0	0.0	0.0	0.0

Average	25.8
Max	35.8
Min	18.8

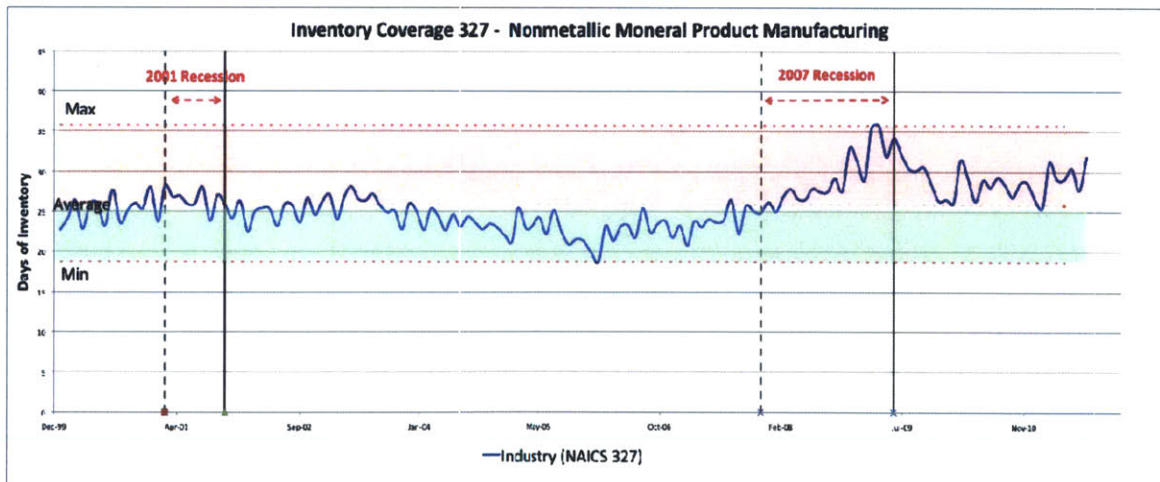


Figure D.13 – Inventory Coverage for Subsector 327

NAICS Subsector 331

Table D.14 – Inventory Coverage calculations for Subsector 331

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.612236	1.687914	1.679089	1.665755	1.767879	1.715746	1.716688	1.781479	1.733169	1.763506	1.792593	1.773076
2001	1.843321	1.818295	1.83202	1.881174	1.805548	1.786651	1.754638	1.756621	1.779771	1.787527	1.779835	1.785727
2002	1.74263	1.728539	1.658733	1.607376	1.587815	1.595591	1.602501	1.594583	1.612435	1.604287	1.647309	1.684674
2003	1.666554	1.731385	1.712486	1.749933	1.723916	1.721403	1.660441	1.66798	1.618155	1.549066	1.532422	1.496487
2004	1.473697	1.435276	1.363662	1.379351	1.38153	1.364624	1.341172	1.343963	1.362949	1.416177	1.417437	1.404442
2005	1.430064	1.465989	1.521904	1.54706	1.606055	1.616762	1.657279	1.593383	1.516739	1.462912	1.451655	1.439936
2006	1.434057	1.474964	1.475754	1.520553	1.477513	1.468371	1.499875	1.503429	1.588097	1.636359	1.640623	1.581877
2007	1.617722	1.621543	1.616516	1.589355	1.548374	1.603477	1.618464	1.64809	1.594615	1.531425	1.515322	1.503039
2008	1.479201	1.457233	1.498556	1.44508	1.465919	1.438258	1.432614	1.505379	1.582452	1.730317	1.885946	2.041615
2009	2.253052	2.226931	2.311269	2.331652	2.296181	2.1947	1.918016	1.858373	1.819318	1.700995	1.661061	1.561316
2010	1.59486	1.571881	1.525702	1.552018	1.580865	1.591964	1.5907	1.576753	1.557978	1.574987	1.531125	1.498263
2011	1.477659	1.469179	1.447178	1.476937	1.459113	1.414018	1.407712	1.440925	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	691.7747	657.6809	573.0058	665.7972	572.4502	588.1044	645.2102	538.3569	630.6907	587.6255	575.3196	603.46
2001	525.7414	611.4297	516.4494	519.9708	507.5178	526.8993	530.5992	478.7181	564.9992	485.8904	507.5716	527.334
2002	482.3765	556.7867	512.0747	500.6887	505.854	558.4754	505.5474	511.4065	556.8203	512.2608	553.9981	520.575
2003	503.2864	563.8888	507.9218	474.7615	502.68	489.4229	479.0242	491.374	498.4858	493.9618	584.6979	522.137
2004	557.2965	637.2715	562.7997	591.157	652.5316	615.3183	665.8494	651.5562	692.4067	724.5072	710.6161	738.5235
2005	782.7044	814.5431	661.0549	711.1783	689.9508	652.5458	691.7326	618.5477	697.685	755.0562	736.3753	756.0773
2006	809.2448	846.1644	699.5127	788.7083	757.795	773.4997	847.0364	750.2665	846.5195	804.6033	812.8233	892.265
2007	830.8678	915.2716	792.9403	844.8117	823.7153	843.8573	845.8347	758.831	931.6694	830.391	878.757	942.7017
2008	907.3905	971.1656	908.9565	908.5709	949.3679	969.6706	939.1175	961.5667	910.4554	791.7059	828.4585	638.8698
2009	610.4263	622.0158	490.4011	461.3311	493.2065	449.1596	501.3813	536.9084	549.9029	583.2228	626.6628	705.1977
2010	697.9957	718.5973	651.8777	653.9468	729.8017	662.8222	699.7157	672.2115	712.0786	747.3586	744.8589	771.1292
2011	834.7856	896.5157	761.2363	830.4852	848.3207	838.123	937.1585	807.1273	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	32.2	33.8	38.6	33.3	38.9	37.7	34.3	41.0	34.7	37.0	37.6	35.5
2001	40.6	34.5	40.3	39.5	39.7	37.5	36.8	40.4	33.8	39.3	37.4	35.7
2002	38.3	32.8	34.8	35.4	34.9	31.9	35.3	35.1	32.2	35.3	32.9	35.4
2003	36.7	32.9	36.0	38.5	36.2	36.1	36.5	35.0	34.0	34.1	29.1	32.9
2004	30.9	27.3	31.4	30.3	27.6	30.0	28.2	29.6	28.6	28.3	29.8	29.5
2005	28.6	27.9	35.0	32.5	33.7	35.6	33.1	36.6	31.9	29.3	30.5	30.2
2006	28.7	28.0	33.9	30.4	32.5	32.3	30.0	34.6	31.8	34.4	34.5	31.6
2007	34.0	30.8	35.6	33.4	34.1	33.7	34.0	37.9	30.3	33.7	31.8	30.1
2008	31.1	29.1	31.5	31.8	30.8	30.2	31.5	31.6	33.2	38.1	35.8	44.9
2009	45.1	42.3	50.8	51.3	45.9	48.3	42.2	39.0	38.2	35.7	33.2	29.7
2010	30.3	29.9	35.1	34.1	31.6	35.0	33.4	34.7	32.7	31.5	32.2	31.5
2011	29.6	27.9	33.3	31.0	30.6	31.1	28.2	33.1	0.0	0.0	0.0	0.0

	Average	Max	Min
	34.1	51.3	27.3

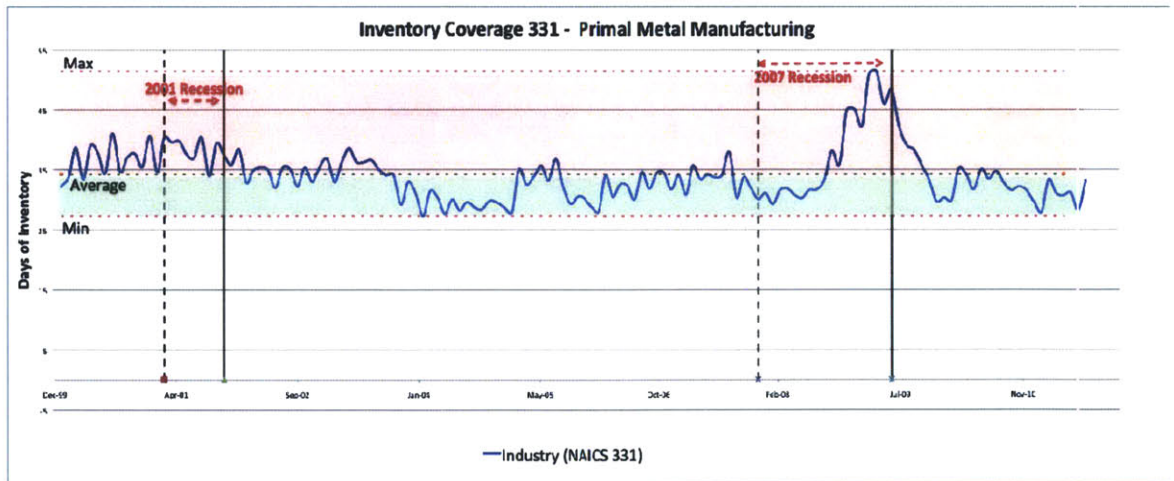


Figure D.14 – Inventory Coverage for Subsector 331

NAICS Subsector 332

Table D.15 – Inventory Coverage calculations for Subsector 332

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.490893	1.562027	1.494077	1.486245	1.540358	1.524481	1.537252	1.570997	1.548278	1.586744	1.592456	1.562506
2001	1.602976	1.581457	1.587512	1.61736	1.45193	1.604477	1.594226	1.552094	1.605612	1.590989	1.591478	1.569642
2002	1.558695	1.539592	1.551632	1.491518	1.477735	1.504452	1.508569	1.486274	1.50592	1.492765	1.512408	1.550543
2003	1.551505	1.551472	1.572532	1.571892	1.564778	1.557845	1.493946	1.53057	1.500394	1.471531	1.479799	1.450604
2004	1.47384	1.500199	1.385282	1.417497	1.435813	1.455677	1.448933	1.480128	1.480124	1.495482	1.472847	1.491914
2005	1.486602	1.509281	1.527705	1.493752	1.518959	1.504264	1.536886	1.504845	1.470569	1.453668	1.460716	1.44019
2006	1.445226	1.445915	1.457718	1.494624	1.491773	1.495781	1.552081	1.544434	1.563522	1.585179	1.581687	1.545751
2007	1.561372	1.562558	1.556839	1.538732	1.524609	1.532004	1.524784	1.493802	1.538381	1.533995	1.519149	1.538989
2008	1.489809	1.50996	1.546141	1.478693	1.516997	1.517917	1.533995	1.589271	1.615715	1.646751	1.687418	1.757602
2009	1.79618	1.806041	1.803844	1.831969	1.840711	1.796714	1.738512	1.730327	1.708593	1.697837	1.706849	1.707052
2010	1.71209	1.690544	1.717529	1.702382	1.683945	1.729314	1.758901	1.75018	1.746248	1.758454	1.754937	1.736477
2011	1.741041	1.757937	1.739977	1.793955	1.816851	1.806929	1.83874	1.84191	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1124.875	1072.448	968.1616	1125.246	995.0389	1010.195	1100.147	941.944	1091.586	1015.225	1015.564	1084.503
2001	955.2495	1104.705	942.3397	960.8354	1012.037	945.9288	945.4545	880.4971	1020.922	886.5156	918.4455	965.6882
2002	879.9511	1020.851	910.8785	895.7042	889.2906	983.6648	885.7401	898.1561	977.3283	891.661	968.5325	909.2543
2003	854.7589	1027.763	914.2063	858.2764	902.99	895.5125	874.8628	883.2409	890.5859	866.0684	997.5146	869.4131
2004	889.1815	969.2701	864.9281	883.7603	971.2477	879.7588	943.4336	899.8522	951.8662	991.5771	973.5023	979.7876
2005	1044.429	1097.173	899.6448	1011.548	1006.43	965.1863	1037.203	914.565	1010.545	1074.503	1042.314	1068.64
2006	1128.776	1199.124	989.2804	1113.772	1020.348	1029.775	1101.905	975.5963	1124.236	1073.929	1086.847	1180.234
2007	1128.847	1247.598	1079.055	1142.466	1095.554	1142.131	1146.834	1061.366	1252.071	1091.157	1146.329	1201.575
2008	1180.913	1225.808	1136.041	1137.865	1166.1	1160.476	1110.918	1136.63	1120.572	1052.372	1204.49	989.9209
2009	1048.405	1074.586	901.2217	861.7499	920.6251	828.9425	843.6078	873.5508	877.6834	880.2146	923.6866	971.4174
2010	967.139	977.1374	801.0685	849.8778	946.8267	854.1024	886.1827	852.8829	895.6161	936.5995	899.3025	913.6151
2011	961.6674	1006.876	843.989	905.8099	908.6035	877.0517	956.2072	834.8315	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	29.8	31.2	34.4	29.7	33.9	33.5	30.7	36.1	31.0	33.3	33.4	31.3
2001	35.3	30.0	34.9	34.0	31.9	33.7	33.5	35.7	30.5	35.0	33.4	31.4
2002	34.3	29.3	32.6	32.8	32.5	30.1	33.2	32.7	30.1	32.8	30.2	32.6
2003	34.1	29.5	33.0	34.6	32.9	32.7	32.9	32.1	31.5	32.4	28.1	31.9
2004	31.0	28.5	31.9	31.2	28.7	32.0	30.4	32.6	31.1	29.9	30.9	31.3
2005	29.7	28.7	35.1	31.4	31.9	33.1	30.7	34.6	30.9	29.1	30.7	30.2
2006	28.9	27.5	33.5	29.9	32.8	32.9	31.0	35.5	31.3	33.3	33.2	30.9
2007	32.8	29.7	34.3	32.3	33.5	32.2	32.0	34.4	29.2	33.7	31.9	30.8
2008	31.3	30.2	32.5	32.5	31.9	31.9	33.7	33.4	33.9	36.2	32.1	38.7
2009	35.9	34.3	39.7	40.3	36.8	39.5	38.2	36.3	35.9	35.7	34.1	32.4
2010	32.5	32.1	39.5	37.5	33.7	38.0	36.9	38.5	36.7	35.2	36.9	36.5
2011	34.8	33.4	40.0	37.7	38.2	39.8	36.8	42.4	0.0	0.0	0.0	0.0

	Average	33.2
	Max	42.4
	Min	27.5

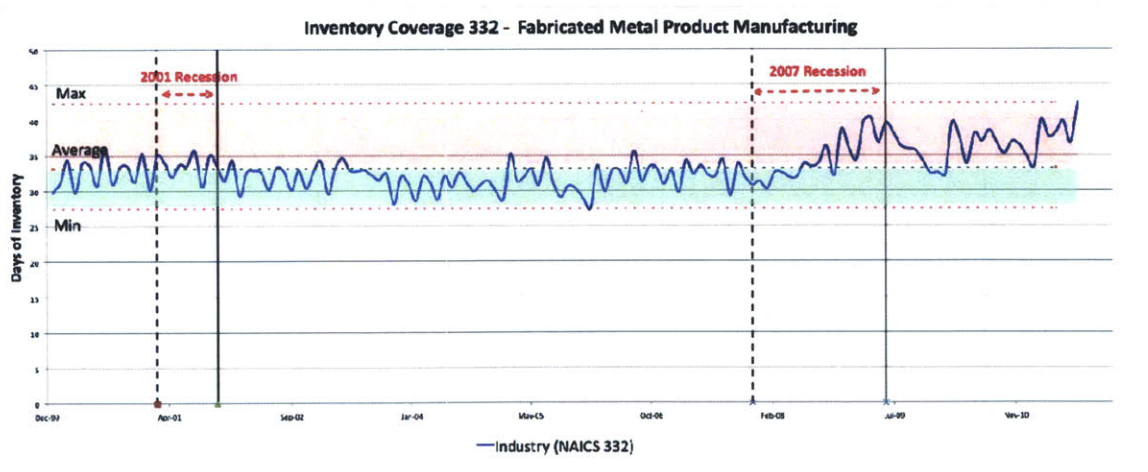


Figure D.15 – Inventory Coverage for Subsector 332

NAICS Subsector 333

Table D.16 – Inventory Coverage calculations for Subsector 333

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.945167	2.088893	1.949009	1.948449	2.004346	1.986244	1.987276	2.033031	1.982294	2.06871	2.100025	2.055515
2001	2.111793	2.095156	2.124574	2.213286	2.133994	2.138867	2.152762	2.069963	2.149936	2.095385	2.136483	2.080534
2002	2.136677	2.041299	2.029043	2.038236	1.932321	1.900394	1.976394	1.904455	1.868216	1.937366	1.900532	1.950275
2003	1.997933	1.973624	1.850842	1.945123	1.838645	1.801746	1.868061	1.820136	1.779086	1.852209	1.789976	1.780271
2004	1.859367	1.896793	1.712092	1.774053	1.828665	1.763972	1.774596	1.799991	1.746328	1.738526	1.806524	1.706831
2005	1.725792	1.745524	1.758679	1.753419	1.762444	1.752829	1.781533	1.768098	1.746666	1.726086	1.701275	1.659693
2006	1.721764	1.743888	1.701705	1.749645	1.784813	1.744478	1.791718	1.772533	1.825886	1.81626	1.82146	1.801567
2007	1.985708	1.884241	1.806377	1.758877	1.782345	1.780632	1.775826	1.790001	1.786073	1.847732	1.833418	1.787564
2008	1.859409	1.8008	1.830524	1.835348	1.891364	1.850277	1.875155	1.911897	1.848858	1.951415	1.973633	1.990489
2009	2.261511	2.216595	2.266023	2.330059	2.288456	2.213759	2.208853	2.239239	2.154146	2.160561	2.109209	2.018636
2010	2.093828	1.997859	1.919719	1.950952	1.898959	1.878898	1.988083	1.927422	1.89725	1.979692	1.985577	1.836629
2011	1.991579	1.981923	1.901307	2.034585	2.021005	1.956142	1.969331	1.894629	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1218.245	1132.755	1040.654	1222.884	1069.545	1087.437	1202.346	1031.918	1211.43	1118.701	1102.65	1198.246
2001	1054.079	1212.353	1027.911	1018.828	986.2246	1014.995	993.028	929.7947	1066.128	928.497	938.4236	998.5082
2002	873.2333	1048.804	946.944	888.2145	933.0234	1032.955	903.5865	932.6329	1044.356	913.961	1025.682	971.204
2003	887.9641	1030.264	974.6238	884.4433	972.9347	978.4033	891.8292	943.755	958.1742	881.5414	1047.173	918.9998
2004	916.2607	991.413	905.949	913.5124	981.2839	933.7053	982.4493	931.6334	1007.593	1057.213	984.9377	1051.987
2005	1106.02	1153.144	943.2389	1037.793	1042.786	1000.723	1096.834	961.0483	1054.622	1115.428	1088.524	1122.128
2006	1140.929	1190.276	1018.028	1144.311	1029.555	1059.473	1143.988	1016.134	1163.54	1132.935	1128.681	1221.752
2007	1059.202	1238.133	1105.354	1189.064	1116.828	1172.971	1186.708	1077.993	1311.928	1097.662	1151.15	1240.323
2008	1138.126	1236.646	1165.851	1102.781	1113.6	1128.844	1070.018	1105.371	1148.455	1050.38	1229.684	1065.456
2009	1038.863	1091.715	901.4808	864.7789	949.9137	871.0067	855.8955	876.2256	901.2053	891.7004	957.2235	1049.935
2010	1000.74	1042.667	891.7809	921.2733	1049.358	972.3226	980.1178	972.9206	1040.879	1057.336	1013.954	1094.995
2011	1067.494	1135.576	987.8258	1019.294	1038.074	1033.677	1144.347	1044.082	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	38.9	41.8	44.8	39.0	44.1	43.7	39.7	46.8	39.6	43.4	44.1	41.1
2001	46.5	39.8	46.7	46.5	46.9	44.9	45.2	47.6	40.8	46.1	44.9	41.6
2002	47.0	38.8	42.6	44.8	42.5	38.0	43.5	41.9	37.4	42.6	38.0	41.0
2003	44.0	37.5	38.9	42.8	38.6	37.8	41.1	38.2	37.4	40.7	34.0	39.2
2004	39.0	36.0	39.4	39.0	36.6	38.8	37.3	39.6	36.7	34.8	37.9	35.8
2005	34.5	33.2	40.4	36.8	37.0	38.6	35.6	40.7	36.7	34.5	35.7	34.9
2006	34.4	33.1	39.1	35.0	39.3	38.4	35.8	40.8	36.5	38.1	38.3	36.0
2007	41.7	35.8	39.7	36.9	39.2	37.4	37.3	41.2	33.9	40.7	38.5	35.8
2008	39.0	36.0	38.4	40.4	39.7	38.9	41.3	40.1	38.8	42.9	37.5	43.8
2009	45.2	42.1	49.9	51.3	45.8	48.7	48.6	47.0	45.2	45.4	42.2	38.4
2010	39.8	38.0	44.2	42.9	38.0	41.3	41.7	42.4	39.8	39.6	41.7	38.6
2011	39.8	37.7	43.7	42.7	42.4	43.0	39.4	43.6	0.0	0.0	0.0	0.0

Average	40.4
Max	51.3
Min	33.1

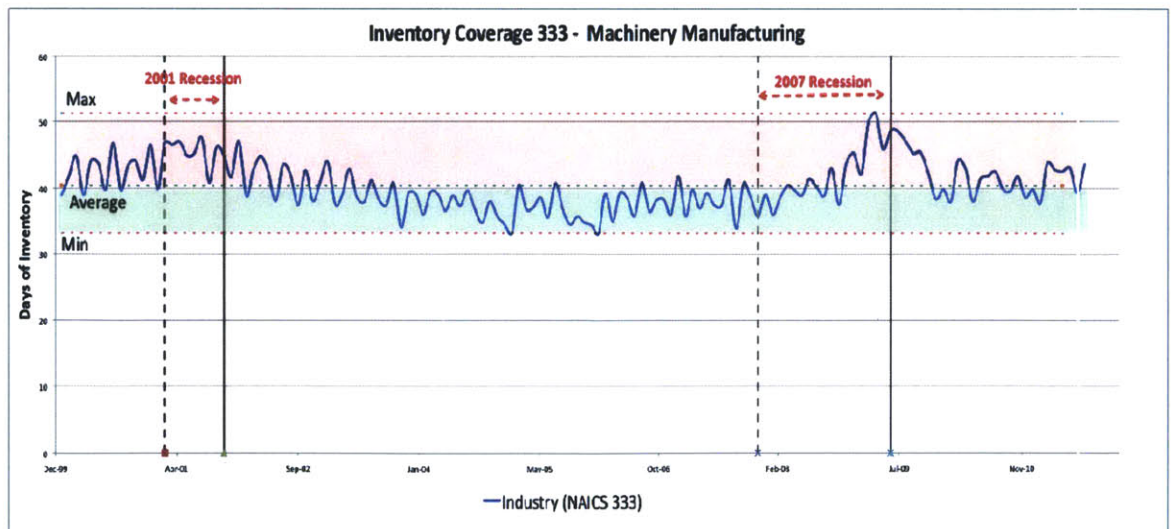


Figure D.16 – Inventory Coverage for Subsector 333

NAICS Subsector 334

Table D.17 – Inventory Coverage calculations for Subsector 334

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.356272	1.387334	1.37429	1.350371	1.363724	1.404123	1.398687	1.422941	1.37903	1.436067	1.505828	1.465598
2001	1.571026	1.585905	1.593707	1.720823	1.757909	1.699728	1.744804	1.785855	1.705496	1.695791	1.666865	1.545572
2002	1.629874	1.587248	1.573759	1.622621	1.604278	1.591329	1.628518	1.615814	1.627634	1.680217	1.629539	1.682249
2003	1.619794	1.580993	1.549151	1.529348	1.505029	1.432442	1.450646	1.392379	1.360129	1.35388	1.331047	1.344113
2004	1.31387	1.315111	1.324558	1.336661	1.303648	1.328345	1.327088	1.290401	1.311744	1.295975	1.263511	1.261313
2005	1.292455	1.296106	1.2681	1.337107	1.308497	1.317018	1.402052	1.346131	1.35636	1.43335	1.425713	1.359824
2006	1.473301	1.309012	1.374188	1.467996	1.399091	1.389248	1.477811	1.417105	1.411646	1.477907	1.422638	1.426441
2007	1.460702	1.391602	1.417739	1.406826	1.390915	1.368758	1.413893	1.345725	1.351884	1.40584	1.360513	1.325592
2008	1.317123	1.3808	1.381017	1.387882	1.372066	1.423183	1.368713	1.436781	1.432639	1.458126	1.548705	1.452618
2009	1.606207	1.64351	1.650172	1.638086	1.645182	1.657018	1.467675	1.509065	1.578182	1.488153	1.53315	1.564705
2010	1.422265	1.513177	1.545415	1.414832	1.444668	1.576991	1.417129	1.439384	1.465788	1.471181	1.467318	1.506244
2011	1.480315	1.53643	1.58774	1.542677	1.560668	1.583976	1.567215	1.559645	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	2004.387	1968.682	1740.371	2074.852	1904.532	1878.951	2106.256	1834.417	2164.932	2024.203	1979.062	2171.637
2001	1857.96	2115.109	1764.503	1677.863	1539.762	1651.536	1567.601	1369.399	1664.292	1402.709	1459.816	1595.043
2002	1370.572	1601.914	1438.947	1318.311	1320.076	1440.483	1272.684	1275	1374.976	1195.916	1348.401	1232.974
2003	1195.86	1399.274	1265.59	1203.68	1268.483	1309.834	1216.004	1302.878	1322.888	1271.427	1485.185	1289.551
2004	1305.64	1448.116	1193.928	1237.479	1384.313	1241.918	1301.716	1269.155	1294.938	1374.776	1323.263	1323.955
2005	1381.402	1449.603	1214.418	1261.233	1309.251	1251.927	1315.699	1194.91	1301.12	1315.255	1298.479	1374.875
2006	1341.146	1555.186	1245.877	1343.114	1277.176	1288.793	1342.295	1221.691	1410.441	1288.439	1348.487	1392.863
2007	1305.922	1501.387	1253.705	1309.438	1260.191	1322.978	1240.864	1195.934	1458.91	1207.797	1307.592	1418.113
2008	1343.424	1345.031	1276.207	1202.87	1259.192	1190.41	1176.278	1180.188	1174.757	1111.011	1227.332	1142.749
2009	1120.316	1150.658	970.1421	984.8306	1065.326	933.4458	1049.865	1062.277	1026.643	1091.959	1121.061	1176.249
2010	1272.367	1201.691	963.6166	1103.142	1202.679	1030.727	1203.977	1135.984	1172.437	1240.861	1182.871	1147.961
2011	1222.804	1249.406	1006.925	1144.185	1130.166	1066.584	1192.565	1036.705	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	27.1	27.7	31.6	27.0	30.0	30.9	28.0	32.7	27.6	30.2	31.6	29.3
2001	34.6	30.1	35.1	36.1	38.7	35.7	36.6	41.1	32.4	37.3	35.0	30.9
2002	35.9	30.2	33.0	35.7	35.3	31.8	35.8	35.5	32.6	37.0	32.6	35.3
2003	35.6	30.0	32.5	33.6	31.6	30.1	31.9	29.2	28.6	29.8	25.3	29.6
2004	28.1	25.0	30.5	29.4	26.1	29.2	27.9	28.4	27.5	25.9	26.5	26.5
2005	25.8	24.6	29.2	28.1	27.5	29.0	28.0	31.0	28.5	28.7	29.9	28.6
2006	29.5	24.9	31.6	29.4	30.8	30.6	29.6	32.6	28.2	31.0	29.9	28.5
2007	30.7	26.4	31.2	29.5	30.6	28.7	29.7	31.0	25.7	30.9	28.6	26.5
2008	27.7	27.6	29.0	30.5	28.8	29.9	30.1	30.2	30.1	32.1	29.4	32.0
2009	32.1	31.2	36.3	36.0	32.9	36.5	32.3	31.7	33.1	31.3	30.7	29.7
2010	27.0	28.8	35.5	31.1	28.9	34.7	29.8	31.7	30.8	29.4	30.8	31.6
2011	29.6	29.2	36.5	32.4	32.8	34.8	31.3	35.9	0.0	0.0	0.0	0.0

Average	30.8
Max	41.1
Min	24.6

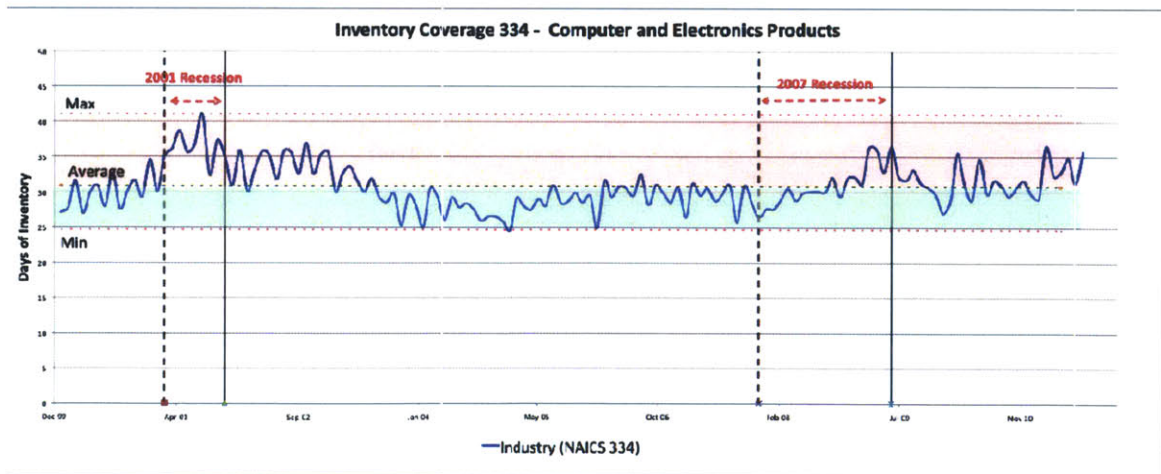


Figure D.17 – Inventory Coverage for Subsector 334

NAICS Subsector 335

Table D.18 – Inventory Coverage calculations for Subsector 335

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.328436	1.394211	1.340981	1.352057	1.378386	1.353759	1.374275	1.420763	1.418531	1.438527	1.398446	1.417249
2001	1.451588	1.415334	1.439366	1.478243	1.448469	1.438789	1.495395	1.46631	1.557368	1.540525	1.57791	1.483413
2002	1.552679	1.515481	1.489504	1.478201	1.463313	1.491724	1.518153	1.513648	1.512342	1.500295	1.473305	1.480774
2003	1.482196	1.513287	1.490102	1.525862	1.515575	1.480937	1.437807	1.478137	1.403001	1.39587	1.371595	1.372063
2004	1.411414	1.395032	1.37243	1.360547	1.374395	1.396936	1.364259	1.390574	1.384331	1.39678	1.363697	1.369828
2005	1.34155	1.346873	1.413696	1.394827	1.387379	1.36205	1.350756	1.320671	1.310374	1.297395	1.296574	1.329954
2006	1.322239	1.353848	1.358494	1.38886	1.321617	1.36505	1.402126	1.407506	1.413048	1.425549	1.453125	1.440309
2007	1.410695	1.416483	1.379692	1.360947	1.389038	1.397198	1.408463	1.385501	1.372801	1.408642	1.458048	1.475445
2008	1.448983	1.517305	1.509502	1.502398	1.463106	1.487018	1.429443	1.484884	1.480018	1.513281	1.670757	1.656737
2009	1.692123	1.668238	1.708039	1.646822	1.671445	1.623319	1.565886	1.602123	1.579522	1.513827	1.511292	1.510093
2010	1.521498	1.502576	1.481478	1.436226	1.480265	1.49344	1.515836	1.515893	1.53605	1.527099	1.51808	1.490958
2011	1.502315	1.529691	1.489256	1.542313	1.52616	1.528966	1.565266	1.525621	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	529.2622	503.3201	447.6635	514.2717	461.9648	470.7951	514.1251	440.0952	506.5661	478.782	488.7437	515.8869
2001	451.7293	536.2128	449.8644	454.7573	434.2952	447.2465	420.5514	388.6441	436.8572	380.3074	382.0015	423.5804
2002	363.9417	431.0753	392.8232	377.1522	380.7749	409.0436	366.0015	362.9074	398.2596	362.5684	405.2681	380.8625
2003	360.7768	404.2282	367.845	342.7028	361.196	364.4893	352.5365	354.2822	368.5319	353.363	418.616	362.5401
2004	367.6103	403.9751	339.2652	356.3223	392.3146	353.4624	382.9741	364.1702	382.7542	395.2061	385.0486	386.0483
2005	415.4987	435.3981	343.3856	381.4983	383.6422	370.5429	407.212	358.4769	394.7108	419.6629	403.9952	398.2684
2006	426.4323	440.9377	366.4543	413.1309	395.1257	390.0517	422.1846	374.1042	424.1935	407.4661	404.0898	437.4359
2007	424.2409	466.9899	411.4544	437.1294	407.4555	423.2532	423.5107	395.3916	476.0654	411.5858	423.2682	444.8658
2008	436.1898	444.3354	418.5679	404.7899	427.4153	419.6502	410.8952	415.5768	415.2288	391.3437	414.8281	360.25
2009	374.2987	391.6952	325.0587	330.7149	353.2452	320.3745	328.0372	331.14	332.2863	342.2103	360.1708	378.9403
2010	378.9986	384.2093	323.5031	349.4585	378.5717	347.5321	362.8085	351.4721	367.0371	389.5949	373.0908	377.5858
2011	391.7641	408.2769	346.0872	367.4241	371.9213	355.3297	381.7825	341.3293	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	26.6	27.9	30.8	27.0	30.3	29.8	27.5	32.7	28.4	30.2	29.4	28.3
2001	31.9	26.9	31.7	31.0	31.9	30.2	31.4	33.7	29.6	33.9	33.1	29.7
2002	34.2	28.8	31.3	32.5	32.2	29.8	33.4	33.3	30.2	33.0	29.5	31.1
2003	32.6	28.8	31.3	33.6	31.8	31.1	31.6	31.0	29.5	30.7	26.1	30.2
2004	29.6	26.5	31.6	29.9	27.5	30.7	28.6	30.6	29.1	27.9	28.6	28.8
2005	26.8	25.6	32.5	29.3	29.1	30.0	27.0	30.4	27.5	25.9	27.2	27.9
2006	26.4	25.7	31.2	27.8	29.1	30.0	28.0	32.4	28.3	29.9	30.5	28.8
2007	29.6	26.9	30.4	28.6	30.6	29.3	29.6	31.9	26.1	31.0	30.6	29.5
2008	30.4	30.3	31.7	33.1	30.7	31.2	31.4	31.2	31.1	33.3	31.7	36.4
2009	33.8	31.7	37.6	36.2	33.4	35.7	34.4	33.6	33.2	31.8	30.2	28.7
2010	28.9	28.5	34.1	31.6	29.6	32.9	31.8	33.3	32.3	30.5	31.9	31.3
2011	30.0	29.1	34.3	32.4	32.0	33.6	31.3	35.1	0.0	0.0	0.0	0.0

Average	30.6
Max	37.6
Min	25.6

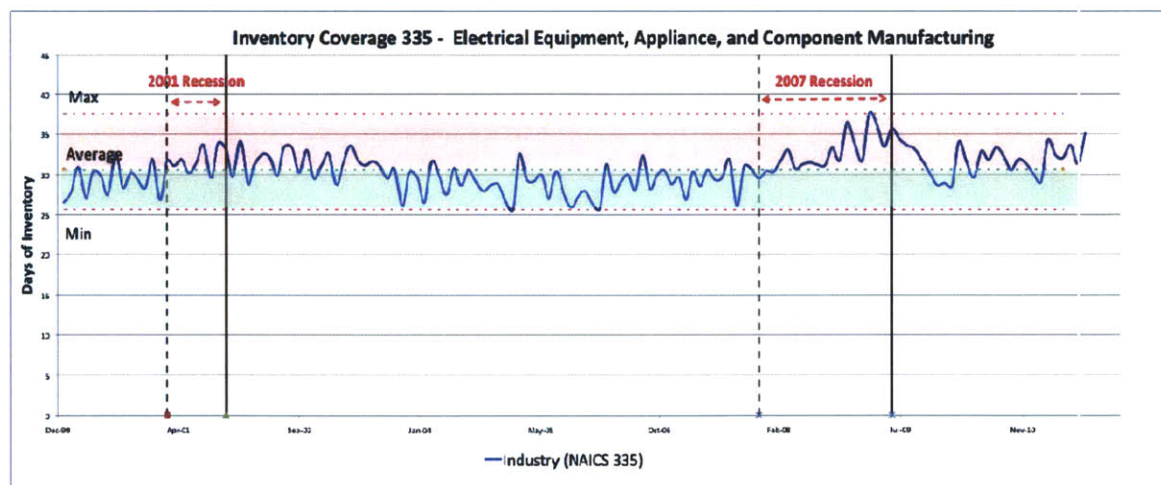


Figure D.18 – Inventory Coverage for Subsector 335

NAICS Subsector 336

Table D.19– Inventory Coverage calculations for Subsector 336

Inventory/sales ratio												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.319053	1.474887	1.470878	1.383027	1.383496	1.369805	1.437518	1.466374	1.372931	1.438024	1.480414	1.432466
2001	1.516621	1.394612	1.342287	1.421657	1.317074	1.294247	1.320343	1.310192	1.35894	1.352589	1.277198	1.234753
2002	1.211598	1.236744	1.223445	1.126154	1.161432	1.183007	1.136849	1.140876	1.153493	1.134629	1.134093	1.276927
2003	1.170351	1.157046	1.137525	1.202519	1.191124	1.162835	1.116691	1.193048	1.096811	1.126947	1.092669	1.134888
2004	1.14794	1.103119	1.063504	1.151063	1.152027	1.164746	1.259408	1.193928	1.179151	1.188794	1.21664	1.194902
2005	1.164438	1.214429	1.256819	1.144316	1.175218	1.168678	1.21419	1.160866	1.145967	1.132759	1.161678	1.099497
2006	1.162234	1.158468	1.152074	1.22952	1.175935	1.233153	1.360556	1.272794	1.335229	1.338418	1.323662	1.253927
2007	1.306418	1.308604	1.284514	1.311864	1.27936	1.305219	1.253006	1.282499	1.360616	1.338814	1.371954	1.438261
2008	1.382561	1.410684	1.511833	1.444068	1.48994	1.478424	1.469989	1.592404	1.5511	1.647158	1.753438	1.755322
2009	1.880493	1.876264	1.837153	1.883823	2.002202	2.01854	1.971421	1.928818	1.770172	1.885754	1.875075	1.792278
2010	1.852171	2.079177	2.055948	2.060104	2.112354	2.092155	1.900844	2.094011	2.12697	2.153218	2.277914	2.223745
2011	2.231248	2.245812	2.18688	2.290788	2.345864	2.366651	2.246484	2.384251	0	0	0	0

average daily revenues												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	2955.533	2635.233	2272.552	2743.504	2436.265	2462.514	2536.413	2148.668	2632.685	2361.053	2303.595	2443.713
2001	2066.312	2546.871	2224.692	2211.407	2249.435	2348.282	2296.468	2105.163	2443.38	2116.35	2319.787	2514.678
2002	2286.905	2580.761	2293.96	2368.629	2298.166	2498.248	2346.736	2340.78	2529.68	2341.507	2545.579	2236.388
2003	2307.256	2695.443	2441.458	2221.533	2362.436	2394.937	2350.553	2305.739	2492.034	2323.759	2751.949	2308.526
2004	2389.335	2745.67	2324.838	2255.372	2467.857	2239.621	2199.338	2224.891	2343.629	2434.095	2314.473	2355.344
2005	2553.279	2609.144	2083.713	2458.722	2396.755	2289.351	2440.106	2180.418	2395.658	2578.09	2412.118	2547.786
2006	2504.905	2656.162	2227.324	2422.583	2321.277	2257.318	2295.47	2118.711	2395.416	2335.367	2388.244	2639.231
2007	2428.762	2690.807	2365.136	2445.418	2399.011	2475.626	2589.049	2327.241	2678.522	2355.432	2432.518	2497.795
2008	2458.496	2519.018	2232.079	2203.95	2208.56	2198.197	2083.593	2014.614	2032.382	1844.187	2059.255	1803.98
2009	1851.796	1956.802	1715.386	1681.02	1747.956	1546.079	1612.319	1694.714	1822.954	1745.852	1863.48	2044.596
2010	2000.932	1820.688	1520.465	1597.452	1727.179	1607.571	1856.061	1629.513	1712.979	1787.39	1636.717	1700.89
2011	1791.485	1888.441	1624.73	1702.405	1684.475	1613.897	1899.1	1572.198	0	0	0	0

Inventory Coverage												
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	26.4	29.5	33.8	27.7	30.4	30.1	28.8	33.7	27.5	30.2	31.1	28.6
2001	33.4	26.5	29.5	29.9	29.0	27.2	27.7	30.1	25.8	29.8	26.8	24.7
2002	26.7	23.5	25.7	24.8	25.6	23.7	25.0	25.1	23.1	25.0	22.7	26.8
2003	25.7	22.0	23.9	26.5	25.0	24.4	24.6	25.1	23.0	24.8	20.8	25.0
2004	24.1	21.0	24.5	25.3	23.0	25.6	26.4	26.3	24.8	23.8	25.5	25.1
2005	23.3	23.1	28.9	24.0	24.7	25.7	24.3	26.7	24.1	22.7	24.4	23.1
2006	23.2	22.0	26.5	24.6	25.9	27.1	27.2	29.3	26.7	28.1	27.8	25.1
2007	27.4	24.9	28.3	27.5	28.1	27.4	26.3	29.5	25.9	29.5	28.8	28.8
2008	29.0	28.2	31.7	31.8	31.3	31.0	32.3	33.4	32.6	36.2	33.3	38.6
2009	37.6	35.6	40.4	41.4	40.0	44.4	43.4	40.5	37.2	39.6	37.5	34.1
2010	35.2	39.5	47.3	45.3	42.2	46.0	39.9	46.1	44.7	43.1	47.8	46.7
2011	44.6	42.7	50.3	48.1	49.3	52.1	44.9	54.8	0.0	0.0	0.0	0.0

	Average	Max	Min
	30.7	54.8	20.8

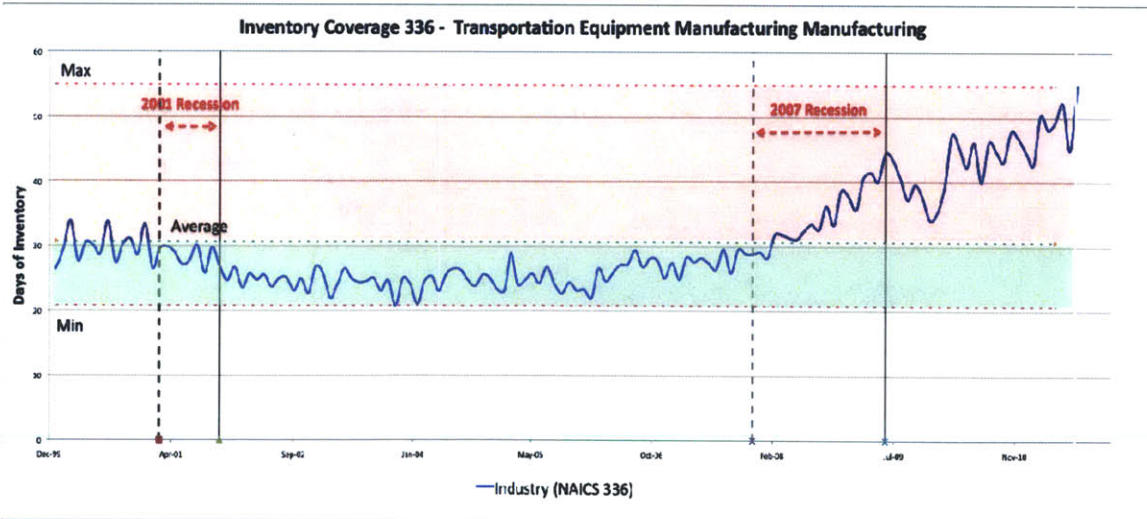


Figure D.19 – Inventory Coverage for Subsector 336

NAICS Subsector 337

Table D.20 – Inventory Coverage calculations for Subsector 337

Inventory/sales ratio	Inventory/sales ratio											
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	1.390556	1.39815	1.344112	1.308619	1.330016	1.349737	1.336285	1.34434	1.357267	1.339928	1.367347	1.365524
2001	1.371046	1.359287	1.421044	1.410046	1.408758	1.43765	1.376567	1.317232	1.37703	1.326141	1.321724	1.275469
2002	1.244039	1.22448	1.21288	1.173266	1.184743	1.173886	1.200545	1.186326	1.199536	1.203552	1.224563	1.200577
2003	1.254256	1.257659	1.284892	1.346296	1.286014	1.276705	1.27085	1.228383	1.205557	1.202396	1.181165	1.221226
2004	1.166149	1.198466	1.192006	1.194675	1.185556	1.206005	1.193028	1.193895	1.212678	1.214242	1.197653	1.181979
2005	1.169709	1.163324	1.167367	1.136677	1.145597	1.156058	1.15608	1.174071	1.163437	1.156286	1.141004	1.136034
2006	1.128024	1.131561	1.155218	1.138455	1.151127	1.163325	1.185963	1.172252	1.162216	1.173028	1.176521	1.126561
2007	1.15595	1.163417	1.116948	1.130718	1.140231	1.132033	1.119261	1.112836	1.115131	1.106752	1.112026	1.134498
2008	1.137342	1.141478	1.143574	1.098141	1.109742	1.091605	1.113861	1.112084	1.10825	1.149762	1.172568	1.209621
2009	1.309582	1.258179	1.272483	1.265656	1.246779	1.219148	1.179026	1.183043	1.200202	1.197929	1.206135	1.187324
2010	1.195306	1.161895	1.155643	1.213202	1.206322	1.207923	1.2397	1.260634	1.260019	1.299234	1.244332	1.256609
2011	1.23676	1.249213	1.199644	1.214183	1.215454	1.22854	1.259731	1.228259	0	0	0	0

average daily revenues	average daily revenues											
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
2000	295.6132	294.5986	266.0048	314.6161	282.9177	279.5388	309.1398	270.3047	306.858	294.7383	290.5318	302.7778
2001	272.6393	316.1447	267.3462	278.4023	260.9943	264.5402	272.6361	254.7178	293.5628	259.5728	269.7957	287.1992
2002	265.2678	309.8464	278.6009	271.7803	270.2738	300.6155	268.4699	271.5695	304.3274	276.6148	301.4111	296.0916
2003	273.2821	312.2088	276.0493	251.7937	274.9059	275.0929	265.6791	280.9612	277.9899	266.0181	312.037	258.644
2004	282.3788	301.8959	247.9093	263.843	293.5805	265.0558	282.5741	271.7007	280.1802	295.6989	283.6662	290.382
2005	307.5921	325.996	266.4685	298.018	295.8853	280.718	307.3879	262.0107	289.0921	303.8894	300.3854	304.1542
2006	319.3576	332.8012	271.1769	312.3182	277.9884	275.4692	294.3692	258.8114	300.382	285.5516	283.8405	304.5726
2007	283.409	311.4754	273.5766	280.9805	265.1503	279.6911	282.6042	258.51	311.1091	271.2195	280.9767	290.2428
2008	272.2718	279.5501	261.6822	254.1244	262.422	260.9289	243.142	253.3784	251.3197	227.816	258.5297	215.3124
2009	216.6755	229.6337	192.6219	187.5762	204.3718	183.4467	186.9117	192.8912	189.016	187.9714	195.9323	210.0293
2010	206.3207	213.3092	176.472	183.4594	207.4474	190.9183	196.9716	186.9986	197.4315	202.1401	201.6799	199.7896
2011	215.1627	223.0757	189.8105	204.4475	203.9356	193.3134	208.6123	186.1523	0	0	0	0

Inventory Coverage	Inventory Coverage												Average	Max	Min
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec			
2000	27.8	28.0	30.9	26.2	29.3	29.7	26.7	30.9	27.1	28.1	28.7	27.3	25.5		
2001	30.2	25.8	31.3	29.6	31.0	30.2	28.9	30.3	26.2	29.2	27.8	25.5	25.2		
2002	27.4	23.3	25.5	25.8	26.1	23.5	26.4	26.1	24.0	26.5	24.5	22.4	26.9		
2003	27.6	23.9	27.0	29.6	27.0	26.8	28.0	25.8	25.3	26.5	22.4	26.9	24.8		
2004	24.5	22.8	27.4	26.3	23.7	26.5	25.1	26.3	25.5	24.3	25.2	24.8	23.9		
2005	23.4	22.1	26.8	23.9	24.1	25.4	23.1	27.0	24.4	23.1	24.0	22.5	22.7		
2006	22.6	21.5	26.6	22.8	25.3	25.6	23.7	27.0	23.2	24.6	24.7	22.5	26.6		
2007	24.3	22.1	24.6	23.7	25.1	23.8	23.5	25.6	21.2	24.3	23.4	22.7	22.6		
2008	23.9	22.8	24.0	24.2	23.3	22.9	24.5	23.4	23.3	25.3	22.3	22.6	22.6		
2009	26.2	23.9	28.0	27.8	24.9	26.8	25.9	24.8	25.2	25.2	24.1	22.6	26.4		
2010	22.7	22.1	26.6	26.7	24.1	26.6	26.0	27.7	26.5	26.0	26.1	26.4	25.5		
2011	24.7	23.7	27.6	25.5	25.5	27.0	25.2	28.2	0.0	0.0	0.0	0.0	31.3		

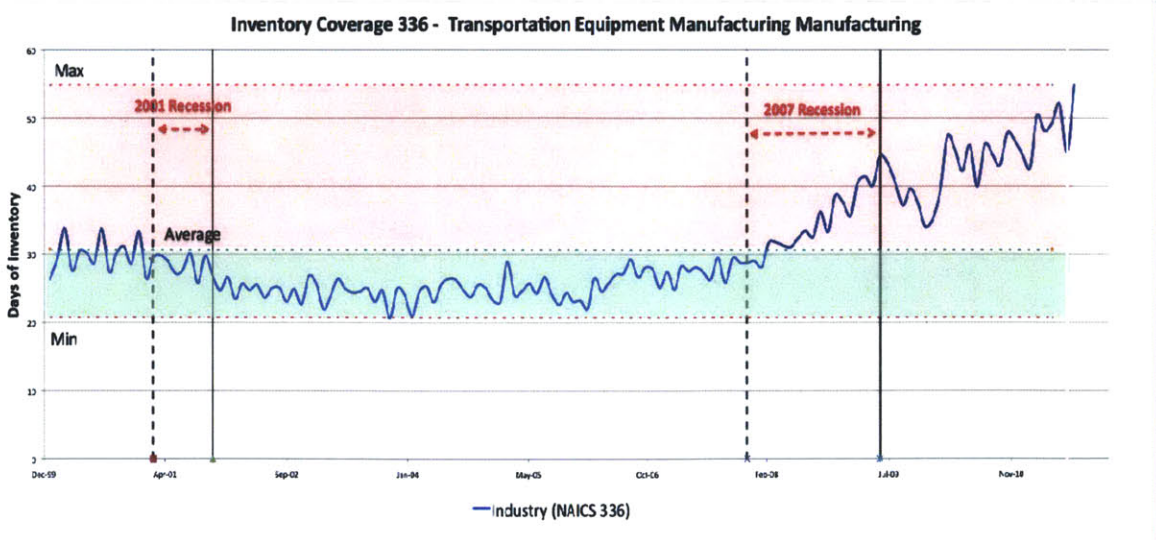


Figure D.20 – Inventory Coverage for Subsector 337

Appendix "E" Companies' Inventory Coverage

NAICS Subsector 325 Companies: Dupont, LyondellBaell Chemicals and Dow Chemical Inventory coverage

Table E.1 – Dupont Inventory Coverage calculation

DUPONT
 NAICS Code 325310, Pesticide and Other Agricultural Chemical Manufacturing
 Products, Services and Brands Information not found
 State of Incorporation Delaware
 Years in Business 200.00

Quarter	2005				2006				2007				2008				2009				2010				2011																																																											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																								
Quarter End's Date	12/31/05				03/31/07				06/30/07				09/30/07				12/31/07				03/31/08				06/30/08				09/30/08				12/31/08				03/31/09				06/30/09				09/30/09				12/31/09				03/31/10				06/30/10				09/30/10				12/31/10				03/31/11				06/30/11				09/30/11				12/31/11			
Sales (in the quarter)	\$ 7,848	\$ 7,875	\$ 4,975	\$ 6,983	\$ 8,075	\$ 8,077	\$ 7,797	\$ 1,025	\$ 1,877	\$ 1,858	\$ 5,361	\$ 4,475	\$ 4,484	\$ 4,524	\$ 7,305	\$ 7,454	\$ 4,454	\$ 4,484	\$ 4,524	\$ 7,305	\$ 7,454	\$ 7,454	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254	\$ 10,254																																								
Inventory (in the quarter)	\$ 4,853	\$ 4,467	\$ 4,863	\$ 5,278	\$ 5,371	\$ 5,241	\$ 5,637	\$ 5,146	\$ 4,148	\$ 3,805	\$ 4,362	\$ 3,386	\$ 3,262	\$ 4,548	\$ 4,421	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987	\$ 5,987																																								
Business days	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64																																				
Average daily revenues	124.52	123.22	77.84	109.41	128.08	126.05	123.62	157.28	29.80	28.11	85.23	69.46	68.66	70.39	145.45	149.11	70.39	71.78	72.62	145.45	149.11	149.11	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81	157.81																																								
Inventory Coverage	18.31	14.22	16.04	20.81	23.83	24.01	21.93	30.52	7.19	7.39	19.53	20.55	20.55	15.53	32.81	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67																																								

Source: Quarterly Earnings Release @ <http://www.investor.dupont.com/finance.cfm?c=72320&q=net-earnings> All \$ Values in Millions

Table E.2 – LyondellBasell Chemicals Inventory Coverage calculation

Lyondell Chemicals
 NAICS Code 325199, All Other Basic Organic Chemical Manufacturing
 Products, Services and Brands Information not found
 State of Incorporation Texas
 Years in Business

Quarter	2005				2006				2007				2008				2009				2010				2011																																											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																								
Quarter End's Date	12/31/05				03/31/07				06/30/07				09/30/07				12/31/07				03/31/08				06/30/08				09/30/08				12/31/08				03/31/09				06/30/09				09/30/09				12/31/09				03/31/10				06/30/10				09/30/10				12/31/10			
Sales (in the quarter)									\$ 12,884	\$ 13,790	\$ 13,363	\$ 7,342	\$ 5,867	\$ 7,706	\$ 4,488	\$ 5,514	\$ 5,536	\$ 12,365	\$ 12,114	\$ 15,190	\$ 11,946	\$ 13,733																																														
Inventory (in the quarter)									\$ 3,611	\$ 4,109	\$ 5,333	\$ 3,214	\$ 2,872	\$ 2,733	\$ 2,904	\$ 3,207	\$ 2,590	\$ 4,372	\$ 4,412	\$ 4,824	\$ 5,708	\$ 5,577																																														
Business days	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64																								
Average daily revenues									204.64	215.77	210.85	114.86	92.17	119.79	70.60	87.56	80.88	194.44	190.66	237.35	188.36	216.28																																														
Inventory Coverage									26.32	25.88	27.72	25.71	32.39	29.21	24.43	27.43	31.21	44.46	43.21	47.32	33.00	38.86																																														

Source: Quarterly Earnings Release @ <http://www.lyondellbasell.com/InvestorRelations/FinancialReporting/EarningsReleases> All \$ Values in Millions

Table E.3 – Dow Chemical Inventory Coverage calculation

Dow Chemical
 NAICS Code 325211, Plastic Material and Resin Manufacturing
 Products, Services and Brands Information not found
 State of Incorporation Michigan
 Years in Business 114

Quarter	2005				2006				2007				2008				2009				2010				2011																																											
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																								
Quarter End's Date	12/31/05				03/31/07				06/30/07				09/30/07				12/31/07				03/31/08				06/30/08				09/30/08				12/31/08				03/31/09				06/30/09				09/30/09				12/31/09				03/31/10				06/30/10				09/30/10				12/31/10			
Sales (in the quarter)	\$ 12,432	\$ 13,265	\$ 13,589	\$ 14,227	\$ 14,824	\$ 15,316	\$ 15,411	\$ 10,899	\$ 9,897	\$ 13,322	\$ 12,046	\$ 12,425	\$ 13,417	\$ 13,618	\$ 12,868	\$ 13,771	\$ 14,733	\$ 16,046																																																		
Inventory (in the quarter)	\$ 4,326	\$ 4,497	\$ 4,772	\$ 4,953	\$ 7,488	\$ 7,489	\$ 7,342	\$ 6,236	\$ 5,515	\$ 5,284	\$ 6,729	\$ 5,847	\$ 7,020	\$ 6,532	\$ 7,283	\$ 7,287	\$ 8,132	\$ 6,729																																																		
Business days	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64	63	64																								
Average daily revenues	197.33	207.27	215.72	222.45	235.43	239.14	243.84	170.30	157.24	208.16	191.19	194.08	214.54	218.91	204.41	215.11	232.86	250.69																																																		
Inventory Coverage	16.34	16.35	16.44	16.41	16.49	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41	16.41																																																		

Source: Quarterly Reports @ <http://www.dow.com/financial/reports/> All \$ Values in Millions

NAICS Subsector 333 Companies: Caterpillar and John Deere Inventory coverage

Table E.4 – Caterpillar Inventory Coverage calculation

Caterpillar

NAICS Code 333120, Construction Machinery Manufacturing
 Products, Services and Brands Information not found
 State of Incorporation Illinois
 Years in Business 86

Quarter	2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Quarter End's Date					12/31/05	03/31/07	06/30/07	09/30/07	12/31/07	03/31/08	06/30/08	09/30/08	12/31/08	03/31/09	06/30/09	09/30/09	12/31/09	03/31/10	06/30/10	09/30/10	12/31/10	03/31/11	06/30/11	09/30/11				
Sales (in the quarter)					\$ 9,321	\$ 10,613	\$ 10,668	\$ 11,090	\$ 15,979	\$ 12,797	\$ 12,148	\$ 12,120	\$ 8,510	\$ 7,254	\$ 6,583	\$ 7,187	\$ 7,553	\$ 9,730	\$ 16,452	\$ 12,134	\$ 12,377	\$ 13,535						
Inventory (in the quarter)					\$ 7,131	\$ 7,124	\$ 7,187	\$ 7,294	\$ 8,582	\$ 8,303	\$ 9,290	\$ 8,781	\$ 7,992	\$ 7,160	\$ 6,815	\$ 6,630	\$ 6,990	\$ 7,739	\$ 9,028	\$ 9,587	\$ 11,675	\$ 11,330						
Business days					63	64	63	63	64	65	65	64	63	65	65	64	63	65	65	63	62	65						
Average daily revenue					147.95	165.83	169.33	176.03	171.95	196.88	186.89	189.38	135.09	111.80	101.28	112.75	109.86	149.69	160.80	152.62	188.07	208.23						
Inventory Coverage					49.20	42.95	42.44	49.02	47.81	42.17	49.71	45.37	59.17	64.4	67.29	58.99	58.32	51.70	58.31	49.78	53.91	54.31						

Source: Quarterly Earnings Release @ <http://www.caterpillar.com/investor/financial-information/quarterly-results> All \$ Values in Millions

Table E.5– John Deere Inventory Coverage calculation

John Deere

NAICS Code 333111, Farm Machinery and Equipment Manufacturing
 Products, Services and Brands Information not found
 State of Incorporation Illinois
 Years in Business

Quarter	2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Quarter End's Date					01/31/06	04/30/06	07/31/06	10/31/06	01/31/07	04/30/07	07/31/07	10/31/07	01/31/08	04/30/08	07/31/08	10/31/08	01/31/09	04/30/09	07/31/09	10/31/09	01/31/10	04/30/10	07/31/10	10/31/10	01/31/11	04/30/11	07/31/11	
Sales (in the quarter)					\$ 5,427	\$ 4,531	\$ 7,469	\$ 7,270	\$ 6,734	\$ 4,560	\$ 6,187	\$ 5,283	\$ 4,728	\$ 4,237	\$ 6,548	\$ 6,224	\$ 6,564	\$ 5,514	\$ 8,328									
Inventory (in the quarter)					\$ 2,337	\$ 3,288	\$ 3,570	\$ 3,434	\$ 3,041	\$ 3,496	\$ 3,551	\$ 3,620	\$ 2,787	\$ 2,752	\$ 3,083	\$ 3,175	\$ 3,063	\$ 4,178	\$ 4,687									
Business days					63	63	64	65	64	63	64	65	65	63	65	64	62	64	64	63	62	64						
Average daily revenue					83.43	72.89	116.72	110.77	105.60	72.38	96.21	81.38	73.84	68.34	102.31	97.25	104.15	86.94	130.13									
Inventory Coverage					28.01	46.44	30.91	30.94	29.25	53.00	34.6	37.16	32.48	40.27	29.35	32.53	29.41	45.98	36.32									

Source: Quarterly Earnings Release @ http://www.deere.com/apps/finance/us_US/corporate/our_company/investor_relations/financial_data/financial_data.page All \$ Values in Millions

NAICS Subsector 334 Companies: CISCO, Hewlett – Packard and NCR Inventory coverage

Table E.6 – CISCO Inventory Coverage calculation

Cisco Systems, Inc Business Information

SIC Code 3577, Computer Peripheral Equipment, NEC
 NAICS Code 334119, Other Computer Peripheral Equipment Manufacturing
 State of Incorporation California
 Years in Business 26

Quarter	2005				2006				2007				2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Quarter End's Date																								
Inventory (in the quarter)		\$ 1,297	\$ 1,318	\$ 1,345	\$ 1,313	\$ 1,371	\$ 1,477	\$ 1,642	\$ 1,289	\$ 1,332	\$ 1,315	\$ 1,267	\$ 1,275	\$ 1,235	\$ 1,209	\$ 1,107	\$ 1,023	\$ 1,074	\$ 1,086	\$ 1,215	\$ 1,250	\$ 1,327	\$ 1,436	\$ 1,507
Sales (in the quarter)		\$ 5,525	\$ 5,491	\$ 5,537	\$ 6,155	\$ 6,734	\$ 6,940	\$ 7,096	\$ 7,481	\$ 7,942	\$ 8,830	\$ 9,290	\$ 9,872	\$ 10,668	\$ 11,635	\$ 12,347	\$ 13,420	\$ 14,729	\$ 15,206	\$ 16,276	\$ 17,026	\$ 18,436	\$ 19,808	\$ 21,208
Business days		68	61	64	63	63	62	64	63	63	63	62	64	63	61	62	64	63	63	62	62	69	63	63
Average daily revenue		80.75	90.7705	96.171875	106.888889	110.159	114.5	115.951	126.053	144.3205	148.6129	149.86	157.093	171.85	191.313	203.79	225.313	246.81	256.94	271.264	283.81	320.261	353.81	386.31
Inventory Coverage		16.32	14.82	13.65	12.83	13.41	14.34	11.83	10.49	29.27	27.18	26.50	25.36	8.82	9.34	10.28	10.06	9.53	9.44	10.22	9.49			

Source: Fiscal Financial Statement @ <http://investor.cisco.com/financialStatements.cfm> All \$ Values in Millions

Table E.7 – Hewlett-Packard Inventory Coverage calculation

Hewlett-Packard Company Business Information

SIC Code 3571, Electronic Computers
 NAICS Code 334111, Electronic Computer Manufacturing

Quarter	2005				2006				2007				2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Quarter End's Date																								
Inventory (in the quarter)		\$ 4,731	\$ 4,765	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833	\$ 4,833
Sales (in the quarter)		\$ 1,480	\$ 1,487	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523	\$ 1,523
Business days		63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Average daily revenue		23.95	23.75	23.81	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95	23.95
Inventory Coverage		16.32	14.82	13.65	12.83	13.41	14.34	11.83	10.49	29.27	27.18	26.50	25.36	8.82	9.34	10.28	10.06	9.53	9.44	10.22	9.49			

* Because HP has several Business Units for the interest of this analysis we will use the data related to the manufacturing areas of the business, in: All \$ Values in Millions

- we will consider:
 - ENTERPRISE STORAGE AND SERVICES
 - PERSONAL SYSTEMS GROUP
 - IMAGING AND PRINTING GROUP
- we will exclude:
 - HP SERVICES
 - FINANCIAL SERVICES
 - TECHNOLOGY SOLUTIONS GROUP
 - CORPORATE INVESTMENTS

Source: Quarterly Earnings Reports @ <http://www.hp.com/go/quarterlyearnings>

Table E.8 – NCR Inventory Coverage calculation

NCR

SIC Code 3575, Computer Terminals
 NAICS Code 334113, Computer Terminal Manufacturing
 Products, Services and Brands Information not found
 State of Incorporation Georgia

Quarter	2005				2006				2007				2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Quarter End's Date																								
Inventory (in the quarter)		\$ 717	\$ 719	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752	\$ 752
Sales (in the quarter)		\$ 685	\$ 650	\$ 651	\$ 684	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653	\$ 653
Business days		63	64	64	63	63	63	64	63	63	63	64	63	63	63	64	63	63	63	64	63	63	63	64
Average daily revenue		10.96	10.16	10.16	10.53	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36
Inventory Coverage		67.97	55.64	69.72	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71	51.71

Source: Quarterly Results @ <http://www.ncr.com/quarterlyresults> All \$ Values in Millions

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Appendix “F” Retrieval of Time Series from the M3 Report

The Manufacturer’s Shipments, Inventories, and Orders (M3) Report has an identification code different than the NAICS. In fact, the M3 series identification code is a 6-digit field. The structure of the code within the fields is as follow:

Position Codes

Position 1 U - Unadjusted (Seasonally)

A - Seasonally Adjusted

Position 2-4 M3 Series (more detail below)

This field contains aggregate level data series, 2-digit NAICS subsector series and M3 industry categories.

Position 5-6 Indicates the Data Item

VS - Value of Shipments

NO - New Orders

UO - Unfilled Orders

TI - Total Inventories

MI – Materials and Supplies Inventories

WI – Work in Process Inventories

FI – Finished Goods Inventories

IS - Inventories to Shipments Ratios

US - Unfilled Orders to Shipments Ratios

Position 2 – 4 (M3 SERIES – detail information)

Note: The series identification codes are listed here in the order they appear in

the historic data files.

Aggregate series Totals:

MTM Total Manufacturing
MXT Manufacturing Excluding Transportation
MXD Manufacturing Excluding Defense
MTU Manufacturing with Unfilled Orders
MDM Durable Goods

Durable Subsector Series and correspondence with NAICS codes

21S – NAICS 321 Wood Products
27S – NAICS 327 Nonmetallic Mineral Products
31S – NAICS 331 Primary Metals
32S – NAICS 332 Fabricated Metals Products
33S – NAICS 333 Machinery
34S – NAICS 334 Computer and Electronic Products
35S – NAICS 335 Electronic Equipment, Appliances and Components
36S – NAICS 336 Transportation Equipment
37S – NAICS 337 Furniture and Related Products

Non-Durable Subsector Series and correspondence with NAICS codes

11S – NAICS 311 Food Products
12S – NAICS 312 Beverage and Tobacco Products
13S – NAICS 313 Textiles
14S – NAICS 314 Textile Products
15S – NAICS 315 Apparel

16S – NAICS 316 Leather and Allied Products

22S – NAICS 322 Paper Products

23S – NAICS 323 Printing

24S – NAICS 324 Petroleum and Coal Products

25S – NAICS 325 Chemical Products

26S – NAICS 326 Plastics and Rubber Products

We retrieve seasonally adjusted time series corresponding to a 3-digit NAICS classification. For example, retrieving the Total Inventories of subsector 311 Food Products would require us to find the code “A11STI”, where **A** refers to seasonally adjusted data, **11S** is the corresponding code for NAICS subsector 311 Food Products, and **TI** is the corresponding code for Total Inventories.

A complete guide for understanding the time series within the M3 Report can be retrieved from the US Census Bureau webpage, under Historic Time Series – NAICS, “Directions for reading Historic Time Series NAICS Tables” (http://www.census.gov/manufacturing/m3/historical_data/index.html).