Financial Risks to the State Associated with the Inventory Tax Credit

Louisiana Department of Revenue
Louisiana Tax Commission

Performance Audit Services
Issued June 1, 2016

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LOUISIANA LEGISLATIVE AUDITOR
DARYL G. PURPERA, CPA, CFE

June 1, 2016

The Honorable John A. Alario, Jr.,
President of the Senate
The Honorable Taylor F. Barras,
Speaker of the House of Representatives

Dear Senator Alario and Representative Barras:

This report provides the results of our performance audit on the inventory tax credit. The purpose of this audit was to evaluate the financial risks to the state associated with the credit and outline recommendations to mitigate those risks. Appendix A contains the Louisiana Tax Commission's (LTC) and the Louisiana Department of Revenue's (LDR) response to this report. I hope this report will benefit you in your legislative decision-making process.

We would like to express our appreciation to the management and staff of LTC and LDR for their assistance during this audit.

Sincerely,

Thomas H. Cole, CPA
First Assistant Legislative Auditor

THC/aa

INVENTORY TAX CREDIT

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Louisiana Legislative Auditor

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June 2016

Audit Control # 40150025

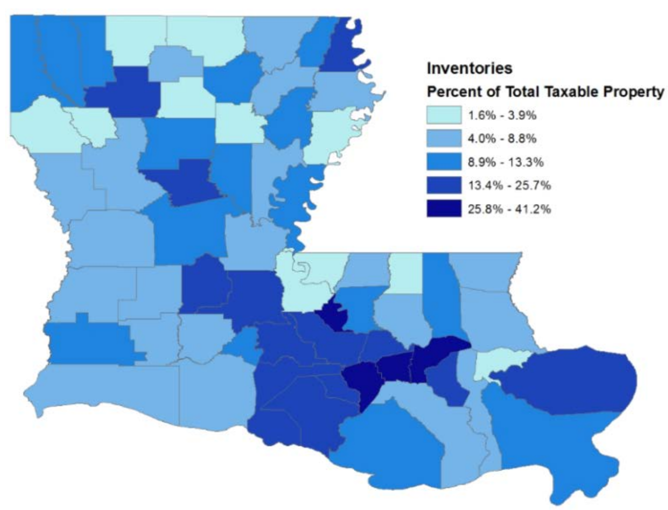
Introduction

> **Inventory includes:** goods awaiting sale, works in progress, and raw materials used in creating new goods in Louisiana.
> **Inventory does not include:** oil stored by its producer prior to its first sale, leased items, depreciated items, items used by a taxpayer after 18 months of ownership, and property exempt for ad valorem taxation.

This report provides the results of our performance audit on the financial risks to the state associated with the inventory tax credit. The inventory tax credit is a means by which the state reimburses manufacturers, distributors, and retailers for property taxes levied on their business inventories by local governments. The credit was approved in 1991 and fully implemented by 1996 when the state began to reimburse 100% of the inventory taxes companies paid to local governments. According to the Tax Foundation, Louisiana and Mississippi[1] are the only states that give companies a state tax credit for the local taxes they pay on inventory.

Local governments in Louisiana tax "real property," such as land and buildings, and "personal property," which includes business inventories. Louisiana is one of only 14 states that taxes business inventories. In 2015, economists at Louisiana State University and Tulane University released The Louisiana Tax Study,[2] which concluded the tax was "not a productive economic development policy" and recommended it be eliminated. At the same time, the study said the tax should be replaced with other local revenue, because many parishes had come to rely on inventory taxes to fund operations, such as law enforcement and schools.

Exhibit 1
Inventory Assessments as a Percentage of Total Property Assessments by Parish, Tax Year 2015

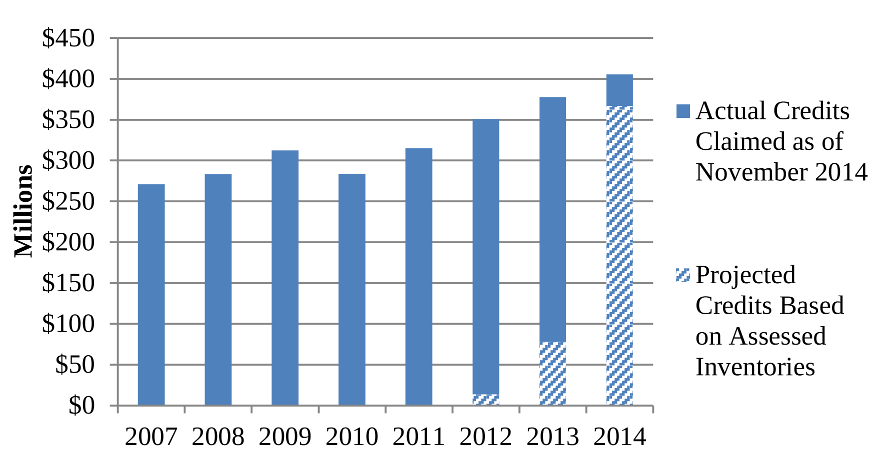


Source: Prepared by legislative auditor's staff using information obtained from the Louisiana Tax Commission's annual reports.

Exhibit 1 shows the percentage of each parish's property tax assessments that is attributed to inventory. Appendix C provides greater detail, by parish.

[1] While Mississippi has implemented an inventory tax credit, this is not a refundable credit (i.e., pays cash to a taxpayer if the credit amount exceeds the taxpayer's state tax liability) like Louisiana's inventory tax credit.
[2] http://murphy.tulane.edu/programs/public-policy/public-finance/louisiana-tax-study

Exhibit 2
Inventory Tax Credits Claimed
Tax Years 2007–2014*



*Tax years 2012 through 2014 include projected total amounts because companies are entitled to file and amend returns for three years.
Source: Prepared by legislative auditor's staff using information from the Louisiana Tax Commission's annual reports and the Louisiana Department of Revenue.

The inventory tax credit has come under scrutiny in recent years because of the growth in the amount of credits claimed. As shown in Exhibit 2, the inventory tax credit increased 50% over an eight-year period, from $271 million in tax year 2007 to a projected[3] $405 million in tax year 2014. Appendix D summarizes the industries with the highest growth in the amount of inventory tax credits claimed.

In an effort to control this growth, Act 133 of the 2015 Regular Session limited the tax credit. While the credit continues to offset all local inventory taxes paid up to the amount a company owes in state income and franchise taxes, any credit amount in excess of this tax liability is now only 75% refundable[4] for companies that paid inventory taxes of $10,000 or more. However, the remaining 25% can be carried forward and applied for up to five subsequent tax years. According to the fiscal note that accompanied Act 133, the effect of this change is estimated to increase state revenues by $108 million in fiscal year 2016 alone.

The objective of this audit was to evaluate the financial risks to the state associated with the inventory tax credit and to outline recommendations to mitigate those risks. Overall, we found that inventory tax credits claimed from tax years 2007 through 2014 have exceeded what would be expected considering economic factors such as changes in national inventories and wages. In addition, state law does not specify that manufacturing, distributing, and retailing be the primary business activity for companies claiming the credit like other credits/exemptions. Amending state law to require that the companies have a primary business activity of manufacturing, retailing, or distributing to receive the credit would reduce the amount of credits issued each year, saving the state money but not affecting local governments' ability to levy the tax. We also found that because inventory tax information is self-reported, oversight by local assessors, the Louisiana Tax Commission (LTC), and the Louisiana Department of Revenue (LDR) needs to be strengthened to ensure the state is not crediting companies for ineligible inventory. Appendix A provides LTC's and LDR's response to the audit, and Appendix B contains our scope and methodology.

[3] Companies may continue to file amended returns for three years following any given tax year. Therefore, using past data and actual assessed inventories, we projected the credits that will ultimately be claimed for tax years 2012 through 2014.
[4] A refundable credit pays cash to a taxpayer if the credit amount exceeds the taxpayer's state tax liability. A non-refundable credit would only offset a tax liability and the excess is not refunded.

Objective: To evaluate the financial risks to the state associated with the inventory tax credit.

We identified several financial risks to the state related to how the inventory tax credit is structured and administered. Mitigating these risks is important because the tax credit has grown by 50% (approximately $135 million) from tax years 2007 to 2014. In addition, our analysis shows that approximately $157 million has been or will be claimed in potential excess tax credits for these tax years. Risks associated with this program include:

- From tax years 2007 through 2013, at least $229.5 million was claimed by companies with a primary business activity outside of manufacturing, distributing, or retailing. Amending the inventory tax credit law to specify that only companies with a primary business activity of manufacturing, distributing, or retailing are eligible for the inventory tax credit would reduce the cost of the credit but would not affect local governments' ability to levy the tax.

- Inventory tax credit amounts are based on local assessments, which are calculated using self-reported information. However, the lack of oversight by local tax assessors and LTC in ensuring the accuracy of the assessments increases the risk that the state is granting more in credits than it should.

- LTC does not require that companies provide support for their inventory amounts, which may increase the risk that governing authorities (local tax assessors, LTC, and LDR) will not identify the misclassification of non-eligible property as inventory.

- Because the definition of "eligible inventory" changed as of January 1, 2016, LDR needs to develop a process to identify and exclude ineligible inventory from receiving the credit. Not developing a process to address this change could increase the risk that the state will grant more in credits than allowed.

Additional information on these risks and our recommendations to address them are summarized below.

Our analysis shows that approximately $157 million has been or will be claimed in potential excess tax credits for tax years 2007 through 2014.

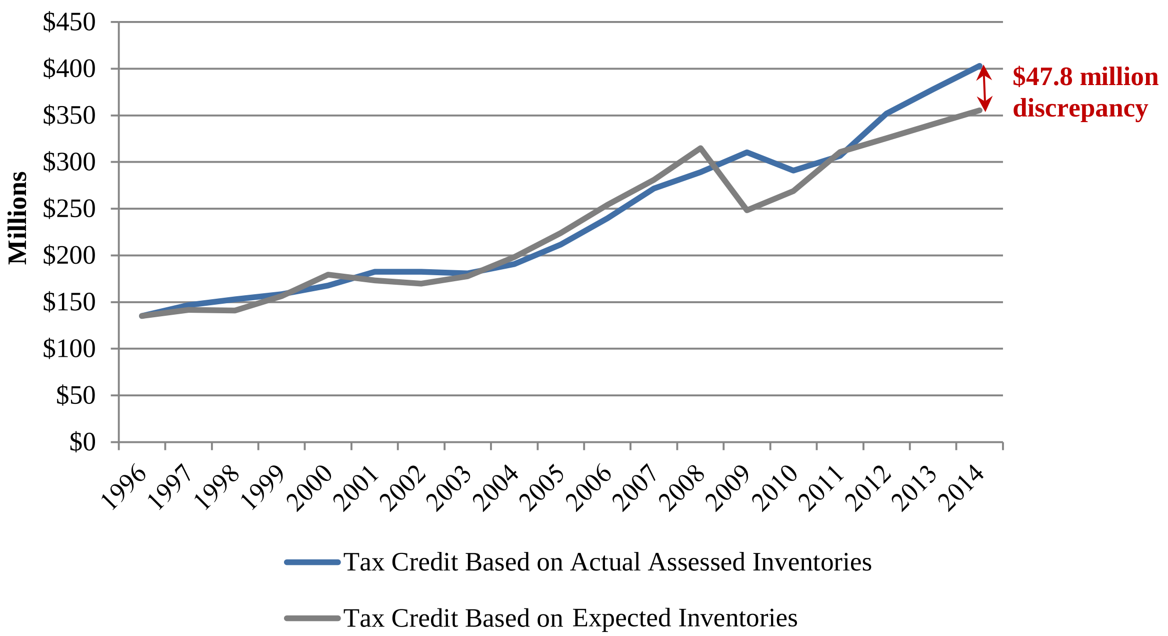
We performed a regression analysis to estimate the amount that has been or will ultimately be claimed[5] in inventory tax credits compared to what would be expected based on

[5] Companies may continue to file amended returns for three years following any given tax year. Therefore, using past data and actual assessed inventories, we projected the credits that will ultimately be claimed for tax years 2012 through 2014, as shown in Exhibit 3.

growth in the manufacturing, distributing, and retail industries. Specifically, we calculated and compared the expected cost of the credit to the actual cost of the credit for tax years 1996 through 2014. Appendix B details the methodology we used to perform this regression analysis.

Our results show that from tax years 2007 through 2014 the inventory tax credits claimed are 6% higher than can be explained by underlying economic conditions such as changes in wages of various industries (including manufacturing, trade, transportation, and utilities), national business inventory trends, oil prices, and general price inflation. This 6% represents an excess of $157 million, or an average of $19.5 million a year, from 2007 through 2014. The 2014 tax year alone accounts for $47.8 million (30.5%) of the $157 million, illustrating the rapid growth in the credit. While our analysis indicates larger-than-expected inventory levels in the state, it does not specify a cause. However, this analysis combined with the reliance on self-reported information may indicate insufficient program oversight, which can result in issues such as inflated inventory valuations. This discrepancy could also stem from the lack of specificity in state law regarding which companies are actually eligible to claim the credit based on the manufacturing, retailing, and distributing requirement. Exhibit 3 shows the actual growth of inventory tax credits compared to the expected growth since 1996.

Exhibit 3
Growth of Inventory Tax Credit Outpaces Expectations



Source: Prepared by legislative auditor's staff using information obtained from LTC's annual reports, LDR, Bureau of Labor Statistics, Bureau of Economic Analysis, Federal Reserve Board, and U.S. Energy Information Administration.

From tax years 2007 through 2013, at least $229.5 million was claimed by companies with a primary business activity outside of manufacturing, distributing, or retailing. Amending the inventory tax credit law to specify that only companies with a primary business activity of manufacturing, distributing, or retailing are eligible for the inventory tax credit would reduce the cost of the credit but would not affect local governments' ability to levy the tax.

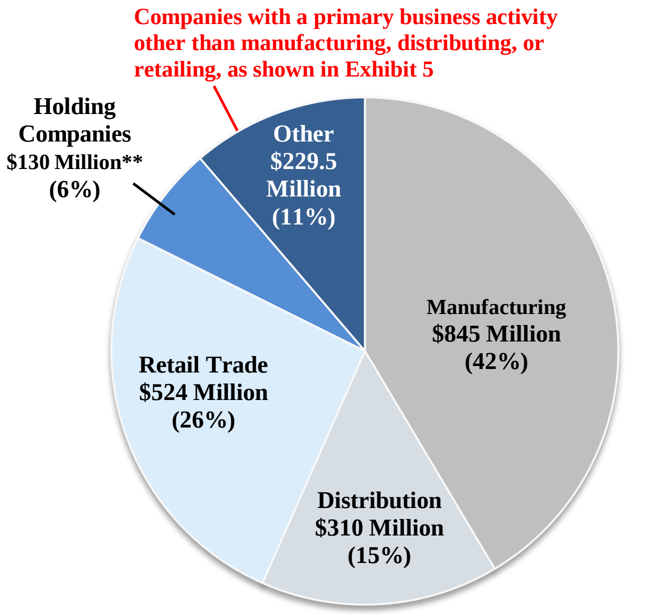
According to Louisiana Revised Statute (R.S.) 47:6006, there shall be allowed a credit against any Louisiana income or corporation franchise tax for ad valorem taxes paid to political subdivisions on inventory held by manufacturers, distributors, and retailers.[6] However, the law does not specifically require that companies receiving the credit have a primary business activity of manufacturing, distributing, or retailing. Other types of credits/exemptions, such as the quality jobs tax credit and the manufacturers' sales tax exemption, specify that companies have a certain primary business activity to receive a credit/exemption. Exhibit 4 shows the $2 billion[7] in inventory tax credits claimed between tax years 2007 and 2013[8] by the primary business activity of companies that received them. The "Other" category includes companies that received the credit with primary activities outside of manufacturing, distributing, or retailing.

[6] The inventory tax credit law also allows an ad valorem tax credit on natural gas held, used, or consumed in providing natural gas storage services or operating natural gas storage facilities. However, we did not include this credit in our analysis because LDR reports it separately from the inventory tax credit.

[7] This amount could potentially be higher as it does not include claims that companies can still file with LDR for tax years 2012 and 2013.

[8] 2013 is the last year included in this analysis because the majority of claims have not been filed for subsequent years, as shown in Exhibit 2 on page 2 of this report.

Exhibit 4
Inventory Tax Credits by Primary Business Activity
At least $2 Billion Total*
Tax Years 2007 through 2013



Manufacturing: works raw materials into wares suitable for use or alters existing goods. Examples include:
- Petroleum and Coal Product Manufacturers
- Chemical Manufacturers

Distribution*:** sells products for resale or further processing. Examples include:
- Petroleum and Petroleum Products Merchant Wholesalers
- Machinery, Equipment, and Supplies Merchant Wholesalers

Retail Trade: sells products to the ultimate consumer. Examples include:
- Motor Vehicle and Parts Dealers
- General Merchandise Stores

*Because the $2 billion does not include claims that can still be filed with LDR for tax years 2012 and 2013, this amount could potentially be higher.
**Holding companies were included separately because, according to LDR, they are primarily parent companies claiming tax credits for inventory taxes paid by their subsidiary companies, and the primary business activities of those subsidiary companies are not captured by LDR. Therefore, we could not further classify the holding companies by the industries of their subsidiary companies.
***The actual name of this industry is "Wholesale Trade."
Source: Prepared by legislative auditor's staff using information obtained from LDR.

Our analysis shows that if the Legislature amended the law to specify that only companies with a primary business activity of manufacturing, distributing, or retailing are eligible to receive the credit, it would reduce the cost of the credit, but it would not affect local governments' ability to levy the tax. For example, as illustrated in Exhibit 4 above, at least $229.5 million was claimed in inventory tax credits over a seven-year period for companies that had a primary business activity other than manufacturing, distributing, or retailing.[9] Exhibit 5 lists industries and sub-industries of companies that claimed the credit, but appear to have a primary business activity other than manufacturing, distributing, or retailing. To determine this, we used the North American Industry Classification System (NAICS) codes[10] for these companies, which are assigned based on the company's primary business activity. Both the quality jobs tax credit and the manufacturer's sales tax exemption use NAICS codes to identify primary business activity.

[9] While the cost of the credit would be reduced by amending the law to specify that only companies with a primary business activity of manufacturing, retailing, or distributing are eligible to receive the credit, the actual amount of future savings would depend on how companies would potentially respond to a change in the law.
[10] NAICS contains standard codes used by Federal statistical agencies such as the U.S. Census Bureau and are assigned based on an entity's primary business activity. Although created for statistical purposes, NAICS codes are also frequently used nationwide to determine state tax incentive eligibility.

Exhibit 5 Amount in Credits Claimed by Companies that Appear to Have a Primary Business Activity other than Manufacturing, Distributing, or Retailing Tax Years 2007 through 2013	
Industry and Sub-Industries Classified by NAICS Codes*	**Credits Claimed (millions)**
Mining, Quarrying, and Oil and Gas Extraction *(Other than oil stored by producer prior to first sale)* **(NAICS 21)** (1) O&G Extraction (61%)** (2) Support Activities for Mining (35%) (3) Mining (except Oil and Gas) (4%)	$61.4
Utilities (22) (1) Natural Gas Distribution (87%) (2) Electrical Power Generation, Transmission, and Distribution (13%) (3) Water, Sewage, and Other Systems (<1%)	42.6
Transportation and Warehousing (48-49) (1) Pipeline Transportation (46%) (2) Air Transportation (24%) (3) Water Transportation (13%) (4) Warehousing and Storage (8%) (5) Support Activities for Transportation (6%) (6) Truck Transportation (3%)	22.8
Professional, Scientific, and Technical Services (54) (1) Scientific Research and Development Services (43%) (2) Architectural, Engineering, and Related Services (8%) (3) Management, Scientific, and Technical Consulting Services (3%) (4) Computer Systems Design and Related Services (2%) (5) Other Professional, Scientific, and Technical Services (44%)	18.0
Finance and Insurance (52) (1) Securities, Commodity Contracts, Other Financial Investments, and Related Activities • Securities and Commodity Contracts Intermediation and Brokerage (14%) • Securities and Commodity Exchanges (3%) • Other Financial Investment Activities (68%) (2) Other Investment Pools and Funds (12%) (3) Credit Intermediation and Related Activities (3%)	17.8
Administrative and Support and Waste Management and Remediation Services (56) (1) Administrative and Support Services • Office Administrative Services (17%) • Other Support Services (78%) (2) Waste Management and Remediation Services (4%) (3) Other, i.e., Codes Invalid Beyond Administrative and Support and Waste Management and Remediation Services (1%)	10.5
Construction (23) (1) Specialty Trade Contractors • Building Equipment Contractors (10%) • Other Specialty Trade Contractors (39%) (2) Heavy and Civil Engineering Construction • Highway, Street, and Bridge Construction (12%) • Other Heavy and Civil Engineering Construction (5%) (3) Construction of Buildings (Residential and Nonresidential (11%) (4) Other, i.e., Codes Invalid Beyond Construction (23%)	9.8

Industry and Sub-Industries Classified by NAICS Codes*	Credits Claimed (millions)
Other Services (except Public Administration) (81) (1) Repair and Maintenance • Commercial and Industrial (except Automotive and Electronic) (62%) • Automotive (12%) • Electronic and Precision Equipment (7%) • Personal and Household Goods (2%) (2) Personal and Laundry Services • Death Care Services (5%) • Dry Cleaning and Laundry Services (4%) • Personal Care Services (3%) • Other Personal Services (5%)	$8.9
Real Estate and Rental Leasing (53) (1) Rental and Leasing Services • Commercial and Industrial Machinery and Equipment (42%) • General Rental Centers (16%) • Consumer Goods (11%) • Automotive Equipment (6%) (2) Real Estate • Lessors of Real Estate (16%) • Activities related to Real Estate (9%)	6.6
Information (51) (1) Telecommunications (86%) (2) Publishing Industries (except the Internet, i.e. Newspaper, Periodical, Book, etc.) (10%) (3) Other Information Services (1%) (4) Other, i.e., Codes Invalid Beyond Information (3%)	5.8
Agriculture, Forestry, Fishing and Hunting (11) (1) Crop Production • Production (30%) • Support Activities (39%) (2) Animal Production and Aquaculture • Poultry and Egg Production (22%) • Cattle Ranching and Farming (4%) • Other Animal Production and Aquaculture and Support Activities (2%) (3) Forestry and Logging (3%)	5.4
Accommodation and Food Services (72) (1) Food Services and Drinking Places (96%) (2) Accommodation, e.g. hotels/motels, RV parks, etc. (3%) (3) Other, i.e., Codes Invalid Beyond Accommodation and Food Services (1%)	2.8
Arts, Entertainment, and Recreation (71) (1) Amusement, Gambling, and Recreation Industries • Gambling Industries (93%) • Other Amusement, Gambling, and Recreation (6%) (2) Independent Artists, Writers, and Performers (1%)	1.4
Healthcare and Social Assistance (62) (1) Ambulatory Health Care Services (78%) (2) Child Day Care Services (17%) (3) Hospitals (4%) (4) Nursing and Residential Care Facilities (1%)	0.9
All Others, i.e., blank or other invalid codes	14.8
Total	**$229.5**

* The two-digit NAICS industry categories are in bold for each industry. The sub-categories below each industry are either the three-digit or four-digit NAICS codes, which provide greater detail about the sub-industries of companies within each industry.
** Percentages following each sub-industry indicate the approximate percentage of total inventory tax credits claimed by each respective sub-industry.
Source: Prepared by legislative auditor’s staff using information obtained from LDR.

Matter for Legislative Consideration: The Legislature may wish to consider more clearly defining the eligibility criteria companies need to meet to receive the credit. Amending the law to limit the eligibility to companies whose primary business activity is manufacturing, distributing, or retailing, as was done for the manufacturers' sales tax exemption and the quality jobs tax credit, would reduce the cost of the credit to the state but would not affect local governments' ability to levy the tax.

Matter for Legislative Consideration: The Legislature may wish to consider amending the law to specify which NAICS codes are eligible to receive the inventory tax credit.

Inventory tax credit amounts are based on local assessments, which are calculated using self-reported information. However, the lack of oversight by local tax assessors and LTC in ensuring the accuracy of the assessments increases the risk that the state is granting more in credits than it should.

The inventory tax credit is dependent on the accuracy of tax assessments made by local assessors. However, local assessors rely on information self-reported by companies to calculate the assessed values of inventories in their parishes. LTC is required to measure the level of appraisals or assessments and the degree of uniformity for each major class and type of property. LDR is responsible for administering the tax credit and ensuring the amount claimed for the credit was actually paid to the local government. However, we found weaknesses in the local assessors' and LTC's processes that increase the risk that LDR will approve inventory tax credits based on inaccurate information.

Local tax assessors do not verify the accuracy of companies' self-reported inventory. Local assessors calculate how much is owed in inventory taxes based on the amount companies self-report as their inventories' fair market value. According to multiple local assessors we interviewed,[11] they do not have the resources or expertise to specifically verify the accuracy of reported inventory and focus their resources on identifying companies who have not reported inventory rather than verifying the inventory that was reported.[12] In addition, local assessors may not have an incentive to contest higher-than-expected inventory values because lower values would result in lower tax revenue for their local governments.

LTC does not sufficiently verify the inventory reported by companies to local tax assessors because it conducts six to seven personal property audits annually,[13] which during calendar year 2015 represented three (0.03%) of the approximately 11,000

[11] We surveyed 13 (20%) of the 64 local assessors.
[12] One of the 13 assessors surveyed stated that it will soon start to proactively look for miscategorized property. Specifically, it recently hired an audit firm to perform this type of evaluation.
[13] During calendar years 2014 and 2015, LTC conducted 13 personal property audits of six different companies for an average of three different companies a year.

companies that claimed the inventory tax credit. LTC is required to measure the level of appraisals or assessments and the degree of uniformity for each major class and type of property.[14] While the rules and regulations adopted by LTC state that inventory records shall be open for inspection by assessors or any other taxing authority, the law is not clear regarding LTC's responsibility in regard to verifying the inventory taxes assessed by local assessors, including how often to audit inventory assessments.

Each year, LTC has typically conducted personal property audits on three (0.03%) of the approximately 11,000 companies who claim the inventory tax credit annually. In addition, companies selected for an audit by LTC may or may not have claimed the credit. According to LTC management, the commission does not have sufficient staff and resources to conduct additional audits. From fiscal years 2011 through 2016, LTC has maintained a staff of 36 to 39 employees, with five of these being Commission members and an average annual budget of $4 million. LTC also considers appeals from companies that do not agree with the amount of tax they are assessed. However, it is unlikely that companies will appeal their inventory tax assessments because of the credit and because they self-report the information used to determine the inventory taxes owed. Because of the amount of income tax revenue the state is foregoing due to the inventory tax credit, and because some of this revenue loss could be due to ineligible claims, there is a need for increased oversight of self-reported inventory amounts.

Because LDR is granting inventory tax credits based on self-reported information that is not sufficiently verified by local tax assessors or LTC, there is an increased risk that the state is giving away more in credits than it should. LDR is not required by law to verify the accuracy of the inventory tax assessments and, therefore, depends on local assessors and LTC to verify that the inventory reported is eligible to receive the tax credit. Currently, LDR has a process to review tax returns for companies claiming the credit before issuing the credit. Specifically, LDR staff reviews these returns if its system's edit checks, which are based on thresholds set by LDR management, flag a return for review prior to issuing the credit. During this review, LDR verifies that the credit amount matches the amount that was paid to the local government. On average, prior to tax year 2015, LDR reviewed approximately 6% of inventory tax credits claimed based on these edit checks, which accounted for approximately 30% of the total amount given. In addition, LDR may review additional inventory tax credits if a company receives a total tax refund that exceeds a certain amount. We sampled 30 returns that had been flagged and found that LDR did review these returns before issuing the credit. During the 2015 tax year, LDR's prior management increased its threshold, therefore decreasing the number of credits it will review. However, according to LDR management under the new administration, they are currently in the process of reverting back to previous thresholds.

> **Recommendation 1:** LTC should increase its audits of the inventory amounts reported by companies and assessed locally to help ensure the accuracy of the assessments, as required by R.S. 47:1837(B). LTC should review its staffing needs in order to start conducting these types of reviews.

[14] R.S. 47:1837(B)

Summary of Management's Response: LTC agrees with this recommendation. Specifically, LTC agrees that more audits should be performed to ensure the accuracy of assessments. However, LTC stated that it does not have the staff or resources to perform additional personal property assessment audits unless current resources are reallocated and personnel reassigned. LTC also stated that without the appropriation of additional resources, any change in the allocation of the limited resources LTC currently receives would result in other statutory and constitutional obligations being neglected. See Appendix A.1 for LTC's full response.

Matter for Legislative Consideration: The Legislature may wish to clarify LTC's responsibilities in regard to verifying the inventory taxes assessed, such as how often to audit local inventory assessments.

LTC does not require that companies provide support for their inventory amounts, which may increase the risk that governing authorities (local tax assessors, LTC, and LDR) may not identify the misclassification of non-eligible property as inventory.

LTC requires companies to itemize and report to local assessors the descriptions and values for most categories of property on the LAT Form 5 (LAT-5), which LTC created for companies to report personal property to local assessors. These categories include furniture and fixtures, machinery and equipment, leased property, and miscellaneous property. However, LTC does not require companies to provide support for the inventory amounts reported on this form. Instead, companies only report the monthly dollar value of their inventory, as shown in Exhibit 6. As a result, governing authorities such as local tax assessors, LTC, and LDR cannot review or verify the accuracy of this information which increases the risk that they will not identify the misclassification of non-eligible property as inventory.

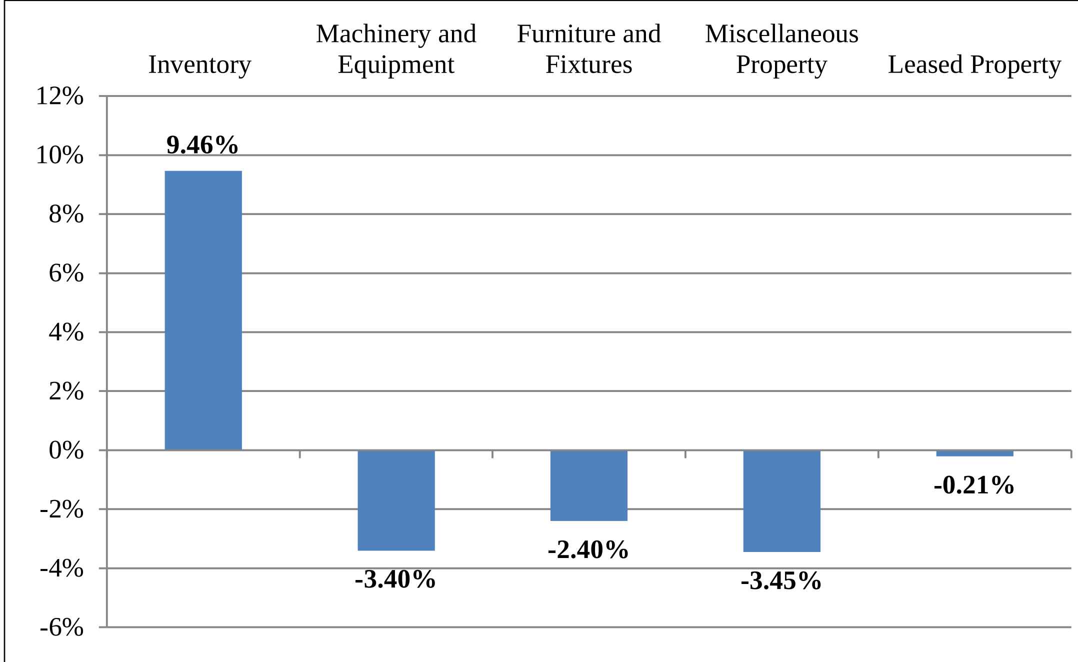
Exhibit 6
Example of LAT-5 Information Submitted to Local Assessor

Month		Inventory
January	$	7,339,013
February	$	7,580,656
March	$	6,235,033
April	$	5,985,413
May	$	7,664,720
June	$	10,275,615
July	$	11,784,991
August	$	10,423,169
September	$	7,065,119
October	$	5,801,449
November	$	4,661,025
December	$	4,254,280
Total Inventory	$	89,070,483
Average Inventory	$	7,422,540
Calculated Assessment	$	1,113,381

Source: Prepared by legislative auditor's staff using information provided by LTC.

Since the credit was fully implemented in 1996, we found that personal property classified as inventory has increased as a percentage of all personal property while the other categories have decreased. In 1996, inventories made up 35.12% of taxable personal property. By 2014, this number had increased to 44.58%, while all other categories (machinery and equipment, furniture and fixtures, miscellaneous personal property, and leased personal property) had decreased. Exhibit 7 shows the percent changes in the categories since 1996. Appendix E shows the increases and decreases each year by personal property category as reported on the LAT-5.

Exhibit 7
Change in Personal Property Categories as a Percentage of all Personal Property
Tax Years 1996 to 2014



Source: Created by legislative auditor's staff using information obtained from LTC's annual reports.

Because LTC does not require companies to support inventory reported on the LAT-5 form, it is difficult to determine if companies have misclassified other property as inventory. For example, if LTC revised the LAT-5 form to require the itemization of inventories, local tax assessors, LTC, and LDR could better determine if the inventories reported are accurate and eligible. This would be similar to the existing requirement in R.S. 47:1961 and LAC Title 61, Pt. V §1701 which states that all persons engaged in business in the state, whose gross sales are in excess of $15,000, shall make and keep an inventory of their merchandise, fixtures, machinery, and other assets within the state showing the quantity, description and value thereof as of the first day of January of each year. Additionally, according to LTC management, it could also work with LDR and determine whether it would be feasible to use sales tax data to analyze companies' inventory-to-sales ratios, which could indicate when inventory may be misclassified.[15]

[15] In order to do this, LTC may need to get an exception put in R.S. 47:1508 to allow LDR to provide the data to LTC.

Recommendation 2: LTC should update the LAT-5 form to require companies to support their inventory amounts reported. This could include itemizing their inventory like the other categories (i.e. machinery and equipment) in the LAT-5 form.

Summary of Management's Response: LTC agrees with this recommendation, but is also concerned with the impact this requirement may have on small businesses that lack the resources to provide documentation of itemized inventory. LTC stated it will revise its rules and regulations to require that taxpayers who report inventory submit a complete itemization of their inventory. See Appendix A.1 for LTC's full response.

Because the definition of "eligible inventory" changed as of January 1, 2016, LDR needs to develop a process to identify and exclude ineligible inventory from receiving the credit. Not developing a process to address this change could increase the risk that the state will grant more in credits than allowed.

Historically, LDR has relied on the oversight of local assessors and LTC to ensure the accuracy of reported inventory. However, Act 415 of the 2015 Regular Legislative Session created a definition of inventory for the purposes of the inventory tax credit, which affects taxable periods beginning on or after January 1, 2016. Prior to this, LDR relied on the definition used for local tax reporting. However, Act 415 creates a different definition of inventory specifically for inventory tax credit eligibility. Exhibit 8 lists all definitions of "inventory" and highlights the differences between them.

Exhibit 8
Inventory Definitions
Inventory Tax versus Inventory Credit

Purpose	Legal Citation	Definitions
Local Reporting (on LAT-5 form)	LAC 61:V.304	Inventories of items that are tangible personal property which are held for sale, process of production, consumed in the production of goods **or services** to be available for sale or **are utilized in marketing or distribution activities**.
Local Taxation (for determining Fair Market Value)	LAC 61:V.1701	The aggregate of those items of tangible personal property which are (1) held for sale in the ordinary course of business, (2) are currently in the process of production for subsequent sale, (3) are ultimately to be consumed in the production of the goods **or services** to be available for sale, or (4) **are utilized in marketing or distribution activities**.
State Tax Credit Eligibility	R.S. 47:6006 (Act 415)	The aggregate of those items of tangible personal property that are held **exclusively for sale** in the ordinary course of business, are currently in the process of production for subsequent sale, or are to physically become a part of the production of such goods.

Source: Prepared by legislative auditor's staff using information obtained from state law.

As shown in the exhibit, the definitions for local reporting and taxation require property that will be consumed in the production of services, or property that will be used in marketing or distribution activities be categorized as inventory. However, this property is now ineligible for the state tax credit. State law further requires that property eligible for the tax credit must be held "exclusively for sale," which is not a requirement for local inventory valuations.

Because of Act 415, LDR will no longer be able to rely exclusively on the oversight of local assessors and LTC because not all inventory taxed at the local level will be eligible for the credit. Act 415 affects tax periods beginning January 1, 2016, for credits on returns due in 2017. According to LDR management, it has started to create new processes to review the classifications of inventory to ensure only eligible inventory will receive the credit. In addition, if the LAT-5 form is updated with itemized inventory, LDR could use this form as part of its process when determining which inventory is eligible for the credit under the new law. However, this would require the legislature to grant LDR access to that form as R.S. 47:2327 currently prohibits it. Process changes, such as these, would help LDR ensure that it only grants tax credits for taxes paid on inventory that qualifies under the Act 415 definition.

Recommendation 3: LDR should develop a process to review inventory for the purpose of the inventory tax credit to ensure the taxes paid by the companies are eligible to receive a credit according to Act 415.

Summary of Management's Response: LDR agrees with this recommendation and is in the process of preparing a new schedule to calculate the inventory tax credit that will remove *"property that will be consumed in the production of services or property that will be used in marketing or distribution activities"* and any items not held *"exclusively for sale"* to ensure the inventory tax credit is calculated correctly. According to LDR, the new schedule and instructions will be timely implemented for the income and franchise tax returns due in 2017. Further, LDR will issue policy guidance for tax payers explaining the changes to the inventory tax credit program. See Appendix A.5 for LDR's full response.

Matter for Legislative Consideration: The Legislature may wish to consider amending R.S. 47:2327 to allow LDR access to the LAT-5 form for use during its Inventory Tax Credit reviews.

APPENDIX A: MANAGEMENT'S RESPONSE

Louisiana Tax Commission
State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

LAWRENCE E. CHEHARDY
CHAIRMAN

LOUISIANA TAX COMMISSION

MANAGEMENT'S RESPONSE TO

EVALUATION OF FINANCIAL RISKS OF INVENTORY TAX CREDIT

The Louisiana Tax Commission acts as a supervisory and oversight body of local property tax assessments. The Tax Commission is responsible for appraising and assessing public service properties, acting as an appellate body for property tax protests, and supervising local assessors. The Tax Commission has absolutely no involvement with the inventory tax credit. The Tax Commission's obligation with regard to inventory is solely related to the assessment for property tax purposes of inventory. The Tax Commission ensures that local assessors are properly reviewing and assessing personal property by conducting personal property assessment audits as required by La. R.S. 47:1835(D)(1). Neither the local assessors nor the Tax Commission are verifying what inventory is available for tax credits on behalf of the Louisiana Department of Revenue. The local assessors assess inventory for property tax purposes and not for its eligibility for a tax credit. The determination of eligibility for an inventory tax credit is the responsibility of the Department of Revenue; therefore, the responsibility of adequately administering the tax credit falls squarely on the Department of Revenue. However, the Tax Commission is certainly willing to provide any support or information that will assist the Department of Revenue. In this regard, the Tax Commission agrees with the recommendations in the Legislative Auditor's report.

By way of specifically addressing the Legislative Auditor's recommendations, the Tax Commission submits the following:

> **Recommendation 1**: LTC should increase its audits of the inventory amounts reported by companies and assessed locally to help ensure the accuracy of the assessments, as required by R.S. 47:1837(B). LTC should review its staffing needs in order to start conducting these types of reviews.

RESPONSE: AGREED.

The Tax Commission certainly agrees that more audits should be performed to ensure accuracy of the assessments. However, as relayed to the Legislative Auditor during the audit, the Tax Commission simply does not have the staff or resources to perform additional personal property assessment audits unless current resources are reallocated and personnel reassigned. Over the past eight years, the Tax Commission's budget has been reduced by 20%, from $5.205

million in fiscal year 2008-09, to $4.164 million for the 2015-16 fiscal year. The Tax Commission employs thirty-three full time staff, excluding Commissioners. Most states have much larger agencies that perform similar functions as the Tax Commission. The agency which does so in Alabama, a state with a very similar population as Louisiana, has a budget of $8 million and a staff of 79. The property tax agency in Kentucky, another state with a very similar population to Louisiana, has a budget of $8.1 million and a staff of 85. In order to perform additional personal property audits as recommended, the Tax Commission would need either additional staff and resources or a reallocation of its current resources, including funding, which as discussed below, is likely not possible without neglecting the Tax Commission's other statutory and constitutional duties.

The report correctly states that the Tax Commission conducts, on average, seven personal property audits per year. (Pg. 9). However, it's important to recognize that the Tax Commission does not perform personal property audits on the basis of the inventory tax credit. In fact, there is no legal authority to suggest that it is the Tax Commission's duty or obligation to specifically audit companies that receive inventory tax credits. Thus, although the personal property audits performed by Tax Commission help ensure the correctness of assessments, the audits do not specifically inspect the inventory tax credit. Therefore, the percentage of audits performed by the Tax Commission in relation to the number of companies that claim inventory tax credits is somewhat misleading. For 2014-2015, the Tax Commission conducted thirteen (13) personal property audits, and presently have seven (7) pending for 2016. Furthermore, La. R.S. 47:1835(D)(1) requires that the Tax Commission perform only two personal property audits per year. The Tax Commission is currently performing three-times the number of personal property audits required by law.

Presently, the public service division of the Tax Commission is responsible for conducting personal property audits; however, the public service division's primary responsibility is the assessment of public service property. The public service division of the Tax Commission is made up of four staff members. These staff members are assigned and trained to conduct personal property audits, and are able to conduct approximately seven (7) personal property audits, on average, per year. Although the report does not indicate or recommend the number of audits the Tax Commission should be performing, the Tax Commission believes that it would need to add at least fifteen new auditors to handle the workload the report seems to recommend. Fifteen new employees would require approximately $1,500,000 in additional funding to cover the new personnel's salary, benefits, and office space.

Without the appropriation of additional resources, the Tax Commission would have to reassign current personnel and reallocate resources. However, any change in the allocation of the limited resources the Tax Commission currently receives would result in other statutory and constitutional obligations being neglected. Aside from its general role as a supervisory and oversight body of local assessors, the Louisiana Constitution mandates that the Tax Commission act as an appellate body for taxpayers protesting the correctness of assessments. The Tax Commission processes, on average, over 800 appeals per year. For fiscal year 2014-15, the Tax Commission processed 1,002 such appeals. The Tax Commission is also statutorily mandated to conduct real property radio studies to ensure the accuracy of local real property assessments. *See* La. R.S. 47:1837(B). Further, the Tax Commission is responsible for the appraisal and assessment of public service properties. *See* La. R.S. 47:1853-1854. These constitutional and statutorily obligations inherently require staff and resources to be allocated to these functions. The Tax Commission can shift resources away from these functions if the Legislature so desires, however, this would require legislative action. At its present funding, the Tax Commission simply cannot divert $1,500,000 away from its other functions without neglecting its statutory and constitutional obligations.

Further, as relayed to the Legislative Auditor during the audit, the Tax Commission acts as an oversight and regulatory body. The taxpayers report their inventory to the local assessors on the LAT-5 form. The local assessors act as the first level of review. It is the local assessor's duty to ensure the accuracy of the assessments. The Tax Commission merely provides oversight to ensure that the local assessors are complying with their statutory and constitutional obligations. None of the personal property audits performed in 2014-2015 revealed any over-reporting. Thus, despite the report's allegation, these audits did not indicate that taxpayers are over-reporting their inventory or that local assessors are intentionally ignoring over-reporting. Therefore, while the Tax Commission agrees that additional audits would be beneficial, the Tax Commission cannot guarantee that additional audits will expose over-reporting. The Tax Commission agrees that it will review its staffing needs in order to determine whether additional personal property audits may be performed without additional funding.

Recommendation 2: LTC should update the LAT-5 form to require companies to support their inventory amounts reported. This could include itemizing their inventory like the other categories (i.e., machinery and equipment) in the LAT-5 form.

RESPONSE: AGREED.

The Tax Commission agrees that it will update the LAT-5 form to require taxpayers to itemize their inventory; however, the Tax Commission is concerned with the impact this requirement may have on small businesses that lack the resources to provide documentation of itemized inventory and is unconvinced that this change will result in more accurate assessments. The Tax Commission will revise its rules and regulations to require that taxpayers who report inventory to submit a complete itemization of their inventory.

Although the report recommends that companies be required to support their inventory amounts, it does not provide sufficient detail the Legislative Auditor believes is necessary to ensure accurate assessment of inventory apart from the suggestion that the itemization could be required "like the other categories (i.e. machinery and equipment)" and be "similar to the existing requirement in LAC Title 61, Pt. V §1701." (Pg. 12). This recommendation implies that the Legislative Auditor desires that all taxpayers submit a detailed list of all inventory, itemized in specific detail, i.e. 500 blue widgets, 600 yellow widgets, 700 purple widgets, etc. This requirement may have a detrimental impact on small businesses who do not have the personnel or resources to take a complete inventory every year to be submitted with the LAT-5 form. Fortunately, since taxpayers whose gross sales are in excess of $15,000 are already required to keep detailed records of their inventory (*see* La. R.S. 47:1961 and La. Admin. Code tit. 61, pt. V, § 1701(C)), the recommendation would merely require those taxpayers to annex those records to the LAT-5 form, as opposed to having those records available for inspection.

Presumably, the Legislative Auditor makes this recommendation for the benefit of the Department of Revenue in determining eligibility for the inventory tax credit. Unfortunately, La. R.S. 47:2327 provides that the LAT-5 form, and documentation annexed to it, is confidential, and can only be used by local assessors, governing authorities, and the Louisiana Tax Commission solely for the purpose of assessing property subject to ad valorem taxation. Thus, to achieve the goal the report appears to seek, La. R.S. 47:2327 would have to be amended. Moreover, the Department of Revenue has the ability and authority to perform inventory audits; yet, as acknowledged in the report, has "[h]istorically … relied on … local assessors and the LTC to ensure the accuracy of reported inventory." (Pg. 12). The Tax Commission and local assessor's reasonability with regard to inventory is solely related to the assessment for property tax purposes of inventory, not tax credits. Therefore, the Tax Commission would suggest that the Department of Revenue, if concerned about misreporting of inventory, conduct audits of those businesses that give rise to concern. In fact, the proper party to be preforming inventory tax credit audits is the Department of Revenue.

However, the Tax Commission is ready and willing to assist the Department of Revenue if asked and believes that the Tax Commission, local assessors, and the Department would all benefit from the sharing of information. Specifically, the Tax Commission believes that the Department of Revenue may have certain information reported by the taxpayer that would aid the Commission and the local assessor in auditing business personal property, inventory, machinery and equipment, and leasehold improvements. The Tax Commission agrees to revise the LAT-5 form to require itemization of inventories.

JOHN BEL EDWARDS
Governor

KIMBERLY LEWIS ROBINSON
Secretary

May 24, 2016

Mr. Daryl Purpera
Louisiana Legislative Auditor
1600 N. 3rd Street
Baton Rouge, LA 70804

Re: Performance Audit – Inventory Tax Credit – Louisiana Department of Revenue (LDR)

Dear Mr. Purpera,

The following serves as the official response from the Louisiana Department of Revenue (LDR) to the Louisiana Legislative Auditor (LLA) regarding LDR's Performance Audit issued June 1, 2016:

1. **Page 10 discussion of review of inventory tax credits:**

In addition to LDR's edit checks that ensure review of inventory tax credit dollars, LDR also verifies inventory tax credits that did not meet an edit check when reviewing refunds that exceed certain dollar thresholds. The refund review process ensures that a substantially higher percentage of inventory tax credits are verified. LDR performed further research on the 2010 data reviewed by the LLA to illustrate the higher percentage of credits verified. The 14 largest inventory tax credits included in the data reviewed by LLA that were not stopped for an edit check were, in fact, stopped during the Department's refund review process. When you consider this additional refund threshold and review process, the percentage of inventory tax credits verified before issuance would increase from 30% to 41%. The Department believes that a more accurate reporting of the total percentage of inventory tax credits verified prior to issuance would need to include all inventory tax credits verified during the edit checks, as well as, the refund review process established for all refunds issued by the LDR. This additional data would demonstrate the review level of inventory tax credits is substantially higher.

2. **Recommendation 3: New inventory definition for the credit:**

The new definition of inventory for the purpose of the inventory tax credit is effective for ad valorem tax periods beginning on or after January 1, 2016 and inventory tax credits claimed on income and franchise tax returns due in 2017.

The Department is in the process of preparing a new schedule to calculate the inventory tax credit that will remove *"property that will be consumed in the production of services or property that will be used in marketing or distribution activities"* and any items not held *"exclusively for sale"* to ensure the inventory tax credit is calculated correctly. The new schedule and instructions will be timely implemented for the income and franchise tax returns due in 2017. Further, the Department will issue policy guidance for taxpayers explaining the changes to the inventory tax credit program.

I would like to thank the LLA staff for the professionalism, courtesy, and efficiency displayed during the course of this audit.

Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

Kimberly Lewis Robinson
Secretary
Department of Revenue

APPENDIX B: SCOPE AND METHODOLOGY

We conducted this performance audit under the provisions of Title 24 of the Louisiana Revised Statutes of 1950, as amended. Our audit focused on the oversight and structure of the inventory tax credit and covered the time period from tax year 1996 through tax year 2014. The audit objective was to evaluate the financial risks to the state associated with the inventory tax credit.

We conducted this performance audit in accordance with generally accepted *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. To answer our objective, we reviewed internal controls relevant to the audit objectives and performed the following audit steps:

- Met with officials from the Louisiana Tax Commission (LTC) and the Louisiana Department of Revenue (LDR) to gain an understanding of how the inventory tax and inventory credit are administered and verified and to identify concerns about the program from the departments and agencies involved. We also surveyed 20% of the local assessor's offices with questions related to their inventory assessments.

- Researched laws pertaining to the inventory tax credit, ad valorem personal property taxes and assessment, requirements for taxpayers in regard to ad valorem taxes, other types of tax incentives in the state, local assessors' duties, the duties of LTC, and the duties of LDR.

- Analyzed data obtained from LDR's GenTax system to calculate the total inventory credit amounts granted from tax years 2007 to 2014. We used LDR's reporting tool to extract the information from GenTax. While we did not audit the data, we did review the query to validate the specific information we received. We also performed reasonableness testing on the information extracted such as identifying and removing duplicates and consistency testing when compared to LTC's tax data from its annual reports. As a result of our testing, we determined that the GenTax data was sufficiently reliable for the purpose of this audit.

- Analyzed data obtained from LTC's annual and biennial reports. However, we were unable to determine the reliability of these reports for this audit because it is based on self-reported information from local assessors, and we do not have audit authority over them. Although this determination may affect the precision of the numbers we present, there is sufficient evidence in total to support our audit findings, conclusions, and recommendations.

   - Using these reports, we projected inventory tax credit amounts that will be claimed in tax years 2012 through 2014 by using LTC's annual and biennial reports to determine the assessed value of inventory by parish for each year, applying parish millages to each assessed value to determine an estimated tax amount, then multiplying the total estimated tax amount by the average amount of inventory taxes that are eventually claimed in credits.

- Used North American Industry Classification System codes within GenTax data to classify inventory tax credits claimed by a company's primary business activity.

- Reviewed The Louisiana Tax Study issued in 2015 by economists at Louisiana State University and Tulane University to determine their concerns regarding the inventory tax credit.

- Measured the expected annual cost of the inventory tax credit by estimating the relationship between inventory values actually claimed in the state and factors that drive inventory in each parish such as wages in various industries (including manufacturing, trade, transportation, and utilities), national business inventories, oil prices, and general price inflation.

- Used LTC's annual and biennial reports between 1996 and 2014 to determine the percentage of total assessed property value attributable to each property type for each year.

In addition, the following sections summarize the methodology we used to estimate how much of the growth in inventories can and cannot be explained by growth in business and changes in markets. Specifically, our model estimates the relationship between reported inventories and employment in eligible industries, changes in oil prices, and growth in national business inventories. We used this estimated relationship to calculate expected growth in reported inventories, and compared expected growth to actual.

Estimated Relationship between Inventories and Underlying Economic Conditions

Selecting Data for Inclusion

The variable to be explained is the market value of inventories in each parish during each year between 1996 and 2014. These come from LTC's annual and biennial reports showing market values as reported to the commission by local assessors. In designing our regression model, we looked for data that would give a good gauge of how much business activity was occurring in a given parish in a given year in industries that were likely to drive the credit, viz., manufacturing, distributing, and retailing. Our justification for including such a measure is that an increase in business activity likely means that businesses are buying, producing, or selling more goods. Greater amounts of goods bought, produced, or sold will likely increase a business's need for inventories. Employment is generally seen as being strongly correlated with economic activity, and employment data are available by parish, year, and industry. Specifically, we used "total wages" data from the U.S. Bureau of Labor Statistics' Census of Employment and Wages. Total wages will incorporate the effects of increases in the number of people employed, as well as increases in pay per worker. We used wages at the county-equivalent (i.e., parish) level for privately-owned establishments, aggregated by NAICS super-sectors. We include "manufacturing" (code 1013) and "trade, transportation, and utilities" (code 1021) directly in our analysis but grouped all other industries into a single "non-eligible" category.[16] We also ran an extended analysis that included inventory values going back to 1980. For these years, we used wages aggregated by Standard Industrial Classification (SIC) divisions for construction ("0C"), manufacturing ("0D"), transportation and utilities ("0E"), wholesale ("0F"), and retail ("0G").

We included other variables to control for other factors that might drive inventories. For national inventories, we mainly rely on the level of corporate business inventories (at current prices and excluding inventory valuation adjustments) from the Federal Reserve Board's Z.1 Financial Accounts of the United States. We also included non-corporate business inventories from the same publication, as well as total business inventories from the U.S. Census Bureau's Manufacturing and Trade Inventories and Sales statistical series. This enabled us to control for growth or contraction in inventories associated with national business cycles or secular changes that occurred in inventory management nationally during this period. We also allowed for the possibility that a significant portion of inventories may consist of oil, which varies in price, so we controlled for the price of oil based on the U.S. Energy Information Administration's West Texas Intermediate spot price. For years prior to 1986, we used the price of oil published in the *Wall Street Journal*. We converted from nominal to real dollars using the Bureau of Economic Analysis's GDP Price Deflator to estimate our model, but we converted to nominal dollars for all figures in the report showing the cost of the credit. We also estimated the model using the Consumer Price Index prepared by the Bureau of Labor Statistics.

Model Design

We specified our regression using logarithms of the dependent and independent variables. Each observation in our regression represents the market value of inventories in a particular parish in a particular year. Of the 1,216 possible observations for Louisiana's 64 parishes during the 19 years (1996 through 2014), 72 observations (5.9%) were not included because of disclosure limitations from the Bureau of Labor Statistics. Our model enables us to assign growth in inventories to known factors and then interpret the residual as unexplained growth, similar to the Solow residual in the eponymous Solow-Swan exogenous growth model.

The standard errors were estimated to be cluster-consistent by parish. To test for stationarity, we performed Dickey-Fuller tests on the residuals and were able to reject unit roots, both in the individual series by parish and in the annual totals. Based on these results, we were satisfied that the data can be analyzed using regression analysis without requiring differencing.

[16] Including wages for other super-sectors as individual variables would have reduced the number of usable observations, because a significant number of parishes were missing at least one sector during these years. Aggregate employment data area was available for all parishes during these years, so we were able to arrive at a "non-eligible" number simply by subtracting the two eligible sectors from the aggregate total.

Regression Results

The regression results, displayed in Table B-1 on page B.5, show that payrolls in manufacturing and trade, transportation, and utilities strongly correlate with inventories. All of the included variables, except non-eligible wages, were significant. We also find that national business inventories and oil prices are important predictors of inventory values. Payrolls in non-eligible industries were found to have an inverse, almost-significant relationship with inventories. This lacks a clear explanation, but if the result is interpreted as significant, it could be that parishes with a smaller base of other economic activity are more aggressive in valuing inventories; likewise, parishes with a much larger base of other economic activity may be less reliant on inventories. The actual data and predicted values, in logarithmic form, have an R^2 (coefficient of determination) of approximately 0.86.

We also present results of other regressions to show how we developed our final model. The relationship between inventories and wages in the key industries of manufacturing and trade, transportation, and utilities is highly consistent between models. We looked into whether construction wages had any explanatory power because Louisiana's construction industry has been a key economic driver; however, construction wages had no discernible effect. The Census Bureau's national business inventory measure was found to have no significant relationship to Louisiana inventories, likely because Census inventories include both inventories of both corporate and non-corporate businesses. As the next model shows, non-corporate business inventories were found to have no significant relationship to Louisiana inventories, so the Census Bureau's measure likely fails to register as significant because it does not present corporate and non-corporate inventories separately. We also re-ran our original model but converted to real dollars using the Bureau of Labor Statistics Consumer Price Index and found that this did not significantly affect our model's estimated parameters. Finally, we ran our model but included data going back to 1980. The price of oil became significantly less influential as a predictor, but the key industry payroll drivers remained relatively unchanged from the base model. We ultimately decided to base our analysis on the data from 1996 to 2014 since these data encompass a coherent regime during which businesses paid inventory taxes to local governments and were fully reimbursed by the state under an administrative framework with known weaknesses.

Table B-1: Regression Coefficients from Inventory Valuation Analysis						
Independent Variable	**Base Model**	**Construction Wages**	**Using Census Inventories**	**Corporate and Non-corporate Inventories**	**Deflated by CPI**	**Including 1980-2014**
ln(Manufacturing Wages)	0.47*	0.46*	0.47*	0.47*	0.47*	0.47*
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.05)
ln(Transportation, Trade, and Utilities Wages)	0.69*	0.7*	0.69*	0.69*	0.69*	0.68*
	(0.17)	(0.16)	(0.17)	(0.17)	(0.17)	(0.09)
ln(Noneligible Industries Wages)	-0.28	-0.32†	-0.28	-0.28	-0.28	-0.27*
	(0.15)	(0.13)	(0.15)	(0.15)	(0.15)	(0.10)
ln(Corporate Inventories)	0.74*	0.69*		0.83*	0.66*	0.82*
	(0.22)	(0.23)		(0.20)	(0.22)	(0.13)
ln(Oil Price)	0.2*	0.19*	0.33*	0.21*	0.24*	0.14*
	(0.06)	(0.07)	(0.06)	(0.07)	(0.06)	(0.04)
ln(Construction Wages)		0.03				
		(0.08)				
ln(Census Inventories)			0.22			
			(0.19)			
ln(Noncorporate Inventories)				-0.22		
				(0.18)		
Constant Term	0.61	1.13	0.64	2.05	1.46	0.27
	(0.84)	(0.75)	(2.00)	(1.66)	(0.78)	(0.56)
Number of Observations	1,144	1,119	1,144	1,144	1,144	2,138
R^2	0.858	0.860	0.858	0.858	0.857	0.860

Notes: Dependent variable is ln(Market Value of Inventories), as reported to LTC, for each parish in each year. All regressions used data from tax years 1996 to 2014, except for the last model, which used data from 1980 to 2014.
* Denotes statistical significance at the 1% level.
† Denotes statistical significance at the 5% level.

Using the Model to Explain Growth in Inventories

Since the regression followed a log-log specification, we can estimate the percentage increase in inventories for a given percentage increase in one of the explanatory variables. We begin with 1996 as a base year and predict the level of inventories over the ensuing 19-year period based on changes in the explanatory variables. The resulting predicted value grows consistently with the actual reported value of inventories from 1996 until 2008, when actual inventories begin to grow much more rapidly than predicted inventories.

After estimating growth in inventories and adjusting the data from real to nominal prices, we calculated the assessed value by multiplying by 15% (per Louisiana Constitution Article VII § 18) and used parish-wide average millages from LTC's annual report to estimate the resulting inventory tax.[17] We estimated credit amounts by comparing credits claimed on personal and corporate income and franchise tax returns for tax years 2007 through 2012 (we excluded tax years 2013 and 2014 because they were incomplete, and we could not include years prior to 2007 because these years are not currently maintained in LDR's data warehouse). On average, LDR's data show that credit amounts claimed by tax year are 88% of the inventory taxes levied by local governments. Thus, when projecting the fiscal impact to the state, we multiplied the taxes levied by locals by 88% to reflect the average percentage of inventory taxes claimed as credits.

Interpretation of Results

Between 1996 and 2014, actual inventories reported to LTC increased by $19.6 billion, from $9.5 billion to $29.1 billion. Of this $19.6 billion increase in reported inventories, our model can account for $15.8 billion but does not explain the remaining $3.8 billion. The $3.8 billion in excess inventories as of 2014 accounts for $48 million in lost revenue to the state each year.

It is possible that the true fair market value of inventories did in fact increase by $19.6 billion between 1996 and 2014. However, our regression analysis shows that, after 2011, something changed in the general relationship between inventories and the other explanatory variables in our model, even though this general relationship was fairly stable between 1996 and 2008. This change would need to be a change unrelated to national inventories, which are included in our model. This change could have been a change in the way that Louisiana businesses decide how much inventory to keep on hand. Another possibility is that the amounts reported to LTC exceed the actual fair market value of inventories. This analysis is not conclusive and should not be taken as actual evidence of over-reporting; however, unexplained growth in the credit, combined with the weak oversight identified in our performance audit, suggests that a closer look at inventories is warranted.

[17] To the extent that millages vary within parishes because of special taxing districts, and to the extent that inventories are not evenly distributed within these special taxing districts, it is possible that the exact amount of tax levied on inventories differs from our calculated amount.

APPENDIX C: INVENTORY ASSESSMENTS AS A PERCENTAGE OF TOTAL PROPERTY ASSESSMENTS, BY PARISH, TAX YEAR 2015

Parish	Inventories*	Total*	%	Parish	Inventories*	Total*	%
Acadia	$29	$385	**8%**	Madison	$9	$111	**8%**
Allen	$7	$93	**7%**	Morehouse	$11	$139	**8%**
Ascension	$185	$1,166	**16%**	Natchitoches	$19	$325	**6%**
Assumption	$48	$177	**27%**	Orleans	$86	$3,533	**2%**
Avoyelles	$10	$136	**7%**	Ouachita	$115	$1,021	**11%**
Beauregard	$20	$230	**9%**	Plaquemines	$124	$1,088	**11%**
Bienville	$60	$368	**16%**	Pointe Coupee	$13	$446	**3%**
Bossier	$92	$978	**9%**	Rapides	$87	$748	**12%**
Caddo	$194	$1,754	**11%**	Red River	$4	$246	**2%**
Calcasieu	$254	$1,900	**13%**	Richland	$18	$203	**9%**
Caldwell	$1	$57	**2%**	Sabine	$9	$178	**5%**
Cameron	$23	$264	**9%**	St. Bernard	$82	$320	**26%**
Catahoula	$3	$37	**9%**	St. Charles	$275	$1,256	**22%**
Claiborne	$3	$145	**2%**	St. Helena	$1	$52	**2%**
Concordia	$15	$135	**11%**	St. James	$232	$578	**40%**
DeSoto	$15	$716	**2%**	St. John	$186	$451	**41%**
East Baton Rouge	$391	$3,900	**10%**	St. Landry	$98	$615	**16%**
East Carroll	$8	$43	**18%**	St. Martin	$76	$376	**20%**
East Feliciana	$10	$166	**6%**	St. Mary	$102	$621	**16%**
Evangeline	$40	$245	**17%**	St. Tammany	$96	$1,831	**5%**
Franklin	$10	$93	**10%**	Tangipahoa	$69	$562	**12%**
Grant	$8	$51	**16%**	Tensas	$2	$53	**4%**
Iberia	$102	$625	**16%**	Terrebonne	$109	$907	**12%**
Iberville	$123	$611	**20%**	Union	$4	$154	**3%**
Jackson	$6	$237	**3%**	Vermilion	$20	$373	**5%**
Jefferson	$277	$3,486	**8%**	Vernon	$12	$142	**9%**
Jefferson Davis	$14	$207	**7%**	Washington	$13	$178	**7%**
Lafayette	$269	$2,082	**13%**	Webster	$26	$269	**10%**
Lafourche	$68	$1,014	**7%**	West Baton Rouge	$120	$406	**29%**
Lasalle	$8	$74	**10%**	West Carroll	$6	$58	**10%**
Lincoln	$32	$404	**8%**	West Feliciana	$5	$274	**2%**
Livingston	$29	$490	**6%**	Winn	$6	$65	**9%**

* Inventories and total assessed values are in millions of dollars.
Source: Prepared by legislative auditor's staff using information obtained from LTC's 2015 Annual Report.

APPENDIX D: TOP 10 INDUSTRIES WITH THE HIGHEST GROWTH IN INVENTORY TAX CREDITS CLAIMED

The following chart shows the top 10 industries, ranked by total increase in inventory tax credits claimed from tax years (TY) 2007 to 2013. Credits were allocated by tax year rather than the year the credit was granted by LDR, as taxpayers have up to three years to amend their tax returns.

Industry (By Three-Digit NAICS Code)	Credits Claimed TY 2007*	Credits Claimed TY 2013*	Increase* 2007–2013	Percent Change 2007–2013	Total* 2007–2013
1. Management of Companies and Enterprises (Holding Companies)	$6.7	$31.5	**$24.9**	373%	$130.4
2. Merchant Wholesalers, Nondurable Goods	$14.2	$34.9	**$20.7**	146%	$165.8
3. Petroleum and Coal Products Manufacturing	$42.0	$60.4	**$18.4**	44%	$389.9
4. Securities, Commodity Contracts, and Other Financial Investments and Related Activities	$0.4	$4.8	**$4.4**	1,110%	$15.2
5. Fabricated Metal Product Manufacturing	$4.2	$6.2	**$2.1**	49%	$37.6
6. Merchant Wholesalers, Durable Goods	$16.9	$18.9	**$2.0**	12%	$120.1
7. Support Activities for Mining	$2.1	$3.4	**$1.3**	62%	$21.5
8. Food Manufacturing	$2.5	$3.5	**$1.0**	41%	$22.6
9. Rental and Leasing Services	$0.5	$1.2	**$0.7**	154%	$5.0
10. Crop Production	$0.0	$0.8	**$0.7**	2,312%	$1.6

*****Numbers are reported in millions.
Source: Prepared by legislative auditor's staff using data from LDR.

APPENDIX E: PERSONAL PROPERTY CATEGORIES AS A PERCENTAGE OF ALL PERSONAL PROPERTY

FY 1996 THROUGH 2014

The exhibit below shows the percentage of all personal property reported on the LAT-5 form attributable to each category of personal property. It further shows the change each category has undergone from 1996 when the inventory tax credit was fully implemented until 2014. This shows there is a risk that reporting non-inventory as inventory may have been occurring because of the increase of reported inventory and the decreases in the other categories.

Year	Inventory	Machinery and Equipment	Furniture and Fixtures	Miscellaneous Property	Leased Property
1996	35.12%	45.30%	6.60%	11.17%	1.80%
1997	35.75%	41.74%	6.65%	14.02%	1.83%
1998	35.56%	41.71%	6.59%	13.97%	2.18%
1999	35.20%	43.69%	6.81%	11.72%	2.59%
2000	35.89%	43.24%	6.81%	11.38%	2.68%
2001	36.88%	42.25%	6.63%	11.34%	2.90%
2002	35.62%	42.74%	6.61%	12.17%	2.86%
2003	34.33%	43.12%	6.40%	13.59%	2.55%
2004	35.23%	42.59%	6.29%	13.49%	2.40%
2005	36.79%	45.12%	5.70%	10.09%	2.30%
2006	39.94%	42.96%	5.56%	9.08%	2.46%
2007	41.55%	41.41%	5.39%	9.49%	2.16%
2008	41.12%	41.86%	5.27%	9.66%	2.08%
2009	41.71%	41.51%	5.21%	9.42%	2.15%
2010	38.76%	43.13%	5.37%	10.59%	2.15%
2011	39.94%	43.19%	4.94%	10.01%	1.92%
2012	42.97%	41.44%	4.58%	9.24%	1.77%
2013	43.60%	42.39%	4.30%	7.98%	1.72%
2014	44.58%	41.90%	4.21%	7.72%	1.60%
Change	**9.46%**	**-3.40%**	**-2.40%**	**-3.45%**	**-0.21%**

Source: Prepared by legislative auditor's staff using information obtained from LTC's Annual Reports, 1996–2014.