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The Michigan Economic Outlook for 2015–2016

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Introduction

After a surprisingly strong surge at the turn of the year, the Michigan labor market settled in to generate jobs at a more sustainable pace during the early months of 2015. Following a gain of 23,000 payroll jobs in January, the state economy added 14,500 jobs over the next three months, based on preliminary data for April.

The relative strength of the labor market across industries can vary depending on the time interval being considered. Yet, whether we examine job growth over the entire four months (December to April) or focus on the post-surge January to April movement, four industry divisions stand out, together contributing roughly three-quarters of the employment gains over each period.

Manufacturing continues to benefit from Michigan's concentration in the auto sector, which has shown a remarkable rebound since the Chrysler and General Motors bankruptcies in 2009. Nationally, light vehicle sales are on a pace to make 2015 the best year since 2005. As the economic recovery has broadened and the auto recovery has matured, however, manufacturing's share of the state's job gains has shrunk from nearly half of the jobs added during 2010 to fewer than one in five jobs added since the end of last year.

Professional, scientific, and technical services is another industry grouping with ties to the auto industry through its engineering and R & D centers in the state. Since the turn of the year, this knowledge-based sector has added 4,700 new jobs.

Following a jump to begin the year, construction employment has risen by 3,100 jobs since January. The residential building sector is continuing its gradual recovery with year-to-date building permits through March up 8.2 percent relative to the same period last year.

The fourth industry grouping registering unambiguous job gains is leisure and hospitality. After participating in the January job surge, this sector contributed 2,200 additional jobs through April. This sector includes restaurants, hotels, the arts, entertainment, and recreation. Much of the tourism industry would fall under this heading.

It is worth noting that the mean wage for workers in three of the four sectors discussed above is higher than the statewide average annual wage. The exception is leisure and hospitality, where a higher proportion of the work is part-time and the wage rate is lower.

Another key measure of the state labor market, the unemployment rate, has continued to improve in the early months of 2015. The jobless rate has dropped by a full percentage point since the end of last year and, at 5.4 percent, has closed the gap with the national rate. It is somewhat disappointing, however, that part of the improvement came from a small drop in the labor force as the labor force participation rate (the labor force as a share of the working-age population) edged down from 60.4 percent in December to 60.2 percent in April.

The Michigan economy is affected by the general health of the national economy, and more specifically, the strength of the auto industry. The slow recovery in the housing sector has also been a key factor. Before turning to our Michigan forecast, we consider our national outlook and other state-specific inputs below.

Inputs to the Forecast

Some major elements from our U.S. forecast dated May 15, 2015 include:

- Based on the advance estimate, real GDP grew at a 0.2 percent annualized pace in the opening quarter of 2015, more slowly than we previously anticipated, following a 2.4 percent gain during 2014. The cold winter and West Coast ports slowdown probably contributed to the disappointing growth, which continues the pattern of poor first-quarter growth performances in this business cycle expansion. In keeping with that pattern, output growth accelerates to the 3.2–3.3 percent range in the second half of 2015, for a gain of 2.4 percent during the year. The pickup in growth is driven by stronger consumer spending, firmer net exports, and a strengthening recovery in the housing sector. Those trends continue in 2016, which without the first-quarter weakness of this year features respectable output growth of 3.1 percent.

- We expect the Federal Reserve to begin increasing the federal funds rate in December, consistent with Federal Reserve Chair Janet Yellen's recent affirmation that she expects an increase to be appropriate this year. Also consistent with her statement, we expect the Fed to increase interest rates slowly during 2016, by about a quarter of a percentage point per quarter. The three-month T-bill rate tracks the federal funds rate closely, as both rates reach 1.3 percent by the fourth quarter of 2016. The conventional mortgage rate also rises slowly, to 4.6 percent by the end of 2016.

- The chronic impasses over funding the federal government appear to have given way to muddling through to the 2016 election. The federal budget deficit (measured on a National Income and Product Account basis) shrank from $775 billion in fiscal 2013 to about $577 billion in fiscal 2014. We project the deficit to continue shrinking but at a slower pace, to $520 billion in fiscal 2015 and to $504 billion in fiscal 2016. Relative to March, we now expect slower acceleration in the growth of federal expenditures, from 2 percent in fiscal 2014 to 2.7 percent in fiscal 2015 and 4.8 percent in fiscal 2016. Following outsized gains during the past two years, the growth in federal receipts is expected to moderate to 4.9 percent in fiscal 2015 and 5.9 percent in fiscal 2016.

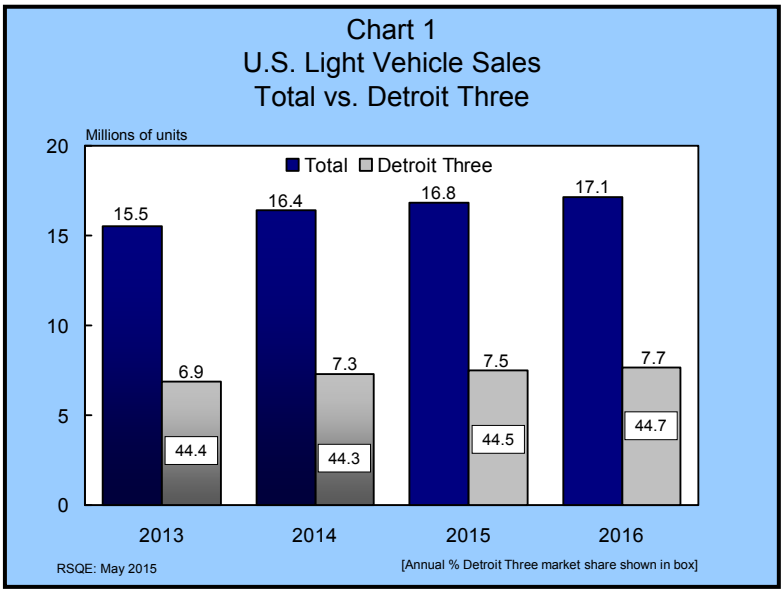
- The economy is projected to add 2.8 million payroll jobs during 2015, slightly fewer than during 2014 but still well above the pace earlier in the recovery. Job gains moderate to 2.5 million during 2016 as slack in the labor market continues to dissipate. The unemployment rate declines to 5.1 percent by the end of 2015 and 4.7 percent a year later.

- A strong dollar and still-cheap crude hold consumer price inflation, as measured by the U.S. CPI, to near zero for calendar 2015. Core inflation follows a smoother path, rising from 1.7 percent in 2015 to 1.9 percent in 2016. Higher core inflation combines with higher gasoline prices to push headline CPI inflation to 2 percent for 2016.

- Housing starts recover from their weak showing in the first quarter of 2015 as momentum shifts from the multifamily sector to the single-family sector. Total starts grow from one million units in 2014 to 1.14 million in 2015 and 1.34 million in 2016.

Some additional inputs affect the outlook for Michigan, particularly those related to the automotive industry. The United Auto Workers and the Detroit Three automakers are in the final year of four-year

contracts that are in effect until September 2015. On the new contracts to be negotiated and scheduled to take effect in the closing quarter of 2015, we are assuming that through 2016 qualified workers across the three companies will receive a signing bonus and an increase in base wages at the time of contract execution, and a lump-sum (inflation-protection) payment late in 2016. Profit-sharing payouts per eligible worker early in 2015 were $9,000 for General Motors (GM), $6,900 for Ford, and $2,750 for Fiat Chrysler Automobiles (FCA). We anticipate another favorable year for profit-sharing distributions in 2016, with a somewhat larger payout than in 2015 for Ford and FCA, and a smaller payout for GM.



As shown in Chart 1, we are forecasting that after moving up from 15.5 million units in 2013 to 16.4 million in 2014, total unit sales of U.S. light vehicles—cars, minivans, sport utility vehicles, crossovers, and pickup trucks—will rise to 16.8 million in 2015 and increase further to 17.1 million in 2016. The sales forecast for 2015 would be the highest annual level in ten years, and for 2016 the highest in sixteen years—since 2000, another period of cheap gas and rising truck popularity.

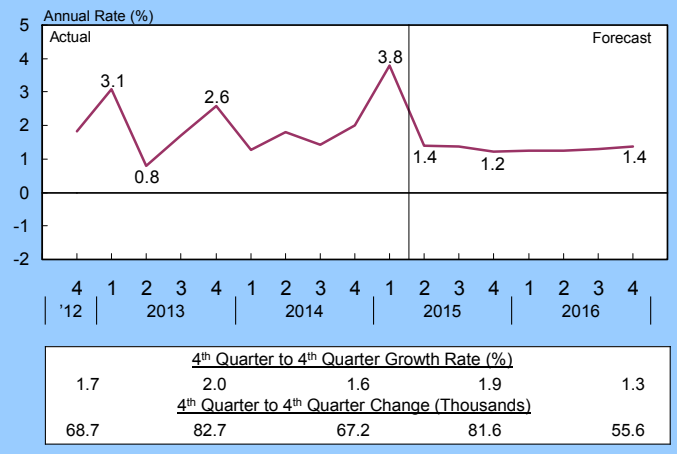
We see the Detroit Three's share of the light vehicle market drifting up from 44.3 percent in 2014 to 44.7 percent by 2016. The projections for total sales and the Detroit Three's share of that market, taken together, yield our outlook for Detroit Three sales, which move up progressively from 7.3 million units in 2014 to 7.7 million in 2016. This path, however, reflects a slower rate of increase over the next two years compared with recent history. Detroit Three sales rose by 400,000 units in the single year of 2014, equal to the gain we are forecasting over the next two years combined.

We now turn to our view of the prospects for the Michigan economy through 2016.

The Forecast of the State Economy

Michigan is well into its sixth year of economic recovery since the previous recession's low point in the summer of 2009. Payroll job growth mushroomed from 68,700 net job additions during 2012 to 82,700 in 2013, and then fell back to a gain of 67,200 during 2014. Recently released data indicate a surge in job growth in the first quarter of 2015 to a robust annual rate of 3.8 percent.

Chart 2
Michigan Payroll Employment Growth



4th Quarter to 4th Quarter Growth Rate (%)				
1.7	2.0	1.6	1.9	1.3
4th Quarter to 4th Quarter Change (Thousands)				
68.7	82.7	67.2	81.6	55.6

RSQE: May 2015

Our forecast for 2015 and 2016 is summarized in Chart 2, which shows our projected growth path for payroll employment measured in quarterly time intervals. The box at the bottom of the chart translates the path into changes in employment *during* each year—that is, the change from the end of one year to the end of the next year—shown both as a percentage and in thousands of jobs.

We see job growth backing off from its sizzling pace in the first quarter of 2015 to come in at a more moderate, but more sustainable, rate of 1.4 percent in the second quarter. (Indeed, we suspect that some of the gain currently attributed to the first quarter will be distributed throughout the rest of 2015 as a product of next year's data revision process.) Growth slows a tad more by the second half of 2015 and during 2016, settling in to average 1.3 percent for that year and a half. The growth we foresee moving forward translates into gains of 81,600 jobs during 2015 and 55,600 during 2016, an average gain of 68,600 jobs per year, similar to the job additions posted during 2014.

The continuing recovery in Michigan is consistent with sustained expansion of the U.S. economy, a recovering local housing sector, and increasing Detroit Three vehicle sales. Our outlook extends

Michigan's economic recovery period to seven years, returning the job count by the end of 2016 to its level in the spring of 2006.

The industry movements underlying the forecast path for total payroll employment provide more insight into its expected trajectory over the next two years.

Manufacturing gained in the neighborhood of 20,000 jobs in each of the past three years, to the end of 2014. We see the pace of growth for the sector slowing to 14,100 job additions during 2015 and 5,500 during 2016. The deceleration reflects the more mature stages of the recovery overall and our forecast of a smaller increase moving forward in Detroit Three light vehicle sales. The sector does contribute 14 percent of the total job gains from the end of 2014 to the close of 2016, equivalent to its current share of employment.

A little over five out of eight of the manufacturing job additions during 2015 and 2016, amounting to 12,600 jobs, are directly attributable to the auto industry, and many of the rest derive from auto-related industries.

After contributing an average of 59,500 jobs per year during the past two years, the private sector outside of manufacturing is forecast to average a similar gain of 58,500 jobs per year during 2015 and 2016: 68,100 additions in 2015 and 48,900 in 2016. Five in eight of the gains over the two years emanate from three major industry divisions: professional and business services, construction, and leisure and hospitality.

The professional and business services sector is a broad category containing three major subcategories: professional, scientific, and technical services; management of companies; and administrative support services (including temporary help). The sector adds 34,200 jobs from the end of 2014 to the end of 2016. This amounts to 25 percent of the total payroll job gains over that period, while currently making up a much smaller 15 percent of the payroll jobs in the economy. A little over half of the job gains in the sector over the two-year period originate in the highly compensated

knowledge-based professional, scientific, and technical subcategory. Included in this subcategory would be the prospective job additions (up to 2,600 by 2018) in product engineering and design at the Warren Technical Center recently announced by General Motors.

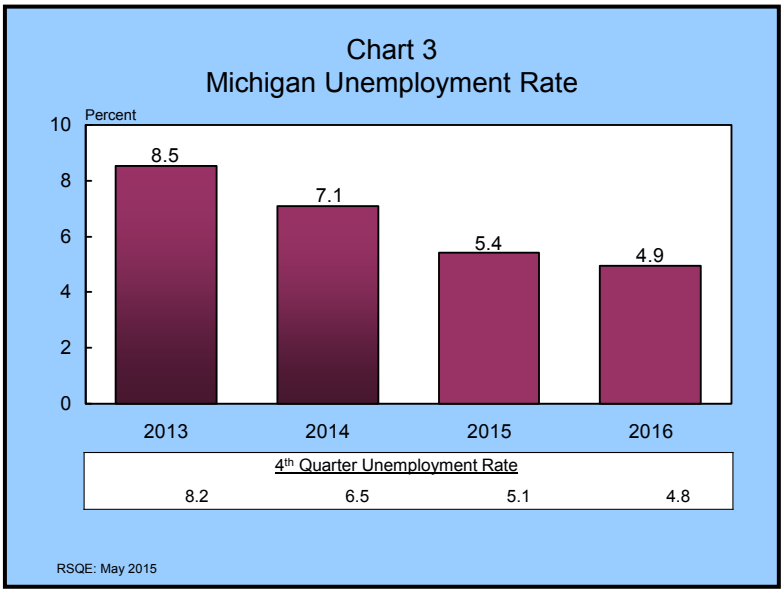
The construction industry has strengthened in 2013 and 2014 after struggling through a long dry spell, and we expect continued solid growth over the forecast period. Construction contributed about 7,000 jobs per year during 2013 and 2014, and we are forecasting that the industry will add almost 20,000 jobs over the following two years. We see state residential building permits on the rise over the forecast period, with the industry also benefiting from the overall improvement in the local economy.

The leisure and hospitality component of the service sector is made up of two major subcategories: arts, entertainment, and recreation; and accommodation and food services. As with manufacturing and construction, leisure and hospitality contributes one in seven of the total payroll job gains in the economy during 2015 and 2016, reflecting a rise in disposable income.

The rest of the major industry divisions in private nonmanufacturing make smaller job contributions through 2016, with the largest gains in this group occurring in the trade, transportation, and utilities sector as well as in health services. The smaller mining and information sectors see little job movement over the forecast period.

The government sector has been shedding jobs at a progressively slower rate in recent years. The public sector shrinks by another 600 jobs during 2015, before turning around to add 1,200 jobs during 2016.

Michigan's seasonally adjusted unemployment rate came in at 5.4 percent for this April, 2.1 percentage points below the rate of 7.5 percent recorded for April 2014, and the lowest reading since August 2001. It should be taken into account, however, that there were 363,000 more people in the labor force in August 2001. Michigan's jobless rate has declined for twenty consecutive months since September 2013, including a drop of a full percentage point since December 2014. As shown in the

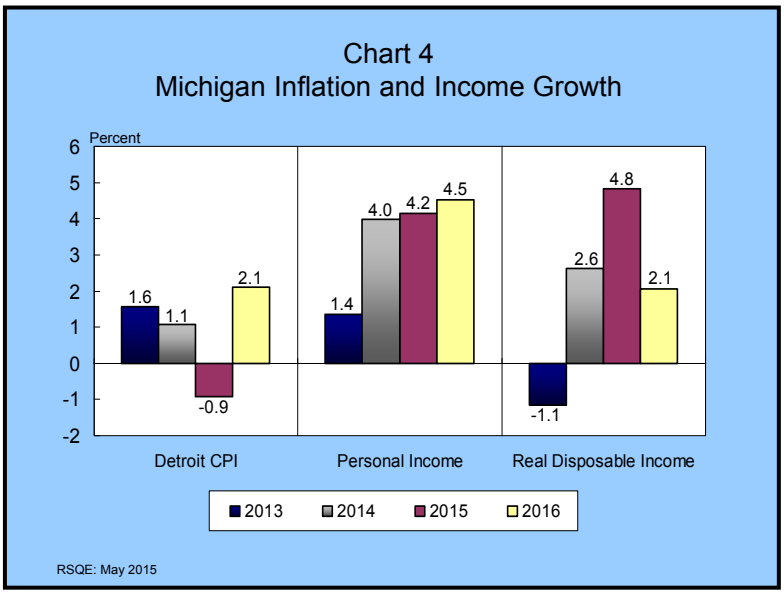


box at the bottom of Chart 3, the state unemployment rate is forecast to drift down from its April reading to average 5.1 percent in the final quarter of 2015. With the sustained job growth we are projecting through 2016, the unemployment rate continues to nudge down, to 4.8 percent in the fourth quarter of 2016. The Michigan rate for this April matched the national rate for the first time since September 2000, and is forecast to run with or only slightly above the national rate through the fourth quarter of 2016.

Our forecast path for the Michigan seasonally adjusted unemployment rate translates into calendar-year averages of 5.4 percent for 2015 and 4.9 percent for 2016, following a rate of 7.1 percent for 2015.

The state's labor force has been fairly flat over the past year. We are forecasting that its growth will pick up at a moderate pace in the second half of 2015 through 2016, as improving job opportunities encourage more people to reenter the labor force in the hope of finding employment. If, instead, the labor force declines or expands at a slower pace than we anticipate, then the unemployment rate would fall more rapidly with the employment gains we are projecting.

Our forecast of inflation and income is provided in Chart 4. Local inflation, measured by the growth rate of the Detroit CPI, is shown in the first panel. Oil prices dropped sharply at the end of 2014 and the beginning of 2015, and we see them rising during 2015 but remaining much lower than they averaged in 2014. This pattern is a major factor in a decline of 0.9 percent in the local price index for calendar 2015 compared with 2014. Local inflation then rebounds in 2016 to 2.1 percent, a tenth of a percentage point above the U.S. rate, spurred by the continuing partial recovery in crude oil.



The income side of our forecast is summarized in the other panels of Chart 4. Personal income growth accelerates moderately throughout the forecast period, from 4 percent in 2014 to 4.2 percent in 2015 and 4.5 percent in 2016. This pattern is supported in 2015 by an escalation in calendar-year job gains as well as increasing strength in most of the major components of nonwage income. The upswing in 2016 is led by strengthening interest and proprietors' income.

Real disposable income (personal income adjusted for taxes and inflation) surges to increase at a rate of 4.8 percent in 2015, reflecting stronger nominal income growth and the negative rate of inflation. Real disposable income growth retreats in 2016 to 2.1 percent, a consequence of the bounce-back in inflation.

Our income forecast has implications for the state revenue outlook, to which we now turn.

The State Revenue Outlook

Over the past several years, legislation restructuring the tax code has been a key determinant of state revenues. Over our forecast horizon, various forms of business tax relief and associated changes to other taxes are the primary forces, other than the economy, shaping the revenue outlook. Some of the most recent changes are tied to relief from the personal property tax (PPT) that businesses pay on machinery, furnishings, and equipment. Most of the revenue generated by this tax flows to local units of government, but the state education tax, which is dedicated to the school aid fund, is also affected. Legislation enacted late in 2012 exempts certain categories of commercial and industrial personal property beginning December 2013 (for taxes assessed in 2014). A broader set of exemptions is

scheduled for 2016. A proposal passed by the voters in August 2014 provides a mechanism, using existing use tax revenue from the general fund, to compensate local units for revenue lost due to the PPT relief. The legislature has established the amount to be distributed each year through fiscal 2028. The fiscal 2016 amount is $96.1 million; the amount jumps to $380.6 million for fiscal 2017, the first full year of reimbursement. It is estimated that the PPT exemptions reduced the state education tax revenue by about $10 million for fiscal 2014. That amount is projected to grow to about $20 million in fiscal 2016.

The package of legislation modifying the PPT also established a state essential services assessment to be levied against qualified personal property beginning in fiscal 2016. The assessment is based on the acquisition cost of the personal property and the rate depends on how long the taxpayer has owned the property, with the rate dropping from 2.4 mills for the first five years after the property was acquired to 1.25 mills for the next five years and 0.9 mills thereafter. It is estimated that the assessment will generate about $55 million in fiscal 2016, and $73.1 million in fiscal 2017 when it will have been in effect for a full year. We have included the revenue from the assessment under “other GFGP taxes” in Table 1.

A more longstanding form of tax relief, refundable certified Michigan Business Tax (MBT) credits, is having a substantial effect on current revenue projections. These firm-specific credits were originally offered to entice firms to create or retain jobs in Michigan. When the corporate income tax replaced the MBT, taxpayers who were entitled to the credits could opt to continue paying taxes under the MBT in order to take advantage of outstanding credits. As the credits are claimed, they can result in large net refunds to taxpayers. It has proven difficult to estimate the potential total value of the credits as well as the timing of credits being claimed. Since January, the state has conducted a careful study to estimate the impact of these credits on business tax revenues. Current estimates from the May Consensus Revenue Estimating Conference are that net MBT refunds will total about $750 million this fiscal year and about $890 million in fiscal 2016, following net refunds of $723 million in fiscal 2014. Although no

new credits are being issued, existing credits will have an impact on the budget for many years into the future.

A piece of legislation passed in 2014 affects a broad range of tax collections. The new law makes it more difficult for the Treasury to collect on outstanding business tax liabilities directly from the corporate officers responsible for making such payments when attempts to collect revenue from the business have been unsuccessful. This process covers taxes collected by the business on behalf of others, such as withholding and sales tax, as well as taxes owed by the business itself. It is estimated that the full-year impact of the legislation will be a loss of about $112 million in state revenue.

Brick-and-mortar retailers have argued that they are at a disadvantage vis-à-vis online sellers who are not required to collect sales tax on purchases made by Michigan residents because the online retailer does not have sufficient “nexus,” or connection to the state, to be compelled to pay taxes. For online/catalog sales, the purchaser is supposed to remit a 6 percent use tax when filing a personal income tax return, but compliance is poor. Absent federal legislation to address the problem, states have been trying to broaden the definition of nexus without running afoul of interstate commerce provisions. Earlier this year, the governor signed a piece of legislation designed to expand the concept of nexus with Michigan by linking business affiliates. The legislation will be implemented as of October 1, 2015. The new law is expected to generate about $60 million in sales tax revenue annually.

Our forecast of state revenues for fiscal years 2015–16 is presented in Table 1. The upper portion details general fund general purpose revenues, and the lower portion summarizes school aid fund revenues.

GFGP income tax revenue has been on a bit of a roller coaster in recent years, surging by 23 percent in fiscal 2013, dropping back by 4.6 percent last year, and projected to spurt ahead by nearly 10 percent for the current fiscal year. Over this period, withholding growth is relatively steady in the range of 3–5 percent. Wide swings in both annual payments and refunds are responsible for the sharp movements in net income tax collections in fiscal 2013 and 2014 as taxpayers adjusted to tax law

Table 1
State Revenues by Fiscal Year
(Millions of dollars, except as noted)

	Actual		RSQE Forecast	
	2013	2014	2015	2016
General Fund General Purpose				
Personal income tax	5931	5656	6207	6467
(% change)	(23.1)	(−4.6)	(9.8)	(4.2)
Consumption taxes	2125	2387	2384	2407
(% change)	(−1.7)	(12.4)	(−0.1)	(1.0)
Sales	1004	1170	1177	1237
Use	838	927	932	889
Other consumption	283	290	274	281
Business taxes	1021	561	700	618
(% change)	(−37.1)	(−45.1)	(24.9)	(−11.8)
MBT/SBT/Corporate Income	660	138	259	161
Other business	361	423	442	457
Other GFGP taxes	78	22	48	102
GFGP tax revenue	9155	8625	9339	9594
(% change)	(5.2)	(−5.8)	(8.3)	(2.7)
Nontax revenue	407	393	367	361
GFGP revenue	9563	9019	9706	9955
(% change)	(3.2)	(−5.7)	(7.6)	(2.6)
School Aid Fund				
SAF taxes	10535	10786	11083	11496
(% change)	(4.3)	(2.4)	(2.7)	(3.7)
Lottery transfer	734	734	780	791
(% change)	(−5.7)	(0)	(6.3)	(1.4)
Earmarked state SAF revenue	11270	11521	11863	12287
(% change)	(3.6)	(2.2)	(3.0)	(3.6)
Addendum				
Gross sales and use taxes	8424	8746	8880	9288
(% change)	(3.2)	(3.8)	(1.5)	(4.6)

RSQE: May 2015

changes at both the federal and state levels. At this point, it appears that the strength this year reflects healthy growth in capital gains realizations, although the Treasury will not have the information for more careful analysis until later in the year. State income tax collections are better aligned with income in fiscal 2016, when the GFGP portion of income tax revenue is forecast to rise by 4.2 percent.

Combined sales and use tax revenue is forecast to grow by only 1.5 percent in fiscal 2015, as shown in the addendum to Table 1. Halfway through the fiscal year, sales tax revenue is less than one percent above the collections for the first half of 2014. In addition, a large use tax refund subtracted about two-tenths of a percentage point off the growth in combined sales and use tax for this year. With the implementation of the new sales tax legislation and with no large use tax refund anticipated next year, sales and use tax revenue is projected to grow by 4.6 percent in fiscal 2016.

GFGP consumption tax revenue derives from sales and use taxes; excise taxes on cigarettes and alcohol round out the category. In fiscal 2015, changes in the taxes on tobacco and alcohol are an additional drag on GFGP consumption taxes, which are projected to dip slightly. A change in the collection point of the beer and wine tax from producers to wholesalers temporarily slowed revenue to a trickle earlier this year. In addition, 2015 is the first year in which $3 million of tobacco tax revenue is earmarked for the State Capitol Historic Fund. GFGP consumption tax revenue is forecast to rise by only one percent in fiscal 2016, as a portion of use tax collections is redirected to local units of government to offset the loss of personal property tax revenue.

GFGP business taxes include the corporate income tax, the Michigan Business Tax (MBT), a tax on insurance companies, and a tax on oil and natural gas extraction. After falling for two years, business tax revenue is projected to bounce up this year before dropping again in fiscal 2016. The pattern of MBT refunds accounts for the wild swings in business tax revenue. With healthy gains in corporate income tax revenue and a relatively modest increase in MBT refunds this year, business tax revenue rebounds by nearly 25 percent. Another surge in MBT refunds anticipated for fiscal 2016 reverses business tax revenue, dropping collections by about 12 percent that year.

The sizeable gains in personal income and business taxes propel total GFGP revenue higher by 7.6 percent this year, to $9.71 billion, following a 5.7 percent decline in fiscal 2014. The redistribution of use tax revenue and the renewed decline in business tax collections moderate the growth in GFGP revenue to 2.6 percent in fiscal 2016.

Revenue earmarked for the school aid fund (SAF) rose by 2.2 percent in fiscal 2014. Although the gain was moderate, it was supported by another year of double-digit growth in real estate transfer tax revenue and the first increase in the state education tax revenue since fiscal 2007. Led by stronger growth in personal income tax revenue and augmented by a projected increase in lottery revenue, earmarked SAF revenue is forecast to increase by 3 percent, to $11.86 billion, in fiscal 2015. The projected growth in sales and use tax collections accelerates the growth in SAF revenue to 3.6 percent in fiscal 2016.

Michigan Economic Outlook for 2015-2016

RSQE Forecast, 29 May 2015

The State of Michigan

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Forecast Based on
The Econometric Model of the State of Michigan

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Research Seminar in Quantitative Economics
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Ann Arbor, Michigan 48109

RSQE Forecast | **Table 1** | 29 May 2015

Michigan Personal Income

(Millions of Current Dollars, SAQR)

	Actual	Forecast					
	2015q1	2015q2	2015q3	2015q4	2016q1	2016q2	2016q3
Personal Income	102958.10	104085.36	105140.78	106405.36	107446.69	108677.76	110028.61
Wage and Salary	52170.40	52818.82	53236.91	53849.15	54200.11	54751.85	55321.05
Private	44970.70	45565.14	45954.70	46535.08	46848.15	47354.50	47882.82
Government	7199.70	7253.68	7282.21	7314.07	7351.97	7397.35	7438.23
Other Labor Income	12163.50	12306.08	12386.32	12520.50	12605.39	12710.76	12818.29
Proprietors' Income	7257.00	7340.84	7462.85	7547.32	7637.17	7730.56	7825.81
Property Income	16802.00	16949.80	17221.54	17515.76	17774.44	18094.23	18512.28
Transfer Payments	22650.00	22837.08	23050.07	23265.18	23628.38	23856.54	24087.28
Residence Adjustment	550.50	555.92	561.40	566.93	572.52	578.16	583.86
Less:							
Social Ins Contrib	8635.30	8723.18	8778.32	8859.48	8971.32	9044.35	9119.95
Less:							
Federal Pers Taxes	9690.36	9848.04	10014.12	10198.92	10377.21	10574.70	10798.81
Mich Withholding	2185.30	2157.45	2177.70	2178.71	2274.71	2241.43	2268.03
Equals:							
Disp Personal Income	91082.44	92079.87	92948.96	94027.73	94794.77	95861.64	96961.78
ADDENDA:							
Consumer Price Index							
Detroit 1982-84=100	217.36	219.48	220.63	221.65	222.69	223.80	224.96
Real Disposable Income							
Millions of 1982-84 $	41903.96	41952.80	42128.81	42422.02	42568.91	42834.17	43100.95

RSQE Forecast | **Table 1** | 29 May 2015

Michigan Personal Income

(Millions of Current Dollars, SAQR)

	Forecast	Calendar Years			Percent Changes	
	2016q4	2014	2015	2016	2014-2015	2015-2016
Personal Income	111370.74	401900.69	418589.60	437523.80	4.15	4.52
Wage and Salary	55916.17	203634.22	212075.28	220189.18	4.15	3.83
Private	48435.75	174965.01	183025.62	190521.21	4.61	4.10
Government	7480.41	28669.21	29049.66	29667.96	1.33	2.13
Other Labor Income	12933.08	47747.87	49376.40	51067.51	3.41	3.42
Proprietors' Income	7924.66	28689.35	29608.02	31118.20	3.20	5.10
Property Income	18891.67	65994.06	68489.10	73272.62	3.78	6.98
Transfer Payments	24314.98	87480.46	91802.33	95887.19	4.94	4.45
Residence Adjustment	589.61	2136.74	2234.75	2324.15	4.59	4.00
Less:						
Social Ins Contrib	9199.42	33782.00	34996.28	36335.04	3.59	3.83
Less:						
Federal Pers Taxes	11020.95	37201.21	39751.45	42771.66	6.86	7.60
Mich Withholding	2267.29	8324.50	8699.16	9051.46	4.50	4.05
Equals:						
Disp Personal Income	98082.50	356374.98	370138.99	385700.68	3.86	4.20
ADDENDA:						
Consumer Price Index						
Detroit 1982-84=100	226.20	221.85	219.78	224.41	-0.93	2.11
Real Disposable Income						
Millions of 1982-84 $	43361.48	160642.36	168407.59	171865.51	4.83	2.05

RSQE Forecast | **Table 2** | 29 May 2015

Employment in Michigan

(Thousands of Persons, Seasonally Adjusted)

	Actual	Forecast					
	2015q1	2015q2	2015q3	2015q4	2016q1	2016q2	2016q3
Total Employment	4473.80	4489.70	4502.46	4514.03	4524.07	4534.18	4545.24
Wage and Salary	4246.80	4261.56	4276.04	4289.01	4302.34	4315.75	4329.78
Private	3653.40	3666.56	3681.04	3694.01	3707.04	3720.15	3733.88
Nat. Res. & Mining	8.60	8.52	8.59	8.63	8.68	8.71	8.74
Construction	151.70	154.45	155.37	156.07	157.09	158.56	160.43
Manufacturing	591.60	593.79	595.62	597.21	598.87	600.21	601.39
Trans. Equipment	186.30	188.13	189.48	190.72	191.92	192.64	193.21
Other Mfg.	405.30	405.66	406.15	406.49	406.96	407.57	408.18
Trade, Trans. & Util.	763.20	765.12	768.10	770.49	772.95	775.18	777.54
Information	57.30	57.19	57.22	57.25	57.27	57.30	57.33
Financial Activities	206.00	207.02	207.96	208.94	209.65	210.30	210.94
Prof. & Bus. Serv.	639.20	640.86	644.52	647.92	651.34	654.91	658.66
Edu. & Health Serv.	653.00	652.90	654.24	655.55	657.00	658.46	659.94
Leisure & Hospitality	411.90	414.51	416.44	418.34	420.25	422.14	424.08
Other Services	171.00	172.20	172.98	173.62	173.95	174.37	174.83
Government	593.40	595.00	595.00	595.00	595.30	595.60	595.90
Non Wage and Salary	227.00	228.14	226.42	225.03	221.73	218.43	215.47
Labor Force	4756.10	4745.55	4750.68	4758.14	4765.00	4771.98	4779.51
Unemployment	282.30	255.85	248.21	244.10	240.93	237.80	234.26
Unemployment Rate (%)	5.94	5.39	5.22	5.13	5.06	4.98	4.90
ADDENDA: U.S. DATA (Billions of chained 2009 $, except where noted)							
Gross Domestic Prod	16304.80	16413.99	16542.49	16677.97	16810.32	16939.11	17071.22
Business Fixed Invest	2151.10	2177.05	2210.45	2241.66	2269.62	2296.26	2324.82
Gross Vehicle Product	449.70	480.65	474.79	474.08	475.54	477.34	480.48
Personal Cons Expend New Autos + Trucks	247.50	250.63	251.45	252.87	254.70	256.34	258.68
Light Vehicle Sales (mil)	16.60	16.82	16.90	16.97	17.03	17.08	17.16
Unemployment Rate (%)	5.57	5.37	5.19	5.06	4.96	4.88	4.79
Personal Consumption Deflator 2009=100	108.46	108.94	109.41	109.81	110.24	110.67	111.12
Consumer Price Index 1982-84=100	234.85	237.26	238.03	237.90	239.64	242.09	242.84

RSQE Forecast | **Table 2** | 29 May 2015

Employment in Michigan

(Thousands of Persons, Seasonally Adjusted)

	Forecast	Calendar Years			Percent Changes	
	2016q4	2014	2015	2016	2014-2015	2015-2016
Total Employment	4557.22	4411.03	4495.00	4540.18	1.90	1.01
Wage and Salary	4344.61	4179.73	4268.35	4323.12	2.12	1.28
Private	3748.41	3583.95	3673.75	3727.37	2.51	1.46
Nat. Res. & Mining	8.75	8.30	8.58	8.72	3.42	1.56
Construction	162.57	141.33	154.40	159.66	9.25	3.41
Manufacturing	602.71	575.70	594.56	600.80	3.28	1.05
Trans. Equipment	193.71	175.98	188.66	192.87	7.21	2.23
Other Mfg.	409.00	399.70	405.90	407.93	1.55	0.50
Trade, Trans. & Util.	780.01	757.50	766.73	776.42	1.22	1.26
Information	57.36	56.93	57.24	57.32	0.55	0.13
Financial Activities	211.62	204.63	207.48	210.63	1.39	1.52
Prof. & Bus. Serv.	662.62	618.53	643.12	656.88	3.98	2.14
Edu. & Health Serv.	661.43	644.30	653.92	659.21	1.49	0.81
Leisure & Hospitality	426.08	405.85	415.30	423.14	2.33	1.89
Other Services	175.27	170.88	172.45	174.60	0.92	1.25
Government	596.20	595.78	594.60	595.75	-0.20	0.19
Non Wage and Salary	212.61	231.30	226.65	217.06	-2.01	-4.23
Labor Force	4787.46	4748.32	4752.62	4775.99	0.09	0.49
Unemployment	230.24	337.28	257.62	235.81	-23.62	-8.47
Unemployment Rate (%)	4.81	7.11	5.42	4.94	NA	NA
ADDENDA: U.S. DATA (Billions of chained 2009 $, except where noted)						
Gross Domestic Prod	17201.94	16085.60	16484.81	17005.65	2.48	3.16
Business Fixed Invest	2354.68	2116.43	2195.07	2311.34	3.72	5.30
Gross Vehicle Product	485.04	454.63	469.81	479.60	3.34	2.08
Personal Cons Expend New Autos + Trucks	261.59	244.08	250.61	257.83	2.68	2.88
Light Vehicle Sales (mil)	17.27	16.40	16.82	17.14	2.54	1.86
Unemployment Rate (%)	4.71	6.15	5.30	4.84	NA	NA
Personal Consumption Deflator 2009=100	111.59	108.76	109.16	110.91	0.36	1.60
Consumer Price Index 1982-84=100	242.87	236.74	237.01	241.86	0.12	2.04

RSQE Forecast | **Table 3** | 29 May 2015

State of Michigan GFGP Revenue by Fiscal Years

(Millions of Current Dollars, NSA)

	Actual	Forecast					
	2015q1	2015q2	2015q3	2015q4	2016q1	2016q2	2016q3
NET PERS INCOME TAX	2025.10	2628.03	1953.15	2192.33	2106.55	2724.11	2035.07
Less: School Aid	602.10	734.93	563.95	618.26	624.86	760.93	586.21
Camp Fund	0.00	0.00	0.80	0.00	0.00	0.00	0.80
GFGP INCOME TAX	1423.00	1893.10	1388.41	1574.08	1481.69	1963.18	1448.06
CONSUMPTION TAXES							
Sales	217.45	350.23	316.32	310.10	230.86	364.70	330.94
Cigarette Excise	43.00	46.75	46.20	45.29	42.14	47.19	46.03
Beer and Wine	6.20	11.60	14.02	12.77	11.16	13.25	14.09
Liquor Specific	9.80	11.72	12.38	13.72	10.68	12.28	12.88
Use	209.30	249.42	253.38	210.04	208.48	232.02	238.15
GFGP CONSUM TAXES	485.75	669.72	642.31	591.94	503.31	669.44	642.09
BUSINESS TAXES							
Single Business	0.00	0.00	-20.00	0.00	0.00	0.00	-10.00
Michigan Business	0.00	0.00	-751.10	0.00	0.00	0.00	-889.40
Corporate Income	0.00	0.00	1029.70	0.00	0.00	0.00	1060.20
Insur Co Premium	0.00	0.00	402.00	0.00	0.00	0.00	412.50
Oil + Gas Severance	8.10	9.90	10.81	9.83	11.01	11.37	12.11
Casino	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GFGP BUSINESS TAXES	8.10	9.90	671.41	9.83	11.01	11.37	585.41
PROPERTY TAXES							
Inheritance	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utility Property	0.00	0.00	49.19	0.00	0.00	0.00	47.83
Intangibles	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GFGP PROPERTY TAXES	0.00	0.00	49.19	0.00	0.00	0.00	47.83
OTHER GFGP TAXES	0.00	0.00	-1.00	0.00	0.00	0.00	54.50
TOTAL GFGP TAXES	1916.85	2572.72	2750.32	2175.84	1996.01	2643.99	2777.88
NONTAX REVENUE	0.00	0.00	367.00	0.00	0.00	0.00	361.30
TOTAL GFGP REVENUE	1916.85	2572.72	3117.32	2175.84	1996.01	2643.99	3139.18
ADDENDA							
Pers Income Adjusted	88943.40	89971.46	90869.03	91999.66	92789.63	93865.57	95061.28
Total Employment	4473.80	4489.70	4502.46	4514.03	4524.07	4534.18	4545.24
Wage + Salary Income	52170.40	52818.82	53236.91	53849.15	54200.11	54751.85	55321.05

RSQE Forecast | **Table 3** | 29 May 2015

State of Michigan GFGP Revenue by Fiscal Years

(Millions of Current Dollars, NSA)

	Forecast	Fiscal Years			Percent Changes	
	2016q4	2014	2015	2016	2014-2015	2015-2016
NET PERS INCOME TAX	2279.85	8015.60	8701.28	9058.06	8.55	4.10
Less: School Aid	641.41	2359.70	2493.38	2590.26	5.67	3.89
Camp Fund	0.00	0.80	0.80	0.80	0.00	0.00
GFGP INCOME TAX	1638.45	5655.10	6207.10	6467.00	9.76	4.19
CONSUMPTION TAXES						
Sales	322.86	1150.60	1177.25	1236.60	2.32	5.04
Cigarette Excise	44.96	192.70	182.05	180.66	-5.53	-0.76
Beer and Wine	12.83	51.20	44.53	51.27	-13.03	15.14
Liquor Specific	14.22	46.20	47.91	49.56	3.69	3.46
Use	148.70	927.20	932.10	888.69	0.53	-4.66
GFGP CONSUM TAXES	543.57	2367.90	2383.83	2406.78	0.67	0.96
BUSINESS TAXES						
Single Business	0.00	-45.50	-20.00	-10.00	-56.04	-50.00
Michigan Business	0.00	-723.30	-751.10	-889.40	3.84	18.41
Corporate Income	0.00	906.40	1029.70	1060.20	13.60	2.96
Insur Co Premium	0.00	362.20	402.00	412.50	10.99	2.61
Oil + Gas Severance	10.98	63.40	39.71	44.31	-37.37	11.59
Casino	0.00	0.00	0.00	0.00	NC	NC
GFGP BUSINESS TAXES	10.98	563.20	700.31	617.61	24.34	-11.81
PROPERTY TAXES						
Inheritance	0.00	0.20	0.00	0.00	-100.00	NC
Utility Property	0.00	49.80	49.19	47.83	-1.21	-2.78
Intangibles	0.00	0.00	0.00	0.00	NC	NC
GFGP PROPERTY TAXES	0.00	50.00	49.19	47.83	-1.61	-2.78
OTHER GFGP TAXES	0.00	-28.20	-1.00	54.50	-96.45	-5550.00
TOTAL GFGP TAXES	2192.99	8608.00	9339.44	9593.72	8.50	2.72
NONTAX REVENUE	0.00	393.30	367.00	361.30	-6.69	-1.55
TOTAL GFGP REVENUE	2192.99	9001.30	9706.44	9955.02	7.83	2.56
ADDENDA						
Pers Income Adjusted	96255.18	344376.16	357976.70	373716.14	3.95	4.40
Total Employment	4557.22	4390.08	4476.11	4529.38	1.96	1.19
Wage + Salary Income	55916.17	201175.03	209801.98	218122.16	4.29	3.97

RSQE Forecast **Table 4** 29 May 2015

State of Michigan SAF and Transportation Tax Revenue by Fiscal Years

(Millions of Current Dollars, NSA)

	Actual	Forecast					
	2015q1	2015q2	2015q3	2015q4	2016q1	2016q2	2016q3
SAF TAXES							
Sales	1156.00	1444.11	1455.09	1442.98	1214.34	1505.26	1517.54
Use	104.70	124.71	126.69	117.02	116.24	128.01	131.12
Income	602.10	734.93	563.95	618.26	624.86	760.93	586.21
Mich Business	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liquor Excise	9.80	11.72	12.38	13.72	10.68	12.28	12.88
Tobacco	81.30	88.36	92.99	85.61	79.65	89.19	92.66
State Education Property	0.00	0.00	1861.10	0.00	0.00	0.00	1893.78
Real Estate Transfer	46.50	57.95	72.54	61.45	56.28	66.96	75.89
Ind and Comm Facilities	0.00	0.00	36.50	0.00	0.00	0.00	37.60
Casino	0.00	0.00	111.00	0.00	0.00	0.00	112.70
Other SAF Taxes	0.00	0.00	31.90	0.00	0.00	0.00	31.90
TOTAL SAF TAXES	2000.40	2461.78	4364.14	2339.04	2102.05	2562.63	4492.29
Lottery Transfer	0.00	0.00	780.00	0.00	0.00	0.00	791.00
EARMARKED STATE SAF REVENUE	2000.40	2461.78	5144.14	2339.04	2102.05	2562.63	5283.29
TRANSPORTATION TAXES							
Diesel	26.50	29.32	32.11	29.75	27.71	29.97	32.79
Gasoline	205.00	216.77	228.37	210.45	204.56	213.52	226.02
Motor Vehicle Registration	0.00	0.00	978.33	0.00	0.00	0.00	1015.29

RSQE Forecast **Table 4** 29 May 2015

State of Michigan SAF and Transportation Tax Revenue by Fiscal Years

(Millions of Current Dollars, NSA)

	Forecast	Fiscal Years			Percent Changes	
	2016q4	2014	2015	2016	2014-2015	2015-2016
SAF TAXES						
Sales	1502.64	5351.40	5439.80	5680.13	1.65	4.42
Use	121.90	463.50	466.10	492.39	0.56	5.64
Income	641.41	2359.70	2493.38	2590.26	5.67	3.89
Mich Business	0.00	0.00	0.00	0.00	NC	NC
Liquor Excise	14.22	46.20	47.91	49.56	3.69	3.46
Tobacco	84.97	359.00	349.75	347.11	-2.58	-0.75
State Education Property	0.00	1804.20	1861.10	1893.78	3.15	1.76
Real Estate Transfer	61.51	227.50	245.09	260.58	7.73	6.32
Ind and Comm Facilities	0.00	33.50	36.50	37.60	8.96	3.01
Casino	0.00	106.90	111.00	112.70	3.84	1.53
Other SAF Taxes	0.00	31.70	31.90	31.90	0.63	0.00
TOTAL SAF TAXES	2426.65	10783.60	11082.52	11496.01	2.77	3.73
Lottery Transfer	0.00	734.10	780.00	791.00	6.25	1.41
EARMARKED STATE SAF REVENUE	2426.65	11517.70	11862.52	12287.01	2.99	3.58
TRANSPORTATION TAXES						
Diesel	30.40	114.90	116.23	120.23	1.16	3.45
Gasoline	208.41	835.20	860.15	854.55	2.99	-0.65
Motor Vehicle Registration	0.00	943.00	978.33	1015.29	3.75	3.78

Selected State of Michigan Tax Revenues by Fiscal Years

(Millions of Current Dollars, NSA)

	Actual	Forecast					
	2015q1	2015q2	2015q3	2015q4	2016q1	2016q2	2016q3
NET PERS INCOME TAX	2025.10	2628.03	1953.15	2192.33	2106.55	2724.11	2035.07
Withheld	2157.80	2067.27	2076.81	2396.97	2246.07	2147.74	2162.95
Quarterly	256.90	335.47	241.24	128.15	263.12	344.48	246.68
Annual	113.90	683.68	50.30	71.31	114.95	703.40	52.24
Less: Refunds	503.50	458.40	415.20	404.10	517.60	471.50	426.80
Less: School Aid	602.10	734.93	563.95	618.26	624.86	760.93	586.21
Camp Fund	0.00	0.00	0.80	0.00	0.00	0.00	0.80
GFGP INCOME TAX	1423.00	1893.10	1388.41	1574.08	1481.69	1963.18	1448.06
GROSS SALES TAX	1593.00	1983.96	1999.71	1984.87	1673.16	2067.86	2085.41
Less: Local Dist	195.00	163.88	202.45	204.23	203.21	172.06	210.98
School Aid	1156.00	1444.11	1455.09	1442.98	1214.34	1505.26	1517.54
Comp Trans	22.30	23.50	23.60	25.30	22.50	23.60	23.70
Health Init	2.25	2.25	2.25	2.25	2.25	2.25	2.25
GFGP SALES TAX	217.45	350.23	316.32	310.10	230.86	364.70	330.94
GROSS USE TAX	314.00	374.13	380.07	351.07	348.71	384.03	393.37
Less: School Aid	104.70	124.71	126.69	117.02	116.24	128.01	131.12
Local Dist	0.00	0.00	0.00	24.00	24.00	24.00	24.10
GFGP USE TAX	209.30	249.42	253.38	210.04	208.48	232.02	238.15
GROSS CIGARETTE TAX	215.10	233.75	245.99	226.47	210.71	235.97	245.14
Less: School Aid	81.30	88.36	92.99	85.61	79.65	89.19	92.66
Medicaid Trust Fund	75.70	82.28	86.59	79.72	74.17	83.06	86.29
Other Funds	15.10	16.36	20.22	15.85	14.75	16.52	20.16
GFGP CIGARETTE TAX	43.00	46.75	46.20	45.29	42.14	47.19	46.03
GROSS MICH BUS TAX	0.00	0.00	-751.10	0.00	0.00	0.00	-889.40
Less: School Aid	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GFGP MICH BUS TAX	0.00	0.00	-751.10	0.00	0.00	0.00	-889.40

Selected State of Michigan Tax Revenues by Fiscal Years

(Millions of Current Dollars, NSA)

	Forecast	Fiscal Years			Percent Changes	
	2016q4	2014	2015	2016	2014-2015	2015-2016
NET PERS INCOME TAX	2279.85	8015.60	8701.28	9058.06	8.55	4.10
Withheld	2494.43	8226.90	8592.98	8953.73	4.45	4.20
Quarterly	125.75	878.60	961.22	982.44	9.40	2.21
Annual	73.48	805.70	917.18	941.90	13.84	2.70
Less: Refunds	413.80	1895.60	1770.10	1820.00	-6.62	2.82
Less: School Aid	641.41	2359.70	2493.38	2590.26	5.67	3.89
Camp Fund	0.00	0.80	0.80	0.80	0.00	0.00
GFGP INCOME TAX	1638.45	5655.10	6207.10	6467.00	9.76	4.19
GROSS SALES TAX	2066.81	7354.90	7481.37	7811.30	1.72	4.41
Less: Local Dist	212.95	741.90	760.83	790.47	2.55	3.90
School Aid	1502.64	5351.40	5439.80	5680.13	1.65	4.42
Comp Trans	26.10	102.00	94.50	95.10	-7.35	0.63
Health Init	2.25	9.00	9.00	9.00	0.00	0.00
GFGP SALES TAX	322.86	1150.60	1177.25	1236.60	2.32	5.04
GROSS USE TAX	365.71	1390.70	1398.21	1477.18	0.54	5.65
Less: School Aid	121.90	463.50	466.10	492.39	0.56	5.64
Local Dist	95.10	0.00	0.00	96.10	NC	NC
GFGP USE TAX	148.70	927.20	932.10	888.69	0.53	-4.66
GROSS CIGARETTE TAX	224.79	939.70	925.25	918.29	-1.54	-0.75
Less: School Aid	84.97	359.00	349.75	347.11	-2.58	-0.75
Medicaid Trust Fund	79.13	327.90	325.67	323.24	-0.68	-0.75
Other Funds	15.74	60.10	67.78	67.28	12.78	-0.74
GFGP CIGARETTE TAX	44.96	192.70	182.05	180.66	-5.53	-0.76
GROSS MICH BUS TAX	0.00	-723.30	-751.10	-889.40	3.84	18.41
Less: School Aid	0.00	0.00	0.00	0.00	NC	NC
GFGP MICH BUS TAX	0.00	-723.30	-751.10	-889.40	3.84	18.41

	A.AEQGM	A.AEQPM	A.AFDC	A.BLDPER	A.ECCM	A.EFINM	A.EINFM	A.EMFOM	A.EMIM	A.EMRESM
2015q2	-170.000	-80.000	-0.150	-0.800	-0.100	0.900	0.300	4.000	0.300	9.000
2015q3	-170.000	-60.000	0.600	-0.700	-1.500	1.100	0.400	5.100	0.450	0.000
2015q4	-170.000	-40.000	0.350	-0.600	-2.000	1.400	0.400	5.700	0.450	0.000
2016q1	-170.000	-20.000	0.000	-0.500	-2.000	1.400	0.400	6.100	0.450	0.000
2016q2	-170.000	-5.000	0.000	-0.400	-2.000	1.400	0.400	6.300	0.450	0.000
2016q3	-170.000	10.000	0.350	-0.300	-2.000	1.400	0.400	6.500	0.450	0.000
2016q4	-170.000	10.000	0.350	-0.300	-2.000	1.400	0.400	6.700	0.450	0.000

	A.EMTEQM	A.ESBASM	A.ESBHQM	A.ESBPRM	A.ESHM	A.ESLM	A.ESOM	A.ETRM	A.ETWTUM	A.HRSOM
2015q2	3.400	-8.900	-0.100	0.300	0.000	1.300	0.400	-5.300	1.400	-0.250
2015q3	4.300	-1.000	0.100	0.600	1.300	0.800	0.100	-3.100	0.300	-0.200
2015q4	4.300	-1.000	0.200	0.800	1.300	0.800	0.100	-3.200	0.300	-0.150
2016q1	4.300	-1.000	0.200	0.800	1.300	0.800	0.100	-3.300	0.300	-0.150
2016q2	4.300	-1.000	0.200	0.800	1.300	0.800	0.100	-3.400	0.300	-0.150
2016q3	4.300	-1.000	0.200	0.800	1.300	0.800	0.100	-3.500	0.300	-0.150
2016q4	4.300	-1.000	0.200	0.800	1.300	0.800	0.100	-3.600	0.300	-0.150

	A.HRSTQM	A.LFM	A.PCPID	A.PDIESE	A.PGASD	A.PSTKNR	A.SEVNR	A.SEVR	A.STKNR0	A.STKR09
2015q2	0.800	-29.000	1.100	-0.110	-0.040	0.000	3.000	14.000	0.000	0.000
2015q3	0.750	-10.000	0.000	0.020	0.030	0.000	0.000	0.000	0.000	0.000
2015q4	0.650	-10.000	0.000	0.020	0.030	0.200	0.000	0.000	-3.000	2.000
2016q1	0.550	-10.000	-0.050	0.020	0.030	0.000	0.000	0.000	0.000	0.000
2016q2	0.450	-10.000	-0.050	0.020	0.030	0.000	1.500	12.000	0.000	0.000
2016q3	0.350	-10.000	-0.050	0.020	0.030	0.000	0.000	0.000	0.000	0.000
2016q4	0.300	-10.000	-0.050	0.020	0.030	-0.400	0.000	0.000	-3.000	2.000

	A.TBWMNS	A.TCIGMN	A.TDIESE	A.TGASMN	A.TLIQMN	A.TOILMN	A.TRET	A.TRSMNS	A.TSEP	A.TSIBM
2015q2	-2.900	-9.200	0.700	3.000	3.000	0.000	5.000	95.000	0.000	3.700
2015q3	-0.700	-0.700	1.000	9.000	2.400	0.000	9.500	33.000	-117.000	3.700
2015q4	1.100	-9.000	0.000	0.000	3.450	-0.300	11.500	-61.000	0.000	3.700
2016q1	0.500	-2.100	2.000	12.000	2.650	-0.300	11.500	-66.000	0.000	-5.500
2016q2	0.000	-3.200	0.700	3.000	3.250	-0.300	11.500	95.000	0.000	3.700
2016q3	-0.400	-3.200	1.000	9.000	2.650	-0.300	11.500	33.000	-128.000	3.700
2016q4	1.100	-10.000	0.000	0.000	3.700	-0.300	9.000	-63.000	0.000	3.700

	A.TSIM	A.TUPM	A.TUSEMN	A.TVEHRE	A.TYAMNS	A.TYQMNS	A.TYWM	A.WM	A.WUS	A.YPRM
2015q2	5.000	0.000	-10.600	0.000	-35.730	12.960	131.830	0.200	-0.015	25.000
2015q3	5.000	-8.000	-15.100	20.000	0.390	17.753	134.970	0.200	-0.045	25.000
2015q4	5.000	0.000	-21.500	0.000	14.630	39.053	110.830	0.200	-0.045	25.000
2016q1	5.000	0.000	-6.000	0.000	8.990	0.443	192.380	0.200	-0.042	25.000
2016q2	5.000	0.000	-25.000	0.000	-10.510	10.260	136.440	0.200	-0.042	25.000
2016q3	5.000	-9.000	-25.000	20.000	0.410	15.053	139.700	0.200	-0.042	25.000
2016q4	5.000	0.000	-32.000	0.000	14.650	33.353	114.600	0.200	-0.042	25.000

	S.EGM
2015q2	1.000
2015q3	1.000
2015q4	1.000
2016q1	1.000
2016q2	1.000
2016q3	1.000
2016q4	1.000

	ADJRS	AF	BIG3SHR	BONUSQ	D00ON	D01Q1	D02ON	D03Q2	D03Q2ON	D09Q1
2015q1	550.500	1.462	43.660	98.300	1.000	0.000	1.000	0.000	1.000	0.000
2015q2	555.920	1.455	45.200	171.300	1.000	0.000	1.000	0.000	1.000	0.000
2015q3	561.400	1.450	44.500	98.300	1.000	0.000	1.000	0.000	1.000	0.000
2015q4	566.930	1.444	44.570	253.300	1.000	0.000	1.000	0.000	1.000	0.000
2016q1	572.520	1.440	44.620	97.400	1.000	0.000	1.000	0.000	1.000	0.000
2016q2	578.160	1.437	44.670	97.400	1.000	0.000	1.000	0.000	1.000	0.000
2016q3	583.860	1.433	44.720	97.400	1.000	0.000	1.000	0.000	1.000	0.000
2016q4	589.610	1.430	44.770	159.400	1.000	0.000	1.000	0.000	1.000	0.000

	D09Q3	D1	D2	D3	D4	D6973	D7478.1	D78	D7885.1	D83.1
2015q1	0.000	1.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000
2015q2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000
2015q3	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.000	0.000
2015q4	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000
2016q1	0.000	1.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000
2016q2	0.000	0.000	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000
2016q3	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.000	0.000
2016q4	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.000

	D84ON	D85Q2ON	D86Q298Q1	D8790	D89Q3ON	D90ON	D9499	D95ON	D9799	D97ON
2015q1	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	0.000	1.000
2015q2	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	0.000	1.000
2015q3	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	0.000	1.000
2015q4	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	0.000	1.000
2016q1	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	0.000	1.000
2016q2	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	0.000	1.000
2016q3	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	0.000	1.000
2016q4	1.000	1.000	1.000	1.000	1.000	1.000	0.000	1.000	0.000	1.000

	D9801	D98Q201Q1	D98Q3	D99Q3	DAUCON	DCENSUS	DEGLM	DESTEMP	DPROPA	DSEAS1
2015q1	0.000	0.000	0.000	0.000	0.000	0.000	0.608	0.000	1.500	1.000
2015q2	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.000	1.500	0.000
2015q3	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.000	1.500	0.000
2015q4	0.000	0.000	0.000	0.000	0.200	0.000	0.607	0.000	1.500	-1.000
2016q1	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.000	1.500	1.000
2016q2	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.000	1.500	0.000
2016q3	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.000	1.500	0.000
2016q4	0.000	0.000	0.000	0.000	0.000	0.000	0.607	0.000	1.500	-1.000

	DSEAS2	DSEAS3	DSTKMI	DTCASINO	DTCIG	DTIME	DTRSNVNS	DTSIHOL	DTUSEPDC	DYDMADJ
2015q1	0.000	0.000	0.000	0.000	0.000	237.000	-45.800	0.000	0.000	0.000
2015q2	1.000	0.000	0.000	0.000	0.000	238.000	-40.500	0.000	0.000	0.000
2015q3	0.000	1.000	0.000	0.000	3.000	239.000	-42.600	0.000	0.000	0.000
2015q4	-1.000	-1.000	0.000	0.000	0.000	240.000	-47.200	0.000	0.000	0.000
2016q1	0.000	0.000	0.000	0.000	0.000	241.000	-47.400	0.000	0.000	0.000
2016q2	1.000	0.000	0.000	0.000	0.000	242.000	-41.900	0.000	0.000	0.000
2016q3	0.000	1.000	0.000	0.000	3.000	243.000	-44.100	0.000	0.000	0.000
2016q4	-1.000	-1.000	0.000	0.000	0.000	244.000	-48.800	0.000	0.000	0.000

	DYOUTH1	EGMX	EGOVCIV	EMP	G09	GAID	GAS	GAUTO09	GDP09	GTRMCQ
2015q1	0.000	593.400	21.901	140.999	2891.800	526.800	29.300	123.400	16304.800	532.156
2015q2	0.000	595.000	21.919	141.619	2906.457	534.220	27.420	133.373	16413.985	535.500
2015q3	0.000	595.000	21.912	142.332	2917.038	541.680	33.270	135.958	16542.493	538.800
2015q4	0.000	595.000	21.948	143.019	2929.959	549.180	26.520	137.078	16677.967	542.100
2016q1	0.000	595.300	21.984	143.669	2940.982	568.800	27.840	138.057	16810.320	546.800
2016q2	0.000	595.600	22.020	144.290	2951.942	576.670	26.050	138.458	16939.110	551.500
2016q3	0.000	595.900	22.075	144.908	2964.111	583.930	31.610	139.027	17071.224	556.300
2016q4	0.000	596.200	22.130	145.520	2975.897	591.230	25.200	139.880	17201.942	561.100

	GTROF	GTRSL	GTRUCK09	HS	IBFID09	IBFNC09	IPDIE09	IRC09	JCLH	JIPTOT
2015q1	1886.500	649.200	326.300	969.000	688.300	437.600	221.600	505.900	112.486	105.633
2015q2	1910.170	659.370	347.277	1103.135	702.391	434.491	225.202	514.911	113.307	105.877
2015q3	1923.020	667.610	338.831	1170.058	716.829	443.527	227.950	534.703	114.099	106.802
2015q4	1940.960	675.900	337.007	1213.905	731.121	451.327	230.048	553.277	114.767	107.797
2016q1	1970.140	696.300	337.488	1261.313	744.039	458.310	231.683	571.045	115.560	108.751
2016q2	1987.780	704.960	338.884	1310.624	756.421	464.608	233.212	589.188	116.387	109.693
2016q3	2001.200	713.010	341.449	1363.475	768.680	471.491	234.102	608.424	117.268	110.614
2016q4	2016.720	721.110	345.156	1411.713	780.030	479.612	235.277	627.301	118.198	111.483

	JQLH	MFRACSIC	MGNOIL09	MICHFRAC	MIVSHR	MPG	MPOP	MPOP16	MPOP18	NTSBMNS
2015q1	105.902	0.295	1971.300	0.225	3.750	30.800	9920.000	7867.909	7702.000	0.000
2015q2	106.262	0.295	1996.033	0.225	3.750	30.800	9924.000	7877.261	7708.000	0.000
2015q3	106.769	0.295	2028.693	0.225	3.750	30.800	9927.000	7887.190	7713.000	-20.000
2015q4	107.368	0.295	2059.143	0.225	3.750	31.000	9930.000	7896.658	7718.000	0.000
2016q1	107.910	0.295	2093.472	0.225	3.750	31.000	9933.000	7906.138	7724.000	0.000
2016q2	108.342	0.295	2131.344	0.225	3.750	31.000	9936.000	7915.629	7729.000	0.000
2016q3	108.774	0.295	2172.686	0.225	3.750	31.000	9939.000	7924.815	7735.000	-10.000
2016q4	109.200	0.295	2215.615	0.225	3.750	31.200	9942.000	7933.377	7741.000	0.000

	OIL	PBRENT	PC	PCIG	PCNGO	PCPISA	PCRUDE	PCSMC	PGAS.C	PGSL
2015q1	1.780	53.950	108.457	918.530	102.289	235.201	192.000	109.220	2.930	110.338
2015q2	1.870	64.500	108.942	924.780	108.808	236.389	197.899	109.438	2.860	110.175
2015q3	1.720	65.500	109.413	931.070	112.854	237.668	206.411	109.656	3.080	110.462
2015q4	1.660	66.500	109.812	937.410	114.112	238.799	216.014	109.875	3.360	110.865
2016q1	1.850	68.500	110.237	944.940	115.653	239.975	220.050	110.257	3.440	111.324
2016q2	1.950	70.500	110.673	952.520	117.413	241.202	224.346	110.641	3.520	111.815
2016q3	1.790	72.500	111.123	960.170	119.153	242.468	228.543	111.026	3.610	112.336
2016q4	1.720	74.500	111.594	967.880	120.850	243.780	232.762	111.413	3.690	112.885

	PHCS	PHOUSEM	PINC	PIRC	PLIQUOR	POIL.C	POP16	PPNF	PVEH	PWTI
2015q1	170.630	177.750	111.726	115.241	239.140	43.560	249.901	107.825	33.515	48.630
2015q2	171.900	189.397	111.414	115.878	239.880	56.160	250.518	107.802	33.515	58.500
2015q3	173.170	193.419	110.991	116.622	240.630	58.080	251.184	108.130	33.515	60.500
2015q4	174.450	187.764	110.796	117.431	241.380	60.000	251.851	108.611	33.515	62.500
2016q1	175.660	182.916	110.945	118.274	242.430	61.920	252.521	109.099	34.437	64.500
2016q2	176.880	194.890	111.335	119.136	243.480	63.840	253.191	109.575	34.437	66.500
2016q3	178.110	198.931	111.904	120.015	244.540	65.760	253.838	110.065	34.437	68.500
2016q4	179.340	193.022	112.605	120.919	245.600	67.680	254.487	110.572	34.437	70.500

	QUARTER	RDEPNR	RDEPR	RGAS	RMORT	ROIL	RTGAS	RTUSE	RTYAM	RTYQM
2015q1	2015.100	0.000	0.000	0.050	3.730	0.066	19.000	6.000	4.250	4.250
2015q2	2015.200	0.000	0.000	0.050	3.849	0.066	19.000	6.000	4.250	4.250
2015q3	2015.300	0.000	0.000	0.050	4.022	0.066	19.000	6.000	4.250	4.250
2015q4	2015.400	3.130	2.415	0.050	4.093	0.066	19.000	6.000	4.250	4.250
2016q1	2016.100	0.000	0.000	0.050	4.211	0.066	19.000	6.000	4.250	4.250
2016q2	2016.200	0.000	0.000	0.050	4.361	0.066	19.000	6.000	4.250	4.250
2016q3	2016.300	0.000	0.000	0.050	4.474	0.066	19.000	6.000	4.250	4.250
2016q4	2016.400	3.130	2.425	0.050	4.560	0.066	19.000	6.000	4.250	4.250

	RTYSANS	RTYWM	RUG	RUM	SERVE09	SP500	STKMFAC	STRPFRAC	STRS2013	STRSMNS
2015q1	0.230	4.250	5.570	5.220	9885.500	2063.460	0.000	0.349	0.000	2.250
2015q2	0.230	4.250	5.371	4.970	9923.083	2110.000	0.000	0.349	0.000	2.250
2015q3	0.230	4.250	5.189	4.780	9980.430	2150.990	0.000	0.349	0.000	2.250
2015q4	0.230	4.250	5.056	4.648	10038.842	2192.780	3.119	0.349	0.000	2.250
2016q1	0.230	4.250	4.962	4.563	10097.732	2230.180	0.000	0.349	0.000	2.250
2016q2	0.230	4.250	4.880	4.482	10156.203	2268.230	0.000	0.349	0.000	2.250
2016q3	0.230	4.250	4.794	4.396	10218.542	2306.920	0.000	0.349	0.000	2.250
2016q4	0.230	4.250	4.708	4.311	10281.150	2346.270	3.098	0.349	0.000	2.250

	TCASINO	TCIGNRT	TCIGRT	TCIGSART	TCIGSRT	TCPM	TCTF	TEXEMPT	TICF	TINHMNS
2015q1	0.000	0.200	200.000	0.378	0.070	0.000	22.300	4000.000	0.000	0.000
2015q2	0.000	0.200	200.000	0.378	0.070	0.000	23.500	4000.000	0.000	0.000
2015q3	111.000	0.200	200.000	0.378	0.070	1029.700	23.600	4000.000	36.500	0.000
2015q4	0.000	0.200	200.000	0.378	0.070	0.000	25.300	4000.000	0.000	0.000
2016q1	0.000	0.200	200.000	0.378	0.070	0.000	22.500	4000.000	0.000	0.000
2016q2	0.000	0.200	200.000	0.378	0.070	0.000	23.600	4000.000	0.000	0.000
2016q3	112.700	0.200	200.000	0.378	0.070	1060.200	23.700	4000.000	37.600	0.000
2016q4	0.000	0.200	200.000	0.378	0.070	0.000	26.100	4000.000	0.000	0.000

	TINPMNS	TINTDLM	TINTMNS	TLOTTERY	TMB	TMBSAF	TNTGFGP	TOTHMNS	TOTHSAF	TP
2015q1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1810.800
2015q2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1841.215
2015q3	402.000	0.000	0.000	780.000	-751.100	0.000	367.000	-1.000	31.900	1860.517
2015q4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1893.464
2016q1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1933.968
2016q2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1976.956
2016q3	412.500	0.000	0.000	791.000	-889.400	0.000	361.300	54.500	31.900	2006.554
2016q4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2051.198

	TPSL	TRKH	TSEPFRAC	TSIB	TSID	TSIFR	TUPRT	TUSEAJ	TUSEDLNS	TVFAC
2015q1	376.400	0.432	0.000	563.800	1192.200	0.153	40.550	-17.000	0.000	0.000
2015q2	385.858	0.435	0.979	568.766	1203.625	0.153	40.550	0.000	0.000	86.300
2015q3	376.851	0.432	0.000	574.155	1216.021	0.153	40.550	0.000	0.000	0.000
2015q4	383.649	0.431	0.000	578.735	1226.535	0.153	40.550	0.000	24.000	0.000
2016q1	392.230	0.432	0.000	587.681	1247.178	0.153	40.580	0.000	24.000	0.000
2016q2	403.448	0.438	0.979	592.895	1259.138	0.153	40.580	0.000	24.000	83.800
2016q3	396.824	0.444	0.000	598.326	1271.593	0.153	40.580	0.000	24.100	0.000
2016q4	405.735	0.451	0.000	603.875	1284.315	0.153	40.580	0.000	95.100	0.000

	TYCFMNS	TYDLNS	TYRMNS	TYWSF	UIAWBSA	UIEMRFAC	VEHL	WCEIL	YAVAFDC	YFP
2015q1	0.000	0.000	503.500	98.741	292.280	1.000	16.596	118.500	1082.940	49.700
2015q2	0.000	0.000	458.400	95.820	293.010	1.000	16.820	118.500	1080.000	52.810
2015q3	0.800	0.000	415.200	95.367	293.740	1.000	16.901	118.500	1166.000	53.479
2015q4	0.000	0.000	404.100	110.018	294.470	1.000	16.970	118.500	1080.000	54.069
2016q1	0.000	0.000	517.600	98.741	295.200	1.000	17.033	121.500	1083.000	54.588
2016q2	0.000	0.000	471.500	95.820	295.940	1.000	17.076	121.500	1080.000	55.050
2016q3	0.800	0.000	426.800	95.367	296.680	1.000	17.158	121.500	1166.000	55.460
2016q4	0.000	0.000	413.800	110.018	297.410	1.000	17.274	121.500	1091.000	55.825

	YGWS	YNFP	YOL	YOTRM	YP	YPDIV	YPINT	YPRENT	YPWS	YSSTRM
2015q1	1235.600	1341.800	1250.000	13880.000	15106.700	905.700	1246.200	663.000	6427.800	8463.600
2015q2	1240.900	1355.048	1261.241	14033.580	15264.079	911.639	1254.202	672.700	6501.365	8525.920
2015q3	1245.200	1374.906	1272.746	14188.860	15444.326	929.567	1270.151	682.600	6587.746	8581.690
2015q4	1251.400	1392.935	1284.063	14345.860	15620.302	940.376	1297.647	692.600	6659.406	8637.450
2016q1	1265.400	1411.389	1295.482	14641.450	15824.150	947.389	1326.608	700.300	6737.422	8699.900
2016q2	1273.500	1430.548	1307.255	14803.460	16024.743	958.558	1361.710	708.000	6825.057	8762.340
2016q3	1282.600	1449.403	1319.573	14967.260	16242.018	984.740	1397.846	715.900	6917.065	8824.780
2016q4	1291.800	1468.547	1332.502	15132.870	16458.947	1009.865	1429.166	723.800	7011.621	8887.220

	YUNB
2015q1	33.700
2015q2	33.284
2015q3	32.647
2015q4	31.915
2016q1	31.490
2016q2	31.117
2016q3	30.718
2016q4	30.340

	AEQGM	AEQPM	AFDC	BLDPERM	ECCM	EFINM	EGM	EINFM	EMFM	EMFOM
2015q1	12132.963	12309.274	29.228	3.699	151.700	206.000	593.400	57.300	591.600	405.300
2015q2	12191.066	12427.219	27.096	3.838	154.452	207.015	595.000	57.195	593.787	405.657
2015q3	12239.004	12484.151	25.888	3.971	155.366	207.963	595.000	57.220	595.624	406.146
2015q4	12292.550	12597.455	25.229	4.207	156.065	208.939	595.000	57.246	597.211	406.493
2016q1	12350.023	12637.622	24.702	4.528	157.089	209.646	595.300	57.272	598.875	406.955
2016q2	12420.003	12729.190	23.862	4.899	158.558	210.303	595.600	57.300	600.210	407.566
2016q3	12482.345	12823.879	23.327	5.350	160.431	210.942	595.900	57.330	601.393	408.181
2016q4	12546.815	12921.677	23.305	5.720	162.570	211.618	596.200	57.364	602.710	409.003

	EMICH	EMIM	EMRESM	EMTEQM	EPM	ESBASM	ESBHQM	ESBM	ESBPRM	ESHM
2015q1	4473.800	8.600	227.000	186.300	3653.400	307.500	58.100	639.200	273.600	653.000
2015q2	4489.703	8.520	228.144	188.130	3666.560	305.722	58.108	640.856	277.026	652.901
2015q3	4502.463	8.587	226.419	189.478	3681.043	306.683	58.200	644.516	279.633	654.244
2015q4	4514.035	8.630	225.028	190.718	3694.006	307.964	58.271	647.918	281.683	655.547
2016q1	4524.070	8.677	221.732	191.920	3707.038	309.243	58.437	651.335	283.655	656.999
2016q2	4534.177	8.715	218.427	192.645	3720.150	310.587	58.669	654.909	285.653	658.465
2016q3	4545.245	8.736	215.465	193.212	3733.879	312.037	58.927	658.660	287.696	659.944
2016q4	4557.219	8.745	212.608	193.707	3748.411	313.654	59.201	662.617	289.761	661.432

	ESLM	ESM	ESOM	ETRM	ETTUM	ETWTUM	EWSM	HRSM	HRSOM	HRSTQM
2015q1	411.900	1875.100	171.000	464.400	763.200	298.800	4246.800	44.200	41.900	49.200
2015q2	414.507	1880.469	172.205	464.089	765.121	301.032	4261.560	44.094	41.679	49.301
2015q3	416.441	1888.184	172.983	465.711	768.100	302.389	4276.043	43.947	41.728	48.704
2015q4	418.341	1895.428	173.623	466.962	770.488	303.526	4289.006	43.851	41.777	48.272
2016q1	420.245	1902.525	173.945	468.285	772.954	304.669	4302.338	43.759	41.797	47.918
2016q2	422.137	1909.880	174.370	469.400	775.184	305.784	4315.750	43.667	41.833	47.546
2016q3	424.081	1917.511	174.826	470.631	777.537	306.905	4329.779	43.568	41.846	47.207
2016q4	426.078	1925.398	175.271	471.974	780.006	308.032	4344.611	43.488	41.848	46.950

	LFM	MVPROD09	MVQLH09	NEWREGM	NEWREGMQ	NTCASINO	NTCIGMNS	NTMB	NTRSMNS	NTUSEMNS
2015q1	4756.100	101.183	11.039	0.000	638.550	0.000	43.000	0.000	217.450	209.300
2015q2	4745.550	108.146	11.660	0.000	647.066	0.000	46.751	0.000	350.227	249.421
2015q3	4750.678	106.828	11.576	644.831	649.983	0.000	46.199	-751.100	316.319	253.383
2015q4	4758.140	106.669	11.586	0.000	652.536	0.000	45.294	0.000	310.104	210.045
2016q1	4765.004	106.998	11.635	0.000	654.956	0.000	42.142	0.000	230.859	208.476
2016q2	4771.982	107.402	11.726	0.000	656.770	0.000	47.193	0.000	364.697	232.019
2016q3	4779.506	108.107	11.853	656.085	660.080	0.000	46.029	-889.400	330.943	238.146
2016q4	4787.456	109.133	12.000	0.000	664.705	0.000	44.958	0.000	322.860	148.705

	NTYMNS	PCPID	PDIESEMW	PGASD	PSTKNR	PSTKR	REGVAL1	REGVAL2	REGVAL3	REGVAL4
2015q1	1423.000	217.360	2.847	2.211	0.000	0.000	0.000	0.000	0.000	0.000
2015q2	1893.095	219.484	2.756	2.595	0.000	0.000	0.000	0.000	0.000	0.000
2015q3	1388.405	220.630	2.735	2.590	0.000	0.000	21611.511	18003.767	14682.185	11559.071
2015q4	1574.077	221.648	2.810	2.473	113.263	118.090	0.000	0.000	0.000	0.000
2016q1	1481.691	222.685	2.804	2.572	0.000	0.000	0.000	0.000	0.000	0.000
2016q2	1963.181	223.797	2.915	2.921	0.000	0.000	0.000	0.000	0.000	0.000
2016q3	1448.056	224.964	2.938	2.801	0.000	0.000	22593.616	19255.856	15879.322	12949.687
2016q4	1638.448	226.197	3.028	2.656	115.103	121.619	0.000	0.000	0.000	0.000

	REGVALR	RLFPM	RUMICH	SEV	SEVNR	SEVR	SPLONG	STCIGMNS	STKNR	STKNR09
2015q1	0.000	60.449	5.940	0.000	0.000	0.000	0.164	15.100	0.000	0.000
2015q2	0.000	60.244	5.391	382.272	123.186	259.086	0.145	16.363	0.000	0.000
2015q3	129809.208	60.233	5.225	0.000	0.000	0.000	0.127	20.220	0.000	0.000
2015q4	0.000	60.255	5.130	0.000	0.000	0.000	0.114	15.853	12842.155	11338.355
2016q1	0.000	60.270	5.056	0.000	0.000	0.000	0.099	14.750	0.000	0.000
2016q2	0.000	60.286	4.983	402.285	127.655	274.630	0.090	16.518	0.000	0.000
2016q3	132379.066	60.311	4.901	0.000	0.000	0.000	0.082	20.160	0.000	0.000
2016q4	0.000	60.346	4.809	0.000	0.000	0.000	0.076	15.735	13178.148	11448.970

	STKR	STKR09	STKRM	TAXVAL	TBWMNS	TCASSAF	TCIGBSF	TCIGMNS	TCIGSAF	TDIESEL
2015q1	0.000	0.000	0.000	0.000	6.200	0.000	75.700	215.100	81.300	26.500
2015q2	0.000	0.000	0.000	329.901	11.604	0.000	82.282	233.755	88.359	29.315
2015q3	0.000	0.000	0.000	0.000	14.023	111.000	86.590	245.994	92.986	32.112
2015q4	19035.714	16119.670	593.724	0.000	12.771	0.000	79.718	226.471	85.606	29.750
2016q1	0.000	0.000	0.000	0.000	11.155	0.000	74.171	210.712	79.649	27.715
2016q2	0.000	0.000	0.000	337.115	13.251	0.000	83.060	235.965	89.195	29.974
2016q3	0.000	0.000	0.000	0.000	14.089	112.700	86.291	245.144	92.664	32.795
2016q4	19860.016	16329.758	615.263	0.000	12.826	0.000	79.126	224.791	84.971	30.401

	TGASMNS	TGFGP	TGFGPRV	TLIQMNS	TOILMNS	TRESM	TRET	TRSDLNS	TRSMNS	TRSSANS
2015q1	205.000	1916.850	1916.850	9.800	8.100	9690.363	46.500	195.000	1593.000	1156.000
2015q2	216.775	2572.719	2572.719	11.721	9.899	9848.036	57.952	163.880	1983.964	1444.107
2015q3	228.371	2750.318	3117.318	12.384	10.810	10014.123	72.542	202.446	1999.708	1455.093
2015q4	210.453	2175.841	2175.841	13.725	9.825	10198.923	61.451	204.231	1984.866	1442.982
2016q1	204.558	1996.013	1996.013	10.679	11.009	10377.209	56.280	203.207	1673.160	1214.344
2016q2	213.518	2643.991	2643.991	12.277	11.371	10574.701	66.958	172.056	2067.862	1505.259
2016q3	226.021	2777.877	3139.177	12.883	12.106	10798.808	75.887	210.976	2085.411	1517.542
2016q4	208.409	2192.994	2192.994	14.221	10.976	11020.945	61.506	212.951	2066.805	1502.644

	TSAF	TSAFCONS	TSEP	TSIBM	TSIM	TUPM	TUSEMNS	TUSESANS	TVEHREG	TYAMNS
2015q1	2000.400	2000.400	0.000	4077.100	8635.300	0.000	314.000	104.700	0.000	113.900
2015q2	2461.784	2461.784	0.000	4117.366	8723.179	0.000	374.131	124.710	0.000	683.681
2015q3	4364.138	5144.138	1861.096	4142.052	8778.319	49.195	380.074	126.691	978.329	50.299
2015q4	2339.043	2339.043	0.000	4179.029	8859.482	0.000	351.067	117.022	0.000	71.309
2016q1	2102.046	2102.046	0.000	4221.276	8971.319	0.000	348.714	116.238	0.000	114.955
2016q2	2562.630	2562.630	0.000	4254.202	9044.347	0.000	384.029	128.010	0.000	703.396
2016q3	4492.294	5283.294	1893.780	4288.293	9119.951	47.825	393.369	131.123	1015.288	52.241
2016q4	2426.651	2426.651	0.000	4324.155	9199.423	0.000	365.707	121.902	0.000	73.478

	TYMNS	TYQMNS	TYSANS	TYWM	TYWMNS	UMICH	WM	WSGM	WSM	WSPM
2015q1	2025.100	256.900	602.100	2185.300	2157.800	282.300	20.830	7199.700	52170.400	44970.700
2015q2	2628.028	335.474	734.933	2157.454	2067.273	255.847	20.780	7253.684	52818.822	45565.137
2015q3	1953.151	241.244	563.946	2177.701	2076.808	248.215	20.833	7282.207	53236.909	45954.701
2015q4	2192.334	128.154	618.257	2178.708	2396.971	244.105	20.823	7314.067	53849.147	46535.080
2016q1	2106.546	263.120	624.856	2274.710	2246.072	240.933	20.801	7351.969	54200.114	46848.145
2016q2	2724.113	344.481	760.932	2241.427	2147.735	237.804	20.784	7397.354	54751.850	47354.497
2016q3	2035.070	246.681	586.215	2268.026	2162.948	234.261	20.763	7438.229	55321.048	47882.818
2016q4	2279.854	125.746	641.407	2267.293	2494.430	230.237	20.746	7480.411	55916.166	48435.754

	WUS	YA	YAFDC	YDM	YDM824	YDM824AJ	YDMADJ	YENTM	YENTUS	YOLM
2015q1	19.700	3097.045	31.653	91082.437	41903.955	41903.955	91082.437	7257.000	1391.500	8086.400
2015q2	19.800	3109.781	29.264	92079.869	41952.804	41952.804	92079.869	7340.842	1407.858	8188.713
2015q3	19.877	3128.860	30.185	92948.956	42128.808	42128.808	92948.956	7462.852	1428.385	8244.272
2015q4	19.952	3163.554	27.247	94027.726	42422.024	42422.024	94027.726	7547.321	1447.005	8341.472
2016q1	20.031	3201.135	26.752	94794.771	42568.914	42568.914	94794.771	7637.170	1465.978	8384.115
2016q2	20.112	3249.614	25.771	95861.636	42834.166	42834.166	95861.636	7730.564	1485.598	8456.556
2016q3	20.196	3309.379	27.199	96961.778	43100.952	43100.952	96961.778	7825.808	1504.863	8529.995
2016q4	20.282	3382.069	25.426	98082.499	43361.479	43361.479	98082.499	7924.657	1524.372	8608.921

	YPADJM	YPERM	YPERM824	YPM	YPM824	YPRM	YPRUS	YQ	YTM824	YTRM
2015q1	88943.400	89523.410	40623.249	102958.100	47367.547	16802.000	2814.900	24059.000	1280.706	22650.000
2015q2	89971.461	90438.526	41077.298	104085.360	47422.664	16949.798	2838.540	24290.641	875.506	22837.078
2015q3	90869.027	91306.969	41459.539	105140.780	47654.712	17221.542	2882.318	24684.394	669.269	23050.072
2015q4	91999.661	92207.149	41831.368	106405.357	48006.378	17515.762	2930.623	25063.084	590.656	23265.177
2016q1	92789.633	93108.185	42146.177	107446.691	48250.434	17774.438	2974.297	25411.608	422.737	23628.377
2016q2	93865.566	94062.872	42426.641	108677.764	48560.839	18094.234	3028.268	25824.797	407.525	23856.545
2016q3	95061.281	95060.409	42646.553	110028.612	48909.354	18512.277	3098.486	26338.086	454.400	24087.282
2016q4	96255.178	96091.134	42889.566	111370.737	49236.101	18891.671	3162.831	26816.328	471.913	24314.982

	YUCTRM
2015q1	275.000
2015q2	248.314
2015q3	249.337
2015q4	254.620
2016q1	260.275
2016q2	264.974
2016q3	268.043
2016q4	269.466

	AEQGM	AEQPM	AFDC	BLDPERM	ECCM	EFINM	EGM	EINFM	EMFM	EMFOM
2015q1	1.699	0.712	-25.783	-17.394	27.003	1.569	-1.469	4.300	5.960	3.324
2015q2	1.929	3.888	-26.134	15.956	7.457	1.986	1.083	-0.734	1.487	0.353
2015q3	1.582	1.845	-16.683	14.498	2.388	1.843	0.000	0.178	1.243	0.483
2015q4	1.762	3.680	-9.798	26.056	1.811	1.892	0.000	0.179	1.070	0.343
2016q1	1.883	1.282	-8.094	34.130	2.650	1.360	0.202	0.186	1.119	0.455
2016q2	2.286	2.930	-12.930	37.028	3.793	1.259	0.202	0.192	0.895	0.601
2016q3	2.023	3.009	-8.668	42.216	4.811	1.221	0.202	0.209	0.791	0.605
2016q4	2.082	3.086	-0.370	30.714	5.439	1.288	0.202	0.237	0.879	0.808

	EMICH	EMIM	EMRESM	EMTEQM	EPM	ESBASM	ESBHQM	ESBM	ESBPRM	ESHM
2015q1	3.223	4.790	-6.910	11.990	4.687	11.567	0.691	7.054	3.587	3.186
2015q2	1.429	-3.692	2.030	3.988	1.449	-2.292	0.057	1.040	5.103	-0.061
2015q3	1.142	3.194	-2.989	2.897	1.589	1.263	0.631	2.304	3.819	0.825
2015q4	1.032	2.022	-2.435	2.643	1.416	1.681	0.490	2.128	2.964	0.799
2016q1	0.892	2.200	-5.732	2.545	1.419	1.671	1.148	2.127	2.831	0.889
2016q2	0.897	1.749	-5.830	1.520	1.422	1.751	1.597	2.213	2.847	0.895
2016q3	0.980	0.991	-5.315	1.183	1.484	1.881	1.767	2.311	2.892	0.901
2016q4	1.058	0.413	-5.199	1.028	1.566	2.089	1.877	2.425	2.903	0.905

	ESLM	ESM	ESOM	ETRM	ETTUM	ETWTUM	EWSM	HRSM	HRSOM	HRSTQM
2015q1	5.420	4.698	0.234	1.040	0.790	0.403	3.799	1.831	-0.949	5.899
2015q2	2.556	1.150	2.848	-0.268	1.011	3.022	1.397	-0.955	-2.091	0.824
2015q3	1.879	1.651	1.821	1.406	1.566	1.815	1.366	-1.325	0.468	-4.753
2015q4	1.838	1.543	1.488	1.078	1.249	1.513	1.218	-0.871	0.471	-3.502
2016q1	1.834	1.506	0.744	1.138	1.287	1.515	1.249	-0.841	0.195	-2.905
2016q2	1.812	1.555	0.981	0.956	1.159	1.472	1.253	-0.840	0.342	-3.072
2016q3	1.855	1.608	1.050	1.053	1.219	1.475	1.307	-0.897	0.124	-2.819
2016q4	1.897	1.656	1.022	1.146	1.277	1.477	1.377	-0.738	0.019	-2.159

	LFM	MVPROD09	MVQLH09	NEWREGM	NEWREGMQ	NTCASINO	NTCIGMNS	NTMB	NTRSMNS	NTUSEMNS
2015q1	0.691	-0.893	-16.433	NC	-3.177	NC	-24.304	NC	-69.767	-18.081
2015q2	-0.884	30.504	24.474	NC	5.442	NC	39.730	NC	572.917	101.675
2015q3	0.433	-4.789	-2.852	NC	1.816	NC	-4.641	NC	-33.457	6.507
2015q4	0.630	-0.593	0.362	-100.000	1.580	NC	-7.604	-100.000	-7.631	-52.779
2016q1	0.578	1.238	1.679	NC	1.492	NC	-25.062	NC	-69.284	-2.954
2016q2	0.587	1.520	3.170	NC	1.112	NC	57.266	NC	522.786	53.416
2016q3	0.632	2.653	4.395	NC	2.032	NC	-9.509	NC	-32.191	10.988
2016q4	0.667	3.850	5.061	-100.000	2.832	NC	-8.983	-100.000	-9.418	-84.797

	NTYMNS	PCPID	PDIESEMW	PGASD	PSTKNR	PSTKR	REGVAL1	REGVAL2	REGVAL3	REGVAL4
2015q1	-19.565	-6.224	-61.274	-67.839	-100.000	-100.000	NC	NC	NC	NC
2015q2	213.235	3.967	-12.244	89.713	NC	NC	NC	NC	NC	NC
2015q3	-71.068	2.105	-2.938	-0.733	NC	NC	NC	NC	NC	NC
2015q4	65.211	1.858	11.411	-16.852	NC	NC	-100.000	-100.000	-100.000	-100.000
2016q1	-21.490	1.885	-0.856	16.871	-100.000	-100.000	NC	NC	NC	NC
2016q2	208.185	2.012	16.817	66.530	NC	NC	NC	NC	NC	NC
2016q3	-70.399	2.103	3.201	-15.509	NC	NC	NC	NC	NC	NC
2016q4	63.904	2.210	12.833	-19.080	NC	NC	-100.000	-100.000	-100.000	-100.000

	REGVALR	RLFPM	RUMICH	SEV	SEVNR	SEVR	SPLONG	STCIGMNS	STKNR	STKNR09
2015q1	NC	0.306	-31.110	NC	NC	NC	-21.864	-22.624	-100.000	-100.000
2015q2	NC	-1.354	-32.137	NC	NC	NC	-39.514	37.888	NC	NC
2015q3	NC	-0.072	-11.791	-100.000	-100.000	-100.000	-40.343	133.160	NC	NC
2015q4	-100.000	0.148	-7.046	NC	NC	NC	-35.650	-62.212	NC	NC
2016q1	NC	0.097	-5.642	NC	NC	NC	-41.836	-25.062	-100.000	-100.000
2016q2	NC	0.105	-5.648	NC	NC	NC	-32.044	57.266	NC	NC
2016q3	NC	0.166	-6.420	-100.000	-100.000	-100.000	-30.533	121.914	NC	NC
2016q4	-100.000	0.233	-7.315	NC	NC	NC	-26.306	-62.886	NC	NC

	STKR	STKR09	STKRM	TAXVAL	TBWMNS	TCASSAF	TCIGBSF	TCIGMNS	TCIGSAF	TDIESEL
2015q1	-100.000	-100.000	-100.000	NC	-94.320	NC	-24.090	-24.032	-24.092	-23.116
2015q2	NC	NC	NC	NC	1126.992	NC	39.582	39.470	39.524	49.763
2015q3	NC	NC	NC	-100.000	113.267	NC	22.646	22.646	22.646	43.975
2015q4	NC	NC	NC	NC	-31.193	-100.000	-28.162	-28.162	-28.162	-26.335
2016q1	-100.000	-100.000	-100.000	NC	-41.792	NC	-25.062	-25.062	-25.062	-24.679
2016q2	NC	NC	NC	NC	99.105	NC	57.266	57.266	57.266	36.805
2016q3	NC	NC	NC	-100.000	27.776	NC	16.491	16.491	16.491	43.303
2016q4	NC	NC	NC	NC	-31.317	-100.000	-29.298	-29.298	-29.298	-26.155

	TGASMNS	TGFGP	TGFGPRV	TLIQMNS	TOILMNS	TRESM	TRET	TRSDLNS	TRSMNS	TRSSANS
2015q1	-9.189	-30.522	-30.522	-75.990	-69.505	5.334	-78.262	-8.722	-51.072	-51.411
2015q2	25.032	224.501	224.501	104.650	123.096	6.669	141.254	-50.116	140.587	143.538
2015q3	23.177	30.606	115.554	24.617	42.209	6.919	145.512	132.882	3.212	3.078
2015q4	-27.879	-60.828	-76.265	50.835	-31.765	7.588	-48.506	3.573	-2.936	-3.288
2016q1	-10.743	-29.182	-29.182	-63.346	57.653	7.178	-29.645	-1.991	-49.508	-49.844
2016q2	18.707	207.884	207.884	74.705	13.813	7.833	100.353	-48.604	133.312	136.090
2016q3	25.561	21.846	98.712	21.248	28.470	8.750	64.991	126.076	3.438	3.304
2016q4	-27.711	-61.158	-76.183	48.479	-32.432	8.486	-56.849	3.797	-3.521	-3.869

	TSAF	TSAFCONS	TSEP	TSIBM	TSIM	TUPM	TUSEMNS	TUSESANS	TVEHREG	TYAMNS
2015q1	-38.204	-38.204	NC	4.537	4.547	NC	-18.029	-17.924	NC	629.730
2015q2	129.368	129.368	NC	4.009	4.133	NC	101.547	101.290	NC	129713.462
2015q3	887.630	1806.562	NC	2.420	2.553	NC	6.507	6.507	NC	-99.997
2015q4	-91.748	-95.725	-100.000	3.619	3.750	-100.000	-27.207	-27.207	-100.000	303.966
2016q1	-34.775	-34.775	NC	4.105	5.146	NC	-2.654	-2.654	NC	575.365
2016q2	120.890	120.890	NC	3.157	3.296	NC	47.088	47.088	NC	140082.181
2016q3	844.340	1706.654	NC	3.244	3.386	NC	10.089	10.089	NC	-99.997
2016q4	-91.486	-95.549	-100.000	3.387	3.531	-100.000	-25.298	-25.298	-100.000	291.380

	TYMNS	TYQMNS	TYSANS	TYWM	TYWMNS	UMICH	WM	WSGM	WSM	WSPM
2015q1	-12.693	1543.061	6.712	21.256	-21.319	-30.746	3.733	0.205	4.691	5.433
2015q2	183.618	190.790	121.981	-5.000	-15.755	-32.535	-0.954	3.033	5.065	5.393
2015q3	-69.491	-73.258	-65.330	3.807	1.858	-11.409	1.025	1.582	3.204	3.464
2015q4	58.739	-92.037	44.452	0.185	77.446	-6.461	-0.192	1.762	4.680	5.148
2016q1	-14.757	1676.980	4.338	18.825	-22.902	-5.096	-0.432	2.089	2.633	2.718
2016q2	179.651	193.798	119.920	-5.726	-16.396	-5.094	-0.321	2.492	4.134	4.394
2016q3	-68.853	-73.704	-64.776	4.832	2.864	-5.829	-0.393	2.229	4.224	4.538
2016q4	57.511	-93.248	43.320	-0.129	76.889	-6.696	-0.335	2.288	4.373	4.700

	WUS	YA	YAFDC	YDM	YDM824	YDM824AJ	YDMADJ	YENTM	YENTUS	YOLM
2015q1	1.228	4.508	-25.014	4.097	11.006	11.006	4.097	-3.108	-3.073	4.016
2015q2	2.041	1.655	-26.940	4.453	0.467	0.467	4.453	4.702	4.786	5.158
2015q3	1.573	2.477	13.196	3.829	1.689	1.689	3.829	6.816	5.961	2.742
2015q4	1.512	4.510	-33.608	4.724	2.813	2.813	4.724	4.605	5.317	4.800
2016q1	1.588	4.837	-7.069	3.303	1.392	1.392	3.303	4.848	5.349	2.061
2016q2	1.634	6.197	-13.891	4.578	2.516	2.516	4.578	4.982	5.462	3.501
2016q3	1.680	7.562	24.086	4.670	2.515	2.515	4.670	5.020	5.289	3.519
2016q4	1.726	9.080	-23.635	4.704	2.440	2.440	4.704	5.149	5.287	3.753

	YPADJM	YPERM	YPERM824	YPM	YPM824	YPRM	YPRUS	YQ	YTM824	YTRM
2015q1	3.448	3.770	5.712	4.545	11.483	2.025	1.927	0.442	700.972	8.996
2015q2	4.704	4.152	4.546	4.452	0.466	3.565	3.402	3.907	-78.161	3.345
2015q3	4.051	3.897	3.774	4.118	1.972	6.569	6.313	6.643	-65.852	3.783
2015q4	5.071	4.002	3.636	4.898	2.985	7.011	6.874	6.279	-39.336	3.785
2016q1	3.479	3.966	3.044	3.972	2.049	6.039	6.096	5.679	-73.761	6.392
2016q2	4.719	4.165	2.689	4.662	2.598	7.393	7.458	6.664	-13.635	3.919
2016q3	5.194	4.310	2.090	5.065	2.902	9.567	9.603	8.191	54.573	3.925
2016q4	5.119	4.408	2.299	4.969	2.699	8.453	8.569	7.463	16.331	3.835

	YUCTRM
2015q1	-2.494
2015q2	-33.522
2015q3	1.658
2015q4	8.748
2016q1	9.184
2016q2	7.421
2016q3	4.714
2016q4	2.140