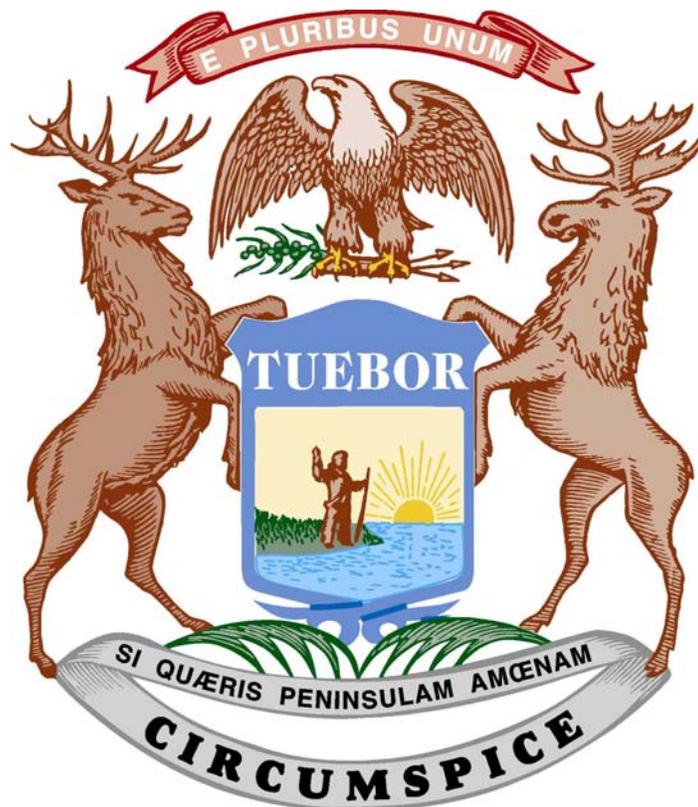


# Administration Estimates Michigan Economic and Revenue Outlook



**FY 2009-10 and FY 2010-11**

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## Table of Contents

<b><u>Administration Estimates--Executive Summary</u></b> .....	1
<b>Revenue Review and Outlook</b> .....	1
<b>2010 and 2011 U.S. Economic Outlook</b> .....	1
<b>2010 and 2011 Michigan Economic Outlook</b> .....	2
<b>Forecast Risks</b> .....	2
<b><u>Economic Review and Outlook</u></b> .....	3
<b>Current U.S. Economic Situation</b> .....	3
Summary .....	3
Housing Market .....	3
House Prices .....	5
Repercussions .....	6
Monetary Policy .....	9
Interest Rates .....	9
Additional Recent Federal Reserve Bank Actions .....	9
Fiscal Policy .....	12
Inflation .....	13
Major Economic Indicators .....	15
Employment .....	18
Vehicle Sales and Production .....	21
<b>Current Michigan Economic Conditions</b> .....	23
Vehicle Production .....	23
Employment .....	23
Housing Market .....	24
Personal Income .....	24
<b>2010 and 2011 U.S. Economic Outlook</b> .....	25
Summary .....	25
Assumptions .....	26
Forecast Risks .....	27
<b>2010 and 2011 Michigan Economic Outlook</b> .....	28
<b>Fiscal Year Economics</b> .....	32

<b><u>Administration Revenue Estimates</u></b> .....	34
<b>Revenue Estimate Overview</b> .....	34
<b>FY 2009 Revenue Review</b> .....	35
<b>FY 2010 Revenue Outlook</b> .....	36
<b>FY 2011 Revenue Outlook</b> .....	37
<b>Constitutional Revenue Limit</b> .....	38
<b>Budget Stabilization Fund Calculation</b> .....	38
<b>School Aid Fund Revenue Adjustment Factor</b> .....	40
<b>Revenue Detail</b> .....	41

### List of Tables

<b>Table 1 Administration Economic Forecast</b> .....	31
<b>Table 2 FY 2008–09 Administration Revenue Estimates</b> .....	35
<b>Table 3 FY 2009–10 Administration Revenue Estimates</b> .....	36
<b>Table 4 FY 2010–11 Administration Revenue Estimates</b> .....	37
<b>Table 5 Administration Constitutional Revenue Limit Calculation</b> .....	38
<b>Table 6 Budget and Economic Stabilization Fund Calculation, Based on CY 2010 Personal Income Growth, Administration Calculation</b> .....	39
<b>Table 7 Budget and Economic Stabilization Fund Calculation, Based on CY 2011 Personal Income Growth, Administration Calculation</b> .....	40
<b>Table 8 Administration School Aid Revenue Adjustment Factor</b> .....	41
<b>Table 9 Administration General Fund General Purpose Revenue Detail</b> .....	42
<b>Table 10 Administration School Aid Fund Revenue Detail</b> .....	43
<b>Table 11 Administration Major Tax Totals</b> .....	43

**ADMINISTRATION ESTIMATES**  
**EXECUTIVE SUMMARY**  
**May 21, 2010**

**Revenue Review and Outlook**

- FY 2009 General Fund-General Purpose (GF-GP) revenue totaled \$7,365.6 million, a 21.3 percent decrease from 2008. FY 2009 GF-GP revenues declined due to the deep economic downturn experienced in Michigan and nationwide. School Aid Fund (SAF) revenue fell 5.1 percent to \$10,922.2 million.
- FY 2010 GF-GP revenue is forecast to decline 8.4 percent to \$6,745.3 million, down \$153.1 million from the January 2010 Consensus estimate. FY 2010 SAF revenue is forecast to decline 1.4 percent to \$10,764.1 million, which is \$306.0 million above the January 2010 Consensus estimate.
- FY 2011 GF-GP revenue is forecast to increase 7.0 percent to \$7,216.1 million, which is \$247.7 million above the January 2010 Consensus estimate. FY 2011 SAF revenue is forecast to increase 1.3 percent to \$10,905.7 million, which is \$425.2 million more than the January 2010 Consensus estimate.

**2010 and 2011 U.S. Economic Outlook**

- Real gross domestic product is forecast to rebound in 2010, rising 3.0 percent before growing 3.4 percent in 2011.
- Over the forecast horizon, wage and salary employment is projected to increase at an accelerating rate through the end of 2011. Over this period, the national labor market is expected to regain 4.1 million jobs.
- The U.S. unemployment rate is forecast to decline each quarter over the forecast horizon. The U.S. unemployment rate is expected to average 9.5 percent in 2010 and 8.9 percent in 2011.
- After falling to a 50-year low in 2009 (554,000 units annual rate), housing starts are projected to total 683,000 units in 2010 and 1,003,000 units in 2011.
- Light vehicle sales totaled 10.3 million units in 2009 (a 39-year low). Sales are expected to rebound to 11.7 million units in 2010 and 13.8 million units in 2011.
- After declining for the first time since 1955, consumer prices are forecast to rise 2.2 percent in 2010 and 2.0 percent in 2011.

## **2010 and 2011 Michigan Economic Outlook**

- In 2009, Michigan wage and salary employment plummeted 6.9 percent – the largest drop in over 50 years. Michigan employment is expected to decline at a substantially slower rate (1.3 percent) in 2010. In 2011, Michigan employment is forecast to rise 0.3 percent, which would mark the first annual employment gain since CY 2000.
- In 2010, the Michigan unemployment rate is forecast to rise to 14.1 percent from 13.6 percent in 2009. The unemployment rate is then expected to drop to 13.5 percent in 2011.
- After rising slightly in 2010Q1, manufacturing employment is projected to fall through mid-2011. Between 2009Q4 and 2011Q4, manufacturing sector employment is projected to decline by about 10,000 jobs.
- After dropping 8.5 percent in CY 2009, wages and salaries are forecast to rise slightly (0.4 percent) in CY 2010 and rise 2.6 percent in CY 2011. Following a 3.0 percent decline in 2009, calendar year personal income is forecast to rise 1.5 percent in 2010 and 3.2 percent in 2011.
- Fiscal year Michigan wages and salaries income is expected to fall 2.3 percent in FY 2010 before rising 2.1 percent in FY 2011.
- Disposable income is forecast to rise 1.5 percent in FY 2010 and 1.4 percent in FY 2011.

## **Forecast Risks**

- As major elements of fiscal and monetary policy wind down, the private economy may not be able to sustain the current recovery. The problems associated with the Fed's sale of recently acquired securities pose a particularly significant risk.
- While firmer than they were in the recession, U.S. credit markets remain unsettled and European credit markets are in crisis. As a result, the U.S. credit markets remain at risk.
- A slowing/stalling recovery may impact consumer and investor confidence more than assumed. Stubborn historically low consumer confidence underlines this risk. Consequently, consumption and investment may be significantly lower than forecast.
- Failure of one or more of the Big Three vehicle manufacturers would lead to more significant employment declines in Michigan. Michigan's proportionally greater reliance on the vehicle industry could lead to an even weaker Michigan economy than forecast.
- Higher oil prices would depress economic activity by lowering consumer's discretionary income. Higher oil prices would also spur higher inflation, which could spur the Fed to implement more severe austerity measures.
- A stronger (weaker) housing market would boost (depress) economic activity more than forecast.
- Geopolitical factors, such as a domestic terrorist attack, would depress economic activity.

# ECONOMIC REVIEW AND OUTLOOK

## May 21, 2010

### Current U.S. Economic Situation

#### Summary

The U.S. economy fell into recession beginning in December 2007 -- as determined by the National Bureau of Economic Research (NBER). While U.S. wage and salary employment declines began the month following the official start of the recession, sharp real GDP declines began a year later. In 2008Q4, real GDP fell at a 5.4 percent annual rate followed by a 6.4 percent rate of decline in 2009Q1. Real GDP fell only slightly in 2009Q2 (-0.7 percent rate). Nevertheless, 2009Q2 marked the first time since at least 1948 that the economy had declined four straight quarters, as well as the largest four-quarter real GDP decline (-3.8 percent) in at least 60 years. Over these four quarters, residential investment fell by 25.6 percent while non-residential investment declined 19.7 percent. Taken together, the amount of declines in these two types of investment accounted for most (84.6 percent) of the entire amount of the real GDP decline. Personal consumption fell by 1.7 percent with durable goods consumption declining 8.8 percent. The drop in durable consumption amounted to 20.2 percent of the overall real GDP decline. Increases in net exports (lower trade deficit) and higher federal government purchases lessened the overall GDP decline.

The NBER has not yet announced *if* the recession has ended and, if so, *when* the recession ended. However, many economists hold that the recession has ended and did so some time in 2009Q3. In the third quarter, real GDP rose modestly (2.2 percent rate) and residential investment grew for the first time in nearly four years. Real GDP increased sharply in 2009Q4, rising at a 5.6 percent annual rate with changes in inventories accounting for slightly more than two-thirds of the quarter's growth. Growth moderated in 2010Q1 with real GDP increasing at a 3.2 percent annual rate. The first quarter's consumption increase equaled nearly 80 percent of 2010Q1 growth while inventories accounted for almost 50 percent of the quarter's overall increase. A worsening trade deficit and government spending cutbacks (led by state and local government declines) subtracted from 2010Q1 real GDP growth. Over the past three quarters, real GDP has grown at a 3.7 percent annual rate.

#### Housing Market

The housing market is in its worst shape in history dating back to 1959. However, the market has shown some recent signs of stabilizing and even some indications of improvement.

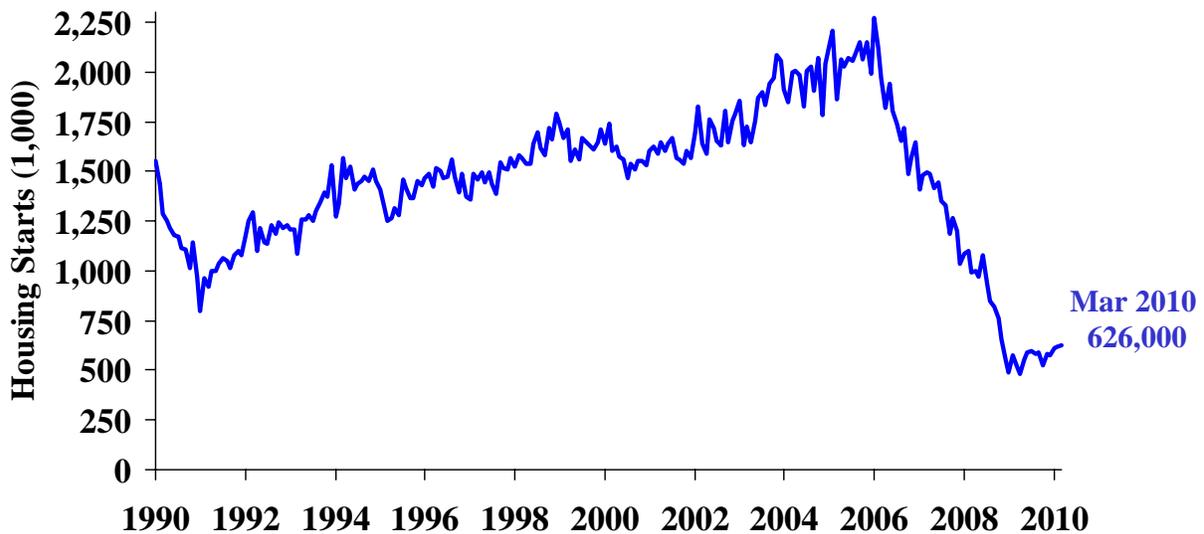
In calendar year 2008, housing starts fell below 1.0 million units (906,000 units) for the first time on record. However, the housing market then worsened considerably in 2009, falling 38.8 percent to only 554,000 units. This performance stands in sharp contrast to the 2.1 million units pace in 2005 and even the 1.8 million and 1.4 million units pace in 2006 and 2007, respectively. Housing starts have improved since the January 2010 Consensus Conference with 2010Q1 starts

up 10.4 percent from 2009Q4 and up 16.9 percent from a year earlier. However, housing starts remained extremely low and averaged only a 617,000 units annual rate in the first quarter.

Despite record low mortgage rates, the Mortgage Bankers Association weekly market composite index in early May was down sharply (-43.2 percent) from a year ago with the purchase sub index up 10.2 percent but the refinancing index dropping nearly 59 percent. However, the composite index has worsened only slightly since the January Consensus Conference. Compared to the average of the index's four data releases directly prior to the January Consensus Conference, the most recent four-week average is only 2.7 percent lower.

The National Association of Home Builders sentiment index improved sharply in April 2010. At 19, the April index rose 4 points from March and was up 5 points from a year earlier.

### Housing Starts Little Changed from Record Low



Source: U.S. Census Bureau. Seasonally adjusted annual rate.

Between August 2008 and January 2009, sales of new homes fell each month. January 2009 saw a particularly sharp decline. After fluctuating in February 2009 and March 2009, new home sales rose through mid-2009. Sales then fell each month through February 2010, with the exception of October 2009 sales that were boosted by the nearing original expiration date of the new home buyer credit. In February 2010, sales of new homes fell to their lowest level since the series began in 1963. However, bolstered by the looming revised expiration date of the new home buyer credit, new home sales rose sharply in March 2010, rising 26.9 percent from February 2010 – the second greatest percentage increase in the series' 47-year history. Compared to a year ago, new home sales rose 23.8 percent in March.

The number of vacant homes is also down from a year ago. The number of unoccupied housing units for sale in 2010Q1 was down 5.6 percent from a year ago. However, the number is still

running 780,000 units above the 1996 to 2005 average. These high numbers will serve to depress future home sales and construction.

The pending home sales index provides a mixed picture for the housing market. In February and March 2010 (the most recent readings available), the pending home sales index regained more than the ground it lost in January, but recouped only two-fifths of the ground it lost in November 2009 with the homebuyer credit's original expiration date. The index likely rose further in April with the April 30 expiration of the homebuyer credit. However, the November 2009 retrenchment suggests that the index will fall following the credit's expiration at the end of April.

Reflecting the impact of the nearing original expiration date of the home buyer credit, existing home sales rose sharply in both October 2009 and November 2009 – rising to a 6.5 million rate in November, up 44.1 percent from a year ago. November sales were the strongest since early 2007. Existing home sales then fell sharply in December, following the original home credit expiration month. The credit was then expanded and extended to April 30, 2010. Sales fell again in January 2010 and remained essentially unchanged in February. However, with the impending April 2010 deadline, sales rose significantly in March 2010. Although still shy of their December 2009 level, March 2010 existing home sales were up 16.1 percent compared to a year ago. Sales likely rose again in April, but are apt to moderate in subsequent months.

In its April 2010 *Beige Book*, the Federal Reserve (Fed) reported that residential real estate activity increased “albeit from low levels” in ten of the Fed’s 12 districts compared to the Fed’s early March report. This description contrasts with the Fed’s December 2009 *Beige Book* description of the sector’s trends as “mixed.” However, many districts reported concerns in April that residential activity would slow with the homebuyer credit’s April 30 expiration. The Fed remained negative on commercial real estate’s status: With only a couple exceptions, “Commercial real estate activity was slow across the nation.”

### House Prices

There are mixed indications that housing prices may be stabilizing. The Federal Housing Finance Agency’s (FHFA) February 2010 purchase-only house price index fell slightly from January and was down 3.4 percent from a year ago. While the year-ago decline was greater than the declines in recent months, the drop was smaller than most declines in 2008 and 2009. In March 2010, the Census Bureau’s median new home sales price rose, compared to a year ago, for the third straight month. The March 2010 median price (\$214,000) was 4.3 percent higher from a year ago. These increases compare to double-digit declines in early 2009. According to the National Association of Realtors, the median existing-house price was up slightly in March compared to a year ago (0.4 percent).

Between June 2009 and January 2010, the S&P/Case Shiller 20-city home price index reported month-to-month increases each month – marking the longest stretch of consistent gains in more than three years. The index fell slightly in February 2010 (-0.1 percent). On a year-ago basis, the February 2010 index was up 0.7 percent – the first increase since December 2006.

Along these lines, the Federal Reserve's April 2010 Beige Book reported that "Home prices were stable across most Districts, but decreased in parts of the New York and Atlanta Districts."

Caution should be taken in inferring from these data that housing prices may be stabilizing. The federal government's Home Affordable Modification Program (HAMP) is currently keeping many homes from foreclosure as action is taken to see if more affordable mortgage terms may be found for currently delinquent homeowners in the program. To date, less than one-fifth of those in the program have obtained permanent loan modifications. According to the National Association of Realtors, ". . . stressed homes, typically sold at a 15 percent discount, [and] accounted for 35 percent of February and March 2010 existing home sales." The Obama Administration is currently reworking HAMP to improve its effectiveness. If these efforts are successful, a larger share of those enrolled would succeed in securing a permanent loan modification. However, if the efforts are not successful, a growing number of now-delinquent homes would enter foreclosure – which would further depress home prices.

In months following the Federal Reserve's completion of its purchase of mortgage backed assets in March 2010, mortgage rates (now at historically low levels) could rise significantly. At 5.10 percent, the April 2010 30-year mortgage rate was up 0.29 of a percentage point from the series' near 40 year historical record low of 4.81 percent set in April 2009 (Freddie Mac). Still higher interest rates would lower housing demand and serve to accelerate home price declines.

In addition, the expiration of the home buyer credit could weigh more heavily on the housing market than expected.

### Repercussions

The depressed housing market and concomitant home price declines -- along with a poor jobs market – have had serious repercussions including high delinquency and foreclosure rates, sharp drops in homeowner equity and consumer net worth and lower stock prices. While many of these factors are still poor, some have recently improved significantly.

In the most recent Mortgage Bankers Association's (MBA) National Delinquency Survey released in mid-February 2010, MBA reported that the mortgage delinquency rate fell in 2009Q4 from the prior quarter's record high for the 37 year-old survey. In 2009Q4, the mortgage delinquency rate fell 0.17 of a percentage point to 9.47 percent. Compared to a year ago, the rate was still higher – rising 1.59 percentage points from 2008Q4.

MBA's chief economist Jay Brinkman indicated that delinquencies and foreclosures may be stabilizing:

We are likely seeing the beginning of the end of the unprecedented wave of mortgage delinquencies and foreclosures that started with the sub-prime defaults in early 2007, continued with the meltdown of the California and Florida housing markets due to overbuilding and the weak loan underwriting that supported that overbuilding, and culminated with a recession that saw 8.5 million people lose their jobs.

Foreclosure moratoriums and the Home Affordable Modification Program (HAMP) have created a backlog of mortgages more than 90 days overdue and thus pushed up the overall delinquency rate. As noted above, if HAMP is not successful, many of the homes in the program would go into foreclosure. Along these lines, MBA's chief economist Brinkman cautions:

Despite the drop in short-term delinquencies, foreclosure rates could continue to climb, however, based on the ability of borrowers 90 days or more delinquent to solve their problems. A sizable number of the loans in the 90+ day delinquent bucket are in loan modification programs. They are carried as delinquent until borrowers demonstrate they will make the payments agreed to in the plans.

Declining home prices have meant lower homeowner equity (house value less mortgage debt). Each quarter between 2007Q1 and 2009Q1, inclusive, the *amount* of homeowner equity fell. Over this period, the amount of homeowner equity fell by \$7.9 trillion (59.9 percent). As a result, the homeowner equity rate (the amount of homeowner equity/homeowner real estate value) dropped by 23.7 percentage points falling from 57.2 percent to 33.5 percent. Prior to the current housing bust, the homeowner equity rate had never fallen below 50 percent. Over the last three quarters, the amount of homeowner equity did rise. As a result, slightly over \$1.0 trillion in homeowner equity has been recouped and the homeowner equity rate has risen to 38.1 percent. While these gains are significant, they still leave homeowners with \$6.8 trillion less in homeowner equity than at the end of 2006.

However, if HAMP does succeed in reaching workable terms for a large number of those enrolled, these longer term delinquencies would become current again.

When the housing market was booming, lenders relaxed their lending standards and extended credit to subprime (more risky, less qualified) borrowers. When the booming market went bust, lenders tightened their lending standards – even beyond what they were prior to the boom.

Lending conditions remain tight, but the *rate* of further tightening has slowed substantially. As the Federal Reserve reported in its most recent *Senior Loan Officer Opinion Survey on Bank Lending Practices*:

The April [2010] survey indicated that most banks kept their lending standards unchanged in the first quarter, but that moderate net fractions of banks further tightened many terms on loans to businesses and households. For almost all loan categories for which the survey indicated a further net tightening of credit standards, the fraction of banks that reported having done so edged down and in a few categories banks eased standards, on net.

In the April 2009 Survey, on net (percent tightened less percent loosened), 49.0 percent of banks reported tighter lending conditions for prime mortgage loans. However, a year later only a net 1.9 percent of banks tightened. Similarly, while a net 64.0 percent of banks reported tighter lending conditions for nontraditional loans in the April 2009 Survey, that figure dropped to 4.8 percent in the April 2010 Survey.

In 2010Q2, on net, banks loosened lending standards for commercial and industrial loans to large and mid-sized firms (-7.1 percent). A year earlier, a net 39.6 percent of banks tightened lending standards.

While households borrowed at an \$808.5 billion annual rate in 2007Q4, that rate nearly halved in 2008Q1 and turned negative in 2008Q2. Through 2009Q4, household borrowing has remained negative. In calendar year 2009, households borrowed at a -\$237.0 billion rate. With the substantial declines in household borrowing, the personal savings rate has risen sharply. The rate hovered around 1.0 percent between mid 2007 and early 2008. However, between 2008Q4 and 2009Q4, the savings rate has ranged between 3.7 percent and 5.4 percent. While bolstering long-term growth, a higher savings rate dampens near-term growth. Last quarter (2010Q1) suggested a moderating savings rate with the rate falling from 3.9 percent to 3.1 percent.

Between 2007Q3 and 2009Q1, overall consumer net worth fell each quarter compared to the prior quarter. Over this period, net worth declined by \$17.4 trillion (26.4 percent). Prior to these declines, net worth had never fallen for more than two straight quarters in a data series dating back to 1952. Net worth rose in 2009Q2, 2009Q3 and 2009Q4. As a result, net worth has regained nearly \$5.6 trillion of the \$17.4 trillion it lost. However, 2009Q4 net worth (\$54.2 trillion) is still 17.9 percent less than its all-time peak 2007Q2 level.

Spillover into broader financial markets has meant sharp declines in stock prices along with the sharp house price declines. The U.S. stock market plummeted following Lehman Brother's declaring bankruptcy in mid September 2008. From the last trading day before the Lehman bankruptcy (September 12, 2008) and the market's March 9, 2009 trough, the Wilshire 5000 lost nearly half (46.3 percent) of its value. Since March 2009, the market has rebounded. By April 23, 2010, the index had regained essentially all that it had lost since the Lehman bankruptcy. In recent weeks, the index has lost some ground with the index down 5.3 percent from its pre-Lehman bankruptcy reading and off 21.1 percent from its December 10, 2007 peak.

There have been some indications that investor worries have moderated recently.

In fall 2008, at the height of the panic, banks were extremely wary of lending to each other. However, this wariness has lessened considerably. The TED spread (the difference between the three-month LIBOR rate, a benchmark for the rate banks charge each other to borrow from one another, and the 90-day Treasury bill rate) provides a good measure of banks' wariness to lend to one another. In mid-October 2008, at the height of the panic, the TED spread rose to a record 4.56 percentage points. The spread fell sharply over the next month, but remained above 2.00 percentage points into early December 2008. The spread then fell to around 1.00 percent by mid-January 2009 where it hovered until the end of April 2009. The spread then fell further, falling to its prior low level (0.20 percentage points) in late December 2009. In early March 2010, the spread dropped to a new record low (0.10 percentage points). The European credit crisis did increase the spread. However, at 0.30 percentage points (early May 2010), the spread remains at historically low levels.

The junk (below investment grade) corporate bond market provides an indication of bond market's lending wariness. In mid-December 2008, at the height of the panic and credit freeze,

those buying junk corporate bonds were demanding a record 21.8 percentage points higher interest rate (a 21.8 percentage point spread). A year later, the spread shrank to 6.75 percentage points. As of late April 2010, the spread stood at 5.44 percentage points. In recent weeks, the spread has increased, rising to 6.26 percentage points in early May. However, the spread remains well below late 2008 levels. The amount of junk bond issuance further highlights investors' reduced risk aversion. In 2009, junk bond issuance totaled a record \$147.7 billion – three times the \$47.7 billion issued in 2008. In 2010Q1, global junk bond issuance accounted for 12 percent of all corporate debt sales – double its 2009 share. In 2010Q1, companies issued \$75.5 billion in junk bonds – a new quarterly record.

The increased risk taking has helped spur increased investment and, in turn, greater growth. However, if investor optimism is significantly disappointed within the forecast horizon, this may serve to severely reduce investment and hence economic growth compared to baseline projections.

## Monetary Policy

### Interest Rates

Faced with credit market tightening, turmoil in the financial markets and the floundering housing market, the Federal Open Market Committee (FOMC) began cutting the target federal funds rate in September 2007. Between September 2007 and October 2008 in a combination of scheduled and unscheduled meetings, the FOMC cut the federal funds rate from 5.25 percent to 1.00 percent. Finally, at its December 16, 2008 meeting, the FOMC took an unprecedented step and lowered the target federal funds rate range to 0.00 percent to 0.25 percent. At the same time, the FOMC cut the discount rate to 0.50 percent, its lowest level since the 1940s.

In total, between September 2007 and December 2008, the Federal Reserve cut the target federal funds rate ten times and the discount rate eleven times. As a result, the target federal funds rate was cut a total of 500-525 basis points and the discount rate was cut 525 basis points.

While the Federal Reserve has terminated all but one of the special liquidity programs it undertook to combat various financial crises (see following section), the FOMC has continued to state that it will maintain interest rates at their record low levels for a significant length of time. As the FOMC stated in its most recent (April 28, 2010) statement:

The Committee will maintain the target range for the federal funds rate at 0 to 1/4 percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels of the federal funds rate for an extended period.

### Additional Recent Federal Reserve Bank Actions

In addition to dramatically lowering its key interest rates to record low levels, the Federal Reserve also addressed the financial and economic crises by injecting substantial liquidity into

financial markets. While having remained relatively flat prior to late 2008, Federal Reserve Bank reserves have exploded since mid-September 2008. Between mid-September 2008 and mid-December 2008, Federal Reserve Bank credit more than doubled from \$890.4 billion to \$2,225.8 billion. Reserve bank credit has remained around these extremely high levels with credit totaling \$2,318.2 billion in late April 2010.

In November 2008, the Federal Reserve Board created the Term Asset-Backed Securities Loan Facility (TALF) to support the asset-backed securities (ABS) market, a key source of credit for households and small businesses, by helping to unfreeze the ABS market and narrow outsized interest rate spreads:

The asset-backed securities (ABS) market has been under strain for some months. This strain accelerated in the third quarter of 2008 and the market came to a near-complete halt in October. At the same time, interest rate spreads on AAA-rated tranches of ABS rose to levels well outside the range of historical experience, reflecting unusually high risk premiums. The ABS markets historically have funded a substantial share of credit to consumers and businesses. Continued disruption of these markets could significantly limit the availability of credit to households and businesses of all sizes and thereby contribute to further weakening of U.S. economic activity. The TALF is designed to increase credit availability and support economic activity by facilitating renewed issuance of consumer and business ABS at more normal interest rate spreads.

When first introduced, the Fed announced plans, under TALF, to lend up to \$200 billion in loans for ABS backed by student loans, auto loans, credit card loans, and loans guaranteed by the Small Business Administration. In February 2009, the Federal Reserve stated that it was ready to expand the Term Asset-Backed Securities Loan Facility to \$1 trillion. The Fed also broadened the types of ABS supported by the facility (e.g., ABS backed by certain commercial mortgage-backed securities and certain residential mortgage-backed securities). In mid-March, the Fed again broadened the range of eligible ABS to include those backed by mortgage servicing advances, by loans or leases relating to business equipment, by leases of vehicle fleets and by floor plan loans.

The Fed officially launched the program in March 2009. On May 1, 2009, the Fed announced that, starting in June, commercial mortgage-backed securities (CMBS) and securities backed by insurance premium finance loans would be eligible collateral under the TALF. At first, the Fed authorized purchases through the end of 2009. However, in August, recognizing that “the markets for asset-backed securities (ABS) backed by consumer and business loans and for commercial mortgage-backed securities (CMBS) are still impaired and seem likely to remain so for some time,” the Fed extended the eligibility date for newly issued ABS and legacy CMBS through March 31, 2010 and newly issued CMBS to June 30, 2010.

In its December 16, 2009 statement, the FOMC indicated:

To provide support to mortgage lending and housing markets and to improve overall conditions in private credit markets, the Federal Reserve is in the process of purchasing \$1.25 trillion of agency mortgage-backed securities and about \$175 billion of agency debt. In order to promote a smooth transition in markets, the Committee is gradually slowing the pace of these purchases, and it anticipates that these transactions will be executed by the end of the first quarter of 2010. The Committee will continue to evaluate the timing and overall amounts of its purchases of securities in light of the evolving economic outlook and conditions in financial markets.

The Fed instituted numerous other liquidity programs in 2008 to address various financial crises. “In light of ongoing improvements in the functioning of financial markets,” the Fed has ended all of these other programs with most of the facilities having expired shortly after the January 2010 Consensus Conference:

- **Money Market Investor Funding Facility (MMIFF)** that provided liquidity to U.S. money market mutual funds and certain other money market investors. The facility expired on October 30, 2009.
- **Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF)** that financed the purchases of high-quality asset-backed commercial paper. The facility was originally to expire on April 30, 2009. However, the Fed extended the facility’s expiration date. The program expired on February 1, 2010.
- **Commercial Paper Funding Facility (CPFF)** that enhanced liquidity in the commercial paper markets. Like the AMLF, the CPFF expired on February 1, 2010.
- **Term Securities Lending Facility (TSLF)**: a weekly loan facility that promoted liquidity in Treasury and other collateral markets and thus fostered the functioning of financial markets more generally. The TSLF expired February 1, 2010.
- **Primary Dealer Credit Facility (PDCF)**: an overnight loan facility that provided funding to primary dealers and helped foster improved conditions in financial markets more generally. Like the TSLF, the PDCF expired February 1, 2010.

To date, TALF remains as the only operating recently established facility and then again, only for commercial mortgage-backed securities. The Fed completed its purchases of residential mortgage-backed securities (MBS) at the end of March 2010.

The massive size and broad range of the Federal Reserve’s programs has played a critical role in facilitating and improving the functioning of financial markets and thus the overall economy.

Significant uncertainty surrounds the recent expiration of all but one of these programs. While the Fed has completed its purchases of MBS, it has not yet begun sales of the MBS it has acquired. Despite substantial Fed purchases of assets, credit growth has been weak. However, the potential for massive credit growth and a spike in inflation means the Fed will likely look to sell off some of the assets they now hold – notably some of the more than \$1 trillion in mortgage-backed securities it now holds. There remains substantial uncertainty surrounding the Fed’s timing and method of these sales – and even greater uncertainty about the impact of these sales on financial and housing markets and the broader economy.

### Fiscal Policy

In late 2008, in the wake of the Lehman Brothers’ debacle, Congress passed a \$700 billion maximum financial rescue package, the Troubled Asset Relief Program (TARP), designed to complement the Fed’s actions to restart lending. TARP’s goal is to enhance liquidity and, hence, financial institutions’ willingness to lend. The U.S. Treasury used the appropriated funds to buy ownership into major financial institutions and instituted a program to assist companies issuing credit cards, car loans and/or student loans. TARP also raised the FDIC limit on insured deposits from \$100,000 to \$250,000.

To date, under TARP, the federal government has expended approximately \$550 billion in gross outlays. Net of repayments by participants, the program is estimated to cost slightly more than \$100 billion. Early repayments suggest that a certain measure of stability is returning to the financial sector.

On February 17, 2009, the President signed the American Recovery and Reinvestment Act (ARRA). The Act took a multi-pronged approach and included federal tax relief, expansion of unemployment benefits and other social welfare provisions, and domestic spending in education, health care, and infrastructure, including the energy sector. The Congressional Budget Office estimates ARRA’s combined direct expenditures and tax expenditures to exceed \$850 billion over the Act’s 11-year span. The bill provided for tax cuts, with the bulk going to individuals. The key element of the individual tax cuts was a \$400 per worker (\$800 per couple) tax credit. The Act also included an expansion of the child tax credit and the college credit. Complementing the worker tax credit, the Act called for a one time \$250 payment per recipient to those receiving Social Security. In addition, the Act:

- Increased Medicaid funding to states.
- Provided a 65 percent subsidy of health insurance premiums for the unemployed.
- Provided aid to schools districts to help in preventing local school district layoffs and cutbacks.
- Provided for extended unemployment benefits and increased spending on the Food Stamp program
- Provided increased funding for infrastructure spending for projects such as bridge and highway projects.

The federal government, at an estimated cost of \$90 billion, will likely enact a bill extending unemployment insurance coverage through the end of FY 2011. However, the lion's share (70 percent) of ARRA funds will be expended by late-2010, introducing a significant element of uncertainty especially for the 2011 forecast. In addition, the Bush tax cuts are set to expire at the end of 2010. The cuts' expiration introduces further significant uncertainty into the 2011 forecast concerning which cuts will and will not be extended.

The U.S. government has engaged in a number of programs to bolster the housing market. In early 2009, the federal government enacted "The Making Home Affordable Program." The program had three elements:

- \$200 billion for preferred stock purchases in Fannie Mae and Freddie Mac with the goal of keeping mortgage rates low.
- Home Affordable Refinance Program which relaxed loan-to-value ratios for Fannie Mae and Freddie Mac to allow slightly underwater (owing more than house is worth) borrowers to take advantage of the low rates.
- Home Affordable Modification Program (HAMP) with the goal of moving the loan servicing industry to make sustainable loan modifications.

In late December 2009, the U.S. Treasury said it would cover an unlimited amount of losses at mortgage giants Fannie Mae and Freddie Mac through 2012. As of December 2009, the U.S. government, directly or indirectly, underwrote nine of every 10 new residential mortgages, nearly twice the percentage before the crisis.

The federal government also enacted homebuyer tax credits. The original \$8,000 credit applied only to first-time homebuyers and was due to expire at the end of November 2009. However, the first-time homebuyer credit's deadline was extended to the end of April 2010. In addition, a second \$6,500 credit was added for existing homeowners who have lived in their home for at least five consecutive years.

### Inflation

Between June 2008 and February 2009, oil prices fell from a record \$133.93 per barrel to \$39.16 per barrel. Oil prices have since trended upward, increasing to \$84.48 in April 2010. Improving conditions in many major economies have pushed oil prices up from their mid-2009 trough.

Relatively lower oil prices have kept gasoline prices down. Following oil prices down, the average price of gasoline fell from a record \$4.05 a gallon in mid-July 2008 to \$1.59 a gallon by the end of December 2008 (Energy Information Agency). Gasoline prices have risen significantly since the end of 2008 with the price of a gallon of gasoline up by more than one dollar to \$2.87 by early May 2010. Prices, however, remain significantly lower than their peak levels. This decline has served to increase consumers' discretionary spending.

Like gasoline prices, natural gas prices rose to extremely high levels in mid 2008, then fell sharply before bottoming in late 2009. Even while having risen significantly from their 2009

trough, natural gas prices have remained well below their mid-2008 highs. In July 2008, natural gas prices rose to their second highest level in history, but then dropped substantially. By July 2009, natural gas prices had fallen 69.1 percent compared to a year ago. Natural gas prices have since risen with March 2010 prices up 42.3 percent from a year ago. Nevertheless, March 2010 prices remain 57.4 percent lower than the July 2008 recent peak.

In its April 28, 2010, meeting statement, the FOMC affirmed: “With substantial resource slack continuing to restrain cost pressures and longer-term inflation expectations stable, inflation is likely to be subdued for some time.” Similarly in its April 2010 Beige Book, the Federal Reserve observed:

Wage pressures were characterized as minimal or contained.

.....

Retail prices generally remained level, but some input prices increased. Where producers faced cost pressures on inputs, they were largely unable to pass those prices downstream to selling prices . . .

### Oil Prices Up from Early 2009 Still Down Significantly from mid-2008



Source: Federal Reserve Bank of St. Louis.

While 84 percent of manufacturing firms surveyed by the Institute for Supply Management (ISM) reported paying higher prices in mid-2008, only 2 percent reported paying higher prices in December 2008. That figure rose to 38 percent by August 2009 before falling to 20 percent in November 2009. Since November, the share reporting higher prices has trended higher with 60 percent reporting higher prices in April 2010.

Similarly, while 72 percent of non-manufacturing firms reported paying higher prices in mid-2008, only 9 percent reported having done so in December 2008. The percentage alternately

rose and fell over the next year with the share twice dropping again to 9 percent. Since falling to 9 percent in September 2009, the percentage of firms reporting higher prices has trended upward. In April 2010, 42 percent reported paying higher prices.

While overall July 2008 producer prices (finished goods) were up tremendously from a year ago (9.9 percent), July 2009 producer prices were actually *down* 6.9 percent from a year ago – the largest year-over-year decline in producer prices in a history dating back to 1948. Since November 2009, producer prices have risen compared to a year ago with the year-over-year index increase growing to 6.0 percent in March 2010. However, core producer price inflation (excluding food and energy) has remained modest. Over the past six months, core producer prices year-ago increases have ranged between 0.7 percent and 1.2 percent. In March 2010, core producer prices rose 0.9 percent compared to March 2009.

In July 2008, the overall year-over-year consumer price inflation rate stood at 5.6 percent, a 17-year high. However, by December 2008, consumer price inflation was essentially flat (0.1 percent). Between March 2009 and October 2009, the economy saw deflation for the first time since 1955. The economy saw the largest cyclical consumer price decline in July 2009 with a 2.1 percent decline. By October, consumer prices were nearly flat (-0.2 percent). Since November 2009, year-over-year consumer price inflation has ranged between 1.8 percent and 2.7 percent. Between March 2009 and March 2010, consumer prices rose 2.3 percent. Core consumer inflation decelerated from 2.5 percent in September 2008 to 1.4 percent in August 2009. After accelerating slightly during 2009Q4, core consumer inflation has again slowed with core consumer prices rising only 1.1 percent between March 2009 and March 2010.

The Economic Cycle Research Institute's (ECRI) future inflation gauge (FIG) indicates that price pressures will remain relatively moderate in the near term. In early 2009, the FIG fell to the upper 70s to its lowest levels since 1958. Over the past year, the index gradually increased each month, rising to 102.1 in March 2010. The index dropped slightly in April 2010 to 100.8. While 22 points above the March 2009 reading, the March 2010 index remained well below the FIG's last peak (October 2005, 125.1).

### Major Economic Indicators

On balance, major economic measures indicate that the U.S. economy has improved since the January 2010 Consensus Conference and that the recovery that likely started in mid-2009 is gaining strength.

Between August 2008 and December 2008, **the ISM manufacturing index (PMI)** fell each month. By December, the index had fallen to 32.5 -- its lowest level since June 1980. The index then rose each month between January 2009 and August 2009. As a result, the August 2009 reading signaled an expanding manufacturing sector for the first time since January 2008. The index has signaled expansion each month since August 2009. In April 2010, the index rose to 60.4 – its highest reading since June 2004.

The **ISM non-manufacturing business activity index** fell sharply in both October 2008 and November 2008. As a result, November's reading (33.3) represented the index's lowest reading in the index's 11-year history. The index posted solid gains in December 2008 and in January 2009. Then – albeit haltingly – the index rose above 50.0 by August. After signaling growth through October, the index fell sharply in November, falling just below 50.0 (49.6). However, the index rose above 50.0 in December and has remained above the expansionary threshold through April 2010. In April, the index rose to 60.3 – its highest reading since April 2006.

**Industrial production** worsened considerably between mid-2008 and mid-2009. While the three-month average of industrial production was down 0.7 percent from a year ago in July 2008, the average fell an astounding 12.9 percent between July 2008 and July 2009. The July 2009 decline was the largest decline since the sharp downturn in 1946, following the end of World War II. Between July 2009 and January 2010, year ago percentage drops shrank so that by January 2010, the average was down 2.0 percent compared to a year earlier. The average then rose on a year-ago basis in February and March, in which the average increased 2.4 percent from March 2009. The increases point to an improving manufacturing sector. Nevertheless, the March 2009 average remained 10.6 points below March 2008.

As industrial production fell in 2008 and 2009, so too did **capacity utilization**. Between February 2008 and July 2009, the three-month average of capacity utilization fell every month compared to the prior month. As a result, the average fell to a record low 68.7 percent for the series which dates back to 1967. Between July 2009 and March 2010, the average rose each month. In March, the average stood at a historically low 73.0 percent. Prior to the recent record lows, the average had not been below 73.0 since early 1983.

Calendar year 2009 saw double-digit percentage year-ago declines in the three-month average of **new durable goods orders** in all but one month. In sharp contrast, the average fell only slightly in January 2010 and rose in both February and March 2010. The March 2010 average was up 15.0 percent compared to a year earlier. Similarly, core new durable goods orders rose 12.4 percent between March 2009 and March 2010.

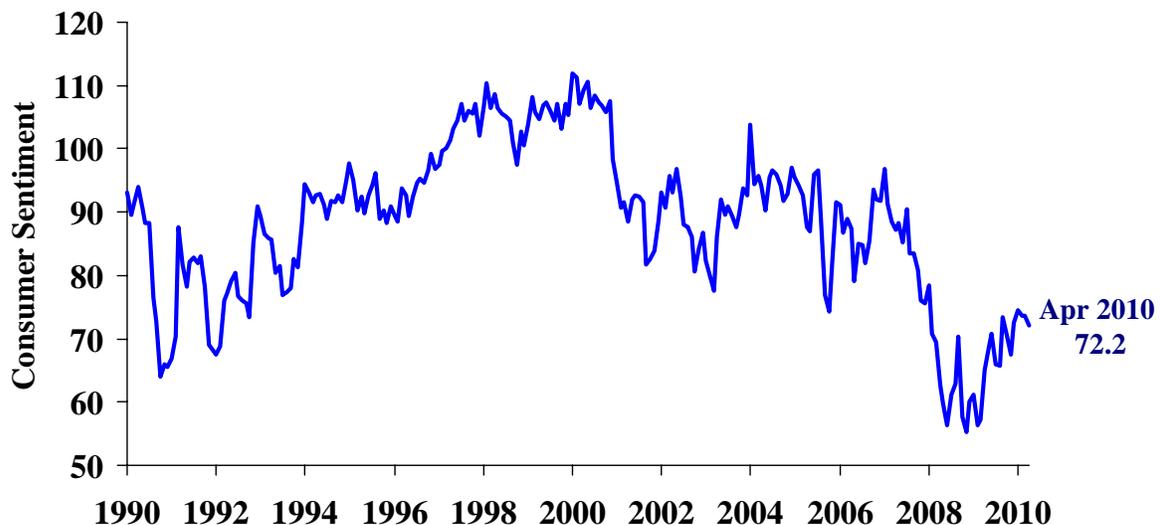
In November 2008, the three-month average of **retail sales**, excluding motor vehicle and gasoline sales, fell compared to a year ago for the first time in a history extending back to 1992. The average fell compared to a year ago each month between November 2008 and November 2009. However, declines lessened beginning in the second half of 2009. In July 2009, the average reported its greatest year-ago decline (-3.9 percent). By November 2009, the average was down only 0.6 percent from a year earlier. In December 2009, the average rose compared to a year ago. By March 2010, the average was up 2.8 percent compared to a year ago.

The **Conference Board index of consumer confidence** plummeted to a record low 25.3 in February 2009 – 51.1 points lower than a year earlier. The index rose sharply in April and May, increasing to 54.8. Since May 2009, the index has largely moved within a 10-point range between the mid 40's and the mid 50's. Depressed by poor weather conditions in February 2010, the index fell to 46.4 – its lowest reading since April 2009. However, the index rebounded in March and April 2010. In April, the index rose to 57.9 – its highest reading since August 2008 and 17.1 points higher than a year ago. However, the index remains at historically low levels.

In November 2008, the **University of Michigan index of consumer sentiment** fell to 55.3 – a 28-year record low. The index rose in December before falling back nearly to November’s low in February 2009. Between March 2009 and June 2009, the index rose each month – rising to 70.8 in June. Since June, the index has moved in a saw-toothed fashion. In September, the index reached its 2009 high (73.5). The index then fell in the next two months before recovering nearly all those losses in December, rising to 72.5. In January 2010, the index reached a two-year high (74.4) before falling to 72.2 in April. While the April 2010 reading is well above the 28-year low registered in November 2008, the index remains at historically low levels.

Since mid April 2007, the **ABC News/Washington Post Consumer Comfort index** has not been above -40.0 and has moved in a relatively narrow range between -40 and -54. In late November 2008, the index fell to -54 -- setting the all-time record low for the index’s now 24-year history. In early May 2010, the index stood toward the upper end of the three-year range at -47. These readings stand in marked contrast to the index’s record high of +38 set in early 2000.

### **Consumer Sentiment Up from 28 Year Low But Still At Historically Low Levels**



Source: University of Michigan Survey of Consumers.

In late 2008 and early 2009, the **Conference Board index of leading economic indicators** fell almost every month. However, following March 2009, the index has reported twelve consecutive monthly increases. The March 2010 leading index was 11.9 percent higher on a year-ago basis. This is the fastest year-ago growth rate seen since the 1980’s and is a dramatic change from its March 2009 decline of 3.9 percent.

In a dramatic reversal from late 2008 and early 2009, recent **Economic Cycle Research Institute (ECRI) weekly leading index** readings point to recovery. In early December 2008,

the index's smoothed annualized growth rate fell to its lowest reading in the index's forty year history (-29.9). Over the next six months, the index still pointed at decline, but a progressively slower one. The growth rate turned positive in mid-June 2009 and then accelerated over the next few months. By early October, the rate had risen to +28.5 – a record *high*. Since October 2009, the rate has slowed. In late April, the growth rate fell to 12.3, the lowest growth rate since late July 2009. In early May, the growth rate rose to 12.7. While considerably slower than in October 2009, the rate remains relatively high on a historical basis.

## Employment

Several employment readings point to a bottoming out of employment. Some even suggest that the labor market has recently started expanding or is at least on the verge of expansion.

The U.S. unemployment rate rose sharply between April 2008 and October 2009. Over this period, the unemployment rate doubled, rising from 5.0 percent to 10.1 percent – the highest monthly rate since April 1983. The rate fell slightly in November 2009 to 10.0 percent and declined again in January 2010, falling to 9.7 percent. The rate remained unchanged through March 2010 before rising to 9.9 percent in April 2010. Changes in household employment have outpaced changes in the number unemployed in each of the first four months of this year. In April, household employment rose by 550,000 persons – the largest household employment increase since late 2007.

Several recent indicators point to a reduction in layoffs. At the same time, many point to a continued poor hiring picture.

In early January 2010, the four-week average of unemployment insurance initial claims fell for the 19th straight week to its lowest level in over a year. Between early January and early May, the average has fluctuated. At 463,250 initial claims, the average is down a striking 24.9 percent compared to a year ago. However, between the January 2010 Consensus Conference and early May, the average was essentially unchanged – in sharp contrast to the 26.9 percent drop between the May 2009 Conference and the January 2010 Conference.

Challenger Report data indicate, that, through April 2010, job layoffs have eased considerably over the past year. Year-to-date, average layoffs have fallen from 178,000 per month to 55,000.

According to the most recent Job Openings and Labor Turnover Survey available, the number of job openings rose in March 2010 to 2.7 million – up 0.9 percent from February 2009. This year-ago increase is in sharp contrast to the 26.1 percent October 2009 decline (the last reading available prior to the January Conference). Further, between October 2009 and March 2010, job openings rose 5.8 percent. The March 2010 hiring rate (3.3 percent) was up 0.2 of a percentage point compared to the October 2009 reading and is 0.3 of a percentage point above the 3.0 percent record low, set in early 2009, for the series' nine year history. The March hires level was up 7.8 percent from a year ago and up 6.0 percent from the October 2009 level. However, the March 2010 hires rate remains significantly below the pre-2009 average monthly hire rate (3.8 percent).

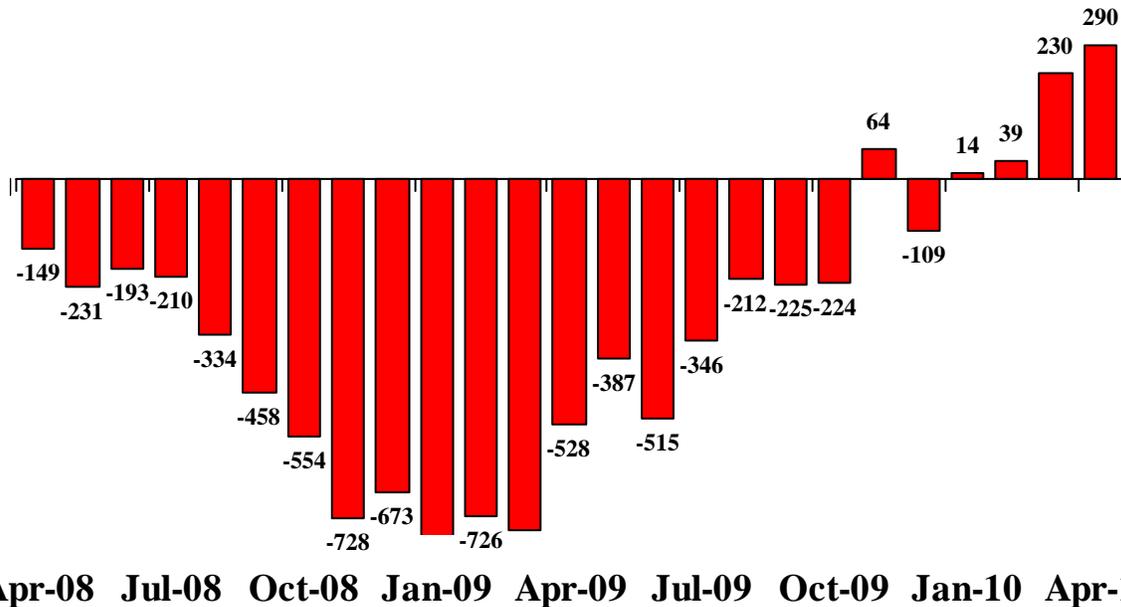
According to the April 2010 Conference Board survey, the share of consumers viewing jobs as plentiful has risen 1.7 percentage points to 4.8 percent since December 2009. Similarly, the percentage of those who find jobs scarce fell 3.1 percentage points to 45.0 percent. The recent improvements are encouraging. However, April's share of those finding jobs scarce is only modestly lower than the 26-year high set in October 2009 (49.4 percent). Similarly, April's share of those finding jobs plentiful is substantially below pre-recession readings exceeding 25 percent.

According to the National Federation of Independent Business, 11 percent of small businesses in March 2010 had unfilled job openings -- up two percentage points from March but only three points higher than the 23-year low registered in November 2009.

Between January 2008 and October 2009, wage and salary employment fell every month, declining 8.3 million jobs to its lowest level since September 1999. Employment rose in November 2009 but fell in December 2009. Wage and salary employment rose in each of the first four months of 2010. January and February gains were slight, averaging 26,500 jobs. However, the labor market has reported gains exceeding 200,000 jobs in each of the past two months. In April, employment rose by 290,000 jobs -- the largest one-month increase in four years.

Since October 2009, employment has risen by 528,000 jobs. Compared to a year ago, April 2010 employment is down by 1.4 million jobs. However, the recent sizeable increases suggest that the labor market may have at least stabilized and may be rebounding.

## Possible Signs of a Labor Market Rebound in Recent Months (Monthly Change in Thousands)



Source: Bureau of Labor Statistics, U.S. Department of Labor.

Between February 2007 and December 2009, manufacturing sector employment fell each month. Over this period, the sector lost 2.5 million jobs. Manufacturing employment job losses were particularly severe between late 2008 and the first half of 2009. However, like the overall labor market, manufacturing employment job losses slowed over the second half of 2009. Then, in the each of the first four months of 2010, manufacturing employment increased modestly. April 2010 sector employment was still down by 428,000 jobs (-3.5 percent) from a year ago. Nevertheless the sector’s slowing losses followed by modest gains indicate that manufacturing employment, similar to overall employment, may be stabilizing.

The bursting housing bubble and credit crunch have exacted an enormous toll on the construction industry. Construction employment fell every month between July 2007 and February 2010 with job losses totaling 2.1 million (-27.4 percent). Sector job losses were particularly severe in late 2008 and the first half of 2009. In April 2009, construction employment had fallen by 1.2 million from a year ago. Declines moderated somewhat in the second half of 2009. Sector job losses worsened in January 2010 and February 2010. The sector employment rose slightly both in March 2010 and April 2010. April 2010 construction employment was down by 554,000 jobs from a year ago. In April 2009, construction employment had fallen by 1.2 million.

Temporary help services employment, a leading indicator for the overall jobs market, suggests that labor markets are heading toward stability and possibly a sustainable recovery. The temporary jobs sub-sector registered a 249,000 job *loss* in the first four months of 2009, while

the sub-sector *gained* 143,700 jobs in the first four months of this year. Further, April 2010 saw the highest temporary help services employment level since November 2008

Between August 2008 and September 2009, the ISM manufacturing employment index signaled a worsening manufacturing sector employment picture (index less than 50.0) every month. However, the index has improved considerably from early 2009. In 2009Q1, the index averaged 28.0 (a record low for a series that dates back to 1948). In contrast, in 2010Q1 the index averaged 54.8. In six of the seven most recent months, the employment index signaled improving sector employment with a November reading (49.6) only slightly under 50.0. The April 2010 reading (58.5) was the index's highest level since January 2005.

Since January 2008, the ISM non-manufacturing component index has signaled worsening employment in the services sector. However, the index has improved substantially compared with its November 2008 record low (31.1).

### Vehicle Sales and Production

Calendar year 2009 light vehicle sales totaled 10.3 million units – well below the 13.2 million unit rate for calendar year 2008 and substantially less than the 16.1 million unit sales rate in 2007. The 10.3 million unit rate is the lowest sales rate since calendar year 1970 (9.9 million). CY 2009 domestic sales were down 22.2 percent while foreign sales dropped 19.8 percent.

In early 2009, light vehicle sales fell off considerably, compared to 2008, to historic lows. Between May 2008 and February 2009, sales fell from a 14.2 million unit rate to a 9.1 million unit rate – the lowest light vehicle sales rate since December 1981. Adjusting for population, the February sales rate was the lowest since 1961. Vehicle sales rebounded slightly but remained below a 10.0 million unit rate through June 2009. With the enactment of the federal government “Cash for Clunkers” program, vehicle sales rose above a 10.0 million unit rate in July and increased substantially in August, rising to its highest sales rate in over a year (14.1 million unit rate). Following the incentive program, sales retreated in September before rising gradually over the balance of 2009. Sales fell in January 2010 and February 2010, rose in March 2010 and fell in April 2010. Along with increased sales, vehicle inventories fell by almost one-fifth from April 2009 to April 2010 with days supply of inventory falling by 28 days.

Vehicle sales flagged under the weight of weaker employment, substantially tighter credit markets and dramatic declines in household assets. The Big Three's difficult situation seriously harms Michigan's economy, which is tightly linked to the Big Three as the State's three largest private sector employers.

Over the first four months of 2010, the vehicle sales rate has averaged 11.0 million units, 17.1 percent higher compared to a 9.4 million rate a year earlier but only 1.6 percent above 2009Q4 sales.

In late December 2008, using TARP funds, the Bush Administration extended a bridge loan package to help General Motors and Chrysler keep afloat. Both companies, however, needed more loans. As a condition of additional assistance, the Obama Administration required each

firm to restructure in a manner that the Administration found necessary to assure financial viability. Working in close concert with the federal government, Chrysler reached agreements with its major creditors and the UAW, but failed to reach agreement with a few of its creditors by the May 1, 2009 deadline set by the Administration. As a result, the company entered into bankruptcy proceedings. GM filed for bankruptcy protection a month later.

Fortunately, Chrysler and General Motors remained in bankruptcy for relatively short periods of time. Chrysler emerged from bankruptcy on June 10, 2009 upon sealing a deal with Fiat under which the Italian automaker took partial ownership of Chrysler along with management control. GM emerged from bankruptcy on July 10, 2009 with the U.S. federal government taking 61 percent ownership of the auto company and the Canadian government taking 12 percent ownership.

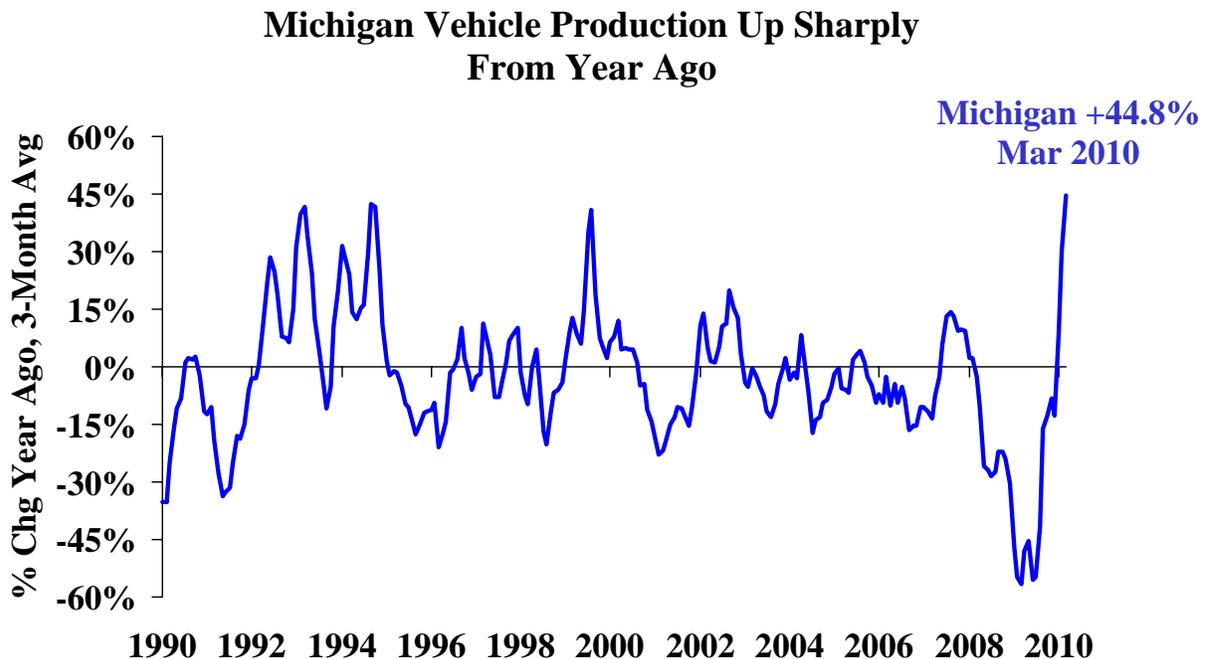
There are some recent events that suggest General Motors' and Chrysler's situation is improving. Between July 10, 2009, when GM came out of bankruptcy, and the end of 2009, the company lost \$4.3 billion. However, in 2010Q1, General Motors reported net income of \$865 million and an operating profit of \$1.2 billion. In addition, in late April 2010, General Motors repaid \$8.1 billion in U.S. and Canadian government loans five years ahead of schedule. GM remains more than 70 percent government-owned. Between June 10, 2009, when Chrysler emerged from bankruptcy, and the end of 2009, the company posted losses totaling \$3.8 billion. However, in 2010Q1, Chrysler lost substantially less (\$197 million). Further, Chrysler did record an *operating* profit in the first quarter and increased its cash reserves by \$1.5 billion. The other Big 3 company, Ford Motor Company, made a profit exceeding \$2 billion in 2010Q1 -- its fourth straight quarterly profit.

In March 2010, the three-month average of U.S. vehicle production was up 60.1 percent compared to a year ago. Year-ago comparisons have improved markedly as General Motors and Chrysler plants that were on extended closures have reopened. In mid-2009, U.S. vehicle production had been *down* by more than 50 percent compared to mid-2008 levels.

## Current Michigan Economic Conditions

### Vehicle Production

As has been the case nationally, Michigan vehicle production has risen sharply from a year ago. In March 2010, the three-month average of Michigan vehicle production was up 44.8 percent compared to a year ago. Auto production was up 41.3 percent while truck production was higher by 46.6 percent.



Source: Automotive News and Michigan Department of Treasury.

### Employment

Michigan's economy relies heavily on the performance of the manufacturing sector in general and the auto industry specifically. Given extremely weak manufacturing employment performance, declining vehicle production, continued declines in Big Three market share along with continued supply rationalization among vehicle suppliers, Michigan's employment performance has been below the national average. Substantial productivity gains in the vehicle industry have also contributed to Michigan's weaker employment performance.

In 2009, Michigan lost 6.9 percent (285,600) of its wage and salary jobs. The 6.9 percent decline represented the state's ninth straight annual employment decline and Michigan's sharpest employment drop in over 50 years. In contrast, Michigan employment had declined 1.4 percent and 2.5 percent in 2007 and 2008, respectively. In 2009, Michigan manufacturing employment plummeted, dropping 19.4 percent.

From Michigan's employment peak in June 2000 to March 2010, Michigan has lost 864,700 jobs (-18.4 percent). Since June 2000, Michigan manufacturing employment has fallen by 450,200 jobs, a loss of nearly half (49.7 percent) of the jobs in that sector at the state's overall employment peak.

Michigan's unemployment rate has remained in double-digits for each of the past 17 months. In December 2009, Michigan's unemployment rate increased to 14.5 percent – the state's highest rate since June 1983. Michigan's unemployment rate has since fallen – dropping to 14.1 percent in February 2010 and remaining unchanged in March 2010. In March, Michigan had the highest state unemployment rate in the nation.

### Housing Market

Despite not being one of the major participants in the housing boom, with skyrocketing home prices and rising housing starts, Michigan was hit disproportionately hard from the housing bust due to sharply declining employment.

Between CY 2005 and CY 2009, Michigan housing unit authorizations fell 84.8 percent, declining from 45,328 units to 6,884 units. Nationally, authorizations dropped 73.0 percent over this period. From a year ago, 2010Q1 housing unit authorizations in Michigan were up sharply (84.1 percent) compared to a 22.3 percent increase nationally.

In February 2010, according to Case-Shiller house price measures, the Detroit MSA recorded a 5.3 percent year-over-year house price decline, compared to a 0.7 percent average *increase* for the twenty U.S. metro areas surveyed for the measure. However, Detroit's January 2010 year-ago decline was the area's smallest drop since November 2006.

In April 2010, Michigan ranked seventh among U.S. states in foreclosure rates with one foreclosure for every 236 housing units -- compared to one foreclosure for every 386 units nationally (Realty Trac).

### Personal Income

In 2009, Michigan personal income fell in every quarter compared to a year earlier. However, the declines have shrunk. While in 2009Q1 Michigan personal income was down 3.5 percent from a year ago, during 2009Q4 Michigan personal income dropped 2.2 percent from 2008Q4 – compared to a 1.0 percent drop nationally.

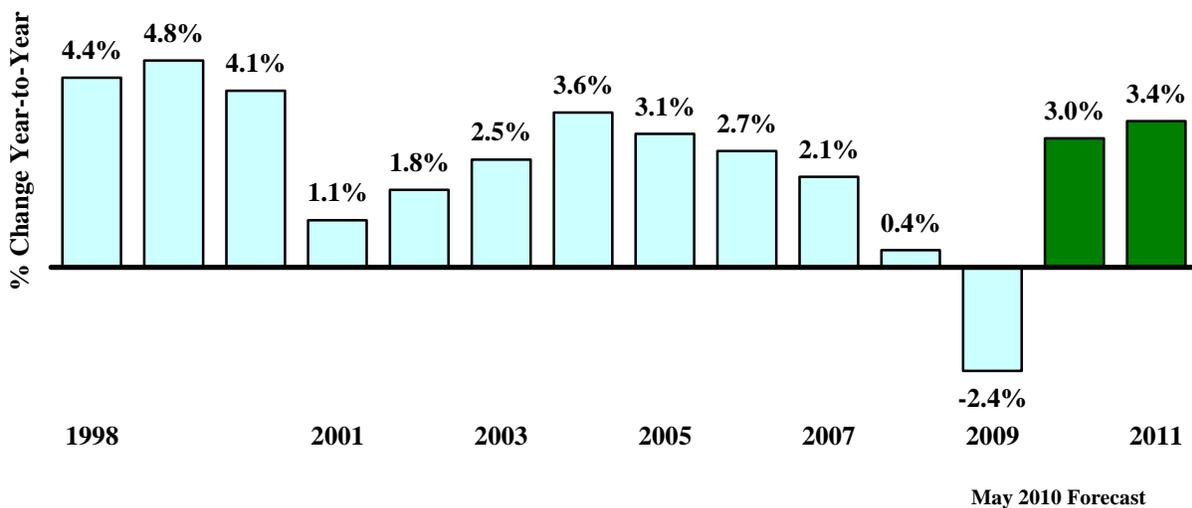
Michigan wage and salary income has decreased in each of the past six quarters. 2009Q3 saw the largest year-ago percent drop (-9.0 percent). In 2009Q4, Michigan wages and salaries were down 8.6 percent from 2008Q4. Nationally, wages and salaries fell 4.3 percent. In 2009Q4, manufacturing wages and salaries were down very sharply in Michigan from year ago (-19.6 percent) compared with an 8.6 percent decline nationally.

## **2010 and 2011 U.S. Economic Outlook**

### Summary

After declining 2.4 percent in 2009, real GDP is forecast to rise 3.0 percent in 2010 and then increase 3.4 percent in 2011.

### **Real GDP Rebounds in 2010 and 2011**



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2010.

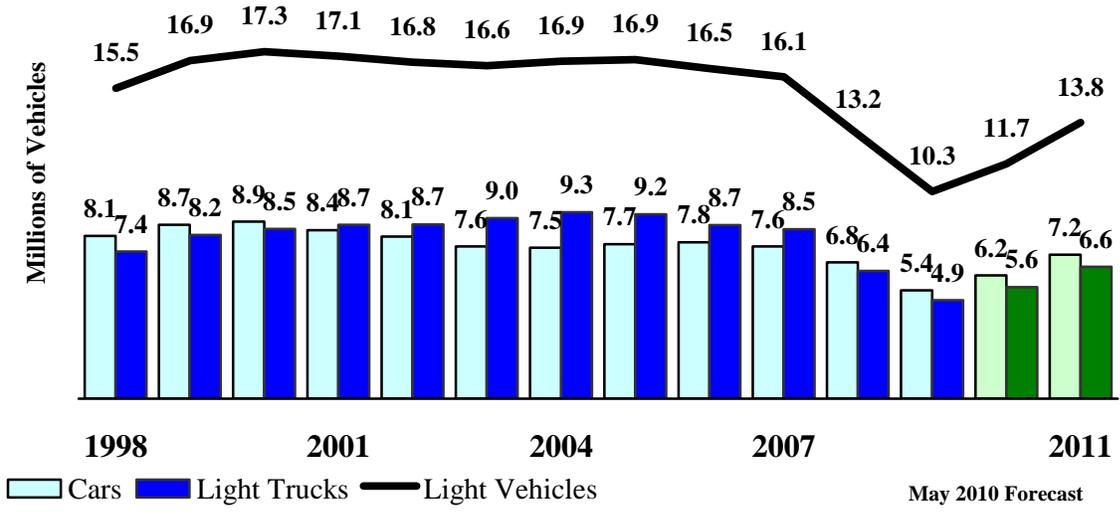
The U.S. economy contracted severely in 2008Q4 (-5.4 percent annual rate) and in 2009Q1 (-6.4 percent rate). Real GDP fell slightly in 2009Q2 before reporting modest growth in 2009Q3. Boosted by inventory investment, real GDP then rose sharply (5.6 percent) in 2009Q4; growth moderated in 2010Q1. Growth is expected to slow further in 2010Q2 before accelerating through mid-2011. Growth then moderates over the second half of 2011.

Light vehicle sales are projected to increase to 11.7 million units in 2010 and rise again in 2011 to 13.8 million units.

The U.S. unemployment rate is forecast to rise to 9.5 percent in 2010 – the highest rate since 1983. The unemployment rate is then expected to fall to 8.9 percent in 2011. After falling 3.7 percent in 2009, U.S. wage and salary employment is forecast to fall slightly (-0.8 percent) in 2010. In 2011, employment is expected to rise 1.6 percent. Following their first decline since 1955, overall consumer prices are forecast to rise 2.2 percent in 2010 and increase 2.0 percent in 2011.

The short-term Treasury bill rate is forecast to rise slightly to 0.4 percent from 2009 to 2010. The rate is then expected to increase to 1.9 percent in 2011. Corporate interest rates are forecast to change slightly over the forecast horizon with the rate rising from 5.3 percent in 2009 to 5.4 percent in 2010 and 5.7 percent in 2011. Up from 5.0 percent in 2009, mortgage rates are forecast to average 5.4 percent in 2010 and 5.8 percent in 2011.

### Vehicle Sales Rise from Near 40-Year Low



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2010.

### Assumptions

Oil prices are expected to rise from the upper \$70's in 2009 to the low \$90's in 2011. Natural gas prices are forecast to increase substantially over the forecast horizon. Natural gas prices are forecast to rise 57.0 percent in 2010 and 9.4 percent in 2011.

The housing market is expected to remain extremely weak throughout the forecast horizon. In 2009, starts averaged 554,000 units (well below any level ever seen before). Starts are expected to rise to 683,300 units in 2010 and 1,003,200 units in 2011.

The forecast assumes that the FOMC will hold the target federal funds rate constant at a record low 0.00-0.25 percent range through the first half of 2010 as the Fed continues to contend with weak financial markets. The Fed is then expected to begin increasing the target rate, which averages 1.6 percent over the second half of 2011.

With more households unwilling or unable to borrow and more households becoming increasingly restrained in their spending habits, the household savings rate is assumed to average 3.7 percent in 2010. With the financial markets and the economy firming, the savings rate is then assumed to decline to 2.3 percent in 2011.

### Forecast Risks

The economic recovery is facing some severe challenges. The recession did serious damage to household balance sheets and psyches, and significantly tightened credit conditions. The housing sector remains weak with housing starts near the record low set in the recession. Home values (and the worth of other assets) are still well below their pre-recession peaks. At the same time, the non-residential construction sector is worsening.

A key question is whether the current recovery will falter as fiscal and monetary policies that helped pull the economy out of recession are phased out resulting in a “W-shaped” recovery in which the economy falls back into recession followed by a second recovery.

In large part, the major risks to the baseline represent the four major factors that precipitated the recession: the housing market, the roiled financial markets and the accompanying credit crunch, oil prices, and a depressed light vehicle sales market.

**Housing Market.** The baseline forecast expects substantial increases in housing starts each quarter over the forecast horizon. If the housing market fails to pick up as forecasted, the U.S. and Michigan economies would be weaker than expected. However, despite the projected increases, 2010 housing starts total well below 1.0 million units and only slightly above 1.0 million units in 2011. A stronger housing market would boost the overall economy. In addition, a substantially worsening non-residential construction market poses a significant risk.

**Credit Crunch Impact.** The baseline forecast assumes that financial markets will stabilize soon and remain stable even with the Federal Reserve’s having ended many of its current support programs. The fragility of the financial system poses a substantial downward risk to the baseline forecast. While less problematic than last year, significant credit market fragility remains. There continues to be, for example, a significant number of small banks failing. In addition, the junk bond market’s growth, while an indicator of easing credit conditions and heightened optimism, poses a threat as a larger junk bond share increases the overall investment risk.

While the recent the International Monetary Fund and European Union bailout package reduces the Greek government’s chances of default, credit problems in Greece and now Spain and Portugal will place a strain on European financial markets and the continent’s economic growth. Depending upon the eventual magnitude and severity of the credit problems, these strains could spread to other nations’ financial markets and economies (possibly including the U.S.).

**Auto Industry.** The baseline forecast is for steadily improving light vehicle sales, which are forecast to rise nearly to a 15.0 million unit rate by 2011Q4. However, the forecast assumes that all three Big Three vehicle manufacturers remain viable. While recent events bolster this assumption, the failure of one or more of the Big Three constitutes a large downside risk to the national forecast, but especially to the Michigan economic forecast. Along similar lines, continued financial pressures upon auto suppliers pose a significant risk to both the U.S. and Michigan economic outlooks.

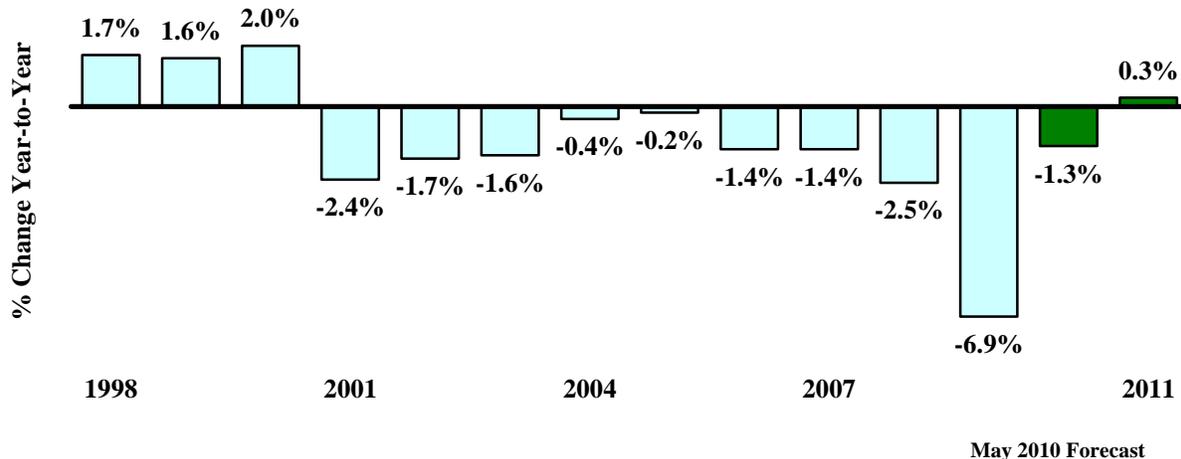
**Oil Prices.** Geopolitical concerns, increased demand, or a major supply disruption could raise prices well above the assumed range (\$80-90 a barrel). Higher oil prices (and consequently higher gasoline prices) would retard domestic growth by depressing consumer sentiment, reducing households' disposable income and increasing input costs to businesses. Higher oil prices may lead the Federal Reserve to hike rates sooner than expected. This risk is heightened as many other countries around the world recover and thus boost demand. Alternatively, if Asian oil demand decreases due to lower and more sustainable growth rates in China, prices could be lower than assumed.

**Other Factors.** Geopolitical factors (such as a domestic terrorist attack) remain a downside risk to the baseline forecast.

## **2010 and 2011 Michigan Economic Outlook**

Michigan employment fell an estimated 6.9 percent in 2009 – its sharpest decline since 1958. State employment is expected to drop another 1.3 percent in 2010 before rising 0.3 percent in 2011. 2011 would mark the first calendar year Michigan employment increase since 2000. Private non-manufacturing employment is projected to decline by 26,300 jobs in calendar year 2010 before rising by 31,200 jobs in 2011. Manufacturing employment is forecast to fall by 2.6 percent in 2010 and by 1.7 percent in 2011. Between CY 2008 and CY 2011, manufacturing employment falls by 130,800 jobs. Struggles at the domestic Big Three automakers and vehicle suppliers along with concomitant restructurings will depress manufacturing employment.

## Michigan Wage and Salary Employment Increases Slightly in 2011



Source: Michigan Department of Labor and Economic Growth, U.S. Bureau of Labor Statistics, and May 2010 Administration Forecast.

In 2010 and 2011, Michigan transportation equipment employment is expected to see markedly slower declines than the 26.3 percent decline recorded in 2009. The sector's employment is projected to fall 1.4 percent in 2010 and 8.2 percent in 2011. By the end of 2011, Michigan is expected to lose 29.5 percent of the transportation equipment employment jobs it had at the end of 2008 with sector employment falling to 113,100 jobs. The projected 2011 transportation equipment employment level stands in sharp contrast to 2000 when sector employment totaled 346,100 jobs. However, this forecast assumes that all three of the Big Three remain viable. The failure of one or more of the major automakers would further slash this sector's employment and, with spillover, sharply cut Michigan's manufacturing and overall employment level.

Total Michigan employment is forecast to decline each quarter of 2010, falling a total of 34,000 jobs. State employment is forecast to rise in each quarter of 2011. After soaring from 8.4 percent to 13.6 percent in 2009, Michigan's unemployment rate is expected to rise further to 14.1 percent in 2010 – marking the State's highest rate since 1983. Michigan's unemployment rate is then forecast to fall to 13.5 percent in 2011.

After falling 8.5 percent in CY 2009, Michigan wages and salaries are projected to rise slightly in 2010 (0.4 percent) and then increase 2.6 percent in 2011. In CY 2009, overall Michigan personal income declined 3.0 percent. Personal income is forecast to increase 1.5 percent in 2010 and to rise 3.2 percent in 2011. The overall CY price level, as measured by the Detroit CPI, is forecast to increase 1.8 percent both in 2010 and in 2011. As a result, real (inflation adjusted) Michigan personal income is expected to drop 0.3 percent in 2010 and increase 1.4 percent in 2011.

## Michigan Personal Income Rises in Both 2010 and 2011



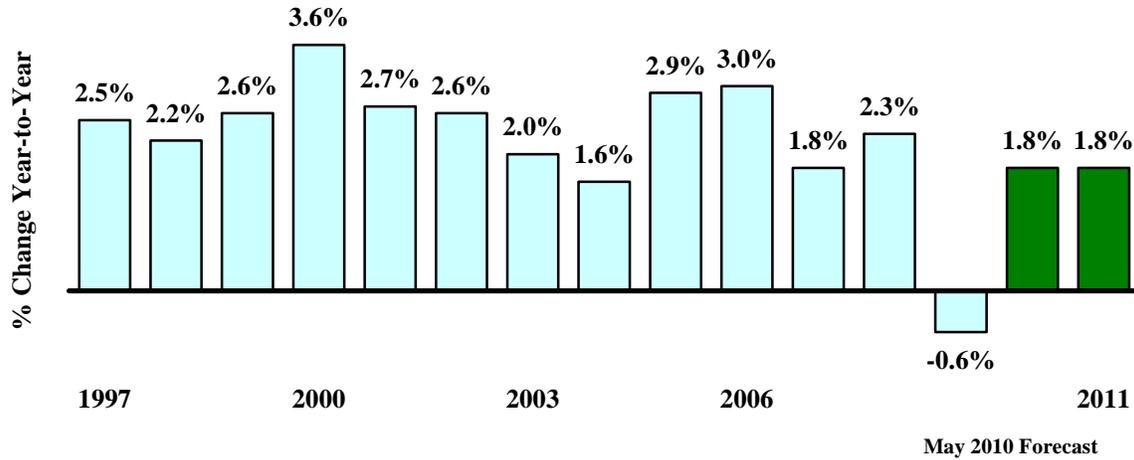
Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2010.

**Table 1**  
**Administration Economic Forecast**

May 2010

	Calendar 2008 Actual	Calendar 2009 Actual	Percent Change from Prior Year	Calendar 2010 Forecast	Percent Change from Prior Year	Calendar 2011 Forecast	Percent Change from Prior Year
<b>United States</b>							
Real Gross Domestic Product (Billions of Chained 2005 Dollars)	\$13,312	\$12,987	-2.4%	\$13,377	3.0%	\$13,832	3.4%
Implicit Price Deflator GDP (2005 = 100)	108.5	109.8	1.2%	110.6	0.7%	112.1	1.4%
Consumer Price Index (1982-84 = 100)	215.3	214.5	-0.4%	219.3	2.2%	223.7	2.0%
Consumer Price Index - Fiscal Year (1982-84 = 100)	214.5	213.8	-0.3%	218.3	2.1%	222.4	1.9%
Personal Consumption Deflator (2005 = 100)	109.0	109.2	0.2%	111.1	1.7%	112.9	1.6%
3-month Treasury Bills Interest Rate (percent)	1.4	0.2		0.4		1.9	
Aaa Corporate Bonds Interest Rate (percent)	5.6	5.3		5.4		5.7	
Unemployment Rate - Civilian (percent)	5.8	9.3		9.5		8.9	
Housing Starts (millions of starts)	0.906	0.554	-38.8%	0.683	23.3%	1.003	46.9%
Light Vehicle Sales (millions of units)	13.2	10.3	-22.0%	11.7	13.6%	13.8	17.9%
Passenger Car Sales (millions of units)	6.8	5.4	-20.6%	6.2	14.8%	7.2	16.1%
Light Truck Sales (millions of units)	6.4	4.9	-23.4%	5.6	14.3%	6.6	17.9%
Import Share of Light Vehicles (percent)	25.4	26.2		24.5		25.2	
<b>Michigan</b>							
Wage and Salary Employment (thousands)	4,162	3,876	-6.9%	3,826	-1.3%	3,837	0.3%
Unemployment Rate (percent)	8.4	13.6		14.1		13.5	
Personal Income (millions of dollars)	\$349,612	\$339,219	-3.0%	\$344,307	1.5%	\$355,325	3.2%
Real Personal Income (millions of 1982-84 dollars)	\$170,752	\$166,696	-2.4%	\$166,171	-0.3%	\$168,480	1.4%
Wages and Salaries (millions of dollars)	\$186,197	\$170,376	-8.5%	\$171,058	0.4%	\$175,505	2.6%
Detroit Consumer Price Index (1982-84 = 100)	204.7	203.5	-0.6%	207.2	1.8%	210.9	1.8%
Detroit CPI Fiscal Year (1982-84 = 100)	204.6	202.8	-0.9%	206.5	1.8%	210.0	1.7%

## Overall Price Level Rises Moderately Detroit CPI

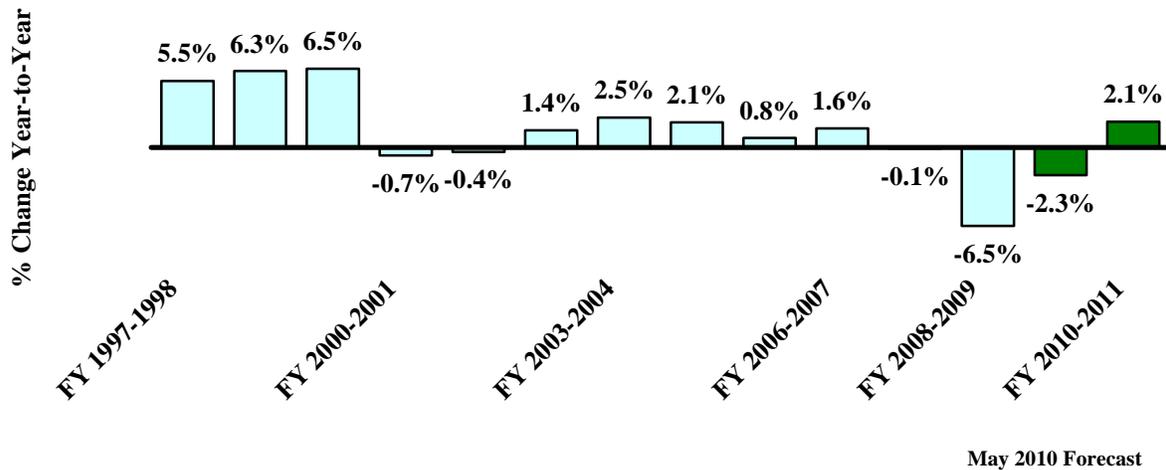


Source: U.S. Bureau of Labor Statistics and Administration Forecast, May 2010.

### **Fiscal Year Economics**

Michigan's largest taxes are the individual income tax (\$5.9 billion in FY 2009), which includes refunds, and sales and use taxes (\$7.2 billion). Income tax withholding is the largest income tax component. Withholding (\$6.9 billion) is most affected by growth in wages and salaries. Michigan wages and salaries are expected to fall in FY 2010 (-2.3 percent) and then rise 2.1 percent in FY 2011.

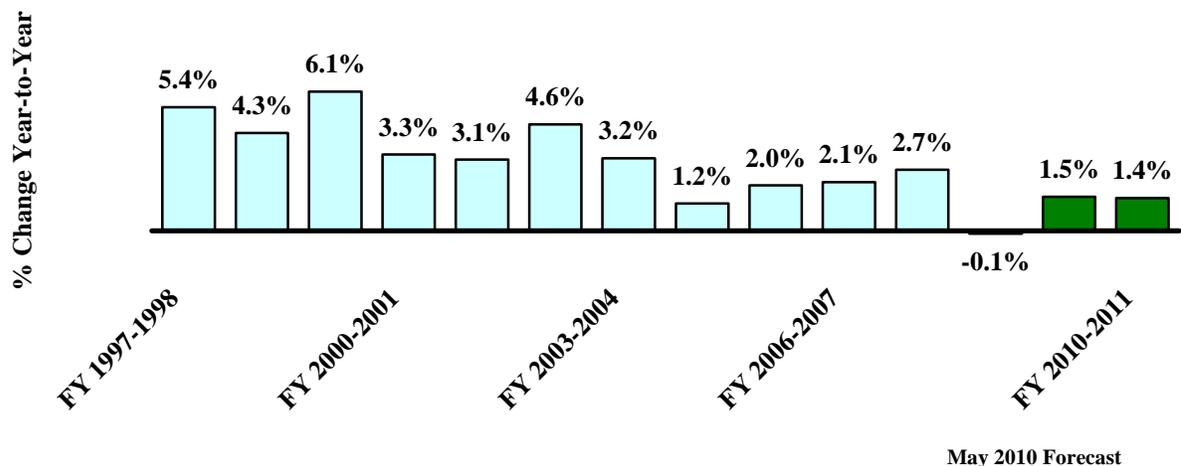
## Michigan Wages and Salaries Drop Substantially in FY 10 Basis for Income Tax Withholding Collections



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2010.

Sales and use taxes depend primarily on Michigan disposable (after tax) income and inflation. Disposable income is expected to rise 1.5 percent in FY 2010 and 1.4 percent in FY 2011. In FY 2010, overall prices are expected to rise 1.8 percent before increasing 1.7 percent in FY 2011.

## Michigan Disposable Income Increases Slightly Basis for Sales and Use Tax Collections



Source: Research Seminar in Quantitative Economics, University of Michigan, and Administration Forecast, May 2010.

## **ADMINISTRATION REVENUE ESTIMATES**

**May 21, 2010**

### **Revenue Estimate Overview**

The revenue estimates presented in this section consist of baseline revenues, revenue adjustments, and net revenues. Baseline revenues provide an estimate of the effects of the economy on tax revenues. For these estimates, FY 2009 is the base year. Any non-economic changes to the taxes occurring in FY 2010 and FY 2011 are not included in the baseline estimates. Non-economic changes are referred to in the tables as "tax adjustments." The net revenue estimates are the baseline revenues adjusted for tax adjustments.

This treatment of revenue is best illustrated with an example. Suppose tax revenues are \$10.0 billion in a given year, and that based on the economic forecast, revenues are expected to grow by 5.0 percent per year. Baseline revenue would be \$10.0 billion in Year 1, \$10.5 billion in Year 2, and \$11.0 billion in Year 3. Assume a tax rate cut is in place that would reduce revenues by \$100 million in Year 1, \$200 million in Year 2, and \$300 million in Year 3. If Year 1 is the base year, the revenue adjustments for Year 1 would be \$0 since the tax cut for this year is included in the base. The revenue adjustments for Year 2 would be \$100 million, and the revenue adjustments for Year 3 would be \$200 million, since the revenue adjustments are compared to the base year.

In the example above, the baseline revenues would be \$10.0 billion, \$10.5 billion, and \$11.0 billion, for Years 1 through 3, respectively. The revenue adjustments would be \$0 in Year 1, \$100 million in Year 2, and \$200 million in Year 3. The \$200 million in Year 3 represents the tax cuts since Year 1. Net revenue would be \$10.0 billion in Year 1, \$10.4 billion in Year 2, and \$10.8 billion in Year 3.

The following revenue figures are presented on a Consensus basis. Generally speaking, the Consensus estimates do not include certain one-time budget measures, such as withdrawals from the Budget Stabilization Fund, the sale of buildings, etc. The figures also assume the full statutory amount for revenue sharing payments to local governments from the sales tax. In addition, the estimates only include enacted legislation and do not include the effects of any proposed changes. The School Aid Fund estimates consist of taxes plus the transfer from the State Lottery Fund.

## **FY 2009 Revenue Review**

FY 2009 GF-GP revenue totaled \$7,365.6 million on a Consensus basis, a 21.3 percent decrease compared to FY 2008. The significant weakening of the national and state economies resulted in the sharp decline in revenues. FY 2009 SAF revenues totaled \$10,922.2 million, a 5.1 percent decrease compared to FY 2008 (See Table 2).

**Table 2**  
**FY 2008-09 Administration Revenue Estimates**  
(millions)

	<b>Actual</b>	
	<b>Amount</b>	<b>Growth</b>
<b>General Fund - General Purpose</b>		
Baseline Revenue	\$7,097.1	-13.3%
Tax Cut Adjustments	\$268.5	
Net Resources	\$7,365.6	-21.3%
<b>School Aid Fund</b>		
Baseline Revenue	\$10,896.3	-8.5%
Tax Cut Adjustments	\$25.9	
Net Resources	\$10,922.2	-5.1%
<hr/>		
<b>Combined</b>		
Baseline Revenue	\$17,993.3	-10.5%
Tax Cut Adjustments	\$294.4	
Net Resources	\$18,287.8	-12.4%

Prepared By: Office of Revenue and Tax Analysis, Michigan Department of Treasury

## **FY 2010 Revenue Outlook**

FY 2010 GF-GP revenue is forecast to be \$6,745.3 million, a 5.1 percent baseline decline, and a 8.4 percent decline after tax adjustments from FY 2009. The FY 2010 estimate is \$153.1 million below the January 2010 Consensus estimate.

SAF revenue is forecast to be \$10,764.1 million, representing a 1.4 percent baseline revenue decline and a 1.4 percent decline after tax adjustments from FY 2009. The FY 2010 SAF estimate is \$306.0 million above the January 2010 Consensus estimate (See Table 3).

**Table 3**  
**FY 2009-10 Administration Revenue Estimates**  
(millions)

	Consensus Jan. 11, 2010		Administration May 21, 2010		Change
	Amount	Growth	Amount	Growth	
General Fund - General Purpose					
Baseline Revenue	\$6,890.6	-2.9%	\$6,737.5	-5.1%	
Tax Cut Adjustments	\$7.8		\$7.8		
Net Resources	\$6,898.4	-6.3%	\$6,745.3	-8.4%	(\$153.1)
School Aid Fund					
Baseline Revenue	\$10,458.1	-4.0%	\$10,747.7	-1.4%	
Tax Cut Adjustments	\$0.0		\$16.4		
Net Resources	\$10,458.1	-4.2%	\$10,764.1	-1.4%	\$306.0
Combined					
Baseline Revenue	\$17,348.7	-3.6%	\$17,485.3	-2.8%	
Tax Cut Adjustments	\$7.8		\$24.2		
Net Resources	\$17,356.5	-5.1%	\$17,509.4	-4.3%	\$152.9

Prepared By: Office of Revenue and Tax Analysis, Michigan Department of Treasury

## **FY 2011 Revenue Outlook**

FY 2011 GF-GP revenue is estimated to be \$7,216.1 million, a 7.9 percent baseline increase and a 7.0 percent increase after tax adjustments from FY 2010. The FY 2011 GF-GP revenue estimate is up \$247.7 million above the January 2010 Consensus estimate. SAF revenue is forecast to be \$10,905.7 million; representing a 1.1 percent baseline increase and a 1.3 percent net increase from FY 2010. The FY 2011 SAF estimate is \$425.2 million above the January 2010 Consensus estimate (see Table 4).

**Table 4**  
**FY 2010-11 Administration Revenue Estimates**  
(millions)

	Consensus Jan. 11, 2010		Administration May 21, 2010		Change
	Amount	Growth	Amount	Growth	
General Fund - General Purpose					
Baseline Revenue	\$7,025.2	2.0%	\$7,267.2	7.9%	
Tax Cut Adjustments	(\$56.9)		(\$51.1)		
Net Resources	\$6,968.4	1.0%	\$7,216.1	7.0%	\$247.7
School Aid Fund					
Baseline Revenue	\$10,464.8	0.1%	\$10,866.3	1.1%	
Tax Cut Adjustments	\$15.7		\$39.4		
Net Resources	\$10,480.5	0.2%	\$10,905.7	1.3%	\$425.2
Combined					
Baseline Revenue	\$17,490.0	0.8%	\$18,133.5	3.7%	
Tax Cut Adjustments	(\$41.1)		(\$11.7)		
Net Resources	\$17,448.9	0.5%	\$18,121.8	3.5%	\$672.9

Prepared By: Office of Revenue and Tax Analysis, Michigan Department of Treasury

## **Constitutional Revenue Limit**

Article IX, Section 26, of the Michigan Constitution establishes a limit on the amount of revenue State government can collect in any given fiscal year. The revenue limit for a given fiscal year is equal to 9.49 percent of the State's personal income for the calendar year prior to the year in which the fiscal year begins. FY 2008 revenue is compared to CY 2006 personal income. If revenues exceed the limit by less than 1 percent, the State may deposit the excess into the Budget Stabilization Fund (BSF). If the revenues exceed the limit by more than 1 percent, the excess revenue is refunded to taxpayers.

FY 2008 revenues were \$4.7 billion below the revenue limit. State revenues will also be well below the limit for FY 2009 through FY 2011. FY 2009 revenues are expected to be \$7.7 billion below the limit, FY 2010 revenues \$8.7 billion below the limit, and FY 2011 revenues are expected to be \$6.9 billion below the limit (See Table 5).

**Table 5**  
**Administration Revenue Limit Calculation**  
(millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
	<u>Final</u>	<u>Admin</u>	<u>Admin</u>	<u>Admin</u>
	<u>Apr 2009</u>	<u>May 2010</u>	<u>May 2010</u>	<u>May 2010</u>
<b>Revenue Subject to Limit</b>	\$27,716.3	\$25,105.8	\$24,440.8	\$25,262.9
<b><u>Revenue Limit</u></b>	<b><u>CY 2006</u></b>	<b><u>CY 2007</u></b>	<b><u>CY 2008</u></b>	<b><u>CY 2009</u></b>
Personal Income	\$341,075	\$345,885	\$349,612	\$339,219
Ratio	9.49%	9.49%	9.49%	9.49%
Revenue Limit	\$32,368.0	\$32,824.5	\$33,178.2	\$32,191.9
<b><u>Amount Under (Over) Limit</u></b>	<b>\$4,651.7</b>	<b>\$7,718.7</b>	<b>\$8,737.4</b>	<b>\$6,929.0</b>

## **Budget Stabilization Fund Calculation**

The Management and Budget Act contains provisions for calculating a recommended deposit or withdrawal from the BSF. The calculation looks at personal income net of transfer payments. The net personal income figure is adjusted for inflation. The change in this figure for the calendar year determines whether a pay-in or pay-out is dictated. If the formula calls for a deposit into the BSF, the deposit is made in the next fiscal year. If the formula calls for a withdrawal, the withdrawal is made during the current fiscal year.

If real personal income grows by more than 2 percent in a given calendar year, the fraction of income growth over 2 percent is multiplied by the current fiscal year's GF-GP revenue to determine the pay-in for the next fiscal year. If real personal income declines, the percentage

deficiency under zero is multiplied by the current fiscal year's GF-GP revenue to determine the withdrawal available for the current fiscal year. If the change in real personal income is between 0 and 2 percent, no pay-in or withdrawal is indicated.

Real calendar year personal income for Michigan is expected to increase 0.3 percent in 2010. Thus, the formula has a no withdrawal or pay-in for FY 2010 (See Table 6). In 2011, real calendar year personal income for Michigan is forecast to increase 2.0 percent, and the formula calls for no pay-in or pay-out in FY 2011 (See Table 7). Withdrawals will be limited by the available balance of the BSF, which is currently just over \$2 million.

**Table 6**  
**Budget and Economic Stabilization Fund Calculation**  
**Based on CY 2010 Personal Income Growth**  
**Administration Calculation**

	CY 2009	CY 2010
Michigan Personal Income	\$ 339,219 <sup>(1)</sup>	\$ 344,307 <sup>(1)</sup>
less Transfer Payments	<u>\$ 75,389 <sup>(1)</sup></u>	<u>\$ 77,237 <sup>(1)</sup></u>
Income Net of Transfers	\$ 263,830	\$ 267,070
Detroit CPI	2.036 <sup>(2)</sup>	2.055 <sup>(3)</sup>
for 12 months ending	(June 2009)	(June 2010)
Real Adjusted Michigan Personal Income	\$ 129,589	\$ 129,961
Change in Real Adjusted Personal Income		0.3%
Between 0 and 2%		0.0%
GF-GP Revenue Fiscal Year 2009-2010		\$ 6,745.3

	FY 2009-2010
BSF Pay-In/Pay-Out Calculated for FY 2010	NO PAY-IN OR PAY-OUT

Notes:

- <sup>(1)</sup> Personal Income and Transfer Payments, Administration Forecast, May 2010.
- <sup>(2)</sup> Detroit Consumer Price Index, Average of 6 monthly values reported by BLS for each 12-month period.
- <sup>(3)</sup> Detroit Consumer Price Index, Administration Forecast, May 2010.

**Table 7**  
**Budget and Economic Stabilization Fund Calculation**  
**Based on CY 2011 Personal Income Growth**  
**Administration Calculation**

	CY 2010		CY 2011
Michigan Personal Income	\$ 344,307 <sup>(1)</sup>	\$	355,325 <sup>(1)</sup>
less Transfer Payments	<u>\$ 77,237 <sup>(1)</sup></u>	<u>\$</u>	<u>78,416 <sup>(1)</sup></u>
Income Net of Transfers	\$ 267,070	\$	276,909
Detroit CPI	2.055 <sup>(2)</sup>		2.088 <sup>(2)</sup>
for 12 months ending	(June 2010)		(June 2011)
Real Adjusted Michigan Personal Income	\$ 129,961	\$	132,619
Change in Real Adjusted Personal Income			2.0%
Excess over 2%			0.0%
GF-GP Revenue Fiscal Year 2010-2011		\$	7,216.1

	FY 2010-2011
BSF Pay-In/Pay-Out Calculated for FY 2011	NO PAY-IN OR PAY-OUT

Notes:

<sup>(1)</sup> Personal Income and Transfer Payments, Administration Forecast, May 2010.

<sup>(2)</sup> Detroit Consumer Price Index, Administration Forecast, May 2010.

**School Aid Fund Revenue Adjustment Factor**

The School Aid Fund (SAF) revenue adjustment factor for the next fiscal year is calculated by dividing the sum of current year and subsequent year SAF revenue by the sum of current year and prior year SAF revenue. For example, the FY 2011 SAF revenue adjustment factor is calculated by dividing the sum of FY 2010 and FY 2011 SAF revenue by the sum of FY 2009 and FY 2010 SAF revenue. The SAF revenue totals are adjusted for any change in the rate and base of the SAF taxes. The year for which the adjustment factor is being calculated is used as the base year for any tax adjustments. For FY 2011, the SAF revenue adjustment factor is calculated to be 0.9986 (See Table 8).

**Table 8**  
**Administration School Aid Revenue Adjustment Factor**  
**For Fiscal Year 2011**

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
Baseline SAF Revenue	\$10,896.3	\$10,747.7	\$10,866.3
Balance Sheet Adjustments	<u>\$25.9</u>	<u>\$16.4</u>	<u>\$39.4</u>
Net SAF Estimates	\$10,922.2	\$10,764.1	\$10,905.7
Subtotal Adjustments to FY 2011 Base	<u>\$13.5</u>	<u>\$23.0</u>	<u>\$0.0</u>
Baseline Revenue on a FY 2011 Base	\$10,935.7	\$10,787.1	\$10,905.7

School Aid Fund Revenue Adjustment Calculation for FY 2011

Sum of FY 2009 & FY 2010	\$10,935.7	+	\$10,787.1	=	\$21,722.8
Sum of FY 2010 & FY 2011	\$10,787.1	+	\$10,905.7	=	\$21,692.8

<b>FY 2011 Revenue Adjustment Factor</b>	<b>0.9986</b>
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Note: Factor is calculated off a FY 2011 base year.

**Revenue Detail**

The estimated tax and revenue totals include the effects of all enacted tax changes except sales tax savings resulting from reductions in revenue sharing payments to local units. The revenue totals by tax are presented separately for GF-GP and for the SAF (See Tables 9 and 10). Tax totals for the income, sales, use, tobacco and casino taxes for all funds are also included (See Table 11).

**Table 9**  
**Administration General Fund General Purpose Revenue Detail**  
(millions)

	FY 2009		FY 2010		FY 2011	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>GF-GP Tax Amounts</b>						
Income Tax	\$3,959.2	-22.5%	\$3,614.7	-8.7%	\$3,760.5	4.0%
Sales	\$4.2	-94.5%	\$92.3	2081.9%	\$96.1	4.1%
Use	\$744.0	-18.4%	\$770.0	3.5%	\$788.0	2.3%
Tobacco Products	\$208.4	-2.1%	\$199.2	-4.5%	\$191.7	-3.8%
Beer & Wine	\$50.8	-0.2%	\$52.0	2.4%	\$53.0	1.9%
Liquor Specific	\$38.0	1.9%	\$39.2	3.2%	\$39.5	0.8%
Single Business Tax	\$24.1	-95.8%	\$0.0	-100.0%	\$0.0	NA
Insurance Co. Premium	\$261.0	16.9%	\$276.0	5.7%	\$289.6	4.9%
Michigan Business Tax	\$1,530.6	-1.3%	\$1,134.7	-25.9%	\$1,449.4	27.7%
Telephone & Telegraph	\$63.0	-22.0%	\$62.0	-1.6%	\$63.0	1.6%
Casino Wagering	\$11.6	-24.7%	\$0.0	-100.0%	\$0.0	NA
Oil & Gas Severance	\$47.2	-51.4%	\$62.0	31.4%	\$67.0	8.1%
GF-GP Other Taxes	\$36.9	-29.0%	\$38.0	3.0%	\$34.0	-10.5%
<b>Total GF-GP Taxes</b>	<b>\$6,979.1</b>	<b>-22.3%</b>	<b>\$6,340.0</b>	<b>-9.2%</b>	<b>\$6,831.8</b>	<b>7.8%</b>
<b>GF-GP Non-Tax Revenue</b>						
Federal Aid	\$31.2	110.8%	\$29.0	-7.1%	\$29.0	0.0%
From Local Agencies	\$1.0	900.0%	\$0.5	-50.0%	\$0.5	0.0%
From Services	\$9.4	-48.9%	\$10.0	6.4%	\$10.0	0.0%
From Licenses & Permits	\$28.8	29.1%	\$29.0	0.7%	\$29.0	0.0%
Miscellaneous	\$37.4	-19.4%	\$40.0	7.0%	\$40.0	0.0%
Driver Responsibility Fees	\$101.9	-3.6%	\$102.0	0.1%	\$102.0	0.0%
Interfund Interest	(\$33.2)	-39.0%	(\$20.0)	-39.8%	(\$45.0)	125.0%
Liquor Purchase	\$161.0	1.1%	\$165.0	2.5%	\$167.0	1.2%
Charitable Games	\$11.8	11.3%	\$11.8	0.0%	\$11.8	0.0%
Transfer From Escheats	\$37.2	-25.0%	\$38.0	2.2%	\$40.0	5.3%
Other Non Tax	\$0.0	0.0%	\$0.0	0.0%	\$0.0	0.0%
<b>Total Non Tax</b>	<b>\$386.5</b>	<b>3.7%</b>	<b>\$405.3</b>	<b>4.9%</b>	<b>\$384.3</b>	<b>-5.2%</b>
<b>Total GF-GP Revenue</b>	<b>\$7,365.6</b>	<b>-21.3%</b>	<b>\$6,745.3</b>	<b>-8.4%</b>	<b>\$7,216.1</b>	<b>7.0%</b>

**Table 10**  
**Administration School Aid Fund Revenue Detail**

	FY 2009		FY 2010		FY 2011	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>School Aid Fund</b>						
Income Tax	\$1,895.3	-10.5%	\$1,832.0	-3.3%	\$1,880.2	2.6%
Sales Tax	\$4,424.7	-10.2%	\$4,508.8	1.9%	\$4,618.3	2.4%
Use Tax	\$368.5	-19.8%	\$385.0	4.5%	\$394.0	2.3%
Liquor Excise Tax	\$37.6	1.9%	\$39.2	4.3%	\$39.5	0.8%
Tobacco Products	\$410.4	-3.4%	\$387.2	-5.7%	\$369.9	-4.5%
State Education Tax	\$2,040.6	-1.9%	\$1,875.0	-8.1%	\$1,815.0	-3.2%
Real Estate Transfer	\$125.3	-26.2%	\$127.0	1.4%	\$145.0	14.2%
Michigan Business Tax	\$729.0	NA	\$726.7	-0.3%	\$742.0	2.1%
Industrial Facilities Tax	\$41.8	-51.5%	\$41.8	0.0%	\$37.3	-10.8%
Casino (45% of 18%)	\$108.1	-3.6%	\$110.8	2.5%	\$112.0	1.1%
Commercial Forest	\$3.0	-25.0%	\$3.0	0.0%	\$3.1	3.3%
Other Spec Taxes	\$13.3	3.9%	\$13.2	-0.8%	\$13.2	0.0%
<b>Subtotal Taxes</b>	\$10,197.6	-5.3%	\$10,049.8	-1.5%	\$10,169.4	1.2%
Lottery Transfer	\$724.5	-2.2%	\$714.4	-1.4%	\$736.3	3.1%
<b>Total SAF Revenue</b>	\$10,922.2	-5.1%	\$10,764.1	-1.4%	\$10,905.7	1.3%

**Table 11**  
**Administration Major Tax Totals**

	FY 2009		FY 2010		FY 2011	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>Major Tax Totals (Includes all Funds)</b>						
Income Tax	\$5,855.6	-19.0%	\$5,448.3	-7.0%	\$5,642.2	3.6%
Sales Tax	\$6,089.1	-10.1%	\$6,204.7	1.9%	\$6,354.2	2.4%
Use Tax	\$1,112.5	-19.2%	\$1,155.0	3.8%	\$1,182.0	2.3%
Cigarette and Tobacco	\$1,044.7	-2.7%	\$991.8	-5.1%	\$952.5	-4.0%
Casino Tax	\$121.4	-6.4%	\$110.8	-8.7%	\$112.0	1.1%