

# Maine Revenue Services 

Materials and Recommendations

February 23, 2010

## Maine Revenue Services' Recommendations to the Revenue Forecasting Committee



|  | Month |  |  |  | Year to Date |  |  |  | Total Budgeted Fisca! Year Ending 6-30-2.010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual | Budget | Variance Over/(under) | $\begin{gathered} \text { Percent } \\ \text { Over/(under) } \end{gathered}$ | Actual | Budget | $\begin{gathered} \text { Variance } \\ \text { Over/(under) } \end{gathered}$ | $\begin{gathered} \text { Percent } \\ \text { Over/(under) } \end{gathered}$ |  |
| Sales and Use Tax | 89,108,629 | 91,239,258 | $(2,130,629)$ | (2.3\%) | 485,707,905 | 487,847,845 | $(2,139,940)$ | (0.4\%) | 897,654,270 |
| Service Provider Tax | 4,963,968 | 4,663,245 | 300.723 | 6.4\% | 28,210,114 | 28,664,852 | $(454,738)$ | (1.68) | 55,590,85:2 |
| Individual Income Tax | 137,027,470 | 121,698,000 | 15,329,470 | 12.6\% | 755,3715,859 | 734,689,452 | 20,586,407 | 2.8\% | 1,277,980,000 |
| Corporate Income Tax | 13,358,756 | 2,400,000 | 10,958,756 | 456.6\% | 87,937,625 | 64,406,408 | 23,531,217 | 36.5\% | 118,045,922 |
| Cigarette and Tobncco Tax | 10,386,180 | 10,948,996 | $(562,816)$ | (5.18) | 87,472,977 | 85,050,425 | 2,422,552 | 2.8\% | 140,139,902 |
| Insurance Companies Tax | 23,022 | 62,153 | $(39,131)$ | (63.08) | 12,901,263 | 12,007,935 | 893,328 | 7.4\% | 71,985,000 |
| Estate Tax | 1,509,022 | 2,245,1.36 | $(736,114)$ | (32.8\%) | 15,348,570 | 13,881,453 | 1,467,117 | 10.6\% | 29,593,253 |
| Fines, Forfeits nod Penatties | 2,220,261 | 2,296,670 | (76,409) | (3.3\%) | 19,247,845 | 19,114,822 | 133,023 | $0.7 \%$ | 32,201,846 |
| come from lnvestments | $(10,037)$ | $(55,122)$ | 45,075 | 81.8\% | 176,037 | 193,185 | (17,148) | (8.98) | $(192,418)$ |
| ${ }^{\prime}$ Transfer from Lottery Commission | 4,005,284 | 4,762,916 | (757,632) | (15.9\%) | 30,1.88, 612 | 29,530,040 | 658,572 | 2.2\% | 49,534,250 |
| Transfers for Tax Relief Programs | $(23,145,574)$ | (12,230, 335) | (10, 915,239$)$ | (89.2\%) | $(98,755,344)$ | $(94,183,663)$ | (4,571,681) | (4.98) | (112,059,862) |
| Transfer to Municipal Revenue Sharing | - $(9,763,798)$ | $(8,860,724)$ | $(903,074)$ | (10.2\%) | (61,804,509). | (60,901, 641) | (902,868) | (1.5\%) | (100, 888,428 ) |
| Other Taxes and Fees | 10,672,040 | 9,654,456 | 1,017,584 | 10.5\% | 76,030,298 | 76,323,585 | $(293,287)$ | (0.48) | 147,25.1,531 |
| Other Reyenues | 3,001,266 | 1,018,628. | 1,982,638 | $194.6 \%$ | 13,376,012 | 8,283,877 | 5,092,135 | 61.58 | 40,408,604 |
| Total Collected | 243,356,489 | 229,843,287 | 13,513,202 | 5.9\% | 1,451,413,265 | 1,404,908,575 | 46,504,690 | 3.3\% | 2,647,244,722 |

NOTES: (1) Included in the above is $\$ 9,763,798$ for the month and $\$ 61,804,509$ year to clate, that was set aside for Revenue Sharing with cities and towns.
(2) Figures reflect estimates of the Maine State Revenue Forecasting Committee approved in Decenber 2009.
(3) This report has been prepared from prelininary month end figures and is subject to change.

| ? | Month |  |  |  | Year to Date |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current Year | $\begin{aligned} & \text { Yrior } \\ & \text { Year } \end{aligned}$ | Variance Over/(under) | Percent Over/(under) | Current Year | Prior <br> Year | Variance Over/(under) | Percent Over/(under) |
| Sales and Use Tax | 89,108,629 | 92,430,029 | (3,321,399) | (3.6\%) | 485,707,905 | 516,785,239 | (31,077,333) | (6.0\%) |
| Service Provider Tax | 4,963,968 | 4,441,186 | 522,781 | 11.8\% | 28,210,1.14 | 27,146,408 | 1,063,706 | 3.9\% |
| Individual Income Tax | 137,027,470 | 164,474,825 | ( $27,447,356$ ) | (16.7\%) | 755,375,859 | 837,027,625 | $(81,651,766)$ | (9.8\%) |
| Corporate Income Tax | 13,358,756 | 4,476,047 | 8,882,709 | 198.48 | 87,937,625 | 73,130,994 | 14,806,632 | 20.2\% |
| Cigarette and Tobacco Tax | 10,386,180 | 10,129,918 | 256,263 | 2.5\% | $87,472,977$ | 87,752,682 | $(279,705)$ | (0.3\%) |
| Insurance Companies Tax | 23,022 | 91,137 | $(68,114)$ | (74.78) | 12,901,263 | 12,622,256 | 279,007 | 2.2\% |
| EstateTax | 1,509,022 | 3,918,391 | (2,409,369) | (61.5\%) | 15,348,570 | 15,680,050 | (331,480) | (2.1\%) |
| Fines, Forfeits and Penalties 1 | 2,220,261 | 2,980,455 | (760,194) | (25.5\%) | 19,247,845 | 24,775,429 | (5,527,584) | (22.38) |
| Incone from Investments | $(10,037)$ | 17,749 | (27, 787) | (156.68) | 176,037 | 1,423,472 | (1,247, 435) | (87.6\%) |
| Transfer from Lottery Commission | 4,005,284 | 2,933,134 | 1,072,149 | 36.6\% | 30,188, 512 | 29,601,408 | 587,204 | 2.0\% |
| Transfers for Tax Relief Programs | $(23,145,574)$ | $(24,943,029)$ | 1,797,455 | 7.2\% | (98,755,344) | $(108,822,568)$ | 20,067,224 | 9.3\% |
| Transfer to Municipal Revenue Sharing | (9,763,798) | $(12,284,835)$ | 2,521,036 | 20.5\% | (61, 804,509) | $(68,608,655)$ | 6,804,146 | 9.9\% |
| Other Taxes and Fees | 10,672,040 | 9,509,520 | 1,162,520 | 12.2\% | 76,030,298 | 72,115,812 | 3,914,486 | 5.4\% |
| Other Revenues | 3,001,266 | 3,599,098 | $(597,832)$ | (16.6\%) | 13,376,0.12 | 16,497,551 | $(3,121,539)$ | (18.9\%) |
| Total Collected | 243,356,489 | 261,773,626 | $(18,417,137)$ | (7.08) | 451,413,265 | ,537,127,702 | $(85,714,436)$ | (5.6\%) |

NOTE: Due to changes in the report, prior year actuals were revised for a more accurate comparison of current year revenues to prior year revenues. Prior year total collections have not changed.

| Actual | Budget | Yariance <br> Over/(under) | Percent <br> Overf(under) |
| :---: | :---: | :---: | :---: |


| Year to Date |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Actual | Budget | Variance Over/(under) | $\begin{gathered} \text { Percent } \\ \text { Over/(unter) } \end{gathered}$ | Total Buigeted Fiscal Year Ending 6.30-2010 |
|  |  |  |  |  |
| 19,767,904 | 20,476,969 | (709,065) | (3.58) | 31,690,912 |
| 159,584 | 160,314. | (730) | (0.58) | 263,089 |
| 10,108,460 | 10,188,024 | $(79,564)$ | (0.88) | 17,433,056 |
| 1,623,2.01 | 1,542,333 | 80,769 | 5.28 | 7,505,099 |
| $(96,275)$ | - | (96,175) | - | 16,996,988 |
| 13,505,562 | 13,217,973 | 287,589 | 2.28 | 22,365,980 |
| 2,129,259 | 2,410,047 | (280, 788 ) | (11.78) | 4,603,355 |
| - | - | - | - | - |
| 5,270,526 | 5,121,661 | 148,865 | 2.98 | 8,931,091 |
| 10,339,293. | 10,459,542 | $(120,249)$ | (1.18) | 15,445,700 |
| 2,807,019 | 2,489,548 | 317,471 | 12.88 | 4,646,488 |
| 10,273,020 | 10,083,436 | 189,584 | 1.98 | 17,042,965 |
| 142,744 | 173,738 | $(30,994)$ | (17.88) | 326,808 |
| 76,030,298 | 76,323,585 | (293, 287) | (0.48) | 147,251,531 |
| 7,184,004 | 7,277,766 | $(93,762)$ | (1.38) | 10,388,601 |
| - | - | - | - | - |
| 50,020 | 95,432 | $(45,412)$ | (47.68) | 251,789 |
| 954,755 | 985,810 | (31,055) | (3.28) | 9,027,069 |
| 18,970,379 | 18,558,554 | 411,825 | 2.28 | 31,961,289 |
| (13, 833,425 ) | (18,638,685) | 4,805,259 | 25.88 | (11,300,144) |
| 50,280 | 5,000 | 45,280 | 905.6\% | 80,000 |
| 13,376,012 | 8,283,877 | 5,092,135 | 61.5\% | 40,408,604 |

For the Seventh Month Ended January 31, 2010 and 2009
For the Seventh Month Ended January 31, 2010 and
For the Fiscal Years Ending June 30, 20010 and 2009
Comparison to Prior Year

## Detsil of Other Toxes \& Fees

| 2200 's | Federat Reverues | 587,864 | 513,677 | 74,187 | 14.48 | 7,184,004 | 4,230,506 | 2,953,498 | 69.88 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2300's | County Revenues | - | - | - | - | - | - | - | - |
| 2400's | Revenues from Cities \& Towns | (275) | - | (2\%5) | - | 50,020 | 59,383 | $(9,363)$ | (25.88) |
| 2500's | Revenues from Private Sources | 172,853 | 37,284 | 135,569 | $363.6 \%$ | 954,755 | 1,016,864 | (64,109) | (6.38) |
| 2600's | Current Service Charges | 3,094,723 | 816,181 | 2,276,542 | 278.28 | 18,970,379 | 12,148,108 | 6,822,27I | 56.2\% |
| 2700's | Transfers from Other Funds | $(853,899)$ | 2,237,963 | (3,091,862) | (138.28) | (13, 833, 426 ) | (994,351) | (122,839,075) | (1291.2\%) |
| 2800's | Sales of Property \& Equipment | - | (8,007) | 8,007 | 100.0\% | 50,280 | 35,041 | 15,239 | 43.5\% |
|  | * Total Other Revenues | 3,001,266 | 3,599,098 | (597, 832) | (16.68) | 13,376,012 | 16,497,551 | (11,121,539) | (18.98) |

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|  | Monts |  |  |  | Year to Date |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual | Budget | Variance Over/(under) | Percent Over/(tunder) | Actual | Budget | Variance Over/(under) | Percent Over/(under) | Tolal Budgeted Fiscal Year Ending 6-30-2010 |
| Fuel Taxes | 17,500,704 | 16,631,851 | 868,853 | 5.2\% | 114,346,338 | 109,281,412 | 5,064,926 | 4.6\% | 215,292,026 |
| Motor Vehicie Registration \& Fees | 5,81日,266 | 6,072,472 | $(254,206)$ | (4.2\%) | 40,978,126 | 41,141,157 | (16.3,031) | (0.48) | 76,043,693 |
| Inspection Fees | 768,109 | 200,886 | 567,223 | 282.4\% | 2,462,863 | 2,412,553 | 50,310 | 2.1\% | 4,046,915 |
| Fines, Forfeits \& Penalties | 90,161 | 133,523 | $(43,362)$ | (32.5\%) | 940,613 | 383,974 | $(43,361)$ | (4.4\%) | 1,745,049 |
| Earnings on Investments | 9, 686 | 8,000 | 1,686 | 21.1\% | 81,905 | 79,445 | 2,460 | 3.1\% | 144,622 |
| All Other | 847,086 | 519,354 | 327,732 | 63.1\% | 5,725,140 | 5,512,648 | 21:2,492 | 3.9\% | 8,215,870 |
| Total Revenue | 25,034,011 | 23,566,086 | 1,467,925 | 6. 28 | 1,64,534,985 | 159,411,189 | 5,12:3,796 | 3. $2 \%$ | 305,488,175 |

NOTE:
This report has been prepared from pretiminary month end figures and is subject to clange.

|  | Menth |  |  |  | Year to Date |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\because$ | Current Year | Prior Year | Variance Over/(under) | Percent Over/(under) | Current Year | Prior Year | Variance Over/(under) | Percent Over/(under) |
| Fuet Taxes | 17,500,704 | 17,604,042 | (103,339) | (0.6\%) | 114,346,338 | 112,140,686 | 2,205,652 | 2.08 |
| Motor Velicle Registration \& Fees | 5,81日,266 | 6,266,668 | $(448,402)$ | (7.2\%) | 40,978,126 | 47,489,414 | (6,511,288) | (13.78) |
| Inspection Fees | 768,109 | 207,6137 | 560,471 | 269,9\% | 2,462,863 | 2,218,225 | 244,638 | 11.0\% |
| Fines, Forfeits \& Penalties | 90,161 | 135,823 | $(45,661)$ | (33.68) | 940,613 | 1,015,837 | $(75,224)$ | (7.4\%) |
| Earnings on Investments | 9,686 | 20,261 | $(10,575)$ | (52.2\%) | 81,905 | 341,734 | (259,829) | (76.08) |
| All Other | 847,086 | 583,053 | 264,033 ${ }^{\text { }}$ | 45.3\% | 5,725,140 | 6,633,501 | (908, 360) | (13.7\%) |
| Total Revenue | 25,034,011 | 24,817,484 | 216,527 | 0.98 | 164,534, 385 | 169,839,396 | $(5,304,411)$ | (3.17) |

NOTE:
This report bas been prepared from preliminary month end figures and is subject to change.

## Economic Assumptions

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Recent Performance. The economic recovery strengthened as 2009 came to an end. Real GDP looks to have expanded at a solid pace of well over $4 \%$ in last year's fourth quarter, and the labor market is stabilizing in response, the disappointing December jobs number notwithstanding.

A rebound in manufacturing is the most significant factor behind the gains, with the massive inventory liquidation that began nearly two years ago now winding down. Inventories are falling back in line with improving sales, and manufacturers will need to ramp up output further in coming months or inventories will soon be too lean. Given the difficulty in gauging the magnitude of inventory swings, this poses an upside risk to near-term real GDP growth.

The massive monetary and fiscal stimulus has driven the better sales. Borrowing costs for households and businesses are extraordinarily low, and while credit standards remain exceedingly tight, lenders are signaling they will not get any tighter. The contribution of the fiscal stimulus to GDP growth is fading, but it continues to provide a meaningful lift to growth. The expanded aid to unemployed workers is particularly helpful in supporting demand and the extension of the housing tax credit, and more infrastructure spending will soon be a plus.

Job machine. The boost to growth from the inventory swing and the policy stimulus will have largely played out by this summer. In order for the current economic recovery to evolve into a self-sustaining economic expansion, businesses must respond to their better sales by expanding their investment and hiring. The added jobs will generate the incomes necessary to support more spending and production, powering the expansion forward.

So far businesses have curtailed their job cuting, with layoffs abating, but they have yet to add to their payrolls. Initial claims for unemployment insurance, a good proxy for layoffs, are steadily declining, but the number unemployed and receiving some form of UI benefits, which should be falling if firms were hiring, remains extraordinarily high. It is disconcerting that more than 10 million unemployed are on the UI rolls, given that many of those who lost their jobs at the start of the recession two years ago are now beginning to run out of benefits. Many more will soon exhaust their benefits unless hiring quickly revives.

There are reasons to be optimistic that some hiring will begin soon. Employment at temporary help firms is strongly increasing, and the average workweek has risen from recent record lows. Businesses hire more temps and ask their existing employees to work more hours before they start to hire more fulltime workers.

However, there are also good reasons to be nervous about the strength of any pickup in hiring. Employment, as measured in the household survey, has plunged by an astounding 2.2 million over the past six months, compared with only 800,000 in the more closely followed payroll survey. In past recoveries household employment has increased either before or more vigorously than payroll employment, probably because it more accurately reflects what small businesses are doing. Small businesses have historically been vital to restarting the job machine coming out of recessions.

Small businesses are having difficulty getting the credit necessary to expand their operations. Credit card lenders and small banks, so important to small business credit, have been particularly aggressive in tightening their lending standards given changing laws and regulations and mounting loan losses. And nearly all businesses lack the animal spirits needed to aggressively expand. Confidence remains notably fragile, probably due to the severity of the just-ended Great Recession and the heightened policy uncertainty created by debates on healthcare, financial regulation, carbon emissions and taxes.

Exit stratesy. Policymaking will be critical to the strength and speed of the transition from recovery to expansion. The Federal Reserve is assumed to end its credit easing efforts this spring, as it has said it will, and to hold off on raising interest rates until very late this year at the earliest. Fiscal policymakers are expected to provide close to $\$ 100$ billion in additional stimulus this year. This includes about $\$ 50$ billion that has already been signed into law for the extension of the housing tax credit and some business tax breaks and another $\$ 50$ billion expected to become law in the next month or two, mostly to fund more UI benefits.

This should be just enough policy stimulus to ensure that the recovery does not backtrack into recession, but it will not be enough to ensure that a vigorous self-sustaining expansion quickly takes root. Indeed, real GDP growth is
expected to weaken by midyear, and while job growth will soon resume, it will not be enough to forestall a further increase in the unemployment rate. The jobless rate is expected to rise from $10 \%$ currently to a peak of almost $11 \%$ by this fall.

Recession risks will be at their highest at around that time. Given the dire implications of another recession and the political incentives of the November election, policymakers may very well decide to do more to support the economy. Federal Reserve officials are debating the merits of extending the bank's credit easing to purchase more mortgage securities and keep mortgage rates lower for longer. Congress and the administration are considering a bigger package of stimulus that could include more help to hard-pressed state governments, additional monies for weatherization and infrastructure, and a jobs tax credit.

Policymakers seem to understand the need to exit their extraordinary efforts to shore up the financial system and economy. Fed officials are nervous about the inflationary implications of providing too much monetary stimulus, and fiscal policymakers are worried about the developing fiscal crisis, given prospects for persistent trillion dollat annual deficits. But they also seem to understand that the costs of exiting too early would be significantly greater.

Outlook. Last year was one of transition from recession to recovery; 2010 will be one of transition from recovery to self-sustaining expansion. The transition will be successful, but it will not be entirely graceful, as the support to growh from the inventory swing and the policy stimulus will fade. Real GDP growth is expected to weaken from over $4 \%$ annualized in the fourth quarter of 2009 to about onehalf that by the middle of this year.

This is strong enough to lead to an end to job losses in the next couple of months, particularly given that the federal government will be hiring hundreds of thousands of temporary workers to conduct the 2010 Census this spring, but the unemployment rate will rise further. Job growth will not be strong enough to meaningfully bring down the unemployment rate until late this year.

The economy is performing measurably better today than it was one year ago, and it should be doing measurably better one year from now.

Mark Zandi
January 2010


Real GDP likely advanced at a strong annualized rate of more than $4 \%$ in the fourth quarter of 2009. The massive monetary and fiscal stimulus and a powerful inventory swing are supporting growth. Manufacturers, wholesalers and retailers have been cutting stocks by a record amount. Inventories are now in line with sales, and manufacturers are ramping up production so that stocks do not fall further. This inventory swing is difficult to gauge and adds upside risk to the forecast for fourth quarter GDP. However, the boost to growth from inventories will abate by the middle of this year.


The recent divergence between the payroll and household employment surveys is creating uncertainty as to when job growth will turn from negative to positive. Job losses have narrowed substantially in the more closely followed payroil survey since the recession ended but not in the household survey. The reality is likely somewhere in between the two. Payroll employment will be revised lower with BLS revisions this spring and is not capturing the stress that small businesses are under, but the household survey is smaller and suffers from significant measurement error and volatility.

Layoffs Abate, but Hiring Is Dormant


For the recovery to evolve into a self-sustaining expansion as the boosts from the stimulus and inventories fade, businesses must soon begin to expand their operations. Investment spending has stabilized, and layoffs have abated, but hiring remains dormant. This is evident from the decline in initial claims for unemployment insurance but continuing claims that are still extraordinarily high. A lack of credit, particularly for smaller businesses, and fragile confidence, due to the severity of the downturn and uncertainty about public policy, are constraining buisinesses' expansion decisions.

Fed Credit Easing Keeps Mortgage Rates Down


To ensure the recovery transitions to expansion this year, policymakers must remain aggressive. Fiscal policymakers have extended various provisions in last year's stimulus legislation and will likely add more temporary tax cuts and spending increases. The Federal Reserve must also remain flexible in exiting from its provision of the monetary stimulus. A key test will be the lead-up to the end of its credit easing efforts this March. Fed efforts have lowered mortgage rates by an estimated 50 basis points, and the housing market and economy may still be too weak to digest higher rates.

Monetary policy. The Federal Reserve is not expected to begin raising the interest rate paid on reserves and the federal funds rate until late 2010. The rate increases will not occur until the unemployment rate has clearly peaked. Employment is expected to stabilize early this year, but job growth will be insufficient to bring down the unemployment rate on a consistent basis until this fall. By then, the unemployment rate will be closer to $11 \%$.

Inflation should also remain low and inflation expectations well contained through at least the middle of next year. Core inflation is already below the Fed's implicit target and will slow further in coming months given the high unemployment rate, high vacancy rates, and low capacity utilization rates in manufacturing.

It will also take the better part of this year for the financial system to fully normalize. The system has stabilized as interbank lending and the commercial paper market have returned to normal. Residential mortgage rates have also fallen, and yield spreads on various asset-backed securities and corporate bonds have narrowed. But other parts of the system are not functioning well. Issuance of private residential and commercial mortgage-backed bonds is moribund, a steady stream of small banks are failing, and most depository institutions are reluctant to extend credit except to household and corporate borrowers with the most pristine credit histories.

Federal policymakers will begin draining reserves and shrinking the size of the central bank's balance sheet well before they begin to raise interest rates. The Fed's balance sheet will peak at close to $\$ 2.5$ trillion this spring, when the bank is scheduled to fuifill its commitment to purchase Fannie Mae and Freddie Mac securities. Soon thereafter, the Fed will begin draining reserves through reverse repurchase agreements. By late this year, it will be prepared to begin raising rates.

Pressure on the Fed to tighten policy more quickly will intensify if the developing dollar carry trade expands and fuels rapidly rising global asset prices. Strong recent gains in Asian equity and real estate markets have prompted heightened concerns that bubbles are developing. These worries are still far from having a significant influence on the conduct of U.S. monetary policy, but with policymakers much more attuned to asset
bubbles, the Fed will closely monitor developments in these markets.

Policymakers will also be fearful of keeping rates too low for too long, a mistake the Fed seemingly made coming out the techstock bust; this contributed to the housing bubble that is at the root of the current financial crisis. The funds rate is expected to end 2010 at closer to 75 basis points and to end 2011 at 3\%.

Fiscal policy. The federal government's fiscal problems remain enormous. The budget deficit ballooned to $\$ 1.4$ trillion in fiscal 2009, up from $\$ 455$ billion in fiscal 2008. This year's deficit is expected to be close to $\$ 1.4$ trillion, and the cumulative deficit over the fiscal 20092012 period will be some $\$ 4$ trillion.

This very poor fiscal situation reflects the expected ultimate price tag to taxpayers for the financial crisis and the Great Recession of more than $\$ 2$ trillion, equal to about $14 \%$ of GDP. Of this, $\$ 1.2$ trillion is the direct cost of the government response to the financial crisis, including the fiscal stimulus and support for financial markets. The remaining $\$ 800$ billion is due to the weaker economy and resulting loss of tax revenues, increased transfer payments to support those losing their jobs, and other income support programs. For historical context, the savings and loan crisis in the early 1990 s directly cost taxpayers some $\$ 350$ billion in today's dollars: $\$ 275$ billion in direct costs and $\$ 75$ billion due to the associated recession, equal to almost $6 \%$ of GDP at that time.

The budget outlook remains extraordinarily disconcerting, even after the costs of the financial crisis abate, as the costs of Medicare, Medicaid and Social Security programs will balloon. President Obama's first budget proposal does not significantly address the nation's long-term fiscal problems. The Congressional Budget Office projects that the nation's federal debt-to-GDP ratio will rise to over $80 \%$ one decade from now under the president's plan; this is double the approximately $40 \%$ ratio that prevailed prior to the current financial crisis. Policymakers are expected to soon pass healthcare reform legislation, but this is not expected to significantly change the budget outlook. This long-term budget outlook will thus remain untenable, ultimately forcing various substantial changes to entitlement programs and tax policy.
U.S. dollar. The U.S. dollar has weakened during the past year as the flight-to-
quality bid for U.S. assets has faded with improving financial conditions and the moderating global recession. Despite the recent decline, on a broad trade-weighted basis, the dollar is still up over $5 \%$ from its low in the middle of 2008.

The dollar is expected to trend generally lower over the next several years as it is an estimated $10 \%$ overvalued against the British pound and by a more significant $25 \%$ against the Chinese yuan. Once the financial crisis completely subsides, the Chinese are expected to resume revaluation of their currency, eventually resulting in a freely floating yuan by the middle of the next decade. Any decline will be modest on a broad trade-weighted basis, however, as the dollar is roughly appropriately valued against most of the world's major currencies, including the euro at $\$ 1.40$, the Canadian dollar at 90 U.S. cents, and the Japanese yen at $¥ 95$ per U.S. dollar.

Energy prices. Oil prices, as measured by a barrel of West Texas Intermediate crude, are trading near $\$ 80$. Over the past two years, prices have ranged from well below $\$ 50$ per barrel at the start of 2009 to a record of almost $\$ 150$ per barrel in the summer of 2008. Natural gas prices remain low, particularly compared with oil prices, at around $\$ 6$ per million BTUs.

Global economic conditions and their impact on demand are driving energy prices. The firming in prices in the fall reflected growing expectations that the worst of the global downturn was over as the Chinese economy reaccelerated and the U.S. recession ended. However, until the global expansion begins in earnest, oil prices are not expected to rise much above current levels for very long. For all of 2010 , oil prices are expected to average $\$ 80$ per barrel and to range as high as $\$ 100$ per barrel in the next several years, consistent with trend giobal demand and supply fundamentals, abstracting from the vagaries of the world business cycle.

Natural gas prices will have trouble keeping up with oil prices over the next several years as a very substantial glut of natural gas has developed. Demand has weakened sharply with the recession, and supply has increased substantially in response to the previously very high prices. Natural gas prices are expected to average $\$ 6$ in 2010 and closer to $\$ 9$ in the longer term.

Mark Zandi
January 2010

## BROAD VIEW <br> Forecast Risks

4 Additional stimulus. The biggest boost to real GDP growth from Washington's policy response has passed, but the fiscal stimulus could still provide stronger than anticipated support to the economy in the current quarter. The federal government has made available one-half of the $\$ 787$ billion of the fiscal stimulus passed in February, lending some potential for a big boost to growth over the next several months. The economy has yet to feel the majority of spending on infrastructure, as only $\$ 7.7$ billion of the $\$ 32$ billion available has been paid out.

4 Trade. The global recovery, combined with the depreciation of the U.S. dollar, suggests that trade may provide a larger support to domestic growth in coming months. Except for a brief pause in August, trade has recovered steadily following dramatic declines in the first half of 2009 . Also, a curn in the inventory cycle and a rebound in investment spending will encourage higher trade flows this quarter. Moody's Economy.com expects net exports to subtract from growth in the first quarter, but this may be too pessimistic.
$\uparrow$ Home sales. The expansion and extension of the homebuyer tax credit could be more successful than anticipated and accelerate the improvement in the housing market. While extending and expanding the tax credit will be costly to taxpayers, Moody's
Economy.com expects it to encourage 500,000 more households to purchase homes than otherwise would have done so. Stronger than anticipated home sales would accelerate the reduction in excess inventories, a necessary condition for prices to bottom out.
$\uparrow$ Cyclical industries. The initial recovery in cyclical industries, including autos, housing and manufacturing, is showing signs of besting expectations. At 10.9 million annualized units in the fourth quarter, auto sales were more than 1 million, or $13 \%$, above the average sold over the first half of 2009. Meanwhile, manufacturing industrial production could exceed the forecast for a $1.2 \%$ annualized gain in the final quarter of 2009 , and a $2 \%$ gain over the first half of 2010 should help the global economy recuperate faster than expected.

+ Inventories. As is often the case early in recovery, the economy will lean heavily on inventories for growth, but this could be slow to develop. Despite gains in production and an improvement in final demand, businesses are still reducing stockpiles. Businesses likely
reduced inventories further in the fourth quarter of 2009 , but at a pace much slower than in the prior quarter. Inventories are expected to increase throughout this year. But if businesses remain shell-shocked, they may be reluctant to rebuild inventories until there is concrete evidence of a self-sustaining recovery. Slower restocking would be a drag on real GDP growth, hiring, and industrial production.
$\downarrow$ Labor market. Nonfarm employment is expected to surpass its prerecession level . in the second half of 2012, but the recovery could be slower than anticipated. While layoffs have abated since the beginning of 2009 , there are few signs that businesses are ramping up hiring. Unless hiring improves, it will take longer to absorb the substantial slack in the labor market. The unemployment rate is forecast to peak above $10.5 \%$ in the second half of 2010 before slowly declining. The economy is not expected to return to full employment until 2015, and slower improvement would be a major weight on wages, spending and confidence.
$\downarrow$ Monetary policy. The Federal Reserve is not expected to raise either the interest rate on reserves or the target fed funds rate until late 2010, after the unemployment rate has clearly peaked, and any premature tightening could jeopardize the recovery. The central bank needs to avoid political and market pressures to raise interest rates until there are concrete signs that the recovery is sustainable. Also, if the Fed drains excess liquidity too quickly, it could unwind the improvement in financial markets seen since the beginning of 2009, driving borrowing costs higher.
$\downarrow$ Policy misstep. Implicit in the forecast is the assumption that policymakers will take actions necessary to ensure a self-sustaining recovery, but the risk of a policy misstep exists. The federal government will likely undertake more measures to stimulate job growth, or at least stem the losses. These could include support for small businesses and more aid to state governments, but failure to act would be costly and is a downside risk to the forecast.
\& Consumer spending. Much of the support early in the recovery will come from inventory investment and less from final demand. Still, Moody's Economy.com is optimistic that the upturn in the economy will be sustained, backed by improving financial market conditions. Earlier gains have spilled over into greater final demand and, more recently, a steadier job market. The first quarter
should see a return to consistent positive net job creation, for the first time in more than two years. With the labor market healing and prospects for labor income early this year improving, strength in consumer spending may turn out to be stronger in the first half of 2010 than the current forecast.
$\downarrow$ Financial markets. Credit conditions and investor sentiment could improve more slowly than anticipated. Troubles with Dubai in restructuring its debt could affect other emerging markets, rattling global investor sentiment. Also, more severe deterioration in residential and commercial mortgages would put additional strain on the banking system. Meanwhile, market-based measures of inflation expectations are forecast to remain anchored, but an unexpected increase would complicate matters for the Fed.
$\downarrow$ Dollar. A larger than anticipated depreciation in the U.S. dollar would complicate matters for the global economy, allowing inflationary pressures to build faster than expected. While the weak dollar is a positive for U.S. exporters, it could slow the recovery in other economies. Also, the depreciation in the dollar lends some upside risk to the forecast for nearterm inflation.
$\downarrow$ Foreclosures. The success of the Home Affordable Modification Program is vital to the housing outlook. Currently, the forecast assumes that policy will help keep at least 1 million mortgages out of foreclosure. HAMP has gotten off to a slow start, with just $4 \%$ of all modified loans converting to permanent status. If there is not more substantial progress under HAMP, quickly, foreclosures will be greater than expected. Mounting foreclosures could prolong and deepen the housing correction, resulting in even larger price declines and a resumption in sales declines. Fortunately, the new Homeowner Preservation Office, which will oversee progress in modifying loans by the nation's largest servicers, should provide a boost to HAMP modifications.
$\downarrow$ Fiscal conditions. Washington's croding fiscal situation threatens long-term economic growth, and there is great risk that budget deficits in the future could be much larger than expected. With costs for Medicare, Medicaid and Social Security set to increase substantially as the baby boomers retire, policymakers will have to make very difficult decisions about long-run taxes and spending.

Glenn Wingard
January 2010

## Macroeconomic Outlook Alternative Scenarios

## Current (January 2010)

Monetary policy. The Federal Reserve is not expected to begin raising the interest rate paid on reserves and the federal funds rate until late 2010. The rate increases will coincide with when unemployment has clearly peaked. Employment is expected to stabilize early this year, but job growth sufficient to bring down unemployment on a consistent basis isn't likely until this fall. By then, unemployment will be closer to $11 \%$ than its current $10 \%$.

Inflation should also remain low and inflation expectations well contained through at least mid next year. Core inflation is already below the Fed's implicit target and well slow further in coming months given the high unemployment rate, high vacancy rates, and low utilization rates in manufacturing.

It was also take the better part of this year for the financial system to fully normalize. The system has stabilized as interbank lending and the commercial paper market have returned to normal. Residential mortgage rates have also fallen and yield spreads on various asset backed securities and corporate bonds have narrowed. But other parts of the system are not functioning well. Private residential and commercial mortgage backed bond issuance is moribund, a steady stream of small banks continue to fail, and most depository institutions are reluctant to extend credit except to their most pristine household and corporate borrowers.

Policymakers will begin draining reserves and shrinking the size of its balance sheet well before raising interest rates. The Fed's balance sheet will peak at close to $\$ 2.5$ trillion this spring when its commitment to purchase Fannie Mae and Freddie Mac securities is scheduled to be fulfilled. Soon thereafter, it will begin draining reserves through reverse repurchase agreements. By late this year it will be prepared to begin raising rates.

Pressure on the Fed to tighten policy more quickly will intensify if the developing dollar carry trade expands and fuels rapidly rising global asset prices. Strong recent gains in Asian equity and real estate markets have prompted heightened concerns that bubbles are developing. These worries are still far from having a significant influence on the conduct of U.S. monetary policy, but with policymakers much more attuned to asset bubbles, developments in these markets will be closely monitored.

Policymakers will also be fearful to keep rates too long too low, a mistake seemingly made by the Fed coming out the tech-stock bust. This contributed to the housing bubble which is at the root of the current financial crisis. The funds rate is expected to end 2010 at closer to 75 basis points, and end 2011 at $3 \%$.

Fiscal policy. The federal government's fiscal problems remain enormous. The budget deficit ballooned to near $\$ 1.4$ trillion in the just ended 2009 fiscal year, up from $\$ 475$ billion in FY '08. This year's deficit is expected to be a similar near \$1.4 trillion and the cumulative deficit over the FY '09-FY' 12 period will be some $\$ 4$ trillion.

This very poor fiscal situation reflects the expected more than $\$ 2$ trillion ultimate price tag to taxpayers of the financial crisis and Great Recession. This is equal to $14 \%$ of GDP. For historical context, the savings and loan crisis in the early 1990s directly cost
taxpayers some $\$ 350$ billion in today's dollars; $\$ 275$ billion in direct costs and $\$ 75$ billion due to the associated recession. This is equal to almost $6 \%$ of GDP at that time.

The budget outlook remains extraordinarily disconcerting even after the costs of the financial crisis abate as the costs of the Medicaid, Medicare and Social Security programs balloon. President Obama's first budget proposal does not significantly address the nation's long-term fiscal problems. The Congressional Budget Office projects that the nation's federal debt-to-GDP ratio will rise to over $80 \%$ a decade from now under the President's plan. This is double to the approximately $40 \%$ ratio that prevailed prior to the current financial crisis. Policymakers are expected to soon pass health care reform legislation, but this is not expected to significantly change the budget outlook. This longterm budget outlook will thus remain untenable, which will ultimately force various substantial changes to entitlement programs and tax policy.
U.S. dollar. The value of the U.S. dollar has weakened during the past year as the flight-to-quality bid for U.S. assets has faded with improving financial conditions and the moderating global recession. Despite the recent decline, on a broad trade weighted basis the dollar is still up over $5 \%$ from its low about a year ago.

The dollar is expected to trend generally lower over the next several years as it is currently an estimated $10 \%$ overvalued against the British pound and by a more significant $25 \%$ against the Chinese yuan. Once the financial crisis completely subsides the Chinese are expected to resume revaluation of their currency eventually resulting in a freely floating currency by the middle of the next decade. Any decline will be modest on a broad-trade weighted basis as the dollar is roughly appropriately valued against most of the world's major currencies, including the euro at $1.4 \$ /$ euro, the Canadian $\$$ at 85 cents, and the Japanese yen at 100 yen $/ \$$.

Energy prices. Oil prices as measured by the price of a barrel of West Texas Intermediate are trading near $\$ 80$. Over the past year, prices have ranged from well below $\$ 50$ per barrel at the start of 2009 to a record of almost $\$ 150$ per barrel in summer 2008. Natural gas prices remain low, particularly compared to oil prices at just over $\$ 5$ per million BTU.

Energy prices are being driven by global economic conditions and their impact on energy demand. The recent firming in prices reflects growing expectations that the worst of the global downturn is over as the Chinese economy reaccelerates and the U.S. recession has ended. However, until the global expansion begins in earnest oil prices are not expected to rise much above current levels for very long. For all of 2010, oil prices are expected to average $\$ 80$ per barrel and to range as high as $\$ 100$ per barrel in the next several years, consistent with trend (abstracting from the vagaries of the global business cycle) global demand and supply fundamentals.

Natural gas prices will have trouble keeping up with oil prices over the next several years as a very substantial glut of natural gas has developed. Demand has weakened sharply with the recession and supply has increased substantially in response to the previously very high prices. Natural gas prices are expected to average $\$ 6$ in 2010 and closer to $\$ 9$ in the longer-term.

January 2010

## S6: Fiscal Crisis, Dollar Crashes, Inflation Scenario (January 2010)

In this stagflation scenario, there is a $90 \%$ probability that the economy will perform better, broadly speaking, and a $10 \%$ probability that it will perform worse.

The downside 10\% scenario, "Fiscal Crisis, Dollar Crashes, Inflation," begins with the U.S. economy recovering more slowly in 2010 than in the baseline. As a result, tax collection is lower and the federal deficit is higher. The resulting heavier debt issuance by the government forces the Fed to delay tightening compared with the baseline, and inflationary pressures begin to build in early 2011.

The dollar falls sharply beginning in mid-2011 as foreign investors cut back on purchases of Treasury securities when it becomes clear that no progress is being made in addressing long-run fiscal problems and that 2012 will be an election year. Oil price inflation starts to accelerate, and prices ultimately hit $\$ 150$ per barrel.

The Fed abruptly shifts gears to fight inflation, and the fed funds rate rises from near $0 \%$ in mid-2011 to 7\% the following year. Yields on 10-year Treasury securities rise to 8\% by late 2011, as a result of both inflationary expectations and Fed tightening. The economy weakens sharply and drops into recession in 2012, driving the federal deficit even higher. Forced to make a choice in the stagflation environment, the Fed keeps interest rates high to fight inflation. The downturn continues throughout 2012, and the jobless rate rises to $12.4 \%$ by mid-2013.

The crisis forces the next federal administration to make big changes to address the fiscal crisis. The changes enacted in 2013 begin the process of reducing inflationary expectations, and the economy moves back toward the baseline rate of real growth in 2014. However, the level of real GDP is ultimately lower than in the baseline.

On an annual average basis, real GDP growth is $1.4 \%$ in 2010, $2.9 \%$ in 2011, and $0.8 \%$ in 2012. Inflation, as measured by the CPI, rises to roughly double the baseline pace in 2011 and 2012, before decelerating in 2013.

## S5: Aborted Recovery, Below-Trend Long-Term Growth Scenario (January 2010)

With this low-performance long-term scenario, there is a $96 \%$ probability that the economy will perform better, broadly speaking, and a 4\% probability that it will perform worse.

In the downside 4\% scenario, "Aborted Recovery, Below-Trend Long-Term Growth," the U.S. economy initially begins to recover at a pace comparable to the baseline during the second half of 2009. By early 2010, however, the existing stimulus proves inadequate, and no additional spending measures are enacted. As a result, a second recession develops, more moderate than the one that ended in mid-2009, and continues during much of 2010 . In other words, there is a double dip.

When the economy does begin to expand again toward the end of 2010, demand growth remains relatively weaker than the baseline for an extended time, for several reasons. First, households engage in relatively more precautionary saving and therefore less
spending. Second, lower risk-taking manifests in higher yield spreads and lower stock prices than in the baseline. Since the cost of borrowing is higher, business investment spending is lower than the baseline.

Real GDP growth averages 1 to 2 percentage points per year lower than in the baseline over the next three years. Although the gap in the growth rate subsequently closes, it remains below the long-run rate until 2020. After 2020, the growth rate returns to the baseline pace, but the level of GDP is permanently lower than in the baseline.

Unemployment rises higher than in the baseline and remains above $10 \%$ from the beginning of 2010 until early 2012. Although the jobless rate ultimately declines to the baseline level, this does not occur until 2020. The long dislocation in the labor market hampers the typical long-term pattern of growth in worker productivity, as employees find fewer opportunities to develop their skills while on the job. The result is productivity growth below the long-run trend for the entire decade.

## S1: Confidence Rebounds, Stronger Recovery Scenario (January 2010)

This above-baseline scenario is designed so that there is a $10 \%$ probability that the economy will perform better than in this scenario, broadly speaking, and a $90 \%$ probability that it will perform worse.

The upside scenario, "Confidence Rebounds, Stronger Recovery Scenario," is based on the assumption that the rising stock market and other signs that the recovery is building cause consumer confidence to rebound more strongly during 2010. The higher stock market also contributes to higher wealth. As a result, consumer spending grows more strongly than in the baseline.

Several other factors also contribute. Specifically, the remainder of the stimulus proves effective in terms of job creation. Additionally, federal financial policy actions, foreclosure mitigation, and continued Federal Reserve easing together result in increased access to credit. As a result, although the recent increases in house prices are not sustained, the remaining declines during the first half of 2010 are small. House prices bottom out in the second quarter of 2010 , resulting in a peak-to-trough decline of $25 \%$, based on the National Association of Realtors' median sale price measure. Better demand and improved confidence help to propel total new permits back above the annual pace of 1 million units by the third quarter of 2010 , several quarters earlier than in the baseline.

The remaining decline in payroll employment is smaller than in the baseline. On a quarteriy average basis, the unempioyment rate peaked in the fourth quarter of 2009 at $10 \%, 0.5$ of a percentage point lower than the baseline peak, which is forecast to occur in the third quarter of 2010 .

The Federal Reserve begins to tighten moderately in the first part of 2010 and raises interest rates more steadily between mid-2010 and 2012.

Real GDP bottomed out in the second quarter of 2009, as in the baseline, but the ensuing growth immediately following the trough is stronger. Moreover, in the year following the trough, real GDP grows $4.6 \%, 2$ percentage points faster than the baseline. On an annual average basis, real GDP growth is $4.4 \%$ in 2010 and $3.9 \%$ in 2011.

## S4: Complete Collapse, Depression Scenario (January 2010)

With this depression scenario, there is a $96 \%$ probability that the economy will perform better, broadly speaking, and a 4\% probability that it will perform worse.

The downside 4\% scenario, "Complete Collapse, Depression Scenario," is caused by a combination of long-running consumer retrenchment and greatly restricted credit from banks for an extended time. This scenario assumes that the remaining effects of the federal stimulus prove to be negligible and temporary. Further, the federal government reaches the limit of its resources to boost the economy, rendering it unable to prevent a long-running, deep economic slump. Additionally, weaker global economic activity causes exports to be lower than in the baseline for several years.

In the housing market, no meaningful additional foreclosure mitigation policies are enacted. Businesses have little incentive to engage in investment spending because of the very low levels of capacity utilization, poor profitability, and the difficulty of obtaining capital. High unemployment and depressed income levels prevent consumers from obtaining access to credit to purchase homes and durable goods such as vehicles.

Housing starts resume their decline and ultimately fall $90 \%$ cumulatively from their prerecession peak. Although they finally bottom out in early 2011, the increase is at a snail's pace throughout 2011 and much of 2012. House prices resume their decline, and the NAR median existing sales price ultimately falls cumulatively by $51 \%$ from its 2005 peak by the second quarter of 2012. Reduced household wealth, high unemployment, and the lack of credit cause consumers to pull back sharply on their spending. Unit auto sales plunge and average no more than half their baseline levels during 2011 and 2012. Business investment falls greatly during 2010, to $34 \%$ below its prerecession peak by the first quarter of 2011, and does not begin to strengthen meaningfully until mid-2012.

Except for the one-time increase in the third quarter of 2009, real GDP falls from the second quarter of 2008 until the first quarter of 2011 , cumulatively declining by $6.6 \%$ peak to trough. Real GDP growth is $-2.2 \%$ in 2010 and $-0.3 \%$ in 2011. The unemployment rate reaches a high of $14.9 \%$ in early 2012 and remains in double digits until 2015. The exireme weakness results in consumer price deflation throughout all of 2010 and the first half of 2011 at a rate averaging more than $2 \%$ per year.

Moreover, when recovery does begin, its pace is at best moderate. U.S. economic activity remains below full-capacity performance for a decade.

## S2: Longer Recession, Weaker Recovery Scenario (January 2010)

In this recession scenario, in which the downturn resumes and is longer-lasting than the baseline, there is a $75 \%$ probability that economic conditions will be better, broadly speaking, and a 25\% probability that conditions will be worse.

The downside 25\% scenario, "Longer Recession, Weaker Recovery Scenario," is based on the assumption that both the labor market and consumer spending contract more deeply than in the baseline, as households work to pay down debt. This scenario assumes that the increase in GDP in the third quarter of 2009 was only temporary, because the cash for clunkers program merely borrowed spending from the fourth quarter. Except for this pause, real GDP falls from the third quarter of 2008 until the first quarter of 2010. In
comparison with the baseline, the overall decline is larger and the recovery slower.
In this scenario, the remaining stimulus is less effective in creating jobs. Further, although financial policy initiatives such as foreclosure mitigation are put in place and access to credit improves, the improvement is too small and gradual to allow a significant rebound in the housing market until mid-2011. Foreclosures continue to weigh on house prices. The modest rebound in housing construction that took place in the first half of 2009 stalls, and housing starts are essentially flat for most of 2010 . House prices resume their decline, and the NAR median sales price falls $43 \%$ cumulatively, with downward pressure on prices continuing until mid-2011.

Persistent weakness in the labor market and the longer slump in housing combine to constrain consumer spending, as consumers retrench to offset the extra wealth loss from the larger decline in house prices. The demand for housing-related durables remains weak. The unemployment rate peaks at $12.5 \%$, nearly 2 percentage points higher than the peak in the baseline, in the first quarter of 2011.

Owing to the weak recovery, the Federal Reserve does not begin to tighten monetary policy until mid-2011 and does not begin to raise interest rates significantly until 2012.

The lack of a more robust rebound in housing and the continued weakness in labor markets weigh on growth throughout 2010. Real GDP falls $4.1 \%$ cumulatively before bottoming out in the first quarter of 2010. Growth is then positive, but below trend, for the rest of 2010. Real GDP growth is $-0.1 \%$ in 2010 on an annual average basis and $3.4 \%$ in 2011.

## S3: Prolonged Retrenchment, Very Severe Recession Scenario (January 2010)

In this very severe recession scenario, there is a $90 \%$ probability that the economy will perform better, broadly speaking, and a $10 \%$ probability that it will perform worse.

The downside 10\% scenario, "Prolonged Retrenchment, Very Severe Recession Scenario," is due to two related factors. First, continuing high unemployment and economic uncertainty cause consumers to save more and pay down debt instead of growing their spending. Second, credit conditions remain tight because continuing weakness at many banks forces them to keep the flow of credit restrained. This scenario maintains the assumption that the increase in GDP in the third quarter of 2009 was only temporary, because the cash for clunkers program merely borrowed spending from the fourth quarter.

The difficulty that firms and consumers encounter obtaining loans extends for a longer time, and this also weighs on business investment spending. Additionally, foreclosure mitigation policies are largely unproductive, and the remaining impact of the federal stimulus in creating jobs is only modest and temporary.

As a result of restricted access to credit and continuing high unemployment, the moderate rebound in housing construction that occurred over the first half of 2009 pauses and then reverses course. Housing starts resume their decline and do not bottom out until 2011, more than $85 \%$ below their cyclical peak. No significant recovery begins until 2012. House prices, as measured by the NAR median sales price, resume their decline and fall $47 \%$ peak to trough before bottoming out late in 2011. With the economy weak,
the Federal Reserve keeps the fed funds target rate below 1\% throughout all of 2010 and 2011. No significant tightening occurs until mid-2012.

The worse labor market, ongoing consumer retrenchment, and the lack of credit availability together lead to a resumption in the decline in motor vehicle sales, which average below 10 million units per year throughout all of 2010 and 2011. Further, business investment falls throughout 2010. Additionally, slower global growth than in the baseline leads to declining exports throughout 2010.

The economy experiences a far longer and deeper recession than in the baseline. Except for the one-time increase in the third quarter of 2009, real GDP falls from the third quarter of 2008 through the end of 2010 , with a peak-to-trough decline of $5.2 \%$. Weak recovery begins in the second quarter of 2011. Real GDP growth on an annual average basis is $-1.1 \%$ for 2010 and $0.5 \%$ for 2011. The deeper contraction in the labor market causes the unemployment rate to hit a peak of $14.1 \%$ in the third quarter of 2011. The severe weakness in spending results in consumer price deflation throughout all of 2010 and the early part of 2011.

Recent Performance. The pattern of regional economic performance has not changed much over the past several months. The central core of the country is emerging from recession, and much of the rest of the country is still struggling to stabilize. The one change over the past month is that Texas now looks as if it is in recovery, as evidenced by several months of rising employment, increasing industrial production since midyear, and rising housing starts. Thus, nearly the entire midsection of the country from the Dakotas down to Texas is in recovery. Rising energy prices are lending a further hand to the Gulf region, the Dakotas, and the upper Mountain West.

Manufacturing. While the industrial Midwest economy still struggles, there are signs that the turnatound in manufacturing due partly to domestic inventory rebuilding and partly to export demand is creating some stability in the region's labor market. Manufacturing employment in the Great Lakes states is up modestly from its June low and has held rather steady since then. Indicative of this is a decline in the unemployment rate for Elkhart IN from 18.6\% back in March 2009 to $14.6 \%$ in November. Elhhart, home to several RV makers, has been the poster child for the pain felt in the Midwest from the falloff in demand for autos and other consumer durables a year ago. Similarly, jobless rates in Peoria IL, Detroit, and Fort Wayne IN, while still in double digits, have fallen from earlier highs. The decline in Fort Wayne is particularly heartening because of its diversified industrial base.

Manufacturing employment in the Southeast has also stabilized from a mid-2009 low. Similar to the Great Lakes, the Southeast is home to automakers, consumer durables, chemicals and other intermediate inputs to manufacturing processes, and export goods. Here, too, the unemployment rate has fallen, though only modestly.

The stabilization in manufacturing will not truly lift regional economies, however, until hiring kicks in directly or through the service industries that support goods production. Nationwide, more than one-half of manufacturers are holding their workforce steady or expanding, according to the ISM survey. But this sentiment is not widespread. Regional Fed surveys in Chicago, Kansas City, New York and Texas and a private survey in California still indicate hesitation to hire among manufacturers.

Confidence. Where there is hiring, consumer confidence is beginning to improve. This is evident mostly in the Midwest, according to the Conference Board's regional indicators. The Plains and Great Lakes areas have seen this measure of confidence rise from the extreme lows of one year ago, although it is driven more by expectations rather than an assessment of current conditions. Elsewhere across the country, consumer confidence has remained low and unchanged since mid-2009.

Energy. Rising energy prices create some new stimulus for the Gulf Coast and energy producers in the northern Plains and Rocky Mountain areas. The number of drill rigs is rising once again after reaching cyclical lows about one year ago. The employment and income gains in the industry remain moderate, but given that the energy-producing regions of the U.S. are among the most stable already, this added stimulus will keep the economy and labor markets of the region expanding.

Housing. Most regions received a brief respite from price declines in late 2009 as low interest rates, the federal tax credit for first-time homebuyers, and remaikably high housing affordability combined to drive sales, and in some cases the median sales price, upward. Nowhere was this more evident than in California, where the $\mathrm{S} \& \mathrm{P} /$ Case-Shiller house price index rose on a monthly basis in October in Los Angeles, San Diego and San Francisco. This may not be permanent, however, since the large pipeline of impending foreclosures could add to the supply of homes for sale in coming months. The weakest housing markets remain in Las Vegas, Phoenix, South Florida, and the hardest-hit Midwest economies such as Detroit.

New York metro area housing was among the last to weaken but now has faltered along with the rest of the country, The area's housing market is usually dependent on bonus payments to drive sales during the first half of the year. Rising expectations for bonuses bode well for some stability this year in New York, but much also depends on whether bonus payouts are spent this year as quickly as in the past. Low house and condo prices may look attractive, but bonus recipients may be more cautious this year, choosing to replenish retirement and tuition savings before jumping back into the local real estate market. Thus, the multiplier impact from financial services may remain rather weak well into this year.

Outlook. The economy is now recovering in the central Plains, northern Mountain states, and to a certain extent in some of the Midwest, particularly Indiana.

The next area to feel significant recovery will be the Southeast, excluding Florida. The region has a high exposure to manufacturing and to expanding export markets. Automakers and other durable-goods makers are adding stability to employment and income in Alabama, the Carolinas and Georgia, and this trend will expand in coming months.

Areas producing technology have the next best potential to recover as domestic business investment spending and export demand support information technology, biotechnology; clean energy ventures, and advanced industrial equipment and machinery. Silicon Valley, Boston, Portland OR and Austin are examples where plant expansion or improved venture capital placements paint a picture of impending growth. Colorado, New Mexico and even Texas may gain from wind and other alternative energy industries.

The lagging states will be those with deep corrections in their housing markets. Arizoña, California, Florida and Nevada are the most likely to be held back by a lack of any stimulus from new construction and by household finances still stymied by underwater mortgages and high monthly house payments. Much depends on the success of current mortgage modification efforts and the potential for further foreclosures. Record affordability and stable population growth in California gives it the upper hand among these states. The others have seen rapid deceleration of population growth, according to the mid-2009 Census estimates.

Risks. The greatest risk in the near term is that once the restocking of inventories now underway comes to an end, demand for durable goods will wane and employment cutbacks will resume, particularly in the industrial Midwest. This could keep the region's unemployment rates in double digits well into the foreseeable furure.

The second greatest risk is that few temporary mortgage modifications convert to permanent modifications, causing housing markets in the Southeast and Southwest to falter once again.

The final risk is that emerging markets falter as asset prices waver, reducing export demand.

Steven G. Cochrane
January 2010

# BROAD VIEW <br> Regional Economies 



Recovery is beginning to spread from the central Plains to the Gulf Coast and farther outward. The Plains have been the steadiest region, with very little housing cycle to speak of. Rising energy and commodity prices since the second quarter of last year add further resilience to the Plains and to the energy-producing regions of Texas and the Gulf. The recent rebound in manufacturing production supports some of the Southeast, as well as the industrial Midwest, although the depth of the Midwest's difficulties allowed only Indiana to break out of its downturn so far.


The Midwest also was hit hard by declines in wage income, as many well-paid union workers lost jobs in manufacturing. The West also faced nearly an identical decline, as construction and finance jobs, among others, disappeared quickly in late 2008 and early 2009. The sharp downturn in the Northeast was due to the lack of significant bonus payments by financial services a year ago. Otherwise, the Northeast and the South have fared better, although they have also seen wage income fall over the past year. The Northeast could look much better as this year unfolds.

Jobless Rate Peaks Early in Midwest, Soars in West


Labor markets across the country succumbed to the recession last year, but the patterns have not been identical. The Midwest was hit early, as the weak housing market directly dampened demand for housing-related goods and indirectly hindered demand for other durable goods such as autos through the wealth effect. The West's jobless rate soared higher, since much of its employment was directly related to construction. Hidden unemployment, however, may be most prominent in the Midwest. Rates in the South and Northeast also rose but remain below average.


Export trade will provide support to an economic recovery in most areas. The Northeast is the one region that has not experienced a turnaround in export trade, but it also depends less on the export of goods and commodities. The South is exporting more durable goods, as well as chemicals and other nondurables. Autos and industrial equipment originate from the Midwest. The West gains from rising global demand for technology goods. Expect all ports to share in the modest gains in trade flows. All have significant excess capacity and will be competing feverishly for new business.
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$\left.\begin{array}{|l|l|}\hline & \begin{array}{l}\text { CPI: Urban Consumer - New } \\ \text { Vehicles, (Index, 1982-84=100, SA) }\end{array} \\ \text { Yor United States }\end{array}\right]$
Income \& earnings

Industrial sector
Interest rates
Internafional sector
Labor markets
National Accounts (NIPA)
Prices
Comprehensive inflation Page ( $\mathrm{PPi}, \mathrm{Cl}$
Commodity prices
Consumer price indexes.
B All Items
4 All Items less Food \& Energy
E F Food \& Beverages
vax Food
Wh Food at Home
W Food Away from Home
14 Alcoholic beverages
y Housing

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V/25-44 years old
W/ $30-34$ years old
W. 35-39 years old

4 40-44 years old
W4 45-49 years old
W4 45-64 years old
1/ 50-54 years old
W 55-59 years old
W4 60-64 years old
If Greater than 65 years old
Ex Total Population, annual
W4 0-4 years old
W 5-9 years old
Wex 5-19 years oid
W/ 10-14 years old
W綥 15-19 years old
W4 20-24 years old
睤 25-29 years old
W. 25-44 years old

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| Forecast Catalogs |  |  |  |

U.S. States

Banking
Demographics
Components of change
Households
Quarterly
W Number of Households - Total
Annual
W Number of Households - Total
Population
Gross state product
Income
Labor markets
Real estate
Retail sales
Retail sales
14 Total
Note: Ninemonic was changed from $F R$ Vehicle registrations

Vehicle registrations
$\square W$ New Vehicle Registrations, Total (\#, S.
W Car Registrations (\#, SAAR)
W) Light Truck Registrations (\#, SAAR

United States
My Data Series

## Favorites

MEDC's Favorites



## Assumptions Used in Sales \& Excise Model

(1) Total Personal Income
(2) Inflation (CPI-U)
(3) Total Employment Growth
(a) Growth by Sector
(4) Forecast of CPI for Energy Prices (Economy.com - January 2010)
(5) Forecast of new passenger car \& light truck registrations in Maine (Economy.com - January 2010)
(6) Forecast of average price of new vehicle (Economy.com - January 2010)
(7) Forecast of Personal Savings Rate (Economy.com-January 2010)

## Assumptions Used in Individual Income Tax Model

(8) Total Personal Income
(a) Growth by Component
(9) Inflation (CPI-U)
(10) Total Employment Growth
(11) Unemployment Rate
(12) 3-Month Treasury Bill Rate
(13) 10-Year Treasury Note Rate

## Assumptions Used in Corporate Income Tax Model

(14) Inflation (CPI-U)
(1i) Total Employment Growth
(a) Growth by Sector
(12) Forecast of Before-Tax Corporate Book Profits (Economy.com - January 2010)

## Sales \& Use Tax

Maine Revenue Services
Taxable Sales by Sector
In Thousands of Dollars

## Building Supply

Food Store
General Merchandise
Other Retail
Auto/Transportation
Restaurant
Lodging
< Consumer Sales
Business Operating Total

Dec. '09 \% Ch. Dec. '08 \% Ch. Dec. '07

| $\$ 167,679$ | $-7.1 \%$ | $\$ 180,434$ | $-7.2 \%$ | $\$ 194,481$ |
| ---: | ---: | ---: | ---: | ---: |
| $\$ 136,058$ | $-3.8 \%$ | $\$ 141,436$ | $8.4 \%$ | $\$ 130,457$ |
| $\$ 383,845$ | $0.6 \%$ | $\$ 381,736$ | $-2.0 \%$ | $\$ 389,613$ |
| $\$ 256,034$ | $-6.9 \%$ | $\$ 275,009$ | $0.4 \%$ | $\$ 273,899$ |
| $\$ 273,507$ | $5.2 \%$ | $\$ 260,110$ | $-8.8 \%$ | $\$ 285,080$ |
| $\$ 145,144$ | $2.5 \%$ | $\$ 141,638$ | $-3.8 \%$ | $\$ 147,172$ |
| $\$ 24,317$ | $-11.6 \%$ | $\$ 27,512$ | $-12.4 \%$ | $\$ 31,410$ |
| $\$ 1,386,583$ | $-1.5 \%$ | $\$ 1,407,874$ | $-3.0 \%$ | $\$ 1,452,113$ |
| $\$ 237,062$ | $-6.3 \%$ | $\$ 252,930$ | $-12.8 \%$ | $\$ 289,970$ |
| $\$ 11,623,645$ | $-2.2 \%$ | $\$ 1,660,804$ | $-4.7 \%$ | $\$ 1,742,083$ |


| Average | Moving Total | YTD Growth |
| ---: | :---: | ---: |
| Last 3 Mos. | Last 12 Mos. | CY'09 vs. '08 |
| Vs. Last Yr. | Vs. Prior | Thru. Dec. |
| \% Change | \% Change | \% Change |
| $-10 \%$ | $-16 \%$ | $-16 \%$ |
| $1 \%$ | $2 \%$ | $2 \%$ |
| $0 \%$ | $-4 \%$ | $-4 \%$ |
| $-3 \%$ | $-2 \%$ | $-2 \%$ |
| $5 \%$ | $-7 \%$ | $-7 \%$ |
| $1 \%$ | $-1 \%$ | $-1 \%$ |
| $-6 \%$ | $-7 \%$ | $-7 \%$ |
| $-1 \%$ | $-5 \%$ | $-5 \%$ |
| $-12 \%$ | $-17 \%$ | $-17 \%$ |
| $-3 \%$ | $-7 \%$ | $-7 \%$ |

## 2008 Maine Taxable Salles by Sector



## Total Taxable Sales



Quarter \& Calendar Year

## Auto/Transportation Taxable Sales



Quarter \& Calendar Year

## Building Supply Taxable Sales January 2001 to Date



## Food Store Taxable Sales January 2001 to Date



## General Merchandise Taxable Sales January 2001 to Date



$$
\cdot 0^{1} \cdot 0^{1} \cdot 0^{1} \cdot 0^{2} \cdot 0^{2} \cdot 0^{3} \cdot 0^{3} \cdot 0^{3} \cdot 0^{0} \cdot 0^{1} \cdot 0^{5} \cdot 0^{5} \cdot 0^{6} \cdot 0^{6} \cdot 0^{6} \cdot 0^{1} \cdot 0^{1} \cdot 0^{8} \cdot 0^{8} \cdot 0^{8} \cdot 0^{9} \cdot 0^{9}
$$

12 Month Moving Total $=$ Growth Rate

## Other Retail Taxable Sales January 2001 to Date



## Auto/Transportation Taxable Sales January 2001 to Date



## Auto/Transportation Sales as Percentage of Total Sales

12 Month Moving Total Dec. 1974 - Date


Maine Revenue Services Economic Research Division 2/17/2010

## Restaurant Taxable Sales January 2001 to Date



12 Month Moving Total $=$ Growth Rate

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## Lodging Taxable Sales January 2001 to Date



## Total Consumer Taxable Sales January 2001 to Date





Maine Revenue Services Economic Research Division 2/17/2010

## Total Taxable Sales January 2001 to Date


$\cdot 0^{4} \cdot 0^{4} \cdot 0^{4} \cdot 0^{4} \cdot 0^{2} \cdot 0^{2} \cdot 0^{3} \cdot 0^{3} \cdot 0^{7} \cdot 0^{7} \cdot 0^{5} \cdot 0^{5} \cdot 0^{6} \cdot 0^{6} \cdot 0^{6} \cdot 0^{1} \cdot 0^{1} \cdot 0^{9} \cdot 0^{8} \cdot 0^{8} \cdot 0^{9} \cdot 0^{9}$

$\Longrightarrow 12$ Month Moving Total $\sim$ Growth Rate

Maine Revenue Services Economic Research Division 2/17/2010

## Total Maine Taxable Sales Growth Rate of 12 Month Moving Total January 1988 to Date



## Sales \& Service Provider Tax Revenue FY"IO Actuall, Budget \& FY'09 Actual



Maine Revenue Services Economic Research Division 2/22/2010

Maine Revenue Services
Sales \& Use Tax and General Fund Service Provider Tax Revenue


## Sales Tax Cash Receipts Year-to-Date FY"10 \& FY"09



Maine Revenue Services Economic Research Division 2/2/2010

## Maine Revenue Services

Sales Tax Cash Receipts

|  | FY'10 | FY'09 | YTD FY'10 | YTD FY'09 | Growth Rate | YTD Growth Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jul | \$84,490,717 | \$94,480,353 | \$841,490,717 | \$94,480,353 | -10.6\% | -10.6\% |
| Aug | \$85,879,571 | \$92,867,808 | \$170,370,288 | \$187,348,161 | -7.5\% | -9.1\% |
| Sep | \$90,272,558 | \$95,234,765 | \$260,64:2,846 | \$282,582,926 | -5.2\% | .7.8\% |
| Oct | \$83,002,752 | \$39,753,178 | \$343,645,598 | \$372,336,104 | -7.5\% | -7.7\% |
| Nov | \$70,991,157 | \$73,756,458 | \$414,636,755 | \$446,092,562 | -3.7\% | -7.1\% |
| Dec | \$63,989,178 | \$65,245,049 | \$478,625,933 | \$511,337,611 | -1.9\% | -6.4\% |
| Jan | \$85,451,148 | \$39,286,080 | \$564,07'7,081 | \$600,623,691 | -4.3\% | -6.1\% |
| Feb | \$0 | \$56,805,192 | \$564,07'7,081 | \$657,428,883 | -100.0\% | -14.2\% |
| Mar | \$0 | \$57,141,982 | \$564,077,081 | \$714,570,865 | -100.0\% | -21.1\% |
| Apr | \$0 | \$63,313,527 | \$564,0'77,081 | \$777,884,392 | -100.0\% | -27.5\% |
| May | \$0 | \$62,013,348 | \$564,0'77,081 | \$839,897,740 | -100.0\% | -32.8\% |
| Jun | \$0 | \$69,759,671 | \$564,07'7,081 | \$909,657,411 | -100.0\% | -38.0\% |


|  | Economy.com <br> February 2010 <br> CPI Urban Consumer |  | Economy.com <br> November 2009 <br> CPI Urban Consumer |  |
| :---: | :---: | :---: | :---: | :---: |
|  | CY | Motor Fuels | CY | Motor Fuels |
|  | 2008 | 277.9350 | 2008 | 277.9350 |
|  | 2009 | 199.8250 | 2009 | 187.5375 |
|  | 2010 | 234.0500 | 2010 | 208.8575 |
|  | 2011 | 249.2175 | 2011 | 224.9425 |
|  | 2012 | 261.1925 | 2012 | 235.7450 |
|  | 2013 | 269.1075 | 2013 | 242.8900 |
|  | CY | Fuel Oll | CY | Fuell 011 |
|  | 2008 | 363.5975 | 2008 | 363.5975 |
|  | 2009 | 232.0375 | 2009 | 227.0075 |
|  | 2010 | 243.2875 | 2010 | 231.9125 |
|  | 2011 | 255.9800 | 2011 | 245.0425 |
|  | 2012 | 268.4000 | 2012 | 257.3050 |
|  | 2013 | 278.8375 | 2013 | 267.4200 |
| $\begin{aligned} & \text { 3 } \\ & 0 \\ & \text { d } \\ & \text { d } \end{aligned}$ | CY | Natural Gas | CY | Natural Gas |
|  | 2008 | 247.9900 | 2008 | 247.9900 |
|  | 2009 | 193.5975 | 2009 | 194.7125 |
|  | 2010 | 194.0100 | 2010 | 195.5750 |
|  | 2011 | 204.1350 | 2011 | 206.6450 |
|  | 2012 | 214.0425 | 2012 | 216.9900 |
|  | 2013 | 222.3625 | 2013 | 225.5200 |
|  | CY | Electricity | CY | Electricity |
|  | 2008 | 187.0900 | 2008 | 187.0900 |
|  | 2009 | 192.5475 | 2009 | 195.0300 |
|  | 2010 | 198.4150 | 2010 | 202.7950 |
|  | 2011 | 208.7700 | 2011 | 214.2825 |
|  | 2012 | 218.9000 | 2012 | 225.0050 |
|  | 2013 | 227.4125 | 2013 | 233.8500 |


| CY | Savings Rate |
| :--- | :---: |
| 2008 | $2.65 \%$ |
| 2009 | $4.37 \%$ |
| 2010 | $4.81 \%$ |
| 2011 | $5.77 \%$ |
| 2012 | $5.46 \%$ |
| 2013 | $5.46 \%$ |

Target inotor vehicle sales
Forecasted Maine sales x average price


| CY | Savings Rate |
| :--- | :---: |
| 2008 | $2.65 \%$ |
| 2009 | $3.81 \%$ |
| 2010 | $4.17 \%$ |
| 2011 | $5.28 \%$ |
| 2012 | $5.30 \%$ |
| 2013 | $5.40 \%$ |

Target motor vehicle sales
Forecasted Maine sales x average price

| Average priciew Vehic Price x New Vehicleigistratio Registrations |  |  |  | Growth Rate |
| :---: | :---: | :---: | :---: | :---: |
| Calendar Year |  | Maine |  |  |
| 2008 | 24,871 | 49,632 | 1,234,407,918 |  |
| 2009 | 24,314 | 39,418 | 958,401,228 | - -22.4\% |
| 2010 | 24,129 | 41,430 | 999,660,127 | - 4.3\% |
| 2011 | 24,134 | 49,124 | 1,185,548,128 | -18.6\% |
| 2012 | 24,272 | 55,845 | 1,355,468,384 | - 14.3\% |
| 2013 | 24,505 | 58,084 | 1,423,347,685 | 5.0\% |
| Fisca |  |  |  | Nov. 2009 |
| 2009 |  |  | 1,096,404,573 |  |
| 2010 |  |  | 979,030,678 | -10.7\% |
| 2011 |  |  | 1,092,604,127 | 7 11.6\% |
| 2012 |  |  | 1,270,508,256 | - 16.3\% |
| 2013 |  |  | 1,389,408,034 | - 9.4\% |

Sales \& Use and Service Frovider Taxes: Baseline Forecast FY10-FY13

|  | FY06 | FY07 | Blennlum | FY08 | FY09 | Blennlum | FY10 | FY11 | Blennlum | FY12 | FY13 | Blennlum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuals \& December, 2009 Forecast / 1 | \$993,202,707 | \$1,020,856,253 | \$2,014,058,960 | \$1,035,157,942 | \$974,636,315 | \$2,009,794,257 | \$953,245,122 | \$979,586,326 | \$1,932,831,448 | \$1,024,070;107 | \$1,075,664,657 | \$2,099,734,764 |
| Growth Rate | 5.5\% | 2.8\% | 8.4\% | 1.4\% | .5.8\% | -0.2\% | -2.2\% | 2.8\% | -3.8\% | 4.5\% | 5.0\% | 8.6\% |
| Technical Adjustments to Prior Forecast 12 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Economic Assumptions 13 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,415,039 | (\$1,390,000) | \$25,039 | ( $\$ 2,820,000)$ | (\$3,840,000) | ( $86,660,000$ ) |
| Total Adjustments to Prior Forecast | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,415,039 | ( $81,390,000$ ) | \$25,039 | (\$2,820,000) | (\$3,840,000) | (\$6,660,000) |
| ONew Forecast | \$993,202,707 | \$1,020,856,253 | \$2,014,058,960 | \$1,035,157,942 | \$974,6916,315 | \$2,009,794,257 | \$954,660,161 | \$978,196,326 | \$1,932,856,487 | \$1,021,250,107 | \$1,071,824,657 | \$2,093,074,764 |
| Growth Rate | 5.5\% | 2.8\% | 8.4\% | 1.4\% | -5.8\% | -0.2\% | -2.0\% | 2.5\% | -3.8\% | 4.4\% | 5.0\% | 8.3\% |
| 1/December, 2009 forecast with FY06, FY07, FY08 and FYO9 actuals. |  |  |  |  |  |  | $\begin{aligned} & \$ 939,430,846 \\ & (\$ 13,814 ; 276) \end{aligned}$ | $\begin{aligned} & \$ 962,591,548 \\ & (\$ 16,994,778) \end{aligned}$ |  | $\begin{array}{cc} \mathbf{\$ 1 , 0 0 4 , 9 5 8 , 5 0 9} & \mathbf{\$ 1 , 0 5 4 , 7 2 6 , 2 6 3} \\ (\$ 19,111,598) & (\$ 20,938,394) \end{array}$ises that affect revenues. |  |  |
| $2 /$ Technical adjustments refer to all changes in the forecast that are not related to changes from new economic assumptions. Examples of technical changes may be new data, model updates and changes, and court cases that affect revenues. |  |  |  |  |  |  |  |  |  |  |  |
|  of energy prices on sales tax recelpts and to target automoble sales growth. |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine Revenue Services |  |  |  |  |  |  |  |  |  |  |  |  |
| Economic Research Division |  |  |  |  |  |  |  |  |  |  |  | 22-Feb-10 |



Maine Revenue Services
Transfers to the Tourism Marketing Promotion Fund
February 2010 Forecast
5\% of the tax on meals and lodging is dedicated to the Tourism Marketing Promotion Fund. Revenue is credited to the fund in July and October of each year based on revenue collected in the prior fiscal year after revenue sharing has been deducted.

| Actual FY'09 meals/lodge tax revenue | \$190,137,464 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| General Fund portion | \$180,440,453 | 94.9\% |  |  |
| FY'10 Transfer to Tourism - budget | \$9,190,591 |  |  |  |
| Actual FY'10 transfer | \$9,0.22,023 | 5.0\% |  |  |
| Variance | $(\$ 168,568)$ |  |  |  |
|  | FY'10 | FY'11 | FY'12 | FY'13 |
| Meals and lodging revenue forecast | \$188,730,000 | \$191,430,000 | \$197,530,000 | \$206,580,000 |
| Growth rate | -0.7\% | 1.4\% | 3.2\% | 4.6\% |
| General Fund | \$179,293,500 | \$181,858,500 | \$187,653,500 | \$196,251,000 |
| General Fund percentage | 95.0\% | 95.0\% | 95.0\% | 95.0\% |
| February 2010 forecast | FY'11 | FY'12 | FY'13 | FY'14 |
| 5\% to Tourism Fund | \$8,964,675 | \$9,092,925 | \$9,382,675 | \$9,812,550 |
| Current budget | \$8,979,400 | \$9,099,575 | \$9,392,175 |  |
| Variarice | (\$14,725) | (\$6,650) | $(39,500)$ |  |

Transfer to the Transit, Aviation and Rail Transportation Fund (STAR Fund). $50 \%$ of the revenue collected from the $10 \%$ sales tax on short-term automobile rentals in a fiscal year is transferred to the STAR Fund in the next fiscal year.

|  | FY'10 | FY'11 | FY'12 | FY'13 |
| :--- | :--- | :--- | :--- | :--- |
|  | \$3,054,519 | $\$ 3,061,703$ | $\$ 3,079,163$ | $\$ 3,127,679$ |
| Current Budget |  | $0.2 \%$ | $0.6 \%$ | $1.6 \%$ |
|  |  | $03,054,519$ | $\$ 3,061,703$ | $\$ 3,079,163$ |

## Individual Income Tax

## Individual Income Tax Withholding



Quarter \& Calendar Year

## YTD Individual Income Tax Revenue FY'10 Actual, Budget \& FY'09 Actual



Maine Revenue Services Economic Research Division 2/22/2010
Maine Revenue Services
Individual Income Tax Revenue

FY'10 Actual

Jul
FY'10 Budget
Aug

## 1040 Withholding Year-to-Date FY'10 \& FY'09



Maine Revenue Services Economic Research Division 2/1/2010

## Withholding Tax Revenue 12 Month Moving Total



Maine Revenue Services Research Division 2/1/2010

## 1040 Estimated Payments Year-to-Date FY'10 \& FY'09



Maine Revenue Services Economic Research Division 2/1/2010

## 1040 Final Payments Year-to-Date FY'10 \& FY'09



Maine Revenue Services Economic Research Division 2/1/2010

Maine Revenue Services
Individual Income Tax Withholding, Estimated Payments and Final Payments


## Individual Income Tax Refunds Year-to-Date FY'10 \& FY'09



Maine Revenue Services Economic Research Division 2/11/2010

Maine Revenue Services Individual Income Tax Refunds

| Month | Year-To-Date |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| FY'10 | FY'09 | FY'10 | FY'09 | Growth Rate |
|  |  |  |  |  |
|  |  |  |  |  |
| $\$ 7,227,071$ | $\$ 7,519,593$ | $\$ 7,227,071$ | $\$ 7,519,593$ | $-4 \%$ |
| $\$ 3,891,611$ | $\$ 3,354,678$ | $\$ 11,118,682$ | $\$ 10,874,271$ | $2 \%$ |
| $\$ 1,694,183$ | $\$ 3,357,568$ | $\$ 12,812,865$ | $\$ 14,231,839$ | $-10 \%$ |
| $\$ 7,273,889$ | $\$ 5,472,769$ | $\$ 20,086,754$ | $\$ 19,704,608$ | $2 \%$ |
| $\$ 9,507,062$ | $\$ 7,142,334$ | $\$ 29,593,816$ | $\$ 26,846,942$ | $10 \%$ |
| $\$ 4,356,701$ | $\$ 1,879,951$ | $\$ 33,950,517$ | $\$ 28,726,893$ | $18 \%$ |
| $\$ 11,335,063$ | $\$ 7,884,569$ | $\$ 45,285,580$ | $\$ 36,611,462$ | $24 \%$ |
| $\$ 0$ | $\$ 85,554,056$ | $\$ 45,285,580$ | $\$ 122,165,518$ | $-63 \%$ |
| $\$ 0$ | $\$ 72,077,960$ | $\$ 45,285,580$ | $\$ 194,243,478$ | $-77 \%$ |
| $\$ 0$ | $\$ 49,759,527$ | $\$ 45,285,580$ | $\$ 244,003,005$ | $-81 \%$ |
| $\$ 0$ | $\$ 20,763,677$ | $\$ 45,285,580$ | $\$ 264,766,682$ | $-83 \%$ |
| $\$ 0$ | $\$ 17,679,603$ | $\$ 45,285,580$ | $\$ 282,446,285$ | $\mathbf{- 8 4 \%}$ |

Individual Income Tax: Basellne Forecast FY10 - FY13

|  | FY06 | FY07 | Biennlum | FY08 | FY09 | Blennium | FY10 | FY11 | Biennlum | FY12 | FY13 | Biennium |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuals \& December, 2009 Forecast /1 | \$1,364,368,543 | \$1,464,928,346 | \$2,829,296,889 | \$1,558,032,664 | \$1,365,437,729 | \$2,923,470,393 | \$1,277,980,000 | \$1,314,040,000 | \$2,592,020,000 | \$1,362,800,000 | \$1,407,600,000 | \$2,770,400,000 |
| Growth Rate | -1.2\% | 7.9\% | 7.5\% | 6.4\% | -12.4\% | 3.3\% | -6.4\% | 2.8\% | - $-11.3 \%$ | 3.7\% | 3.3\% | 6.9\% |
| Technical Adjustments $/ 2$. | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$7,500,000 | \$5,500,000 | \$13,000,000 | \$6,000,000 | \$6,500,000 | \$12,500,000 |
| Economic Assumptions /3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$5,900,000 | (\$3,500,000) | \$2,400,000 | (\$20,000,000) | (\$10,000,000) | (\$30,000,000) |
| Total Adjustments to Prior Forecast | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$13,400,000 | \$2,000,000 | \$15,400,000 | (\$14,000,000) | (\$3,500,000) | (\$17,500,000) |
| Now Forecast | \$1,364,368,543 | \$1,464,928,346 | \$2,829,296,889 | \$1,558,032,664 | \$1,365,437,729 | \$2,923,470,393 | \$1,291,380,000 | \$1,316,040,000 | \$2,607,420,000 | \$1,348,800,000 | \$1,404,100,000. | \$2,752,900,000 |
| Growth Rate | 5.3\% | 7.4\% | 7.5\% | 6.4\% | -12.4\% | $3.3 \%$ | -5.4\% | 1.9\% | -10.8\% | 2.5\% | 4.1\% | 5.6\% |

1/Wcember, 2009 forecast with FY06, FY07, FY08 and FY09 actuals.
$2 /$ Tidchnical adjustments refer to all changes in the forecast that are not related to changes from new economic assumptions. Examples of technical changes may be new data, model updates and changes, and court cases that affect revenues.
$3 /$ This line shows the incremental change in baseline revenues as a result of a new economic forecast.

## Corporate Income Tax

YTD Corporate Income Tax Revenue FY'10 Actual, Budget \& FY"09 Actual


[^2]Maine Revenue Services Economic Research Division 2/22/2010

Maine Revenue Services
Corporate Income Tax Revenue


## Corporate Estimated Payments Year-to-Date FY'10 \& FY'09



Maine Revenue Services Economic Research Division 2/1/2010

## Corporate Final Payments Year-to-Date FY'10 \& FY'09



Maine Revenue Services Economic Research Division 2/1/2010

## Maine Revenue Services

Corporate Income Tax Estimated Payments

|  | Month |  | Year-To-Date |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY'10 | FY'09 | Growth Rate | FY'10) | FY'09 | Growth Rate |
| Jul | \$5,042,059 | \$6,280,063 | -19.7\% | \$5,042,059 | \$6,280,063 | -19.7\% |
| Aug | \$3,149,785 | \$1,292,836 | 143.6\% | \$8,191,844 | \$7,572,899 | 8.2\% |
| Sept | \$24,234,237 | \$28,193,141 | -14.0\% | \$32,426,081 | \$35,766,040 | -9.3\% |
| Oct | \$4,907,850 | \$4,632,322 | 5.9\% | \$37,333,931 | \$40,398,362 | -7.6\% |
| Nov | \$3,513,924 | \$2,371,818 | 48.2\% | \$40,847,855 | \$42,770,180 | -4.5\% |
| Dec | \$30,640,487 | \$26,025,269 | 17.7\% | \$71,488,342 | \$68,795,449 | 3.9\% |
| Jan | \$11,381,713 | \$6,379,466 | 78.4\% | \$82,870,055 | \$75,174,915 | 10.2\% |
| Feb | \$0 | \$1,721,649 | -100.0\% | \$82,870,055 | \$76,896,564 | 7.8\% |
| Mar | \$0 | \$4,816,363 | -100.0\% | \$82,870,055 | \$81,712,927 | 1.4\% |
| Apr | \$0 | \$16,207,326 | -100.0\% | \$82,870,055 | \$97,920,253 | -15.4\% |
| May | \$0 | \$2,577,164 | -100.0\% | \$82,870,055 | \$100,497,417 | -17.5\% |
| Jun | \$0 | \$22,288,120 | -100.0\% | \$82,870,055 | \$122,785,537 | -32.5\% |

## Corporate Income Tax Final Payments and Back Taxes

|  | Month |  |  | Year-To-\|Date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FY'10 | FY'09 | Growth Rate | FY'10 | FY'09 | Growth Rate |
| Jul | \$6,167,583 | \$2,732,994 | 125.7\% | \$6,167,583 | \$2,732,994 | 125.7\% |
| Aug | \$1,995,490 | \$1,130,075 | 76.6\% | \$8,163,073 | \$3,863,069 | 111.3\% |
| Sept | \$4,541,832 | \$4,268,587 | 6.4\% | \$12,704,905 | \$8,131,656 | 56.2\% |
| Oct | \$5,891,348 | \$6,879,061 | -14.4\% | \$18,596,253 | \$15,010,717 | 23.9\% |
| Nov | \$7,267,481 | \$1,690,554 | 329.9\% | \$25,863,734 | \$16,701,271 | 54.9\% |
| Dec | \$6,887,467 | \$9,069,429 | -24.1\% | \$32,751,201 | \$25,770,700 | 27.1\% |
| Jan | \$2,660,099 | \$3,029,749 | -12.2\% | \$35,411,300 | \$28,800,449 | 23.0\% |
| Feb | \$0 | (\$651,314) | -100.0\% | \$35,411,300 | \$28,149,135 | 25.8\% |
| Mar | \$0 | \$16,922,179 | -100.0\% | \$35,411,300 | \$45,071,314 | -21.4\% |
| Apr | \$0 | \$5,812,417 | -100.0\% | \$35,411,300 | \$50,883,731 | -30.4\% |
| May | \$0 | \$4,305,955 | -100.0\% | \$35,411,300 | \$55,189,686 | -35.8\% |
| Jun | \$0 | \$1,885,807 | -100.0\% | \$35,411,300 | \$57,075,493 | -38.0\% |

## Corporate Income Tax Refunds Year-to-Date FY"10 \& FY'09



Maine Revenue Services
Corporate Income Tax Refunds


Corporate Income Tax: General Fund Baseline Forecast FY10-FY13

|  | FY06i | FY07 | Biennium | FY08 | FY09 | Biennlum | FY10 | FY11 | Biennium | FY12 | FY13 | Blennium |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuals \& December, 2009 Forecast $/ 1$ | \$188,015,557 | \$183,851,533 | \$371,867,090 | \$184,514,568 | \$143,085,966 | \$327,600,534 | \$118,045,922 | \$119,108,335 | \$237,154,257 | \$132,091,144 | \$149,262,992 | \$281,354,136 |
| Growth Rate | 38.4\% | -2.2\% | 50.3\% | 0.4\% | -22.5\% | -11.9\% | -17.5\% | 0.9\% | -27.6\% | 10.9\% | 13.0\% | 18.6\% |
| Technical Adjustments to Prior Forecast $/ 2$ | \$0 | \$0 | \$0 | \$0 | \$0. | \$0 | \$13,333,673 | \$16,685,994 | \$30,019,666 | \$16,354,300 | \$15,950,819 | \$32,305,119 |
| Economic Forecast $/ 3$ | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$16,339,121 | \$19,992,374 | \$36,331,495 | \$19,543,036 | \$16,446,603 | \$35,989,638 |
| Total Adjustments to Prior Forecast |  | \$0 | \$0 | \$0 | \$0 | \$0 | \$29,672,794 | \$36,678,367 | \$66,351,161 | \$35;897,336 | \$32,397,422 | \$68,294,757 |
| NVan Forecast | \$188,015,557 | \$183,851,533 | \$371,867,090 | \$184,514,568 | \$143,085,966 | \$327,600,534 | \$147,718,716 | \$155,786,702 | \$303,505,418 | \$167,888,480 | \$181,660,414 | \$349,648,893 |
| Gowth Rate 1 $\infty$ | 38.4\% | -2.2\% | 50.3\% | 0.4\% | -22.5\% | -11.9\% | 3.2\% | 5.5\% | -7.4\% | 7.8\% | 8.1\% | 15.2\% |

1/ December, 2009 forecast with FY06, FY07, FY08 and FYOO actuals.

3 This line shows the incremental change in baseline revenues as a result of a new economic forecast. The new economic forecast is from Economy.com's January 2010 forecast of Corporate pre-tax profits.

## Highway Fund

## Maine Revenue Services

Highway Fund Motor Fuel Tax Revenue Forecast

| Gasoline Tax Revenue | FY'08 | FY'09 | FY'10 | FY'11 | FY'12 | FY'13 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FY'08 \& '09 actual \& current budget | \$179,096,254 | \$174,404,167 | \$175,609,526 | \$170,874,716 | \$172,516,117 | \$177,106,628 |
| Growth rate |  | -2.6\% | 0.7\% | -2.7\% | 1.0\% | 2.7\% |
| Tax rate per gallon | \$0.276 | \$0.284 | \$0.295 | \$0.295 | \$0.300 | \$0.307 |
| Percentage increase in tax rate |  | 2.8\% | 3.8\% | 0.0\% | 1.7\% | 2.3\% |
| February 2010 forecast |  |  | \$170,757,473 | \$167,916,588 | \$168,764,344 | \$171,055,090 |
| Growth rate |  |  | -2.1\% | -1.7\% | 0.5\% | 1.4\% |
| Tax rate per gallon | \$0.276 | \$0.284 | \$0.295 | \$0.295 | \$0.300 | \$0.306 |
| Percentage increase in tax rate |  |  | 3.8\% | 0.0\% | 1.7\% | 2.0\% |
| Variance |  |  | (\$4,852,053) | $(\$ 2,958,128)$ | (\$3,751,773) | (\$6,051,538) |
| Special Fuel Tax Revenue | FY'08 | FY'09 | FY'10 | FY'11 | FY'12 | FY'13 |
| FY'08 \& '09 actual \& current budget | \$46,139,086 | \$41,811,377 | \$39,682,500 | \$38,831,500 | \$38,554,000 | \$38,211,750 |
| Growth rate |  | -9.4\% | -5.1\% | -2.1\% | -0.7\% | -0.9\% |
| Tax rate per gallon | \$0.288 | \$0.296 | \$0.307 | \$0.307 | \$0.313 | \$0.320 |
| Percentage increase in tax rate |  | 2.8\% | 3.8\% | 0.0\% | 1.7\% | 2.3\% |
| February 2010 forecast |  |  | \$39,571,500 | \$38,683,500 | \$39,164,500 | \$39,784,250 |
| Growth rate |  |  | -5.4\% | -2.2\% | 1.2\% | 1.6\% |
| Tax rate per gallon | \$0.288 | \$0.296 | \$0.307 | \$0.307 | \$0.313 | \$0.319 |
| Percentage increase in tax rate |  | 2.8\% | 3.8\% | 0.0\% | 1.7\% | 2.0\% |
| Variance |  |  | (\$111,000) | $(\$ 148,000)$ | \$610,500 | \$1,572,500 |
| Total Motor Fuel Tax Revenue | FY'08 | FY'09 | FY'10 | FY'11 | FY'12 | FY'13 |
| FY'08 \& '09 actual \& current budget | \$225,235,339 | \$216,215,544 | \$215,292,026 | \$209,706,216 | \$211,070,117 | \$215,318,378 |
| Growth rate |  | -4.0\% | -0.4\% | -2.6\% | 0.7\% | 2.0\% |
| February 2010 forecast |  |  | \$210,328,973 | \$206,600,088 | \$207,928,844 | \$210,839,340 |
| Growth rate |  |  | -2.7\% | -1.8\% | 0.6\% | 1.4\% |
| Variance |  |  | (\$4,963,053) | (\$3,106,128) | (53,141,273) | $(\$ 4,479,038)$ |
| Biennium |  |  |  | (\$8,069,181) |  | (\$7,620,311) |


|  | Gasoline Trax Revenue Net to Highway Fund - FY 2010 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | MONTH | ACTUAL | BUDGET | DIFF | Y-T-D DIFF |
|  |  |  | $=$ | -:========= | ====== |
|  | July | \$13,908,160 | \$14,461,717 | $(\$ 553,557)$ | (\$553,557) |
|  | August | \$2,655,325 | $(\$ 630,631)$ | \$3,285,956 | \$2,732,399 |
|  | September | \$16,975,768 | \$17,479,979 | (\$504,211) | \$2,228,188 |
|  | October | \$15,496,555 | \$14,988,653 | \$507,902 | \$2,736,090 |
|  | November | \$15,077,729 | \$15,025,665 | \$52,064 | \$2,788,154 |
|  | December | \$14,521,373 | \$13,881,117 | \$640,256 | \$3,428,410 |
|  | January | \$14,464,529 | \$14,192,160 | \$272,369 | \$3,700,779 |
|  | ======-10: | ==== | - | ======= | =-===== |
|  | Y-T-DATE | \$93,099,439 | \$89,398,660 | \$3,700,779 |  |
|  | =:=a=: | $=$ | = | ====== | $===$ |
|  | February | \$0 | \$13,395,281 | (\$13,395,281) | $(\$ 9,694,502)$ |
|  | March | \$0 | \$13,602,363 | (\$13,602,363) | (\$23,296,865) |
|  | April | \$0 | \$12,644,622 | (\$12,644,622) | (\$35,941,487) |
|  | May | \$0 | \$13,133,644 | (\$13,133,644) | (\$49,075,131) |
|  | June | \$0 | \$33,434,956 | (\$33,434,956) | $(\$ 82,510,087)$ |
|  | Total | \$93,099,439 | \$175,609,526 | (\$82,510,087) |  |

## Gallons of Gasoline Derived from Revenue Before Refunds


-Gallons of Gasoline $\sim$ Growth Rate

Maine Revenue Services Economic Research Division 2/17/2010

## Gallons of Gasoline Derived from Revenue

 Fiscal Years 2005-2010 Jul. Through Jan.


## Gallons of Special Fuel Derived from Revenue Before Refunds



Gallons of Special Fuell Derived from Revenue Fiscal Years 2005-2010 Jul. through Jan.



[^0]:    4. Less: Inventory valuation adjusty
[^1]:    

[^2]:    $\square F Y^{\prime} 10$ Actual $\square$ FY'10 Budget FY'09 Actual $\Longrightarrow$ Growth Rate

