



Growth Arrested?

Bonding, Job Creation, and the Health of the Connecticut Economy

The Connecticut Economic Outlook: September 2013

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Executive Summary

Connecticut was the only state whose economy shrank in 2012; it has the worst record of job creation over the past twenty years of any state; it faces massive unfunded obligations to current employees, teachers, and retirees. At the same time, the state's population is rapidly aging, which will increase pressure on public services, particularly health care. Meeting these and other challenges demands that Connecticut change its current economic trajectory.

On many fronts, the Malloy administration, in sharp contrast to its predecessors, has been vigorously pursuing initiatives to change the state's pernicious economic climate. The most dramatic achievement has been luring Jackson Labs to the Farmington University of Connecticut medical school campus, greatly reducing the riskiness of the Bioscience Connecticut initiative, making its success the closest it is possible to get to a sure thing. But in the face of the continuing struggles of the state's economy, with job creation weak and unemployment continuing well above the national pattern, it seems anomalous that the Malloy administration has built up a multi-billion dollar stockpile of approved but unissued bonds. In fact, the level of approved but unissued bonds has approximately doubled, from an initial \$3 billion in bonding, which the bonding commission had approved but the State Treasurer had not issued as of January 2010, to a total that now exceeds \$6 billion. Add to that the federal matching funds that some projects would generate, and the total might approach \$8 billion in potential capital expenditures.

So, in conjunction with the conventional CCEA forecast for employment and output, this *Outlook* considers the impact that quickening the pace of projects funded through bonding could have on economic performance in the next two years. The impact is dramatic: it would increase aggregate employment from 16,000 to 28,000, and double or triple the rate of growth in output.

This quarter's conventional CCEA analysis finds indications that the listless economic recovery in Connecticut is slowly strengthening, with performance potentially matching or even overtaking national growth rates. Nevertheless, Connecticut's economy is still playing catch-up as it is underperforming both the country and the majority of other states since the 2008 recession. Connecticut is one of the few states where economic growth, whether measured in output or household income, remains sluggish, unable thus far to climb back to match its 2007 peak. Job recovery has been equally slow, with many individuals who have returned to work only employed in lower paying (poorer quality) jobs than they previously held. Solid (if modest) national and regional performances over the last year have now laid the foundation for more robust growth in Connecticut. But accelerated recovery is possible for the state. To achieve its full potential, the state would need to use some of that stockpile of approved but unissued bonding to fund strategic state investments.

This *Outlook* develops three scenarios for the Connecticut economy: one relying on the conventional indicator of housing permits, a second that replaces housing permits with the nearly unprecedented low prime bank rate, including an upward creep of 0.8% over the next eight quarters, and a third built from a sector analysis. As noted in the previous *Outlook*, the theoretical case is stronger for the second of the scenarios, so CCEA uses it in conjunction with forward looking statements from the State Treasurer regarding the administration's intentions to borrow and (presumably) expend funds. Governmental

capital expenditures are assumed to be proportional among industries designated in Bond Commission approvals over the first half of this year.

Table E-1 summarizes CCEA’s annual employment expectations. Housing permits do not recover sufficiently to drive the growth in employment the state has seen recently. On the other hand, even a slowly rising prime bank rate¹ strengthens employment significantly. Adding to that, increased state expenditures from approved bonding would permit still higher growth. Unleashing even more bond supported funds combined with significant matching from federal funds has the potential to accelerate employment growth to a still higher rate, driving rapid job creation.

Table E-1: Annual Employment Expectations 2013-2014 (1,000s Full time Equivalent (FTEs))

Scenario	2013	2014
Expected Annual Employment based on Housing Permits	1,648	1,633
Expected Annual Employment based on low but rising interest rates	1,650	1,663
Expected Annual Employment based on interest rates plus limited use of bonds	1,655	1,674
Expected Annual Employment based on interest rates plus expanded use of bonds	1,656	1,685

Table E-2 parallels E-1 but presents Connecticut’s real gross domestic product (CTRGDP) rather than employment. The expected level of new housing permits going forward only sustains the stagnation that has plagued Connecticut growth since the beginning of 2010. Basing the forecast on low interest rates (even as they rise) spurs the state toward modest growth, allowing it to break out of stagnation. But more aggressively using funds from bonds that have already been approved to begin or accelerate projects would dramatically raise growth rates—doubling or even tripling the projected rates.

Table E-2: CTRGDP Outlook with Bank Rate Creep and Bond Funding or Expanded Bond Funding (Billions 2005 \$)

Scenario	2013	2014
Expected Annual CTRGDP Residential Housing Permits	197.7	197.7
Expected Annual CTRGDP Bank Rate Creep	198.3	199.4
Expected Annual CTRGDP Bank Rate Creep and Funded Bond Expenditures	198.7	200.3
Expected Annual CTRGDP Bank Rate Creep and Expanded Bond Expenditures	198.8	201.3

This *Outlook* looks at two possible scenarios for using approved but unissued bonds. The first scenario, the “Funded case” – based on bond sales to-date and planned before the end of October² – nearly doubles anticipated economic growth in CTRGDP compared to projected growth without those capital projects. The “Expanded” bonding scenario nearly triples growth compared to anticipated growth without the investments based bond financing.

¹ See press reports based about, and commentary in, the July 30-31, 2013 Federal Open Market Committee meeting (<http://www.federalreserve.gov/newsevents/press/monetary/20130821a.htm>).

² <http://www.state.ct.us/ott/forfinan.pdf>

As we have highlighted in past *Outlooks* – and a plethora of academic studies confirm – long-term simulative strategies depend on and require that expenditures focus on investments that strengthen competitiveness and provide the foundation for sustaining growth, generating efficiencies and raising productivity, creating amenity benefits to attract employers and employees to the state. Insofar as the projects that bonding would support meet that standard, more aggressive use now would play a significant role in changing the state’s trajectory—a task that cannot wait .

Introduction

The conventional approach to projecting the performance of Connecticut's economy is to evaluate basic statistics on residential building permits, which captures home builders' expectations about the future demand, the dynamics of household income, national economic growth rates, and other proven leading indicators of durable consumption. But CCEA research has found the prime bank rate a more reliable indicator than housing permits in this particular economic environment. Further, the CCEA *Outlook* has typically included evaluations of alternative scenarios, such as proposed state budgets or the projected impact of major initiatives, such as BioScience Connecticut and Jackson Labs. This *Outlook*, after developing the conventional forecasts for state output and employment, looks at an increasingly anomalous development: the Bonding Commission approving borrowing to fund projects, but the projects, and the associated bond issues, being delayed or even cancelled. The Legislature, increasingly concerned about this pattern dating back to at least the Rell administration, adopted legislation requiring the State Treasurer to report regularly how much bonding the Legislature had authorized, how much bonding the Bonding Commission then approved, and how many bonds had actually been issued (sold). When the Malloy administration entered office, January 2010, there were more than \$3 billion in approved but unissued bonds; the total now exceeds \$6 billion. On the face of it, that possibly translates into thousands of foregone jobs; this *Outlook* evaluates how many.

Based on a retrospective view, both U.S.'s and Connecticut's economic recoveries are showing signs of taking root. Building from that perspective, CCEA uses three different approaches in developing its forecast for the Connecticut economy. Of these three approaches, one projects no growth in income; the other two point to more robust output. While residential housing permits have recovered about half their typical level of previous, good years, permit growth is too weak to drive growth; total output would remain stagnant. Looking instead to continuing low bank rates, which promote borrowing and allow federal and state governments, as well as private enterprises, to stimulate growth by making strategic, long-term investments, argues for stronger growth. Using an approach that looks at individual sectors also points to growth, but not as strong as do bank rates.

Current federal policies significantly complicate anticipating the pattern of national recovery. Sequestration,³ restoring the full Social Security tax, reducing unemployment benefits, and other policies are clearly weighing on the national economic policy, as are some state initiatives, such as those adopted in North Carolina, policies will surely hurt its own economy and feed back into the national economy. Compounding the uncertainty are persisting weaknesses in Europe, painful adjustments going on in India, and dramatic slowing of Chinese growth. At the state level, the typical constitutional requirement for balanced operating budgets, efforts to redress shortfalls in public sector retirement pensions and health care, and often weak recovery in local taxes continue to limit the capacity and willingness to make strategic public sector investments that would accelerate growth.

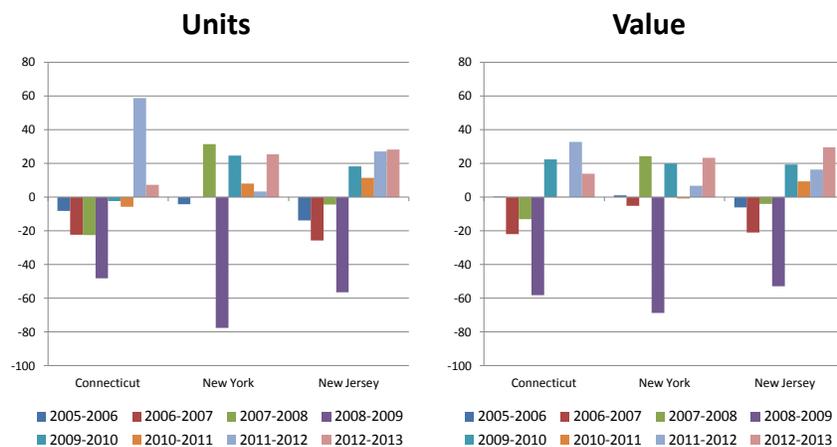
³ Sequestration may worsen the challenge of addressing the massive accumulation of public debt; only by driving more rapid growth can the critical debt-to-GDP ratio decline.

Housing Permits: Units and Values

Housing permits from the first six months of the year offer upbeat signs of Connecticut and the Tri-State area emerging from the recession’s gloom. While there is considerable difference (variance) in state patterns, Connecticut’s spectacular growth in units from a year ago has been mildly sustained this year (7% growth). In contrast, New Jersey’s decline lasted only 4 years and its recovery in units permitted has been solidly sustained over the last 4 years. Aside from New York’s uptick in 2007-2008 – which was followed by a precipitous decline the following year – the state’s recovery has occurred at lower rates of growth than the more striking turn-around in Connecticut.

Unfortunately, upon closer analysis, the sharp up-tick in units overstates last year’s improvement in Connecticut. Assessing changes in the value of permits reveals that average Connecticut values fell, with emphasis shifting from single housing units to multiple units, particularly buildings with more than five units. That pattern eased this year with growth in the value of Connecticut permits outpacing that of units. Within the Tri-State area thus far this year, growth in both permits and their values has been higher in the other two states than in Connecticut, as Chart 1 shows.

Chart 1: Growth Rates in Residential Housing Permits First Six-Months (%)



Source: US Census Bureau, Housing Permits

The Outlook

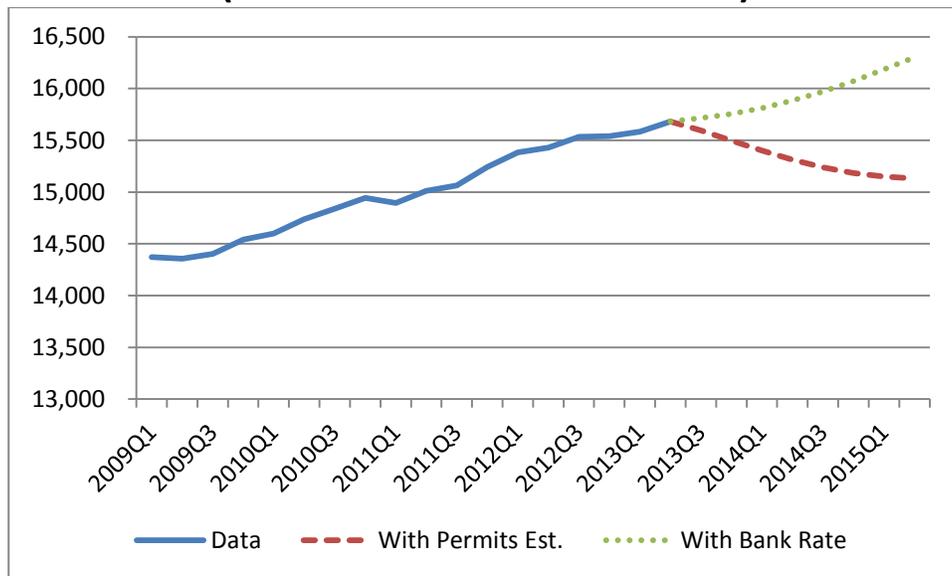
Given Connecticut’s relatively modest growth in housing permits, it is not surprising that their increase alone is not enough to materially grow the larger economy. The charts in the section below present results from each of the CCEA approaches. The model relying on the bank rate generates the most optimistic results, even as the prime bank rate creeps up 0.8% basis points over the next two years. A

third sector-based model yields growth in both employment and incomes, but at a more modest pace than the one utilizing the prime bank rate.

National RGDP

Sequestration, tax increases, and other federal actions that have slowed the national economy also impact Connecticut (e.g. the twenty furlough days imposed on the civilian workforce at the Groton submarine base). Such impacts need to be netted out of the following results from the two CCEA models, based on either projected expansions of housing permits or a continuing low prime bank rate. Given these uncertainties, the model based on housing permits points to the nation’s economy actually shrinking, with declines of 2.3% and 1.1% for each of the next two four-quarter periods. This outcome is a pessimistic outlier given the 2.8% growth at annual rates recorded for 2013Q2. A more balanced view of likely national growth, in Chart 2, utilizes the bank rate model with annual growth rates of 1.3% and 2.6%.

**Chart 2: National RGDP 2009Q2-2015Q2
(Billions of Fixed 2009 Dollars)**



The recently revised national outlook from the University of Michigan’s RSQE⁴ – completed prior to Congress driving over the fiscal cliff – has optimistic expectations for national growth at 2.8% based on:

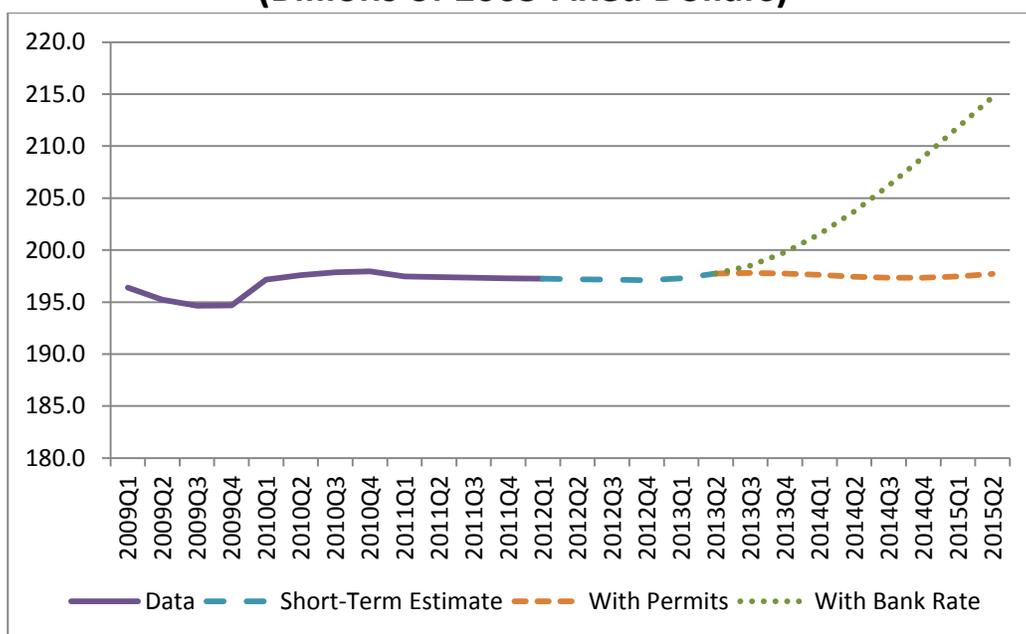
- Consumption resilience, including monthly demand for vehicles that has been 900,000 units higher in each of the four months between November 2012 to February 2013;
- National employment growth in excess of two million in 2012, inclusive of over 190,000 FTEs monthly since August 2012;
- Residential construction contributing 0.3 percentage points to national growth in 2012 so that currently national single-family home inventories have fallen to less than four months and housing prices are growing 7.3% annually, according to the S&P/Case-Schiller index.

⁴George A. Fulton and Hymans, S.H. *The U.S. Outlook for 2013-14 Executive Summary*, RSQE, March 2013, p.1.

Connecticut CTRGDP

Connecticut’s modeled CTRGDP growth appears in Chart 3. Utilizing a slowly growing prime bank rate for forecasting clearly delivers stronger national and state growth—and would drive Connecticut output above its previous peak in 2007. The dotted line from the end of 2012Q1 to 2013Q2 shows that CCEA has estimated the CTRGDP for that period, based largely on the growth in real personal incomes.⁵ The Bureau of Economic Analysis (BEA) lowered its estimates of Connecticut’s economic performance over the last three years, which generates a flatter trend than previous forecasts relying on housing permits. As Chart 3 illustrates, from 2010Q1 to 2013Q2 CTRGDP either has or is expected to have flat-lined between \$197B and \$198B annually. The model using building permits extends that flat trend. The model using the bank rate paints a dramatically different picture, with CTRGDP four-quarter growth rates of 3.0% and 5.4%, exceeding national rates.

**Chart 3: Connecticut RGDP Projections 2012Q4-2015Q2
(Billions of 2005 Fixed Dollars)**



By historical standards, Connecticut growth exceeding national growth early in a recovery would be unusual – albeit with the FIRE sector recovering relatively quickly and a concentration of Connecticut wage earners involved with it, more rapid state growth is not impossible. Based on relatively strong year-to-date performance in the U.S. equity markets – Dow Jones Industrial Index was up 11.57% from a year earlier⁶ – such strength may prove warranted. Alternatively, gains in the Dow Jones may prove fickle during the last half of 2013, undermining FIRE’s recovery.

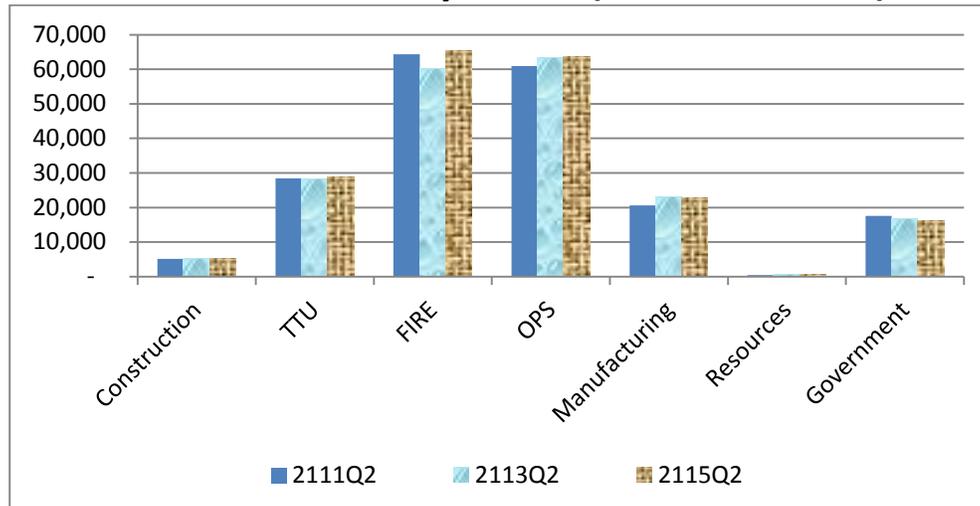
⁵ With profit levels recuperating ahead of personal incomes, this approach may underestimate RGDP recovery.

⁶ Dow Jones, Industrial Average Index (\$US: INDU), close of business, August 23, 2013.

Sector CTGDP Shifts

CCEA's sector model yields more modest growth results of 1.5% annually. As Chart 4 shows, this growth is concentrated in the services sectors, with only a slight decline in manufacturing. Government generated RGDP is expected to decline as federal employment cuts take root. With the improved economy and the University of Connecticut Health Center (UCHC) expansion coming on-line, there is room to estimate that government cutbacks could be less severe than modeled, resulting in more short-term sector growth in both government and other private services (OPS), ultimately shifting sector growth closer to those of the bank rate model. However, much uncertainty remains regarding the timing, efficacy, and sustainability of those factors.⁷

Chart 4: CTRGDP by Sector (M Fixed Dollars)



Source: BEA aggregated and modeled by CCEA

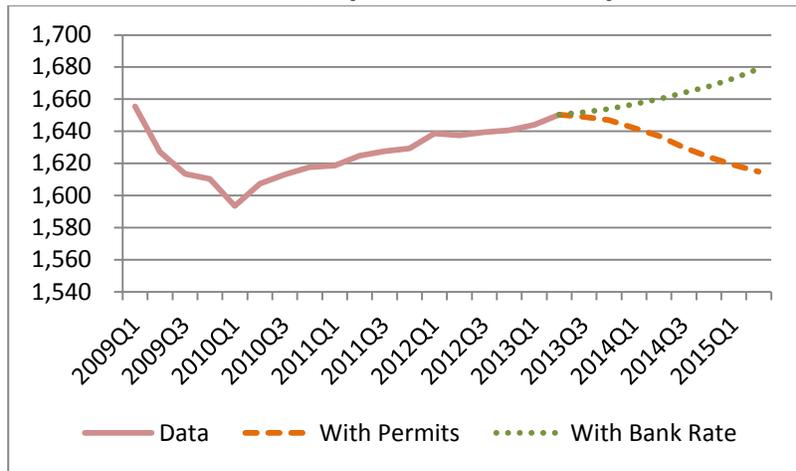
Notes: TTU - transport and utilities; FIRE - finance, insurance and real estate; and, OPS - other private services includes health, private social assistance, private education et al.

Connecticut Employment

The other reason for being slightly more optimistic than the CTRGDP data suggest the improving employment picture that appears to be becoming more stable, as Chart 5 suggests. Preliminary Department of Labor results indicate seasonally adjusted Connecticut employment is up 13,000

⁷ The sector analysis of CTRGDP no longer separates durable and nondurable goods manufacturing in preference to presenting all manufacturing with finer detail among three private service sectors: trade,⁷ transport and utilities (TTU); finance, insurance and real estate (FIRE); and, other private services (OPS) inclusive of health, private social assistance and private education *et al.*

Chart 5: Connecticut Full-time Employment Equivalents 2013Q2-2015Q2 (1,000s of FTEs)

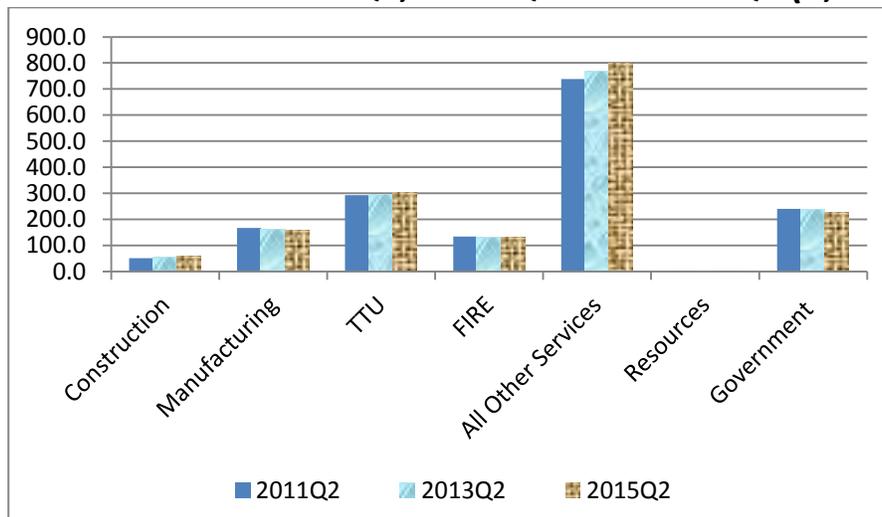


from a year ago, to 1,650 thousand. The two modeling approaches give dichotomous projections: over the next eight quarters it will either fall by 35,000 under the residential housing permit model or rise by 29,000 under the bank rate scenario. These contradictory results demonstrate the importance of developing an alternative to the traditional reliance on housing permits in a period of virtually unprecedented low interest rates.

Sector Employment Shifts

Looking two years back and two years forward demonstrates sector shifts in employment that have been occurring and are likely to continue. The following industries continue to grow – construction, transport trade and utilities, and OPS. The last of these is the destination of most additional jobs, reaching 798 thousand FTEs in 2015Q2. Employment in resources industries is stagnant. Manufacturing employment continues to decline slowly. Employment in FIRE oscillates. Government employment continues to slip, in line with government expenditures realignment.

Chart 5: CT FTEs 2011Q2, 2013Q2 and 2015Q2 (1,000s)



Other Positive Signs

Positive, mutually reinforcing indicators of consumer sentiment and the stock market counteract other downward pressures. The University of Michigan Consumer Sentiment Index increased from 59.6 in 2011Q3⁸ to about 76.2 in 2013Q2⁹. At the time of writing the Dow Jones Industrial Index was up 11.57% from a year earlier.¹⁰ With Connecticut's concentration in financial activities, gains in the Dow complement both incomes and expenditures in the state.

Spurring Recovery

Additional good news comes from the Office of the State Treasurer, Denise Nappier, who has been successful in raising funds at low rates as indicated in Table 1. Borrowings since the end of June have amounted to \$923.9M with a further \$1,520M on the forward financing calendar by the end of October 2013 for a total of \$2,443M. All but the \$320M Economic Recovery Notes Refunding is new money intended either to refloat the Rainy Day fund while rates are low or for capital projects.

Table 1: State of Connecticut Post June 30, 2013 and Projected Forward Financing Calendar

Name of Issue	Approximate Dollar Value	Financing Type	Competitive or Negotiated Pricing	Actual or Expected Closing Date
General Obligation Bonds	\$200,000,000	Fixed 3.57% ¹	Competitive	24/07/2013
UCONN 2000 Bonds	\$223,900,000	Fixed 3.39% ²	Negotiated	31/07/2013
General Obligation Bonds	\$500,000,000	3.19% to 3.49% ³	NA	14/08/2013
General Obligation Bonds (GAAP)	\$600,000,000			09/2013
Special Tax Obligation Bonds	\$600,000,000			10/2013
Economic Recovery Notes Refunding	\$320,000,000			10/2013

Source: <http://www.state.ct.us/ott/forfinan.pdf>

Notes:

- (1) 20 year bonds.
- (2) Comprised of 20 year bonds at 3.55% and 2.67% bonds with shorter maturities.
- (3) Included \$115M in variable rate Security Industry and Financial Market Association Index Bonds, \$285M tax-exempt fixed rate bonds at an overall rate of 3.49% and \$100M in fixed rate 10 year taxable bonds at 3.19%.
(http://www.ctnewsjunkie.com/ctnj.php/archives/entry/ct_bonds_get_favorable_reception_from_investors)

Appealing though the above rates may be, they indicate higher rates when compared to the General Obligation Bond sales in March 2013 at 2.29% and 3.22% depending on their maturity, 0.23%-0.25% below more recent issues.¹¹ And, with many pundits anticipating rising interest rates as the U.S. economy improves and the Federal Reserve tapers its asset purchases, it is unlikely that rates on municipal bonds will decrease substantially (if at all) over the coming months.¹²

⁸ RSQE the Economic Outlook for 2012, p. 104.

⁹ [http://research.stlouisfed.org/fred2/graph/?s\[1\]\[id\]=UMCSENT](http://research.stlouisfed.org/fred2/graph/?s[1][id]=UMCSENT) (March 08, 2013)

¹⁰ Dow Jones, Industrial Average Index (\$US: INDU), close of business, August 23, 2013.

¹¹ http://www.ctnewsjunkie.com/ctnj.php/archives/entry/ct_bonds_get_favorable_reception_from_investors

¹² See, among other analyses, Sam Stovall and Beth Ann Bovino's comments in the August 2013 S&P Capital IQ Industry Surveys, Trends and Projections.

When Gov. Malloy took office, \$3.601B in bonds approved by the Bonding Commission had not yet been issued by the Treasurer.¹³ By April 2012, Connecticut unissued bonds totaled \$4.314B and by September, that figure reached \$5.856B. At the end of the fiscal year (June 2012), the total value of unissued (but approved) debt was down slightly to \$5.356B. Then in July 2013, the Bonding Commission approved another \$575M that could trigger \$600M in federal monies. The last report pushes the approved but unissued bonds to more than \$6B. This suggests that, combined with federal matching funds, the State has a pool of funds reaching \$7B to invest in approved projects, which range from buying school buses to building schools to major infrastructure projects. Some would generate little or no local impact; some would generate very significant jobs for residents and fiscal benefits (tax revenue) for the State.¹⁴

If the State chose to issue even approximately \$3.1B of these funds, conservatively projecting the multiplier effects could generate \$3.7 billion in local economic activity, resulting in sufficient stimulus to bring state employment back to its 2010 level. If these projects then received federal matches, it would carry the stimulus to well over \$4B, generating even more economic activity.

Impacts of Investments Based on “Funded” and “Expanded” Bond Financing

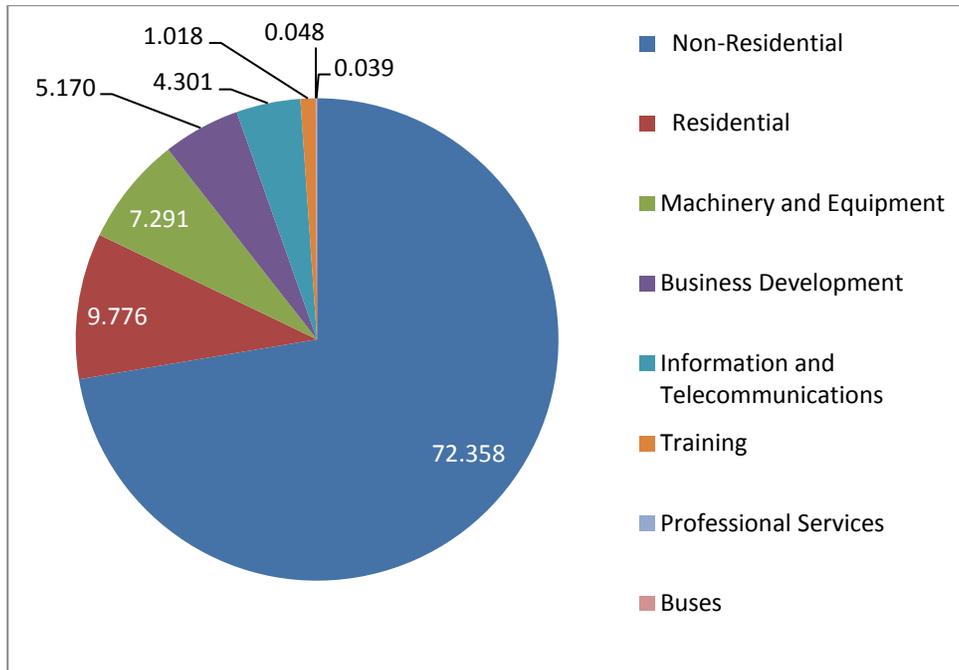
To test possible ramifications of proceeding as above, CCEA developed two scenarios. The first (“Funded” scenario) utilizes all new bonds issued or projected to be issued by the end of October, \$2.123B, assuming no federal match. The second (“Expanded” scenario) doubles the expenditure amount which implies investing \$3.7B, matched by \$500M of federal monies, for a total of \$4.2B. Normal government operating expenditures are already included in REMI, but not those arising from bonding. For that reason, the analysis treats all capital expenditures supported by bonding as net new.

To simulate state economic impacts, CCEA conducted special runs on REMI with total direct expenditures defined as above. To establish direct impacts among industries, industry shares of intended expenditures from revenues raised through all bonds has been approximated by the industry allocations of expenditures ratified by the Bond Commission January 2013 - June 2013, captured in Chart 6.

¹³ The Legislature authorizes bonding for a host of projects, only some of which then get approval from the Bonding Commission. The Treasurer then has to issue the bonds, selling them on Wall Street, as projects move into execution. But because the process provides no information on the timeframe within which projects will take place, it is impossible to what share of the unissued bonds relate to long term projects, such as the Q Bridge. Moreover, the projects are not “scored” on their economic value to the state.

¹⁴ Bond Commission, Minutes, Jan. 13 to June 21, 2013 which summarizes approvals already granted in 2013 at early meetings of the Commission.

Chart 6: Shares of Government Planned Direct Expenditures from Bonding 2013Q1-Q2 (%)



Source: CCEA Derived from:

http://www.ctnewsjunkie.com/ctnj.php/archives/entry/ct_bonds_get_favorable_reception_from_investors

Planned government direct expenditures are clearly dominated by non-residential construction followed by residential construction. Machinery and equipment investments, other than in information technologies, were intended for a mixture of government operations and industrial incentives while business development investments constitute business incentives aimed at attracting and retaining business in Connecticut usually by assisting private capitalization. Information and telecommunication investments entail both hardware and software, but appear to be concentrated in hardware and are modeled as such with embodied software being captured indirectly either in other hardware or from software. Training captures upgrading of government employees, a relatively small share of bonded funds support education directly because other educational support is included in non-residential and residential construction for repairs and expansions of educational facilities. Similarly because the above is for direct expenditures, purchases of professional services are low compared to architectural and engineering fees captured indirectly within both residential and non-residential construction. No doubt, other school funding also includes purchases of school buses so that CT purchases of school buses exceed the handful included directly.

The above investments cover a range of public policy goals – improved education, better highways, energy security, reductions of GHGs and other contaminants, e.g. asbestos removal, enhanced communications among government departments and citizens, and better medical care. Without digging into the detail of each project, it is not feasible to delve into the total benefits likely to arise from more than 150 projects. For that reason the following impacts cover the construction phase only.

What is crucial, however, is the long-term impact on Connecticut competitiveness. Buying school buses or building new schools has little or no long-term benefit; improving highways, where Connecticut is tied for the worst nationally with Illinois, and mass transit, which remains a serious barrier to competitiveness, have long term impacts. Connecticut ought to score every approved bonded project for its short term benefit (e.g. building a new school) and its long-term impact on competitiveness. In no case should the share of approved bonding have less than 60% projected to generate significant long-term competitive benefits and less than 25% projected to generate significant short-term economic benefits.

The economic stimulus that arises in the “Funded” case distributes incremental government expenditures of \$2.123B among the industry shares as in Chart 6, with 30% spent this calendar year and the remainder next year. As noted earlier, this case parallels the intended bonding by the current administration but would be incremental to the analysis presented earlier in this *Outlook*. Thus the results subsume those results.

In the “Expanded” case, the state government would issue bonds worth \$3,100M partially matched by a total of \$1,100M in federal funding. It utilizes the same industry shares, but 20% is spent this year and 80% next year. For each year the interest cost of the issued bonds reduces the impact of the stimulus; taking the most conservative approach, CCEA simply assumed this cost would be covered by an increased income tax. In reality, the additional revenue could come from anywhere in the economy, including revenue which the expenditures themselves generate.

Table 2 illustrates employment impacts of the two Bond cases on annual employment in the scenario based on bank rates. Over the two years bond Funding and derived expenditures add 16,000 person-years of FTEs to the scenario. The Expanded bond funding case adds 28,000 FTEs, summed over both years. Both cases move Connecticut closer to its previous annual peak employment in 2008 of 1,699.

Table 2: Employment Outlook with Bank Rate Creep and Bond Funding or Expanded Bond Funding (1,000s FTEs)

Scenario	2013	2014
Expected Annual Employment Bank Rate Creep	1,650	1,663
Expected Annual Employment Bank Rate Creep and Funded Bond Expenditures	1,655	1,674
Expected Annual Employment Bank Rate Creep and Expanded Bond Expenditures	1,656	1,685

Table 3 parallels that of the previous table except it covers CTRGDP rather than FTEs. Both scenarios bolster CTRGDP’s weak recovery from its 2010Q1-2012Q4 stagnation, particularly next year. The Funded case based on bond sales to-date and planned before the end of October nearly double the economic growth in CTRGDP compared to that forecast without those expenditures. The expanded bonding scenario nearly triples growth compared to the growth projected without the investments based on bond financing.

**Table 3: CTRGDP Outlook with based on Bank Rates and Bond Funding or Expanded Bond Funding
(Billions 2005 \$)**

Scenario	2013	2014
Expected Annual CTRGDP Bank Rate Creep	198.3	199.4
Expected Annual CTRGDP Bank Rate Creep and Funded Bond Expenditures	198.7	200.3
Expected Annual CTRGDP Bank Rate Creep and Expanded Bond Expenditures	198.8	201.3

Conclusion

Connecticut’s ability to sustain growth in employment and output and create additional economic capacity to meet the state’s obligations (including paying interest and retiring bonds) will depend crucially on the sanguine use of funds on investments that sustain existing growth initiatives and create new opportunities, generating efficiencies, raising productivity, and generating amenity benefits to attract new employers and employees (particularly younger workers) to the state. The need for this type of activity reinforces the point made earlier in this report that the bonding process should be modified to include explicit scoring of all bonded projects on the basis of their short term and long term benefits.

Transparency and accountability are, as Federal Reserve Chairman Ben Bernanke and countless other have noted,¹⁵ two of the critical factors required for government and private industry to work together to promote strong economic growth. The Connecticut economy certainly has considerable potential. However, for the state to raise its economic trajectory and meet multiple challenges it faces in providing public services and honoring commitments that have been already made but are, as yet unfunded, Connecticut must take steps to promote real, sustainable growth. The sooner the better.

¹⁵ Bernanke, Ben S. (2013) *The Federal Reserve and the Financial Crisis*. Princeton University Press: Princeton, NJ.