

# Expenditure Analysis: Underlying Assumptions

February 28, 2007  
Blue Ribbon Commission



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## Assumptions Related to

- Growth
- Inflation factors
  - General inflation
  - Personnel costs - salaries
  - Personnel costs – non-salary related benefits
  - Utilities
  - Motor fuel
  - Non-residential structures
  - Fleet
  - Information processing
  - Transportation infrastructure (const. and maint.)



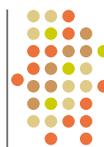
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# Growth Assumptions



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## Growth Methodology



- Establish, by department and/or fund, the portion of each budget that varies with growth
- Apply the variable amount to population and/or job growth
- For more discrete impacts, build in assumptions of timing
- Smooth the population and job growth over the forecast horizon



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## Issues for Committee



- With respect to timing
  - Would the committee support 2 phase-in dates for non-linear impacts (new parking garage, fire stations)?
    - Proposal of phase-in of 2014, 2022
    - Other proposal?
- For impacts that are incremental
  - Does committee support smooth phase-in over the 24 yrs?
  - Consistent with the methodology in the revenue forecast
- Demographic shifts and their impact on expenditures?
  - Age
  - Income



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## Departments for which Growth Increment is Zero



- All central administrative departments
  - Finance
  - Human Resources
  - Information Technology
  - CMO
  - CAO
  - City Council



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## Funds for which Growth Increment is Zero



- Planning and Development Services
  - Assumption that incremental costs covered by incremental fee revenue
- .25 Cent Sales Tax
  - 1995 ballot commitments met by 2015



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## Proposed Growth Methodologies

Funds and Departments for which Growth Increment is not Zero



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## General Fund: Fire



- Unlike almost any other function, geography matters for impacts to fire service
- Proposed growth in South Boulder, Southeast Boulder, Gunbarrel, North Boulder and East Boulder may be absorbed with current infrastructure and staffing
- Real impact is in Central Boulder and Crossroads
  - Central Station and Station 3



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## General Fund: Fire



- Growth results in need for new or expanded Stn 3
- Same conclusion as Transit Village Analysis
- Growth assumption will be same as for transit Village Analysis
  - Cost of relocating Station 3 and staffing with additional company and ladder truck
  - Fire apparatus – one-time + replacement
  - On going operating
  - Timing?
- Demographics



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## General Fund: Police



- Use same assumptions as Transit Village Analysis
- Cost associated with maintaining 1.7 officers per 1000 population
- Spread cost evenly over the planning horizon for population and job growth



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## General Fund: Municipal Court

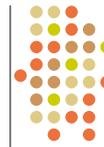


- Methodology
  - Identify portion of the budget that is variable with population
    - Direct costs associated with caseloads
    - Not administrative overhead in Courts
  - Establish per capita variable costs
  - Smooth over the population and job growth for the planning horizon



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## General Fund: Housing and Human Services

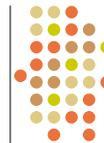


- Methodology
  - Identify portion of budget that is variable with population
    - Direct costs associated with providing community services
    - Exclude growth for administrative functions
  - Establish per capita variable costs
  - Smooth over the population growth for the planning horizon
  - Demographics?



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## General Fund: Parks (and Recreation)



- Sufficient capital budget in other P & R funds to accommodate growth-related infrastructure
- Methodology
  - Include variable costs associated with increased usage related to General Fund parks
  - Establish per capita park maintenance costs
  - Assume 12% increase in park usage due to popn growth
    - 50% of growth absorbed within current budget and staffing levels
    - Budget adjusted on a per capita basis for remaining impact



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Funding shortfall after the .25 Cent expires in 2015

## Library Fund

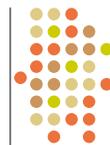


- Methodology
  - Identify portion of budget that is variable with population
    - Identify direct costs associated with providing services
    - Exclude administrative overhead costs
  - Establish per capita variable costs
  - Smooth over the population growth for the planning horizon
- Issue for Committee: How do we plan for evolution of library services in light of changing technology?



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## Open Space Fund



- Sufficient capital budget to achieve current land acquisition goals
- Methodology
  - Include variable costs associated with increased usage of Open Space lands and trails
  - Establish per capita costs for Open Space operations & maintenance
  - Assume 12% increase in Open Space usage due to popn growth
    - Assume no efficiency savings due to impact of increased usage from non residents
    - Include per capita budget adjustment for popn growth smoothed over the planning horizon
  - Exclude administrative overhead costs



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## CAGID Fund

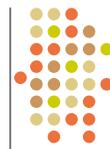


- Methodology
  - Proposed expansion tied to job growth in Central Boulder
  - Assumes garage parking spots ratio continues at 1 spot for every 10.4 jobs
  - Analysis supports adding a new parking structure by 2030
- Timing?
- Assumes no other growth-related impacts



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## Recreation Activity Fund



- Methodology
  - Excludes development of new recreation facilities
  - Identify portion of the budget that is variable with population and job growth
    - Current ratio is 85% resident and 15% job
    - Includes direct costs associated with operations and maintenance
    - Excludes administrative overhead costs



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## Transportation Fund



- Methodology
  - Identify portion of the budget that is variable with population and job growth
    - Include adjustment for direct costs associated with operations and maintenance
    - Exclude administrative overhead costs
  - Establish per capita and job variable costs
  - Smooth over the population and job growth for the planning horizon



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## Transportation Level of Service



- What does level of service mean?
  - Does it mean the same physical system
    - Transfer of burden to citizens

OR...

- Does it mean maintaining today's travel times?



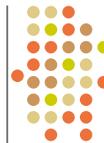
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# Inflation Assumptions



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## Issues: Inflation Factors



- Trend forecasts for many sectors lag DBG CPI forecast
- In many sectors, history is opposite
- Proposed alternatives:
  - Use published forecast
  - Apply historical relationship to CPI forecast
  - Defer to expertise of staff, others?
- Issue for tonight: Selection of appropriate methodologies/series



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## Recommendation: General Inflation

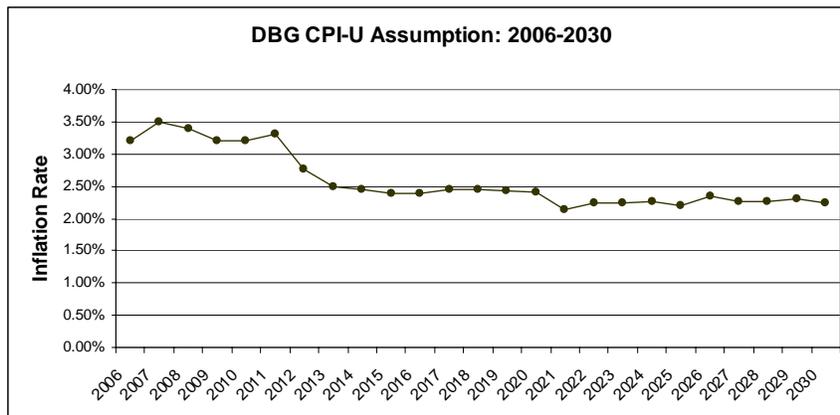
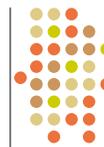


- Measured by Denver-Boulder-Greeley CPI-U
- Legislative Council staff forecast through 2011
- CBEF forecast for 2012-2030
- Consistent with revenue analysis assumptions
- Issue: Using the regional forecast has DBG CPI higher than the national forecast



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## Inflation Assumption



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Source: Colorado Legislative Council staff, CBEF

## Personnel Costs - Salaries

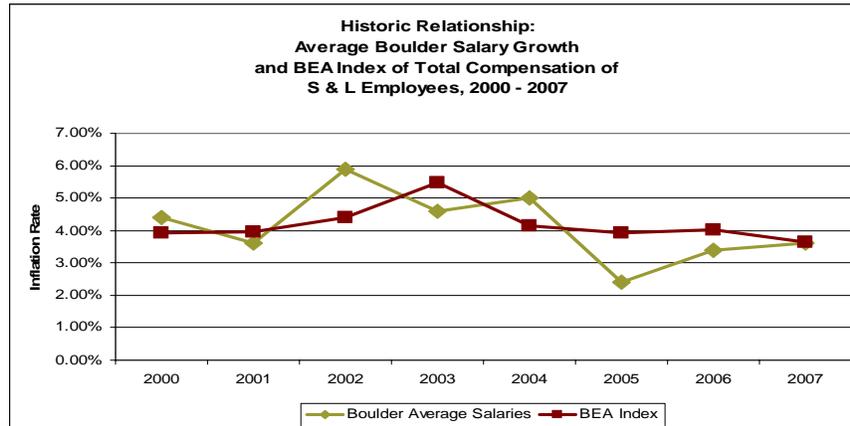


- Historically, Boulder salary inflation fairly consistent with national index for total compensation
  - CAAGR Boulder – 4.1%
  - CAAGR BEA – 4.18%
- Assumption - this will continue
  - Bargaining units
  - Compensation policy
  - Competition in labor pool



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## Personnel Cost Inflation: Boulder vs. National Index



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Source: Economy.com and City of Boulder

## Personnel - Salary Costs: Option # 1

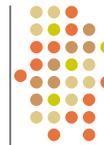


- Defer to the expertise of City of Boulder Human Resources Department
  - Grow salaries and salary based benefits at either
    - 4.0% or
    - 4.25%
- When this is combined with the following assumption for non-salary based benefits, total comp in Boulder will be slightly higher than national forecasts



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## Personnel – Salary Costs: Option # 2

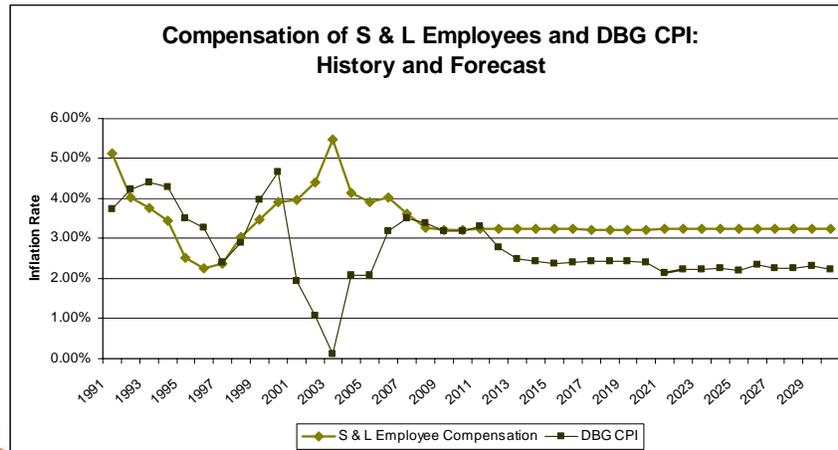


- Economy.com forecast for compensation of state and local government employees
  - Historical series from BEA
  - Total compensation index, not salaries only
- Yields compound average annual growth rate of 3.25%



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## Option # 2



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Sources: CPI from Leg Council and CBEF, S & L Comp from BEA, Economy.com

## Personnel – Salary Costs: Option 3

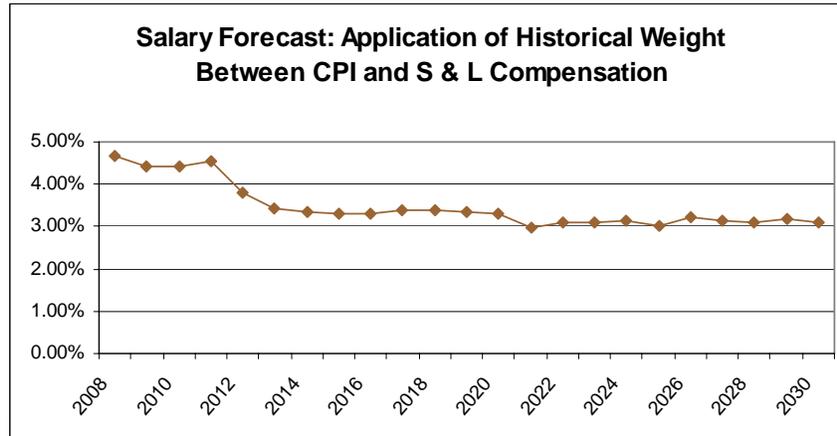


- Apply the historical relationship between CPI and S & L Compensation index to CPI forecast
  - Maintains historical relationship
  - Historical index is total compensation
- Yields increases greater than Economy.com forecast until 2020, then rate of increase falls below Economy.com forecast



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## Option 3



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## Personnel Costs: Non Salary Related Benefits...



- ...means Health Care
- Recent history: 10-12% annual growth
- Unrealistic to grow at historical rate
  - 12% annual growth to 2030 increase costs 15x
- National 2030 forecasts too low?
  - Chained detail forecast just under 3%
  - CPI Medical forecast just under 4%



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## Health Benefits Inflation: Option # 1

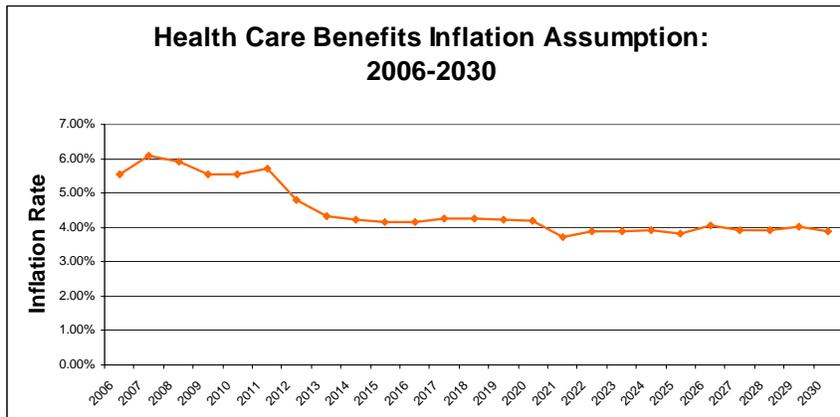


- Apply historical weight DBG CPI-U to national indices to DBG CPI-U forecast
- Medical inflation historically 1.74x the DBG CPI-U
- Yields rates ranging from 6.07% to 3.72%
  - Dampens into out years
- Slightly higher than Economy.com and GI for wage and salary supplements



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## Non-Salary Based Benefits Option # 1



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Derived from consultant calculation by applying the historic relationship between Medical CPI and DBG CPI-U to DBG CPI-U forecast

## Non-Salary Based Benefits: Option # 2



- Based on combination of recent past...
  - 2007 and 2008 – 10%
  - 2009 – 8%
  - 2010 – 7%
  - 2011 – 6%
- ...and reversion to the Global Insight private sector health insurance forecasts
  - 2012 to 2015 – 4.87%
  - 2016 to 2025 – 4.82%
  - 2026 to 2030 – 4.54%



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## Non-Salary Based Benefits: Option # 3



- Global Insight private sector health insurance forecasts without adjustment for near term
  - Budgetary realities
  - Recent past is not always best predictor of future
- Rates of increase would be
  - 2008 to 2015 – 4.87%
  - 2016 to 2025 – 4.82%
  - 2026 to 2030 – 4.54%



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## Specific Non-Personnel Inflation Factors



- Some line items assumed to grow at rate other than CPI
  - Utilities
  - Motor Fuel
  - Non-Residential Structures
  - Fleet
  - Information Processing
  - Transportation Construction
- Proposed Methodology: Grow at historic relationship (1990-2005) to CPI for Denver-Boulder-Greeley
  - Exception - Information Processing



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## Utilities

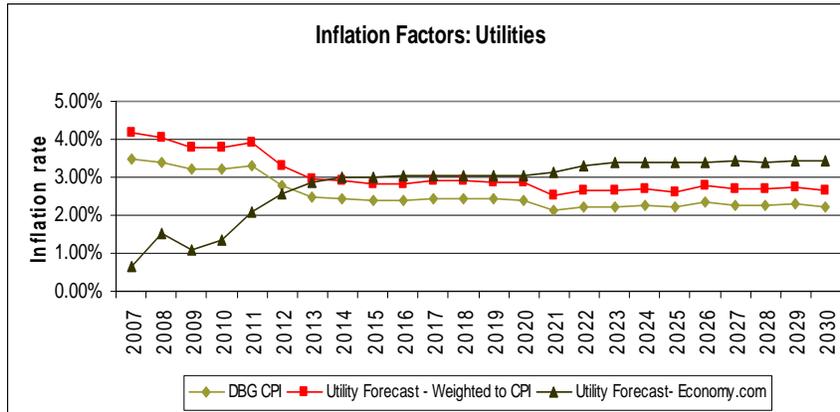
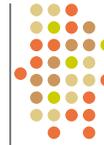


- National forecast lower than weighted to CPI forecast until 2013, reverses thereafter
- Issue: Will utilities continue to follow pattern relative to CPI or will other economic conditions change relationship?



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## Utilities: Alternative Forecasts



Underlying series: CPI-U Fuels and Utilities, BLS

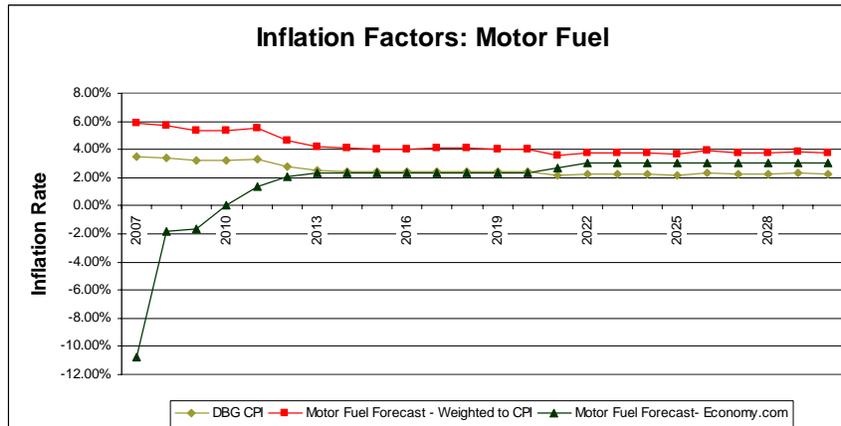
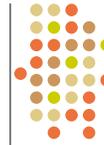
## Motor Fuel



- National forecast consistently lower than forecast relating motor fuel to historic relationship to CPI
  - Economy.com has low forecast for WTI relative to other oil price forecasts



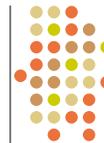
# Motor Fuel: Alternative Forecasts



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Underlying series: CPI-U Motor Fuel, BLS

# Non-Residential Structures

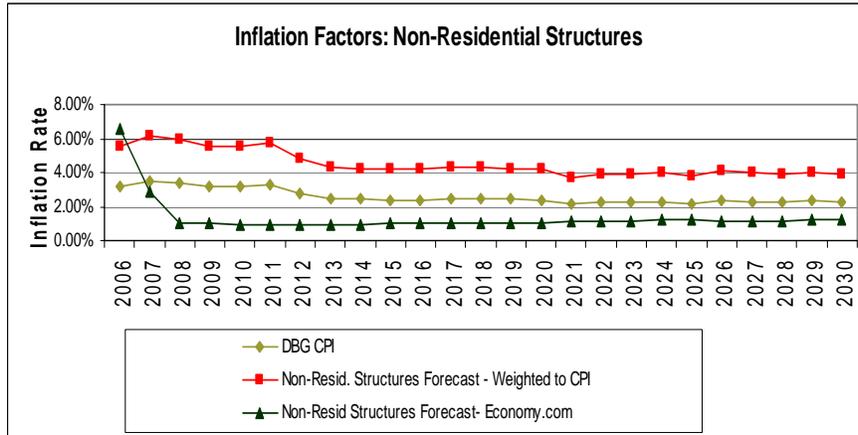


- Historically, rate greater than CPI
- National forecast is the opposite
- Issue: Will historic relationship hold or will economic changes dictate otherwise?



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# Non-Residential Structures: Alternative Forecasts



Underlying series: Implicit price deflator new non-residential structures, BEA

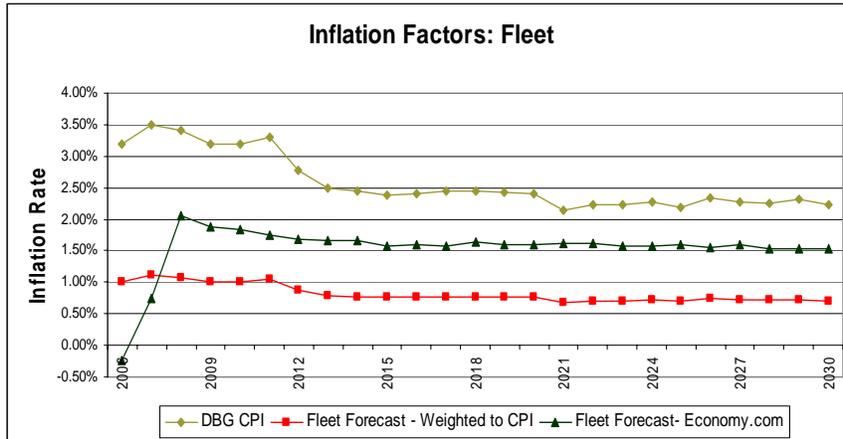
# Fleet



- Historically (1990-2005), inflation on new vehicles lower than CPI
- Economy.com forecast still lower than CPI, but not to same extent as historical experience
- Issue: To what extent will future fleet inflation lag overall inflation?



# Fleet: Alternative Forecasts



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Underlying series: CPI-U New Vehicles

# Information Processing

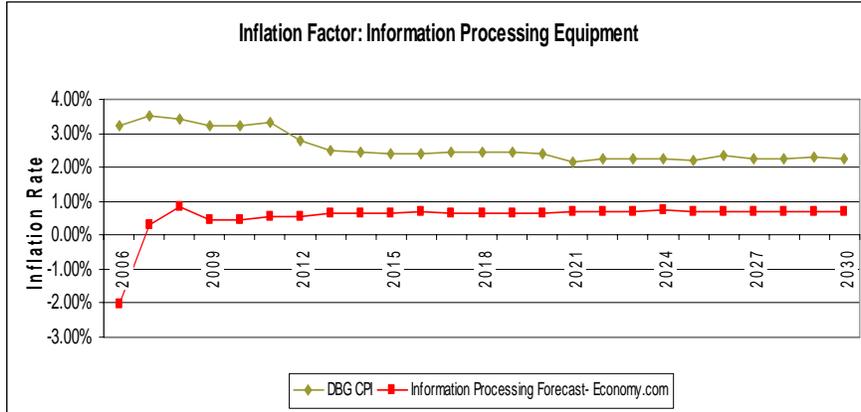


- Information Processing
  - Tremendous influence from technological change
  - Index declining historically
  - Economy.com forecast halts price decline and shows slight inflation over forecast horizon
- Issue: Would group be comfortable using Economy.com forecast?



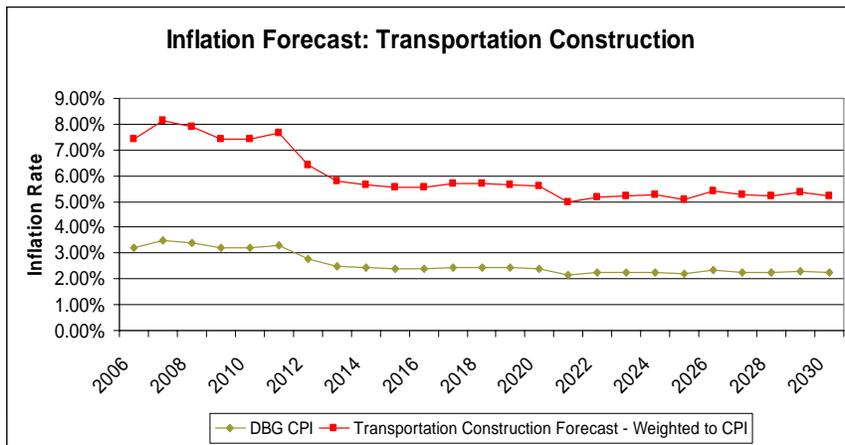
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# Information Processing



Underlying series: Implicit Price Deflator Information Processing Equipment, BEA

# Transportation Construction



Underlying Series: Construction Cost Index Report, CDOT