



SOCIETY OF ACTUARIES

**SOA 09 Annual Meeting & Exhibit
October 25-28, 2009**

**Session 13 PD, The Effects of Economic Factors
on Medical Claim Cost Trends - Short- and Long-
Term**

Moderator:

John P. Cookson, FSA, MAAA

Presenters:

John P. Cookson, FSA, MAAA
Thomas Getzen

Effect of Economic Factors and Medical Trends

PD13
SOA Health Annual Meeting
October 26, 2009

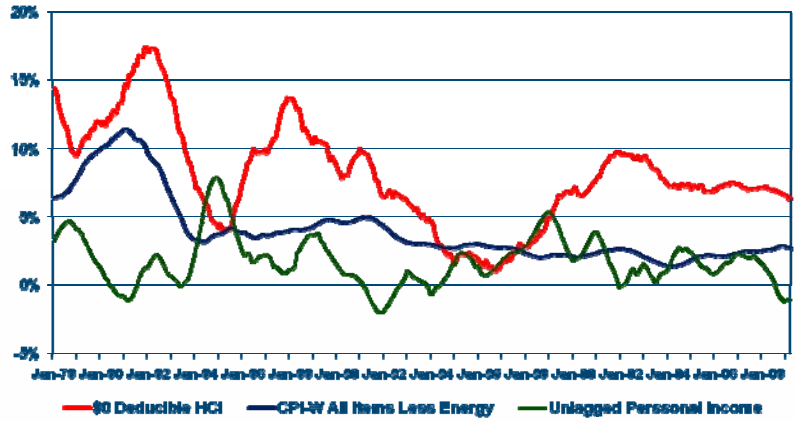
John P. Cookson, F.S.A.



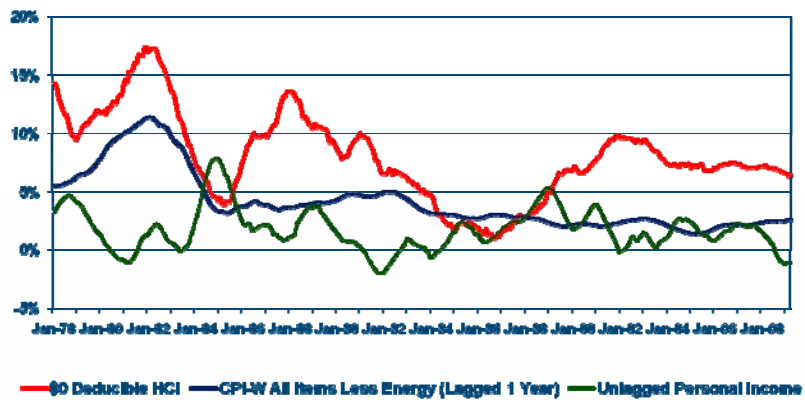
Economic Factors Affecting Short Term Medical Trends

- Premise
 - Hospitals and Physicians Have Target Revenues to Match Their Target Budgets
 - To a Large Degree They can Control Resource and Budget Growth to Reflect Expected Revenue
 - Use all Sources of Revenue to Balance

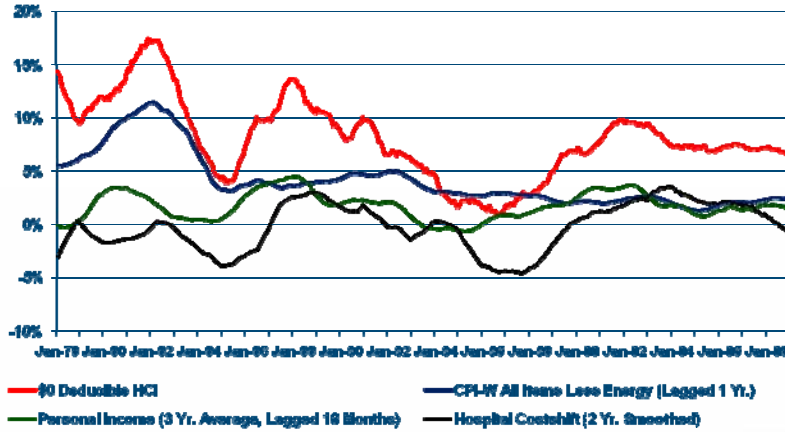
Health Cost Index vs. CPI-W All Items Less Energy Less Energy vs. Unlagged Personal Income



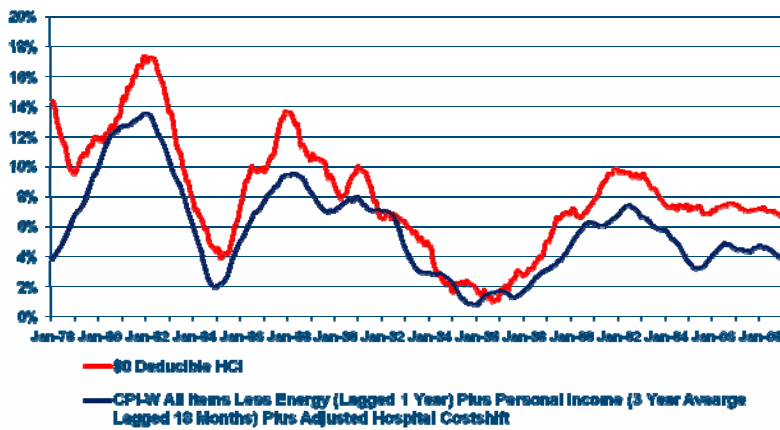
Health Cost Index vs. CPI-W All Items Less Energy (Lagged 1 Year) vs. Unlagged Personal Income



CPI-W All Items Less Energy (Lagged 1 Year) vs. Health Cost Index vs. Personal Income (3 year average, lagged 18 months) vs. Hospital Costshift (2 Year Smoothed)



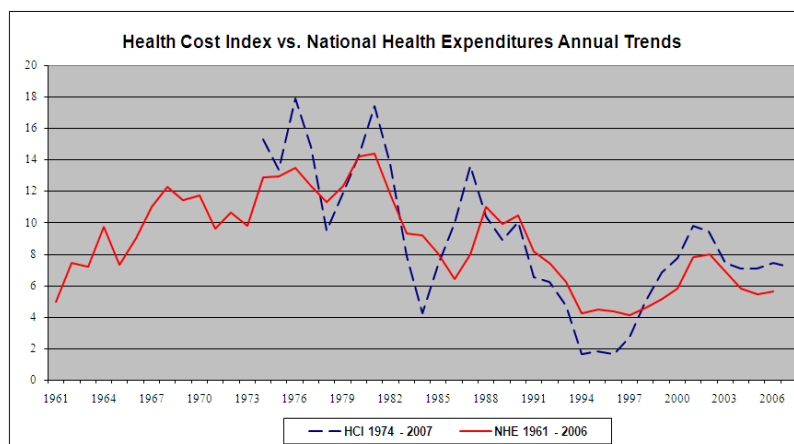
CPI-W All Items Less Energy (Lagged 1 Year) Plus Personal Income (3 year average, lagged 18 months) plus Adjusted Hospital Costshift vs. Health Cost Index



Economic Factors Affecting Short Term Medical Trends

- Total Level NHE
 - Components by Type of Service
 - Hospital, Physician, Rx, etc.
 - Components by Type of Payer or Risk-Taker
 - Commercial, Medicare, Medicaid, etc.

Health Cost Index vs. National Health Expenditures Annual Trends



Economic Factors Affecting Short Term Medical Trends

- High Concentration of Resources and Especially Specialist Physician and Hospital Beds
 - Higher Spending
 - More Use of High-Cost, Non-Evidence Based Care
 - Quality no Better and Possibly Poorer
- Implications
 - Growth in Physicians/Capita Increasing Trends
 - Growth in Specialist/Physician Increases Trends

Economic Factors Affecting Short Term Medical Trends

- Local Differences Affect Local Trends and Costs
 - Physicians
 - Specialist
 - Hospital Beds
 - Health Employment and Wage Rates
 - Hospital Beds
 - Replacement
 - Specialty Hospital
 - New Technology
 - MRIs, PETs, etc.
 - New Employment, Possibly Higher Wages for Skills

Economic Factors Affecting Short Term Medical Trends

- New ASC and OP Hospital Facilities
- Benefits Changes
- National
 - Working Days

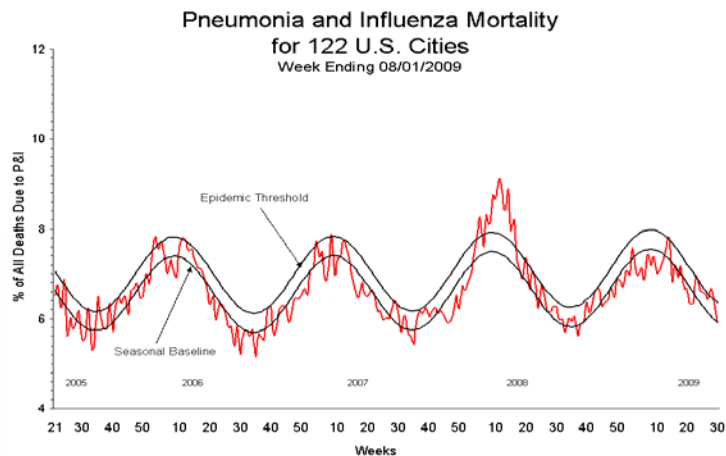
Suggestions for Improving Forecasts Working Day (my non-RX estimate)

Period Ending	3 Month Trend	12 Month Trend
December-04	1.6%	0.9%
December-05	-0.6%	-0.5%
December-06	-0.6%	-0.1%
December-07	0.3%	-0.2%
Decemer-08	-0.7%	0.2%

Economic Factors Affecting Short Term Medical Trends

- Interventions
 - DRG (1983-84)
 - RBRVS (1992)
 - Managed Care Effect Early 1990s
 - Back Lash in Late 1990s
- Cost Shift
 - Medicare/Medicaid Government Set Fee Increases
 - Medicare Advantage
- Random Events
 - Flu
- Second Order Reactions
 - Steps vs. Trends

CDC – Morbidity and Mortality



Medical Cost Trends: Short & Long

Thomas E. Getzen, Ph.D.
Temple University, Dept. of Risk
CEO, International Health Econ Assoc.

Short

- *Why any “reform” will look good in 2012.*

Long

- It's the economy, st---d.

Trends

- 1) **Short-run fluctuations** --why the recession and inflation timing will make any "reform" program look good in 2012.
- 2) **Actuarial Uncertainty** -- in the long run, the uncertainty is vast. Clients want precise answers--and it is just not possible to predict hc trends 20 years out all that well. Why saying that a DB retiree benefits plan is "102% funded" is almost meaningless. Our only certainties are Death, Taxes -- and the federal budget constraint.

Short-Run Fluctuations

- Inflation
- Recession
- Underwriting Cycle
- Premium/Cost shifting & offsets

Inflation

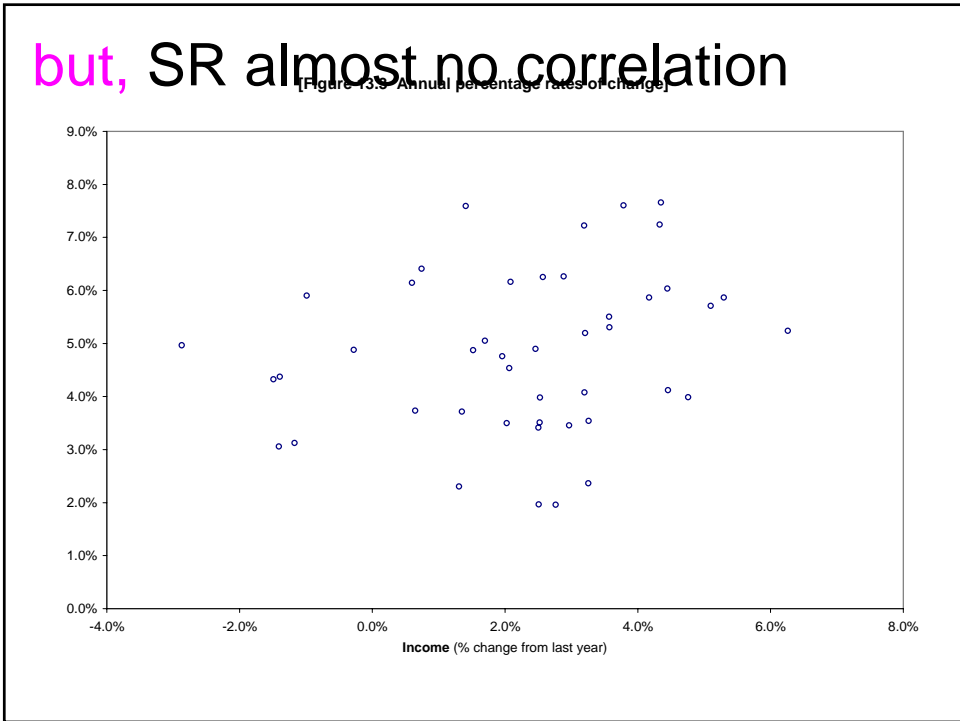
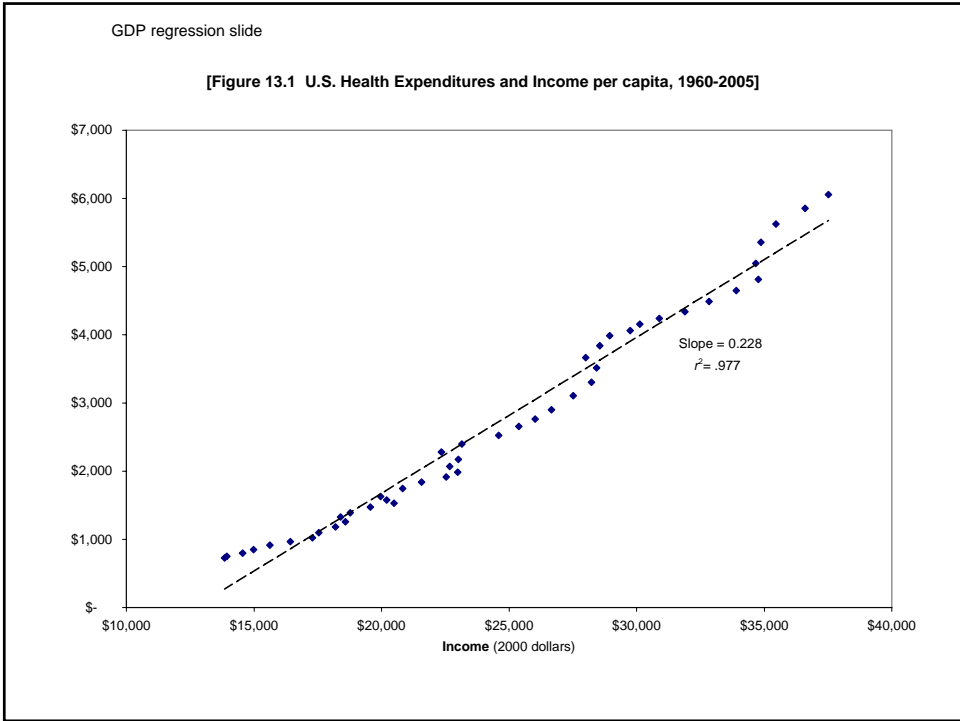
Inflation moves HC\$ 1:1 over the long run.

But, short-run, only 1/3 picked up each year.

Implication: A surge in inflation in 2011 will “undercount” the medical cost increase in 2011 - 2012 - 2013.

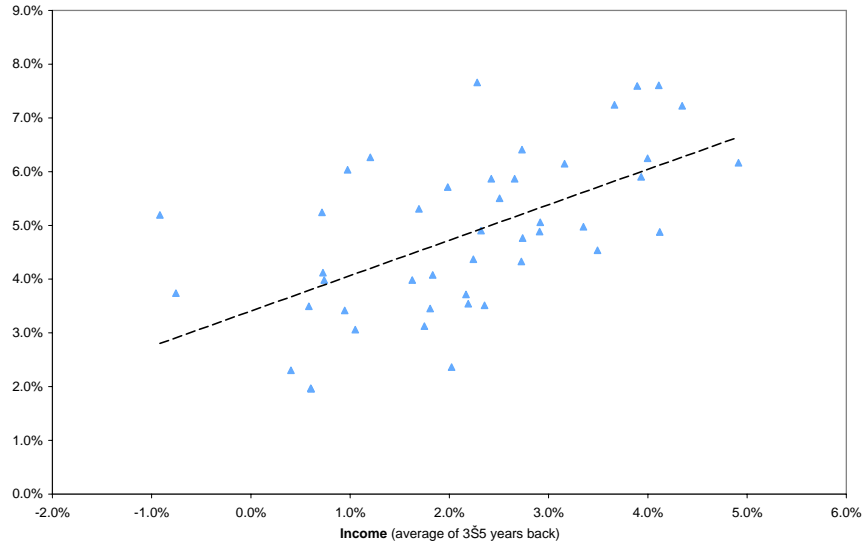
Recession (GDP)

- LR income (GDP) effects dominate.



Correlations slide

[Figure 13.4 Annual percentage rates of change (lagged moving average)]



WHY?

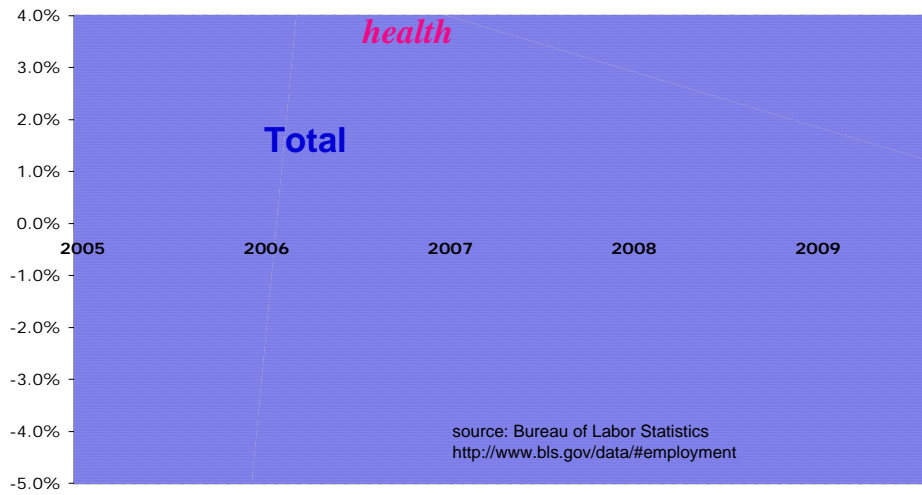
Budgets are already set for 2010--what happens now cannot change much.

Multi-year employment contracts.

Generally slow inertial adjustment of Health Care.

implication: **Recession** which has just begun to depress HC spending will continue to do so through 2010, 2011, 2012, 2013.

Exhibit 2: **annual % change: U.S. employment**



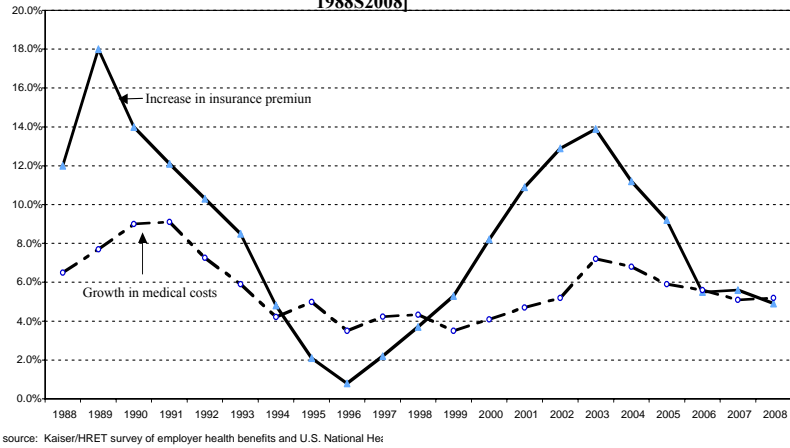
Underwriting Cycle

Bottomed out in 2008?

implication: as cycle turns up, will tend to raise premium costs above med cost.

Underwriting cycle slide

[Figure 5.2 The "Underwriting Cycle" of Health Insurance Premiums, 1988-2008]



Premium-shifting

Continued employer "Premium Cutting" by shifting cost to employee co-pays, contribution%, deductibles, etc.

Pressure from need to balance Medicare, Medicaid cuts.

implication: ???

Short-Run Forecasts

- Understanding lags, inertia, inflation and underwriting cycles revolutionized SR forecasting in the 1990s.
- **Outlook for 2012** -- combination of “enforced” and “illusory” cuts will make cost growth look very modest.

*How Accurate Can
Actuaries Be?*

Accuracy Measured

- About 1% to 2% error per year.
- “fluctuations” versus “trend errors”

Short Run Accuracy --

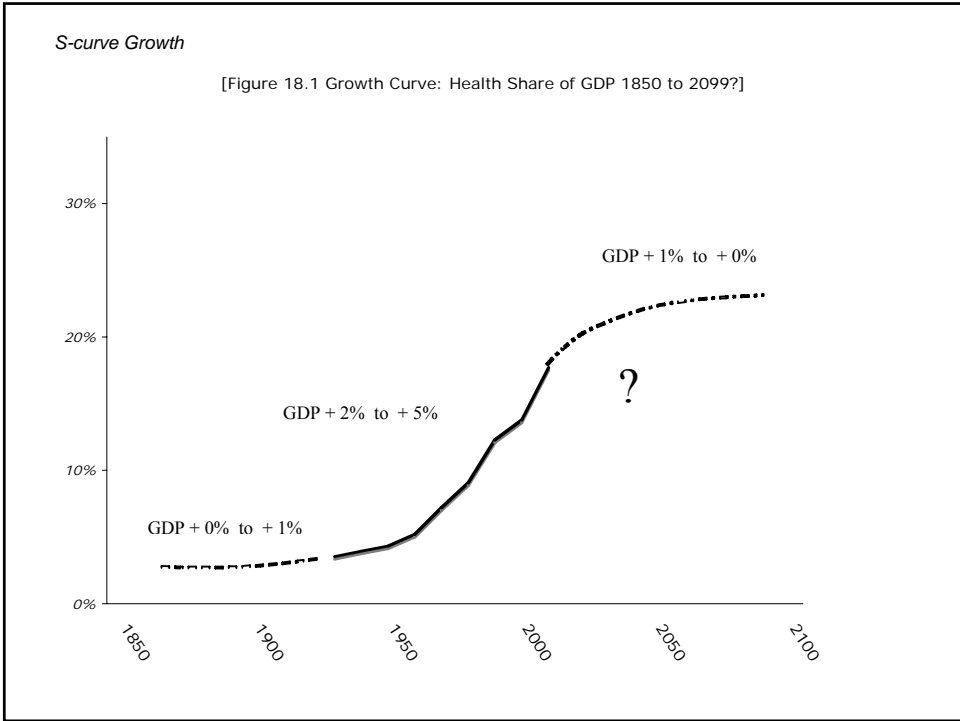
- Actually not bad.
- Most good firms and knowledgeable actuaries can do better than econometricians and forecast models.
- SR there are many different situations, and many factors, that all tend to wash out over the long run.

Long-Run?

- Its all about the money---

Long Run ---

*There must be a limit, eventually, somewhere,
we will run out of money to spend.*



Results 1990, 1998, 2008

