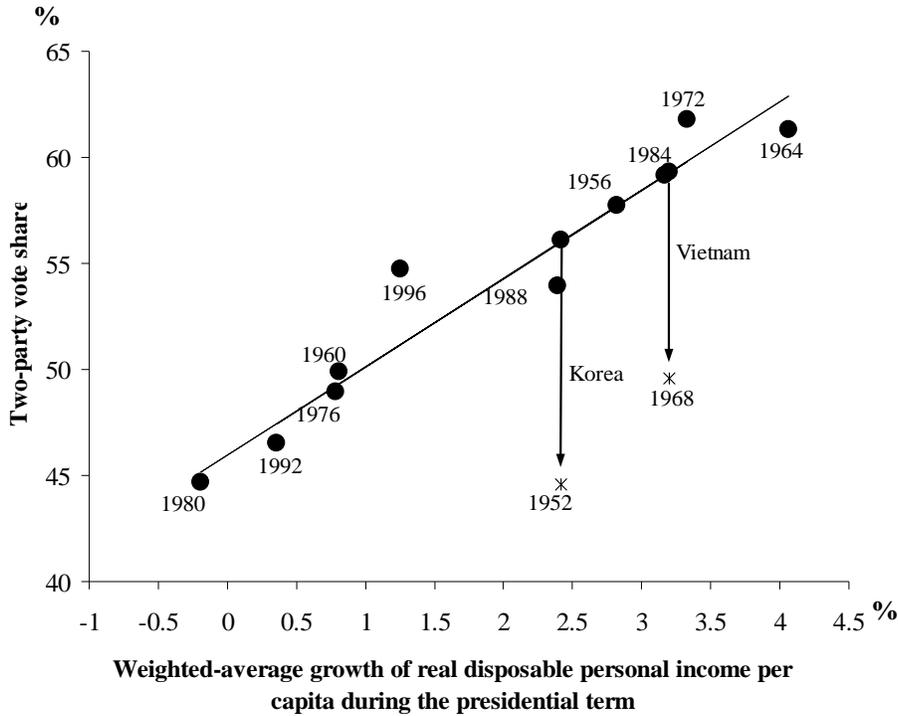Douglas Hibbs
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Implications of the 'Bread and Peace Model' of US Presidential Voting for the 2004 Election Outcome

Background

My analysis of likely 2004 presidential election outcomes is based on research reported in my article "Bread and Peace Voting in U.S. Presidential Elections" (**Public Choice**, 2000, available at: http://www.douglas-hibbs.com/HibbsArticles/PublicChoice2000.pdf).   The 'Bread and Peace Model' assumes that postwar American presidential elections should for the most part be interpreted as a sequence of referendums on the White House party's economic record. The incumbent's economic performance is most efficiently measured by a weighted-average of quarterly growth rates of real disposable personal income per capita, computed from the election quarter back to the first full quarter of each presidential term. Growth of real disposable personal income per capita is probably the broadest single aggregate measure of changes in voters' economic well-being, in as much as it includes income from all market sources, is adjusted for inflation, taxes, government transfer payments and population growth, and tends to move with changes in unemployment.

The only additional factors I found that systematically affected postwar aggregate votes for President were the U.S. military interventions in the Korea and Vietnam. My research indicated that the electoral penalties exacted by Korea and Vietnam fell almost wholly on the party initiating the commitment of U.S. forces (the "war party", in both cases the Democrats), and were proportionate to the cumulative numbers of American military personnel killed-in-action at the dates of the 1952 and 1968 elections, respectively. In the Figure below, which is taken from my **Public Choice** article, the war-induced vote losses are illustrated by the vertical arrows running from the incumbent party vote shares expected in 1952 and 1968 from economic performance alone to the vote shares actually received by the incumbent (Democratic) party candidates.

**Real Income Growth and the Two-Party Vote Share of the
Incumbent Party's Presidential Candidate**

The Bread and Peace Equation

Quantitative estimates of effects on votes for President of real income growth and the cumulative number of American military fatalities in Korea and Vietnam are based on the following equation:

$$Vote_t = \alpha + \beta_1 \sum_{j=0}^{14} \lambda^j \Delta \ln R_{t-j} + \beta_2 \, CUM \, KIA_t$$

where

- *Vote* is the incumbent party's percentage share of the two-party presidential vote.

- *R* is per capita disposable personal income (seasonally adjusted at annual rates) deflated by the Consumer Price Index, and $\Delta \ln R_t$ is the annualized quarter-on-quarter percentage rate of growth, $\log(R_t/R_{t-1}) \cdot 400$. At the election quarter (*j=0*) the growth rate is scaled down to $\log\left[(R_t/R_{t-1})^{1/3}\right] \cdot 400$ because of the within-quarter date of presidential elections (the first Tuesday following the first Monday of November).

- *CUM KIA* is the cumulative number of American military personnel killed-in-action (in 1000's) in Korea and Vietnam during the presidential terms preceding the 1952 and 1968 elections. (Technical information about how *CUM KIA* in Korea and Vietnam were determined to affect only the 1952 and 1968 elections is given in my ***Public Choice*** article.)

Nonlinear-least-squares estimation of the Bread and Peace equation over the thirteen 1952 to 2000 presidential elections yields the parameter estimates $\alpha = 46.3$, $\lambda = 0.92$, $\beta_1 \Big/ \sum_{j=0}^{14} \lambda^j = 3.6$, $\beta_2 = -0.31$. (The equation was estimated with data on nominal personal disposable income per capita posted at the Bureau of Economic Analysis's website http://www.bea.doc.gov/ on 26 June 2004, and with data on the consumer price index available at the Department of Labor's website http://stats.bls.gov/ on 19 July 2004.) The parameter estimates imply that each percentage point of per capita real income growth sustained over the term yields a 3.6 percentage point deviation of the incumbent's two-party vote share from a constant of about 46.3 percent, and each 1000 military fatalities depresses the incumbent's vote share by 0.31 percentage points.

Likely Two-Party Vote Shares for Bush in 2004

In order to generate predictions of likely 2004 presidential election outcomes, I treat American military personnel killed in Iraq as comparable to American fatalities in Korea and Vietnam. At this writing (24 July 2004), the total number of American military fatalities in Iraq stands at just under 1,000. U.S. military operations in Iraq appear to have gone into a largely defensive posture, and therefore it is unlikely that Americans killed will exceed 1,500 by Election Day. Based on the experience of Korea and Vietnam, fatalities in the range 1,000 to 2,500 will affect President Bush's two-party vote share by less than 1.0 percentage point. The Bread and Peace Model therefore implies that the election outcome probably will turn mainly on the economy.

Over the first full twelve quarters of President Bush's term − from 2001:Q2 to 2004:Q1 − the quarterly growth rate of real disposable personal income per capita has averaged 1.98 percent, which is slightly above the postwar average of 1.9 percent. To a good first approximation log real disposable personal income per capita obeys a random walk with drift. Hence the best prediction of real income growth for the remainder of President Bush's term is the average ("drift") rate of 1.9 percent. War effects aside, the parameter estimates for the Bread and Peace model imply that as weighted-average growth over the term exceeds 1.0 percent, re-election of the incumbent becomes increasingly more probable. (The "break-even" weighted-average growth rate − that is the weighted-average rate yielding a predicted incumbent two-party vote share of 50% − is about 1.1 percent.) As indicated in the Table below, *the likely combinations of cumulative military fatalities in Iraq and weighted-average real income growth over the term yield an expected two-party vote for President Bush of around 53%.*

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Table: Bush's Likely Two-Party Vote Share Under Various Assumptions About Real Income Growth and Cumulative American Military Fatalities in Iraq

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Real Income Growth Rates

2004:Q2-2004:Q4 →	0.0	0.5	1.0	1.5	2.0	2.5
Cumulative U.S. Killed in Iraq at 2004:Q4 ↓						
1,000	51.6%	52.1%	52.6%	53.0%	53.5%	54.0%
1,500	51.5%	52.0%	52.4%	**52.9%**	**53.4%**	53.8%
2,000	51.3%	51.8%	52.3%	52.3%	53.2%	53.7%
2,500	51.2%	51.6%	52.1%	52.6%	53.0%	53.5%

Qualifications

- The Bread and Peace Model was developed to help understand the behavioral sources of presidential election outcomes, rather than to predict vote shares. Better predictions of the 2004 election outcome will almost certainly be turned in by vote equations containing variables obtained from polling data, by polling data directly, and especially by odds posted at betting institutions such as Ladbrokes (http://www.ladbrokes.com/), and by prices posted at options markets like the Iowa Presidential Election Electronic Market (http://www.biz.uiowa.edu/iem/markets/). Poll data, betting odds data, and political options market data of course supply no insight into the causes of voting outcomes.

- The Bread and Peace model fit presidential voting outcomes remarkably well over the period 1952-1992. (See the Figure above.) However model fits at the 1996 and 2000 elections were poor (Clinton's two-party vote share was under-predicted by around 4 percentage points and Gore's vote share was over-predicted by about the same magnitude), and this may well have implications for the model's out-of-sample 2004 predictions.

- The modest electoral effects of US military fatalities in the Iraq war that are implied by the Bread and Peace model are based on the experiences of just two cases: Korea and Vietnam. However the political consequences of the invasion of Iraq may be too narrowly calibrated by military fatalities alone. Anyone following the American public's reactions to events in Iraq gets the sense of a broad withdrawal of popular support from President Bush arising from his administration's misjudgment of the facts, from inaccuracy and deception in their presentation, and from mishandling of the occupation phase of the war.