

Appendix

Details of GDP Adjustments

Investment in Intangibles

We use annual data from Corrado, Hulten, and Sichel (2006) to construct measures of both nominal and real investments in intangibles as well as of consumption of intangible capital.^a The intangibles include investments in computerized information, excluding software; scientific and nonscientific research and development; brand equity; and firm-specific organizational capital.

Production Done in the Home

House, Laitner, and Stolyarov (2008) estimate that the market value of forgone production done in the home is about 25 percent of female labor income.^b We construct an approximate time series of female labor income by considering average weekly wages for men and women as well as their wages' share in payroll employment. This methodology allows us to construct a proxy for the share of women's wages and salaries in aggregate wages and salaries. This share increased from 34 percent in 1983 to 41 percent in 2003. We then apply this share to compensation

and proprietor's income to calculate female labor income. A quarter of this amount is then assumed to be the market value of forgone production done in the home attributable to female labor force participation. For our real GDP measure, we deflate this amount by the personal consumption expenditures price index. This figure is then subtracted from published GDP.

Government Productivity Growth

In the National Income and Product Accounts, "Government Consumption Expenditures & Gross Investment" are deflated by a price index based on the weighted growth rate of inputs—employees, consumption of fixed capital, and intermediate goods and services purchased.^c This method of deflating government outlays implicitly assumes no multifactor productivity growth in the government sector. For our adjustment, we instead assume that the government sector has a multifactor productivity growth rate equal to that of the U.S. private nonfarm business sector, as published by the Bureau of Labor Statistics.

^a Carol A. Corrado, Charles R. Hulten, and Daniel E. Sichel, "Intangible Capital and Economic Growth." NBER Working Paper no. 11948, January 2006.

^b Christopher House, John Laitner, and Dmitriy Stolyarov, "Valuing Lost Home Production of Dual Earner Couples." *International Economic Review* 49, no. 2 (May 2008): 701-36.

^c For a description of this procedure, see Bruce E. Baker, Pamela A. Kelly, and Brooks B. Robinson, "Estimates of Real Government Consumption Expenditures and Gross Investment by Function for 1959-2003." Bureau of Economic Analysis *Survey of Current Business* 84, no. 10 (October 2004): 5-10.