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Effects of the Tax Cut on Saving

Washington is still debating the politics, economics, and merits of the substantial tax cut initiated by President George W. Bush and passed by Congress, with amendments, in 2001. The Economic Growth and Tax Relief Reconciliation Act (EGTRRA) reduces ordinary income tax burdens but leaves more taxpayers exposed to the Alternative Minimum Tax (AMT). Also, the tax cut "sunsets" after 2010. Some debate its short-run macroeconomic consequences, with respect to both its timing and whether its "back-loaded" structure undercut its ability to spur economic activity during the recent economic downturn.

In **The Bush Tax Cut and National Saving** (NBER Working Paper No. 9012), NBER Research Associate **Alan Auerbach** specifically examines one side of its incentive effects, its impact on savings. One of his basic findings is that the reduction in marginal tax rates implied by the 2001 tax legislation may not decrease revenues as much as the "static" methods used by government agencies to estimate revenue losses suggest. Still, he writes, "it is difficult to put together a combination of reasonable assumptions regarding household and government behavior under which this tax cut will increase national saving and capital formation." That's important, because extra savings can boost future productivity and living standards by deepening the

supply of capital used by business to purchase plant and equipment. An underlying motivation for many in pursuing this tax cut was the notion that lower taxes can spur private activity and make the economy more productive.

Auerbach focuses on the net national saving rate — the share of net output that is consumed by neither government nor households — as a summary measure of the nation's rate of capital accumulation. He uses a "dynamic" model that takes account of any feedback

on the economy in the way of extra economic growth, and thus additional government revenues, stimulated by a cut in marginal tax rates. His simulations suggest that the Bush tax cut may increase saving in the short run, depending on assumptions. Also, it is likely to increase economic output in the short run, because of its additional salutary effects on labor supply. With lower tax rates, individuals are encouraged to work more and those with higher incomes are able to save more. These dynamic feedback effects are significant: they offset as much as 10 to 40 percent of the

revenue losses imputed by static calculations of the impact of the tax cuts.

But they are not large enough to offset the negative impact of tax cuts on national saving. In the longer run, saving and output are likely to fall once the revenue losses generated by the tax cut are confronted through necessary policy changes. Those could include tax hikes or spending cuts to reduce federal deficits. Only if the revenue losses are entirely offset by reductions in government consumption

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spending can the long-run drag on the economy be avoided, Auerbach finds.

To reach these conclusions, Auerbach looks at a number of alternative assumptions about post-2010 fiscal policy. They assume, for example, that the tax cuts remain in place for varying time spans, from the original 10 years to 20 years. But none assume the tax cuts will be made permanent, as that would imply the government will allow its national debt to explode unless stronger growth raises revenue enough to eliminate future deficits.

— David R. Francis

Impact of Devaluations on Commodity Firms

During the late 1990s, the global economy witnessed a string of major currency devaluations and financial crises in Asia, South Africa, Russia, and Brazil. In **Cheap Labor Meets Costly Capital: The Impact of Devaluations on Commodity Firms** (NBER Working Paper No. 9053), author **Kristin Forbes** examines how such devaluations affected costs, production decisions, and profitability for commodity-producing companies within the devaluing countries and for their foreign competitors. She concludes that although devaluations in the short run help domestic producers boost profits and output vis-à-vis the rest of the world, their long-term impact is more ambiguous and depends on the firms' relative dependence on capital and labor. These conclusions run counter to the conventional notion that devaluations reduce the cost of exports in international markets and therefore boost exports from the devaluing country.

Forbes first considers the case of firms in a small, open economy with competing firms in the rest of the world. After a devaluation, the relative cost of labor declines in the crisis country, so firms there are able to increase output and profits. In the long term, however, the devaluation increases the cost of capital for firms in the crisis country, possibly by more than the exchange-rate movement, if there is an increase in domestic risk or if interest rates rise. If the firm has a high enough capital/labor ratio, then the increased cost of capital could outweigh any benefit from the cheaper labor.

For competing firms in the rest of the world, this analysis predicts the opposite results. In the short run, output and profits decline. Depending on the use of capital and labor by foreign firms, however, the devaluation could increase their output, profits, and investment in the long run.

Next Forbes gathers data for 1,100 firms around the world across ten commodity industries, including natural rubber and forest products, mining, natural gas and crude petroleum, fruits and vegetables, edible oils and fats, cigarettes, industrial chemicals, plastics, materials and synthetics, and fertilizers. The data include firms from eight countries that experienced "major devaluations" — defined as cases in which the local currency depreciates against the U.S. dollar by 15 percent or more within any four-week period — from January 1997 through December 1999.

Forbes's results show that, immediately following devaluations, firms in the crisis countries expanded their output by an average of 21 percent, compared to output growth of 8 percent in non-devaluing countries. Profits following devaluations followed a similar pattern, growing by 23 percent in devaluing countries versus 8 percent in non-devaluing nations. For example, among edible oils and fats firms, production and profits expanded by 16 percent and 17 percent, respectively, in crisis economies, compared to 4 percent and negative 1 percent in the rest of the world.

Forbes's analysis had predicted that, following a devaluation, firms in the devaluing economy increase capital investment while competing firms abroad reduce capital investment, if two conditions are met: first, if labor's share in output is large compared to capital's share, and second, if the increase in interest rates is small in the devaluing country. In other words, the impact on capital investment depends on the firms' capital/labor ratio and on the price of capital.

Here the data also tend to support her predictions. Forbes divides the sample of firms from crisis countries into two groups, based on whether their capital/labor ratio exceeds the mean ratio for all firms in devaluing countries. Firms with higher ratios have slower capital growth rates than firms with lower capital/labor ratios. The data also reveal that "devaluing country firms with low capital/labor ratios and no significant increase in interest rates had the highest investment growth (15 percent), while firms with high

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capital/labor ratios and a large increase in interest rates had the slowest investment growth (10 percent)."

Finally, Forbes uses stock price data to assess whether expectations of long-run profits fit her predictions. After devaluations, commodity-exporting firms in the devaluing countries should have higher long-run profits than competing foreign firms if, again, labor's share in output is large relative to capital and the increase in the cost of capital is low. Forbes examines the average 3-month return starting in the month prior to the devaluation and ending in the month following the devaluation, and finds that firms with higher capital/labor ratios showed an average return of negative 34 percent, while the return for companies with lower ratios was negative 21 percent. "Although the majority of firms experienced negative returns during this period," Forbes writes, "these statistics suggest that investors expected profits for more labor-intensive firms to be less adversely affected by the devaluations than the profits of more capital-intensive firms."

Similarly, firms with lower capi-

tal/labor ratios and that did not experience a large interest rate increase showed the best 3-month average stock performance (negative 6 percent), while firms with higher capital/labor ratios and high interest rate increases displayed the worst performance (negative 29 percent).

Ultimately, Forbes concludes that a key factor determining whether crisis-country firms benefit from devaluations is whether the cost advantage from cheaper labor outweighs the disadvantage from more expensive capital. "The results could provide important insights on why some devaluations boost

exports, improve economic growth, and spread to other countries," explains Forbes, "while other devaluations have little effect on the trade balance, are contractionary, and have minimal impact on the rest of the world."

— Carlos Lozada

Whose Employment is Affected by Unions?

In 1973, unemployment in most European countries was modest, ranging between 2.0 and 3.2 percent, compared to 4.8 percent for the United States. By 1995, the unemployment situation for the European countries had changed dramatically, rising to an average of 10.7 percent. But in the United States, the unemployment rate rose only to 5.6 percent by 1995, roughly half that of European countries. This reversal of fortunes was concentrated on youth, older individuals, and women, rather than on prime age males: while the employment-to-population ratios (employment rates) of all groups rose in the United States relative to other Western countries, the increases were especially large for youth and older individuals, and somewhat larger for women, according to new research by **Giuseppe Bertola**, **Francine Blau**, and **Lawrence Kahn**. At the same time, the authors note that unionization fell in the United States compared to these other countries.

In **Labor Market Institutions and Demographic Employment Patterns** (NBER Working Paper No. 9043), the researchers investigate the cross-country impact of labor market institutions on the relative employment rates of youth, women, and older individuals, relative to prime age males. This study overcomes the drawbacks of earlier

research by examining data from a wider base of countries, 17 in all, and over a longer time frame, 1960-96. The authors focus on the wage-employment tradeoffs faced by different groups of workers. The countries included in the study were part of the Organization for Econ-

relative unemployment of these groups). In contrast, a larger role for unions has little impact on male-female employment rate differentials but raises female unemployment relative to male unemployment.

The authors conjecture that unions, in determining their wage-

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mic Cooperation (OECD): Australia, Belgium, Canada, Denmark, Finland, France, Germany, Japan, the Netherlands, Italy, Norway, Portugal, New Zealand, Spain, Sweden, the United Kingdom, and the United States. The researchers control for overall demographic factors, country effects, and institutional factors, such as collective bargaining coverage, labor tax rates, employment protection, unemployment insurance, and rates for retirement benefits, as well as the overall unemployment rate (although results were similar when the unemployment was not included as an explanatory variable).

The researchers find that, for both men and women, more union involvement in wage setting significantly decreases the employment rate of young and older individuals relative to the prime-aged group (with no significant effects on the

setting policies, balance out the gains from higher wages against the losses from resulting reductions in employment. Groups with the most extensive non-market opportunities to use time productively suffer the least when they lose employment. These groups are likely to be youth, older individuals, and women, all of whom have more extensive non-market uses of time than prime age males do: household production for women (under a traditional division of labor in the family), schooling for youth, and retirement for older individuals. As a result, unions negotiate the highest wage increases for these groups, leading to larger employment reductions for them. Alternatively, it may be more socially acceptable in highly industrialized societies to concentrate employment losses associated with unions on women, youth, and the elderly.

The authors' findings suggest that union wage-setting policies price the young and elderly out of employment and drive affected individuals in these groups to non-labor-force activities, leaving unemployment rates unchanged. A probable scenario for women, according to the authors, is that high union wages encourage them to enter the work force, pushing up their unemployment rates. However, the expected employment declines for women do not materialize, because women who otherwise would not be employed because of the high union wage floors find work in an unregulated work field or in the public sector.

— Marie Bussing-Burks

The G.I. Bill, World War II, and the Education of Black Americans

The unprecedented support for the education of returning World War II veterans provided by the G.I. Bill was notably race-neutral in its statutory terms. More than 1 million black men had served in the military during World War II and these men shared in eligibility for educational benefits, which included tuition payments and a stipend for up to four years of college or other training. Yet, the effects of military service and the availability of educational benefits may have differed by race and geography as black men from the South returned to segregated systems of higher education, with relatively limited opportunities at historically black institutions.

In **Closing the Gap or Widening the Divide: The Effects of the G.I. Bill and World War II on the Educational Outcomes of Black Americans** (NBER Working Paper No. 9044), authors **Sarah Turner** and **John Bound** conclude that the G.I. Bill had a markedly different effect on educational attainment for black and white veterans after the war. While the introduction of generous student aid through the G.I. Bill held the promise of significantly reducing black-white gaps in educational opportunity and long-run economic outcomes, the G.I. Bill exacerbated rather than narrowed the economic and educational differences between blacks and whites among men from the South.

For white men, the combination of World War II service and G. I. benefits had substantial positive effects on collegiate attainment, with a gain of about 0.3 years of college and an increase in college completion of about 5 percentage points. For black men, however, the results were decidedly different for those born in the southern states versus those born elsewhere. The combination of World War II service and the availability of G.I. benefits led to an increase in educational attainment of about 0.4 years of college for black men born outside the South, while there were few gains in collegiate attainment among black men from the South.

Limited collegiate opportunities for blacks from the South decreased the effect of the G.I. Bill for this group and help to explain why this group did not share the same gains in collegiate attainment as whites and blacks in the North. At the conclusion of World War II, blacks wanting to attend college in the South were restricted in their choices to about 100 public and private institutions. Few of the post-secondary institutions for blacks offered education beyond the baccalaureate and more than a quarter of these institutions were junior colleges, with the highest degree below the B.A. Small in scale and lagging in resources per student, the historically black colleges in the South were ill-prepared to accommodate the rise in demand from returning veterans. What is more, access to information about veterans' benefits and advising services may have differed with racial groups, and the lack of black counselors was particularly marked in the deep South, with only about a dozen black counselors for all of Georgia and Alabama and none in

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Mississippi. While the G.I. Bill also covered non-collegiate vocational and technical training, the authors find that among black veterans born in the South vocational and technical training was not a substitute for collegiate participation.

The authors conclude that the availability of benefits to black veterans had a substantial and positive impact on their educational attainment outside the South. However, for those black veterans more likely to be limited to the South in their collegiate choices, the G.I. Bill exacerbated rather than narrowed the economic and educational differences between blacks and whites.

— Les Picker

Credit Access Cuts Child Labor in Developing Countries

Child labor is a troubling phenomenon and the focus of an intense political and policy debate, with proposals ranging from legislative bans and schooling subsidies in poor countries to trade sanctions against countries where child labor exists. Now an NBER Working Paper by **Rajeev Dehejia** and **Roberta Gatti** draws attention to the relationship between child labor in poor countries and the availability of credit. In **Child Labor: The Role of Income Variability and Access to Credit Across Countries** (NBER Working Paper No. 9018), the researchers suggest that extending access to borrowing may be an effective way of reducing child labor in poor countries.

In 1995, according to data from the International Labor Organization (ILO), there were 120 million children engaged in full-time paid work. The incidence of child labor was 2.3 percent of the work force among countries in the upper quartile of GDP per capita and 34 percent among countries in the lowest quartile of GDP per capita. Clearly, there is an established link between child labor and poverty. However, Dehejia and Gatti ask whether specific policy proposals might help to combat child poverty, independent of the more complicated challenge of promoting higher economic growth rates.

They begin with the theoretical link between child labor and financial development. Putting children to work raises current family income, but by interfering with the development of human capital among children, it reduces families' future income. The child can make an immediate contribution to household income, but this comes with a long-term cost. In addition to schooling, the researchers note, time spent at play contributes to a child's cognitive development (and thus is an investment in the child's future.)

The key economic variable that allows households to make the optimal trade-off between current and future income is access to credit. If households can borrow against future income, they can smooth earnings shocks without sending their children to work. If they cannot borrow, parents may choose an inefficiently high level of labor for their children.

Dehejia and Gatti proceed to conduct a cross-country comparison, using the degree of development of financial markets in a country as a measure of the credit constraints that households face. (The proxy for credit constraints is the ratio of private credit issued by deposit banks to GDP. This isolates credit issued to the private sector, excluding the government and public.)

They measure the extent of child labor as the percentage of the population aged 10-14 that is working, using ILO data for 172 countries since 1962. "Working" includes work for a wage/salary in cash or in kind, as well as unpaid family work. The ILO data does not distinguish between light work and full-time work that would interfere with human capital accumulation. However, because it relies on internationally accepted definitions, it allows cross-country comparisons.

The results confirm that as the availability of credit increases the prevalence of child labor decreases. The magnitude of the estimated coefficient is small for the full sample, relative to income. However, the relationship is particularly large in the sample of poor countries that have both less developed financial markets and a higher proportion of child labor — and therefore are of the most policy interest. In poor countries, a move from the 25th to the 75th percentile of access to credit is associated with a 4.2 percentage point decrease in child labor.

Thus, access to credit plays a sig-

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nificant role in explaining child labor. Dehejia and Gatti also look at the question of income shocks: that is, whether families send their children to work to help them cope with negative income shocks. If credit were widely available and households could borrow to smooth income variability, then they might not disrupt their children's education or leisure time. Splitting the sample into those countries where credit is widely available and those countries where it is not, the authors find that income variability in the low credit group enters the specification significantly and the magnitude of the coefficient is substantial. In the high-credit group of countries, the effect of income volatility on child labor is very close to zero. This confirms that household access to credit dampens the impact of income variability on child labor.

— Andrew Balls

Social Insurance Programs Have Large Labor Supply Effects

Social insurance programs have a more pronounced impact on labor supply decisions than do changes in wages and taxes, according to a new NBER Working Paper by **Alan Krueger** and **Bruce Meyer**. In **Labor Supply Effects of Social Insurance** (NBER Working Paper No. 9014). Krueger and Meyer survey the empirical evidence on the labor supply effects of social insurance programs. They define social insurance as compulsory, contributory government programs that provide benefits to individuals who meet specified eligibility requirements, and generally to individuals who contribute to the program's financing. Through such programs as Unemployment Insurance (UI), Workers' Compensation (WC), and Social Security (OASDHI) society pools the risks associated with unemployment, injury and disability, and old age. In 1967, 15 percent of U.S. Federal government expenditures went to social insurance. By 1996, 33 percent of federal government expenditures were on social insurance, and that figure is forecast to reach 44 percent over the next five years.

Studies of UI that incorporate both the incidence and the duration of claims tend to estimate that the elasticity of lost work time with respect to the benefit is close to unity. That is, a 10 percent increase in unemployment insurance benefits is associated with about a 10 percent decline in work time. Studies of Workers' Compensation tend to find that elasticities of lost

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work time with respect to the benefit are between 0.5 and 1. These are much larger than the labor supply elasticities — which are close to zero — typically found for men in studies of the effects of wages or taxes on hours of work. They are also larger than the consensus range of estimates of the labor supply elasticity of women in response to wages and taxes, which are highly dispersed but centered around 0.4.

Krueger and Meyer conclude that it is misleading to use standard estimates of labor supply elasticities when designing and evaluating social insurance programs. Elasticities are larger when a labor supply response can occur easily through participation, or weeks worked, rather than adjustments in the number of hours worked per week. For female workers, labor supply elasticities typically depend on participation and weeks worked, the researchers say. Male labor supply elasticities, by contrast, are determined primarily by adjustment in the number of hours worked per week — and employees may have little flexibility in that regard.

The large labor supply responses associated with UI and WC benefits are greater than those associated with Disability Insurance and Social Security. Thus it is misleading to use only one estimate of the response of labor supply when evaluating and designing different programs. Part of the explanation for the difference may be that the long-term window of eligibility for Disability Insurance and Social Security means that short-term substitution effects of benefits for work are of less importance.

— Andrew Balls

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