## MACROECONOMIC ADVISERS® Recently Asked Questions

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The Reforming American Immigration for a Strong Economy (RAISE) Act

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The President has announced his support for an immigration reform bill, proposed by Senators Cotton and Perdue, that would slash legal immigration roughly in half. What are the approximate macro effects?

To a first approximation, the proposed reform would slow secular growth of real GDP by about 0.2 percentage point per year over the first decade, lower the equilibrium real interest 15 basis points, and raise wage growth (and growth of per capita GDP) by 4 basis point per year.

President Trump has thrown his support behind the Reforming American Immigration for a Strong Economy (RAISE) Act sponsored by Senators Cotton (R-Arkansas) and Perdue (R-Georgia). The Act would:

- Replace the current employment-based system with a merit system based on skills, experience, and language
- Limit family-based immigration to spouses and minor children
- Eliminate the diversity visa lottery program
- Limit visas for refugees

Because some visa programs are not capped, there currently is no hard upper bound to legal immigration. However, over the last 5 years, the number of Legal Permanent Residencies (LPRs) granted has averaged a little over a million a year. Analysts familiar with earlier versions of the RAISE Act suggest that, if enacted, it would reduce legal immigration by 40% the first year and limit it to about 500,000 per year afterwards, or roughly half the current legal flow.

Proponents of the bill argue that the RAISE Act will boost employment and wages for low-skilled Americans

even though the evidence for this is far from compelling.<sup>1</sup> The bill is touted as shifting the mix of immigration towards high-skilled workers but does so not by raising the number of visas for skilled workers, but by lowering the number of visas for unskilled workers.

What, if anything, can we say about the macroeconomic impact of the RAISE Act? As part of two projects on immigration reform done during 2013 and 2014 in association with the Bipartisan Policy Center, Macroeconomic Advisers developed a straightforward Solow-type growth model that can be used to assess the first-order macro effects of different assumptions for population growth.

In this model, each year output is determined by a Cobb-Douglas production function of the predetermined capital stock and the current homogeneous population. Current net saving is a fixed share of gross output. Population is exogenous. Implicitly the model treats the "natural" population and immigrants as perfect substitutes, but flexible wages / prices ensure that the labor force is fully employed and capital is fully utilized. Capital is augmented each period by net saving. Wages are determined by the marginal product of labor, which is inversely proportional to the labor-output ratio. The gross return on capital is determined by the marginal product of capital, which is inversely proportional to the capital-output ratio. The interest rate is the gross rate of return on capital less a fixed rate of depreciation.

The Census Bureau publishes projections of U.S. population growth that are used by nearly all modelers to prepare forecasts of secular GDP growth. These are shown in Chart 1, divided into so-called "natural increases" in

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<sup>&</sup>lt;sup>1</sup> For example, see <a href="https://www.cato.org/blog/sens-cotton-perdues-bill-cut-legal-immigration-wont-work-isnt-effective-bargaining-chip.">https://www.cato.org/blog/sens-cotton-perdues-bill-cut-legal-immigration-wont-work-isnt-effective-bargaining-chip.</a>

<sup>&</sup>lt;sup>2</sup> "The Macro Impacts of Immigration Reform: Puzzling over the Pieces (Macroeconomic Advisers' MACRO FOCUS, June 23, 2015).



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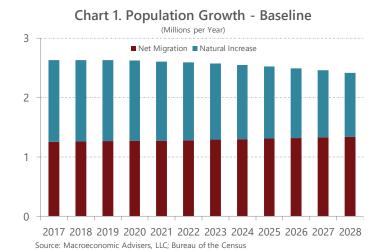
the population and assumed net migration. Many people are startled to learn that in the current Census projections of U.S. population growth, immigration accounts for nearly half the total, and that fraction rises to nearly 80% by 2047. The RAISE Act would limit immigration to roughly 500,000 per year, yielding an alternative, lower projection for U.S. population growth (Chart 2).

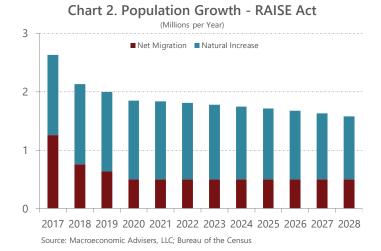
By running the baseline and alternative population projections through the growth model, we computed the impact of the RAISE Act on real GDP, the rate of interest, and the real wage over the next decade. The results are summarized in Chart 3.

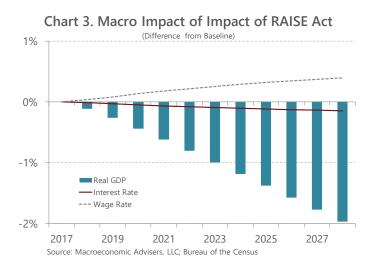
Slower growing population implies slower growth in the labor force and, hence, output. By 2028, the level of output is reduced by almost 2%; that is real economic growth is reduced by about 0.2 percentage point per year. This difference persists beyond 2028, so that by 2060 (not shown) the level of real GDP is reduced by almost 7%. Because the model assumes homogenous labor, to the extent that the RAISE Act restricts the immigration of workers of less than average productivity, the reduction in output reported here is overstated. However, the workers admitted under the RAISE Act would have to be (or become) roughly twice as productive as average to prevent a reduction in output—a very unlikely outcome.

Slower growth in output results in an equilibrium interest rate that is about 15 basis points below the baseline by 2028. A lower real interest rate is associated with an increase in the capital-output ratio, raising the real wage 0.4% by 2028; this also is the increase in output per capita. Hence, while growth of total output is lower under the RAISE Act by 0.2 percentage point, growth of per capita output is higher by about 0.04 percentage point.

Of course, the reality could be more complicated, especially in the short run when a sharp reduction in the growth of the labor force is likely to create shortages, bottlenecks, and wage/price pressures in some industries and regions, particularly those reliant on low-skilled workers.









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