It is hoped that the information presented here will help everyone interested in the ongoing immigration debates to have a clearer picture of the macroeconomic roles played by both the legal and illegal immigrants in our society.

by William F. Ford

The debate about immigration, especially illegal immigration, often focuses on social, cultural, political, and legal issues. The economic aspects are often ignored. However, legal and illegal immigrants play major roles in our economy, contributing to production and spending and the labor force and even affecting the demographic prospects of our aging nation, as the first wave of the large baby-boom generation approaches retirement. The purpose of this article is to give a clearer picture of the roles immigrants play in our economy. The possible economic impact of various proposals to address illegal immigration is also addressed.

At the end of 2007, an estimated 37 million immigrants accounted for almost one-eighth of America’s total population of just over 300 million people. Roughly 12 million of those immigrants, about one-third of the total, are living here illegally under our current laws. A host of hotly debated socioeconomic issues concerning those illegal immigrants has emerged as a major legislative concern of the U.S. Congress. And all of the candidates for president in the 2008 election are weighing in on the subject of how best to deal with the illegal immigrants who are now living in the United States and how to stem the rapid growth of their ranks via an ongoing flow of illegal border crossings.
OF SOME KEY ISSUES
All recent studies agree that immigrants have a significantly higher labor force participation rate than the U.S. population overall.

Social scientists and scholars who are not economists are working on the major cultural issues related to the growing presence of both the legal and illegal immigrants in our society. Who are all these people? Where do they come from? Why are they here? What kinds of social costs are they creating by their presence in our country? How much crime and social unrest is related to their presence? Are they interested in and capable of being assimilated into our mainstream society, or are they creating persistent ethnic subcultures that undermine the cohesiveness of our social fabric?

This paper will not address these sociocultural issues. Rather, it will focus on the following questions concerning the major roles that both the legal and illegal immigrants are playing in our economy: What do they contribute to the total output of our economy? What roles do they play in our labor force overall and in specific major industries? How much of our national income do they generate? How important is their consumer spending as a driving force in the economy? And finally, how does their growing presence play into the demographic future of the U.S. economy as the nation’s 76 million baby boomers near the age to qualify for early retirement benefits under our current Social Security laws?

It is hoped that the information presented here will help everyone interested in the ongoing immigration debates to have a clearer picture of the macroeconomic roles played by both the legal and illegal immigrants in our society.

The Role of All Immigrants in the U.S. Economy

As noted above, an estimated 37 million legal and illegal immigrants accounted for about one-eighth of the total U.S. population at year-end 2007. About 21 million of all immigrants, some 57 percent of them, were then in the U.S. labor force of roughly 154 million workers. Their labor force participation rate was therefore about seven percentage points higher than the overall U.S. participation rate of 65 percent. Moreover, some studies estimate that immigrants have accounted for as much as half of the growth in the U.S. labor force over the past 10–15 years.

Unfortunately, there are no credible or precise estimates of these immigrants’ exact share of the nation’s current aggregate personal income of about $11.7 trillion or, by inference, their contribution to the U.S. Gross Domestic Product (GDP) of roughly $13.8 trillion in 2007. Rough estimates of those macroeconomic parameters can be gleaned from Table 1, which indicates the possible values of immigrants’ shares of 2007 U.S. GDP, total personal income, and consumption spending. As noted in the table, exactly where the immigrants’ imputed shares of U.S. aggregate output, income, and consumption actually fall depends on their relative earnings and productivity levels compared to the U.S. labor force as a whole. It should be noted that although immigrants clearly produce and earn less per worker than nonimmigrant workers (as indicated in the range of assumptions shown across the top of Table 1), the fact that their labor force participation rate is much higher than average partly offsets this.

Based on the crude estimates shown in the table, the share of GDP attributed to all immigrants in 2007, $1.45–$1.64 trillion, is roughly equal to the gross state product of California, the most populous U.S. state. The middle row of Table 1 indicates that their share of America’s $11.7 trillion of personal income was on the order of $1.23–$1.39 trillion. To gauge the impact of their personal consumption spending in the economy, a downward adjustment of 10 percent has been made to their estimated consumption to reflect the fact that immigrants, on average, remit about 10 percent of their earnings to their families abroad. That would imply their total consumption spending was probably on the order of $980 billion in 2007 (the midpoint estimate in the table). Also, since about one-third of consumer spending is done at retail stores, their estimated retail spending of $323 billion almost equaled the total sales of U.S. Wal-Mart stores in 2007.

On the employment front, all recent studies agree that immigrants have a significantly higher labor force participation rate than the U.S. population overall. They also typically

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Table 1: Estimated Contribution of All Immigrants to U.S. GDP, Personal Income, and Consumption in 2007

<table>
<thead>
<tr>
<th>Imputed share of</th>
<th>-15%</th>
<th>-20%</th>
<th>-25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(in $ trillion)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$13.8 trillion GDP</td>
<td>$1.64</td>
<td>$1.55</td>
<td>$1.45</td>
</tr>
<tr>
<td>$11.7 trillion U.S. personal income</td>
<td>$1.39</td>
<td>$1.31</td>
<td>$1.23</td>
</tr>
<tr>
<td>U.S. personal consumption</td>
<td>$1.03</td>
<td>$0.98</td>
<td>$0.91</td>
</tr>
</tbody>
</table>

The values shown are derived from the actual U.S. 2007 GDP of $13.8 trillion and personal income of $11.7 trillion. The imputed shares of GDP and personal income are derived by making the indicated earnings and productivity adjustments of –15 percent to –25 percent and then multiplying by .14, representing immigrants’ estimated 14 percent share of the U.S. labor force. Their imputed share of personal consumption is calculated as 70 percent of their GDP share, less 10 percent, the estimated level of their remittances to their relatives abroad.
experience, on average, a lower unemployment rate and are younger than native-born workers.

Regarding their occupational distribution, a variety of studies indicate that their overall employment profile differs significantly from the U.S. averages in various ways. For example, there are 10 major occupational categories in which the foreign-born proportion of all U.S. workers is in the range of 45–53 percent, far above the immigrants’ overall estimated workforce share of about 14 percent. Those occupations include about 50 percent of agricultural grders, sorters, and miscellaneous farm workers; 48 percent of drywall workers in the construction trades; 52 percent of plasterers and stucco workers, and an amazing 46 percent of U.S. medical scientists.

It should be noted that the presence of about 21 million immigrant workers in the economy also favorably impacts the level of U.S. price inflation over time. This finding is based on both labor theory reasoning and a variety of empirical studies. In theory, a heavy influx of legal and illegal workers, especially when concentrated in occupational categories requiring low educational achievement, would be expected to limit wage-driven inflation in such job markets. A number of empirical studies also support that theoretical expectation. More generally, influxes of foreign workers into a variety of tight labor markets, including such high-skill categories as scientific workers, serve to ameliorate labor cost–driven inflationary pressures in those markets. And, as noted below, if a serious effort were ever made to expel all illegal immigrant workers, especially in the occupations noted above, where they hold roughly half the jobs, the expected impact on prices in those economic sectors would certainly be worrisome, to say the least.

The Impact of Illegal Immigrants on the U.S. Economy

Based on the year-end U.S. population of just over 300 million in 2007, the estimated 12 million illegal immigrants then in the nation represented about four percent of our total population. The estimated number of illegal immigrants in the U.S. workforce, however, is about seven million workers, suggesting that their labor force participation rate, seven divided by 12 million, is about 58 percent, well above the U.S. average of 50 percent.

Table 2 applies the same logic described in Table 1 to estimate the imputed levels of the illegal immigrants’ possible shares of U.S. GDP, personal income, and consumption spending. Because illegal immigrants usually have less formal education than legal immigrants, the assumed difference between their levels of earnings, productivity, and consumption relative to the U.S. population is greater. However, they are adjusted downward by 25 to 35 percent, rather than 15 to 25 percent as were all immigrants in Table 1.

Recognizing that all of the above estimates are crude approximations, it nevertheless appears that illegal immigrants’ imputed shares of GDP ($404–$466 billion), personal income ($342–$395 billion), and consumption spending ($256–$293 billion) all represent significant contributions to the overall performance of the U.S. economy. For example, even at the lowest estimated share of GDP, $404 billion in 2007, the value of illegal immigrants’ contribution exceeds that of the gross state product of 40 U.S. states and is roughly equal to Michigan’s.

Finally, it should be noted that the estimated seven million jobs the illegal immigrants hold is roughly equal to the 5 percent share of the entire U.S. labor force that was unemployed at the end of 2007. The immigration reform policy implications of this observation, and their concentrated presence in certain geographic regions and critical occupational categories, are discussed below.

Macroeconomic Implications of Proposed Policies to Address Illegal Immigration

Most economists and leaders of the U.S. Congress and executive branch of our government agree that our immigration laws need to be reformed. The related issue of how to treat the estimated 12 million illegal immigrants now here also requires thoughtful consideration and appropriate remedial action. Unfortunately, reaching a consensus on how best to proceed currently appears to be politically difficult, but perhaps not impossible, to achieve. The remainder of this study is designed to help clarify some

The presence of about 21 million immigrant workers in the economy also favorably impacts the level of U.S. price inflation over time.

<table>
<thead>
<tr>
<th>Table 2: Estimated 2007 Contribution of Illegal Immigrants to U.S. GDP, Personal Income, and Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assuming immigrants’ level of productivity, earnings, and consumption is 25% lower than the U.S. labor force:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Imputed share of</td>
</tr>
<tr>
<td>GDP</td>
</tr>
<tr>
<td>Personal income</td>
</tr>
<tr>
<td>U.S. personal consumption</td>
</tr>
</tbody>
</table>

The same calculation protocols described in Table 1 apply to this table except that illegal immigrants are estimated to account for 4.5 percent of the U.S. labor force.
Basic macroeconomic issues that must be considered in evaluating proposed approaches to immigration reform and the question of how to treat these estimated 12 million illegal immigrants—as well as their estimated three million U.S.-born children, who are citizens.

It should be recalled at the outset that the future growth potential of any economy is driven by two basic forces—the growth of its labor force and dynamic improvements in its productivity. Both of those forces affecting U.S. economic growth are affected by our immigration policies. With regard to labor force growth, two basic paths are open to us as a nation.

Our population is aging, and the entire generation of baby boomers, those born between 1946 and 1964, will begin to exit the labor force at a growing pace over the next few years. Also, our current domestic fertility rate is well below the demographically determined 2.1 percent replacement rate, suggesting that further aging and eventual shrinkage of our labor force is on the horizon. Also, our educational systems are clearly not producing sufficient numbers of skilled workers and professionals to meet the needs of our dynamically changing and growing economy. Shortages of semiskilled and unskilled workers in various critical occupational categories are also clearly present on the current U.S. economic scene. As noted above and documented in numerous studies, legal and illegal immigrants are currently filling many important gaps in our dynamic labor markets, as witnessed by their disproportionate presence in various job categories across the entire skill spectrum.

Against that demographic and macroeconomic backdrop, three basic immigration policy options will be addressed below. The first and most dramatically interesting would be to keep our immigration laws as they stand, firmly close our borders to further illegal immigration, and find and deport the estimated current U.S. cohort of about 12 million illegal immigrants. That policy, at one end of the spectrum of options and advocated by Republican Colorado congressman Tancredo, a previous 2008 presidential candidate, will be examined first.

The second option to be addressed is a polar-opposite policy, which would involve reopening our borders widely to many more legal immigrants. As in the past, such an open-borders policy would also provide some form of amnesty to the current population of illegal immigrants.

The third option, favored by many business groups, would involve some form of labor market-driven reforms of immigration policy protocols, focused on filling numerous gaps in our growing labor market with immigrants. That approach would also involve augmenting the projected shrinkage in our domestic labor force’s growth rate with foreign-born workers whose skills match our economy’s evolving needs.

**Option One: Tighter Border Controls and No Amnesty**

From a macroeconomic standpoint, any proposed attempt to find and deport 12 million illegal immigrants, rather than providing some form of amnesty and a legal route to residency in the United States, poses a number of important questions. The first is whether or not it would be economically feasible to mount a serious effort to locate, capture, legally process, and eventually deport the 4 percent of our entire population defined as illegal immigrants.

Consider first the costs that would be involved in challenging our overburdened criminal justice system to mount such an effort. The author has found no credible study of the macroeconomic costs such a program would entail. Suppose it costs, say, only $10,000 per person to find, arrest, judicially process, and deport 12 million illegal immigrants. That alone would total $120 billion. However, that estimate ignores the fact that our jails and courts are already stressed and overcrowded in dealing with our current incarcerated population of over two million prisoners. Tens of billions of additional investment expenditures would clearly be required to create the added facilities, equipment, and staffing needed to mount any such massive deportation effort. An inevitable by-product of mounting such an effort would also, of course, involve diverting law enforcement and judicial resources from controlling all other forms of illegal activity plaguing our society—including the threat of terrorism. Also, the illegal immigrants living here have produced a huge estimated cohort of three million children who are U.S. citizens. How would they be treated? Would they be separated from their parents? If so, who would care for them?

Next, consider the nationwide labor market issues involved in the proposed removal of about seven million illegal workers from the U.S. economy—roughly 4.5 percent of our entire workforce. As shown in Table 3, our year-end 2007 unemployment rate was about 5 percent, representing roughly 7.7 million unemployed U.S. workers reported to be “actively seeking work.” Most economists agree that a 4 percent unemployment rate, achieved only for a few months during the past two decades, is probably close to “full employment.” In other words, about 6.1 million workers (4 percent of the entire labor force) are currently unemployed in our nation due to what
labor economists call “frictional” and “structural” unemployment—being in the wrong places or having the wrong skills to find a job near where they live. It follows then that there may currently be less than 1.6 million unemployed U.S. workers available (7.7 million unemployed, less six million fractionally or structurally unemployed) to fill any gaps that might appear in our labor markets.

How then would advocates of finding and deporting about seven million illegal workers propose to replace them when there may be only about 1.5 million available unemployed workers on hand to do that? Some argue that discouraged unemployed workers who are not actively seeking work (and therefore not counted in the labor force or among the official count of the unemployed) would quickly emerge to fill such gaps. But 5.5 million of them? And would anyone seriously argue that hundreds of thousands of such discouraged workers are actually prepared to move physically and fill jobs as farm laborers, fruit pickers, drywall hangers, etc.? As a practical matter, few if any seasoned labor economists with real-world experience would argue that seven million illegal U.S. workers could readily be replaced without creating major labor shortages in a wide variety of U.S. industries.

In addition to the labor market disruptions that would surely occur if 12 million illegal immigrants were rounded up and deported, the impact of such a program on aggregate consumption and spending must also be addressed. As noted in the discussion of Table 2, the illegal immigrant population probably generates more than $350 billion of personal income, some of which is remitted to their families abroad. Also, there are no credible data about how their residential needs are being met. If they have, say, four persons per household—vis-à-vis the U.S. average of about 2.5 persons—they are probably occupying about three million apartments, mobile homes, and houses. Removing them would therefore also adversely affect our already stressed housing markets.

Moreover, their purchases of retail goods and services, normally about one-third of personal income, would adversely affect U.S. retail sales significantly. Especially in a few geographic areas where illegal immigrants are most heavily concentrated—along our southern borders—regional economic crises would almost certainly flow from implementing Congressman Tancredo’s “find and deport” policy.

Another set of clearly unfavorable spillover effects of forcibly removing about seven million illegal immigrant workers from our labor force would be reflected in post-deportation price inflation and probable adverse affects on both sides of our international trade balance. If and when all those illegal workers are deported, U.S. employers in agriculture and other industries where they are concentrated would face higher costs in recruiting replacement workers from the questionable pool of “discouraged workers” referred to by deportation advocates or in paying premium wages to a smaller workforce pressed to work longer hours. Many such farms and businesses, currently marginally profitable, would also probably fail.

On the trade front, agricultural products are a major source of U.S. export earnings that would be threatened by wholesale deportation of the hundreds of thousands of illegals working in that sector. Reduced domestic production of food and fiber products would follow and thereby stimulate imports of such goods. The net effect of both forces, logically, would be to deepen the huge U.S. trade deficit, currently funded by inflows of foreign savings, which might not be augmented by foreign savers to service an even larger U.S. trade deficit. The dollar’s value would then fall further, creating additional inflationary pressures as U.S. import prices rose.

Consider, finally, the aforementioned demographic issues facing the economy in its drive to maintain a sustainable real GDP growth rate of, say, three percent or more per year. As shown in Table 4, the 3.03 percent annual growth rate achieved from 1990 to 2006 was driven by a 1.24 percent rate of growth of the U.S. population plus a 1.82 percent rate of productivity growth. And the growth of our labor force has been augmented significantly by inflows of both illegal and legal immigrants who are filling the many gaps across the entire skills spectrum in our labor markets that domestic workers are unwilling or unable to fill.

Few if any seasoned labor economists with real-world experience would argue that seven million illegal U.S. workers could readily be replaced without creating major labor shortages in a wide variety of U.S. industries.

continued on page 12

Table 3: Replacing U.S. Illegal Workers—The Labor Force Arithmetic

<table>
<thead>
<tr>
<th>(Number of workers, in thousands, year end 2007)</th>
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</thead>
<tbody>
<tr>
<td>1. U.S. labor force</td>
</tr>
<tr>
<td>2. Unemployed workers (5% of above)</td>
</tr>
<tr>
<td>3. Unavailable workers if NAIRU = 4%</td>
</tr>
<tr>
<td>4. Available workers above NAIRU (item 2 - 3)</td>
</tr>
<tr>
<td>5. Estimated illegal workers</td>
</tr>
<tr>
<td>6. Imputed shortage if all illegals leave (item 5 - 4)</td>
</tr>
</tbody>
</table>

U.S. labor force numbers are from the Bureau of Labor Statistics “The Employment Situation: December 2007.” The estimate of 7 million illegal workers is based on “The Role of Immigrants in the U.S. Labor Market,” a recent Congressional Budget Office paper. It estimated 6.3 million illegal workers in 2004, rounded up to the estimated 7 million at year-end 2007 by the author, based on various anecdotal and press reports. NAIRU = Non-Accelerating Inflation Rate of Unemployment (the so-called “natural rate of unemployment”).
It is clear that the harshest proposal for immigration reform—to “locate, process and deport illegal immigrants”—is fraught with major macroeconomic dangers.

Option Two: Is an Open-Borders Policy Viable?

Consider, for a moment, what might happen if the world’s six billion-plus inhabitants could actually move freely across the planet to any place where they could hope to enjoy a higher standard of living and greater personal freedom. Does anyone doubt that, in such a world of open borders, the United States would be a prime target destination—along with nations such as Canada and Australia? Literally hundreds of millions of emigrants would surely choose to leave much of Africa and such places as North Korea, Bangladesh, Pakistan, Russia, Indonesia, the Philippines, Haiti, Cuba, Mexico, etc. Clearly, the U.S. public and its elected representatives would never endorse such an extreme version of an open-borders immigration policy.

Rather, based on our historical behavior patterns, any immigration reform movement toward an open-borders option would have to be focused on one of the two following proto-

cols—both of which are embodied in our current laws but on a highly restricted basis.

The first option is based on family-driven immigration admissions. If members of your immediate (or extended) family are responsible and legal U.S. citizens or residents willing to sponsor you, welcome to America!

The second, an economically driven option also currently used here but on a highly restricted basis, favors immigrants who have a work ethic and skills needed to fill jobs in our economy that U.S. workers can’t or won’t take on.

Congress and the executive branch of our government could conceivably fashion a better and much less restrictive immigration program embodying both of those existing immigration management principles. Ideally, such a program would permit much larger legal annual inflows of immigrants who have responsible family members or employers here to sponsor and assist them in moving toward legal residency and eventual citizenship. Preferences might be given to healthy young people of childbearing age, who could help offset the rising dependency ratio the nation faces as our baby boomers retire and native-born females fail to exhibit a fertility level high enough to stabilize our population’s age profile over time. As in our past open-borders era, all such immigrants would be screened for serious health issues, criminal records, or terrorist affiliations and for close familial or friendship ties to responsible U.S. citizens or legal residents. Under such an open-borders concept, a sharply augmented inflow of legal immigrants would be designed to fill key niches in our tightest labor markets for skilled, semiskilled, and unskilled workers.

As a practical matter, such a two-pronged quasi-open borders approach to immigration reform also appears to have little to no chance of being implemented in our current political environment. The recent failure of a major bipartisan effort to move toward such a policy suggests that a more narrowly focused option needs to be considered—one that would be less restrictive than current policies in meeting the economy’s labor demands and that addresses the illegal immigrants’ future roles in our economy in a more politically realistic manner.

Key Elements of an Economically Viable Plan for Immigration Reform

Based on the preceding analysis, it is clear that the harshest proposal for immigration reform—to “locate, process, and deport illegal immigrants”—is fraught with major macroeconomic dangers. First, it would clearly give rise to serious and inflationary labor shortages in a number of key U.S. industries. It would also generate recessionary pressures by eliminating

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Table 4: Projected Growth of Real U.S. GDP without Immigration

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Population Growth</td>
<td>1.24</td>
<td>0.91</td>
<td>0.83</td>
</tr>
<tr>
<td>+ Labor force participation rate</td>
<td>-0.03</td>
<td>-0.25</td>
<td>-0.40</td>
</tr>
<tr>
<td>+ Productivity growth rate</td>
<td>1.82</td>
<td>1.82</td>
<td>1.82</td>
</tr>
<tr>
<td>= Real GDP growth rate</td>
<td>3.03</td>
<td>2.48</td>
<td>2.25</td>
</tr>
</tbody>
</table>

or reducing the significant contributions of the 12 million illegal immigrants to U.S. GDP, personal income, consumption spending, housing demand, etc.

Its impact on our burgeoning trade deficit would also almost certainly be significantly negative. That would occur, first, by reducing the output and raising the cost structures of our key export industries, such as agriculture, which rely heavily on immigrant labor. In addition, U.S. demand for imports of products now domestically produced with the help of immigrant labor would rise, further aggravating our growing trade deficit. Downward pressure on the value of the U.S. dollar would also be expected in such a scenario, further exacerbating import-driven inflationary pressures on the economy. Finally, the “find and deport” policy option would overwhelm our judicial and prison systems and create a series of regional economic crises in the areas most heavily populated by illegal immigrants.

Against that backdrop, it appears clear that the so-called “no amnesty” approach to dealing with 4 percent of the entire U.S. population, plus their estimated three million children who are U.S. citizens, is simply not a viable economic option. Rather, the current seven million illegal workers active in our labor force should be offered a viable route to legal residence here along with their immediate families, including, especially, their large cohort of children born in the United States. Our past experience with huge influxes of mainly non-English speaking Italians, Germans, Poles, other European immigrants, and various cohorts of Asian immigrants has clearly demonstrated that they can be absorbed successfully into our dynamic economy over time and help make it larger, stronger, and more productive. The current hodgepodge of U.S. immigration barriers, quotas, and other impediments to the legal immigration of workers American firms need and want to hire clearly needs to be reworked and greatly simplified to allow industries facing labor shortages to employ more qualified immigrant workers—and to do it legally.

Moreover, looking ahead, as the fast-approaching wave of 76 million U.S. baby-boom retirees mounts, it threatens further deterioration of the already troublesome and shrinking ratio of U.S. workers per retiree.

As the fast-approaching wave of 76 million U.S. baby-boom retirees mounts, it threatens further deterioration of the already troublesome and shrinking ratio of U.S. workers per retiree.

William F. Ford, former president of the Federal Reserve Bank of Atlanta, holds MTSU’s Weatherford Chair of Finance. An earlier version of this paper appeared in the October 2007 American Institute for Economic Research (AIER) Economic Education Bulletin. The author thanks AIER and MTSU’s Jones College for research funds and logistical support in preparing this paper. The views expressed are those of the author, not AIER or MTSU’s Jones College.