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The Revenue and Economic Effects of the Paul-Boxer Plan To Encourage the Repatriation of Foreign-Source Earnings By U.S. Multinational Corporations

Robert J. Shapiro and Aparna Mathur

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Executive Summary

In recent years, U.S. policymakers and politicians have often discussed and debated the proper taxation of the foreign-source earnings of U.S. multinational companies. While most advanced economies have "territorial" tax systems which tax corporations only on profits earned within their own geographical borders, the United States (along with five other countries) has a world tax system which taxes U.S. corporations on the profits they earn anywhere in the world. Moreover, the United States also applies a 35 percent tax rate on those worldwide earnings. To reduce the competitive disadvantage this difference imposes on U.S. companies operating in foreign markets, the U.S. corporate tax code applies its 35 percent rate on foreign profits only when the U.S. parent company repatriates those earnings in the form of dividends and provides a tax credit for corporate income taxes paid to other countries on those earnings. These arrangements encourage U.S. firms to delay repatriating their foreign earnings and thereby defer the U.S. tax on those earnings; and more than $2 trillion in foreign earnings of U.S. companies remain abroad today.

Over the past 15 years, a number of proposals have been advanced to encourage the repatriation of those foreign earnings by providing a temporary tax preference. In 2004, Congress enacted the Homeland Investment Act (HIA) as part of the American Job Creation Act, providing an 85 percent deduction on repatriated earnings for one year. This study examines the lessons learned from that experiment and applies them to a new plan advanced by Senators Rand Paul and Barbara Boxer (Paul-Boxer).

A major stumbling for Congress to enact such a preference has been the revenue estimates by the Joint Committee on Taxation (JCT) forecasting large revenue losses from such legislation. Before the HIA was enacted, the JCT predicted that the plan would cost a net $3.3 billion in foregone revenues over 10 years. The JCT also estimated that a roughly comparable proposal in 2011 would cost the Treasury $78.7 billion for another 85 percent deduction over 10 years and $41.7 billion for an alternative 70 percent deduction. Finally, this year the JCT forecast that the Paul-Boxer proposal to provide a substantial deduction on taxable earnings from abroad for five years would produce revenues losses totaling $117.9 billion 10 years. In all three instances, the JCT reasoned that repatriations would increase as corporations shifted earnings which they had planned to bring in the future into the period of the temporary tax preference, and so sharply reduce future repatriations at the full corporate tax rate. JCT also reasoned that repatriations in future years would be further depressed as corporations changed their behavior and waited for a reprise of the temporary tax preference. The result would be sharply declining repatriations in the years following the HIA and the large net revenue losses forecast by the JCT.

We will show that IRS data for the HIA have not borne out JCT's assumptions and revenue estimates. The HIA attracted more repatriated dividends than JCT forecast, increasing the revenue gains during its operation. These data also show that repatriations in subsequent years (2006-2011) did not decline, relative their baseline growth rate in the years preceding the HIA. Instead, repatriations accelerated relative to their baseline. These developments are consistent with recent

studies of the behavior of multinational corporations, which found that they manage their foreign and U.S. investments and financial assets, including their foreign source earnings, in response to the changing needs of their global networks. The acceleration in repatriations following the HIA may reflect expanded domestic investment plans by those companies based on the lower cost of capital provided by the temporary preference. Alternatively, the acceleration may reflect the particular economic conditions of the years, 2006 to 2011, as the U.S. economy moved from boom to bust to slow recovery. In either case, the IRS data provide no evidence for the JCT view that future repatriations would decline, producing large net revenue losses.

This study uses these data to calculate an alternative revenue estimate for the Paul-Boxer proposal. The HIA stipulated that the earnings repatriated by U.S. companies under its temporary tax preference – "qualified dividends" -- had to be used for certain designated purposes, such as investment and hiring. We calculated the "elasticities" that emerged from this experiment: Each one percent reduction in the tax on those qualified dividends from 2005 to 2006 increased the repatriation of those dividends by 9.9 percent. Furthermore, each one percent reduction in the tax on qualified dividends in 2004 to 2006 also increased the repatriation of subsequent dividends from 2007 to 2011 by between 0.8 percent and 2.1 percent.

We applied the elasticities derived from the HIA period to the specific terms of Paul-Boxer and calculated the expected responses to that plan.

- **We found that under Paul-Boxer, repatriations should increase much more than forecast by the JCT during its five years (2015-2019), generating revenues gains of $68.9 billion over that period.**

The JCT, bound by its old assumptions that repatriations would increase briefly and then fall sharply, has forecast that Paul-Boxer would produce small net revenue gains over the first five years (2015-2019), totaling $11.5 billion.

We note here that our analysis uses calendar years, because the IRS data we use are reported in calendar years. We therefore assume that the Paul-Boxer proposal covers 2015-2019, and our 10-year estimates cover 2015-2024. JCT assumed the proposal would be enacted June 1, 2015, so it assumes the Paul-Boxer plan covers 6/2015-6/2020, and its 10-year estimates cover 6/2015-6/2025. The difference does not affect the analysis or the results in any significant way.

With regard to the following five years, 2020-2024, we cannot be certain whether repatriations would continue to be unusually high, as they did following the HIA. We do know that there is no evidence that repatriations will decline sharply relative to their baseline, as the JCT has continued to assume. If we assume that that repatriations in the five years after Paul-Boxer will resemble repatriations in the five years after the HIA, the result will be continuing revenue gains. We applied the elasticities derived from the post-HIA period and calculated the results.

- **We found that Paul-Boxer could produce additional revenue gains of $83.8 billion in the five years after it expires (2020-2024), or, alternatively, repatriations could return to normal with no additional revenue gains or losses.**

The JCT, bound by its assumptions that repatriations will continue to decline sharply, has forecast that Paul-Boxer would produce large revenue losses over this period, totaling $105.0

billion. All told, JCT estimates that Paul-Boxer will result in revenue losses of $93.5 billion over the 10 years, 2015-2024.

- **Using the IRS data derived from the HIA experiment, we find that Paul-Boxer will result in revenue gains of $68.9 billion over five years or $152.8 billion over the 10 years, depending on whether repatriations remain unusually large in the five years after its expiration.**

In either case, the revenue gains would have significant economic effects. Paul-Boxer directs that the additional revenues generated by the plan be transferred to the Highway Trust Fund for infrastructure investments. We reviewed the economic impact of increased public investments in infrastructure and calculated the impact on GDP of increasing those investments by our most conservative estimate of $68.9 billion over five years.

- **We found that if Paul-Boxer provides an additional $68.9 billion in infrastructure funding over the five years, 2015-2019, GDP over that period will increase by between $138 billion and $172 billion, or an average of nearly $28 billion per-year to more than $34 billion per-year.**

Paul-Boxer also stipulates that at least 25 percent of the funds repatriated under its terms be directed to specified purposes, including job creation, wage increases, capital investments, R&D, acquisitions and certain other uses. Based on our estimate of repatriations under Paul-Boxer, this provision would direct more than $350 billion to those purposes over five years. These additional expenditures, financed by funds brought in from abroad, also would have significant economic effects.

- **We found that the $350 billion in repatriations directed to specified uses under Paul-Boxer would generate nearly $520 billion in additional GDP over the five years, or an average of $104 billion per-year.**

- **We further found that this provision of Paul-Boxer would direct funds to job-related purposes sufficient to support nearly 2.3 million new jobs, or almost 460,000 jobs per-year.**

In addition to the $350 billion in repatriated dividends subject to specified uses under Paul-Boxer, our analysis projects that U.S. firms would repatriate an additional $1.1 trillion in foreign earnings from 2015 to 2019, which they can use as they wish. To estimate the potential economic effects of these repatriations, we assume that firms would use 75 percent for shareholder dividends and stock buybacks, and 25 percent for investments, job-related uses, and certain other allowed purposes. On this basis,

- **We found that the $1.1 trillion in additional repatriations not subject to specified uses would generate more than $1.1 trillion in additional GDP over the five years, or an average of $229.1 billion per-year.**

- **Continuing to assume that firms would direct 25 percent of these $1.1 trillion in repatriated funds to investment, job-related and other purposes, and that one-third of that 25 percent would go to jobs, wage increases and training costs, those**

funds would be sufficient to support almost 2.6 million new jobs over five years, or an average of 515,000 jobs per-year. We expect that much of these funds would go to higher wages or training expenses, rather than job creation.

- **All told, we found that Paul-Boxer will result in increased repatriations that, once used for capital investments, hiring, shareholder dividends, stock buybacks and so on, would increase GDP by $1,664.1 billion over five years, or an average of $332.8 billion per-year.**

  Based on CBO's projections of GDP for 2015-2019, these effects could increase U.S. GDP by as much as 1.67 percent per-year over this period.

- **All told, we further found that Paul-Boxer will result in U.S. firms directing sufficient funds to employment-related purposes to support nearly 4.9 million new jobs over five years, or an average of 972,500 jobs per-year. Again, much of these funds would go to higher wages or training expenses, rather than job creation.**

These increases in GDP and employment or wages also would have substantial indirect revenue effects.

- **We found that the $350 billion in qualified repatriations directed to specified purposes will generate an estimated $11.4 billion in additional federal revenues over five years (2015-2019), or an average of $2.3 billion per-year.**

- **Assuming that firms devote 75 percent of their $1.1 trillion in repatriations with no specified purpose to shareholder dividends and 25 percent to additional investments, R&D, acquisitions and employment related purposes, we estimate that those expenditures will generate an additional $52.0 billion in federal revenues over five years from taxing dividends and wages, or an average of nearly $10.4 billion per-year.**

- **All told, the use of the funds repatriated under Paul-Boxer will generate $63.5 billion in additional federal revenues over its five-year term, or an average of $12.7 billion per-year.**

- **These additional revenues of $63.5 billion come on top of the $68.9 billion in revenues raised directly from corporations by the Paul-Boxer tax of repatriations, for total revenue gains of $132.4 billion over five years, or an average of $26.5 billion per-year.**

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The Revenue and Economic Effects of the Paul-Boxer Plan
To Encourage the Repatriation of Certain Foreign-Source Earnings
By U.S. Multinational Corporations[1]

Robert J. Shapiro and Aparna Mathur

II. Introduction

Nations tax the income that their citizens or companies earn in other countries in a number of ways; and those choices affect government revenues, the pace of investment and economic growth, and how corporations conduct their international operations. Most nations have "territorial" tax systems, in which a nation taxes people and companies only on what they earn within its territory. Under this system, domestic-based businesses and subsidiaries of foreign companies face the same tax burden in the same markets. The United States, however, along with five other nations, uses a "worldwide" tax system which taxes the earnings of its citizens and companies regardless of where in the world they generated those earnings. As a result, corporations "created or organized in United States or under the law of the United States or of any State"[2] are subject to the 35 percent U.S. corporate tax (plus an average of 4.1 percent in state corporate taxes) on all of their foreign and domestic income.[3]

The worldwide coverage of the U.S. corporate tax exposes income earned by U.S. companies abroad to an additional layer of tax, since they are liable for the U.S. corporate tax as well as the corporate taxes applied by the foreign countries where the income was earned.[4] To avoid the worst effects of being twice taxed, the United States qualifies its tax on foreign-source earnings in three ways.[5] First, since 1918, the United States has granted its companies and citizens a tax credit for the income taxes they already have paid to foreign countries.[6] If a foreign country taxes the earnings of the subsidiaries of U.S. companies at a rate lower than the U.S. 35 percent corporate rate, such as the 20 percent rate applied in the United Kingdom, the tax credit will leave the U.S. company with an additional 15 percent U.S. corporate tax liability on its U.K. earnings. Since the United States today has the highest federal corporate tax rate of the OECD countries, this is almost always the case. If a foreign country's tax rate were 35 percent – the rate in France is 34.4 percent, and the rate in Belgium is 34 percent – the U.S. corporation would owe little or no U.S. federal tax after applying the foreign tax credit. Therefore, a central issue in being taxed

[1] We gratefully acknowledge the support for our research provided by NDN and Simon Rosenberg. The views and analyses are solely those of the authors.

[2] I.R.C. § 7701(a)(4). Unless otherwise noted, references to "IRC" are to the Internal Revenue Code of 1986, as amended.

[3] See IRC § 11 (imposing tax on the taxable income of both domestic and foreign corporations); IR. § 882 (limiting definition of taxable income for foreign corporations to income derived from U.S. sources and income effectively connected with the conduct of a trade or business within the United States).

[4] See *supra* note 21. Since shifts by Japan and the United Kingdom, most OECD nations use territorial-based taxation. (National Foreign Trade Council (1999) at Tables 6-1.). Among U.S. major trading partners, the only other countries with worldwide tax systems are China, Ireland, Korea and Mexico. Hugh J.A., and Arnold, B.J. (2004).

[5] For further details, see Boise (2006).

[6] IRC § 901. The foreign tax credit is available both for foreign taxes paid directly by a U.S. taxpayer and a proportionate share of the taxes paid by a foreign corporation in which the U.S. taxpayer owns ten percent or more of the stock. IRC § 902

twice is our unusually high corporate rate. Someday, if another country elects to tax corporate earnings at a higher rate than United States, the foreign taxes that exceed the U.S. tax liability could be applied to the company's U.S. tax liabilities from preceding years or any of the ten following years.[7]

Since the United States established a modern corporate tax in 1913, the federal tax system also has provided a "deferral" provision, under which U.S. companies are not liable for the U.S. residual tax on their foreign earnings until those earnings are transferred to the U.S. parent company. In practice, this means that U.S. multinational corporations (MNCs) can defer the American tax on the profits earned by their "controlled foreign corporations" (CFCs), less the foreign tax credits associated with those earnings, until the profits are paid to the parent company in the form of dividends.[8] A major exception is income earned by foreign subsidiaries from passive investments in financial instruments or other portfolio investments and certain related party sales and services incomes, which have not qualified for deferral since 1962. In addition, the earnings of unincorporated foreign businesses do not qualify for deferral, such as the profits from U.S.-owned branch banks in other countries.[9] Apart from these limited exceptions, the provision for general tax deferral covering most active foreign earnings makes the U.S. corporate tax system a hybrid of the worldwide and territorial tax approaches.[10]

These arrangements are straightforward, but highly technical. To illustrate, an American-owned subsidiary earns $400 in a foreign country with a 20 percent corporate tax rate, such as Turkey or Hungary. The subsidiary pays $80 in corporate taxes to the foreign country (20 percent of $400), reinvests $220 of its profits in its own foreign operations, and remits $100 in dividends to its parent company. The American parent company pays U.S. taxes on the $100 in dividends it received plus a $25 gross-up for foreign taxes, or $43.75 at the current 35 percent corporate rate, offset in part by a $25 foreign tax credit for the foreign taxes its subsidiary already paid on that $100.[11] The parent company is not required to pay U.S. taxes on the $220 which its wholly-owned and foreign-incorporated subsidiary earned and then retained or reinvested abroad. If the subsidiary pays a dividend of $220 to the U.S. parent in a subsequent year, the U.S. company is

[7] IRC § 904(a) and (c).

[8] National Foreign Trade Council (2008)

[9] Deferral has other limits. The provision applies only to CFCs, which are foreign-incorporated entities owned at least 50 percent by American corporations holding stakes of at least 10 percent each. Under Subpart F of U.S. law, some of the foreign income of CFCs is "deemed distributed" and currently taxable by the United States even if has not been not repatriated. Desai, M, A., and Hines, J. R. Jr. (1999). These exceptions include not only income from passive investments, such as interest and dividends earned on financial instruments, but also "foreign base company income" generated by as U.S. company using a foreign affiliate as a conduit for certain types of international transactions, foreign-source income invested in U.S. property or used offshore to insure risks in the United States, and earnings used to bribe foreign officials. A final set of qualifications to the U.S. worldwide tax approach arises from an extensive network of bilateral tax treaties, under which the United States cedes all or part of its tax jurisdiction over the foreign or non-U.S. business income earned by foreign companies resident in the United States, in favor of the source-based system used by treaty partners. Avi-Yonah, *et al.* (2005).

[10] See Office of Tax Policy, Department of Treasury (December 2000).

[11] If the parent firm does not have excess foreign tax credits (see footnote 14), it is eligible to claim a foreign tax credit of $25, representing the product of foreign taxes paid by its subsidiary and the subsidiary's ratio of dividends to after-tax profits [$80 × ($100/$320) = $25].

required to pay a 35 percent tax on $275 at that time – the $220 dividend plus a "gross-up" of $55 for foreign taxes – less the $55 foreign tax credit on that amount.[12]

The usual public concerns over these arrangements, especially over deferral, involve the view that they adversely affect American jobs, investment and growth. In this view, deferral encourages American MNCs to invest abroad, and those foreign investments reduce or supplant their domestic investments. This notion also generally informs opposition to proposals to reduce the U.S. tax on foreign earnings brought back to the United States on a temporary or permanent basis.[13]

Recent economic analysis indicates that this view is ill-conceived. First, evidence now suggests that the foreign and domestic investments of U.S. multinational corporations *complement* each other, rather than substitute for each other. The conventional view assumes that a MNC's total worldwide activity is roughly fixed, so that additional foreign production, investment and jobs usually mean less U.S. production, investment and jobs. This view does not take account of how modern multinational companies now operate in global markets. To begin, globalization has reduced the importance of what economists call "horizontal foreign direct investment (FDI)," where a MNC duplicates its domestic operations in a foreign nation in order to avoid large, trade-related costs, such as tariffs and transportation.[14] Over the last generation, those trade-related costs have fallen sharply. As a result, the prominence of "vertical FDI" has increased, in which a MNC's domestic and foreign operations complement each other. Multinationals today normally expand their foreign activities to gain certain firm-specific advantages, penetrate new foreign markets, or take advantage of lower costs, especially for low-skilled labor.[15] However, these activities also depend on the U.S. headquarter operations of the MNCs – including R&D, financing, corporate strategy, marketing and advertising – which require the advanced physical and human capital often unavailable in foreign markets. Serving their foreign activities through centralized headquarter operations also create valuable economies of scale and operational uniformities.

These dynamics confound the conventional view of deferral. A multinational's total resources and production are not fixed at any point in time, but respond to opportunities at home and overseas. Furthermore, through their global networks, a multinational's investments and employment in foreign markets often stimulate demand for labor and other goods and services produced by the parent company in the United States. In other words, investment abroad to open or expand foreign-based operations can increase demand for the services provided at headquarters, which leads to new investments and jobs at home.

The data confirm this new understanding of how MNCs operate. For example, research by Harvard Business School Professor Mihir Desai and two colleagues[16] shows that from 1982 to 2004, a 10 percent increase in the foreign direct investments of Americans MNCs was associated with a nearly 2.6 percent increase in their domestic investments. Similarly, a 10 percent increase

[12] Hines (1999)
[13] Vaughan (2009).
[14] See Markusen (1984), Horstmann and Markusen (1987, 1992), and Markusen and Venables (1998, 2000).
[15] See Helpman (1984), and Helpman and Krugman (1985). This view is related to models of foreign outsourcing, in which the vertical separation of production occurs *without* multinationals.
[16] Desai, M. A., Foley, C. F., and Hines, J. R. Jr. (2005a).

in the wages and other compensation paid to foreign workers was associated with a 3.7 percent increase in the wages and other compensation paid to their American employees. They also found that higher foreign activity by American MNCs is associated with higher exports by the U.S. parent companies to their foreign affiliates and greater U.S. domestic spending by the parent on research and development. In short, the evidence showed that domestic and foreign investments and jobs by American multinational companies rise and fall together.

These findings confirm the results of previous studies. One study analyzed bilateral flows of investment between seven OECD countries and found no evidence of substitution or tradeoffs between domestic and foreign investment.[17] Another analysis found that foreign production by multinationals often was accompanied by higher U.S. exports by the same companies, stimulating employment at home to produce those exports.[18] Other influential work on why multinationals carry out FDI also has confounded the view that greater foreign activity by American MNCs comes at a cost of reduced domestic activity by analyzing how multinationals integrate their production and other activities through global networks.[19] The weight of the evidence is that increased foreign employment and investment by U.S. MNCs do not reduce U.S. domestic employment and investment – and in many cases, tend to increase it.

Relative tax burdens also affect where U.S. multinationals locate their foreign operations. As we noted, the U.S. 35 percent corporate tax rate is the highest in the OECD.[20] The current corporate rate in Australia, Japan and Spain is 30 percent, the rate in the United Kingdom and Mexico is 28 percent, the rate in Korea, Denmark and Austria is 25 percent, and Canada, Germany, Ireland and Switzerland have rates of less than 20 percent.[21] Numerous studies have found that measures which reduce the after-tax return of the foreign operations of U.S. MNCs impair their ability to compete with their foreign counterparts. These measures include proposals to end deferral, as well as the more basic provision of the United States twice taxing the foreign earnings of U.S. MNCs.[22] Based on the evidence of how multinationals operate their global networks, the current arrangements for twice taxing foreign earnings may well reduce production, investment and jobs in those companies' American operations.

This inference is reinforced by the evidence that U.S. multinational companies retain huge volumes of earnings abroad, using deferral to avoid the second taxation of those earnings. U.S. multinationals retained abroad some $804 billion in untaxed foreign earnings in 2005, rising to $1,577 billion in 2007, $2,027 billion in 2010, and $2,916 billion in 2013.[23] The companies use some of these earnings for investment in the foreign operations which generated them or other foreign operations, while about 75 percent of those funds, or $2,199 billion in 2013, would be

[17] Devereux and Freeman (1995).
[18] Blonigen (2001).
[19] Hummels, Ishii and Yi (2001), Yi (2003), and Hanson, Mataloni and Slaughter (2005).
[20] NFTC (2008)
[21] Organization for Economic Co-operation and Development (2008).
[22] See for example, Hartman (1984); Boskin and Gale (1987); Newlon (1987); Young (1988); Slemrod (1990); and Swenson (1994). Cross-sectional studies of the location of outbound investment and the incentives facing different investors also report consistently that tax burden have significant effects on these decisions. See Grubert and Mutti (1991); Harris (1993) Hines and Rice (1994) Hines (1996); Devereux and Griffith (1998) and Desai and Hines (1999). See Hines (1997, 1999) for interpretive surveys of this evidence and of the FDI literature
[23] Audit Analytics (2014); Sinai (2008).

eligible for transfer to the U.S. parent company but for the additional tax applied under the U.S worldwide corporate income tax.[24]

The economic effects of tax-driven decisions to retain trillions of dollars in foreign earnings abroad or alternatively, the economic consequences of a tax change that encourages U.S. companies to transfer those earnings to the United States, have two dimensions. First, how would a tax change which resulted in substantial transfers of foreign earnings to the United States affect federal revenues, as by sharply reducing the additional U.S. tax on those earnings? In 2004, Congress enacted the Homeland Investment Act (HIA) which allowed U.S. companies to repatriate certain foreign earnings over a one-year period and deduct or exclude from the U.S. corporate tax 85 percent of those earnings (and 85 percent of the foreign tax credits associated with them). The Joint Committee on Taxation (JCT) adopted a set of assumptions about how U.S. multinationals would respond to the incentives of the HIA and generated a revenue estimate which forecast significant revenue losses over a 10-year period. Second, how would the MNCs repatriating additional earnings use those funds in the United States? The debate over the economic effects of the HIA also focused on provisions directing companies claiming the tax preference to dedicate their repatriated earnings to investments and expenditures on workers. An academic survey of tax executives of firms which claimed the temporary tax preference reported that most of the repatriated funds were used for the purposes designated by the HIA, while two other studies found that the additional funds went primarily to shareholder payouts and stock buybacks, uses prohibited under the HIA.

This analysis will show that recent IRS data does not support the assumptions on which the JCT revenue estimate rests, and consequently the revenue losses forecast by JCT did not occur. We will provide a set of new rules for estimating the revenue effects of the HIA drawn from IRS data on how corporations actually responded to the Act, and which suggest that the HIA actually resulted in significant revenue gains. As we will see, the main differences between the JCT's estimate and what actually occurred involve three matters. First, multinationals repatriated considerably more foreign earnings under the HIA tax preference than JCT had predicted, and they also repatriated considerably more foreign earnings in same period that did not qualify for the HIA preference, than the JCT predicted. Second, JCT expected that the increase in repatriations under the HIA would be offset by reduced repatriations in subsequent years, and this assumption also proved to be incorrect. IRS data show that repatriations by U.S. multinationals accelerated rather than declined after the HIA expired, as compared to their trend growth rate prior to the HIA.

These unexpected results are consistent with the research reviewed earlier on how multinationals operate. This research has found that their investment decisions at home and abroad are driven by the emerging demands of their global supply and production networks, and their investments at home and abroad complement each other. In this context, the post-HIA acceleration in repatriations could be tied to an expansion in the firms' domestic investment plans based on the reduction in their cost of capital resulting from their low-tax repatriations under HIA. In this scenario, firms repatriated large amounts of capital under the HIA, and the combination of that low-cost capital and capital brought back subsequently at a higher tax cost justified expanded investments that required the acceleration in post-HIA repatriations. In effect, the HIA stimulated an expansion in investment which required and justified the additional repatriations. It is also

[24] Audit Analytics (2014).

possible that the acceleration in post-HIA repatriations, especially in the second five years of the JCT revenue estimate (2010-2014), were responses to the unexpected and tumultuous economic conditions created by the 2008-2009 financial crisis, the accompanying deep recession, and the fragile, halting recovery which followed. From this vantage, U.S. multinationals stepped up their repatriations from 2008 to 2011 as a response to the stringent credit conditions of that period and to incentives to buy-back stock while equity prices remained depressed, followed by investment demands as the economy recovered.

In either case, or a combination of the two explanations, the JCT was wrong in predicting that multinationals have a fixed amount of capital which they plan to repatriate, and that the increases in repatriations under the HIA would be offset by decreases in repatriations in subsequent years and thereby produce large revenue losses. Based on the record of the HIA and the following years, we should expect that such a tax preference in the future will lead to large repatriations while the preference is in force, followed by continued substantial repatriations. Whether the acceleration in repatriations following the tax preference expires is sustained beyond three or four years or repatriations return to baseline levels almost certainly depends on economic conditions. However, no scenario consistent with the data should produce revenue losses.

As a result, when we model the revenue effects of the latest proposal for a temporary tax preference for future repatriations, the Paul-Boxer proposal, we find that the plan would produce revenue gains of $68.9 billion over five years (2015-2019) and, at least potentially, additional revenue gains in the next five years if repatriations follow the accelerating growth path observed following the HIA (2020-2024). If that acceleration in repatriations were repeated, we estimate that U.S. companies would repatriate an additional $817.2 billion in foreign earnings, generating an additional $83.8 billion in federal revenues. In either case, the additional revenues will have positive economic effects. Paul-Boxer dedicates the direct revenue gains under the Act (2015-2019) to the Highway Trust Fund, and we estimate that using the $68.9 billion in net revenues from Paul-Boxer in this way would increase GDP by between $137.9 billion and $172.4 billion over the five years.

Additional economic effects follow from how MNCs use their repatriated earnings. Economists are divided over whether the companies that repatriated more than $300 billion in earnings under the HIA used those additional resources mainly for investment and employment purposes as directed by the HIA or mainly for shareholder dividends and stock buybacks. Without resolving this debate, the repatriated earnings expanded demand by adding additional resources drawn from the foreign economies hosting the foreign source earnings of U.S. companies until their repatriation. Paul-Boxer provides five years for U.S. multinationals to repatriate foreign earnings at its preferred tax rate, compared to one year under the HIA, and Paul-Boxer places fewer restrictions on the use of repatriated dividends than the HIA. Based on analysis of IRS data on how corporations responded to the incentives in the HIA, we estimate that under Paul-Boxer, U.S. multinational companies would repatriate an estimated $1,404.9 billion in qualified dividends and $761.7 billion in nonqualified dividends during the five years of the plan's tax preference and, depending on the subsequent path of repatriations, by zero (baseline) to $817.2 billion in the following five years. Using standard multipliers, the repatriations in the first five years (2015-2019) should add more than $330 billion per-year to U.S. GDP, equal to an average of 1.67 percent of U.S. GDP projected for those years.

II. How the United States Taxes the Foreign Profits of U.S. Corporations

As noted earlier, the U.S. worldwide tax system applies U.S. tax to the worldwide earnings of U.S. companies and citizens. Hence, businesses located in the United States are taxed on their foreign as well as U.S. earnings; and U.S. subsidiaries of foreign-based multinational companies, as legally independent entities, are thus subject to U.S. corporate tax on their foreign earnings. This approach contrasts sharply with the territorial tax systems of most other countries, which tax businesses and individuals located in a country only on earnings produced in that country. As a result, the foreign subsidiaries of U.S. companies which pay territorial taxes to foreign governments on their earnings in those countries as well as U.S. tax on the same earnings. The American system, as noted above, reduces the implied tax advantage which foreign companies enjoy compared to the U.S. subsidiaries operating in the same countries by deferring the U.S. tax on foreign earnings until those earnings are repatriated back to the United States, usually as dividend payments to the U.S. parent corporation, and by providing a tax credit for the taxes paid to a foreign country when the dividends are repatriated. Nevertheless, these provisions provide an incentive for U.S. multinationals to retain their foreign earnings abroad, especially in low-tax countries. This incentive is reinforced by U.S. 35 percent corporate tax rate, the highest of any OECD country, since the tax credits based on foreign taxes paid do not eliminate an additional U.S. tax burden. In fact, the United States is the only nation with both a worldwide tax system and a corporate tax rate of more than 30 percent.[25] Substantial repatriations occur every year, however, to meet the investment and other needs of U.S. parent companies, with most of those repatriated earnings coming from subsidiaries located in relatively high-tax countries.

As the U.S. economy has come to depend increasingly on global markets, the Obama administration and others have urged Congress to reduce the corporate tax rate to a more competitive level. In addition, some economists and policymakers have called for the U.S. to shift to a territorial tax system. Since a political consensus on how to undertake such reforms has not been achieved, there have been regular calls for a temporary reduction in the U.S. tax on repatriated earnings(often called, inaccurately, a "repatriation tax holiday") to reduce the volume of foreign earnings held abroad. As expected, studies have found that U.S. multinationals retain excess funds in their foreign subsidiaries to avoid U.S. tax, and that firms facing higher tax costs when they repatriate their earnings retain relatively more funds in their foreign affiliates.[26] Also as expected, U.S. companies that are less constrained financially at home are more sensitive to the additional U.S. tax their foreign repatriated earnings. A survey of executives of U.S. multinationals found that 44 percent said that they avoid repatriation taxes by borrowing funds in the United States rather than transferring funds from foreign subsidiaries, and nearly 20 percent said their company invested its foreign earnings in overseas assets with a lower return than they could have earned in the United States.[27]

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[25] Carroll (2010).

[26] Foley et al. (2007). They estimate that a one standard deviation increase in the tax burden from repatriating income is associated with a 7.9 percent increase in the ratio of cash to net assets.

[27] Graham, Hanlon and Shevlin (2008). In addition, Altshuler and Grubert (2002) describe a number of strategies that firms use to raise funds without paying repatriation taxes; and Grubert (1998) has developed a model in which decisions between paying dividends, interest and royalty payments depend upon their tax prices, relative to each other.

Economic Theory and Repatriations

There is a large theoretical and empirical literature on how multinational corporations respond to U.S. taxation on their foreign-source profits through the repatriation of those profits in the form of dividends from a foreign subsidiary to the U.S. parent company. One line of analysis, associated with "new view" of dividend taxation, holds that repatriation taxes do not influence these dividend payments,[28] because investments are mainly financed from retained earnings.[29] As a result, taxes on dividends if constant over time should have no distortionary effects on the decisions of domestic corporations.[30] However, taxes on these dividends tend to vary over time, and empirical work drawing on a large sample of U.S. MNCs from 1980 to 1986 found that temporary changes in the taxation of repatriated dividends have significant, negative effects on those repatriations.[31] Moreover, other studies have found that taxes on repatriated dividend payments can have significant effects.[32] Two recent studies using Bureau of Economic Analysis (BEA) panel data from the Survey of U.S. Direct Investment Abroad from 1982 to 1987 found that a one percent reduction in repatriation taxes is associated with a one percent increase in dividends.[33] Similarly, another study found that an increase in the tax rate on those dividends of one standard deviation was associated with a significant decrease in repatriated dividends.[34] Several additional studies also suggest that taxes affect dividend payouts, including an analysis which found that differences in definitions of taxable income by the United States and countries hosting subsidiaries of U.S. MNCs affect repatriations, which in turn affect investment decisions.[35]

On balance, the academic literature suggests that while a constant tax rate on repatriated dividends has little effect on repatriations, changes in that tax rate can have significant effects, positive and negative. As we will see, these views are embedded in the revenue estimates of the Joint Committee on Taxation (JCT), which suggest that a temporary reduction in the tax rate on repatriated dividends will result in an increase in repatriations. In addition, however, JCT posits that corporations may see the return to the normal tax rate as also temporary, on a view that another temporary reductions may follow. Therefore, JCT expects forecast sharp reductions in repatriations following the temporary tax reduction, as parent companies wait for another temporary tax break. As we will see, the data suggest that U.S. multinationals respond differently, increasing their repatriations during the tax holiday and then returning to normal levels of repatriations driven by investment needs rather than the tax rate.

III. The Homeland Investment Act of 2004

While economists debate the theoretical responses to changes in the taxation of foreign source income, hard evidence is now available through the actual responses to the Homeland

[28] Hartman (1985)
[29] The new view of dividend taxation has been put forward by King (1977), Auerbach (1979) and Bradford (1981).
[30] See Altshuler *et al.* (1995) for an overview.
[31] Altshuler, Newlon and Randolph (1995)
[32] Desai, Foley and Heinz (1997); Mutti (1981); Goodspeed and Frisch (1989); Hines and Hubbard (1990); Altshuler and Newlon (1993).
[33] Desai, Foley and Heinz (2000 and 2007).
[34] Moore (2010). The response to an increase in the tax rate equal to one standard deviation was a decrease in the dividend payout ratio equal to 6 percent of the mean.
[35] Hines (1994). See also Leechor and Mintz (1993) and Altshuler and Fulghieri (1994).

Investment Act (HIA), enacted October 22, 2004. Codified as Section 965 of the Internal Revenue Code, the HIA provided that a U.S. parent corporation could elect for one taxable year an 85 percent deduction for certain dividends received from foreign subsidiaries. This provision reduced the U.S. tax rate on qualified repatriated dividends to 5.25 percent (0.15 x 0.35 = 0.0525).[36] The Act also required that the U.S. taxpayer provide a "domestic reinvestment plan" of how the firm would use the repatriated dividends for the uses permitted under the Act, including hiring, training and compensation of employees, infrastructure and capital investments, research and development, financial stabilization measures, acquisitions, advertising and marketing expenditures, and purchases of intangible property in the United States. An academic survey of executives at firms claiming the deduction reported that those firms, on average, used 24 percent of their repatriated funds for capital investment, 23 percent for hiring and training of U.S. employees, 14.7 percent for research and development and 12.4 percent for paying down domestic debt.[37] Another study of a subset of U.S. multinationals reported that the repatriations increased domestic investment but not employment,[38] and a third analysis argued that the repatriations were associated mainly with higher payments to shareholders.[39]

These seemingly contradictory results can be reconciled. The survey showed that firms repatriating dividends at the reduced rate increased their hiring, compensation, capital investment, research and development and financial stability. However, since the repatriated funds were fungible, the funds used for additional hiring, capital investment, and so on, could enable firms to shift existing funds already earmarked for those investments and expenditures to increase shareholder payments. To be sure, how firms use repatriated funds affects the impact of the HIA or similar legislation on economic growth and employment as well as the secondary effect on federal revenues.[40]

When the HIA was proposed, the JCT issued a revenue estimate that forecast substantial revenue losses based on its assumptions, including dynamic taxpayer responses to its provisions, relative to a baseline assuming no change in the law.[41] This estimate forecast net revenue losses of $3.3 billion over ten years. (Table 1 below)

Table 1: JCT Revenue Estimate of HIA, 2005-2014 ($ billions) [42]

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
$2.8	-$2.1	-$1.3	-$0.8	-$0.6	-$0.4	-$0.3	-$0.3	-0.2	-$0.1	-$3.3

[36] Eligible dividends were limited to the greater of $500 million, the amount shown on the taxpayer's applicable financial statement as permanently reinvested outside of the U.S., or if the taxpayer disclosed only the tax attributable to permanently reinvested earnings, the amount of tax divided by 35 percent. Eligible dividends also were limited to the excess of dividends received over the annual average dividends during a base period defined as three taxable years from the five most recent taxable years after eliminating the years with the highest and lowest value of dividends repatriated.

[37] Graham, Hanlon and Shevlin (2008).

[38] Faulkender and Petersen (2009).

[39] Dharmapala, Foley and Forbes (2008).

[40] For example, additional hiring would generate revenues from the taxation of wages, and additional investments would raise productivity and consequent taxable earnings.

[41] See Kleinbard and Driessen (2008).

[42] Joint Committee onTaxation (2004).

This forecast involved considerable uncertainty, since the JCT and U.S. Treasury had no prior experience with a substantial, temporary reduction in the tax rate on repatriated dividends. JCT assumed first that the funds repatriated under the HIA would have been repatriated at normal tax rates in subsequent years, and therefore the Act would not increase the total volume of repatriated dividends. JCT also posited that multinational corporations would reduce future repatriations under the normal tax rate, in anticipation of another temporary reduction in the tax on the dividends. The estimate also had to assume future macroeconomic conditions and therefore could not take account of the financial crisis in 2008-2009, the deep recession that accompanied it, and the responses of multinational companies and the U.S. government to those unanticipated conditions. Finally, the estimate was based on the direct revenue effects of the repatriations and ignored the indirect revenue effects arising from the use of the repatriated funds.

The JCT's assumptions about how U.S. multinationals would respond to the incentives of the HIA were critical for the revenue estimate.[43] JCT staff divided the potential repatriations into three pools. The first pool of foreign earnings, estimated by JCT at $30 billion, was comprised of dividends repatriated under the lower tax rate which would have been repatriated without the HIA, producing a direct revenue loss based on the difference in tax rates with and without the HIA. The second pool, estimated by JCT at $75 billion, was foreign earnings that multinationals would have repatriated in subsequent years, after the end of the HIA and thus at the higher tax rate, which the companies pushed forward to take advantage of the HIA. The JCT found that these repatriations also produced a direct revenue loss based on the difference in tax rates. The third pool, estimated at $130 billion, was comprised of earnings repatriated under the HIA but which otherwise would have remained abroad permanently. These repatriations would produce a direct revenue gain.

To begin, the JCT significantly underestimated the volume of dividends that U.S. multinationals would repatriate under the HIA's temporary period of reduced tax rates. JCT projected that U.S. parent companies would repatriate $235 billion in dividends; in fact, an IRS study of the HIA found that those qualified repatriated dividends totaled $312 billion or 32.8 percent more than the JCT forecast.[44] The IRS study also found that the foreign tax credits associated with these qualified dividends equaled about 11 percent of their nondeductible portion, lowering the effective tax rate on the qualified dividends from 5.25 percent to 3.65 percent.[45] Therefore, the total tax revenues on those repatriated dividends should have been $11.4 billion ($312 x 0.0365 = $11.39). By contrast, the JCT had projected a decline in revenues of $0.6 billion, relative to the baseline. [46]

The JCT's most problematic assumption involved the second pool of earnings, which JCT assumed would be repatriated earlier than planned by multinationals eager to take advantage of the temporary lower tax rate. In this case, JCT assumed that the total pool of repatriated dividends was fixed, and therefore repatriations would decline in the years following the HIA. We also can test that assumption against IRS data on actual repatriations before and after the HIA. Data are

[43] Kleinbard and Driessen (2008).

[44]. Redmiles (2008).

[45] Total tax revenue before credits is $16.4 billion. Foreign taxes paid were $5 billion resulting in total revenues of $11.4 billion. As a share of total repatriations ($312 billion), this implies an effective tax rate of 3.65 percent.

[46] The only way to reconcile these numbers is to assume that the JCT had forecast $12 billion in revenues for its baseline, and that the Treasury would collect only $11.4 billion under the HIA. This suggests that the JCT's baseline also may have been incorrect.

available for only a few years on repatriations by the "controlled foreign corporations" specified in the HIA (CFCs, or foreign companies in which U.S. shareholders own more than 50 percent of the stock). However, data are available covering all U.S. corporations for the years 1994 to 2011,[47] and repatriated dividends by CFCs account for 80 percent to 90 percent of all repatriated dividends by active U.S. corporations. Moreover, the trends on the two data sets are very similar.[48]

Table 2, below, presents the IRS data on actual repatriations by U.S. corporations from 1994 to 2011 in both nominal and constant terms (2011 dollars), enabling us to track the underlying rate and path of repatriations and the impact of the HIA on that rate and path.

Table 2: Actual Dividend Repatriations by U.S. Corporations, 1994-2011 ($ thousands)

Year	Repatriated Dividends (Nominal)	Repatriated Dividends (2011 Dollars)
1994	$30,322,365	$46,149,973
1995	$35,418,063	$52,394,144
1996	$46,245,061	$66,501,658
1997	$51,009,284	$71,723,714
1998	$49,232,904	$68,315,664
1999	$64,905,407	$88,131,361
2000	$60,203,391	$78,987,990
2001	$49,997,670	$63,858,696
2002	$45,580,553	$57,422,686
2003	$44,921,527	$55,364,908
2004	$58,411,038	$70,156,564
2005	$362,945,282	$421,092,537
2006	$72,419,945	$81,421,917
2007	$88,309,568	$96,496,057
2008	$104,536,146	$109,735,717
2009	$137,247,458	$145,105,137
2010	$144,571,375	$149,775,674
2011	$94,975,435	$94,975,435

These data show, as expected, that total repatriations spiked in 2005 as a result of the HIA. The data also show that contrary to the JCT's assumption that the HIA would depress future repatriations, post-HIA repatriations were consistently higher than pre-HIA repatriations in both nominal and real terms. In real terms, annual repatriations averaged $64.9 billion from 1994 to 2003, compared to $119.2 billion per-year from 2007 to 2011. Further, real repatriations increased at a 2.0 percent average annual growth rate from 1994 to 2003, compared to a 15.8 percent rate from 2007 to 2010. As suggested earlier, one explanation is that the prospect of repatriating large dividends at the much lower tax rate of the HIA led companies to increase their planned investments and acquisitions, which then required continued increases in repatriations after the HIA expired.

[47] Internal Revenue Service (2015).
[48] Internal Revenue Service (2015-A).

Repatriations did decline sharply in 2011, in the wake of the financial crisis and deep recession of 2008-2009 and the slow recovery that followed. It is unlikely that this decline was related to the HIA, since even the JCT assumed that any shifting of repatriated dividends from future years to the HIA period would have ended by 2011. Furthermore, the average annual level of post-HIA repatriations, including 2011, remained higher than pre-HIA. On balance, average repatriations and their average annual growth rate both increased post-HIA, confounding the JCT's assumption and its forecast of reduced repatriations in that period.

To examine more closely this effect, we first use pre-HIA data to project repatriations from 2004 to 2011 at their pre-HIA historic rate growth: From 1994 to 2003, repatriation grew at an average annual nominal rate of 4.5 percent. Next, we compare those projections to actual repatriations post-HIA: From 2007 to 2011, repatriations grew at an average annual rate of 15.8 percent. (Table 3)

Table 3: Projected and Actual Dividend Repatriations, 2004-2011 ($ thousands)

Year	Projected Repatriations, Based on 4.5 Percent Growth	Actual Repatriations	Difference
2004	$46,926,723	$58,411,038	$11,484,315
2005	$49,021,426	$362,945,282	$313,923,856
2006	$51,209,632	$72,419,945	$21,210,313
2007	$53,495,515	$88,309,568	$34,814,053
2008	$55,883,434	$104,536,146	$48,652,712
2009	$58,377,945	$137,247,458	$78,869,513
2010	$60,983,805	$144,571,375	$83,587,570
2011	$63,705,985	$94,975,435	$31,269,450
Total	**$439,604,465**	**$1,063,416,247**	**$623,811,782**

These data cannot be reconciled with the JCT assumption that the increase in dividend repatriations during the HIA period of reduced taxation would be followed by a sharp slowdown in repatriated dividends when the tax rate returned to normal. Rather, the data show that repatriations post-HIA accelerated sharply, relative to their baseline growth rate pre-HIA.

Actual Revenues from the HIA

As noted earlier, any revenue estimate for the HIA or any period of reduced taxes on repatriated dividends depends on the baseline of revenues which the Treasury would collect in the absence of the temporary tax reduction. Here, we begin with the volume of repatriated dividends, assuming that in the ten-year period from 2004 to 2015, those dividends would have continued to increase at the 4.5 percent average annual rate observed for repatriations from 1994 to 2003. Table 4, below, presents those projections and the revenues that the Treasury would have collected at the 35 percent corporate tax rate, before foreign tax credits. These projections suggest that in the absence of HIA, U.S. multinationals would have repatriated a baseline of $724.2 billion in dividend payments from 2004 to 2015, generating a revenue baseline before foreign tax credits of $253.5 billion for that period ($742.2 x 0.35 = $253.5).

Table 4: Baseline Repatriations and Revenues. Before Foreign Tax Credits, 2004-2015 ($ thousands)

Year	Projected Dividend Repatriations	Projected Revenues Before Foreign Tax Credits
2004	$46,926,723	$16,424,353
2005$	$49,021,426	$17,157,499
200$6	$51,209,632	$17,923,371
200$7	$53,495,515	$18,723,430
200$8	$55,883,434	$19,559,202
2009	$58,377,945	$20,432,281
2010	$60,983,805	$21,344,332
2011	$63,705,985	$22,297,095
2012	$66,549,677	$23,292,387
2013	$69,520,304	$24,332,107
2014	$72,623,534	$25,418,237
2015	$75,865,286	$26,552,850
Total	**$724,163,267**	**$253,457,143**

Multinational companies, however, claim foreign tax credits to minimize their repatriation taxes, based on the corporate taxes already paid to the countries hosting the U.S. subsidiaries. As a general proposition, the U.S. taxes owed on repatriated earnings can be thought of as the difference between the U.S. tax rate and the average tax rate paid on earnings in the countries where the earnings occurred. Economists have studied the incidence of foreign tax credits fairly extensively. Research by a U.S. Treasury economist, Harry Grubert, suggests that many firms face *negative* effective tax rates on their repatriations, because either the parent has excess foreign tax credits or, in theory, because the foreign taxes paid on dividends exceed the 35 percent U.S. tax rate.[49] Other economists have produced a range of estimates of the effective tax burden on repatriated dividends. Two recent studies estimated that the effective tax rate on repatriated dividends earned in low-tax countries is about 3.3 percent,[50] while other studies have found effective tax burdens ranging from 6.2 percent and 7.8 percent to 10.26 percent.[51]

To estimate the effective repatriation tax rate after foreign tax credits, we first examined the IRS data on all foreign tax credits claimed by firms over the period 1994 to 2003 and all repatriated dividends through 2011.[52] The results confirm the Grubert finding in the aggregate: The total foreign tax credits claimed by U.S. multinationals consistently exceed the implicit 35 percent tax before the tax credits on their foreign source income, and in one year (2013), the aggregate foreign tax credits claimed by U.S. multinationals exceeded their aggregated repatriated dividends. (Table 5 below)

[49] Grubert (2005).
[50] Grubert and Altshuler (2008) and Grubert and Mutti (2001).
[51] Respectively, Moore (2010); Pomerleau (2014); and Blouin *et al*. (2009).
[52] Internal Revenue Service (2015-B).

Table 5: Foreign Tax Credits Claimed, 1994-2003 ($ thousands)

Year	Repatriations	Implicit Tax Before Foreign Tax Credits	Foreign Tax Credits
1994	$30,322,365	$10,612,828	$25,401,339
1995	$35,418,063	$12,396,322	$30,420,276
1996	$46,245,061	$16,185,771	$40,243,751
1997	$51,009,284	$17,853,249	$42,199,558
1998	$49,232,904	$17,231,516	$37,396,469
1999	$64,905,407	$22,716,892	$38,389,989
2000	$60,203,391	$21,071,187	$48,505,841
2001	$49,997,670	$17,499,185	$41,063,165
2002	$45,580,553	$15,953,194	$42,021,526
2003	$44,921,527	$15,722,534	$50,033,590

However, estimates based on studies of firm-level data suggest that the effective tax rate on repatriated dividends is actually between 6.2 percent and 10.26 percent.[53] For our purposes, we adopt the 10.26 percent estimated effective tax rate, because it was based on the most relevant period for our analysis and because, unlike the other studies, it did not include data from the HIA period.[54] Table 6, below, presents estimates of baseline revenues from repatriated dividends, after applying the 10.26 percent effective tax rate to estimated repatriated dividends from 2004 to 2015 in the absence of the HIA. Without the HIA, we estimate that the baseline revenues for 2004 to 2015 from taxing repatriated dividends, after foreign tax credits, would total $74.3 billion.

Table 6: Estimated Repatriations and Their Baseline Revenues with Foreign Tax Credits, 10.26 Percent Effective Rate, 2004-2015 ($ thousands)

Year	Estimated Dividend Repatriations	Estimated Baseline Revenues with Foreign Tax Credits
2004	$46,926,723	$4,814,682
2005	$49,021,426	$5,029,598
2006	$51,209,632	$5,254,108
2007	$53,495,515	$5,488,640
2008	$55,883,434	$5,733,640
2009	$58,377,945	$5,989,577
2010	$60,983,805	$6,256,938
2011	$63,705,985	$6,536,234
2012	$66,549,677	$6,827,997
2013	$69,520,304	$7,132,783
2014	$72,623,534	$7,451,175
2015	$75,865,286	$7,783,778
Total	**$724,163,267**	**$74,299,151**

[53] Moore (2010) and Blouin *et al.* (2009).
[54] Blouin *et al.* (2009).

Next, we compare those baseline revenues with the revenues from actual repatriations from 2004 to 2011, using an effective tax rate net of foreign tax credits of 3.65 percent for dividends repatriated under the HIA (2004-2006) and 10.26 percent for dividends repatriated from 2007 to 2011. Table 7, below, shows that the revenues from dividends repatriated under the HIA totaled $11.4 billion, and dividends repatriated outside the HIA totaled $77.1 billion. Over the same period (2004-2011), our estimated baseline revenues using actual repatriations totaled $45.1 billion. These baseline revenues, therefore, were about 50 percent of the revenues using actual repatriations ($77.1 + $11.4 = $88.5). The JCT revenue estimate has forecast that the HIA would lose $3.3 billion over this period, relative to the baseline. Given the actual data, the JCT clearly underestimated baseline revenues and overestimated revenue losses arising from the HIA.

Table 7: Revenues from Actual Repatriations, under HIA and outside HIA, 2004-2011 ($ thousands)

Year	Qualified Dividends under HIA	Repatriated Dividends Outside HIA	Revenues from HIA (3.65% rate)	Revenues Outside HIA (10.26% rate)
2004-2006 (HIA)	$312,324,610	$181,451,655	$11,399,848	$18,616,940
2007	--	$88,309,568	--	$9,060,562
2008	--	$104,536,146	--	$10,725,409
2009	--	$137,247,458	--	$14,081,589
2010	--	$144,571,375	--	$14,833,023
2011	--	$94,975,435	--	$9,744,480
Total	**$312,324,610**	**$1,063,416,247**	**$11,399,848**	**$77,062,002**

IV. The Revenue Estimate for a Temporary Reduction in the Tax on Repatriated Dividends Proposed in 2011

In April 2011, the JCT prepared a revenue estimate for another proposed, temporary reduction in the tax rate applied to repatriated dividends, at the request of Representative Lloyd Doggett.[55] This proposal provided an 85 percent deduction for certain repatriated dividends, the same level as the HIA, or, alternatively, a 70 percent deduction. As with the HIA, JCT assumed that some fraction of the dividends repatriated in 2011 and 2012 would have been repatriated regardless of the temporary deduction and therefore would produce a direct revenue loss. As before, JCT also assumed that some dividends that would have been repatriated in later years at the normal tax rate would be brought forward to take advantage of the lower taxes in 2011 and 2012, producing additional revenues losses. Also as before, the JCT assumed that some firms would delay future repatriations in anticipation of another temporary period of lower tax rates. The JCT's only apparent concession to contemporaneous data was a tacit acknowledgement that the recent growth in foreign-source income meant that substantial repatriations would occur without a temporary deduction.

It is clear that the JCT did not adjust its 2004 assumptions to take account of how U.S. multinational taxpayers responded to the HIA and in the years following. Based on these assumptions, which cannot be reconciled with IRS data from the HIA, JCT forecast that the

[55] Joint Committee on Taxation (2011).

proposal would produce revenues losses totaling over 10 years (2011-2021) either $78.7 billion under an 85 percent deduction or $41.7 billion under a 70 percent deduction. (Table 8, below)

Table 8: JCT Revenue Estimate, 2011 Proposal on Repatriated Dividends ($ billions)

Year	Revenue Effect, 85% Deduction	Revenue Effect, 70% Deduction
2011	$3.4	$1.9
2012	$12.5	$12.9
2013	$9.6	$10.6
2014	- $12.8	- $8.5
2015	- $13.5	- $8.9
2016	- $14.1	- $9.1
2017	- $14.1	- $9.0
2018	- $13.4	- $8.5
2019	- $12.7	- $8.0
2020	- $12.2	- $7.7
2021	- $11.7	- $7.4
Total	**- $78.7**	**- $41.7**

We can generate a more plausible revenue forecast using the "repatriation tax elasticity": The percentage-change in repatriations in 2004 to 2006, relative to the baseline, following a given percentage-change in the effective tax rate on repatriated dividends (after foreign tax credits) under the HIA from 10.26 percent to 3.65 percent. For the 85 percent reduction, the effective tax rate fell 64.4 percent [(10.26 – 3.65) / 10.26].[56] Earlier, we calculated the change in repatriations relative to the baseline under the HIA (Table 3, above). In Table 9-A below, we provide the percentage-change in repatriations and calculate the consequent elasticity with respect to the reduced tax rate. The elasticity values are negative since as the tax rate fell, repatriations increased.

Table 9-A: Elasticity of All Repatriated Dividends to Tax Rate Changes under the HIA, 2004-2011

Year	Change in Repatriations, versus the Baseline ($ thousands)	Percentage Change in Repatriations, Versus the Baseline	Elasticity of Repatriations with Respect to the Change in Effective Tax Rates
2004	$11,484,315	24.5%	-0.38
2005	$313,923,856	640.4%	-9.94
2006	$21,210,313	41.4%	-0.64
2007	$34,814,053	65.1%	-1.01
2008	$48,652,712	87.1%	-1.35
2009	$78,869,513	135.1%	-2.10
2010	$83,587,570	137.1%	-2.13
2011	$31,269,450	49.1%	-0.76

[56] 10.26 – 3.65 = 6.61 / 10.26 = 64.4

These calculations show that in the prime year of the HIA, 2005, a one percent decline in the tax rate caused a 9.94 percent increase in total repatriations. One striking finding is that even after the lower tax rate expired, repatriations continued to grow relative to the baseline: From 2007 to 2011, each one percent decline in the tax rate in 2004-2006 was accompanied by increases in total repatriations, relative to the baseline, of between 0.76 percent and 2.13 percent. There is no evidence of the JCT's expectation that repatriations would decline relative to the baseline when the preferential rate expired. Instead, HIA's positive effect on repatriations persisted.

We also calculated the elasticity of only "qualified" dividends repatriated under the HIA in 2004, 2005 and 2006. (Table 9-B, below) Here, we see some evidence of multinationals shifting the repatriation of dividends qualified under the HIA from 2004 and 2006 into 2005. In 2005, each percentage-point reduction in the effective tax rate on qualified repatriations was accompanied by a 6.9 percentage-point increase in qualified dividend repatriations.

Table 9-B: Elasticity of Qualified Repatriation to HIA Change in Tax Rates, 2004-2006

Year	Change in Repatriations, versus the Baseline ($ thousands)	Percentage Change in Repatriations, Versus the Baseline	Elasticity of Repatriations with Respect to the Change in Effective Tax Rates
2004	- $22,877,728	- 48.8%	-0.76
2005	$218,016,116	444.7%	6.91
2006	- $29,971,559	- 58.5%	-0.91

Next, we use these elasticity responses to project how multinationals might have responded if Congress had enacted the 2011 proposal. First, we project baseline repatriations using their average annual growth from 1994 to 2010 of 10.25 percent, including the significant increases in repatriations post-HIA. Next, we apply the percentage-changes in repatriations from Table 9-A to estimate their increase under another temporary 85 percent deduction for the tax on repatriations in 2011. We then apply the elasticity for qualified dividends to the tax change to estimate total qualified dividend repatriations from 2011 to 2018. The results are presented in Table 10, below.

Table 10: Projected Repatriations with a 2011 85-Percent Deduction, 2011-2018 ($ thousands)

Year	Baseline Repatriations	Percent Change in Repatriations versus the Baseline	Estimated Total Repatriations with a 85% Deduction in 2011	Percent Change in Qualified Repatriations versus the Baseline	Estimated Qualified Repatriations
2011	$159,395,943	24.47%	$198,400,131	-48.8	$81,687,192
2012	$175,740,645	640.38%	$1,301,148,589	444.7%	$957,323,228
2013	$193,761,358	41.42%	$274,017,312	-58.5%	$80,358,280
2014	$213,629,942	65.08%	$352,660,308		
2015	$235,535,880	87.06%	$440,593,417		
2016	$259,688,087	135.10%	$610,526,692		
2017	$286,316,897	137.07%	$678,771,469		
2018	$315,676,267	49.08%	$470,610,178		
Total	**$1,839,745,019**		**$4,326,728,096**		**$1,119,368,700**

With this exercise, we estimate that under a second temporary tax preference for dividend repatriations in 2011, based on the model of the HIA, U.S. multinationals would have repatriated $4.3 trillion in dividends over the period of 2011 to 2018, compared to a $1.8 trillion baseline, including $1.12 trillion in qualified dividends. On this basis, we can project the revenue effects of the preference proposed in 2011. (Table 11 below) The revenue estimates for the baseline use the 10.26 percent tax rate, the revenues for the qualified dividend repatriations use the 3.25 percent rate, and the revenues from nonqualified dividends use the 10.26 percent rate.

Table 11: Revenue Estimate for a 2011 85 Percent Deduction, 2011-2018 ($ thousands)

Year	Baseline Repatriations	Baseline Revenues (10.26% Rate)	Qualified Dividend Repatriations with 2011 Preference	Revenues From Qualified Dividends (3.25% Rate)	Non-Qualified Repatriations with 2011 Preference	Revenues From Non-Qualified Dividends (10.26% Rate)	Total Revenues
2011	$159,395,943	$16,354,024	$81,687,192	$2,981,583	$116,712,939	$11,974,748	$14,956,331
2012	$175,740,645	$18,030,990	$957,323,228	$34,942,298	$343,825,361	$35276482	$70,218,780
2013	$193,761,358	$19,879,915	$80,358,280	$2,933,077	$193,659,032	$19,869,417	$22,802,494
2014	$213,629,942	$21,918,432			$352,660,308	$36,182,948	$36,182,948
2015	$235,535,880	$24,165,981			$440,593,417	$45,204,885	$45,204,885
2016	$259,688,087	$26,643,998			$610,526,692	$62,640,039	$62,640,039
2017	$286,316,897	$29,376,114			$678,771,469	$69,641,953	$69,641,953
2018	$315,676,267	$32,388,385			$470,610,178	$48,284,604	$48,284,604
Total	**$1,839,745,019**	**$188,757,839**	**$1,119,368,700**	**$40,856,958**	**$3,207,359,396**	**$329,075,076**	**$369,932,034**

This exercise suggests that a 2011 reprise of the HIA, including the problematic acceleration in dividend repatriations after the 2011 Act expired, would have resulted in total revenues for years 2011 to 2018 of $396.6 billion, compared to baseline revenues without the temporary tax preference of $188.8 billion. Under these conditions, the proposal should have produced a revenue gain of $181.2 billion, compared to the JCT's estimate of a revenue loss of $42.4 billion.

Finally, we tested the dimensions of our new estimates using data on total foreign earnings held abroad by subsidiaries of U.S. multinationals and permanently reinvested foreign earnings by those subsidiaries. Before the HIA and as of December 2004, the Treasury reported $804 billion in total untaxed foreign earnings and permanently reinvested earnings (PRE) of $361.6 billion.[57] Qualified dividends repatriated under the HIA in 2004-2006 totaled $312 billion, so that nearly 86 percent of PRE or nearly 39 percent of all foreign earnings were repatriated as qualified dividends under the HIA. Long-term data on permanently reinvested earnings and total foreign earnings are unavailable and difficult to estimate. However, Audit Analytics has estimated that in 2011, nearly $1.6 trillion in PRE was held overseas,[58] and 86 percent of that total is nearly $1.4 trillion, quite close to the $1.12 trillion in qualified dividends that we estimated would have repatriated in 2011-2013 under a 2011 reprise of the HIA. (Table 10 above)

[57] Redmiles (2008).
[58] Audit Economics (2014).

We also reviewed data on untaxed accumulated foreign earnings collected by Alan Sinai.[59] These data suggest that in 2008, total earnings held abroad totaled about $1.5 trillion, and PRE totaled about $1.1 trillion. Using these data, the ratio of PRE to total foreign earnings abroad was about 75 percent in 2008 and an average of 67 percent over several years. The estimate of PRE in 2011 from Audit Analytics of $1.6 trillion and the Sinai ratio of PRE and total foreign earnings imply that earnings held abroad totaled some $2.4 trillion in 2011. Based on our analysis of the elasticity of repatriations to changes in the tax rate, we would expect about 61 percent of that total to been repatriated under a 2011 reprise of the HIA as qualified or unqualified dividends. This suggests that in 2011-2012, approximately $1.4 trillion in dividends would be repatriated under the preference, compared to our projection of $1.5 trillion (Table 10 above).

The basic difference between our analysis and the JCT's approach is that our estimates are based on analysis of the data on repatriations under the HIA tax preference and the five years following its expiration, admittedly a limited sample. In contrast, the JCT relies on theoretical assumptions about how multinational companies might alter their repatriation behavior in response to the temporary tax preference.

V. The Paul-Boxer Plan for a New Tax Preference for Dividend Repatriations

Now we turn to a new proposal by Senators Rand Paul and Barbara Boxer to temporarily reduce the tax burden on repatriated dividends from the foreign subsidiaries of U.S. multinational corporations. Their plan would allow U.S. companies to repatriate their foreign earnings at an effective U.S. tax rate of 6.5 percent before qualified foreign tax credits by excluding 81.4 percent of those earnings from the U.S. tax. (As with the HIA, Paul-Boxer would disallow 81.4 percent of the foreign tax credits associated with qualified repatriated earnings). The new tax preference would be in force for five years (2015-2019); and in year one, companies would have to declare how much qualified dividends they plan to repatriate over the five years and bring back 20 percent of that total. Companies also would have to submit a domestic reinvestment plan approved by their boards of directors, in which at least 25 percent of the repatriated dividends would be used to (1) increase hiring or raise wages and benefits; (2) expand capital improvements; (3) increase R&D; (4) undertake acquisitions; and/or (5) other specified purposes including enhanced energy efficiency and environmental improvements, public-private partnerships, and infrastructure.

To assess the proposal's potential impact of federal revenues and the U.S. economy, we use the methodology described earlier and apply the elasticity values we derived from the data on the HIA period to estimate the volume of repatriations likely to occur during the five-year period of Boxer-Rand and over the following five years. Next, we apply the appropriate tax rate to those repatriations to estimate the proposal's revenue effects.

The first step entails estimating the baseline repatriations for this period, 2015-2024, by applying the average annual growth rate of repatriations from 1994 to 2011, about 6.9 percent per-year. We note that repatriations fell sharply in 2011 (See Table 2 above); and if we excluded 2011, we find that repatriations grew at an average annual rate of 10.2 percent from 1994 to 2010. We include 2011 in our calculations, because there is no economic justification for excluding it and our estimates should be based on the maximum information available.

[59] Sinai (2008).

Assuming that repatriations rise at an average rate of 6.9 percent per-year, baseline repatriations should increase from $101.6 billion in 2012 to $227.4 billion in 2024. This is a longer estimation period than we used earlier, and therefore the results are subject to greater uncertainty; but the JCT would consider a comparable time frame. For baseline purposes, we also assume an effective average tax on those repatriations of 10.26 percent. These baseline repatriations and revenues are presented in Table 12 below. [60]

Table 12: Projected Baseline Repatriations and Baseline Revenues, 2012-2024 ($ thousands)

Year	Projected Repatriations	Projected Revenues
2012	$101,573,130	$10,421,403
2013	$108,629,149	$11,145,351
2014	$116,175,331	$11,919,589
2015	$124,245,727	$12,747,612
2016	$132,876,752	$13,633,155
2017	$142,107,352	$14,580,214
2018	$151,979,177	$15,593,064
2019	$162,536,772	$16,676,273
2020	$173,827,776	$17,834,730
2021	$185,903,136	$19,073,662
2022	$198,817,339	$20,398,659
2023	$212,628,659	$21,815,700
2024	$227,399,415	$23,331,180

Next, we assess how the volume of repatriations could change if Congress enacted the Paul-Boxer proposal in 2015. Our estimates of those changes are based on the elasticity values derived earlier from the HIA period – that is, the degree to which U.S. multinationals increased repatriations from their foreign operations in response to each one-percent reduction in the U.S. tax rate on those repatriations under the HIA. We note that in contrast to the HIA provision allowing firms to repatriate foreign earnings one time over the period of 2004 to 2006, Paul-Boxer allows firms to repatriate the dividend payments from their subsidiaries over a five-year period. However, those firms have to declare in year one how much they plan to repatriate over the five years, and actually repatriate at least 20 percent of the total in each year.

To estimate total repatriations under Paul-Boxer, we apply the elasticity values from the HIA: Over the three years of the HIA, dividend repatriations totaled $493.8 billion compared to a baseline of $147.2 billion. In that period, repatriations exceeded the baseline by $346.6 billion or by 236 percent, and qualified dividends exceeded the baseline by $165.2 billion or 112 percent. Since these increases occurred when the tax rate fell 64.4 percent, the elasticity for qualified dividends was 1.74: repatriations increased 1.74 percent for every 1.0 percent decline in the tax rate. The elasticity for total repatriations was 3.66.

[60] As we noted earlier, our analysis of Paul-Boxer assumes that the plan covers the five-year period 2015-2019 (1/1/2015-12/31/019) and our 10-year estimates cover 2015-2024. The JCT analysis assumed the proposal would be enacted June 1, 2015, and its five-year estimates cover 6/1/2015-5/31/2020, and its 10-year estimates cover 6/1/2015-5/30/2025. The difference does not affect the analysis or the results in any significant way.

Under Paul-Boxer, the tax on qualified dividends is 6.5 percent before foreign tax credits; and assuming that companies claim those credits to the same degree they did under the HIA, the effective rate on qualified dividends would be 4.55 percent. Therefore, the tax burden on those dividends would fall 55.65 percent under Paul-Boxer, from 10.26 percent to 4.55 percent (10.26 – 4.55 = 5.71 and 5.71 / 10.26 = 55.65). Applying this elasticity value of 1.74, we would expect that under Paul-Boxer, qualified repatriations would increase 96.8 percent (55.65 x 1.74 = 96.83), and total repatriations would increase 203.7 percent (55.65 x 3.66 = 203.7). The difference between the two results, 106.9 percent, is the increase in non-qualified dividends.

As noted above, firms could take advantage of the HIA tax preference for only one year, while the preference created by Paul-Boxer would be available for five years (here, 2015-2019). The significance of this difference is uncertain. As also noted, under Paul-Boxer, firms have to declare in the first year how much qualified dividends they will repatriate over the five-year period; and they must bring back at least 20 percent of their total per-year. We assume here that the plan's five-year period, as compared to the HIA's shorter period, will not affect total repatriations. As we have no basis for allocating those repatriations across the five years in any particular pattern, we will project the total response using the elasticity values derived from the HIA experience and distribute that total evenly across the five years, including both qualified and non-qualified repatriations. We will examine the uses of these repatriated funds later, but note here that only 25 percent of the qualified repatriations and none of the non-qualified dividends have to be used for the designated purposes discussed above. These estimates, representing a 96.8 percent increase in qualified repatriations and a 203.7 percent increase in total repatriations, relative to the baseline, are presented in Table 13:

Table 13: Estimated Repatriations under the Paul-Boxer Proposal, 2015-2019 ($ thousands)

Year	Baseline Dividend Repatriations	Qualified Repatriations (96.8% increase)	Non-Qualified Repatriations (6.86% increase)	Total Repatriations (203.7% increase)
2015	$124,245,727	$280,973,164	$152,541,748	$433,514,912
2016	$132,876,752	$280,973,164	$152,541,748	$433,514,912
2017	$142,107,352	$280,973,164	$152,541,748	$433,514,912
2018	$151,979,177	$280,973,164	$152,541,748	$433,514,912
2019	$162,536,772	$280,973,164	$152,541,748	$433,514,912
Total	**$713,745,780**	**$1,404,865,819**	**$762,708,740**	**$2,167,574,559**

Similarly, we can estimate repatriations in the five years following the Paul-Boxer period by applying the elasticity values for the five years following the HIA, when we observed that the effect of the tax preference seemed to persist and repatriations accelerated relative to their pre-HIA baseline growth rates. As discussed earlier, we do not know why repatriations accelerated after HIA expired. It may have reflected the singular economic conditions that prevailed in the years 2006 to 2011. Alternatively, companies facing the prospect of bringing back large dividend payments and thereby securing funds at a low cost of capital may have expanded their existing plans for investments and acquisitions. To fund such expanded plans, they may have continued to repatriate at accelerated rates after the HIA ended. Whatever the explanation, we note again that

the acceleration in repatriations post-HIA refutes the JCT's assumption that repatriations would slow sharply once the tax preference ended and thereby incur significant revenue losses.

Assuming first that the post-HIA repatriations were not an anomaly, we apply the elasticity values derived from that experience for the five years following its expiration (2006-2011) to the five years following the expiration of Paul-Boxer. Those elasticity values ranged from increases in repatriations, relative to the baseline, of 0.76 percent to 2.13 percent for every one percent reduction in the tax rate during the HIA. If this pattern were to hold in the five years following Paul-Boxer (2020-2024), we would see significant additional increases in repatriations. Our estimates of those potential increases, totaling $817.2 billion for 2020-2024 ($1,815.8 – $998.6 = $817.2), are presented in Table 14 below.

Table 14: Estimated Repatriations Post Paul-Boxer, 2020-2024 ($ thousands)

Year	Baseline Dividend Repatriations	Elasticity of Repatriations	Change in Repatriations, Relative to Baseline	Projected Repatriations
2020	$173,827,776	-1.01	56.16%	$271,442,502
2021	$185,903,136	-1.35	75.06%	$325,442,030
2022	$198,817,339	-2.10	116.76%	$430,956,464
2023	$212,628,659	-2.13	118.43%	$464,440,527
2024	$227,399,415	-0.76	42.26%	$323,489,311
Total	**$998,576,325**	--	**81.8%**	**$1,815,770,834**

Now we can estimate the revenue effects of Paul-Boxer for the five years it would be in force (2015-2019) and the five years after that (2020-2024). Our analysis found that the qualified dividend repatriations would be taxed at 4.55 percent, and that the non-qualified dividend repatriations would be taxed at 10.26 percent. In Table 14 above, we estimated that under Paul-Boxer, qualified repatriations in the 2015-2019 period would total $1,404.9 billion and non-qualified repatriations would total $762.7 billion ($2,167.6 - $1,404.9). Applying the tax rates above, the tax receipts on those repatriations would total $142.2 billion, compared to baseline revenues of $73.2 billion. We estimate, therefore, that Paul-Boxer would produce a revenue gain of $68.9 billion over the five years it would be in effect, 2015-2019. These calculations are presented in Table 15, below.

Table 15: Estimated Revenue Effects of Paul-Boxer, 2015-2019 ($ thousands)

Year	Non-Qualified Dividend Repatriations	Qualified Dividend Repatriations	Revenues From Total Repatriations	Baseline Revenues	Change in Revenues
2015	$152,541,748	$280,973,164	$28,435,062	$12,747,612	$15,687,450
2016	$152,541,748	$280,973,164	$28,435,062	$13,633,155	$14,801,907
2017	$152,541,748	$280,973,164	$28,435,062	$14,580,214	$13,854,848
2018	$152,541,748	$280,973,164	$28,435,062	$15,593,064	$12,841,998
2019	$152,541,748	$280,973,164	$28,435,062	$16,676,273	$11,758,789
Total	**$762,708,740**	**$1,404,865,819**	**$142,175,312**	**$73,230,317**	**$68,944,992**

However, again, we do not know at this time why repatriations grew faster after the HIA expired than they had before the HIA took effect. Their unexpectedly strong growth could reflect a shift by U.S. multinationals to a more expansive approach to investment and acquisitions promoted by the low cost of capital for funds repatriated under the HIA. Alternatively, the large repatriations observed in 2007-2011 simply could reflect the exuberance of the housing and stock market bubbles in 2007, followed by years of financial fragility and instability which reduced access to bank loans and corporate paper by many companies. By this view, the continued large repatriations of foreign earnings may have been the lowest-cost access to capital available to many multinational firms.

Since this issue is unsettled, we cannot be confident that the elasticity responses observed after the HIA expired would be repeated after Paul-Boxer expired. If repatriations did not accelerate, we would expect them to return to their trend growth rate before Paul-Boxer, which would imply no revenue gains or losses relative to the baseline for those year (2020-2024). If repatriations did accelerate relative to their pre-Paul-Boxer trend, as observed after the HIA, those increases would produce additional, significant revenue gains. Our estimates of those potential gains for the years 2020 to 2024 are presented in Table 16 below.

Table 16: Estimated Revenue Effects of Paul-Boxer, 2020-2024 ($ thousands)

Year	Dividend Repatriations	Revenues From Repatriations	Baseline Revenues	Change in Revenues
2020	$271,442,502	$27,850,001	$17,834,730	$10,015,271
2021	$325,442,030	$33,390,352	$19,073,662	$14,316,690
2022	$430,956,464	$44,216,133	$20,398,659	$23,817,474
2023	$464,440,527	$47,651,598	$21,815,700	$25,835,898
2024	$323,489,311	$33,190,003	$23,331,180	$9,858,823
Total	**$1,815,770,834**	**$186,298,087**	**$102,453,931**	**$83,844,156**

These results differ sharply from the revenue forecast issued by the JCT, which has forecast large revenue losses in those years on the assumptions, reviewed earlier, that repatriations are largely fixed so that any increases to take advantage of the temporary tax preference are offset by subsequent decreases. As a result, the JCT estimates that Paul-Boxer would produce revenue gains, relative to the baseline, of $11.9 billion over the five years it would be in effect (2015-2019) and revenue losses of $105.0 billion over the five years following its expiration (2020-2024), for revenues losses of $93.5 billion for the entire 10-year period (2015-2024).[61] Our analysis, based on IRS data during and following the last temporary tax preference for repatriations, estimates that the Paul-Boxer plan would generate revenue gains, relative to the baseline, of $68.9 billion while it remained in effect (2015-2019), and additional revenue gains of zero to $83.8 billion over the subsequent five years (2020-2024). Over the 10-year period (2015-2024), therefore, we estimate that Paul-Boxer would produce revenues gains of $68.9 billion to $152.8 billion. (Table 17, below)

[61] Joint Committee on Taxation (2015). The JCT estimate covers 2015-2025, and forecasts a $24.4 billion revenue loss relative to baseline for 2025, and total revenue losses of $117.9 billion for 2015-2025.

Table 17: Revenue Forecast for Paul-Boxer, Compared to the Baseline, 2015-2024 ($ billions)

Year	Joint Committee on Taxation	Estimate Based on IRS Data, with a Persistent Response	Estimate Based on IRA Data, without a Persistent Response
2015	$4.3	$15.7	$15.7
2016	$24.5	$14.8	$14.8
2017	$1.0	$13.9	$13.9
2018	-$5.8	$12.8	$12.8
2019	-$12.5	$11.8	$11.8
2020	-$12.4	$10.0	--
2021	-$15.9	$14.3	--
2022	-$23.0	$23.8	--
2023	-$27.1	$25.8	--
2024	-$26.6	$9.9	--
2015-2019	**$11.5**	**$68.9**	**$68.9**
2020-2024	**-$105.0**	**$83.8**	--
2015-2024	**-$93.5**	**$152.8**	**$68.9**

Paul-Boxer is not the only current proposal that would affect the taxation of foreign earnings; but it is the only current plan that allows MNCs to voluntarily declare the amount of qualified dividends they would repatriate under the proposal's preferential terms. By contrast, the international tax reform plans advanced by President Barack Obama, former House Ways and Means Committee Chairman David Camp, and the Senate Finance Committee's International Tax Reform Working Group, in effect, treat all overseas earnings as repatriated and subject to immediate tax, whether or not the funds are actually transferred to U.S. parent companies. The mandatory character of these approaches also suggests that they would generate more revenues that the voluntary approach of Paul-Boxer, especially in the long-run. The Obama proposal would apply a one-time 14 percent tax to all foreign earnings held abroad (less the proportionate share of the foreign tax credits linked to those earnings) – equivalent to a 60 percent exemption -- followed by a permanent 19 percent tax on all future foreign earnings. The long-term revenue effects of the Camp plan are less clear: The proposal would apply a one-time 8.75 percent tax to all foreign earnings currently held abroad – equivalent to a 75 percent exemption -- plus a one-time 3.5 percent tax on foreign earnings that already have been reinvested in property, plant and equipment abroad. Camp also would apply U.S. tax to future foreign earnings in the year earned; but 95 percent of those earnings would be exempt, and the corporate rate applied to the remaining 5 percent would fall to 25 percent. Finally, Camp provides separate treatment for foreign earnings from intangibles.

The Economic Impact of the Additional Revenues Raised under Paul-Boxer

Paul-Boxer also directs that all additional revenues raised under the Act will be transferred to the Highway Trust Fund and used for infrastructure investments. There is some debate over the degree to which government spending stimulates additional demand, beyond its cost – that is, the magnitude of the multiplier -- but studies show that the multiplier from public infrastructure investments is higher than general government spending. One review study, for example, found

that the multipliers for general government spending range from 0.5 to 1.5,[62] while a recent analysis of federal highway grants found that each $1 invested by a state raised the state's annual output by $2 by increasing productivity.[63] Here, we provide estimates using multipliers of 1.0 and 1.5 for the increases in GDP arising from using the additional revenues raised by Paul-Boxer to expand the Highway Trust Fund.

The additional GDP generated by the Paul-Boxer directive that all additional revenues from the legislation be directed to infrastructure can be estimated in a straight-forward manner using the 1.0 and 1.5 multipliers. The results are provided in Table 18, below. We estimate that using a conservative multiplier of 1.0, the $68.9 billion in additional revenues raised under Paul-Boxer and used for infrastructure projects under the Highway Trust Fund would increase GDP by $137.9 billion over its five-year term, 2015-2019, or by an average of $27.6 billion per-year. Using a multiplier of 1.5, we estimate that the additional revenues raised by Paul-Boxer and used for the Highway Trust Fund would expand GDP by $172.4 billion over the five years, or by an average of $34.5 billion per-year.

Table 18. The Impact on GDP of Using the Additional Revenues from Paul-Boxer To Expand the Highway Trust Fund, Using Alternate Multipliers, 2015-2019 ($ millions)

Year	Additional Revenues	GDP Effect, 1.0 Multiplier	GDP Effect, 1.5 Multiplier
2015	$15,687.5	$31,375.0	$39,218.8
2016	$14,801.9	$29,603.8	$37,004.8
2017	$13,854.9	$27,709.8	$34,637.3
2018	$12,842.0	$25,684.0	$32,105.0
2019	$11,758.8	$23,517.6	$29,397.0
2015-2019	**$68,945.0**	**$137,890.0**	**$172,362.5**
Average	**$13,789.0**	**$27,578.0**	**$34,472.5**

VI. Additional Economic Effects of Paul-Boxer

The Paul-Boxer proposal also would have substantial economic effects through its directive that all funds repatriated under the plan be invested in the United States. As noted earlier, firms are directed to submit a board-approved "domestic reinvestment plan" conforming with a requirement that at least 25 percent of the repatriated dividends be used for new hiring or increased wages and benefits, and for increases in capital improvements, R&D, acquisitions, energy, environmental improvements, public-private partnerships, or public infrastructure. The remaining 75 percent can be used for any purposes except executive compensation, including stock buybacks, dividends and debt repayments. These requirements matter, because how the funds are used determines their indirect effects on economic growth and federal revenues.

As noted earlier, the HIA, under which U.S. multinationals repatriated nearly $312 billion in qualified dividends, had stricter requirements for the use of foreign earnings.[64] It directed that

[62] Ramey (2011).
[63] Leduc and Wilson (2013).
[64] Redmiles (2008).

the funds be used for new hiring, training or other compensation; infrastructure or capital investments; R&D; financial measures tied to maintaining or increasing employment; acquisitions; marketing; and purchases of intangible assets. It also barred the use of those repatriated funds for executive compensation, intercompany distributions, dividends and other distributions of stock, stock redemptions, portfolio investments, debt instruments, and tax payments. An academic survey of 411 firms that took advantage of the HIA reported that more than 80 percent of the funds were used for the directed purposes, or, since money is fungible, that those firms increased spending for the directed purposes by an amount equal to 80 percent of the funds they repatriated under the HIA.[65] Other studies suggest that substantial shares of the funds were used for shareholder dividends and stock buybacks prohibited under the Act, or, once again, that shareholder dividends and stock buybacks increased by an amount equal to a substantial share of the funds repatriated by those firms under the HIA.[66] The most recent research lends support to the original survey, which found that the HIA did increase spending for its directed purposes, especially by firms that were financially constrained. One study identified empirical flaws in the leading contrary study and found no evidence of repatriated funds directed to share buybacks;[67] and another found that 71 percent of the funds repatriated by large multinationals were used for the required purposes.[68]

The Economic Effects When Firms Use Repatriated Earnings

We estimated earlier that Paul-Boxer would attract some $1,405 billion in additional repatriated funds qualified for its preference over its five-year term (2015-2019). The proposal directs that at least 25 percent of those qualified dividends be used for specified purposes, which comes to $351.2 billion, and the precise economic impact of that spending will depend on the industry undertaking it. Table 19, below, allocates that spending by industry, based on the distribution of qualified repatriations under the HIA.[69]

Table 19: The Distribution of Repatriated Dividends by Industry, HIA and Paul-Boxer

Industry	Share of Qualified Dividends Repatriated, HIA	Estimated Repatriated Qualified Dividends, Paul-Boxer ($ billions)
Manufacturing	80.8 %	$1,134.7
Chemicals and Pharmaceuticals	38.5%	$540.7
Computers and electronic equipment	18.4%	$258.6
Wholesale and Retail Trade	4.1%	$57.9
Transportation & Warehousing	0.3%	$4.1
Information	4.2%	$59.4
Finance, Insurance, Real Estate, Rental	3.8%	$53.6
Profess'al, Scientific, Technical Services	0.9%	$12.3
Mgt of Companies and Enterprises	2.3%	$31.6
All Industries	**100.0%**	**$1,404.9**

[65] Graham, Hanlon and Shevlin (2008).
[66] Dhammika *et al.* (2011); Blouin and Krull (2009); and Clemons and Kinney (2008).
[67] Petersen and Faulkender (2012).
[68] Brennan (2014).
[69] We omit some minor industries, so the sum of the dividends by industry does not equal the total for all industries.

This analysis shows that manufacturing accounted for nearly 81 percent of qualified repatriations under the HIA, with chemicals/pharmaceuticals and computer and electronic equipment accounting for about 57 percent of all HIA repatriations. Other major users of the HIA tax preference were wholesale and retail trade companies, the information industry, and finance, insurance, real estate and rental and leasing firms. Assuming the distribution of qualified repatriations under Paul-Boxer would be roughly the same as their distribution under the HIA, we estimate that manufacturing firms would bring back some $1,135 billion in foreign earnings, including $541 billion by chemicals and pharmaceutical firms and almost $260 billion by computer and electronic equipment firms.

Next, we estimate the additional funds that companies claiming the Paul-Boxer preference would direct to the approved purposes under the legislation. We assume here that the economy is not operating at full capacity or full employment, and therefore can accommodate the additional funds for the designated purposes. As noted, the legislation directs that firms repatriating qualified dividends allocate at least 25 percent of those funds to investments, employment-related uses, R&D, acquisitions and certain other uses such as energy efficiency and infrastructure improvements. Based on our estimates, this requirement would direct an additional $351.2 billion to those purposes, including $283.7 billion in manufacturing. A 2008 analysis found that firms repatriating qualified dividends under the HIA allocated 24 percent of those funds to capital investments, 23 percent to hiring and wage increases, 14.7 percent to R&D, and 12.4 percent to repay domestic debt. The remaining 25.9 percent were used for other, non-approved purposes, including shareholder dividends, acquisitions and stock buy-backs.[70] We distribute the projected qualified repatriations under Paul-Boxer in a comparable fashion, substituting acquisitions for debt repayments and including both the other approved purposes and non-approved purposes in "other uses." Table 20, below, presents our estimates, by industry.

Table 20: Uses of the 25 Percent of Qualified Dividends that Paul-Boxer Designates for Specific Purposes, by Industry, 2015-2019 ($ million)

Industries	Capital Investment	Employment-Related Spending	R&D	Acquisitions	Other Uses
Manufacturing	$68,079.0	$65,242.4	$41,698.4	$35,174.2	$66,377.1
Chemicals & Pharmaceuticals	$32,441.0	$31,089.2	$19,870.1	$16,761.2	$31,629.9
Computers & electronic equip.	$15,514.9	$14,868.4	$9,502.9	$8,016.0	$15,126.0
Wholesale & Retail Trade	$3,470.9	$3,326.2	$2,125.9	$1,793.3	$3,384.1
Transportation & Warehousing	$247.8	$237.5	$151.8	$128.0	$241.6
Information	$3,563.1	$3,414.5	$2,182.4	$1,840.9	$3,474.0
Finance, Insurance, Real Estate,	$3,215.8	$3,081.8	$1,969.7	$1,661.5	$3,135.4
Profess'al, Scientific … Services	$739.5	$708.7	$452.9	$382.1	$721.0
Mgt of Companies, Enterprises	$1,895.6	$1,816.	$1,161.1	$979.4	$1,848.2
All Industries	**$84,292.0**	**$80,779.8**	**$51,628.8**	**$43,550.8**	**$82,184.7**
Annual Average	**$16,858.4**	**$16,1567.0**	**$10,325.8**	**$8,710.2**	**$16,436.9**

[70] Graham, Hanlon and Shevlin (2008).

Again assuming that the economy is not operating at full capacity or full employment, we estimate that Paul-Boxer over its five-year term would increase capital investment by an estimated $84.3 billion, employment-related spending by $80.8 billion, R&D by $51.6 billion, spending on acquisitions by $43.6 billion, and spending for other uses including debt repayments and stock buybacks by $82.2 billion. To estimate the economic effects of these increased commitments, we next apply multipliers to the various uses of these funds. The literature does not provide a multiplier for private investment or other corporate spending financed through funds from outside the economy, and which therefore do not entail any crowding out or deficit considerations. In addition, the economic impact of the spending is tied to economic conditions. The multipliers for public investment vary from 0.5 to 2.0, and our corporate investment multipliers also likely fall within that range.[71] For this thought experiment, we adopt conservative multipliers: We attribute a multiplier of 1.0 to capital investments and R&D, so every $1 of new investments in this area from funds repatriated from abroad adds $2 to GDP. We also assume that pending on acquisitions and other uses simply increase demand, so every $1 adds $1 to GDP. Finally, we assume that all employment-related spending is directed to new job creation and this spending has a conservative multiplier of 0.5, so that every $1 of additional labor costs funded from funds repatriated from abroad adds $1.50 to GDP. To estimate the number of new jobs arising from this labor-related spending, we allocate the repatriated funds for job creation across industries and divide each total by the average wage for each industry, as reported by the Bureau of Labor Statistics.[72]

Using these assumptions, we estimate that the designated uses of the qualified dividends brought back under Boxer-Rand would add an estimated $518.7 billion to GDP over the five years or an average of $103.75 billion per-year. We further estimate that assuming firms use all of the employment-related funds from their repatriated foreign earnings for new job creation, the employment-related qualified dividends would support an additional 2.29 million jobs over the five years or an average of 457,433 jobs per-year. To the extent that these firms use their job-related repatriations for salary increases or training expenses, the job creation would be reduced. The distributions of this additional output and employment by industry is presented in Table 21:

Table 21: Increases in GDP and Employment Based on the Designated Uses for Qualified Dividends Repatriated under Paul-Boxer, 2015-2019 ($ millions)

Industry	Additional GDP	Additional Jobs
Manufacturing	$418,969.7	1,342,160
Chemicals & Pharmaceuticals	$199,647.1	522,157
Computers & electronic equipment.	$95,480.2	198,775
Wholesale & Retail Trade	$21,360.3	78,941
Transportation & Warehousing	$1,525.1	5,190
Information	$21,927.7	50,436
Finance, Insurance, Real Estate, Rental & Leasing	$19,790.6	56,687
Professional, Scientific & Technical Services	$4,551.0	9,378
Management of Companies & Enterprises	$11,665.0	23,441
Five-Year Total	**$518,746.8**	**2,287,165**
Annual Average	**$103,749.4**	**457,433**

[71] Ramey (2011).
[72] Bureau of Labor Statistics (2014).

The use of the other 75 percent of qualified dividends and all non-qualified dividends repatriated over the five-year term of Paul-Boxer (2015-2019) is unrestricted apart from the bar on using them for executive compensation, and we assume here that they would use those funds as they would use repatriations under current law.[73] Therefore, the economic impact of Paul-Boxer also involves the use of those dividends during five-year term of Paul-Boxer and, in principle, in the following five years. As before, we distribute those dividends by industry based on Treasury data on the normal industry allocation of repatriated funds. As noted above, manufacturing dominates these repatriations, especially chemicals and pharmaceuticals, and computers and electronic equipment. (Table 22 below)

Table 22: Paul-Boxer -- Allocation of Qualified Dividends with No Designated Uses and Non-Qualified Dividends, by Industry, 2015-2019 and 2020-2024 ($ millions)

Industries	Qualified Dividends, No Mandated Use	Non-Qualified Dividends, 2015-2019	Non-Qualified Dividends, 2020-2024	Total
Manufacturing	$850,988.0	$39,545.3	$660,013.4	$1,550,546.7
Chemicals & Pharmaceuticals	$405,511.7	$18,844.1	$314,508.7	$738,864.5
Computers & electronic equip.	$193,935.9	$9,012.2	$150,413.7	$353,361.8
Wholesale & Retail Trade	$43,385.6	$2,016.1	$33,649.2	$79,051.0
Transportation & Warehousing	$3,097.5	$143.9	$2,402.3	$5,643.8
Information	$44,538.8	$2,069.7	$34,543.7	$81,152.2
Finance, Insurance, Real Estate	$40,197.2	$1,868.0	$31,176.4	$73,241.6
Profess'al, Scientific … Services	$9,243.5	$429.6	$7,169.3	$16,842.2
Mgt of Companies, Enterprises	$23,695.2	$1,101.1	$18,377.7	$43,174.0
All Industries	**$1,053,649.4**	**$48,963.0**	**$817,194.5**	**$1,919,806.8**
Annual Average	**$210,729.9**	**$9,738.6**	**$163,438.9**	**$191,980.7**

The economic effects of these repatriations depend on certain assumptions and results. As before, we assume that the economy is not operating at full capacity, and therefore the inflow of hundreds of billions of dollars in additional funds from abroad each year during the term of Paul-Boxer could be used productively. Second, we cannot be certain whether once Paul-Boxer expires, repatriations relative to their pre-Paul-Boxer trend will accelerate as they did after the HIA expired, or return to their pre-Paul-Boxer baseline. Given all of the uncertainties entailed in this kind of forecast, we limit this analysis to the five years of Paul-Boxer. The result, therefore, would also apply to the scenario in which repatriations following Paul-Boxer return to their pre-Paul-Boxer baseline. To review, the scenario we explore here is based on total additional dividends of $1,102.6 billion over the five years 2015-2019, (Table 21, above: $1,053,649.4 million + $48,963.0 million),

[73] Some economists refer to these normal repatriations as the "dividend puzzle." Their question is why firms persistently repatriate large amounts of foreign funds, when those funds incur significant U.S. tax and many firms have other, less costly ways to shift funds from their subsidiaries to U.S. parent companies. See Eicke (2008). The answer is that firms engage in normal repatriations for a variety of reasons reflecting the shifting capital needs of their global networks, including during periods when external financing is costly and when firms face financial constraints and attractive domestic investment opportunities.[73] Firms also increasingly feel pressures to issue shareholder dividends, which can be financed through repatriations.

on top of the $1,404.9 billion in qualified dividends with designated uses analyzed earlier (Table 20, above).

An additional issue is the uncertainty about how firms would use these additional $1.1 trillion in repatriated dividends. Some unknown portion would go for investments, wages, acquisitions, and so forth, and another portion for shareholder dividends and stock buy-backs, and so on. Here, we assume that 75 percent of these total, undesignated dividends are used for shareholder dividend payments or share repurchases, and 25 percent for additional investments, employment-related expenses and acquisitions. This division corresponds generally to the findings of the 2011 study of the uses of normal repatriated funds.[74] Finally, we apply the same multipliers used to estimate the potential economic effects of the use of qualified repatriations under Paul-Boxer, treating shareholder dividends and stock buybacks as simply adding to demand ($1 in additional dividends produces $1 in economic activity). Given the various assumptions behind these projections and the fact that in practice, the allocation of such funds would be determined on a firm-by-firm basis and reflect the economic conditions and growth opportunities of specific firms, the results should be approached as illustrations of the dimensions of the effects.

The Scenario

U.S. firms repatriate $1.1 trillion in undesignated dividends, qualified and unqualified, under Paul-Boxer (2015-2019), use 75 percent of those funds for shareholder dividends and stock buybacks and 25 percent for investment and employment-related uses. Beyond 2019, repatriations returns to their trend growth rate before Paul-Boxer. Table 23, below, provides the allocation of these $1.1 trillion in new funds by industry. Table 24, which follows, provides the projected potential impact on GDP and employment.

Table 23: Paul-Boxer – Allocation of $1.1 Trillion in Qualified and Non-Qualified Repatriated Dividends with No Designated Uses, By Industry, 2015-2019 ($ millions)

Industry	Shareholder Dividends and Stock Buybacks (75%)	Investments and Employment-Related Uses (25%)
Manufacturing	$667,900.0	$222,633.3
Chemicals & Pharmaceuticals	$318,266.9	$106,089.0
Computers & electronic equipment.	$152,211.1	$50,737.0
Wholesale & Retail Trade	$34,051.3	$11,350.4
Transportation & Warehousing	$2,431.1	$810.4
Information	$34,956.4	$11,652.1
Finance, Insurance, Real Estate, Rental & Leasing	$31,548.9	$10,516.3
Professional, Scientific & Technical Services	$7,254.8	$2,418.3
Management of Companies & Enterprises	$18,597.2	$6,199.1
All Industries	**$826,959.3**	**$275,653.1**
Annual Average	**$165,391.9**	**$55,130.6**

[74] Dharmapala *et al.* (2011).

To project the potential economic effects, we also assume that of the 25 percent of the dividends used for investment and employment-related purposes, one-third would go to additional capital investments and R&D ($1 produces $2 for GDP); one-third would go to jobs and wages ($1 produces $1.50 for GDP), and one-third would go to other uses approved for qualified repatriations ($1 produces $1 for GDP). As noted, we assume that the other 75 percent is allocated to shareholder dividends and stock buybacks ($1 produces $1 for GDP). This overall allocation reflects the distribution reported for the HIA.[75] Further, as noted, the "additional jobs" projection represents the number of jobs that could be created with the funds allocated for employment-related purposes, based on average compensation for each industry.

Table 24: Paul-Boxer – Potential Increases in GDP and Employment Based on the Repatriation of Qualified and Non-Qualified Dividends with No Designated Uses, By Industry, 2015-2019 ($ millions for GDP)

Industry	Additional GDP	Additional Jobs
Manufacturing	$925,041.5	1,511,397
Chemicals & Pharmaceuticals	$440,799.6	587,997
Computers & electronic equipment.	$210,812.3	223,840
Wholesale & Retail Trade	$47,161.0	88,896
Transportation & Warehousing	$3,367.0	5,844
Information	$48,414.6	56,798
Finance, Insurance, Real Estate, Rental & Leasing	$43,695.2	63,835
Professional, Scientific & Technical Services	$10,047.9	10,560
Management of Companies & Enterprises	$25,757.2	26,406
All Industries	**$1,145,338.6**	**2,575,573**
Annual Average	**$229,067.7**	**515,115**

This analysis suggests that Paul-Boxer could provide the means for potentially significant gains in GDP and employment or wages. Over the five-year term of Paul-Boxer, the use of some $1.1 trillion in repatriated non-qualified dividends and qualified dividends with no designated uses could add as much as $230 billion per-year to GDP and the equivalent of 515,000 additional jobs per-year. Adding these effects to those projected for the use of the $1.4 trillion in repatriated qualified dividends with designated uses, Paul-Boxer could add as much as $333 billion per-year in GDP and the equivalent in jobs or wage increases of more than 970,000 jobs per-year. Based on CBO's latest GDP projections for 2015-2019, the stimulus associated with Paul-Boxer could add as much as 1.67 percent per -year to GDP.[76]

VII. The Indirect Revenue Effects of Paul-Boxer

These increases in GDP and employment also would have revenue effects. If employment or wages increase as a result of these large repatriations, receipts from personal income taxes also would rise. Similarly, if firms pay out additional shareholder dividends, receipts from dividend taxation would increase. The increase in overall economic activity also would increase government receipts. The funds used by repatriating firms to expand investment should generally

[75] Graham *et al.*
[76] Congressional Budget Office (2015), at Table F-1.

enhance their productivity, which could produce higher profits or additional investment and hiring. Finally, the increase in consumption demand should increase revenues by stimulating additional hiring and business spending. Here, we will limit our examination to the additional revenues arising directly from additional hiring or wage increases and from additional shareholder dividends funded by our projected qualified and non-qualified repatriations.

To estimate the additional tax revenues from the 25 percent of qualified repatriations with designated purposes, we apply the 12.2 percent average effective tax rate on labor income earned by households in the middle income quintile,[77] and the 15 percent tax rate on shareholder dividend income applied to all households but those in the highest income tax bracket (who pay 20 percent tax on shareholder dividends). We also assume that all of the additional employment-related spending goes to increase jobs or wages, and not for training. The results are presented in Table 25, below. The analysis shows that from the 25 percent of qualified dividend repatriations over 2015-2019, the estimated $80.8 billion that would be used for employment-related purposes would generate almost $9.9 billion in additional revenues, or an average of nearly $2.0 billion per-year; and the estimated $10.5 billion that would be used for additional shareholder dividends would generate nearly $1.6 billion in additional revenues, or an average of $316 million per-year. These two uses of designated dividend repatriations, therefore, would generate $11.4 billion in additional federal revenues over five years, or an average of $2.27 billion per-year.

Table 25: Estimated Additional Labor and Shareholder Dividend Tax Revenues from Qualified Repatriations with Designated Uses, By Industry, 2015-2019 ($ million)

Industries	Additional Job-Related Spending	Additional Revenues (12.2% Rate)	Additional Shareholder Dividends	Additional Revenues (15% Rate)
Manufacturing	$65,242.4	$7,959.6	$8,509.9	$1,276.5
Chemicals & Pharmaceuticals	$31,089.2	$3,792.9	$4,055.1	$608.3
Computers & electronic equip.	$14,868.4	$1,813.9	$1,939.4	$290.9
Wholesale & Retail Trade	$3,326.2	$405.8	$433.9	$65.1
Transportation & Warehousing	$237.5	$29.0	$31.0	$4.6
Information	$3,414.6	$416.6	$445.4	$66.8
Finance, Insurance, Real Estate …	$3,081.8	$376.0	$402.0	$60.3
Profess'al, Scientific … Services	$708.7	$86.5	$92.4	$13.9
Mgt of Companies, Enterprises	1,$816.6	$221.6	$237.0	$35.5
All Industries	**$80,779.8**	**$9,855.1**	**$10,536.5**	**$1,580.5**
Annual Average	**$16,156.0**	**$1,971.0**	**$2,107.3**	**$316.1**

The use of qualified and non-qualified repatriations with no designated purposes would also have indirect revenue effects, since Paul-Boxer designates the use of only 25 percent of qualified dividends and none of the nonqualified dividends. Here, we start with the scenario in which 75 percent of undesignated dividend repatriations over the five-year term of Paul-Boxer will go to shareholder dividends, stock buybacks and other purposes, and 25 percent will go to investments, R&D, acquisitions and employment-related purposes. Following once again the

[77] Peter G. Peterson Foundation 2014).

survey by Graham et al. (2008), we assume that one-third of the funds for shareholder dividends, stock buybacks and other purposes will go to shareholder dividends, and one-third of the funds for investments, R&D, acquisitions and employment-related purposes will go to employment related purposes. As before, we also assume that the economy is not operating at full capacity or full-employment, and that all of the additional employment-related spending goes to creating new jobs or increasing wages, and not for training purposes. Finally, we again apply the 12.2 percent tax rate to employment-related spending and the 15.0 percent tax rate to shareholder dividend payments.

The analysis shows that from the qualified and nonqualified dividends with no designated uses repatriated over 2015-2019, the estimated $91.0 billion that would be used for employment-related purposes would generate almost $11.1 billion in additional revenues over 2015-2019 or an average of more than $2.2 billion per-year; and the estimated $272.9 billion that would be used for additional shareholder dividends would generate $40.9 billion in additional revenues over the same years, or an average of nearly $8.2 billion per-year. (Table 26 below) These two uses of non-designated dividend repatriations, therefore, would generate $10.4 billion in additional federal revenues over five years, or an average of nearly $2.1 billion per-year.

Table 26: Estimated Additional Labor and Shareholder Dividend Tax Revenues From Qualified and Nonqualified Repatriations with No Designated Uses, By Industry, Scenario 1, 2015-2019 ($ million)

Industries	Additional Job-Related Spending	Additional Revenues (12.2% Rate)	Additional Shareholder Dividends	Additional Revenues (15% Rate)
Manufacturing	$73,469.0	$8,963.2	$220,407.0	$33,061.0
Chemicals & Pharmaceuticals	$35,009.4	$4,271.1	$105,028.1	$15,754.2
Computers & electronic equip.	$16,743.2	$2,042.7	$50,229.7	$7,534.4
Wholesale & Retail Trade	$3,745.6	$457.0	$11,236.9	$1,685.5
Transportation & Warehousing	$267.4	$32.6	$802.2	$120.3
Information	$3,845.2	$469.1	$11,535.6	$1,730.3
Finance, Insurance, Real Estate …	$3,470.4	$423.4	$10,411.1	$1,561.7
Profess'al, Scientific … Services	$798.0	$97.4	$2,394.1	$359.1
Mgt of Companies, Enterprises	$2,045.7	$249.6	$6,137.1	$920.6
All Industries	**$90,965.5**	**$11,097.8**	**$272,896.6**	**$40,934.5**
Annual Average	**$18,193.1**	**$2,219.6.**	**$54,579.3**	**$8,186.9**

All told, we estimate that the use of dividends repatriated under Paul-Boxer for employment-related purposes and shareholder dividends would generate a total of $63.5 billion in additional revenues over the five-year term of Paul-Boxer ($9,855.1 + $1,580.5 + $11,097.8 + $40,934.5 = $63,467.9) or an average of $12.7 billion per-year. These additional receipts would come on top of the revenues raised directly by the Paul-Boxer tax on repatriations, which we estimate at $68.9 billion over five years or an average of $13.8 billion per-year.

VII. Conclusion

The current terms and provisions of the U.S. corporate and international tax code create strong incentives for U.S. multinational companies to retain their foreign-source earnings abroad. As a result, U.S. companies today retain more than $2 trillion in foreign earnings in other countries. Policymakers have repeatedly proposed legislation to encourage those companies to repatriate those earnings back to the United States, where they can be used for capital investment, hiring, acquisitions, shareholder dividends, debt repayments and other purposes. The major barrier to these proposals has been revenue estimates by the Joint Committee on Taxation forecasting that those proposals would produce significant revenue losses.

This study has analyzed the assumptions used by the JCT to produce those forecasts and tested them against the experience with the one instance in which Congress enacted a one-year tax incentive encouraging such repatriations, the Homeland Investment Act of 2004. The IRS data from that experiment are inconsistent with the JCT revenue estimates. The HIA induced U.S. multinationals to repatriate much greater foreign earnings than forecast by the JCT, including earnings eligible for the HIA's temporary deduction and earnings that did not qualify for the special tax incentives. As a result, the revenues gains during the term of the HIA were substantially greater than JCT had assumed. In addition, the IRS data showed that in the five years following the HIA, U.S. firms did not reduce their repatriations relative to the pre-HIA baseline, as JCT had assumed they would, but actually accelerated relative to the baseline. As a result, the revenue losses that JCT had assumed would occur once the HIA expired did not occur.

We analyzed the responses by U.S. multinational companies to the HIA and adapted them to the terms of the most recent legislative proposal to encourage repatriations, the Paul-Boxer plan. We found that Paul-Boxer would encourage U.S. companies to repatriate more than $1.45 trillion in foreign earnings over its five year term (2015-2019), producing revenue gains of $68.9 billion in those years. We cannot be certain if the acceleration in repatriations following the HIA would occur again; but if it did, it would imply the repatriation of an additional $817.2 billion of foreign earnings over the next five years (2020) and additional revenue gains of $83.8 billion over those years.

We also analyzed the indirect revenue and economic effects of the injection of such substantial additional resources from abroad into the U.S. economy. To be conservative, we examined only the impact of the $1.45 trillion in repatriations over the five-year term Paul-Boxer, and set aside the potential effects of an additional $817.2 billion over the following five years. First, Paul-Boxer directs that all revenue gains be dedicated to the Highway Trust Fund for infrastructure investments. We estimate that the addition of $68.9 billion to that Fund would increase GDP by between $138 billion and $172 billion over five years. Paul-Boxer also directs that one-quarter of qualified repatriations be directed to specified uses, including capital investments and employment-related purposes, while firms can use the remaining three-quarters of qualified repatriations and any nonqualified repatriations as they choose. We found that the estimated $350 billion in qualified repatriations subject to specified uses would generate nearly $520 billion in additional GDP over five years and sufficient resources for employment-related purposes to support nearly 2.3 million new jobs over the same period, although some of those latter funds would probably go to higher wages or training expanse rather than job creation. We further found that the remaining $1.1 trillion in repatriations over those five years would generate at least $1.1 trillion in additional GDP and sufficient resources to support almost 2.6 million additional

jobs, although again we would expect that much of those funds would go to higher wages or training expenses. Finally, these potential increases in GDP and employment or wages would produce substantial, indirect revenue gains. The $350 billion in qualified repatriations directed to specified purposes should generate an estimated, additional $11.4 billion in federal revenues over the five years (2015-2019). Further, the remaining $1.1 trillion in qualified repatriations with no specified uses should generate an estimated $52.0 billion in revenue gains over five years.

This analysis, based on all of the available data and other evidence, demonstrate that the JCT forecast of the revenue effects of Paul-Boxer is fundamentally flawed. The proposal would result in the injection of at least $1.45 trillion in additional resources for the U.S. economy, producing substantial revenue gains and economic benefits.

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About the Authors

Robert J. Shapiro is the chairman of Sonecon, LLC, a private firm that advises U.S. and foreign businesses, governments and non-profit organizations on economic and security-related matters. Dr. Shapiro has advised, among others, U.S. President Bill Clinton, British Prime Minister Tony Blair, U.S. Vice President Albert Gore, U.K. Foreign Minister David Miliband, Treasury Secretaries Robert Rubin and Timothy Geithner, and other senior members of the Obama administration. He and Sonecon have advised senior executives of many private firms, including Amgen, AT&T, Exxon-Mobil, Gilead Sciences, Google, Liberty Mutual, Nordstjernan of Sweden, and Fujitsu of Japan, as well as non-profit entities including the International Monetary Fund, the Center for American Progress, and PhRMA. Dr. Shapiro is also director of the NDN Center on Globalization, a Senior Fellow of the Georgetown University Center for Business and Public Policy, chair of the U.S. Climate Task Force and America Task Force Argentina, chief strategist for BrandTransact, and a member of the advisory boards of Gilead Sciences and Cote Capital. From 1997 to 2001, he was Under Secretary of Commerce for Economic Affairs. Prior to that, he was co-founder and Vice President of the Progressive Policy Institute and Legislative Director for Senator Daniel P. Moynihan. Dr. Shapiro also served as the principal economic advisor to Bill Clinton in his 1991-1992 presidential campaign and an economic advisor to the presidential campaigns of Barack Obama, Albert Gore, Jr., and John Kerry. He has been a Fellow of Harvard University, the Brookings Institution, the National Bureau of Economic Research, and the Fugitsu Institute. Dr. Shapiro holds a Ph.D. and M.A. from Harvard University, a M.Sc. from the London School of Economics, and an A.B. from the University of Chicago.

Aparna Mathur is a Resident Scholar at the American Enterprise Institute, where she focuses on taxation, technology and finance issues, health care and health care policy, and international development. Dr. Mathur also is a noted scholar in international finance and econometrics, and an affiliate analyst for Sonecon, LLC. She has been a consultant to the World Bank, a researcher at the Tata Energy Research Institute, and an instructor in economics at the University of Maryland and Georgetown University. Dr. Mathur holds a Ph.D. and M.A. from the University of Maryland, as well as degrees from Hindu College and the Delhi School of Economics of Delhi University.