Effects of International Tax Provisions on Domestic Labor Markets

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Executive Summary

- We study the effects of two key U.S. international tax provisions on domestic labor markets.
- We find the introduction of Check-the-Box entity election rules in 1997, which decreased the effective tax rate on foreign income for U.S. multinationals, led to substantial domestic job and earnings losses. We calculate that by 2003, Check-the-Box led to the loss of more than one million U.S. jobs and more than $40 billion per year in domestic earnings.
- The 2004 U.S. repatriation tax holiday, which decreased effective repatriation tax rates by 85%, led to no domestic employment or earnings growth.
- R&D intensive multinationals were less likely to offshore jobs in response to Check-the-Box and were more likely to bring foreign earnings home under the repatriation holiday. Although even these firms did not use repatriations to create jobs.
- Our findings question the conventional wisdom that decreasing the foreign tax burden of multinationals will lead to more job creation and higher wages at home. Tax policies that do not incentivize multinationals to shift jobs abroad, such as a country-by-county Global Minimum Tax, are likely better options for policymakers hoping to protect domestic jobs.

Introduction

A popular belief among policymakers is that decreasing the foreign tax burden of domestic multinational firms increases their global competitiveness thereby creating jobs and increasing wages at home. This belief has been the premise of recent major international tax reforms in a number of leading economies including Italy, Japan, the UK, and the U.S. Focusing on the recent U.S. reform, The House Ways and Means Committee introduced overhaul of international tax system that was part of the Tax Cuts and Jobs Act of 2017 by claiming it “[m]akes it easier and far less costly for American businesses to bring home foreign earnings to invest in growing jobs and paychecks in our local communities" (U.S. House Ways and Means Committee, 2017). In our new paper, “Effects of International Tax Provisions on Domestic Labor Markets,” we address this belief empirically and ask: how do the designs of international tax systems affect domestic workers?

While international tax systems can be notoriously complex, they ultimately boil down to two key design elements: (1) the effective tax rate levied on foreign income when it is earned and (2) the effective tax rate on repatriations of foreign income back to the home country. To fully address how international tax systems affect domestic workers, in our paper we estimate the local labor market effects of two tax provisions, each affecting one of these two key design elements in isolation. The first provision we study, the introduction of “Check-the-Box” entity elections rules lowered the effective tax rate on foreign income as it was earned because it allowed multinationals to more easily shift their income from high-tax foreign countries (e.g. Germany) to low-tax countries (e.g. The Bahamas). The second provision we study, the 2004 “repatriation holiday,” substantially decreased the effective tax rate on repatriations of foreign income back to the U.S. By measuring how both design elements affect domestic workers, we develop a more complete understanding of historical tax reforms impacted---and ongoing proposals will impact---local employment and earnings.

Empirical Approach

To measure the effects of each provision, we use a local labor markets estimation approach. This approach starts with a novel mapping of the domestic geographic footprints of U.S. multinational corporations’ establishments and employment counts. Using this mapping, we construct measures of exposure to each international tax provision.

Figure 1 shows how this mapping translates into county-level variation in our measures of exposure to each policy. We measure exposure to Check-the-Box as the county-level share of workers employed by MNCs. Panel (A) shows that this measure varies from 0% in the least exposed counties to over 60% in the most exposed counties. By adding firm-level repatriation data courtesy of Jennifer Blouin and Linda Krull to our mapping, we measure exposure to the repatriation holiday as dollars repatriated per worker in a county. Here, 20% of counties received no reparations, while the top 20% of counties received more than $500 per worker.

We use the variation presented in Figure 1 to categorize countries as either most treated or less treated by each provision. Then, we measure how employment and earnings growth for workers in the most exposed counties changes relative to the growth in these outcomes for workers in less exposure counties after the tax provisions are implemented. To ensure that our approach achieve an apples-to-apples comparison, we are careful to control for other differences unrelated between more and less exposed counties that are unrelated to the tax provisions. Our empirical strategy allows us to separately identify the causal effects of each tax provision, incorporating local spillovers from directly affected workers to other local workers.

Check-the-Box Findings

Figure 2 displays the difference in employment (in 100,000s) between counties more and less exposed to Check-the-Box during the period 1992—2006. The estimates show that employment in counties more exposed to Check-the-Box began to dramatically decrease immediately after the rules were adopted in 1997. The estimates suggest that Check-the-Box led to more than one million job losses in the most exposed counties by 2003, 10 years after the policy was implemented. Losses in total earnings closely track these job losses. By the end of our sample, we estimate that the policy decrease U.S. total earnings by $40 billion per year.

To understand the mechanism behind these findings, consider that reforms that decrease effective tax rates on income earned abroad lead to two responses on the part of multinational firms. First, lower taxes on foreign earnings decrease global costs and induce a global scale effect leading to more production everywhere. Second, the lower taxes abroad decrease the cost of foreign production *relative* to domestic production, which incentivizes firms to shift production overseas. That Check-the-Box decreased local employment and earnings suggests the policy induced a much larger substitution effect than scale effect, leading to reallocation of production away from the U.S. In the paper, we support this finding by showing that Check-the-Box led U.S. multinationals to increase their share of production done abroad.

Repatriation Holiday Findings

An alternative explanation for our Check-the-Box results is that high repatriation taxes did not allow U.S. multinationals to use the additional profits they generated abroad to finance domestic production and job creation. This potential explanation provides an additional reason to investigate the effect of changes in repatriation taxes on domestic labor markets, which we do by study responses to the 2004 repatriation holiday.

Figure 3 displays estimates of employment in counties with the most repatriations per worker relative to employment in counties with fewer reparations during the time period 1999—2012. Here, we do not see any change in employment during or after the repatriation holiday, suggesting that the approximately $300 billion repatriated under the holiday had a precise null effect on job creation in the U.S.

These results suggest that repatriations made by U.S. multinationals are not an important source of financing for domestic business activity and, therefore, decreasing repatriation taxes is unlikely to stimulate domestic labor markets. Our repatriation holiday findings also support the argument that multinational firms already invest their unrepatriated earnings in U.S. financial markets.

Overall, our main findings with respect to both provisions undermine the conventional wisdom that decreasing foreign taxes for U.S. multinationals creates jobs and increases wages for domestic workers. Instead, our results suggest that while it is easy to lose jobs when international tax changes encourage multinationals to produce abroad, it is much harder to bring those jobs back home using tax-based counter-measures.

Multinationals in the Tech Sector

In our paper, we also explore which types of multinationals were most responsive to the tax provisions we study. We find the deleterious effects of Check-the-Box that we document are driven by non-R&D intensive firms. In fact, exposure to R&D intensive multinationals did not lead to job losses after the implementation of Check-the-Box rules. This result is consistent with R&D intensive firms being unable or unwilling to substitute jobs abroad due to the strength of the tech sector in the U.S.

Not only were R&D-intensive multinationals less likely to shift jobs abroad in response to Check-the-Box, they were also more likely to repatriate funds under the 2004 holiday. However, even these repatriations did not create jobs or increase earnings at home, further supporting the conclusion that repatriations are not an important source financing for domestic business activity.

Policy Implications

These findings have several immediate implications for the design of international tax policy.

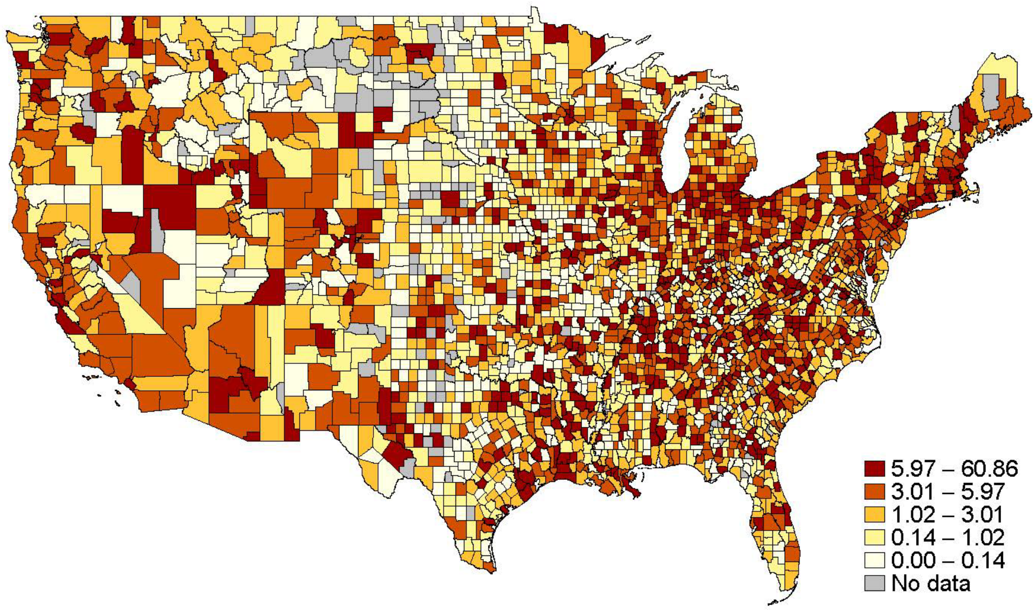
1. Contrary to long-held beliefs among many policymakers, decreasing foreign taxes for multinational corporations does not necessarily create jobs and increase wages at home. In fact, when the international activities of multinational corporations are highly

substitutable, as was the case for the majority of U.S. multinationals during the period we study, decreasing effective tax rates abroad can destroy jobs and depress earnings for domestic workers.

2. Repatrations are not an important source of domestic financing for U.S. multinationals. As such, policies that decrease the effective tax rate on repatriations are unlikely to have positive impacts on domestic labor markets.
3. Given the high degree of substitutability between domestic and foreign production that we estimate, to protect U.S. jobs, policy makers should explore international tax reforms that result in more similar tax rates on the foreign and domestic earnings on multinationals, such as a county-by-country Global Minimum Tax.

Figure 1: Measuring Local Exposure to International Tax Provisions

(A) Local Exposure to Check-the-Box



(B) Local Exposure to Repatriations

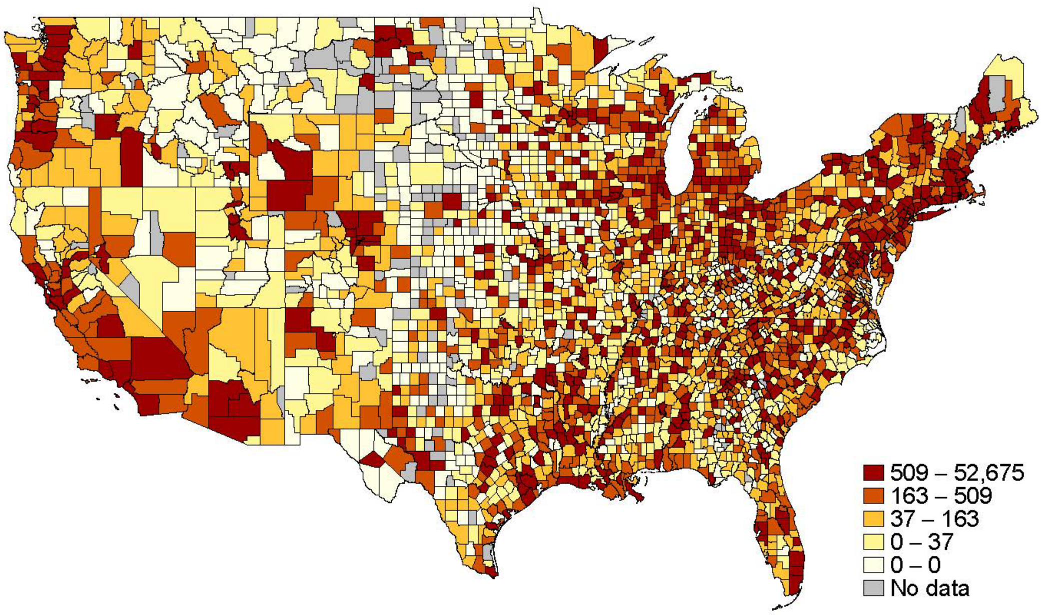


Figure 1 Notes: Panel (A) of Figure 5 displays county-level CTB Exposure. CTB Exposure is defined as the percentage of employees in a county working for MNCs in 1996. Panel (A) of Figure 6 displays county-level REPAT Exposure. REPAT Exposure is defined as the dollars of repatriations per worker in a county working in 2003. Source: Authors' calculations based on data from Compustat, NETS, and Blouin and Krull (2009).

Figure 2: Change in Jobs Due to Check-the-Box (100,000s)

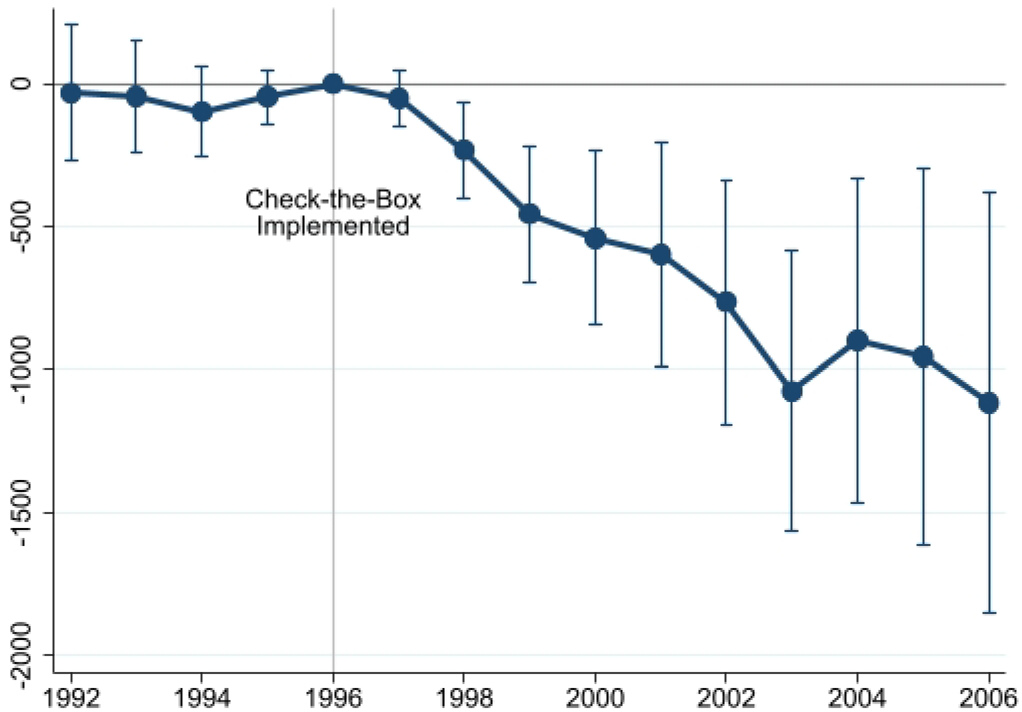


Figure 2 displays coefficients and 95% confidence intervals representing the difference in employment between industries in counties most exposed to Check-the-Box and industries in counties least exposed to Check-the-Box relative to differences in 1996. We interpret the difference as the change in jobs due to Check-the-Box. The regression specification that produced these estimates uses both inverse probability weighting and controls to account for differences in population and demographic controls, sectoral composition, trade, technology, and tax policies, as well as a control for exposure to the matched sample of large domestic firms. The regression also includes industry-by-year and state-by-year fixed effects. Source: Authors' calculations based on data from Compustat and NETS data.

Figure 3: Change in Jobs Due to the Repatriation Holiday (100,000s)

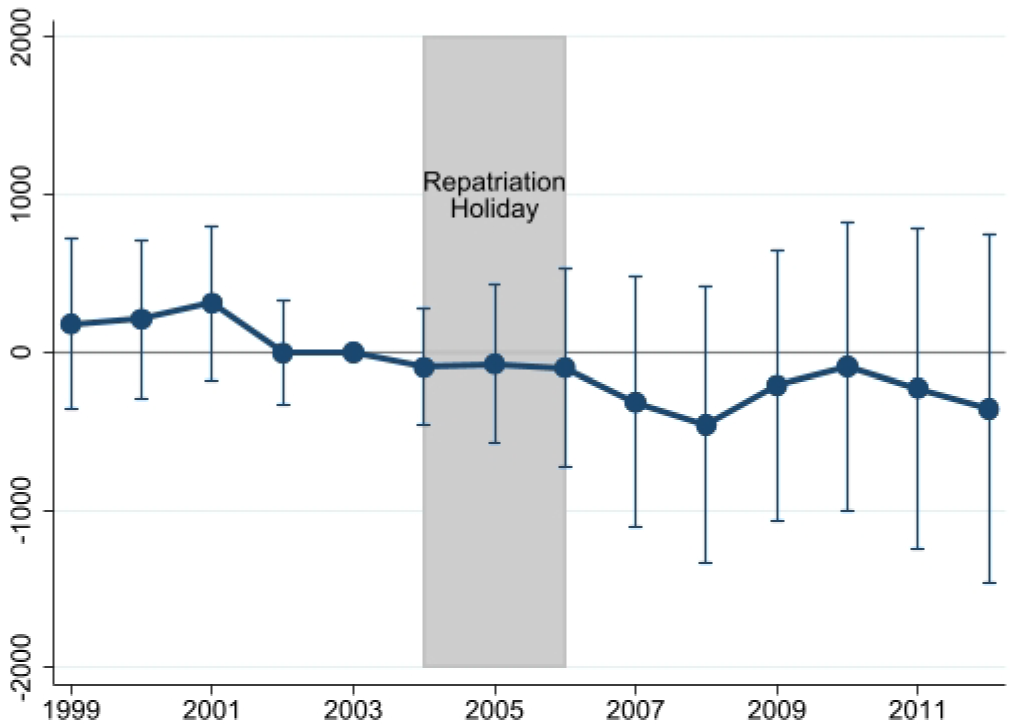


Figure 3 displays coefficients and 95% confidence intervals representing the difference in employment between industries in counties that received the most repatriations during the 2004 repatriation holiday and industries in counties that received the least repatriations relative to differences in 2003. We interpret the difference as the change in jobs due to the repatriation holiday. The regression specification that produced these estimates uses both inverse probability weighting and controls to account for differences in population and demographic controls, sectoral composition, trade, technology, and tax policies, as well as a control for exposure to the matched sample of large domestic firms. The regression also includes industry-by-year and state-by-year fixed effects. Source: Authors' calculations based on data from Compustat, NETS, and Blouin and Krull (2009) data.

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