Investment and Capital Constraints: Repatriations Under the AJCA

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Introduction

Two Big Questions

1. To what extent do financing frictions constrain investments that firms would otherwise make?
2. Did firm that repatriated under the American Jobs Creation Act significantly increase their domestic investment?

Previous Literature

DFF

Dharmapala, Foley, and Forbes (2011), "Watch What I Do, Not What I Say: The Unintended Consequences of the Homeland Investment Act" *JF*.

BK

Blouin and Krull (2009), "Bringing it Home: A Study of the Incentives Surrounding the Repatriation of Foreign Earnings Under the American Jobs Creation Act of 2004" *JAR*.

Previous Literature

Findings

- Examine Use of Funds repatriated under the AJCA
- Find no increase in investment due to repatriation
- Repatriated Funds were used to increase payments to shareholders
- However they both employ two different research designs

Introduction

In contrast, Faulkender and Petersen find:

- AJA led to large increases in investment among subset of firms that are capital constrained
- Experimental design of former authors did not isolate constrained firms properly

Background

- American Jobs Creation Act (AJCA) signed into law in 2004 by President George W Bush
- Encouraged domestic investment by lowering the tax costs of repatriating income US firms had sitting abroad
- Firms have an incentive to keep cash abroad
  - The longer the deferral, the lower the present value of the tax to bring cash home
  - This assumes investment opportunities are same in both countries and no capital market imperfections
- But, what if we relax the above assumption?

Background

Do the incentives align?

- In a world without financial frictions, firms will invest in all positive NPV projects
- If US has domestic high NPV projects, firms will repatriate, use domestic internal funds, or capital markets
- With financial frictions, the cheapest method wins
- Then, the AJCA assumes by design that firms are financially constrained, having no domestic internal funds or access to capital markets

Background

There are three firms:

1. Firms with little or no foreign earnings in low-tax jurisdictions
2. Firms that repatriate foreign income under AJCA and are constrained
3. Firms that repatriate foreign income under AJCA and not constrained

Empirical Musings

- Prior work by BK and DFF use a DID where sample of firms is divided into treated and untreated group controlling for firm characteristics
- But, there are THREE groups!
- Difference between findings here and previous work lies in this idea

Empirical Musings

Demonstration

- Group 1: Firms with no tax-advantage in foreign earnings, do not increase response variable
- Group 2: Firms with tax-advantaged foreign earnings increase response variable with repatriation
- Group 3: Firms with tax-advantaged foreign earnings increase response variable without repatriation

Empirical Musings

BK

- Run a standard DID by including dummy variable which is equal to 1 in year firm repatriates and zero otherwise
- Coefficient then measures increase in response variable for firms that do not repatriate (Group 3) versus the increase in response variable for firms that do not repatriate (Group 1 and 2)

Empirical Musings

BK

- Cannot know if effect is due to:
  - Repatriation (comparison of group 3 to group 2)
  - Or due to differences between firms with and without foreign earnings in low-tax jurisdictions (difference between group 1 and both group 2 and 3)
- Because first group (in BK) has higher increase in investment than the second group, coefficient on AJCA dummy is positive, even when there is no effect

DID_{BK} = *Diff[Group 3] - Diff[Group 1 and 2]*

Empirical Musings

DFF

- Use instrumental variable approach
  - IV: firm's foreign tax rate is lower than US and whether firm's foreign subsidiaries are in tax havens
- Replaces AJCA dummy in BK with probability that firm repatriates
- Firms wih unrepatriated income in low-tax countries have high probability of repatriation

Empirical Musings

DFF

Coefficient measures the increase in the response variable for firms with high probability of repatriation (Groups 2 and 3) independent of whether they actually repatriate income versus the increase in the response variable for firms with low probability of repatriation (Group 1)

DID_{DFF} = *Diff[Group 2 and 3] - Diff[Group 1]*