Discussion of Chapters 4 and 5

The Corporate Finance of Multinational Firms (Erel, Jang, and Weisbach)

The International Market for Corporate Control (Chari)

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Thanks to
Tim Schmidt-Eisenlohr, Alexandra Tabova,
and Daniel Beltran

Disclaimer: This presentation represents my own views and not necessarily those of the Federal Reserve Board of Governors or its staff.
Multinational companies contribute disproportionately to several aspects of US economic activity

Key indicators, 2007

<table>
<thead>
<tr>
<th>Indicator</th>
<th>US multinational companies</th>
<th>All other companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value added</td>
<td>23%</td>
<td>77%</td>
</tr>
<tr>
<td>Employment</td>
<td>19%</td>
<td>81%</td>
</tr>
<tr>
<td>Exports</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Imports</td>
<td>37%</td>
<td>63%</td>
</tr>
<tr>
<td>Trade deficit</td>
<td>22%</td>
<td>78%</td>
</tr>
<tr>
<td>Private sector R&amp;D</td>
<td>74%</td>
<td>26%</td>
</tr>
<tr>
<td>Globally competitive sectors</td>
<td>44%</td>
<td>56%</td>
</tr>
</tbody>
</table>

Contributions to growth, 1990–2007

<table>
<thead>
<tr>
<th>Indicator</th>
<th>US multinational companies</th>
<th>All other companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor productivity</td>
<td>41%</td>
<td>59%</td>
</tr>
<tr>
<td>Value added</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>Employment</td>
<td>11%</td>
<td>89%</td>
</tr>
</tbody>
</table>

Source: McKinsey Global Institute analysis

Compound annual growth rate, 1990–2007

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Labor productivity</th>
<th>Value added</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor productivity</td>
<td>3.6</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Value added</td>
<td>4.5</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>0.7</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>
Accumulated stock of FDI as % of world GDP
Quarterly gross capital inflows to EMEs

Gross inflows are net purchases of domestic assets by foreign residents.
Source: IMF BoP, WDI, Haver
Countries included: ARG, BGR, BRA, CHL, COL, CRI, CZE, HRV, IDN, ISR, KAZ, KOR, LVA, MEX, PER, PHL, POL, ROU, RUS, THA, TUR, UKR, URY, ZAF

Quarterly gross capital inflows to AEs

Gross inflows are net purchases of domestic assets by foreign residents.
Source: IMF BoP, WDI
Countries included: AUS, AUT, BEL, CAN, CHE, DEU, DNK, FIN, FRA, GBR, ITA, JPN, NLT, NOR, NZL, PRT, SWE, USA
For many countries, the stock of inward FDI exceeds 40% of GDP

Graph shows Top 50 FDI destinations (excluding financial centers)
Chapter 4: The Corporate Finance of Multinational Firms
Isil Erel, Yeejin Jang, and Michael S. Weisbach

- Fills an important niche in literature
- Broad and thorough review of corporate finances of MNCs and comparison with domestic firms
- Host of interesting facts from diverse sources
Comparison between MNCs and domestic firms in the United States and abroad

<table>
<thead>
<tr>
<th>Variable</th>
<th>U.S. multinationals (relative to domestic)</th>
<th>Foreign multinationals (relative to domestic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of publically listed firms</td>
<td>Rising (to 48% in 2017)</td>
<td>Stable (34% in 2017)</td>
</tr>
<tr>
<td>Firm Size</td>
<td>Larger</td>
<td>Larger</td>
</tr>
<tr>
<td>Cash flow</td>
<td>Larger</td>
<td>Larger</td>
</tr>
<tr>
<td>Cash flow standard dev.</td>
<td>Lower</td>
<td>Lower</td>
</tr>
<tr>
<td>Cash holdings</td>
<td>Higher</td>
<td>Lower</td>
</tr>
<tr>
<td>Leverage</td>
<td>Lower</td>
<td>Higher (EMEs), lower (AFEs)</td>
</tr>
<tr>
<td>Bank loans</td>
<td>Fewer</td>
<td></td>
</tr>
<tr>
<td>Bond financing</td>
<td>Higher</td>
<td></td>
</tr>
<tr>
<td>Foreign ownership of equity</td>
<td>Higher</td>
<td></td>
</tr>
<tr>
<td>Bond spreads</td>
<td>Lower</td>
<td></td>
</tr>
<tr>
<td>Equity premia</td>
<td>Higher</td>
<td></td>
</tr>
</tbody>
</table>
Main Comments

1. Thematic unity
2. Comparison of MNCs and domestic firms
3. Definition of MNCs
4. Examine effects of global financial crisis and TCJA
5. More thorough examination of FX risks
1. Thematic unity

- How do all the facts fit together?
- Chapter starts by describing financial advantages of MNCs, but then dives into the data.
- Original Title: “Do multinational corporations have financial advantages over other firms?”
- This could provide guidance for the analysis. The authors could focus on the advantages of MNCs relative to domestic firms and how this affects corporate finance.
1. **Thematic unity (continued)**

1. Start by identifying key differences between multinational and domestic firms (as the chapter now does):
   - MNCs exploit internal capital markets to borrow abroad at cheapest rates and shift funds to operations around globe.
   - MNCs profit from diversification across markets, reducing income volatility.
   - MNCs can exploit tax advantages; addressed elsewhere in book, but important

2. Explain how these differences should affect how MNCs structure and finance themselves -- profits, cash holding, leverage, etc. -- and compare with actual findings.
   - Maybe also look at implications of different structures, like vertical vs. horizontal, for MNCs (Davies and Markusen, this volume)

3. Illustrate with examples of real-world companies
2. Comparisons of MNCs with domestic firms

Panel A: U.S. Firms

<table>
<thead>
<tr>
<th></th>
<th>Multinational</th>
<th>Domestic</th>
<th>Diff. in Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
<td>Std</td>
</tr>
<tr>
<td>Total Assets</td>
<td>6.266</td>
<td>0.437</td>
<td>43.246</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>4.902</td>
<td>0.479</td>
<td>22.140</td>
</tr>
<tr>
<td>Sales Growth</td>
<td>0.108</td>
<td>0.075</td>
<td>0.267</td>
</tr>
<tr>
<td>Cash Flow/Total Assets</td>
<td>0.115</td>
<td>0.124</td>
<td>0.147</td>
</tr>
<tr>
<td>Std of Cash Flow</td>
<td>0.070</td>
<td>0.046</td>
<td>0.078</td>
</tr>
<tr>
<td>Rated</td>
<td>0.315</td>
<td>0.000</td>
<td>0.465</td>
</tr>
<tr>
<td>Investment Grade</td>
<td>0.152</td>
<td>0.000</td>
<td>0.359</td>
</tr>
<tr>
<td>Speculative Grade</td>
<td>0.135</td>
<td>0.000</td>
<td>0.341</td>
</tr>
<tr>
<td>Cash/Total Assets</td>
<td>0.189</td>
<td>0.114</td>
<td>0.197</td>
</tr>
<tr>
<td>Total Debt/Total Assets</td>
<td>0.212</td>
<td>0.176</td>
<td>0.203</td>
</tr>
<tr>
<td>Zero Debt</td>
<td>0.147</td>
<td>0.000</td>
<td>0.354</td>
</tr>
</tbody>
</table>

# Firm-year Obs: 47337

# Unique Firm: 5367

# Firm-year Obs: 115768

# Unique Firm: 14736
3. Definition of an MNC

• Chapter starts with two definitions of an MNC:
  1. Firm with income earned abroad
     • Paper acknowledges problems if firms don’t report foreign income when low or negative
  2. Firm with foreign sales
     • Paper explains this includes pure exporters with no foreign presence, and abandons this definition for most of analysis
     • But we (Daniel Beltran) looked at fine print of Worldscope data guide: excludes exports, so may actually be a better definition than #1

• Both definitions broadly consistent with BEA: “Enterprise groups with a direct investor resident in one country that has direct investment enterprises located in one or more other countries.”
3. Definition of an MNC (continued)

• Both definitions also broadly consistent with each other

• Show rising share of publically listed corporations that are MNCs
3. Definition of an MNC (continued)

• But, a couple of problems

• First, trends abroad in share of MNCs in total companies very different than in US
  – Why?
  – Do differences reflect different economic processes or different data collections?
  – For example, differences in Worldscope coverage of foreign sales and income
3. Definition of an MNC (continued)

- Second, chapter focuses exclusively on publically listed firms.
  - Domestic firms going private more than MNCs -- is rising MNC share misleading?
  - McKinsey says less than 1 percent of all companies are MNCs – includes many small firms
  - Difference in listing practices could account for differences in MNC shares in US and abroad.
  - Focus on publically listed firms may exclude many private MNCs – see Anusha’s chapter

3. Definition of an MNC (continued)

Suggestion:

• Use ORBIS database’s explicit information on ownership structure (operations abroad) to distinguish between domestic firms and MNCs

• Establish a size cut-off to exclude smallest firms

• Compare results based on this definition to those using the foreign-income and foreign-sales criteria.

Also:

• Establish a common definition of MNCs across chapters of this volume?
4. Examine how global financial crisis and TCJA have affected MNC finance trends.

5. More thorough examination of FX risks
   • Currency depreciations abroad lower dollar value of foreign investments, but may raise competitiveness and profitability of foreign activities.
   • MNC operations in multiple countries diversifies FX risk.
   • If, taking everything into account, MNCs face greater FX risks, worth explaining.
Chapter 5: The International Market for Corporate Control
Anusha Chari

• Also addresses an important topic,

• fills a niche in literature,

• presents broad array of interesting facts from diverse sources
Key facts:

• M&A flows large part of overall FDI flows; number of M&A transactions tripled over the past two decades.

• M&A activity concentrated in relatively few countries, mainly US and Europe.

• Cross-border M&A deals occur in waves; megadeals on the rise

• Most M&A deals involve private firms; private equity transactions have increased significantly over time

• As we’d expect, tax haven countries account for a lot of M&As.
The chapter then goes on to review:

- The determinants of cross-border M&A
- The impact of M&A on target firms
- Public policy issues posed by M&As
- Readable paper
- Nice references to actual companies and case studies

**Main comments**

1. Incomplete analysis of determinants of cross-border M&A
2. Taxes!
3. Relative importance of M&A in FDI
4. Post-acquisition impact of M&A
5. Broader discussion of policy issues
1. Incomplete analysis of determinants of cross-border M&A

Why do firms pursue cross-border M&A?

Anusha cites several factors:

• M&A deals tend to create surplus value through various means – boost productivity, improve governance -- and boost stock prices

• M&A deals may exploit undervalued companies in target countries

• M&A deals may exploit cheap financing in acquiring countries
1. Incomplete analysis of determinants of cross-border M&A (continued)

(1) But how do these factors relate to other, commonly cited reasons why MNCs establish operations abroad, including those discussed in several other chapters of this volume, such as

• Developing supply chains?

• Expanding markets?

• Reducing competition by acquiring competitors?

• Profit shifting for tax purposes?

(2) What determines whether an MNC invests abroad through greenfield investment or through acquiring an existing company, ie, M&A?

2. Can’t talk about cross-border M&A without talking about taxes

- Cross-border M&As have been used for corporate inversions for tax purposes:
  - After M&A, acquiring U.S firm incorporates in the foreign country (inverts) so not to pay U.S corporate tax and to access cash accumulated abroad without paying repatriation tax


- In some cases, the newly acquired foreign subsidiary then acquires US companies using its tax-advantaged cash; recorded as inward FDI.
3. Chapter should provide a fuller picture of importance of M&A in FDI flows

- Apples and oranges: compares completed M&A deals with announced greenfield deals
- Announced deals informative for trend in greenfield investment, but not for level comparison with completed M&A deals
3. Share of M&A in FDI flows (continued)

- Most of US direct investment abroad is reinvested retained earnings, not M&A or greenfield investment.
- Intercompany debt flows (green) is also a component of FDI flows.
3. Share of M&A in FDI flows (continued)

- Composition of FDI depends on the target country
- For the U.S., most inward FDI is M&A
- For developing countries, it is greenfield investment (next slide for plots)

Expenditures by Type of Investment, 1996-2018

Source: BEA
M&A versus Greenfield in Advanced and Emerging economies ($billions)

Source: UNCTAD
*Includes tax havens

Greenfield  M&A
4. Post-acquisition impact of M&A

• Relies too heavily on Chari, Chen, and Dominguez (2012) analysis of emerging-market acquirers of companies abroad; would like to see more analysis of advanced-economy acquirers.

• Briefly notes cross-border M&A results in greater productivity improvements than domestic M&A – want to see more on that.

• Focuses exclusively on how productivity, profits, and employment change for the target company in an M&A.
  – No discussion of impact on M&A might affect the target sector or economy more generally, re competition, tech diffusion, etc.
  – Or how M&A might differ in this respect from greenfield investment.
  – Even if space limited, at least acknowledge broader economy-wide effects and refer to literature on FDI and economic growth
5. Broader discussion of policy considerations

- Section focuses almost exclusively on two attempts to restrict inward FDI: (1) national security issues; (2) EU competition policy

- I would have liked to see:
  - broader assessment of the public policy issues involved as governments balance:
    - potential benefits of FDI (increased productivity growth, inward flows of capital financing, technological diffusion) and
    - potential costs (loss of markets to outside entities, loss of control, national security concerns, greater market concentration).

  - Some discussion of the pros and cons of encouraging inward M&A flows compared with greenfield investments.
    - Some countries might welcome greenfield investment, not outsiders taking over their domestic companies.
Conclusion

• Two very interesting and informative chapters.

• Play a key role in the volume by analyzing the financial dimensions of MNC activity,

• I look forward to seeing the final versions!
Thanks!