Sector Paper: ISIC 661
Activities Auxiliary to Financial Service Activities, Except Insurance and Pension Funding

Andrew Baer
U.S. Census Bureau

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Mini-paper contributions

• Turnover
  – Siti Salwani Ismail – Malaysia
  – John Murphy – U.S.

• Prices
  – Nassim Ketita, Lucy Opsitnik, Min Xie – Canada
  – Bonnie Murphy, Kathleen Frawley – U.S.
  – Aki Ono – Japan
  – Mohan Chutani, Anupam Mitra - India
Definition of Industry

• ISIC 6611, Administration of financial markets
  – Operation and supervision of securities exchanges
  – Participating countries had no experience with pricing these services

• ISIC 6612, Security and commodity contracts brokerage
  – Includes dealing in financial markets on behalf of others (e.g. stock broking) and related activities
  – In NAICS the phrase “dealing” is reserved for when firms act as a principal in buying and selling securities on a spread basis – which according to concordances is classified in ISIC 6499, Other financial service activities

• ISIC 6619, Other activities auxiliary to financial service activities
  – Includes transaction processing, investment advice, mortgage brokerage, trustee and custody services
## Country Status

<table>
<thead>
<tr>
<th></th>
<th>Countries for ISIC 6611, Administration of financial markets</th>
<th>Countries for ISIC 6612, Security and commodity contracts brokerage</th>
<th>Countries for ISIC 6613, Other activities auxiliary to financial services</th>
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<tbody>
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<tr>
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</tr>
<tr>
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<td>Industry level turnover and prices well aligned soon</td>
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</tr>
<tr>
<td>No industry coverage</td>
<td>19</td>
<td>18</td>
<td>17</td>
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</tbody>
</table>
Turnover - Challenges

• Bundled products
  – In U.S. fee-based accounts have been growing rapidly
  – Single quarterly fee charged for unlimited trades, investment advice, access to research products
  – Instructions are to allocate the turnover to component products – but not clear how to do this
  – Since the turnover is not earned per trade, respondents often allocate all turnover to investment advice
  – Similar situation for institutional services – “prime brokerage” encompasses securities lending, trade execution, clearing, etc.
Turnover - Challenges

• Identifying an appropriate survey unit
  – Establishment collection extremely difficult as large financial firms do not record turnover or product data by location
  – Enterprise collection challenging as enterprises cross many financial industries. Classifying these firms in one industry produces industry data that is difficult to interpret, increasing the importance of product data.
  – Kind-of-activity unit makes sense, but lose ability to collect secondary production by industry. Essentially makes industry data more like product data.
Turnover - Opportunity

• Availability of administrative data
  – Financial firms heavily regulated in many countries
  – Potential to partner with regulatory agencies for data sharing, relieving response burden
  – Would likely necessitate deviation from standard industry and product classification systems
Contributing Country Progress on Prices

• India/Canada – pilot, research phase
• Japan – produces SPPI for B2B segment of securities brokerage
• U.S. – produces SPPIs for securities brokerage and investment advice
Pricing Methods – Transaction Fees

• Flat transaction fees
  – Example 1: an online broker charges $10/trade for online sale or purchase of stocks for non-premium clients (account values less than $100,000)
  – Example 2: an investment adviser charges a fee of $500 for a customized investment plan delivered in writing and with a 1 hour in-person consultation
  – Direct prices for repeated services in U.S. and Japan
  – Unit value prices in Canada
Pricing Methods – Transaction Fees

• Value-based commissions

  – Example: a stock broker charges 1% to execute a sale or purchase of 1,000 shares of Stock A, valued at $25 per share.
    \[ \text{Price} = 1,000 \times 25 \times 0.01 = 250 \]
  – Countries take different approaches on these transactions
# Transaction fees – Canada unit value approach

<table>
<thead>
<tr>
<th>Account Value (or Trade Value) Range ($)</th>
<th>Total Fees (or Commissions) ($000's)</th>
<th>Total Value of Accounts (or Trade) ($000's)</th>
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<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
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<tr>
<td>up to $99,999</td>
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</tr>
<tr>
<td>$100,000 - $249,999</td>
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<td>$10 Million +</td>
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<tr>
<td>Totals</td>
<td></td>
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</table>
Transaction fees – Canada unit value approach

• Price = weighted average of total fees and commissions divided by trade value for all tiers

• Benefits
  – Companies can report this information
  – Broad representation of all transactions
  – Shows the price effect of the same set of customers moving from value-based commissions to flat fees and vice versa

• Challenges
  – Risk of changes in customer mix showing as price change
  – Flat per trade fees treated in calculation as percentage of trade value even though not charged that way
  – May miss effect of quality change (example - prices decline due to more trades being executed online without broker assistance)
Transaction fees – Japan real value of traded securities approach

• Combination of model price and percentage fees for value-based commissions
  – Base Period - Price = 1,000 shares x $25/share * .01 fee = $250
  – Later Periods – Value of trade adjusted only for changes in general price level (CPI)
    – 1 year later – Price = $25,000 x 1.02 (change in CPI) x .01 fee = $255
    – With no change in percentage fee, price change = change in general price level
Transaction fees – U.S. number of traded securities approach

- Also combination of model price and percentage fees for value-based commissions
  - Base Period - Price = 1,000 shares x $25/share * .01 fee = $250
  - Later Periods – Value of trade reflects current market price of securities
    - 1 year later – Price = 1000 shares x $30/share * .01 fee = $300
    - With no change in percentage fee, price change is change in market value of security
Transaction fees – real value of traded securities vs. number of traded securities approach

- India 2014 BSE Sensex increases ~30%, CPI increases ~4%, trading volumes virtually unchanged
- Assume value-based commissions charged on all brokered equity trades and no change in percentage fees
- **Real value approach**
  - Turnover for domestic equity brokerage in India increases 30%
  - SPPI for domestic equity brokerage in India increases 4%
  - Real output increases significantly
- **Number of traded securities approach**
  - Turnover for domestic equity brokerage in India increases 30%
  - SPPI for domestic equity brokerage in India increases 30%
  - No change in real output
India – total cost of transaction

- Total cost of transaction has both explicit and implicit components
  - Collect explicit brokerage commission, stamp fee, custody charges
  - For implicit charges:
    - Effective bid-ask spread
    - Difference between trade executed price and mid-point between quoted bid and quoted ask
    - High effective bid-ask spreads indicate that dealers are earning more on executed trades
  - Implicit and explicit charges can be aggregated to a single basis point price
Periodic fees

• Canada – unit value, similar to transaction fees
• U.S. – model pricing and percentage fee
  – Base period – Price = $1,000,000 account x .02 fee = $20,000
  – Later periods – account value is adjusted by earned rate of investment return
  – 1 year later, rate of return is 12%, percentage fee unchanged
  – Price = ($1,000,000 *1.12) x .02 = $22,400
  – Note this does not reflect the actual dollar value of the account 1 year later as it excludes the impacts of inflows and outflows
  – Changes in securities values again shown as price change, not volume change
Options brokerage

• Size of options market has grown substantially
  – Example – U.S. S&P futures market
    Daily trading volume in 2001 = $12 billion, in 2016 = $215 billion
• U.S. paper describes procedures for pricing options
• Similar methods to other security trades, but characteristics that need to be held constant change
Summary

• Limited country experience
• Canada and India pursuing innovative pilot programs
• Variation in methods related to price effect of changes in securities markets
  – No single recommendation provided
  – Consultation with national accounts and productivity is key!