The Economics of Complex Decision Making: The Emergence of the Robo Adviser

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What are Robo Advisers?

- Online services that provide financial advice and manage customers’ investment portfolios
- Pure robo advisers provide advice online with no human interaction
- They use questionnaires to gather customer financial information
- They use computer algorithms to select investment portfolios
- They automatically rebalance their clients’ portfolios and may perform other services
- Robo advisers respond to investing complexity
Investing Complexity

• Constructing an investment portfolio is an inherently complex problem
  – Risk tolerance
  – Diversification
  – Life cycle changes
  – Complex products
  – Tax issues
  – Rebalancing

• The problem is exacerbated by widespread financial illiteracy

• Industry responses include mutual funds, target date funds
Robo Adviser Services

• Portfolio construction
  – Risk allocation
  – Diversification

• Adjustments to portfolio
  – Rebalancing
  – Tax management
  – Life cycle changes
  – Reinvestment of dividends
The History of Robo Advisers

- Two early robo advisers – Wealthfront and Betterment (2010)
- Fully automated services
- A solution to investment complexity
- Low cost
The Evolution of Robo Advisers

- Dozens of firms have entered the market
- Robo Advisers managed $126 billion in the U.S. in 2016 (compare to $69.1 trillion in global AUM)
- A variety of financial firms now offer robo advisers
- Development of the hybrid model
- Spread to Europe and beyond
Investors’ Familiarity with Robo Advisers
The Regulation of Robo Advisers

- Robo advisers must register under the Investment Advisers Act as registered financial advisers
- If robos hold customer assets, they must register with the SEC and FINRA as broker-dealers
- Robo advisers are subject to fiduciary duties
- DOL Fiduciary Rule
Robo Advisers vs. Human Advisers – The Advantages of Robos

• Low cost (0-50 basis points) compared to personalized human advice
• Access at any time
• Computers are good at dealing with complexity
• Scalability of services allows service of small accounts
• Transparency
• Less potential for conflicts of interest
Robo Advisers vs. Human Advisers – The Advantages of Humans

• Warm body effect
• Investor education
• More flexible approach to risk tolerance
• Scope of advice
• Information basis for advice (how good are the robo questionnaires?)
Trends in Robo Advising

• The spread from stand-alone firms to traditional asset managers
• Channels for vertical distribution of sponsor products and the potential for conflicts of interest
• Hybrid adviser models
• Greater product diversification/specialization
• Use of robos by human advisers
<table>
<thead>
<tr>
<th>Robo Adviser</th>
<th>Available countries</th>
<th>Advisory Fee as % of AuM (does not include fee for investments in funds)</th>
<th>Minimum Assets</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutmeg</td>
<td>UK</td>
<td>0.95%</td>
<td>£500</td>
<td>ETFs</td>
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<tr>
<td>Quirion</td>
<td>Germany</td>
<td>0.48% – No Coach</td>
<td>€10,000</td>
<td>ETFs</td>
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<tr>
<td></td>
<td>Switzerland</td>
<td>0.88% – With Coach</td>
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<tr>
<td>Marie Quantier</td>
<td>France</td>
<td>€2.90-17.90 per quarter</td>
<td>€5,000</td>
<td>ETFs</td>
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<tr>
<td></td>
<td></td>
<td>5% of earnings</td>
<td></td>
<td></td>
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<tr>
<td>Ginmon</td>
<td>Germany</td>
<td>0.39%</td>
<td>€1,000</td>
<td>ETFs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% of earnings</td>
<td></td>
<td></td>
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<tr>
<td>Wealth Horizon</td>
<td>United Kingdom</td>
<td>0.25% on initial deposit</td>
<td>None</td>
<td>ETFs</td>
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<tr>
<td></td>
<td></td>
<td>0.75% for advisory</td>
<td></td>
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<td></td>
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<td>0.18% for fund charges</td>
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<tr>
<td>Wealthify</td>
<td>United Kingdom</td>
<td>0.7% under £10,000</td>
<td>£250</td>
<td>ETFs</td>
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<td></td>
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<td>0.6% under £250,000</td>
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<td>0.5% over £250,000</td>
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</tbody>
</table>
Conclusion

- Financial Advising will continue to incorporate technology to reduce costs and increase access.
- Robo advisers are one example of this trend.
- The evaluation of robo advisers versus human advisers is ongoing.
- Further regulatory intervention is likely.