

## Chapter 6

# FinTech and Its Disruption to Financial Institutions

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### ABSTRACT

*This chapter studies how FinTech is transforming traditional financial institutions (FIs). This chapter achieves the four related goals. First, it discusses the current stage of FinTech development in different areas such as crowdfunding, payment, blockchain, and cryptocurrency. Second, it examines how each FinTech development affects traditional FIs, in both positive and negative ways. Third, it explores how FIs are currently managing FinTech innovations. It also suggests ways through which these institutions could best utilize FinTech to better serve their customers and eventually optimize the overall financial system. Finally, following the book's focus on man's role at the center of technology advancement, this chapter discusses whether FIs' customers' needs are still placed at the center of FIs' incentives to adapt new technology, and if not, how can we focus back to the people that the financial system ultimately serves.*

### INTRODUCTION

Financial Technology (FinTech) is defined as “a new financial industry that applies technology to improve financial activities” (Schueffel, 2016). This chapter studies how FinTech is transforming traditional financial institutions (FIs), including banks and investment companies such as mutual fund, hedge fund, venture capital firms (VCs) and private equity firms (PEs). This chapter achieves the four related goals. First, it discusses the current stage of FinTech development in various areas such as crowdfunding, payment, blockchain and cryptocurrency. Second, it examines how each FinTech development affects traditional FIs, in both positive and negative ways. Third, it explores how FIs are currently managing FinTech innovations. It also suggests ways through which these institutions could best utilize FinTech to serve their customers and eventually optimize the overall financial system. Finally, following the book's focus on man's role at the center of technology advancement, this chapter discusses whether customers' needs are still placed at the center of FIs' incentives to adopt new technology, and if not, how can we focus back to the people that the financial system ultimately serve.

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This chapter makes the following contributions. First, this chapter is one of the first studies to provide an overview of all three major areas—crowdfunding, payment, and blockchain—of FinTech development and their impacts on FIs. Second, it inspires critical thinking on the effects of technology on traditional industries and how traditional industries use technology to optimize their businesses. The discussion also focus on the effect of such transformation on man, discussing both economic and social impacts.

## **BACKGROUND**

### **Economics of Financial Institutions**

As the aim of the chapter is to examine the impacts of FinTech on the financial industry, we need to understand the economics of financial industry and institutions. Financial institutions (FIs) examined in this chapter include commercial banks, investment banks, and investment companies (e.g., mutual fund, hedge fund, VC, and PE). Table 1 discusses the main businesses for each of these FIs.

FIs perform the essential function of channeling funds from those with surplus of funds (“fund suppliers”) to those with shortages of funds (“fund users”) (Saunders, 2014). Because of the information asymmetry between the fund suppliers and fund users, the first important function of FIs, as financial intermediaries, is the *ex-ante screen of potential fund users and the ex-post monitoring of them*. Specifically, an FI collects suppliers’ funds and invests in securities (e.g., stocks, bonds, derivatives) issued by fund users. This aggregation of funds mitigate the information problem in two ways. First, it provides greater incentive for an FI to hire employees with superior skills and training in monitoring. In this way, fund suppliers have appointed the FI as a delegated monitor to act on their behalf (Diamond, 1984). Second, the relative large size of the FI allows collection of information to be accomplished at a lower average cost (the economies of scale) (Saunders, 2014). This is a key function performed by all FIs—commercial banks in their loan decisions, investment bank when giving advice for M&A and IPOs, and investment companies picking portfolio for their clients.

A second function of FIs is to *provide liquidity and diversification for the fund suppliers, thus acting as asset transformers*. FIs purchase primary securities, such as bonds and stocks issued by funds users and finance these purchases by selling securities to fund suppliers in the form of deposits, shares of

*Table 1. Business of each type of FIs*

<b>Financial Institutions</b>	<b>Main Businesses</b>
Commercial banks	Take deposit and make loans
Investment banks	Advise corporate clients on the following: <ul style="list-style-type: none"><li>• merger &amp; acquisitions (M&amp;As)</li><li>• securities underwriting, such as initial public offering (IPOs) and syndicated loans</li><li>• securities research, brokerage, and trading</li></ul>
Investment companies (also “investment funds”) <ul style="list-style-type: none"><li>• Pension funds &amp; mutual funds</li><li>• Hedge funds</li><li>• VC</li><li>• PE</li></ul>	Pool financial resources of individuals and companies and invest those resources in diversified portfolios of assets <ul style="list-style-type: none"><li>• Highly regulated to hold investment-grade securities</li><li>• Investment in high-risk securities and companies</li><li>• Investment in early-stage companies</li><li>• Normally invest in late-stage companies</li></ul>

Source: Saunders (2014)

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