

Managing Operational Risk

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Learning Outcome

- Describe operational risk
- Understand the source of operational risk
- Evaluate the impact of technology to the banking industry
- Understand operational risk management.

Operational Risk

According to the Bank of International Settlement (BIS), Operational Risk is the “risk of losses resulting from inadequate or failed internal processes, people and systems or from external events.”



Sources of Operational Risk

- People
- Systems and Technology
- Processes and policies
- External events

People

- Intentional and illegal breaches of policies and rules
- Sloppy execution
- Lack of knowledge and training
- Failures to comply with a professional obligation to clients
- Improper business and market practices

Coronavirus: US senator probed for alleged insider trading - reports

🕒 30 March 2020



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Coronavirus pandemic

The US justice department is investigating alleged insider trading by lawmakers who sold stocks just before the coronavirus pandemic sparked a major market downturn, according to US media.

Republican Senator Richard Burr is said to be among those to have been contacted by the FBI.

Mr Burr, 64, has denied wrongdoing.

It is illegal for Congress members to trade based on non-public information gathered during their official duties

<https://www.bbc.co.uk/news/world-us-canada-52097349>

JPMorgan reveals shock \$2bn trading loss on investments

🕒 11 May 2012



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JPMorgan Chase, the biggest US bank, has revealed a surprise trading loss of at least \$2bn (£1.2bn) on complex investments made by its traders.

Chief executive Jamie Dimon blamed "errors, sloppiness and bad judgement" for the losses and warned "it could get worse".

The risky hedging strategy could cost the bank an additional \$1bn, he added.



System and Technology

- Efficient technological base can result in:
 - Lower costs
 - Through improved allocation of inputs
 - Increased revenues
 - Through wider range of outputs

**Earnings before taxes = (Interest income - Interest expense) +
(Noninterest income - Noninterest expense) - Provision for loan losses**

Impact of Technology

- Interest income can increase
 - Through offering wider range of services/products or cross-selling
- Interest expense can decrease
 - Through improved access to markets for liabilities
 - Bacs, CHAPs and FPs

Lloyds Bank confirms 9,000 job losses and branch closures

🕒 28 October 2014



Lloyds Banking Group has confirmed 9,000 job losses and the net closure of 150 branches over the next three years.

The latest job losses - representing about 10% of its workforce - come on top of 43,000 cuts made since 2008.

The bank said it would concentrate on urban branch closures first and has abandoned its pledge to keep open "the last branch in town".



Impact of Technology (Cont.)

- Other income can increase
 - Through electronic handling of fee generating OBS activities such as LCs and derivatives
- Noninterest expenses can be reduced
 - Through improved efficiency of back office operations using technology
 - Especially true for securities-related activities

Five ways banks are using blockchain

Clearing and settlement, trade finance and syndicated loans are ripe for modernising

Martin Arnold OCTOBER 16 2017

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Barely a day goes by without a fresh announcement about how banks are seeking to use blockchain technology to transform sizeable chunks of their business.

Combining shared databases and cryptography, [blockchain technology](#) allows multiple parties to have simultaneous access to a constantly updated digital ledger that cannot be altered.

The technology, which underpins cryptocurrencies such as bitcoin, was initially treated with scepticism by banks. However, this has changed dramatically. Blockchain is the hottest [buzzword](#) in the sector, even if the recent flurry of cryptocurrency fundraisings via "initial coin offerings" is attracting intense [regulatory scrutiny](#).

Effects of Technology on Revenues and Costs

Investments in technology are risky

- Potentially *negative* NPV projects due to uncertainty and potential competitive responses
- Service quality and convenience
 - Inability of ATMs/Internet banking to interact with customers as humans can
 - Virtual banks operating branch offices
 - Example: ING Direct

Effects of Technology on Revenues and Costs (Cont.)

- Success of technological innovation cannot be evaluated without consideration of regulation and regulatory changes
 - Branching restrictions in U.S. affect the value of cash management services, for example
 - Less valuable in Europe where comparable restrictions are absent

China bans banks from handling Bitcoin trade

🕒 5 December 2013



🔗 Share

China has banned its banks from handling transactions involving the Bitcoin virtual currency.

The ban came in a notice issued by the People's Bank of China, financial watchdogs and the nation's IT ministry.

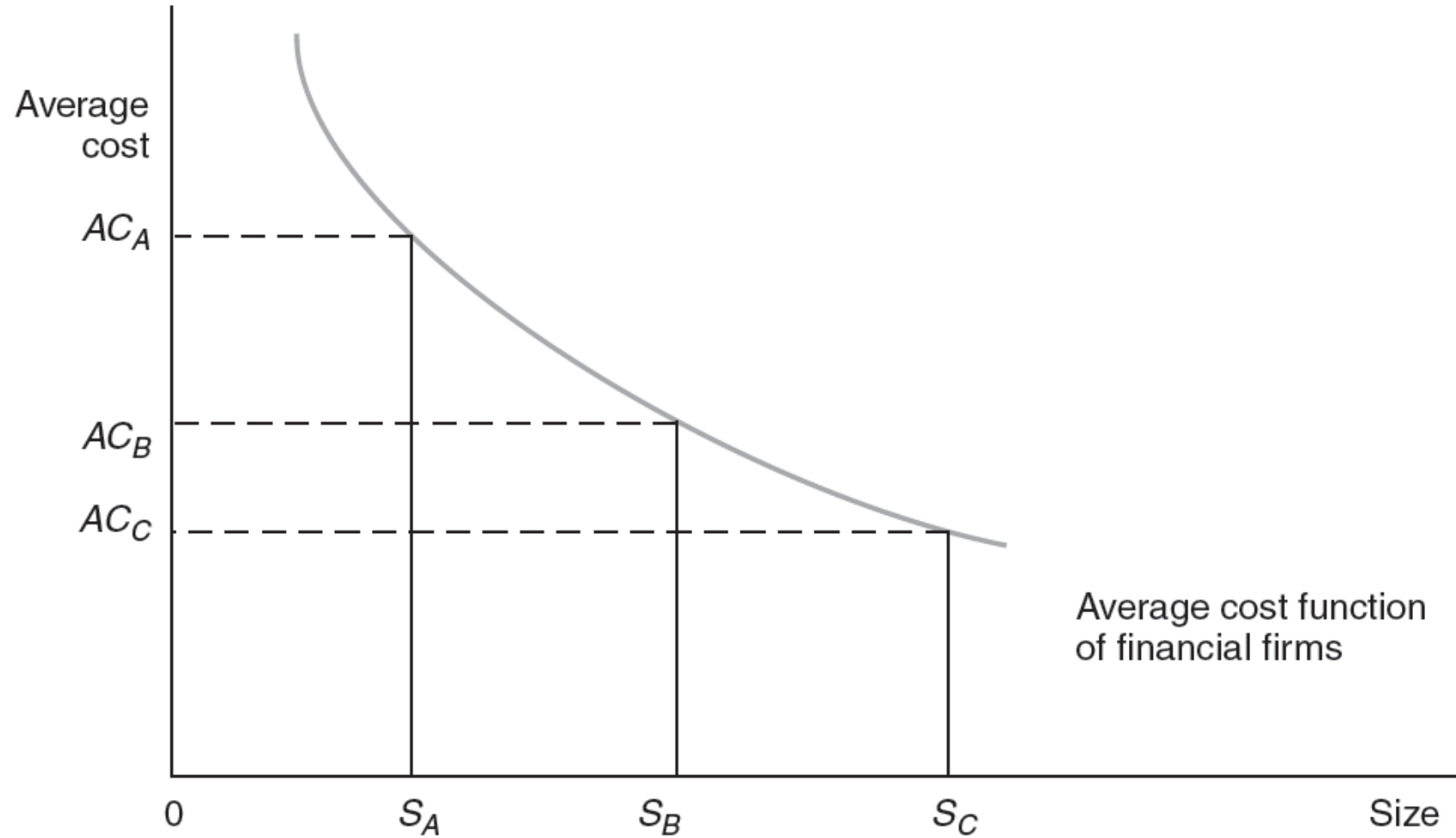
Bitcoins were a "virtual good", had no legal status and should not be used as a currency, it said.

Technology and Costs

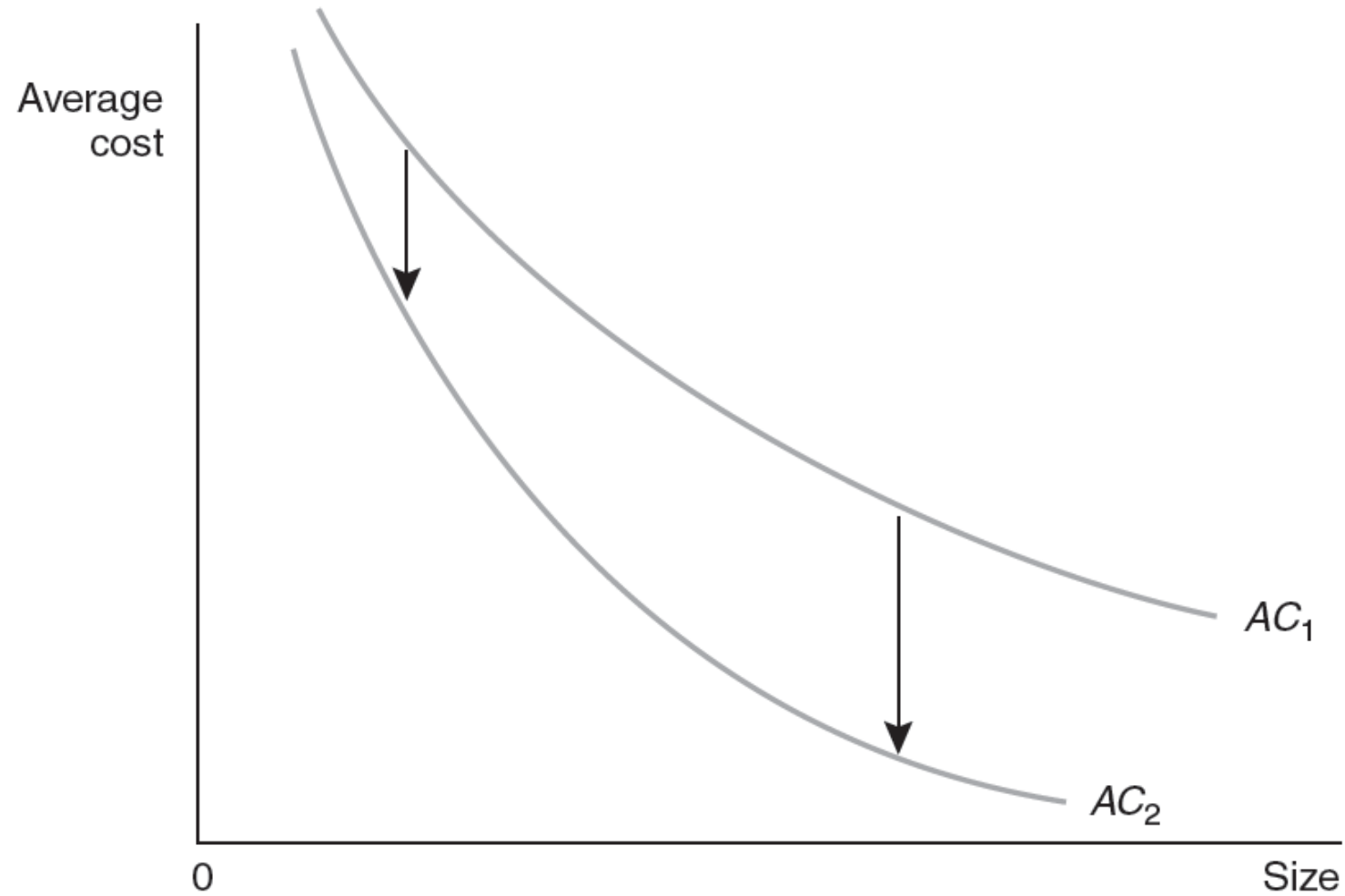
For larger banks, the scale and array of potential technology investments is greater

- Potential cost advantage for larger banks
 - Economies of scale
 - Potential for elimination of smaller banks?
- Technological investments are risky
 - Potential for excess capacity, integration and cost control problems
 - Diseconomies of scale

Economies of Scale in Banks



Effects of Technological Improvement



Technology and Costs (Cont.)

- Economies of scope
 - Joint use of inputs may provide synergistic cost savings in producing multiple products
 - Bank size may affect potential gains and losses from IT investments
- Diseconomies of scope
 - Costs of joint production of bank services are higher than they would be if they were independently produced

Technology Risk

Strategic risk of IT

- Not embracing new technology
- Not integrating IT and business strategy
- Investing in the wrong technology

TSB suffers £105m loss after computer chaos

🕒 1 February 2019 | 🗨️



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TSB's computer meltdown pushed the bank into a £105.4m loss last year, from a £162.7m profit in 2017.

The disastrous IT upgrade resulted in £330.2m in costs, to be partly offset by £153m that TSB said it expected to recover from computer provider Sabis.

About 80,000 customers switched their bank account away from TSB in 2018 - 30,000 more than 2017 - after some people went weeks without services.

Cybersecurity Risk

Cyber threats target operational vulnerabilities:

- Expose personally identifiable information and Proprietary intellectual property
- Facilitate misappropriation of funds and data
- Corrupt information
- Disrupt business activities

Lloyds cyber-attack details emerge

By Simon Gompertz
Personal finance correspondent, BBC News

🕒 23 January 2017



🔗 Share



At the time, the group attributed the breakdown to "technical problems"

<https://www.bbc.co.uk/news/business-38715909>

UK Payment System

Bacs

Pros

- Long established, trusted method of making and receiving payments
- Great way of collecting recurring payments via Direct Debits
- Low transaction fees for businesses, no charges for individuals

Cons

- Three working day processing time, so not good for time-critical payments
- Inflexible cut off times – most payment requests must be submitted before 17:00 or they will roll over to the next day of the processing cycle

UK Payment System (Cont.)

Clearing House Automated Payment System (CHAPs)

Pros

- Capable of settling critical high-value transactions in real-time
- Guaranteed same-day if instructions are received weekdays before 14:00
- No cap on transaction value

Cons

- Significantly more expensive than Bacs transfers
- Inflexible cut off times
- Not available as a payment method at all banks
- Payments are irrevocable

UK Payment System (Cont.)

Faster Payments (FPS)

Pros

- Fast way of sending and receiving low-value payments
- Lower cost real-time processing for businesses than CHAPS
- No cut-off times – 24/7 service

Cons

- Higher cost per transaction than Bacs for businesses
- Maximum transaction limit capped at £250,000, with lower limits imposed by banks

Daylight Overdraft Risk

For banks to direct access to CHAPs, they must

- Hold a reserves or settlement account at the Bank of England
- Be participant within the definition set out in the Financial Markets and Insolvency Regulations 1999
- If domiciled outside England and Wales, provide information about company status and settlement finality through a legal opinion
- Satisfy the Bank on security and resilience arrangements through a standard attestation process
- Comply with the CHAPS Reference Manual on an ongoing basis

Daylight Overdraft Risk (Cont.)

- Under current regulations, the member bank's end-of-day reserve position cannot be negative.
- However, the end of day is not during the day.
- Therefore, the regulator cannot prevent member banks from doing daylight overdrafts – negative intraday balances on their reserve account.

Regulatory Risk

Technology facilitates avoidance of regulation by locating in least regulated state or country.

- Citigroup credit card operations in South Dakota
- South Dakota and Delaware most liberal in terms of **usury ceilings** and other regulatory controls
- Cayman Islands – now is the world's 8th biggest banking center.

Usury Ceilings

Usury ceilings are state government imposed limits that banks may charge on certain types of lending activities, such as consumer loans and credit cards.

For example

Credit Union currently have a maximum cap on the interest rate they can charge set at 2 per cent per calendar month.

Coronavirus: Banks bow to pressure and axe shareholder payments

🕒 1 April 2020



Share

Coronavirus pandemic

Some of the UK's biggest banks have agreed to scrap dividend payments and hold onto the cash, which may be needed during the coronavirus crisis.

The Bank of England welcomed the decision to suspend the payments to shareholders and urged the banks not to pay bonuses to senior staff either.

The banks, which include NatWest, Santander and Barclays, were due to pay out billions to shareholders.

Market Summary > HSBC Holdings plc

LON: HSBA

412.05 GBX **+6.45 (1.59%)** ↑

17 Apr, 16:40 BST · Disclaimer



Market Summary > Lloyds Banking Group PLC

LON: LLOY

30.45 GBX **+1.02 (3.45%)** ↑

17 Apr, 16:35 BST · Disclaimer



Other Risks

- Tax Avoidance
 - Internal pricing mechanisms to shift profits to low tax regimes
 - Credit Suisse Group
- Competition Risk
 - Increased competition with nontraditional financial service suppliers
 - Example: AT&T owns a finance company
 - Example: Growth of industrial loan corporations (ILCs) in Utah, where regulation is more favorable
 - Three-year moratorium established by Wall Street Reform and Consumer Protection (Dodd-Frank) Act of 2010

Controlling Operational Risk

- Loss prevention:
 - Training, development, and review of employees
- Loss control:
 - Planning, organization, back-up
- Loss financing:
 - External insurance
- Loss insulation:
 - Bank capital

Regulatory Issues

- Operational Risk and bank Insolvency
 - 1999 Basel Committee on Banking Supervision noted the importance of operational risks
 - Proposed 3 methods for deposit institutions to calculate required capital
 - Basic Indicator Approach
 - Standardized Approach
 - Advanced Measurement Approach
- Consumer Protection

Other Concerns

- Efforts to expand consumer acceptance of web-based services frustrated by scams
 - Identity theft concerns
- Vulnerability of online credit card usage