Chapter 20: Banks and the Magic of Finance

Questions — Questions and Activities

Q1 What is financial infrastructure? How does it complement physical infrastructure?

SOLUTION

Financial infrastructure is a network of banks, payment systems, stock markets, and other financial institutions that help people, businesses, and the government facilitate financial transactions and manage money.

Physical infrastructure — such as roads, railways, and telecommunication networks — supports economic activities that are driven by money-related transactions. Financial infrastructure complements physical infrastructure by providing the means to fund and sustain those economic activities.

For example, the development and maintenance of roads and railways requires large amounts of money. Financial institutions raise this money through savings, loans, and investment. Similarly, workers who build and operate physical infrastructure receive wages through bank accounts, and businesses that supply materials borrow funds from banks.

In short, physical infrastructure moves people and goods, while financial infrastructure moves money — the two together enable economic progress.

Answer: Financial infrastructure is the network of banks, payment systems, stock markets, and financial institutions that facilitate financial transactions. It complements physical infrastructure by providing the funds needed to build and maintain it, and by enabling the monetary transactions that economic activities depend on.

Q2 How does having a bank account help people? Should everyone be required to have a bank account?

SOLUTION

A bank account helps people in several ways:

Safety: Money kept in a bank is safer than keeping cash at home, where it can be lost, stolen, or damaged.

Interest income: Banks pay interest on savings deposits, helping money grow

over time through compounding.

Access to loans: Account holders can borrow money from banks for purposes like buying a house, funding education, or starting a business.

Direct transfers: Salaries, wages, and government scholarships can be received directly into bank accounts, reducing the role of middlemen and ensuring timely payments. For instance, under the Pradhan Mantri Jan Dhan Yojana, farmers and workers receive funds directly in their accounts.

Digital payments: Account holders can use cheques, debit cards, ATMs, internet banking, and UPI for easy and convenient transactions.

Regarding whether everyone should be required to have a bank account: the chapter shows that broad access to banking benefits individuals and the economy as a whole. The Jan Dhan Yojana, which opened over 50 crore accounts — mainly for low-income earners and women — demonstrates how financial inclusion reduces cash dependency, ensures direct benefit transfer, and reduces middlemen. Making bank accounts universally accessible, as this scheme does, is beneficial. However, requiring it by law would need to be balanced with making the process easy, free, and accessible even in remote areas.

Answer: A bank account keeps money safe, earns interest through compounding, provides access to loans, enables direct receipt of wages and scholarships, and allows digital payments. Broad access to banking is beneficial — the Jan Dhan Yojana illustrates this by opening over 50 crore accounts — though making it a requirement would need to be paired with universal, barrier-free access.

Q3 What could be the possible advantages and disadvantages of compound interest for savers and borrowers?

SOLUTION

Compound interest is the process of earning (or paying) interest not just on the original amount, but also on the interest accumulated in previous periods.

Advantages for savers:
Savings grow faster over time because each year interest is earned on a larger amount. For example, 1,000 at 6% annual compound interest grows to 1,060 after year 1, then 1,123.60 after year 2, and 2,012.20 after 12 years. The longer the money stays, the more powerful the effect — this is why compounding is called the 'magic' of finance.

Disadvantages for savers:
The benefits of compounding are realised only if money is left untouched for a long time. Savers who withdraw early do not benefit as much.

Advantages for borrowers:
In some cases, a borrower may benefit if the investment they fund with a loan grows faster than the interest they owe. For instance, a business loan used to expand operations may generate returns exceeding the interest cost.

Disadvantages for borrowers:
Compound interest makes loans more expensive over time. If a borrower delays repayment, the outstanding amount grows significantly because interest is charged on the unpaid interest as well as the principal. This can make debt very difficult to repay.

Answer: For savers, compound interest is advantageous because savings grow faster as interest accumulates on previous interest — small savings can multiply significantly over time. For borrowers, it is a disadvantage because unpaid interest is added to the principal, making debt grow rapidly and harder to repay. Savers benefit most by leaving money untouched for longer periods.

Q4 How does financial infrastructure enable the flow of money between households and businesses? Can you think of how the government can facilitate this flow?

SOLUTION

Financial infrastructure enables the flow of money between households and businesses in the following ways:

Deposits and loans: Households deposit their savings in banks. Banks pool these deposits and lend them to businesses as loans for purchasing machinery, raw materials, and other operational needs. This transfers money from households (who save) to businesses (who invest).

Payment systems: Cheques, debit cards, UPI, and internet banking allow businesses to pay workers and suppliers, and allow households to buy goods and services from businesses, ensuring smooth circulation of money.

Stock market: Households can buy shares in companies, directly investing their savings in businesses. Companies raise funds by issuing shares to the public.

How the government can facilitate this flow:

The government can promote financial inclusion through schemes like Pradhan Mantri Jan Dhan Yojana, which brought over 50 crore unbanked people into the formal banking system. It can also invest in digital payment infrastructure to make UPI and internet banking accessible to more people. Additionally, institutions like NABARD (which supports rural loans for farming and infrastructure) and the Industrial Finance Corporation of India (which funds businesses in key sectors) are government-supported bodies that channel funds to where they are needed most. The RBI, as the central bank, sets regulations and benchmark interest rates that shape the entire flow of funds in the economy.

Answer: Financial infrastructure moves money from households to businesses through bank deposits that are lent as loans, payment systems that enable transactions, and the stock market where households invest savings in companies. The government facilitates this through financial inclusion schemes (Jan Dhan Yojana), specialised institutions like NABARD, and RBI's regulatory oversight and interest rate setting.

Q5 What could be the reason for the higher interest rate earned on fixed deposits as compared to a savings account?

SOLUTION

A fixed deposit is a one-time deposit kept in the bank for a fixed period, such as 3 or 5 years, and the depositor cannot withdraw it before that time. A savings account, on the other hand, allows deposits and withdrawals at any time (within monthly limits).

The bank offers a higher interest rate on fixed deposits for the following reasons:

Commitment period: When a depositor locks money in a fixed deposit for a fixed term, the bank knows exactly how long it can use that money. This allows the bank to lend it out confidently for longer periods, enabling the bank to earn more from that money.

No liquidity risk: Since the depositor agrees not to withdraw during the fixed period, the bank does not need to keep that amount readily available. With a savings account, the bank must always be ready for withdrawals, so it has to be more cautious about how it uses the money.

Reward for commitment: The higher interest rate is essentially a reward to the

depositor for giving up access to their money for a fixed period. The longer and more certain the commitment, the higher the reward the bank can offer.

Answer: Fixed deposits earn higher interest because the depositor commits their money for a fixed period (e.g., 3 or 5 years), giving the bank certainty to lend it out for longer and earn more. In contrast, savings accounts allow withdrawals at any time, so banks must keep the funds more liquid and offer lower interest as a result.

Q6 Sahil received 10,000 as a prize in a poster-making competition. His father promises to pay him 12 per cent interest per year if he does not spend the amount. After 3 years, how much money would Sahil have?

SOLUTION

The chapter teaches compound interest — interest is earned not just on the original amount but also on the interest accumulated in previous years. Applying compound interest at 12% per year:

Principal (P) = 10,000
Rate of interest (r) = 12% per year
Time (n) = 3 years

Year 1:
Interest = 12% of 10,000 = (12/100) × 10,000 = 1,200
Amount at end of Year 1 = 10,000 + 1,200 = 11,200

Year 2:
Interest = 12% of 11,200 = (12/100) × 11,200 = 1,344
Amount at end of Year 2 = 11,200 + 1,344 = 12,544

Year 3:
Interest = 12% of 12,544 = (12/100) × 12,544 = 1,505.28
Amount at end of Year 3 = 12,544 + 1,505.28 = 14,049.28

Verification using formula A = P × (1 + r/100)^n:
A = 10,000 × (1.12)^3
1.12^2 = 1.2544
1.12^3 = 1.2544 × 1.12 = 1.404928
A = 10,000 × 1.404928 = 14,049.28 ✓

After 3 years, Sahil would have 14,049.28.

Answer: After 3 years at 12% compound interest: Year 1 → 11,200; Year 2 → 12,544; Year 3 → 14,049.28. Sahil would have 14,049.28.

Q7 How does the stock market help mobilise the savings of individuals? In what ways do companies benefit by issuing shares to people?

SOLUTION

How the stock market helps mobilise individual savings:

The stock market allows individuals to buy shares — units of ownership in companies. When people buy shares, they invest their savings in businesses rather than leaving money idle. This channels savings from households into productive economic activity. The stock market thus acts as a mechanism to mobilise the savings of many individuals and direct them toward companies that need funds.

If a company performs well and its share prices rise, investors can also earn returns on their investment, which further encourages saving and investing.

How companies benefit by issuing shares:

Raising funds: Companies can raise large amounts of money by issuing shares to the public. This money can be used for expanding operations, purchasing new machinery and equipment, launching new products, or funding other business needs — without having to take a loan and pay interest.

Part-ownership: Shareholders become part-owners of the company, and the company does not have to repay the money raised through shares (unlike a loan). Instead, shareholders earn returns if the company does well.

In summary, the stock market connects individual savers with companies that need capital, benefiting both sides.

Answer: The stock market mobilises individual savings by allowing people to buy shares in companies, channelling idle savings into productive investment. Companies benefit by raising funds from many investors without taking loans — the money can fund expansion and new products, and shareholders become part-owners who earn returns if the company succeeds.

Q8 How can we balance the convenience of digital payments with the risk of cyber fraud?

SOLUTION

Digital payments through UPI, internet banking, and debit cards offer great convenience — instant transfers, no need to carry cash, accessible 24×7 — but they also come with the risk of cyber fraud, where fraudsters trick people into sharing sensitive information.

Steps to balance convenience with safety, as highlighted in the chapter:

Never share personal information: Do not share phone numbers, account numbers, passwords, or OTPs with strangers or in response to unknown calls or messages, even if they claim to be from a bank.

Avoid unknown links: Do not click on unknown links or videos received through messages, as these may install harmful apps or steal personal data.

Do not store sensitive data: Avoid storing bank passwords, debit card PINs, or account details on mobile devices or computers.

Report fraud immediately: If fraud occurs, report it through the helpline number 1930 or the National Cybercrime Reporting Portal (https://cybercrime.gov.in) so that action can be taken quickly.

By following these safety practices, individuals can continue to enjoy the speed and ease of digital payments while protecting themselves from financial fraud.

Answer: To balance convenience with safety: never share OTPs, passwords, or account details with anyone; avoid clicking unknown links; do not store sensitive banking information on devices; and report any fraud immediately via helpline 1930 or the National Cybercrime Reporting Portal. These steps allow continued use of digital payments while minimising the risk of cyber fraud.

Q9 Ask your family members or neighbours about — how they save money; whether they use UPI, ATM or cheques and the kinds of transactions they perform; if they or their acquaintances have experienced digital fraud and what they did. Summarise your findings in a table or short report and share one surprising insight with your class.

SOLUTION

This is a personal survey activity. Here is guidance on how to carry it out:

Step 1 — Conduct the interview: Talk to two or three family members or neighbours. Ask each person: (a) How do you save money — cash at home, savings account, fixed deposit, or another way? (b) Do you use UPI, ATM, or cheques? What kinds of payments do you make with them — groceries, bills, transfers? Do you prefer UPI over cash, and why? (c) Have you or someone you know ever received a fake call or message asking for bank details? What happened, and what did you learn?

Step 2 — Summarise in a table: Create a table with columns: Name/Role | Savings method | Payment method used | Experienced fraud? | Key lesson learned.

Step 3 — Share an insight: Think about the most surprising answer — for example, an older family member who switched entirely to UPI, or a fraud attempt someone narrowly avoided by refusing to share an OTP.

Model insight example: 'My grandmother, who never used a smartphone before, now uses UPI for all her vegetable purchases because her son set it up for her. She said it feels much safer than carrying cash to the market.'

Answer: Interview 2–3 family members or neighbours about their savings method (cash/bank/FD), payment preferences (UPI/ATM/cheque), and any experience with digital fraud. Record responses in a table (Name | Savings | Payment method | Fraud experience | Lesson). Share one surprising insight — for example, how a family member switched fully to UPI, or a fraud attempt they avoided by not sharing their OTP.

Q10 Create a Financial Safety Poster with dos and don'ts of digital banking safety. Include emergency numbers or websites like https://cybercrime.gov.in or the 1930 helpline. Display the posters in school corridors or the library.

SOLUTION

This is a creative activity. Here is guidance on what to include in your poster:

Title: 'Stay Safe Online — Protect Your Money'

DOs:
Use strong, unique passwords for your bank apps and internet banking.
Always log out after completing a digital transaction.
Report any suspicious call or message to the bank immediately.
Use only official bank apps downloaded from trusted sources (Google Play / App Store).

DON'Ts:
Never share your OTP, PIN, password, or account number with anyone — not even someone claiming to be from your bank.
Do not click on unknown links sent via SMS, WhatsApp, or email.
Do not store your bank passwords or card details on your phone.

Emergency contacts to display prominently:
Helpline: 1930 (National Cyber Crime Helpline)
Website: https://cybercrime.gov.in

Design tip: Use bold colours and simple icons (a lock, a phone, a warning sign). Keep text large enough to read from a distance. Put the emergency number in the most visible spot.

Answer: Design a poster with clear DOs (use strong passwords, log out after transactions, use official apps) and DON'Ts (never share OTPs or PINs, do not click unknown links, do not store passwords on your phone). Prominently include the 1930 cyber-crime helpline and https://cybercrime.gov.in. Display the finished poster in school corridors or the library.

Q11 Cheques are often used to pay utility bills. Ask your parents to allow you to fill out the cheques for a few monthly payments.

SOLUTION

This is a hands-on activity. Here is guidance on how to fill out a cheque correctly:

A cheque has the following fields (as shown in the chapter):

Date: Write today's date in DD/MM/YYYY format in the date field at the top right.

Pay to: Write the name of the person or company being paid (e.g., 'Electricity Board' or your landlord's name). For safety, cross the cheque by drawing two parallel lines at the top left corner — this means it can only be deposited, not cashed.

Amount in figures: Write the amount in numbers in the box provided (e.g., 2,500).

Amount in words: Write the same amount in words on the line provided (e.g., 'Two Thousand Five Hundred Only'). Write 'Only' at the end to prevent alterations.

Signature: Sign in the signature box at the bottom right — this must match the signature the account holder registered with the bank.

Account number and IFSC: These are pre-printed on the cheque and identify your bank and branch.

Tip: Always use a pen (not pencil), and do not leave blank spaces — draw a line through any unused space to prevent tampering.

Answer: To fill a cheque: write the date, the payee's name (and cross it for safety), the amount in figures and in words (ending with 'Only'), and sign in the signature box. Use a pen, fill all spaces, and draw a line through any blank space. Ask your parents to guide you through a real monthly bill cheque as practice.

Q12 Suppose you have to withdraw 10,000 from your bank account. How would you fill out the cash withdrawal slip at your bank? (Refer to Fig. 8.24.)

SOLUTION

This is a hands-on activity based on Fig. 8.24 in the textbook. Here is guidance on how to fill out a cash withdrawal slip:

Date: Write today's date.

Account number: Write your bank account number carefully — a wrong digit

means the money cannot be processed.

Account holder name: Write your name exactly as it appears in the bank records.

Amount in figures: Write 10,000 in the figures box.

Amount in words: Write 'Ten Thousand Only' on the words line.

Signature: Sign the slip — the bank teller will verify this against the signature on record.

Note: Some banks also ask for your mobile number for an OTP-based verification before dispensing cash.

After submitting the slip at the counter, the teller will process it, count the cash, and hand it to you along with a receipt. Always count the notes before leaving the counter.

Answer: On the withdrawal slip (Fig. 8.24): write the date, your account number, your name as registered, the amount in figures (10,000) and in words ('Ten Thousand Only'), and sign. Submit at the bank counter; the teller verifies your signature and hands over the cash. Always count the notes before leaving.