# Quinte Financial Technologies | FinTech Solutions

**Assignment on**

**CERTIFICATE OF DEPOSIT, MONEY MARKET ACCOUNTS AND INDIVIDUAL RETIREMENT ACCOUNTS**

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Table of Contents

[Certificate of Deposit 3](#_Toc170221088)

[Money Market Accounts 8](#_Toc170221089)

[Individual Retirement Accounts 11](#_Toc170221090)

# Certificate of Deposit

A certificate of deposit (CD) is a type of savings account. It pays a fixed interest rate on money held for an agreed upon period of time.

CDs typically differ from savings accounts because the CD has a specific, fixed term before money can be withdrawn without penalty and generally at higher interest rates. The bank expects the CDs to be held until maturity, at which time they can be withdrawn and interest paid.

CDs have become a more attractive option for savers who want to earn more than most savings, checking, or money market accounts will pay, but without taking on the risk or volatility of the market.

**Types of CDs:**

**Important Terminologies:**

1. **Closure:** Refers to the termination of the CD account. This can occur in following ways:

* **Maturity**: When the CD reaches its maturity date, the bank will either automatically close the CD and deposit the funds into a specified account or renew the CD for another term, depending on the account agreement.
* **Early Withdrawal**: If a depositor withdraws funds from the CD before its maturity date, the CD will be closed. This often results in an early withdrawal penalty, which can include forfeiture of some or all of the interest earned.
* **Bank-Initiated Closure**: A bank might close a CD account for various reasons, such as compliance with regulatory requirements or changes in the terms and conditions.

1. **Refinancing:** Refinancing a CD is not a common term in the traditional sense used in loans and mortgages. However, some similar concepts apply:

* **Renewal at a Better Rate**: When a CD matures; the depositor may choose to reinvest the proceeds into a new CD with a better interest rate. This is akin to refinancing in that the depositor is seeking better terms.
* **CD Ladder Strategy Adjustment**: As part of a CD laddering strategy, when one CD matures, it can be "refinanced" or reinvested into a longer-term CD to take advantage of higher rates while maintaining liquidity through the laddering process.

1. **Ladders:** A ladder is an investment strategy where a depositor invests in multiple CDs with different maturity dates. This strategy provides liquidity, higher average interest rates, and reduced interest rate risk.

* **Structure**: For example, an investor might divide their total investment into five equal parts and invest in five CDs with maturities of 1, 2, 3, 4, and 5 years.
* **Reinvestment**: As each CD matures, the funds are reinvested into a new 5-year CD. This way, the investor has a CD maturing every year, ensuring regular access to funds and taking advantage of potentially higher long-term interest rates over time.
* **Benefits**: This approach provides a balance between earning higher long-term interest rates and maintaining access to a portion of the funds at regular intervals.

1. **Yield Curve:** It is a graph that plots interest rates of CDs (or other debt instruments) of varying maturities. It helps investors understand the relationship between short-term and long-term interest rates. Types of yield curves:
   1. **Normal Yield Curve**:
      1. **Shape**: Upward sloping.
      2. **Interpretation**: Longer-term securities have higher yields than shorter-term ones, indicating expectations of economic growth and possibly higher future interest rates.
      3. **Example**: If the yield on a 2-year Treasury is 1%, a 10-year Treasury might yield 2.5%.
   2. **Inverted Yield Curve**:
      1. **Shape**: Downward sloping.
      2. **Interpretation**: Longer-term securities have lower yields than shorter-term ones, suggesting expectations of declining interest rates, often associated with an impending recession.
      3. **Example**: If the yield on a 2-year Treasury is 2%, a 10-year Treasury might yield 1.5%.
   3. **Flat Yield Curve**:
      1. **Shape**: Flat or nearly flat.
      2. **Interpretation**: Little difference in yields between short-term and long-term securities, indicating uncertainty about future economic conditions.
      3. **Example**: The yields on 2-year, 5-year, and 10-year Treasuries are all around 2%.
   4. **Humped Yield Curve**:
      1. **Shape**: Upward sloping at the short end and downward sloping at the long end, creating a hump in the middle.
      2. **Interpretation**: This unusual shape can indicate specific market conditions, such as supply and demand imbalances in the medium term.
      3. **Example**: The yield on a 5-year Treasury is higher than both the 2-year and the 10-year Treasuries.

The shape of the yield curve provides insights into future interest rate movements. A steep curve suggests rising rates, while a flat or inverted curve suggests falling rates.

Investors use the yield curve to make decisions about fixed-income investments, balancing risk and return based on maturity and yield expectations.

**Types of CDs:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of CD** | **Description** | **Interest Rate** | **Term Lengths** | **Early Withdrawal Penalty** |
| Traditional CD | Fixed-term deposit with a fixed interest rate. | Fixed | A few months to several years | Yes |
| Jumbo CD | CD with a large minimum deposit requirement, usually $100,000 or more. | Typically higher than traditional CDs | Varies | Yes |
| Bump-Up CD | Allows depositor to increase the interest rate once or more during the term if rates rise. | Starts fixed, can be increased | Usually 2-5 years | Yes |
| Step-Up CD | Features pre-scheduled increases in the interest rate at specific intervals. | Increases at predetermined times | Varies, often multi-year | Yes |
| Liquid CD | Allows withdrawal of funds before maturity without a penalty under certain conditions. | Typically lower than traditional CDs | Varies | No, under specified conditions |
| Brokered CD | Sold through a brokerage firm rather than directly by a bank. | Can vary widely, often competitive | Varies | Usually no early withdrawal; must sell on secondary market |
| Callable CD | Can be redeemed by the bank before the maturity date under specified conditions. | Typically higher to compensate for call risk | Varies | Yes, if withdrawn by the depositor |
| High-Yield CD | Offers higher interest rates than standard CDs, often through online banks. | Higher than traditional CDs | Varies | Yes |

**Advantages and Disadvantages:**

|  |  |
| --- | --- |
| **Pros** | **Cons** |
| * Rates are typically higher than savings or money market accounts * Guaranteed, predictable rate of return is less risky than volatile stocks and bonds * Federally insured if opened with an FDIC- or NCUA-insured bank or credit union * Can help you avoid spending temptations since withdrawing funds early triggers a penalty | * Penalties for withdrawing funds early * Typically earns less than stocks and bonds over time * Fixed rate could cost you if interest rates rise during the term * Inflation can eat away at the value of money locked in at a fixed rate |

**Best  CD rates for June 2024 by Fortune:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Institution name** | **APY** | **Term length** | **Minimum opening deposit** |
| **MERCHANTS BANK OF INDIANA** | 5.92% | 12 MONTHS | $1,000 |
| **MERCHANTS BANK OF INDIANA** | 5.92% | 2 YEARS | $1,000 |
| **NEWTEK BANK** | 5.58% | 2 YEARS | $2,500 |
| **MORGAN STANLEY** | 5.45% | 3 MONTHS | $5,000 |
| **CIBC USA** | 5.36% | 12 MONTHS | $50 |

Interest rates on certificates of deposit (CDs) are influenced by the Federal Reserve funds rate. As the Fed raises its interest rate to reduce high inflation, most banks raise the interest rate paid to customers who open deposit accounts, including high-yield savings accounts, money market accounts (MMAs), and CDs.

Some CDs offered by famous banks:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Term** | **Citibank** | **Bank of America** | **Capital One** | **Chase Bank** |
| **6 Months** | 4.65% | 4.75%  (7 month) | 4.25% | 3.00% |
| **1 Year** | 2.00% to 3.00% | 4.75%  (13 month) | 5.00% | 2.00% |
| **2 Years** | 2.00% | 3.00%  (25 month) | 4.00% | 2.50% |
| **5 Years** | 2.00% | 0.03% | 3.90% | 2.50% |

# Money Market Accounts

A Money market account (MMA) is a savings account that typically offers higher interest rates than traditional savings accounts, often with check-writing privileges and debit card access although there are restrictions on the number of withdrawals per month due to federal regulations (typically up to 6 withdrawals or transfers per statement cycle). They often require a higher minimum balance to open and maintain.

MMAs offer liquidity and access to funds, making them suitable for short-term savings goals or emergency funds. They are popular among individuals and businesses looking for a balance between earning interest and maintaining access to funds and are often used for short-term savings, emergency funds, or funds awaiting investment in higher-return opportunities.

* Market Size:As of Q4 2023, the total amount held in MMAs in the U.S. was approximately $5.7 trillion, according to Federal Reserve data. This represents about 20% of all bank deposits in the U.S.
* According to a 2023 Bankrate study, 42% of MMAs charge a monthly maintenance fee if the balance falls below a certain threshold. The average monthly fee is $12, but can range from $5 to $25.
* Comparison with Other Accounts(as of 2024):
  + Average savings account rate: 0.46% APY
  + Average 1-year CD rate: 1.73% APY
  + Average MMA rate: 0.62% APY

**Advantages and Disadvantages:**

|  |  |
| --- | --- |
| **Pros** | **Cons** |
| * Higher interest rates * Check-writing privileges * Debit cards * Insurance protection | * Limited transactions * Fees * Minimum balance requirement |

**Some Best Money Market Accounts:**

|  |  |
| --- | --- |
| **Bank/Institution** | **APY** |
| Vio Bank Cornerstone Money Market Account | 5.30% |
| Quontic Money Market Account | 5.00% |
| Zynlo Money Market Account | 5.00% |
| First Foundation Bank Online Money Market | 4.90% |

**US Money Market Treasury Yield (Historical data):**

|  |  |  |
| --- | --- | --- |
| **Date** | | **Value** |
| June 30, 2024 | | 5.33% |
| September 30, 2023 | | 5.33% |
| July 31, 2023 | | 5.08% |
| May 31, 2023 | | 4.83% |
| March 31, 2023 | | 4.57% |
| January 31, 2023 | | 4.33% |
| December 31, 2022 | | 3.83% |
| October 31, 2022 | | 3.08% |
| September 30, 2022 | | 2.33% |
| August 31, 2022 | | 2.32% |
| July 31, 2022 | | 1.58% |
| May 31, 2022 | | 0.33% |
| February 28, 2022 | | 0.08% |
| December 31, 2021 | | 0.07% |
| September 30, 2021 | | 0.06% |
| July 31, 2021 | | 0.08% |
| June 30, 2021 | | 0.05% |
| May 31, 2021 | | 0.06% |
| April 30, 2021 | 0.07% |

# Individual Retirement Accounts

Individual Retirement Accounts (IRAs) are tax-advantaged accounts designed to help individuals save for retirement.

**Types of IRAs**

1. **Traditional IRA**:
   * **Tax Deductibility**: Contributions may be tax-deductible, depending on income, filing status, and whether the individual or spouse is covered by a retirement plan at work.
   * **Taxation**: Contributions grow tax-deferred. Withdrawals in retirement are taxed as ordinary income.
   * **Contribution Limits**: For 2023, the limit is $6,500 per year ($7,500 if age 50 or older).
   * **Required Minimum Distributions (RMDs)**: Must start at age 72.
   * Tax deductibility phases out for individuals covered by a workplace retirement plan:
     1. Single filers: $73,000 to $83,000.
     2. Married filing jointly: $116,000 to $136,000.
2. **Roth IRA**:
   * **Tax Deductibility**: Contributions are not tax-deductible.
   * **Taxation**: Contributions grow tax-free. Qualified withdrawals in retirement are tax-free.
   * **Contribution Limits**: Same as Traditional IRA, but subject to income limits for eligibility.
   * **RMDs**: No RMDs during the account holder’s lifetime.
   * Contribution eligibility phases out:
     1. Single filers: $138,000 to $153,000.
     2. Married filing jointly: $218,000 to $228,000.
3. **SEP IRA (Simplified Employee Pension)**:
   * **Tax Deductibility**: Contributions are tax-deductible for the employer.
   * **Taxation**: Contributions grow tax-deferred. Withdrawals are taxed as ordinary income.
   * **Contribution Limits**: Up to 25% of compensation or $66,000 for 2023, whichever is less.
   * **RMDs**: Must start at age 72.
4. **SIMPLE IRA (Savings Incentive Match Plan for Employees)**:
   * **Tax Deductibility**: Contributions are tax-deductible for both employees and employers.
   * **Taxation**: Contributions grow tax-deferred. Withdrawals are taxed as ordinary income.
   * **Contribution Limits**: Employee contribution limit is $15,500 for 2023 ($19,000 if age 50 or older). Employers must match contributions up to 3% of employee compensation or make a 2% nonelective contribution.
   * **RMDs**: Must start at age 72.

**Important Terminology:**

1. **Contribution Limits**: The maximum amount that can be contributed to an IRA each year. Limits can vary by IRA type and age of the contributor.
2. **Tax Deductibility**: Whether contributions to the IRA can be deducted from taxable income. This feature applies to Traditional IRAs and employer contributions to SEP and SIMPLE IRAs.
3. **Tax-Deferred**: Earnings within the IRA grow without being taxed until withdrawals are made. Applies to Traditional, SEP, and SIMPLE IRAs.
4. **Tax-Free**: Earnings and qualified withdrawals are not taxed. Applies to Roth IRAs.
5. **Required Minimum Distributions (RMDs)**: The minimum amount that must be withdrawn from the IRA each year starting at age 72. Applies to Traditional, SEP, and SIMPLE IRAs, but not Roth IRAs.
6. **Qualified Withdrawal**: A withdrawal that meets IRS criteria for being tax-free or penalty-free. For Roth IRAs, this typically means the account has been open for at least five years, and the withdrawal is made after age 59½.
7. **Non-Qualified Withdrawal**: A withdrawal that does not meet IRS criteria and may be subject to taxes and penalties. For Roth IRAs, this means withdrawals made before age 59½ or within five years of opening the account.
8. **Catch-Up Contribution**: Additional contributions allowed for individuals age 50 and older, above the standard contribution limit.
9. **Rollovers**: The process of moving funds from one retirement account to another (e.g., from a 401(k) to an IRA) without incurring taxes or penalties, as long as the rollover is completed within 60 days.

**Market Size:**

* As of Q4 2023, total IRA assets in the U.S. reached approximately $13.9 trillion (Investment Company Institute data)
* Traditional IRAs: $10.2 trillion
* Roth IRAs: $1.7 trillion
* SEP IRAs and SIMPLE IRAs: $2 trillion

**Participation Rates:**

* According to a 2023 Federal Reserve survey, about 37% of U.S. households own an IRA
* Ownership increases with age and income:
  + 25% for those under 35
  + 48% for those 65 and older
  + 62% for households with incomes over $100,000

**Average Balances (as of 2023):**

* Average Traditional IRA balance: $113,800
* Average Roth IRA balance: $44,300

**Conversion Trends:** Roth IRA conversions increased by 18% in 2023 compared to 2022, as more individuals sought to take advantage of tax-free growth.

**Investment Allocations:**

According to a 2023 Investment Company Institute study:

* Mutual funds: 44%
* Individual stocks: 27%
* ETFs: 15%
* Bonds and cash: 14%
* Average annual withdrawal rate: 5.2% of account balance (2023 data)
* Estimated tax savings from IRAs: $27.8 billion in 2023 (Joint Committee on Taxation)
* Rollover Activity: In 2023, about $516 billion was rolled over from employer-sponsored retirement plans to IRAs
* Inheritance Trends: Inherited IRAs accounted for about 7% of all IRA assets in 2023
* Digital Trends:
* 78% of IRA providers offer mobile apps for account management
* 35% increase in digital-only IRA openings from 2022 to 2023
* Future Projections: IRA assets are projected to grow to $17.5 trillion by 2027, representing a 6% annual growth rate
* Catch-Up Contributions: 31% of eligible IRA owners made catch-up contributions in 2023

Thank You