A Quick Start Guide to Investing

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Personal Finance SDG

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1. Capital Management: Why should you invest
2. Brokerages: Who you can invest through
3. Accounts: Where your investments exist
4. Vehicles: What you can invest in
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1 Capital Management: Why should you invest
  - Capital Preservation
  - Capital Appreciation

Shelter From Inflation

- Historically, the cost of living has increased more often than it has decreased

Shelter From Inflation

- If the cost of living increases, then the purchasing power of your cash decreases

$100 worth of today's staples (food, shelter, etc) used to cost

2017	2012	2007	2002
$85.52	$79.82	$73.20	$66.12

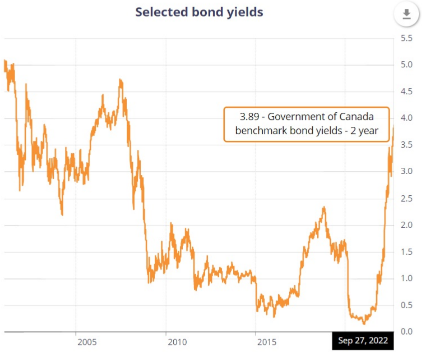
If this rate continues, $100 worth of today's staples will cost

2027	2032	2037	2042
$110.90	$122.97	$136.37	$151.23

- Hence, the value of capital held as cash erodes as time passes
- Investing is one such way to protect against this decay!

Predictable Nominal Growth

- There exists investment vehicles that guarantee a fixed level of growth



Predictable Nominal Growth

- If a future financial objective requires a certain amount of capital (retirement, future expense, etc.), then we can use such vehicles to reduce our present capital obligation for achieving future objectives

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Assume the following

1. You have \$150,000
2. A down-payment costs \$195,000
3. You have 10 years to get there
4. A 10 year bond yields 3%

Using bonds, in 10 years

$$\begin{aligned}\text{Value} &= \$150\text{k} + \$150\text{k} * 3\% * 10\\ &= \$150\text{k} + \$150\text{k} * 30\%\\ &= \$150,000 + \$45,000\\ &= \$195,000\end{aligned}$$

Predictable Nominal Growth

- Hence, we can confidently predict our path to achieving our objective
- This means we can buffer ourselves against job loss or unexpected expenses that would otherwise prevent us from reaching our goal
- Therefore, we preserve capital today for tomorrow

Investing makes ***life*** easier!

1. Capital Management: Why should you invest
   - Capital Preservation
   - Capital Appreciation

Passive Income

- Income generated independently from you and your time
- Once established, requires no further involvement
- If you have passive income, then you are protected against loss of working income or you can work less hours
- Hence, investing allows us to allocate our life to more meaningful and enriching pursuits

Growth

- Assume you are paid $25USD/hr. After 8 hours or work, you earn $200USD
- If you invested that $200USD in the most popular Exchange Traded Fund ($SPY) 30 years ago, then that $200USD would today be worth $1574.03USD (dividends[7] reinvested, after inflation)
- Hence, you would have turned 8 hours of work into nearly 63 hours worth of income
- Investing would have given you 55 hours of income!

2 Brokerages: Who you can invest through
- General Brokerages Info
- Bank Services vs Online Self-Directed Services

General Brokerages Info

- Requirements to set up an account
  - Canadian citizenship or Visa
  - Social Insurance Number (SIN)
  - Government issued form of identification
- Fees
  - Commission based accounts
  - Fee-based accounts
  - Administration Fees

2 Brokerages: Who you can invest through

General Brokerages Info

Bank Services vs Online Self-Directed Services

Bank Services vs Online Self-Directed Services

	Pros	Cons
Bank Services	Robust website platforms, large variety of investment opportunities and tools for research, access to better advisory services	High commission fees and account fees, mobile apps are not as strong
Online Self-Directed Services	Lower fees, simple mobile apps and websites	Less investment options and research tools, less robust advisory services

Some available brokerages

- Bank Services:
    - Scotia iTrade, TD Direct Investing, RBC Direct Investing, BMO InvestorLine, CIBC Investor's Edge, Desjardins Online Brokerage, National Bank Direct Brokerage
- Online Self-Directed Services:
    - Questrade, WealthSimple, Qtrade, Interactive Brokers

3. Accounts: Where your investments exist
    - Registered
        - Tax Free Savings Account (TFSA)
        - Registered Retirement Savings Plan (RRSP)
        - First Home Savings Account (FHSA)
        - RESP and RRIF
    - Non-registered

What are Registered Accounts?

- Registered accounts are accounts authorized by the federal government for tax exemption or deference.
    - These include the Tax Free Savings Account[3], Registered Retirement Savings Plan[5], Registered Education Savings Plan[6], Registered Retirement Income Fund[4], and the new 2023 First Home Savings Account[2]
- Your existing registered accounts can be found on the official Canada Revenue Agency Website

3 Accounts: Where your investments exist
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Definitions I

- Non-Resident: TFSA[3] tax obligations are different if
  - You normally, customarily, or routinely live in another country and are not considered a resident of Canada
  - You do not have residential ties in Canada, and either one of the following situations applies: you live outside Canada throughout the tax year or you stay in Canada for less than 183 days in the tax year
- Qualified Investments: Vehicles that are not normally taxed in a TFSA[3]
  - An investment in properties, (except real property) including money, guaranteed investment certificates, government and corporate bonds, mutual funds, and securities listed on a designated stock exchange

Definitions II

- Unused TFSA[3] Contribution Room: The amount available for tax protection at the end of a calendar year

$$\begin{aligned}\text{Contribution Room} &= (\text{Prior Year Withdrawals}) \\ &+ (\text{Current Year Room Increase}) \\ &- (\text{Current Year Contributions})\end{aligned}$$

- Tax Payable: An amount you owe the government, normally \$0.00. This is non-zero if
  - your contributions exceed your contribution room or
  - you become a non-resident and contributed during non-residency,
  - then 1% tax is applied on the max excess for each month that you exceed contribution room

How does the tax protection work?

- Every year after your 18th birthday, the tax-free contribution limit of your TFSA[3] increases
- All growth and income in the TFSA[3] is tax exempt as long as
  1. your contributions do not exceed your contribution room and
  2. you invest only in qualified investments and
  3. you are a resident of Canada
- If you have $\$10,000$ in your TFSA[3] and that grows to $\$1,010,000$, then you can withdraw $\$1,010,000$ tax free.
  - All withdrawals made in the current year are added back the contribution room of the following year
  - Normally, capital gains tax would deduct $\$143,180.53$ from your growth!

Who can open a TFSA? What is it used for?

- You can open a TFSA[3] with any authorized brokerage if you
  1. are older than 18
  2. have a valid Social Insurance Number
- The Canadian TFSA[3] is one of the most powerful investing tools in the world (only South Africa and the United Kingdom have similar tax-free no-withdrawal-penalty accounts).
- Since there are no withdrawal restrictions and all growth is protected from tax, this account is great for general-purpose investing. Whether you desire extreme short term growth or steady long term growth and/or income, this account is ideal

3 Accounts: Where your investments exist
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Definitions I

- RRSP[5] Deduction Limit: The maximum amount you can deduct from your taxes based on your RRSP[5] contributions
    - Any recorded deductions do not need to be claimed in the year they are deducted

$$\begin{aligned}\text{Deduction Limit} &= \min(18\%\text{ Prior Year Income}, \text{Current Year RRSP Limit})\\ &+ \text{Your Pension Adjustments Reversal}\\ &- \text{Net Past Service Pension Adjustment}\end{aligned}$$

Definition II

- Tax Payable: An amount you owe the government, determined as follows:

	Withdrawal Tax	Excess Contribution Tax
\$0 - \$2000	10% (5% in QC)	0%/Month
\$2000 - \$5000	10% (5% in QC)	1%/Month
\$5000 - \$15000	20% (10% in QC)	1%/Month
\$15000 - ∞	30% (15% in QC)	1%/Month
Non-Resident	25%	1%/Month

How Does the Tax Protection Work?

- Every year after your 18th birthday, the RRSP[5] Deduction Limit of your accounts increases
  - The RRSP[5] Deduction Limit acts like your TFSA[3] 'Contribution Room'
- Every dollar contributed to your RRSP[5] Deduction Limit reduces your taxable income
- When used strategically, you can defer tax on income to a point in time that would minimize tax obligation resulting in a significant federal tax refund
- If you have a spouse or common-law partner, you can freely contribute to their RRSP[5]

Who can open a RRSP? What is it used for?

- You can open a RRSP[5] with any authorized brokerage if you
  1. have a valid Social Insurance Number
- With careful strategy, can be effectively used to defer income tax thereby minimizing taxable income over time potentially resulting in significant federal tax refunds
  - If a sudden increase in income is realized, can be used to distribute tax burden and minimize taxes paid
  - Since you can contribute to your spouse/common-law partners RRSP[5], it is often used to split income and lower combined tax obligations
- Since RRSP[5] growth and income is taxed when withdrawn, the TFSA[3] serves a growth oriented investor better in the long run

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What is it? SUBJECT TO CHANGE

- Announced in 2022, the FHSA[2] combines the best qualities of a TFSA[3] and RRSP[5]
- Beginning in 2023, the FHSA[2] contribution room will increase by $8000 annually up to a lifetime maximum of $40,000
- Every dollar in FHSA[2] will decrease taxable income equally
- All growth and income generated under the FHSA[2] can be withdrawn tax-free if and only if it is withdrawn during the purchase of a first home
- If the 15th anniversary of the account has passed and no home is purchased, then funds will be transferred tax-free to an RRSP[5]

Who can open a FHSA? What is it used for? SUBJECT TO CHANGE

- You can open a FHSA[2] with any authorized brokerage if you
  1. are older than 18
  2. have not owned or lived within a home owned by you between 1 year before opening an FHSA[2] and 4 years after
  3. resident of Canada (withholding tax otherwise)
- Strategically, this is will be an **extremely powerful** tool for diversifying a portfolio with real-estate
- You can leverage the tax deference properties (as you would in an RRSP[5]) by reinvesting income tax refunds and also convert all or a portion of the growth/income within an FHSA[2] to real estate on a tax free basis as you would in a TFSA[3]

–!!THAT IS INSANE!!–

How powerful is it?

Assume:

- Fixed 15 Year Income = $78,000
- Annual Contributions = $7800 ($300 per paycheque)
- Compound Annual Growth of (CAG) = 5%

Then....

POWERFUL!

Year	FHSA Total Cont.	FHSA CAG	Tax Savings	Total Tax Savings	Tax Savings CAG
1	$7,800.00	$8,190.00	$2,463.00	$2,463.00	$2,586.15
2	$15,600.00	$16,789.50	$2,463.00	$4,926.00	$5,301.61
3	$23,400.00	$25,818.98	$2,463.00	$7,389.00	$8,152.84
4	$31,200.00	$35,299.92	$2,463.00	$9,852.00	$11,146.63
5	$39,000.00	$45,254.92	$2,463.00	$12,315.00	$14,290.11
6	$40,000.00	$48,567.67	$297.00	$12,612.00	$15,316.47
7	$40,000.00	$50,996.05	$0.00	$12,612.00	$16,082.29
8	$40,000.00	$53,545.85	$0.00	$12,612.00	$16,886.40
9	$40,000.00	$56,223.14	$0.00	$12,612.00	$17,730.72
10	$40,000.00	$59,034.30	$0.00	$12,612.00	$18,617.26
11	$40,000.00	$61,986.02	$0.00	$12,612.00	$19,548.12
12	$40,000.00	$65,085.32	$0.00	$12,612.00	$20,525.53
13	$40,000.00	$68,339.58	$0.00	$12,612.00	$21,551.81
14	$40,000.00	$71,756.56	$0.00	$12,612.00	$22,629.40
15	$40,000.00	$75,344.39	$0.00	$12,612.00	$23,760.87

$$\text{Total Dollar Profit} = (\$75,344.39 - \$40,000) + \$23,760.81 = \$59,105.26$$

$$\text{Total Percent Profit} = \frac{\$59,105.26}{\$40,000} \cdot 100 \approx 148\%$$

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A Brief Overview of the RESP

- The RESP is designed to supply a child or adult enrolled in a post-secondary institution with potentially tax-free income
  - Since students income are generally $0.00 and they receive student deductions and taxes , then income received from an RESP[6] can be tax-free
- Investments grow tax-free but are taxed when withdrawn or paid to student.
- Contributions qualify for the Canada Education Savings Grant which provide 20% of the first $2500 contributions in a year up to a per-child maximum of $7200. RESP[6] holders may receive the Canada Learning Bond depending on household income level.
- Contributions are returned to the contributor and all growth, bonds, and grants are paid to the student in the form of Educational Assistance Payments

A Brief Overview of the RRIF

- The RRIF[4] is designed to supply you with income during the final stages of life
- Pays out a non-negotiable percent of holdings periodically
- Once established, further contributions are prohibited and account will only be closed on death or if fully amortized (Account balance goes to $0.00)
- Generally, retirees transfer RRSPs[5] into RRIFs[4] before the age of 71 in order to qualify income for the Pension Income Tax Credit

3 Accounts: Where your investments exist
- Registered
- Non-registered
  - Cash Account
  - Margin Account

- Non-Registered Accounts are accounts that have not been authorized to provide tax advantages by the federal government
- All Investment Income is taxable and different rules apply to different sources:
  - Dividends[7]: The tax rate depends on if considered eligible or not. Dividends[7] from Canadian companies are deductible.
    - 15% witholding tax applies to U.S dividends[7] in any Canadian account before Canadian tax is deducted
  - Capital Gains: Any profit realized from the selling of a security.
  - Interest: Refers to income given by fixed-income security payments

3. Accounts: Where your investments exist
   - Registered
   - Non-registered
     - Cash Account
     - Margin Account

The Basics

- A standard type of trading account where all cash and vehicles are owned by the account holder
- Different firms will offer different incentives for opening these accounts with them
- Cash accounts may or may not have access to the full array of vehicles

3 Accounts: Where your investments exist
- Registered
- Non-registered
  - Cash Account
  - Margin Account

The Basics

- A specific account which allows access to borrowed funds specifically for the purpose of trading
- Borrowed funds are subject to an interest rate fee as determined between account holder and issuing firm
- Margin is not allowed in Registered Accounts but can enable you to multiply your investment income. If the interest earned is greater than the interest payable, then it may be profitable
- Note that you are liable for any and all loss incurred
- A brief outline of margin is available here

4 Vehicles: What you can invest in
- Equities
  - Shares (AKA Stocks)
  - Funds
- Fixed Incomes
- Derivatives
- Currencies
- Real Estate
- Others

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What is a Share?

- A share[1] represents a unit of ownership in a company
- Owning a share[1] means you are entitled, to some degree, voting rights on the members of a Board of Directors for a company
- Since the Board of Directors controls a company and a shareholder (in part) decides who exists on the BoD, then by extension the shareholder controls the company
- Assuming all shares[1] have equal voting rights (unequal voting rights exist) and you accumulate more than 50% of the outstanding shares of a company, then you have the power to appoint you or anyone you want on the BoD

What are my rights as a shareholder?

- Shareholder rights in Canada include:
  1. Receiving a share of profits (dividends[7])
  2. Electing directors to the board
  3. Receiving a portion of the company if it is dissolved
  4. A vote on any and all legal or fundamental changes
  5. Receiving specific informational material
- Average shareholders are not liable for losses incurred by the business

What types of shares are there?

Shares come in many types with varied rights and uses

1. Common Share: The standard unit of ownership. All rights preserved
2. Preferred Share: Has dividend priority over other shares and pays a larger dividend than common shares
3. Dual Class Share: Varied shares with unequal voting rights. Classes are denoted numerically (1, 2, 3, ..., or A, B, ...)
4. Share Units: Typically issued to directors or employees such as deferred, restricted, performance, and others

Generally, common shares are the only ones that are easily accessible by the public

4 Vehicles: What you can invest in
- Equities
  - Shares (AKA Stocks)
  - Funds
- Fixed Incomes
- Derivatives
- Currencies
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- Others

What is a fund?

- A fund is a pooled collection of investor capital authorized by investors to fulfill an objective as defined in a document called the prospectus
- Portfolio managers are entrusted to use investor capital to deliver on that objective
    - As a result, funds incur costs for managers, legal teams, maintenance, etc. These **fees are generally expressed as a percent of invested capital** and are known as **expense ratios or management fees**
- Funds often distribute capital across many different vehicles or on many companies within a class
    - Hence, owning a unit of a fund generally offers some degree of diversification

What are my rights as a unit holder?

- When you purchase a unit of a fund, you own a fraction of the fund
- You do not always have the right to fractional ownership of the underlying investments
- You have voting rights on key matters as you would if you owned a share of a company

What types of investments funds are there?

- Exchanged Traded Funds(ETFs): These are funds that trade on a public stock exchange just like shares. They tend to be passively managed and have very low expense ratios
- Mutual Fund: These are funds for which purchases are only registered at the close of every trading day. They tend to be actively managed when not invested in ETFS
- Index Fund: An index fund is a specific type of ETF with a prospectus centered on mimicking the fluctuations of a recognized index

4 Vehicles: What you can invest in

- Equities
- Fixed Incomes
  - Bonds
  - Bills and Notes
  - Guaranteed Investment Certification (GIC)
- Derivatives
- Currencies
- Real Estate
- Others

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What is a bond?

- A bond is a debt instrument
- An issuer of a bond becomes indebted to the purchaser for the face value of the bond and some amount of interest
- Bonds can be traded on an open market like stocks
- Businesses can default on bonds entirely or miss interest payments
- You have no rights as a bondholder

What should I know about bonds?

- Since businesses can default on bonds, credit rating agencies assess the likelihood of default and call it a bond rating
- Essential things that determine bond value are inflation rates, interest rates, credit ratings, bond yield
- Bonds can be virtually risk-less or require maximum risk tolerance

What types of bonds are there?

- Bonds can be classified into two major types:
  - Investment-grade: high bond-rate, low credit risk, generally low yield
  - High-yield: Medlow bond-rate, higher credit risk, higher potential for investment loss
- Furthermore, bonds can be classified by issuer such as those from corporate entities or from federal/provincial/municipal governments

4 Vehicles: What you can invest in

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What is a bill? What is a note?

- A bill and note are essentially the same as a bond, but are named differently as a result of the length of term.
- Instead of paying periodic interest, bills pay the face value upon maturity and the difference between purchase and face values is considered the interest
- A note has maturity length between a bill and a bond. Interest is generally paid semi-annually

4 Vehicles: What you can invest in

- Equities
- Fixed Incomes
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- Real Estate
- Others

What is a GIC?

- GICs are similar to a bond in that interest is paid periodically and the principal amount is returned upon maturities
- The advantage of a GIC is that holders are insured for up to $100,000 by the Canadian Deposit Insurance Company (CDIC) and are only issued by authorized major Canadian banks and trust companies

4 Vehicles: What you can invest in
- Equities
- Fixed Incomes
- Derivatives
  - Options
  - Forwards and Futures
  - Swaps
- Currencies
- Real Estate
- Others

What is a financial derivative?

- Financial derivatives are tools that derive their value from a different derivative or non-derivative asset
    - This asset is often referred to as the 'underlying asset'
- They allow you to interact with the underlying in highly specific ways
- Often, derivatives are used to manage risks either by reducing volatility or leveraging exposure to the underlying asset

What makes derivatives complicated?

- The value of a derivative is influenced by several risk factors such as:
  - Volatility risk
  - Directional risk
  - Magnitude risk
  - Time risk
  - Risk free interest rate risk
  - Dividend risk
  - And more!
- If you own a stock and the value of the stock goes up, you make money. This is not always the case if you own a derivative and the underlying stock goes up

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What are options?

- Options are contracts that entitle the holder to the right (but not the obligation) to trade a fixed quantity of the underlying at or before a specific date, at a predetermined price

Some important terms are defined below:

- Strike Price: Guaranteed price the underlying can be traded at as determined by the option
- Expiry date: The date for which the contract is valid. The contract is invalid and thus worthless after this date
- Underlying: The asset that the contract allows you to trade
- Lot: This is the number of the underlying assets you must trade using the contract. If a share is the underlying asset, then the lot is 100

What types of options are there?

- There are two types:
  - Call: Lets you buy 1 lot of the underlying at the strike price price until market close on the expiry day
  - Put: Lets you sell 1 lot of the underlying at the strike price until market close on the expiry day
- You can trade either a call or put in two ways:
  - Writing: You create and sell the option and will supply 1 lot of the underlying if the contract is exercised
  - Buying: You own the contract and are entitled to the rights granted by the option
- Furthermore, options can be either American or European in style. American options can be exercised before the expiry date while European options cannot.

What should I know about options?

- Because options have a point after which they expire, a trader must be correct about the price of the underlying which the option derives value from but must also be right about the **time frame** this will happen in
  - For this reason, options are considered to be complex trading tools
- The Black-Scholes-Merton is an essential formula for calculating the theoretical value of an option with which provides traders a basis for constructing strategies
  - In future conversations, we will discuss the BSM model and how it plays into constructing strategies

4 Vehicles: What you can invest in

- Equities
- Fixed Incomes
- Derivatives
  - Options
  - Forwards and Futures
  - Swaps
- Currencies
- Real Estate
- Others

What are Forwards?

- Forwards are similar to options in that they allow you to buy or sell some amount of an underlying asset at the strike price
- A forward contract differs because they are binding arrangements. At the expiry date, there is an obligatory exchange of goods between the writer and buyer as determined by the forward
- These are privately written contracts and are customized according to the writer and buyer hence are generally binding and non-tradeable

What are Futures?

- Futures are similar to forwards with the exception that they can be traded
- These are commonly used in currency exchange markets to lock-in a currency trade for the writer

4 Vehicles: What you can invest in

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- Others

What are Swaps?

- Swaps are an agreement to exchange two assets or the cash cash flow generated from the asset
- These are generally traded between corporations and not retail traders
- They are traded over-the-counter and not on an open exchange

4 Vehicles: What you can invest in
Equities
Fixed Incomes
Derivatives
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Real Estate
Others

What are Currencies?

Currencies are mediums of exchange. Historically, commodities (spices, metals) were considered money. Today, most currencies exist as

- Representative money: Has a value linked to a certain amount of a commodity, generally gold, but has no value beyond that
- Fiat money: Has no intrinsic value beyond what it can be exchanged for. Value is determined by supply and demand of currency.

What should I know about Currency?

- Foreign Exchanges (forex) are markets that allow you to convert between currencies
- Forex trading volume, in terms of dollar value, is vastly greater than stock, bond, and derivative trading volume
- Margin is highly utilized in forex trading to leverage exposure to changes in currency exchange rates
- All quotes exist as currency pairs where a "base" currency is expressed in terms of the "quote" currency. Changes in currency pair values are expressed in pips which are 0.0001 value movements

4 Vehicles: What you can invest in

- Equities
- Fixed Incomes
- Derivatives
- Currencies
- **Real Estate**
- Others

What should I know about Real Estate?

- Real estate is categorized into 4 types:
  - Land: They can be raw (undeveloped, low cost), vacant/zoned (developed to some degree), or crown (publicly owned by governments)
  - Residential: Housing for peoples (condos, apartments, various semi/detached homes)
  - Commercial: Places that facilitate business like malls, plazas, offices, etc.
  - Industrial: Estate geared towards industrial business. Zoning restriction differentiate these from commercial properties
- One can gain exposure to real-estate by investing in Real Estate Investment Trusts (REIT)

Residential Mortgage Information

- When making a residential real estate investment (i.e., buying a home), one must take out a specific loan called a mortgage
- Mortgages, like all loans, have payable interest rates. These come in two forms
  - Fixed: The interest paid does not change over the term of the mortgage
  - Variable: The interest paid varies and is sensitive to central bank interest rate policy changes. Payments can be made in two ways
    - Equal-Payment: Every period, the same amount is paid however the portion that pays off the principal moves inversely to the change in variable rate
    - Equal-Ammortizing: Every period, a variable amount is paid however the portion that pays off the principal is fixed

Renting versus Owning

- From an investment perspective, one method to evaluate going from a renter to an owner is to consider non-recoverable costs of owning a home
- Non-recoverable costs do not have a return on investment. These include interest paid on a mortgage, condo fees, certain maintenance fees, property tax, opportunity cost of a down payment, etcetera.

Renting versus Owning

Example of non-recoverable costs from owning a home an $800,000 condo in Toronto on a 3% fixed rate 25 year mortgage with a 5 year term and 5% down payment opportunity cost:

1. Interest per month = $470
2. Condo Fees per month = $520
3. Home Maintenance Fees per month = $666.67
4. Property tax per month = $421.29
5. Opportunity cost of Down Payment per month = $291.67

Hence, total non recoverable costs are $2368.63. If your property returns less on investment than your next best alternative and rent is less than $2368.63, it's better to keep renting!

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- Fixed Incomes
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- Currencies
- Real Estate
- Others
  - Commodities
  - Digital Investments

4 Vehicles: What you can invest in

Equities
Fixed Incomes
Derivatives
Currencies
Real Estate
Others
- Commodities
- Digital Investments

What are commodities?

- Commodities are goods generally used in manufacturing processes
- They are categorized in agricultural, energy, and metals
- Generally, exposure to commodities is granted through companies, ETFs
- Investing directly in commodities is generally not practical logistically. Since purchases are made in bulk, delivery and fees can be far greater than the product purchased

4 Vehicles: What you can invest in
- Equities
- Fixed Incomes
- Derivatives
- Currencies
- Real Estate
- Others
  - Commodities
  - Digital Investments

What are Cryptocurrencies?

- Cryptocurrency are a form of digital currency that runs on blockchain technology
- Blockchain offers a form of security which protects the integrity of the chain thus allowing for transactions using the currency
- Cryptocurrency valuation, at this point in time, is not entirely well defined and is still a developing concept

What are non-fungible tokens (NFTs)?

- Non-Fungible Tokens are a type of record that assign ownership over and authenticity of an asset (often physical/digital art and media)
- Since NFTs are minted using blockchain technology, the uniqueness of an NFT is verifiable hence ownership and authenticity over underlying asset is verifiable
- The purchase of NFTs are closely related to cryptocurrencies since NFTs often leverage existing blockchain networks in their transaction procedures

What is digital real estate?

- Digital Real Estate are investments in the Metaverse
- These are 3-dimensional fully configurable spaces that serve as congregation areas in a particular Metaverse world
- When a purchase of land is made, ownership over an NFT is assigned in which the underlying is a transaction record on a blockchain
- The legalities of ownership is complicated and should be understoof before investing

5 Styles: How people invest
- Passive
- Active

Passive

- Passive investing is for the long haul - goal is to grow along with a broad subset of the market
- Buy-and-hold mentality with little to no portfolio adjustments that utilize Dollar Cost Averaging over long periods of time in a very diversified portfolio
- Advantages
  - Low trading fees
  - Minimal risk and time consumption
- Disadvantages
  - Patience is needed. Consistent returns have significance over time.
  - Premised on the continued growth of the market

5. Styles: How people invest
    - Passive
    - Active

Active

- Hands-on, research-heavy approach
- Goal is to beat the markets and take advantage of short-term price fluctuations to score quick gains
- Advantages
  - Wide range of investment strategies
  - Betting on short term fluctuations can create large gains
- Disadvantages
  - High trading fees
  - Time consuming
  - Inaccuracy in predicting short term fluctuations creates high risk

6. Credit Cards: An overview
    - Usage
    - Optimization
    - Requirements

To Build Credit Rating

- Whenever one seeks to take out a mortgage, loan, or in some cases apply for jobs or housing, companies will look at your Credit Rating
- Credit rating companies such as Equifax and Transunion use algorithms that analyze your credit history and habits and produce a score that represents your credit risk
- Building a healthy credit history improves credit score and reduces the costs and difficulties of taking out loans

To Acquire Rewards and Incentives

- Nearly all credit card companies, in order to stay competitive, will offer incentives (reward points, cash back, travel benefits, insurance, etc.)
- Often, these incentives are tied to the credit used. The higher credit volume, the most incentives are earned
- Hence, some people who are capable of paying off their credit card in full without ever incurring interest charges use their credit card as a debit card to earn rewards they would otherwise be missing by using a debit card

To Live Beyond Means

- If an individuals expenses are beyond what their income and savings can support, then a credit card allows them a lifeline to necessary capital
- Using a credit card this way is **financially dangerous**
  - If one incurs credit card debt that becomes unpayable within the interest-free period (21 days after a statement is issued reflecting credit usage), then interest charges accumulate
  - If one is repeats this process, debt accumulates and compounding interest charges quickly accumulate
- In the worst case, debt may become unpayable and bankruptcy becomes an increasing reality

6 Credit Cards: An overview
- Usage
- Optimization
- Requirements

Maximizing Positive Credit Rating

- The algorithms of credit rating companies are ambiguous. It can be hard to precisely describe the impact of specific credit activities
- It is generally considered that paying off credit card debt before or on receipt of a credit card statement has a positive effect on credit ratings
- As soon as interest charges accumulate, you are considered to have been late on your payment and this reflects negatively on your credit rating

Maximizing Reward Points and Cash Back

- First and foremost: **Never incur interest charges on your credit card**
- Since points and cash back are earned for using credit, then the more credit used means the more points and cash back earned
- The value of points depend on what the points can be converted to. This reward point value method can be helpful
  - Some individuals prefer a micro-management style. They will create a spreadsheet that tracks the changing values of reward points and use only the cards that offer the best value – this may be laborious and unpractical for most

Maximizing Cash Back Example

We will use the Scotia Momentum Visa

Credit Usage	Spent	Cash back
Gas	3500.00	70.00
Groceries	4800.00	96.00
Bills & Medicine	17400.00	348.00
Other	12300.00	123.00
Total	38000.00	637.00

- Saving \$637.00 in credit allows investing \$637.00
- After 25 years of 5% compound interest..

$$\text{Income} = \$637 \cdot 1.05^{25} = \$2157.10$$

6 Credit Cards: An overview

- Usage
- Optimization
- Requirements

Credit Score, Income, Address, Employer History, and more!

- Every credit card has different requirements in terms of credit score and income. Some details can be found here
- If you have trouble getting approved for credit, you may be able to acquire credit with the help of a guarantor or co-borrower
- Submitting a Social Insurance Number makes approval an easier process since most of the required information can be queried with that number
- Joint Credit Cards are another option

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