

The Bedokian

The Bedokian Portfolio



**Passive Income Through Dividend
and Index Investing**

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Dedicated to my family, for whom this book is originally written for, and my friends who have contributed useful opinions, comments and feedback.

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Introduction

Welcome to the second edition of The Bedokian Portfolio!

It has been more than five years since the first edition of the eBook was published online and available for free. During this time, a lot of changes and happenings took place in the economy and financial markets. To start off, we are in the midst of a global pandemic as a result of COVID-19, which saw several sectors and industries being deeply impacted, in both negative and positive lights. Airline, tourism and hospitality were hard hit, but technology and pharmaceuticals benefited. From here, we can see there are diverse responses and results to a given situation, even though as we know the whole economy and market is like one big machine with many different interrelated parts moving together.

Two localised developments worth mentioning since 2016 are the emergence of real estate investment trust (REIT) exchange traded funds, which we currently have three listed in the local Singapore Exchange, and robo-advisories taking root and gaining adoption by investors. There is, of course, cryptocurrencies, which is also gaining traction in recent years, though the future direction of it being a real currency or a speculative instrument is very much uncertain.

Coming back to the original purpose of the eBook, as I had stated in the introduction of the first edition, it is meant as a manual for my family members as a form of investment knowledge transfer. As time goes by, I felt it would be better to share this knowledge of mine to everyone else. Embedded in The Bedokian Portfolio's mantra is the notion of having passive income from the world of equities, REITs, bonds, commodities and cash.

This eBook is designed for the layperson with no financial or economics background to understand the basics of investing, which means it is as plain as it gets. There is no overwhelming and difficult academic concepts and equations to master, just simple English and basic mathematical formulas.

Just like the first edition, the first eight chapters introduce you to the idea of the investment portfolio, the workings of the financial markets and the introduction of the various asset classes. In Chapters 9 to 12, I will touch on the building and maintenance of The Bedokian Portfolio, some fundamental analysis basics, and the guidelines and “triggers” of selecting and selling of financial instruments respectively. In Chapters 13 to 16, I will mention about the foreign financial markets, the psyche of the investor, some tips and strategies, and how to drawdown from your Bedokian Portfolio.

In this second edition, I have added two more chapters: In Chapter 17, I will introduce growth investing and share how to integrate it into The Bedokian Portfolio. In Chapter 18, I will go beyond The Bedokian Portfolio universe and introduce the concept of the Portfolio Multiverse in managing your portfolios and achieving your financial aims. Also, in this edition, I had brought in “little grey boxes”; snippets of information that do not go with the flow of the chapters but still important enough to be included.

Though my overall strategies, methodologies and approaches of The Bedokian Portfolio remain similar between the two editions, there are some subtle differences, such as the proportion of having foreign holdings in Chapter 13 (e.g., 10% to 50% as compared to the previous edition’s 10% to 30%). Between then and now, and after observing the markets for a number of years, I had developed nuanced views and opinions on certain points and issues, resulting in the differences. Adjustments and adaptations are part and parcel of evolvement, and

that is applicable to portfolio management. Nevertheless, the general gist of The Bedokian Portfolio remains the same.

And lastly, paraphrasing a paragraph from the first edition introduction, the aim of The Bedokian Portfolio is not to beat the market or any other portfolios and methodologies, but rather it is meant to give you a healthy stream of passive income through dividend and index investing. It is a long term investment process, with a time horizon of at least ten years, so patience and diligence on your part is key as well.

I hope you will enjoy this second edition eBook and I wish you all the best in the world of investing.

The Bedokian
September 2021

Visit <https://bedokianportfolio.blogspot.com> for more articles by The Bedokian.

Chapter 1

Portfolio 101

The aim of The Bedokian Portfolio is to have passive income through dividend and index investing.

So what is a portfolio?

Using the “eggs in one basket” analogy, a portfolio is like having eggs in different baskets, with the “eggs” being your investment money. When a basket got dropped or stolen, you would still have eggs left in the other baskets.

So, if “eggs” are investment money, then what are “baskets”?

In the next few pages I will gradually explain just what the “baskets” are, but first, let me introduce you to the world of financial markets.

The Financial Market

A market is a place where sellers sell their wares and buyers buy theirs. There are many terms that can be called a market, such as a shopping mall and a grocery store. Your foodstuff, clothes, etc., were bought from these markets.

In a financial market, instead of wares, foodstuffs and clothes, financial goods or financial instruments such as shares, bonds, commodities, etc., are traded between buyers and sellers. Such markets in the old days were location based, but with the advent of the internet, you could buy

and/or sell shares, bonds, commodities, etc., from the comfort of your own home using a computer or mobile device.

You cannot go into the financial market on your own to buy or sell the financial goods. You would need the services of a brokerage firm (or brokerage) to help you with all the buying and selling (called orders or transactions) for a small fee (called commissions). In Singapore there are a number of brokerages to choose from, and most would be able to grant access to not just the local financial market, but to other financial markets in the major economic countries as well.

The financial goods are the ones we need to look at carefully, for they are the very basic items in the make-up of The Bedokian Portfolio. There are many types of financial goods, called asset classes, in the financial market. The asset classes are the “baskets” I mentioned earlier.

Modern Portfolio Theory

At this stage you may be wondering, “Why do we need so many asset classes to build a portfolio? Couldn’t we just stick to one asset class?”.

Enter the Modern Portfolio Theory, or MPT.

Here is the definition of MPT:

“Modern portfolio theory (MPT) is a theory on how risk-averse investors can construct portfolios to maximize expected return based on a given level of market risk.”¹

¹ Chen, James. Modern Portfolio Theory (MPT). Investopedia. 1 Mar 2021. <https://www.investopedia.com/terms/m/modernportfoliotheory.asp> (accessed 13 Jun 2021)

In simple English, MPT is a theory on how investors could maximise their returns at an assumed level of risk, given the individual investor's risk profile and tolerance. With this, we could look at one of the important characteristics of MPT, the concept of asset allocation. Asset allocation is defined as:

*"Asset allocation is an investment strategy that aims to balance risk and reward by apportioning a portfolio's assets according to an individual's goals, risk tolerance, and investment horizon."*²

The meaning of "assets" here is the asset classes. With these definitions, the ideal portfolio is consisted of the best mix of asset classes that delivers the maximum returns with the minimum risk.

Though it sounds good in theory, in reality the ideal portfolio has always been the holy grail for all investors.

The ideal portfolio may be hard to achieve, but it could be partially realised with a proper mix of asset classes. After all, MPT advocated a mix of asset classes to reduce the portfolio risk to maximise returns. A mix of asset classes could diversify the risk in a portfolio, because different asset classes behave differently during different economic conditions. This is why you cannot just stick to one asset class.

Asset Classes

So what are the asset classes? Asset classes are the different types of financial goods available for investment in the financial market. Each asset class is different from one another in terms of their characteristics,

² Chen, James. Asset Allocation. Investopedia. 26 Apr 2020. <https://www.investopedia.com/terms/a/assetallocation.asp> (accessed 13 Jun 2021)

which is why they behave differently from one another in different economic conditions. In theory and in most practical situations, at a given economic condition some asset classes perform better than others.

Diversification

I will elaborate further on diversification, a key trait in MPT. Diversification, back to our “eggs” and “baskets” story, is simply “do not put all your eggs into one basket”. The main aim of diversification is to reduce the amount of risk. There are many types of risks that I will explain in the later chapters, but here I would touch on which level do you do diversification.

There are many views on diversification, but true diversification, for The Bedokian Portfolio, comes in having different asset classes, because as mentioned earlier, different asset classes behave differently with one another.

But first, let us take a look at the various interpretations of diversification.

Some said getting all the major players within an industry is diversification, such as acquiring the shares of the three major banks in Singapore. The thinking behind this reasoning is since these three are competitors, and in the world of a zero-sum market share, one’s loss would result in the others’ gain, thus there is a form of hedge created. However, these three belong to the financial sector, and if there is any major impact in the sector it would result in a massive loss, regardless of which bank share you hold.

Some said investing across different sectors is diversification, having shares across companies in the telecommunications, financial and transportation sectors. They reckoned that some sectors perform well in different economic conditions, such as recession, where companies in the basic consumer sectors such as supermarket chains would thrive. This assumption is correct and somewhat recommended, as we had seen the technology sector flourished in the COVID-19 situation. However, company shares belong to an asset class called equities. In 2008-2009, during the Global Financial Crisis (GFC), most equities across all sectors suffered a major blow, even those sound ones which thrive in recession periods.

There is also diversification across countries, as some argued that not the whole world had suffered from the GFC (Australia is one of the few countries spared³). The Bedokian Portfolio espouses diversification between local and foreign financial markets and economies, provided that these are done under the general umbrella of asset classes, which brings us to the final point of diversification across different asset classes.

So why diversification is best done at the asset class level? If you look at the earlier examples of investing in different companies of the same sector, across different sectors and across countries, there is always a level higher in which one could diversify. Upon reaching the asset class level, it is considered the ultimate as there is no higher degree, thus making it the first consideration in diversification. I stress again, asset classes behave differently when under different economic conditions, which means different asset classes have different correlation with one another. Different correlation means when the value of an asset class goes up, the other would come down or remain stable, and vice versa.

³ Zappone, Chris. *Australia dodges recession*. *The Sydney Morning Herald*. 3 Jun 2009. <https://www.smh.com.au/business/australia-dodges-recession-20090603-buyq.html> (accessed 15 Jun 2021)

This lies in the answer of why we need different asset classes in a portfolio as stipulated in MPT. Carry out diversification at the asset class level first, then country and sector (Figure 1.1).

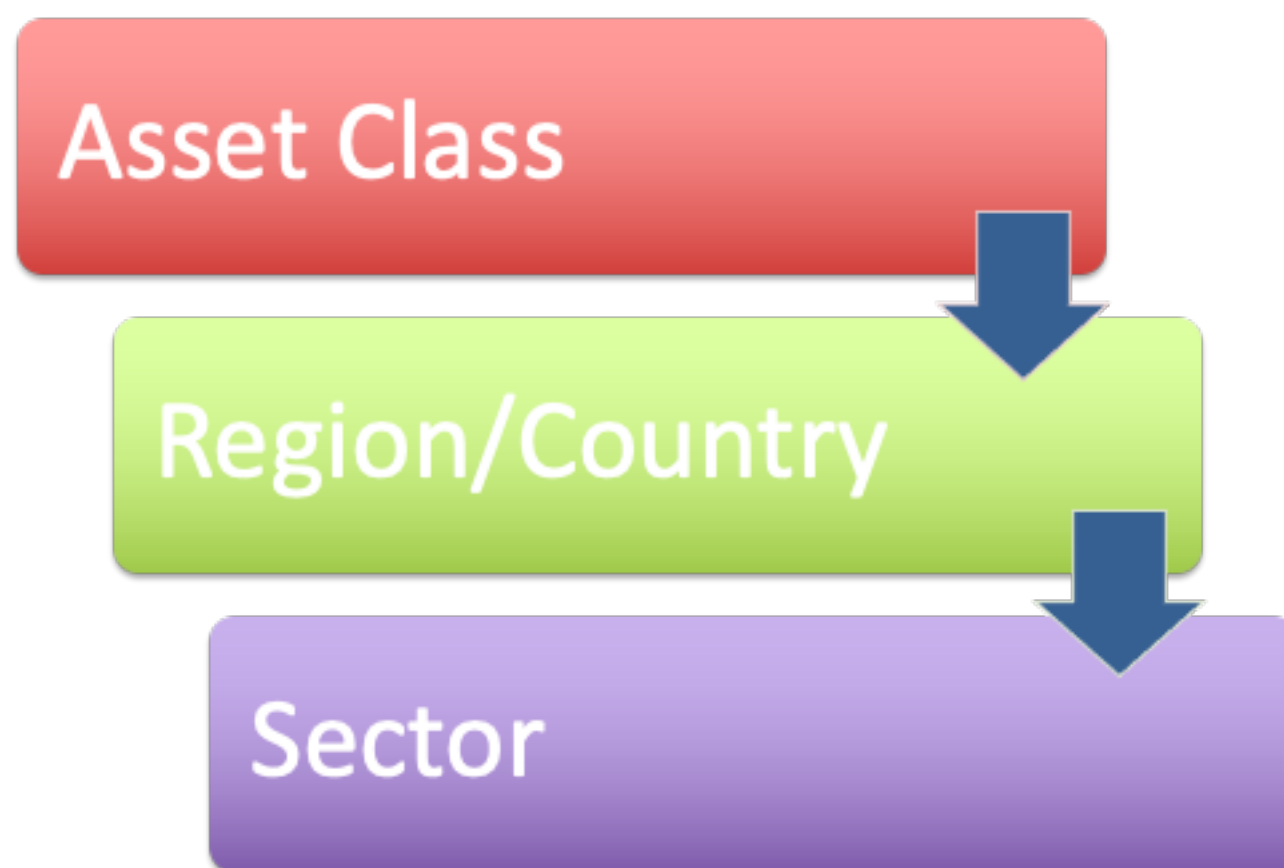


Figure 1.1: Diversification levels

Types of Asset Classes

Here is a brief introduction of the five asset classes that made up The Bedokian Portfolio, which I would elaborate on them further in the later chapters.

Equities - These are the shares (or stocks in American terms) of a company, which forms up its capital. The price of a share, multiply by the number of shares it has issued, will be the worth of the company. If the deemed worth goes up, the share price goes up, and vice versa.

Bonds - Bonds are IOUs; debt instruments, used by companies and governments to borrow money. When you buy a bond issued by the company or government, you become their creditor, in return for interest (coupon in bond speak) payments. There are many ways on how the coupon is paid out, but usually it will be on a half yearly basis.

Commodities - Commodities are the so-called "basic ingredients" of any industry and society. Gold, silver, wheat, coffee, oil, etc., are commodities. Any changes to the amount of commodities available will shake the markets worldwide, e.g. drop of oil output, over-harvesting of wheat, etc., will cause ripples across most sectors of the economy.

Cash - Cash is, well, cash. Traditionally cash as an asset class meant it is earning some sort of returns while maintaining liquidity at a moment's notice. One good example of cash as an asset class is the cash that you have in your savings accounts, fixed deposits and for the more sophisticated, money market funds.

REITs - REITs, or Real Estate Investment Trusts, are an equity/property hybrid asset class and they are very common throughout the world, especially in Singapore. REITs own buildings and rent out the shops/offices/apartments within the buildings to tenants for rental income. In local jurisdiction REITs have to pay at least 90% of its taxable income to shareholders (or unit holders in REITs lingo). Why REITs are an equity/property hybrid is due to its nature: a collective group of property "owners" akin to shareholders collecting rent from a group of properties. Like equities, REITs work like a company with a set number of shares (or units) and tradable on the financial market, and like property they collect rent.

There are other asset classes and sub-asset classes around, and though they may not be part of The Bedokian Portfolio, I thought it would be fair to give them an honourable mention here.

Property - Property is generally referred to as immovable property, such as land, houses, apartments and buildings. The most common type of income from properties would be rental. The main reason why we do not include property in The Bedokian Portfolio is because the initial outlay to purchase one is huge.

Hedge Funds - Hedge funds are funds that use different strategies to earn returns for the investors who have a stake in it. Though hedge funds buy and sell shares most of the time, which may seem on the surface that they are no different from equities, it is the strategy(ies) employed that make them stand out. Directly, hedge funds are usually only open to sophisticated investors who have a high net worth and/or income, and other funds, too, but there are ways to invest in hedge funds indirectly (see Chapter 8).

Private Equity - Private equity is an investment in a company that is not publicly traded in the financial markets. A lot of well-known companies that are listed in the markets currently were funded initially through private equity. Like hedge funds, direct investment in private equity is in the domain of sophisticated investors, but also there is a way for us to go into them (see Chapter 8).

Collectibles - Collectibles are items that are likely to worth more the longer they are kept, and some examples include artwork, antiques, rare coins and stamps, etc. The difficulty of having collectibles as an investment is the appraisal and valuation of their current and potential worth, unless you hire an expert to look into them or you are an expert yourself.

Cryptocurrencies - A relatively new asset that emerged from the shadows of the GFC, cryptocurrencies (or cryptos for short) are gaining widespread popularity and traction in recent years. Though they are

touted as a form of digital currency for the future, as of now they are mostly used for speculative trading.

Summary

- The aim of The Bedokian Portfolio is to have passive income through dividend and index investing.
- Modern Portfolio Theory states that risk is to be minimised to achieve maximum returns, through the use of various asset classes.
- Diversification is done to reduce risk and ideally it should be on the asset class level, due to the difference of correlation amongst the various asset classes. Diversification at sector and country level is also recommended to a certain extent.
- Types of asset classes that made up The Bedokian Portfolio include equities, bonds, commodities, cash and REITs. Other examples of asset classes/sub-asset classes include property, hedge funds, private equity, collectibles and cryptocurrencies.

Chapter 2

The Workings

In Chapter 1 I have introduced the financial market briefly, the importance of having a portfolio and diversification, and the types of asset classes. In this chapter, I shall introduce the various investment vehicles available in investing in the various asset classes and how to go about building The Bedokian Portfolio using brokerages.

Investment Vehicles

Investment vehicles are the methods in owning the asset classes, and sometimes it gets confusing knowing what are asset classes and what are investment vehicles. Here is a way to tell them apart; asset classes are the “what” and investment vehicles are the “how”.

Here is a brief explanation on each of the investment vehicles.

Direct Ownership - The most direct and straightforward method in owning an asset class. The cash in your bank account, the company shares that you own, the gold bullion that is sitting in your safe, etc. Direct ownership is preferred for The Bedokian Portfolio, with the exception of exchange traded funds (to be described later).

Unit Trusts - Unit trusts are investment funds being handled by fund managers. Each unit trust has an investment objective, similar to that of The Bedokian Portfolio's. You select a unit trust that you want and the fund manager will invest for you. Unit trusts have a variety of fees and

charges, such as initial sales charge (the amount that you pay when you buy the unit trust), the redemption fee (the amount that you pay when you sell the unit trust) and the annual management fee (the amount that the fund manager deducts from your investment). Also, you could only sell the unit trust at the end of the trading day. Due to all these charges and fees, unit trusts are not recommended for The Bedokian Portfolio, but they can be useful at certain investment situations (see Chapter 18).

Exchange Traded Funds - Exchange traded funds, or ETFs, are like unit trusts but can be bought or sold in the financial market at any time of the day when the market opens. The charges in owning ETFs are just the commission to be paid to brokerages in buying and selling them, and an annual management fee which is far lower than unit trust's. There are many ETFs available, in Singapore and overseas. Due to ETFs' ability in tracking the indexes and other asset classes, they are part of the investment objectives for The Bedokian Portfolio. I will discuss more on ETFs in Chapter 8.

Derivatives - Derivatives are a category of investment vehicles that derive (the root word) their value from an underlying asset. In other words, you do not really own the asset class using derivatives, but rather they sort of mimic the asset class itself by following the value. Derivatives are used more for trading than investing (I admit it is a bit of a misnomer to call them "investment vehicles", but for terminology's sake, I have to include them in), therefore it is not a very useful investment tool. Most derivatives lose their value over a certain time, such as within the next few days, weeks or months, and it may cost more if you keep them for too long, thus it is not in line with The Bedokian Portfolio's strategy. Also, it will take a steep learning curve to understand how these derivatives work. Some examples of derivatives are futures, options, contracts for difference (CFDs) and warrants. However, using ETFs to own futures is fine and I shall explain why in Chapter 5 on Commodities.

Securities

You may encounter this term while reading up on investment materials and literature. Securities (singular: security) are financial instruments that hold a value and can be traded. Types of securities include equities (shares), debt (bonds), hybrid (characteristics of equities and debt) and derivatives (options, futures, etc.). Unit trusts and ETFs are considered baskets of securities since they usually contain equities, debt and/or hybrid, but sometimes they are referred to as securities themselves, especially ETFs.

For convenience, I will use the terms “securities”, “financial goods” and “financial instruments” interchangeably in this eBook.

Brokerages

As stated in Chapter 1, a brokerage is a firm that helps ordinary people like you and me gain access to financial markets to buy and sell securities, for a small fee or commission. Though not all asset classes require the use of a brokerage, a vast majority do need it, and there are many regulated brokerages available in Singapore. All of them allow you to access the financial markets through their respective online internet portals and mobile applications, and almost all will have online help to guide you through the buying and selling processes.

For simplicity, I shall address all the parties that act as the agent between you and the financial markets as brokerages.

Custody of Shares, Bonds and ETFs

In the good old days, when you buy shares or bonds, the company or the bond issuer will send you a nice looking piece of paper that looks like a education certificate called scrip, indicating the company name or bond title, the number of shares or bonds held, and your full name printed on it. In the age of electronic and internet trading, however, such scrips are rendered useless with new technology (though you could still ask for it to be issued to you, at a price).

Even though things have gone electronic, there is a mechanism in determining who owns what. For equities, most of the time the companies themselves will maintain a record of their shareholders. In the local financial market known as the Singapore Exchange (SGX), the ownership of your shares, bonds and ETFs is made known to The Central Depository (Pte) Limited (CDP), a subsidiary of SGX, or the brokerages.

Therefore, there are two main methods on how financial instruments bought from the SGX are kept, either with CDP, or with the respective brokerages that you bought them through, known as custodians. Most brokerages allow you to deposit your securities in CDP, but they do have custodian services, i.e. they will keep them for you instead of putting them into CDP.

To provide an analogy, CDP is like a big warehouse where your “goods” (financial instruments) are kept and you can authorise “someone” (brokerages) who has access to the warehouse to do the buying and selling for you. You can have many different “some ones”, as long as they have access to the warehouse and your goods are in it. For custodian, it is like a smaller warehouse where your “goods” are stored but only the “someone” who is administering the warehouse (the brokerage that manages the custodian) can go in and do the buying and selling for you.

It is important to know where your financial instruments are being kept, else there may be a chance of you doing a short-sell. Short-selling means selling financial goods that you do not own in the first place. Though it is allowable, but if not careful it could invite additional hassles and a possible fine from SGX itself.

If you are buying financial instruments from overseas financial markets, it will be in the custodian account of the brokerage that you bought them with, therefore to sell them, you have to use the same brokerage.

The Trading Platform

The brokerages' online internet portals, desktop and mobile applications that allow you to access the financial markets are known as trading platforms. Most of the trading platforms let you see the price and the accompanying market information of the financial goods, news feeds, analyst reports and account management tools. To the uninitiated, the trading platform interface could be quite intimidating, but fortunately most of them would have tutorials and demonstration videos to guide you along.

I will only highlight the important attributes that you need when buying and/or selling your financial goods.

Buy - The buy price of the financial good. Also known as Bid.

Sell - The sell price of the financial good. Also known as Ask.

Buy Volume - The number of financial goods that are waiting to be bought at the Buy price.

Sell Volume - The number of financial goods that are waiting to be sold at the Sell price.

Volume - The number of financial goods that are being transacted (bought and sold).

These attributes, when viewed from the trading platforms and online sources such as Yahoo Finance, Bloomberg, etc., are occurring on the day itself and usually in real time (i.e. live). It is like watching a live sports game where the scores are constantly changing throughout. When the financial markets close for the day, you will see the overall summary of the day's activity of the financial good, like the display of the final score after the game had ended. The next day, these attributes would then be "resetted" and the numbers come pouring in again.

By now you may have wondered why financial goods have two prices, Buy and Sell, instead of the usual one price that you see in supermarkets or shops. This is because, unlike the goods at those places where the seller dictates the price, in financial markets both the buyer and seller can dictate the price of a financial good. The buyer may feel this financial good is worth this much, but the seller may feel otherwise. It is in the incentive that the buyer would want to buy it at a lower price, and the seller would want to sell it at a higher price. A transaction is done when a buyer buys at the price that the seller sells at, and this transaction would be added to the Volume attribute.

The term spread denotes the difference between the Buy and Sell price. Using the local Singapore Dollar (S\$) currency to illustrate, if the Buy/Sell price is say, S\$1.00/ S\$1.05, it means the spread is narrow, and if it is S\$1.00/S\$1.20, means the spread is wide.

So if the spread of a financial good is at S\$1.00/S\$1.10, to buy it immediately, you would have to buy it at S\$1.10, whereas if you want to sell it immediately, you would have to sell it at S\$1.00.

Transaction Costs

Brokerage commission charges, market exchange fees and taxes are the additional amounts that you pay on top of acquiring and selling the financial instruments, and these costs need to be factored in whenever you conduct a transaction. The costs are directly proportional to the amount of financial instruments that you buy or sell, and are called transaction costs. Depending on the financial market and brokerage, these costs could be as low as a few dollars, to probably tens or even hundreds of dollars.

With these transaction costs in mind, it is important that they are kept to a minimum, without compromising the very aim of the Bedokian Portfolio, that is passive income. If transactions were done constantly, these costs would slowly erode away the real returns of passive income, which is a bit of a waste.

Therefore, in the later chapters, to reduce these transaction costs, I will share with you on when to buy and/or sell the financial instruments, and the concept of portfolio rebalancing.

Summary

- There are different types of investment vehicles such as direct ownership, unit trusts, ETFs and derivatives.

- Brokerages allow you to gain access to financial markets.
- The financial instruments that you own are held either with the CDP (for local ones) or with the brokerages as custodian (both local and overseas financial instruments).
- Knowing the trading platform and the terms buy/bid, sell/ask, buy volume, sell volume, volume and spread.
- Understand transaction costs and their impact.

Chapter 3

Equities

Having much said on the basics, I will now delve into the various asset classes in detail. First to start off will be equities, or shares and stocks in investment lingo.

What are Equities?

When a company (a common type of business organisation) is formed, an amount of money, or capital, is needed to fund it. Sometimes different individuals could fund the company, and their ownership could be split equally among the number of individuals as shares (or stocks), which you now see how these terms are derived. Collectively these shares and stocks are called equities. For the individuals holding the equities, they are called shareholders or stockholders.

Imagine five individuals who want to start a company with equal contributions. If the capital is S\$100, then each share's price would be S\$100 divided by 5, which is S\$20. Thus, the number of shares of this company is 5 and the share price is S\$20 each.

So, if a company's start up capital is S\$1,000,000, and there are initially 1,000 people having an equal contribution, then the share price is $\text{S\$1,000,000} / 1,000 = \text{S\$1,000}$. This means the number of shares of this company is 1,000 and each share is worth S\$1,000.

Most of the time, the number of people contributing to it does not dictate the number of shares. A company starting up can have 100,000 shares, and each is priced at S\$1, providing a capital of S\$100,000. If two persons start this company and their shares are at 70%/30%, one would have 70,000 shares while the other 30,000 shares. It is not necessary to have shares priced at S\$1.00 at the beginning. You could have companies having 500,000 shares at S\$0.50 each, or 200,000 shares at S\$1.20 each.

Owning equity of a company is akin to owning part of it, and you need not necessarily be the founding member of a company to own equity. Most equities could be bought and sold, whether privately (called private equity, which I had covered in Chapter 1) or from the financial markets. Equity in the financial markets are much easier to access, because these companies are considered public listed, which means their shares are made available for the general public to buy and sell, using the trading platforms as mentioned in Chapter 2.

The Importance of Equities

Equities form a very major and important part in every investment portfolio, including The Bedokian Portfolio. They are seen as the main engine of growth, generating returns with capital gains (increase in the price of shares/stocks) and more importantly for the objective of The Bedokian Portfolio, dividends, which I will delve into it later.

Equities have seen a tremendous rise over the years, and with it, the gains from them can be described as “leaps and bounds”. You could say that over the long term, equities will go up eventually. An investment of 10,000 Singapore dollars (S\$) into the Straits Times Index (STI), the main benchmark for our local financial market, at the beginning of 2011

would produce a return of S\$11,916.46 by the end of 2020⁴. Similarly, a 10,000 United States dollar (US\$) investment into the Standard & Poor's 500 (S&P 500) index, one of the major indicators of the United States financial markets, for the same period of 2011 - 2020 would return US\$35,889.08⁵.

Dividends

At the end of the financial year, companies would take stock of their accounts to see whether they had made any profit or loss. If profit is gained, the companies could either keep this money for next year's use (called retained earnings), or distribute them all to shareholders as dividends, or do both. For public listed companies, dividends are mostly distributed either quarterly, half-yearly or yearly.

An attribute to look would be the dividend yield or yield, which is the ratio of the dividends paid out over the prevalent share price, expressed in percentage, over a period of one year. Here is an example: the yearly dividend declared for ABC company is S\$1.00 per share, and the share price of ABC company at that point of time is S\$20.00. The dividend yield is $\text{S\$1.00} / \text{S\$20.00} \times 100\% = 5\%$.

For dividends that are done quarterly or half-yearly, it is a bit tricky as there are a few ways to calculate dividend yield; you could either use past dividend payouts, or assume the same payout for future quarters or half-year, or both. You need not fret over these details as there are

⁴ SPDR® Straits Times Index ETF. Morningstar. <https://www.morningstar.com/etfs/xses/es3/performance> (accessed 27 Jun 2021)

⁵ SPDR® S&P 500 ETF Trust. Morningstar. <https://www.morningstar.com/etfs/arcx/spy/performance> (accessed 27 Jun 2021)

simple financial websites such as Yahoo Finance, Bloomberg, etc., that could provide the dividend yield figures at a glance.

Dividends (and coupons and interests, which will be covered later on) are an important factor in the overall strategy for The Bedokian Portfolio, for its aim is to have passive income through dividend and index investing. Dividends are where your passive income comes from, and used for the idea of dividend investing.

Compounding

Although this chapter is about equities and I had touched on dividends, I guess it is appropriate for me to introduce compounding. Compounding is a very powerful concept in the financial world, yet it is simple enough for a layperson to understand. The precept for compounding is this: you have S\$100 in the bank and the bank pays you an interest of 5% every year. If you decide not to withdraw the money and let it earn the interest for 30 years, you will end up with S\$432.19, 4.3 times of the amount that you had initially put in (see Figure 3.1).

Year	Amount (S\$)	Year	Amount (S\$)	Year	Amount (S\$)	Year	Amount (S\$)
0	100.00	8	147.75	16	218.29	24	322.51
1	105.00	9	155.13	17	229.20	25	338.64
2	110.25	10	162.89	18	240.66	26	355.57
3	115.76	11	171.03	19	252.70	27	373.35
4	121.55	12	179.59	20	265.33	28	392.01
5	127.63	13	188.56	21	278.60	29	411.61
6	134.01	14	197.99	22	292.53	30	432.19
7	140.71	15	207.89	23	307.15		

Figure 3.1: Compounding of S\$100 with 5% interest for 30 years.

Now you may be thinking, how is this possible? It is simple mathematics, really. S\$100.00 is your initial deposit and at the end of the first year, you will get 5% of it, which is S\$5.00, bringing it to a total of S\$105.00. If you do not withdraw any amount, by the end of the second year, you will be given 5% of the S\$105.00, therefore this comes out to be S\$5.25 and you will have S\$110.25 in total. By the end of the third year, your interest is 5% of S\$110.25, which is S\$5.51, and so on and forth.

With this compounding effect, you will now see the advantages of dividend investing. Dividends can be ploughed back into your portfolio and with compounding, you can see it grow over a long period.

Equity Risks

Now that I had shared about the advantages of equities, it is fair for me to let you know about the risks involved in investing in them. If you are worried by now, rest assured, for risks are part and parcel of life in the financial markets, and I have mentioned the term “risk” when I introduced the Modern Portfolio Theory in Chapter 1. Even the act of keeping cold hard cash in biscuit tins under your bed is subjected to risks (theft, fire and inflation).

The following are risks typical of equities. In the later chapters I will present the risks of the other asset classes in a similar fashion. No matter what is mentioned, the golden rule to reduce risks is diversification.

Capital Risk - Basically what this means is if the company you invested in suddenly went bust, there is a very likelihood that your equity investment in that company will be wiped out. Shareholders of a company, though sounds impressive, are actually one of the last few in

the order of payouts should the company in question goes bankrupt, and by the time they reach the front of the queue, not much is left.

Volatility Risk - Equity prices go up and down like a roller coaster. For shares you can get tremendous gains, but can have tremendous losses as well. If you look at any share price charts, you could see they resemble a roller coaster ride. Most of the time such volatility are beyond our control, like when the economy is going boom or bust, or when the company you invested in suddenly has a huge profit or loss. Sometimes one bad news or a bad report on the company will send the price of the shares tumbling down.

Region, Country and Sector Risks - Risks could also occur at regional level (such as the Asian Financial Crisis in 1997 and the Eurozone Crisis in 2011), country level (e.g. the Argentina Financial Crisis of 1998 to 2002) and the sector level (the dot com bubble in 2000 affected the entire technology sector and the airline sector in the COVID-19 situation).

Forex Risk - This is applicable if you have overseas investments. Forex risk defines the gain or loss of a foreign financial good due to foreign exchange rate. Here is an example of forex risk: If you bought shares of an American company at US\$50, with the exchange rate of US\$1.00 to S\$1.50 ($50 \times 1.50 = \text{S\$}75.00$), and a few months later the share price remained the same but the exchange rate is US\$1.00 to S\$1.40 ($50 \times 1.40 = \text{S\$}70.00$), you would have made a loss of S\$5.00.

How to Own Equities?

For the purpose of The Bedokian Portfolio, there are two ways to own equities, and that is through direct ownership and ETFs. Direct

ownership, as the name implies, means you have a stake in the company. No matter how many shares you own, you have the right to attend their Annual General Meetings (AGMs) and bring up questions during these AGMs or through their investor relations (IR) channel. If your equities are owned through a custodian service (i.e. not through CDP for local equities), you are still the rightful owner, though there are certain limitations especially on the attendance of AGMs. Hence, you may need to liaise with the custodian on this matter.

ETFs are another way to own equities, though not directly. You could refer to Chapter 8 where I will write more on ETFs.

I wish to touch a bit on initial public offerings (IPOs). When a company is going to be public listed, it will offer their equities for subscription, thus giving an opportunity for the public to own its shares. IPOs can be subscribed either through the banks' teller machines or internet banking portals, or through a brokerage. I will cover more on IPOs in Chapter 15.

Summary

- Equities are ownership of companies through shares or stocks.
- Equities tend to rise over the long term, and are the main engines of growth.
- Equities provide dividends, which are important in the objective of The Bedokian Portfolio for passive income and dividend investing.
- The compounding effect is a very simple but powerful concept to watch your investments and portfolio grow over a long period.

- There are risks involved in investing in equities, with capital risk, volatility risk, region, country and sector risks, and forex risk.
- There are two ways to own equities for the purpose of The Bedokian Portfolio; direct ownership and through ETFs.

Chapter 4

Bonds

Next up are bonds. Even though bonds are generally less mentioned than equities in investing discussions, surprisingly on a global scale, the bond market is larger than equities'.

What are Bonds?

Bonds are debt instruments, or IOUs in layperson speak. For individuals, debts are usually bad, but in the financial markets most debts are good. Debts are used by organisations to expand their business operations or to fund a costly project. When an organisation wants to borrow money, the three main ways are: to issue more shares, borrow from banks, or issue bonds. If the bond option is chosen, the organisation would issue bonds to the public through the financial markets, where one could buy them. Organisations that issue bonds are mainly companies and governments.

A typical bond is consisted of three basic components; the bond principal, the coupon rate and the bond maturity date. The organisation that issues the bond is called the bond issuer, and investor who buys the bond is called the bond holder. Bond principal is the base amount of the bond, mostly in amounts of S\$1,000 each (in the United States, the base amount could be either US\$100 or US\$1,000). The coupon rate is the interest to be paid by the bond issuer to the bond holder, with payment frequency varies from once a month to once a year, depending on the payout schedule. The bond maturity date is the time where the

bond issuer will end the bond (or recall the bond) and pay the principal amount back to the bond holders.

Using an example, XYZ Company issues S\$1,000,000 worth of bonds (or 1,000 bonds of S\$1,000 each) in the financial markets, with a coupon rate of 3% (payable yearly) and the maturity date is 5 years from the date of the issue. An individual buys S\$5,000 worth of bonds (5 bonds of S\$1,000 each) and if he keeps holding it, he would get S\$150 ($3\% \times 5 \text{ bonds} \times \text{S\$1,000}$) per year. By the maturity date 5 years later and if he still holds the bonds, the bonds are recalled by XYZ company and he gets back the initial S\$5,000. This means in total, he will have S\$5,000 principal plus $\text{S\$30} \times 5 \text{ bonds} \times 5 \text{ years} = \text{S\$750}$ worth of coupons.

Difference Between Bond Yield and Coupon Rate

You may have heard of the term “bond yield” from financial media, like bond yields rising or falling. There is a difference between bond yield (or current yield) and bond coupon rate. I will use an example below to show this.

A S\$1,000 bond with a coupon rate of 3% meant that it is paying an annual coupon of S\$30. If the value of the bond in the financial markets rises to S\$1,100, the yield of the bond would become $\text{S\$30} / \text{S\$1,100} = 2.7\%$. On the other hand, if the price of the bond goes down to S\$900, the bond yield would be $\text{S\$30} / \text{S\$900} = 3.3\%$.

Hence, the coupon rate of the bond is the fixed percentage of payout when the bond is issued, while the bond yield is the coupon payout divided by the prevailing bond price in the financial markets.

The Importance of Bonds

Like equities, bonds form a major part in every investment portfolio. In fact, most simple portfolios are just made up of a mix of equities and bonds, the two main asset classes in the world. This equity-bond combination is often used due to the different correlation between the two asset classes.

I have mentioned back in Chapter 3 that equities are the main engines of growth of a portfolio, but they are subjected to market volatility and it may go up and down. Bonds, with their lower but constant yield, prove to be a good shelter in times of market turmoil. In basic investment theories, when equities perform well, bonds would head south, and vice versa, thus this different correlation acts as a balance with each other, resulting in a not-so-painful loss and also a not-so-insane-but-healthy gain.

There is another major advantage of bonds over equities, though I may sound a bit pessimistic here. In the event of a company's bankruptcy, the company's bond holders ranked higher than its equity holders in the hierarchy of debtors. In other words, liquidators (normally independent accountants in charge of disposing a company's assets to pay off its debts) would, among other things, pay off bond holders first before equity holders.

Coupons, like dividends mentioned in Chapter 3, are important to The Bedokian Portfolio, where they are used for passive income and dividend investing (and not forgetting the compounding effect). Their steady stream of fixed payout over a fixed period gives you the assurance of "I know I am getting S\$x amount for the next y years." It is precisely this nature that bonds are also called fixed income securities.

Types of Bonds

There are many types of bonds being issued around the world, but they could be categorised into two main types: corporate bonds and government bonds. Both of them are available in the financial markets.

Generally, corporate bonds tend to have a higher yield than government bonds. This is because companies are viewed as more risky than governments, therefore the higher coupon rate is a form of “compensation” for you to take up the risk. However, there are government bonds whose coupon rates are higher than a normal corporate bond, especially those from countries whose economies are still developing.

Credit Ratings

Bonds are subjected to credit ratings, which measures their amount of credit worthiness. Companies that do these credit ratings are called credit rating agencies, which grade the bonds from time to time. The way these credit rating agencies rate the bonds are like a teacher giving out test grades to students, using the letters A, B and C, and sometimes adding in numbers and/or ‘+’ and ‘-’ signs. Naturally, bonds with the best ratings have a lot of As, while those with not-so-good ratings would be getting Cs or lower.

These credit ratings tell you a few things about the bonds. The most important thing would be the ability to pay the coupons (and even the bond principal itself) to the bond holders. The default of a coupon payment and/or bond principal will send strong negative signals to bond holders, especially on the bond issuer’s financial health. The

financial health of the bond issuer, along with market conditions and political situations, will affect credit ratings. Although buying bonds with a strong credit rating is recommended, but on rare occasions the credit ratings themselves could be in the wrong, as demonstrated by Lehman Brothers' bonds where they were rated in the "A" region just before their collapse during the 2008-2009 financial crisis.

You may have heard of the term "junk bonds", but they are not really "junk" as in rubbish. Junk bonds are corporate bonds that are not in the high end of credit ratings. They are called junk bonds because of their high risk of default, as compared to investment grade bonds, but along with it come a higher coupon rate.

Preference Shares

You may be wondering why the term "shares", which are equities, suddenly popped up in the chapter for bonds. Preference shares are a kind of hybrid between shares and bonds, and because they behave a lot more like bonds, I shall mention about it here.

Preference shares, or stocks, are similar to bonds in a way that they have a fixed dividend payout and in the event of a company's bankruptcy, preference shareholders will get the proceeds before equity holders, but after bond holders. However, preference shareholders are not entitled to vote at AGMs, a right given to equity holders. Depending on the terms of the preference shares, some of them could be converted to equity shares as an option, though most of the time this is a one-off conversion and a reversal is not allowed.

Payout of dividends for preference shares comes in two forms: cumulative and non-cumulative. Cumulative means if the company

missed a dividend payment due to whatever reason, it is obliged to pay the missed payment in the next payout date(s). For non-cumulative preference shares, the company is not obliged to compensate the missed payout.

For The Bedokian Portfolio, it is fine to include some preference shares, but due diligence must be made regarding the issuer as well as the prevailing economic conditions, especially on inflation and interest rates.

Perpetual Bonds

Perpetual bonds, or perps for short, are bonds without a definite maturity date. Some perpetual bonds do have a callable option, i.e. the bond issuer could just stop the perpetual condition and pay the bond principal back to the bond holders.

Although the idea of perpetuals sounds good, with a guaranteed payout for life, at least in theory, there are still some risks to consider, which is covered in the next section. Like preference shares, it is good to hold some perpetuals, but due consideration is required. Some investors view perpetuals as equity, since they have no maturity dates and their prices are subject to volatility.

Bond Risks

Like equities, investing in bonds carry some risks as well. Here are the risks that are associated with bonds.

Default Risk - The risk of the bond issuer not paying the coupon, or worse, not able to pay back the principal at all. This is the greatest risk for bond investment, which is why credit ratings play an important role on your selection of bonds.

Volatility Risk - Like equities, bond prices are subjected to volatility, though not as much. I shall introduce some terms on bond prices here; if a S\$1,000 bond is still priced at S\$1,000 in the financial market, then it is trading at par value. If it goes above S\$1,000, it is trading at a premium, and if it goes below S\$1,000, it is trading at a discount.

Rate Risks - Due to the nature of fixed coupon rates, bonds are susceptible to rates risks such as interest and inflation rates. If these rates are higher than the coupon rate, then it is not worthwhile to hold onto the bond. A related risk called duration risk describes the bond price's volatility in reaction to interest rate changes.

Recall Risk - If there is an early recall of the bond by the bond issuer, the bond holder would suddenly lose the opportunity cost of earning the remaining coupons.

Reinvestment Risk - When a bond is recalled early or at the end of the tenure, there is a risk where the new bond may be of a lower coupon rate.

How to Own Bonds?

Like equities, you can own bonds either directly or through ETFs via the financial market. For direct ownership, there is also the CDP or the custodian option. Also like equities, corporate bonds that are going public can be obtained through IPOs. Government bonds, on the other

hand, are initially obtained through auctions, and these can be done through the banks.

Summary

- Bonds are debt instruments issued by governments and companies.
- Bonds typically have a different correlation with equities, which is why it is common to have equity-bond portfolios.
- Bonds provide coupons, which are important in the objective of The Bedokian Portfolio for passive income and dividend investing.
- There are usually two types of bonds: corporate and government bonds.
- Credit rating agencies issue credit ratings on bonds to denote their credit worthiness.
- Preference shares are like a bond with a fixed dividend payout, either cumulative or non-cumulative. Some types of preference shares can be converted to equities.
- Perpetual bonds, or perps, have no tenure, but some of them do have a callable option by the bond issuer.
- There are risks involved in investing in bonds, with default risk, volatility risk, rates risks (duration risk), recall risk and reinvestment risk.
- There are two ways to own bonds for the purpose of The Bedokian Portfolio; direct ownership and through ETFs.

Chapter 5

Commodities

Commodities are what I term the “basic ingredients” of industry and society, as stated in Chapter 1. There are a lot of commodities that can be traded in the financial markets, such as gold, silver, oil, wheat and, yes, orange juice.

What are Commodities?

Commodity trading has been around since ancient times, even before equities and modern bonds appear.

Commodities are important in every aspect of society and industry. They are considered “real” assets since they could be seen, held and used. Food such as wheat, rice, lean hogs and cattle are used to feed people. Metals such as copper, aluminium and silver are required for industrial applications. Energy sources such as oil, natural gas and coal are utilised for power generation.

Commodities can be classified into two types: soft commodities and hard commodities. Wheat, rice, cattle, sugar and orange juice are soft commodities, whereas copper, gold, oil and coal are hard commodities. A rule of thumb on determining whether a commodity is “soft” or “hard” is how they are derived. Soft commodities are agricultural and livestock in nature, and hard commodities are mined or extracted.

For The Bedokian Portfolio, we are looking at three types of commodities: gold, silver and oil.

The Importance of Commodities

First and foremost, I have to say that investing in commodities does not bring any form of dividends, coupons or interests. Being the most basic asset class, there is no mechanism for generating yield, unlike the others. So you may be wondering, why invest in commodities if it does not generate any periodic yield, which contradicts the objective of The Bedokian Portfolio?

The answer, as stated back in Chapter 1, is diversification. To reduce overall portfolio risk, diversification is important, as (I state again) different asset classes have different correlation with one another. Traditionally (but not always), commodities work well during periods of inflation, when the purchasing power of cash is reduced.

To give a generalisation of the relationship between commodities, cash and inflation, let us use gold as an example. One ounce (oz) of gold is just that; it will remain unchanged in terms of weight and appearance over the years. The price for an ounce of gold was about S\$675.63 in the beginning of 1991. Fast forward to end of 2020, the price was at S\$2,461.88⁶. Between 1991 and 2020, a 30-year period, Singapore's inflation rate averaged at about 1.6% annually⁷. So if we use the amount of S\$675.63 in 1991 value and let inflation run, in 2020 it would become

⁶ Gold Prices (SGD) on 4 Jan 1991 and 4 Dec 2020. World Gold Council. <https://www.gold.org/goldhub/data/gold-prices> (accessed 3 Jul 2021)

⁷ MAS Core Inflation (Yearly). MAS Core Inflation and Notes to Selected CPI Categories. Monetary Authority of Singapore. https://www.mas.gov.sg/-/media/MAS/EPG/Statistics/03_Core_Inflation/2021/MAS-Core-Inflation-and-Notes-to-Selected-CPI-Categories_202105.xlsx?la=en&hash=6F8B9EF2CEAA3E31A78A063CB44FEE29378D0020 (accessed 3 Jul 2021)

S\$1,087.73 (compounding 1.6% yearly for 30 years). Comparing these two eventual amounts, the difference is obvious.

So if we have extreme cases of high inflation or hyperinflation, commodities would be a useful asset class to own. One of the main causes and/or products of hyperinflation in a country is the expected rapid depreciation of its currency. Imagine this: this massive depreciation would make the currency almost worthless. Using gold, which is traded at an internationally recognised price, it can be exchanged for other stable currencies.

Another useful feature of commodities is that it is normally seen as a safe haven in an economic crisis due to their low or negative correlation with equities and bonds, thus it is viewed as a form of insurance. For commodities, you have to sell off your holdings to make a gain. As to when to sell them off, there will be a discussion on portfolio rebalancing later on (Chapter 10).

Introducing Futures

Before I delve into the types of commodities for The Bedokian Portfolio, I will touch a bit on futures. Futures are contracts that bind a buyer and seller to transact a particular quantity of financial good for a price at a certain date in the future. Futures has been around since the agricultural times of human civilisation, and it was no surprise that the first modern futures markets were meant for farmers selling their harvests.

Why futures derive is due to one simple thing: unpredictability. Buyers and sellers of a financial good may want to protect themselves from the unpredictability of the commodity markets. Using an example, a rice farmer is now selling a sack of rice for S\$10. As he began his growing

cycle for the next harvest in a year's time, he wants to make sure that he could still get S\$10 for a sack of rice at that point. Therefore he comes out with a contract, stating he will sell S\$10 for a sack of rice one year from now.

A food stall owner who relies on rice for his business wants to secure a fixed price for it. He had previously bought from this farmer for S\$10 per sack and he agrees to enter the deal with him, thus forming the contract. Now we have a futures contract where the buyer (the food stall owner) agrees to buy S\$10 per sack of rice from the seller (the farmer) in a year's time. The magic of this contract is going to happen one year later. Let us look at three scenarios.

Price of rice remains the same - So for this scenario, the farmer sells to the food stall owner at S\$10 for a sack of rice. No change here.

Price of rice dropped to S\$8 per sack - For some reason, there is an overabundance of rice being harvested, and drives the price of rice down to S\$8 per sack. Due to the contract, the food stall owner has to buy from the farmer at S\$10 per sack. The farmer earns an extra S\$2 per sack while the food stall owner overpays S\$2 more.

Price of rice rose to S\$12 per sack - A drought had happened and the supply of rice rose to S\$12 per sack. Again, due to the contract, the farmer has to sell the rice to the food stall owner at S\$10. Farmer loses some and the food stall owner got a bargain.

In modern times, these contracts can be bought and sold in the financial markets, and it has become more standardised (i.e. a contract represents a fixed quantity of types of commodities). Before the year (or whichever end period) is up, the farmer can sell it to another farmer, while the food stall owner can sell his to another. Therefore a futures contract does not bind you all the way to the end. In fact, there are a lot of non-farmers and

non-food stall owners buying and selling rice futures (called rough rice futures) in the financial markets.

Futures are the norm for dealing in commodities, and futures are a form of derivative, where you do not really own the underlying asset itself. After having said a lot about futures, the conclusion is that The Bedokian Portfolio discourages the use of it. However, for oil, futures are the way to go, but I will highlight more under the oil section.

To end off this part, there is an anecdotal story of a trader (who is not a farmer nor a food stall owner) who did not sell away his rice futures contract by the due date, ended up having sacks of rice delivered to his home.

Gold

The glittering yellowish metal that has fascinated humans for thousands of years, and until recently in the second half of the last century, gold was still used as a standard for some currencies in the world. Gold is often looked as an insurance against inflation, where I had made an example in my earlier section in this chapter.

Besides being a hedge against inflation, gold is also looked upon in times of crisis. You may have read some novels or seen some movies about getting gold during times of war or societal collapse. Being considered as “real” money, gold is recognised everywhere, unlike paper currencies that are only recognised by the government that prints them. This can also be related to the hyperinflation example I had stated earlier.

However, I suggest that one should not go heads over heels over these “doomsday scenarios”. Having some gold is good but do not bet everything on it (remember diversification).

Gold is usually priced in US\$, so there is an added foreign exchange fluctuation when converting between US\$ and S\$.

Now here are some ways of owning gold as approved for The Bedokian Portfolio.

Buy Gold Direct - The most direct way would be to own the metal itself. Bars and coins are preferred, not jewellery, as the latter is not considered investment grade (and incur the goods and services tax, or GST). Bullion bars and coins are the ones to go for. I will cover this further later.

Buy Gold ETFs - Another way is to go is to buy the gold ETF. Go for those that have physical gold as its underlying assets. I will cover a bit more of this in Chapter 8.

Gold Savings Account - Yes, there are savings accounts denominated in gold and there are banks providing this service.

When buying gold direct, be sure to look for reputable banks and dealers. With the recent development of the local physical gold and silver market, including exemption of the GST from such products, there have been a number of physical gold and silver dealers springing up.

Gold prices, like all financial goods, have a buy/sell spread. For physical gold, there is a spread above the buy/sell spread. Assuming the gold spot price (price as determined by the financial markets) for 1 oz. is US\$1,000.00 / US\$1,002.00, and the exchange rate between US\$ and S\$ is 1.40, meaning the gold price spread in Singapore Dollars is

S\$1,400.00 / S\$1,402.80. If you go to any physical gold dealer at that point of the spread, they would not sell you the gold at S\$1,402.80. Instead they would probably sell you at a markup, say S\$1,480.00, and if you were selling them 1 oz. of gold, they would take in at maybe S\$1,320.00, not S\$1,400.00. The reasoning behind this “spread beyond the spread” is because, for physical gold, additional charges such as minting costs and storage fees are incurred, and these dealers are running a business and make profits, therefore it is fair that they pass these charges to the investors (see Figure 5.1).



Figure 5.1: “Spread beyond the spread”, showing the spread of physical bid/ask prices beyond the spread of spot bid/ask prices.

I have mentioned that getting bullion bars and coins is the way to own gold. Such bars and coins are the cheapest to produce, abundant and easily recognisable, hence their spread above the gold spot price is not so high. There are collectible coins (called semi-numismatics and numismatics) and bars, some of which come with limited mintage and/or with intricate designs. These are priced way beyond the perceived investment value and therefore should not be included in The Bedokian Portfolio.

There are a few reputable mints producing the physical gold and are likely members of the London Bullion Market Association (LBMA). So,

when buying physical gold, get it from a reputable dealer who gets them from reputable mints.

To keep gold, you could keep it in your own home by investing in a fireproof safe, use banks' safe deposit boxes or use the storage facilities provided by some dealers, but the latter two will incur regular fees and charges.

Silver

Often quoted as "the poor man's gold", silver, like gold, is also effective as a hedge against inflation. Interest in investing in physical silver is on the rise recently, with many dealers setting up shop selling silver (and gold) locally.

Though both gold and silver are seen as precious metals and their spot price patterns move in tandem with each other, there are subtle differences between the two. Silver is used more in industrial applications than gold, such as solar panels, electrical appliances and for medical use. For gold, though there are some industrial uses for it, is mostly used for jewellery and for investment purposes.

The ways of owning silver for The Bedokian Portfolio is the same as owning gold.

Buy Silver Direct - The most direct way would be to own the metal itself. Like gold, bars and coins are preferred, not jewellery, as the latter is not considered investment grade (and incur GST). Bullion bars and coins are the ones to go for, with the same reasoning that I had explained in the previous section on gold.

Buy Silver ETFs - Go for those that have physical silver as its underlying assets. I will cover a bit more of this in Chapter 8.

Silver Savings Account - There are savings accounts denominated in silver available from banks, though not all that provide the gold ones will have this service.

The rationale and characteristics in buying physical silver are the same as buying physical gold, such as the “spread beyond the spread”, going for bullion bars and coins, mints that are members of the LBMA, reputable dealers, and storage options.

Oil

Dubbed as “black gold”, oil, or crude oil, powers virtually every industrialised nation in the world, providing energy to power plants and to fuel cars. Crude oil is also a raw material for the production of plastics, which are in use almost everywhere.

Crude oil is priced in US\$ and it is quoted as “US\$xx.xx per barrel”. Not all crude oil are the same and there are many types of it around the world, but the two major ones quoted in the financial markets are Brent Crude and West Texas Intermediate (WTI). Brent crude oil is extracted from the North Sea between the British Isles and Norway, while the WTI crude oil is extracted from the United States. These two are often used as benchmarks for crude oil futures contracts (WTI for US markets while Brent is for most of the rest of the world).

While in terms of physical oil quality (such as “sweetness” in crude oil parlance and density) both are relatively similar to each other, there is a difference in their pricing. The prices for Brent and WTI depends on

several factors such as geopolitical issues and the weather. A hurricane affecting the oil fields in the US would likely spike the price of WTI, and a political crisis in the Middle East may make the price of Brent soar. Nevertheless, in the long term, both are closely correlated with each other, so you could choose either one of them.

To own and invest in crude oil, there are only two ways; either you buy barrels of crude oil and find a place to store them (not recommended), or you go through the futures way (not recommended either). I had said earlier in the chapter that futures are the way to go for crude oil, yet I am not recommending futures. Confusing, isn't it?

The main reason for not recommending futures is because they are highly speculative, means it is more suitable for trading and not for long term keeps. So how to invest in oil then?

Enter ETFs (again) and I shall jump the gun here explaining to you rather than asking you to go to Chapter 8, for crude oil at least. There are several ETFs available that deal with crude oil, and all of them are based on futures (for now). So, rather than "enjoying" the steep learning curve of futures and the execution of it, get an ETF that will do all the futures trading for you.

Commodities Risks

Commodities carry some risk as an asset class, too. Here are the major risks to take note.

Volatility Risk - By now you would have known volatility risk is present in almost every asset class. Commodities are no exception either. Prices of commodities do go up and down and sometimes drastically.

Deflation Risk - Commodities work well in an inflation situation, where the price increases for the same amount of financial goods. But in deflation, it is the opposite, and the commodities that you bought earlier become “cheaper” in terms of the price.

Non-Yielding Risk - Remember that commodities do not generate yield, and capital gains (or losses) are realised only at the point of disposal.

Summary

- Commodities are important in every aspect of society and industry.
- Commodities do not generate yield, but it is important to include them for diversification. They are good hedges against inflation, too.
- Futures are used for trading in commodities, and for The Bedokian Portfolio it is not recommended to use them.
- For gold and silver, the three ways to own them are; getting physical bullion (bars and coins), own gold/silver ETFs and open a gold/silver savings account.
- For crude oil, the only practical way to own it would be buying of crude oil ETFs with futures as the underlying asset.
- There are risks involved in investing in commodities, with volatility risk, deflation risk and non-yielding risk.

Chapter 6

REITs

Next up in this chapter I want to talk about is REITs, or Real Estate Investment Trusts.

What are REITs?

REITs are a hybrid of two major asset classes, property and equity. Like property, a REIT owns a group of properties, and it earns its income by leasing out the sub-properties to tenants. Like equity, a REIT is consisted of shares called units, and a shareholder of a REIT is called a unitholder. REITs are usually treated as equities for investment purposes, but in fact they are called trusts (hence the T in REIT) or trust funds.

The REITs idea was incepted from the United States in the 1960s, and from then several other countries are having them or are on the way of incorporating them. Since the first REIT appeared in 2002 in Singapore, there have been 30 plus REITs available for the investor. REITs are a good alternative to owning rental property outright, as there is no hassle like sourcing for tenants, collecting rent, mindful of property taxes and touching up the place.

REITs also now enjoy specific tax breaks, and for Singapore REITs (called S-REITs) the regulations stated that at least 90% of its taxable income must be distributed to unitholders.

The Importance of REITs

Remember The Bedokian Portfolio's objective? That's right, passive income through dividend and index investing. Since S-REITs have to distribute at least 90% of its taxable income to their unitholders, the dividend payout regime suits the objective.

REITs are closely correlated to property, another distinct asset class, especially on the rental market. For a shop or apartment unit, the amount of rent to be charged is determined by many factors, including comparing the rents of the neighbouring units and location of it. If the rental market is booming, rental income increases and for REITs, this means their income increase as well.

For volatility wise, REITs are not as susceptible to huge fluctuations in prices like other equities, because their makeup is consisted of actual properties; things that you can see and visit, and of course fairly valued.

Is REITs A Separate Asset Class?

The answer, however, is not so clear as there are different literature sources describing REITs as either a separate asset class or a sector within the equities asset class. The differences are due to the factors and parameters used to describe and define REITs, such as correlation and other statistical techniques.

For The Bedokian Portfolio, REITs are treated as a separate asset class due to its different correlation with other asset classes and its association to property, which is by itself a distinct asset class.

Types of REITs

Not all REITs are created equal. There are many types of REITs depending on their profile and make-up. Here are the common types.

Retail REIT - A retail REIT's portfolio is made up shopping and retail malls, hence the name.

Office REIT - Office REITs are office buildings, though they may include some retail shops in it.

Hospitality REIT - Hotels and serviced apartments typically fill the property make-up of such REITs.

Industrial REIT - Industrial REITs are made up of factories and manufacturing facilities and plants.

Logistical REIT - Logistical REITs are made up of warehouses and storage spaces, although sometimes they may mix in with industrial buildings.

Healthcare REIT - Hospitals and healthcare centres are under this type of REIT.

Residential REIT - Residential REITs are made up of residential houses and apartments for long term stay.

Mixed REIT - Although not named as such, but some REITs have a mixture of properties in its portfolio, such as retail and office (called commercial REITs), industrial and logistics, etc. There is a recent trend of REITs being merged across types, so we may see more of these mixed REITs in future.

There are other types of REITs overseas, including one called a mortgage REIT, which earns money not from rental income, but from interests earned from mortgage loans.

Besides the types above, REITs can also be classified by geographical exposure, which they could be holding either local properties or overseas properties, or both.

Gearing

For REITs, gearing is the amount of debt it holds with respect to its total assets (I will be covering more on gearing in Chapter 11). So if a REIT is having S\$10M (million) of loans and debt, and its total assets is S\$25M, it is said to have $10M/25M = 0.4$ gearing ratio = 40% gearing. Gearing is a very important issue in the world of REITs. For S-REITs, regulations stipulated that a REIT's gearing is limited to 50%⁸.

So what is really the problem here?

Remember that S-REITs pay out 90% of its taxable income to unitholders? Unlike a company, where they could keep the profits as retained earnings and use it for further development, REITs have to distribute almost all of its profits as dividends. This means a REIT has to borrow the money from somewhere if it decides to add a new property or do some enhancements on its current properties. Borrowing money means increasing the gearing.

⁸ *New Measures to Help REITs Navigate Operating Challenges Posed by COVID-19*. Monetary Authority of Singapore. 16 Apr 2020. <https://www.mas.gov.sg/news/media-releases/2020/new-measures-to-help-reits-navigate-operating-challenges-posed-by-covid-19> (accessed 17 Jul 2021)

There are a few ways REITs can get the additional money. They can borrow from banks, or issue bonds (remember Chapter 4?), but these methods will increase the gearing, as they are considered debt or loan. Issuing of more equity is another way. A rights issue, where unitholders can get additional units, usually at a discount, is a good way of getting additional money without affecting the gearing. In this way, with the asset portion increased and the debt/loan portion remained constant, the gearing would be reduced. However, issuance of new units will bring dilution (price of units reduced due to its increased numbers) at the expense of the unitholders.

REIT Risks

REITs do have risks as well. Here are some of the risks that are associated with them.

Volatility Risk - Again, this term is present in this chapter. REITs are not as volatile as other equities but the fact is such risk is still present. Examples such as a drop in tourist numbers will affect the hospitality REITs here; a generic manufacturing slowdown will drag the industrial and logistics REITs down, etc.

Interest Rate Risk - This risk has a dual effect on REITs. The first effect is a rise in interest rates will make loans and borrowings more expensive, thus affecting the bottom line of REIT income. The second effect is that the interest rate will rise until a point where the yield from holding cash (in a bank that generates interests) surpasses the yield given by REITs, during which investors will dump the latter.

How to Own REITs?

One good thing is that the Singapore financial market has 30-plus REITs, so having direct ownership of them is easy. Like companies, being a unitholder entitles you to attend their AGMs. There are REIT ETFs available locally and in overseas financial markets, too.

Summary

- REITs are a hybrid between equity and property asset classes.
- S-REITs have to distribute at least 90% of its taxable income as dividends, thus making it an important source of dividends for The Bedokian Portfolio's objective.
- There are many types of REITs, some go by their make-up and profile, and some by their geographical exposure.
- Gearing is the ratio of a REIT's liabilities to its assets.
- There are a few ways a company and REIT raise money, either by bank loans, issuing of bonds and/or issuing of additional units or rights.
- REITs can be owned directly and through ETFs.
- There are risks involved in investing in REITs, namely volatility risk and interest rate risk.

Chapter 7

Cash

This is the last asset class that I will go into. Cash is often overlooked, yet it is important enough to justify its place in The Bedokian Portfolio.

What is Cash?

Cash is just it, cold hard liquid cash (I emphasise on liquid here), which you could use it to buy just about anything. Liquidity means the ability of a financial good or asset to be bought or sold without compromising the price of it. Cash is considered the most liquid of all asset classes in which it could be quickly bought and/or sold for other financial good/asset classes with ease. If an item is S\$1.00 each and you bought 10 from a seller, you pay S\$10.00 in cash. Assuming all things equal, you could sell the 10 items back to the seller to get back the S\$10.00.

Putting it in an investment context, as a retail investor you cannot easily change Company A's shares for Company B's, nor change bonds for gold. You have to go through the cash phase, i.e. you have to sell away Company A's shares to get cash, then from there use the said cash to buy Company B's shares. Similarly you have to sell bonds to get cash, then use the same cash to buy gold.

I would like to state that for the cash here, it is referring to the cash allocated in The Bedokian Portfolio. Please do not include the cash in your own emergency funds (which I will touch a bit in Chapter 9) or savings.

The Importance of Cash

The liquidity of cash makes it an interesting asset class in a portfolio. Cash is the starting point, as well as the end point, in portfolio management. To put it in a dramatic way, in the beginning of time (of a portfolio), there was nothing but cash. Then cash was used to accumulate other asset classes. When dividends/coupons/interests were added in, it would go back in the form of cash. With the aim of The Bedokian Portfolio (passive income through dividend and index investing), and as the portfolio eventually matures, the passive income comes in the form of cash.

On a more short term note, cash acts as the reserves to purchase more asset classes when rebalancing comes or when opportunity knocks. The time taken is much faster than selling off the asset class and/or sub-asset class to get the cash and buy up another.

In the economic situation of things, cash is most useful where the economy is not doing well. The term "cash is king" is very apt in this situation, when most people are tied up in illiquid (i.e. not so liquid) asset classes and thus cannot exchange them for others, you could just get them with readily available cash in your hands.

Foreign Exchange

Foreign exchange here does not mean forex trading, but rather, from The Bedokian Portfolio's point of view, it is the holding of foreign currencies as cash or in bank accounts.

For holding local currency, you have only inflation to consider, but for keeping foreign currencies, you have to be concerned about inflation and the exchange rate, with reference to the local currency. The ideal scenario would be that the exchange rate rises faster than the local inflation rate, which means keeping that particular foreign currency is good. However, if it goes the other way, holding foreign currencies might not be such a good idea.

Despite all these, it is still feasible to hold onto foreign currencies (and foreign asset classes, which I will deal with it in Chapter 13), just not too much.

Cash Risks

Although cash is high in liquidity, there are some risks related to it. The following are risks on holding cash.

Physical Risk - One of the biggest risks involving cash is physical risk, which includes things like loss, theft, fire, deterioration, etc. This is very true especially if you are keeping cash yourself. Unlike most other asset classes where there are records of your ownership, once cash is compromised there is no way to recover them. If you really want to keep cash, invest in a fireproof safe.

Inflation Risk - The next big risk of keeping cash is inflation. The purchasing power of cash will dwindle as time goes by, therefore with the same amount of cash, chances are that you would be buying lesser things in the future as compared to now. You cannot escape from inflation; a constant and steady inflation is good for the economy.

Bank Failure Risk - Though chances are very, very low, but bank failures are common in other countries, regardless of how strong or weak their economy is. Locally, the accounts are insured (see later), but up to a certain quantum.

Foreign Exchange Risk - As described in the earlier section, you have to contend with foreign exchange fluctuations if you decide to keep foreign currency.

Interest Rate Risk - For REITs, having a higher interest rate is no good, but for cash, having a lower interest rate is no good. The lower the interest rate, the lesser yield you are getting from the interest.

How to Own Cash?

Though this may sound like an obvious question, there are really many ways out there to store your cash. The cash-in-a-biscuit-tin-under-your-bed is a definite no-no; the risks of theft, fire, getting eaten up by termites (literally) and inflation (figuratively) are there. Cash, unlike commodities, can generate returns called interest if you know where to put it, even though it is not as much as equities or bonds. Banks top the list of places to store cash and are safe in many aspects; physically as they have security guards and strong vaults to store your cash, legally (most banks here) as your deposits are insured up to a certain amount (\$75,000 for now) by the local Singapore Deposit Insurance Corporation (SDIC)⁹, and conveniently as you could use their facilities to facilitate transactions of your securities.

⁹ Calculation of Compensation. Singapore Deposit Insurance Corporation. https://www.sdic.org.sg/calc/di_calc (accessed 17 Jul 2021)

Banks offer many types of services to manage your cash, but the key thing to consider is speed, meaning which the cash must be at your disposal within short notice. Two types of accounts in a bank would suit this purpose, and they are savings accounts and fixed deposits. A savings account is your typical everyday bank account, where your pay is deposited into, and where you withdraw from to meet your daily expenses. A fixed deposit is a bit like a bond, where you lock in your cash within a period of time to get a certain amount of interest. In terms of time to get the cash, a savings account is the fastest, followed by fixed deposit, but both are suitable to store cash. Depending on your preference, you could have dedicated savings accounts and fixed deposits for the purpose of The Bedokian Portfolio, or you could mix it in your own daily working bank accounts. If you are doing the latter, make sure you appropriate the cash between the personal and investment proportions, and divide the interest earned according to each. The savings accounts and fixed deposits must be as plain as vanilla, with no added features such as personal insurance or mixed with investments (e.g. structured deposits).

You could also deposit your cash with your respective brokerages, though not all have interest returns. For those which offer interest returns, some are because of their affiliation with banks, while others invest the cash holdings into money market funds. An advantage of putting the cash with them is ultra convenience, for any financial instrument bought would be deducted directly and quickly. The disadvantage is that they may not have the SDIC protection.

For foreign currencies, there are savings accounts and fixed deposits from banks that are catered for them, but they are not covered under the SDIC¹⁰.

¹⁰ *Scope of DI Coverage. Singapore Deposit Insurance Corporation. https://www.sdic.org.sg/public/di_scope_of_coverage (accessed 17 Jul 2021)*

Singapore Savings Bond

The Singapore Savings Bond (SSB) was introduced by the Singapore Government in 2015 as a safe, long-term and flexible means of investing. Unlike normal government bonds, in which a fixed coupon rate is paid at a prescribed pay date, the SSB rates step up as each year goes by, thus it is more worthwhile to keep it long term. Also, the SSB is not subject to market volatility; once redeemed, you will get back the whole sum, plus any coupon amount accrued.

The SSB can be seen as a form of cash-bond hybrid: cash in terms of a depository mechanism, and bond if the cash is kept till the end (after 10 years). Though the redemption is not as instant as withdrawing cash from a bank, the cash in SSB could be withdrawn possibly in about slightly more than one week's time, depending on which part of the month you submit the redemption request.

Summary

- Cash is the most liquid among the asset classes.
- Cash is the beginning and the end product of a portfolio. Short term wise, cash is useful if transaction of asset classes is to be done quickly.
- Foreign exchange is considered as cash. It is feasible to have some but be mindful of exchange rate changes and inflation.

- The risk involved in holding cash includes physical risk, inflation risk, bank failure risk, foreign exchange risk and interest rate risk.
- Some ways of keeping cash include putting in banks and brokerages. To keep cash physically, invest in a fireproof safe.

Chapter 8

ETFs

In recent years, Exchange Traded Funds, or ETFs, are gaining recognition among investors. All asset classes that are mentioned in the previous chapters can be obtained using ETFs. ETFs are instrumental in the overall strategy of The Bedokian Portfolio.

What are ETFs?

ETFs are a type of securities. Like listed equities and bonds, they can be traded in the financial markets or exchanges; and like unit trusts, they are consisted of a portfolio of shares, bonds, commodities and/or cash. This hybrid feature allows two distinct advantages over getting individual shares and/or bonds, and unit trusts. Firstly, for example, if you want to invest in an index, instead of buying up the constituent companies' shares separately, you could just buy one ETF representing the index, if available. Secondly, ETFs can be transacted anytime of the day when the financial market is open, unlike unit trusts where you could only transact at the end of the day.

Structurally ETFs are classified as funds, and they can be grouped into many types, depending on their underlying assets, fund structures and objectives. Most ETFs are transparent in their holdings, meaning it is not a secret as to what their underlying assets are. Such transparency and ease of transaction in the financial markets led to their growing popularity.

Importance of ETFs

I said that ETFs are important in the overall scheme of things for The Bedokian Portfolio, where they allow you to engage in index investing. Index investing is one of the aims of The Bedokian Portfolio. Not only index investing, but also virtually every other asset class can be obtained using ETFs. The gist is whatever that cannot be invested easily (such as crude oil in Chapter 5), ETF is there to the rescue.

How an ETF Works?

Like all funds, ETFs have an objective, such as tracking an index, following the price of a commodity, etc. An ETF provider, usually a financial institution (e.g. banks) or a fund house, will create an ETF. Let us take an example of an ETF created to track an index that is made up of 10 companies of equal weightage (meaning, each of the 10 companies have an equal “score” contributing to the index). The ETF provider then turns to authorised participants, or APs, to do the creation and redemption of ETF shares. Like ETF providers, APs are also financial institutions.

In the creation process, an AP will buy up shares of the 10 companies according to their weightage in the index, generally in the tens of thousands, and then deliver them to the ETF provider. The ETF provider then exchanges them, in equal value, with ETF shares to the AP. In turn, the AP will sell these ETF shares in the financial market to investors like you and me.

In the redemption process, the AP will exchange the ETF shares with the ETF provider to get back the 10 companies' shares at equal value. As you can see here, redemption is the opposite of creation.

These creation and redemption processes, though they look complicated, are a self-balancing way of keeping the ETF as close to the value of the index it is tracking. Assuming there is a sudden demand for the ETF, causing its price to rise. When the AP sees this, it will quickly do the creation process and sell the ETF shares to meet the demand, which in turn will drive the price down back to its fair value (and make a profit for the AP). Similarly, when there is an oversupply of the ETF shares, the price will go down. Again the AP, seeing the "cheap" ETF price, will buy them up to do the redemption process for the companies' shares, thus bringing the price back up to normal (moreover make a profit for themselves, too). The ETF provider, with all these goings-on, will maintain the objective of tracking the index, as what the ETF is supposed to do.

Asset Classes and ETFs

The explanations in the earlier sections are geared towards equity ETFs. The beauty of ETFs is that you can own every asset class with them. Equities, bonds, commodities, REITs, cash, forex, etc., can be transacted using ETFs, and whole portfolios can be consisted of nothing but ETFs.

A majority of ETFs are backed by real assets, like the actual equities, bonds, etc. The gold and silver ETFs, which I mentioned back in Chapter 5, have actual gold and silver stored by the ETF providers in some vaults. Other ETFs are futures-based, like crude oil in Chapter 5, as well as other commodities like wheat, copper, etc. There are some ETFs based on paper contracts (see later section at Physical vs. Synthetic ETFs).

Such are the versatility and variety of ETFs, which makes it an important investment vehicle for The Bedokian Portfolio.

Not Just Asset Classes...

Yes, there are ETFs catered to the various regions, countries, sectors/industries, or any combination thereof. Additionally, there are thematic ETFs such as private equity and hedge funds mentioned in Chapter 1, as well as on green energy, artificial intelligence, etc. The possibilities are endless with ETFs.

Total Expense Ratio

Like unit trusts, there are fees charged by the ETF provider in running the ETF. This is called the total expense ratio (TER). TERs are expressed in terms of percentages, so you will know how much they are charging for managing the ETF.

Good news is you do not need to send an annual payment for the TER to the ETF provider of the ETF you are holding. The TER is deducted from the fund itself. Still, it is wise to choose an ETF that has a low TER.

Suppose that there are two ETFs tracking the same index, and assume all factors are the same (holdings, weightage, etc.) with the exception of TER. The first ETF has a TER of 0.3% while the second has a TER of 1.0%. Although the difference is merely 0.7%, by using compounding effect, this 0.7% can be amplified to a relatively significant amount if the ETF is held for many years, and this amount would eat into the eventual returns.

Therefore when choosing ETFs, TER is one of the factors to consider, though I advise it should not be the ultimate dealbreaker.

Index Investing

I have been talking about index (or indexes/indices in plural), but what are they?

An index is like an overall scorecard and it is used to track the performance of a certain group or sector of the financial market. Indices are created by news and information companies, financial institutions and companies, and credit rating agencies.

There are many indices around the world and they track different things. A few examples would be the MSCI World (tracking big companies' equities from 23 developed countries), the S&P GSCI (tracking of commodities) and the NASDAQ Computer (tracking the computer companies in the United States). Whenever there is an index, chances are there is an ETF (or a few) tracking it.

The importance of index investing in The Bedokian Portfolio stems from one important fact: the unpredictability of the financial markets. True, there are traders and investors who thought they could beat the markets, but most, and I stress most, could not over the long term, based on several studies done. With the odds of beating the market are almost slim in the long term, the question I asked myself is, why beat the market, when you can be with the market? This allows me to "go with the flow".

Index investing also allows you to practice a type of dollar cost averaging or DCA. By most conventions, DCA is the practice of periodic

buying of financial goods with a fixed amount of money, regardless of the price. For example, I set aside S\$100 a month to buy an index ETF. Disregarding commission costs and fees, if the price of the ETF is S\$1, I will have 100 shares of ETF. Come next month, the price of the ETF is S\$1.25, and with my S\$100 I will get 80 ETF shares. Supporters of DCA says this method is less risky than going in one shot, because it is difficult to know whether the financial market is at the top, bottom, still going up or still going down.

I would prefer another type of DCA; instead of buying S\$100 worth of ETF shares per month, I go for a fixed number of ETF shares, like 100 shares per month. There are several reasons why I would go for this, which I would elaborate more in Chapter 15.

Physical vs. Synthetic ETFs

When ETFs are first created back in the early 90s, they are physical in nature, meaning inside the ETFs there are actual assets (such as the earlier example of shares of the 10 companies) being held by the ETF provider. Then, in the beginning of the 21st century, the European financial markets began to have a new product called synthetic ETFs.

In synthetic ETFs, the ETF provider enters a swap contract with a financial institution, normally a bank, to provide the value of the index the ETFs are tracking. In other words, instead of providing actual shares of the companies to the ETF provider, the other side of the swap contract, known as a counterparty, provides the promise of the value of the said shares.

The good thing about synthetic ETFs is that they track the index much closer than physical ones and are cheaper. Their lower tracking error, or

deviation, of the index is due to the straightforward swap contracts between the ETF provider and the counterparty. Physical ETFs, because of the perceived longer way of transacting the actual shares, may have a larger tracking error and higher costs due to the constant buying and selling.

However, if there is a collapse of the counterparty, the synthetic ETF provider would have no way of compensating, as there is no underlying shares as assets to begin with. With this counterparty risk in mind, The Bedokian Portfolio recommends physical ETFs.

Other ETF Comparisons

Just like cars, which you can compare them using size (big vs. small) or gear transmission (manual vs. automatic), there are other comparisons among ETFs besides physical versus synthetic. Although the compared ETFs below are currently not available in the Singapore financial market, they are common in the United States. Let us take a look at the common comparisons.

Passive vs. Active ETFs - In the beginning ETFs track indices. Tracking, or following in another sense, is considered a passive action. As time goes by, there is a genre of ETFs that, instead of tracking indices, is trying to beat them instead, therefore active in nature. Although active ETFs are not as boring as passive ones, their lack of or no conformity to an index makes them unpredictable. At least we know what equities an ETF holds if it is following a particular index, and sometimes it is better to go with the flow. Besides, active ETFs carry a higher TER. Passive is recommended for The Bedokian Portfolio.

Non-Leveraged vs. Leveraged ETFs - Leveraged ETFs work on the principle of multiples, where a rise in the underlying assets will increase the price of the ETFs by two or three times, or in other words magnifying the returns. However, if the underlying assets fall, the ETFs will fall by two or three times. Such volatility, coupled with the typical high TER of such ETFs, meant that they are more for trading than keeping long term.

Non-Inverse vs. Inverse ETFs - There are also inverse ETFs, where if the indices go down, their prices go up, and vice versa. To make them more fanciful, there are leveraged-inverse ETFs as well. Like leveraged ETFs, inverse ETFs are speculative in nature, carry a high TER and not meant for keeping long term.

Exchange Traded Notes

Along your readings and research of ETFs, you may come across another investment vehicle called exchange traded notes, or ETNs. Though they sounded similar (with only one word difference), they are vastly different from each other.

ETNs are debt securities issued by banks, and like bonds, they also have a tenure. But ETNs are considered unsecured debt securities, and they are not backed by any asset, only the credit worthiness of the issuer, so there is a counterparty risk in holding them.

You may read further on ETNs, but for The Bedokian Portfolio, they will not be considered.

How to Own ETFs?

ETFs can be bought from the financial markets and exchanges.

Summary

- ETFs are a cross breed between equities and unit trusts. They are consisted of a portfolio of shares, bonds, commodities and/or cash. Most ETFs are backed by the underlying assets that they represent.
- ETFs work on the basis of creation and redemption, between ETF providers and authorised participants.
- ETFs are suitable for index investing, which is instrumental in The Bedokian Portfolio. Due to the unpredictable nature of the financial markets, index investing allows investors to “go with the flow”.
- Index investing also allows dollar cost averaging (DCA) style of investment.
- There are a few comparisons between ETFs, like physical vs. synthetic, passive vs. active, non-leveraged vs. leveraged and non-inverse vs. inverse.
- Do consider the total expense ratios (TER) when selecting ETFs, for over the long term it will incur an opportunity cost of investable amount to expenses.
- ETFs can be transacted from the financial markets and exchanges.

Chapter 9

Portfolio Building

I have introduced the various asset classes in the preceding chapters, and now it is time to build up The Bedokian Portfolio.

Emergency Fund

Before doing any investment proper, it is best that you leave some cash as an emergency fund. This fund is for you to tide over unexpected situations in life, such as sickness, unemployment or just about anything that will eat into your money. The main thing is to keep The Bedokian Portfolio chugging along and doing its job of reaching its objective without much external interference.

There is no fixed rule on how much one's emergency fund should be, but ballpark figures floating around is about 3/6/9/12 months of your income/expense, or by a certain quantum like S\$5,000/S\$10,000/S\$20,000, etc. So it is up to you how comfortable you wish to set aside for this emergency fund.

The emergency fund, as well as your money for your daily expenses, should NOT be under The Bedokian Portfolio, not even at the cash portion. You really have to separate which is for investments, and which is for your savings and daily needs. Personally I like to compartmentalise things and issues, so keeping this mindset is crucial to prevent yourself from liquidating your investment assets for something not related to investments. This is precisely why it is better to set up a bank account for

holding the cash portion, separate from your daily expense account. If not possible or feasible to have separate accounts, note it down somewhere as to which amount in the account is for investments and which is for everyday use.

Build up this emergency fund first, before implementing The Bedokian Portfolio.

Portfolio Objective

When building a portfolio, we have to think what it is being built for. Having an objective, or aim, would make things easier because at least the destination is known. Right now we need to build a road to it.

Remember, the objective of The Bedokian Portfolio is to have passive income through dividend and index investing. In the previous chapters I have touched on dividends, coupons and interests, the compounding effect and index investing. Now I will let you know the mechanics behind this objective.

The passive income component does not come in until the start of retirement. Retirement is subjective; some choose to retire at 65, while some prefer to do it at age 40, or even younger at 30. In the meantime, the building of The Bedokian Portfolio should start as early as possible to maximise the compounding effect. In my personal opinion, the minimum duration for The Bedokian Portfolio should be at least 10 years before we can see the fruits bearing from it.

Revisiting the compounding effect, let us look at it and compare them by a starting point using age. We look at two individuals, using a base amount of S\$10,000.00 and a constant 5% yield per year; individual A

started doing the compounding effect at age 21, contributed S\$5,000 for the next 10 years, and individual B started at age 40, and contributed S\$5,000 for the next 20 years (see Figure 9.1).

Age	Contribution (S\$)	Amount (start at 21 years old) (S\$)	Contribution (S\$)	Amount (start at 40 years old) S(\$)
21		10,000.00		
22	5,000.00	15,750.00		
23	5,000.00	21,787.50		
24	5,000.00	28,126.88		
25	5,000.00	34,783.22		
26	5,000.00	41,772.38		
27	5,000.00	49,111.00		
28	5,000.00	56,816.55		
29	5,000.00	64,907.38		
30	5,000.00	73,402.74		
31	5,000.00	82,322.88		
32	0.00	86,439.03		
33	0.00	90,760.98		
34	0.00	95,299.03		
35	0.00	100,063.98		
36	0.00	105,067.18		
37	0.00	110,320.54		
38	0.00	115,836.56		
39	0.00	121,628.39		
40	0.00	127,709.81		10,000.00
41	0.00	134,095.30	5,000.00	15,750.00
42	0.00	140,800.07	5,000.00	21,787.50
43	0.00	147,840.07	5,000.00	28,126.88
44	0.00	155,232.07	5,000.00	34,783.22
45	0.00	162,993.68	5,000.00	41,772.38
46	0.00	171,143.36	5,000.00	49,111.00
47	0.00	179,700.53	5,000.00	56,816.55

48	0.00	188,685.55	5,000.00	64,907.38
49	0.00	198,119.83	5,000.00	73,402.74
50	0.00	208,025.82	5,000.00	82,322.88
51	0.00	218,427.11	5,000.00	91,689.03
52	0.00	229,348.47	5,000.00	101,523.48
53	0.00	240,815.89	5,000.00	111,849.65
54	0.00	252,856.69	5,000.00	122,692.13
55	0.00	265,499.52	5,000.00	134,076.74
56	0.00	278,774.50	5,000.00	146,030.58
57	0.00	292,713.22	5,000.00	158,582.11
58	0.00	307,348.88	5,000.00	171,761.21
59	0.00	322,716.33	5,000.00	185,599.27
60	0.00	338,852.15	5,000.00	200,129.24

Figure 9.1: Comparison of compounding effect at different age starting point, with S\$10,000 base, S\$5,000 contribution and 5% yield per year.

At age 60, Individual A would have S\$338,852.15, while Individual B only has S\$200,129.24, despite the latter having contributed more (Individual B's S\$100,000 vs. Individual A's S\$50,000). The reason is compounding works best with a longer time horizon, so it pays off when you invest at a younger age.

With an earlier start in investment, and letting the compounding effect roll, you could generate the passive income and/or a higher yield from The Bedokian Portfolio sooner. Set a target for your passive income, like a certain amount per month or year, work towards it and from there you could probably set a retirement age for yourself.

Portfolio Makeup

Here is the makeup of The Bedokian Portfolio by value:

- Equities, 20% - 40%
- REITs, 20% - 40%
- Bonds, 10% - 40%
- Commodities, 5% - 10%
- Cash, 5% - 10%

The reasons why these asset classes are selected are due to the following: Both equities and REITs provide dividends, with the former having higher potential capital growth; Bonds give a stabilising effect when equities and/or REITs are weakening, while still earning coupon payouts; Commodities, though it is a non-yielding asset class, give the necessary softening of the overall portfolio from volatility; Cash, though acting as a pool of liquidity, could still be an interest-bearing instrument.

The range of percentages of each asset class gives you the flexibility of constructing your ideal Bedokian Portfolio, depending on two factors: your age and your risk appetite. Financial markets are volatile. No one investor or trader in their lifetime can predict 100% accurately on how they move, but one thing we do know is they move along in what we call an economic cycle. The economy moves up and down, and up again, on a global scale. There is no real accepted timeline for each cycle, but generally it is about seven to ten years. Different asset classes react differently to the different phases of an economic cycle, therefore I emphasise again on the diversification part. With this in mind, the two factors of your customised Bedokian Portfolio makeup comes into play next.

Age

Age is the first consideration. When you are young, you could afford to ride out several economic cycles, enjoying the fruits of your labour and riding the storm. However, when you are older, stability is more important than “riding it out”, therefore your portfolio must change to suit your age situation.

The oft-quoted “100 minus your age in equities/stocks” was considered the main standard in portfolio diversification, meaning the amount of equities to hold would be reduced as one ages. A 40 year-old investor would have $100 - 40 = 60\%$ of his/her portfolio in equities, whereas a 60 year-old investor would have $100 - 60 = 40\%$ in equities. However, with a longer life expectancy, such allocation may be viewed as outdated, and new ones using 120 and 110 instead of 100 have begun to take root in some investment allocation circles. The reasoning is that as you live longer, the so-called “end time” of your portfolio is extended, therefore you need to hold on to that portfolio for a while more.

Risk Appetite

I had highlighted the different risks involved in different asset classes in the previous chapters, so risk appetite is about how much of those risks you are willing to bear to meet your investment aims.

It is generally understood that the higher the returns, the more risk you have to bear, and vice versa. The return from equities can be good and in some instances astronomical, but the price of a share can be brought down instantaneously as well. On the other hand, government bonds pay a fixed sum throughout its tenure, and some may view it as boring,

but at least the bond coupon payouts and the return of the bond principal are highly guaranteed.

Risk appetite can be applied to different levels, from the asset class level at the top, down to country level next, then sector and lastly individual companies and organisations. For example, an investor could have a huge risk appetite in investing in very high yield junk bonds, but he/she could have a low one when it comes to REITs. There can be many different combinations depending on the psyche and mentality of the individual investor, but in general when an investor has a higher risk appetite, he/she would be applying this level throughout his/her investments and decisions.

Balanced Bedokian Portfolio

I consider this balanced portfolio as the “root” of The Bedokian Portfolio, where it is suitable for all ages and across the different risk appetites of investors. It is made up of:

- 35% Equities
- 35% REITs
- 20% Bonds
- 5% Commodities
- 5% Cash

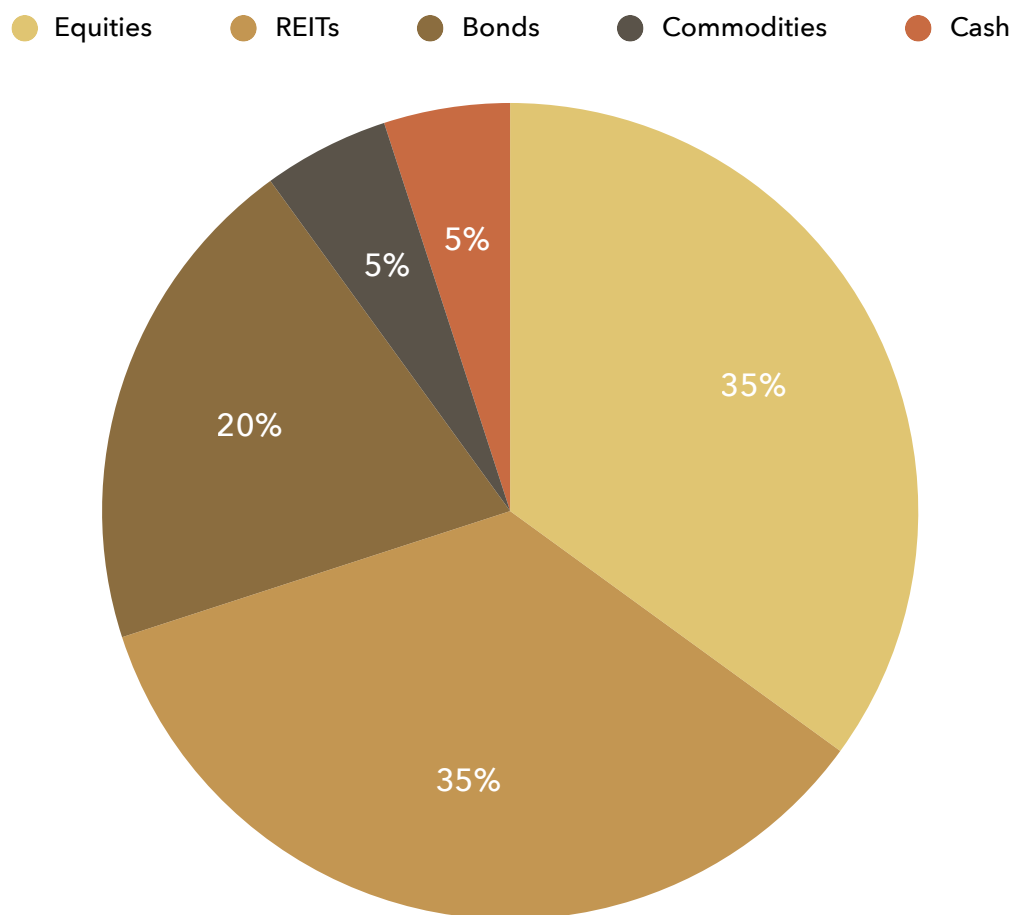


Figure 9.2: Balanced Bedokian Portfolio

Of course, being a sample, you could mix and match your Bedokian Portfolio. Using a house as an analogy, you could view the asset classes as different rooms, and the sub-types of each asset class as furniture for a particular room. Just make sure you do your due diligence while choosing the furniture (to be covered under Chapter 12).

Bedokian Portfolio Variations

You could vary your Bedokian Portfolio to suit your needs. Using the portfolio makeup percentage ranges and the balanced Bedokian Portfolio shown earlier, I will classify the variations using age/risk profile.

- Young investor aged 21-35/Aggressive (40% Equities, 40% REITs, 10% Bonds, 5% Commodities, 5% Cash) - This is an aggressive yet high risk Bedokian Portfolio combination. As a young investor, he/she could afford to ride out the economic cycles and capitalising on having the compounding effect early in life. As an aggressive investor, he/she could gain a lot of yield for passive income and/or reinvestment.
- Middle-age investor aged 36-55/Moderate (35% Equities, 35% REITs, 20% Bonds, 5% Commodities, 5% Cash) - This is the balanced Bedokian Portfolio, it is suitable for investors with a moderate risk profile.
- Retiree investor aged 56 and above/Conservative (20% Equities, 20% REITs, 40% Bonds, 10% Commodities, 10% Cash) - For the retiree and conservative investor, stability is key and therefore a higher allocation to bonds would be suitable.

Do note that the above variations serve as guidelines and not absolute. Every individual is different and therefore the Bedokian Portfolio of each person is unique.

Constructing Your Portfolio

After you had determined your Bedokian Portfolio makeup, it is time to execute the plan, and there are a few ways to go about it. Here are two common and easy ones to follow.

The first method would be to buy into the asset classes at one shot and form the starting base portfolio. Assume you had set on the balanced Bedokian Portfolio and had S\$10,000 to begin with, you would allocate S\$3,500 each on equities and REITs, S\$2,000 on bonds, S\$500 on

commodities and S\$500 as the cash component. This would give you a clear snapshot of your portfolio at the beginning, and also to capture the current characteristics of the asset classes as at a particular economic situation.

The second method is to add in the asset classes gradually over time. The gist of it is to start off with one or two asset classes (e.g. equities, REITs, equities-bonds, equities-REITs, etc.) and then over the course of time you could add in the others, and finally creating a cash pool from dividend/coupon payouts and/or cash injections, completing the portfolio. While this is suitable for investors with little capital, the main minus point is that since the asset classes are bought in at different times, the correlation effect between the asset classes at a given period may not be fully exploited. In other words, there are chances where at the initial point of entry of an asset class, that asset class may be peaking at that moment. Hence, it is recommended that the period of time to finally form the complete portfolio should be at most one year.

The next question would be, what to buy to start your Bedokian Portfolio? If your starting amount is substantial enough to afford a purchase of a few diversified individual equities, REITs, bonds and commodities, make sure you do read up the guidelines in Chapter 12 on the selection, especially on equities, REITs and bonds. If not, or you are still unsure of which individual financial instruments to get, start off with ETFs (again, the magic of ETFs comes into play here), as they would cover the asset classes in general.

Summary

- Always set aside an emergency fund before starting on The Bedokian Portfolio.

- With an earlier start in investment, and letting the compounding effect roll, generating the passive income and/or a higher yield from The Bedokian Portfolio would be sooner.
- The Bedokian Portfolio's make-up is dependent on a person's age and risk appetite. Variations include young investor/aggressive, middle age investor/moderate and retiree investor/conservative.
- The balanced Bedokian Portfolio is consisted of 35% equities, 35% REITs, 20% bonds, 5% commodities and 5% cash.
- The variations of The Bedokian Portfolio serve as guidelines and can be different due to the uniqueness of individuals.
- There are two simple and easy ways to construct The Bedokian Portfolio. The first is to buy into the asset classes at one shot and form the starting base portfolio. This method gives you a clear snapshot of the portfolio at the beginning.
- The second method is to add in the asset classes gradually over time (at most one year). This is suitable for investors with little capital, but the correlation effect between the asset classes at a given period may not be fully exploited.
- If the starting amount is substantial enough to purchase the asset classes individually, do refer to the selection guidelines in Chapter 12. If not or unsure, use ETFs to start off.

Chapter 10

Portfolio Maintenance

Congratulations, by now you would have built up your Bedokian Portfolio or on the way doing so. Next up I will be talking about maintaining your portfolio.

Rebalancing and Transaction Costs

As time goes by and with economic and market forces, your portfolio's asset class proportions will not remain the same as it started. Remember that different asset classes react differently in different economic conditions, so it is not surprising that your portfolio pie chart appears different if you relook at it in a few weeks, months or one year later.

It is such times that the act of rebalancing comes into play. Rebalancing allows your portfolio to go back to where it is supposed to be, so as to make your tailored Bedokian Portfolio perform at its desired optimum level. For the Bedokian Portfolio, rebalancing is done two ways: periodically and opportunistically.

Periodically means there is a designated day in your calendar that you would "bring balance" to your portfolio. It could be quarterly, half-yearly or annually, but ballpark wise half yearly and annually are preferred as you could save up on transaction costs. Later in the chapter I will talk about "Periodic Rebalancing 101" to cover this in detail.

If you are more active in managing your Bedokian Portfolio, you could incorporate the opportunistic rebalancing along with the periodic one. Doing it opportunistically means you get to buy the asset classes when "the price is right", i.e. market timing. Although this construes to a bit of a trading mindset, it is not and does not hurt when you transact your financial instruments when they are at a high, low or just nice. In the later chapters I will describe more about selection of financial instruments.

Whether periodic, opportunistic or both, you have to be mindful of transaction costs. I had said in Chapter 2 that brokerages charge commissions and fees on top of the securities price that you are buying or selling, so do not unnecessarily transact your financial instruments without a proper reason. The transaction costs, though low at first glance, will become substantial and eat into your yield returns/passive income if you do it too often (akin to the ETF TER which I explained in Chapter 8).

Implementing Dividend Investing

In Chapters 3 and 9 I had demonstrated the power of compounding effect. Now we will look at the practical aspect of dividend investing.

There are two main ways to go about dividend investing. One is through a dividend reinvesting program or plan (called DRP or DRIP), where a company would purchase shares for you from your dividends. In Singapore, the term for DRP is called the scrip dividend scheme. Though this sounds good, but in my opinion there is a main disadvantage to DRP.

This aforementioned disadvantage is the odd number of shares that you will be getting, which you may find it difficult if you wish to sell off that

particular company's shares in the future. Let us use a hypothetical example; imagine you own 1000 ABC Company shares and you decided to take part in their DRP. During the dividend period, ABC Company then announced a dividend of S\$0.10 per share, and the DRP would be based on the average price set within so-and-so dates, which for example is at S\$1.20.

With the above information, from this DRP exercise you will get 83.33 shares ($1000 \text{ shares} \times \text{S\$}0.10 \text{ dividend per share} = \text{S\$}100$, and $\text{S\$}100 / \text{S\$}1.20 = 83.33 \text{ shares}$), bringing you number of shares for ABC Company to 1083.33 shares. Looks weird? Even if you drop the "0.33" away somehow, you will still see 1083 shares.

Especially in Singapore, where shares are mostly in lots of 100, you could see the potential headache that you may be getting when during rebalancing you try selling away 1083 ABC Company's shares, though there are avenues to sell these 83 shares (called "odd lots" in brokerage speak). So therefore, for the Bedokian Portfolio, it is better to see your number of securities in a good-to-look number to facilitate ease of transaction. If the DRP allows you to get at least 100 shares (or 1 share in some overseas financial markets), then you could continue with it, and convert the remaining odd lots to cash, if available.

The second way to go about dividend investing (and including coupon and interest investing, as well as profits from sales proceeds) is DIY, i.e. do-it-yourself. Always opt for cash when you receive your dividends, and this cash in turn will be parked under the cash asset class. Remember what I had said back in Chapter 7 on cash? Cash is the starting point, as well as the end point, in portfolio management. With dividend investing, you could clearly see this cycle in action, dubbed as the "Circle of Reinvestment" (see Figure 10.1).

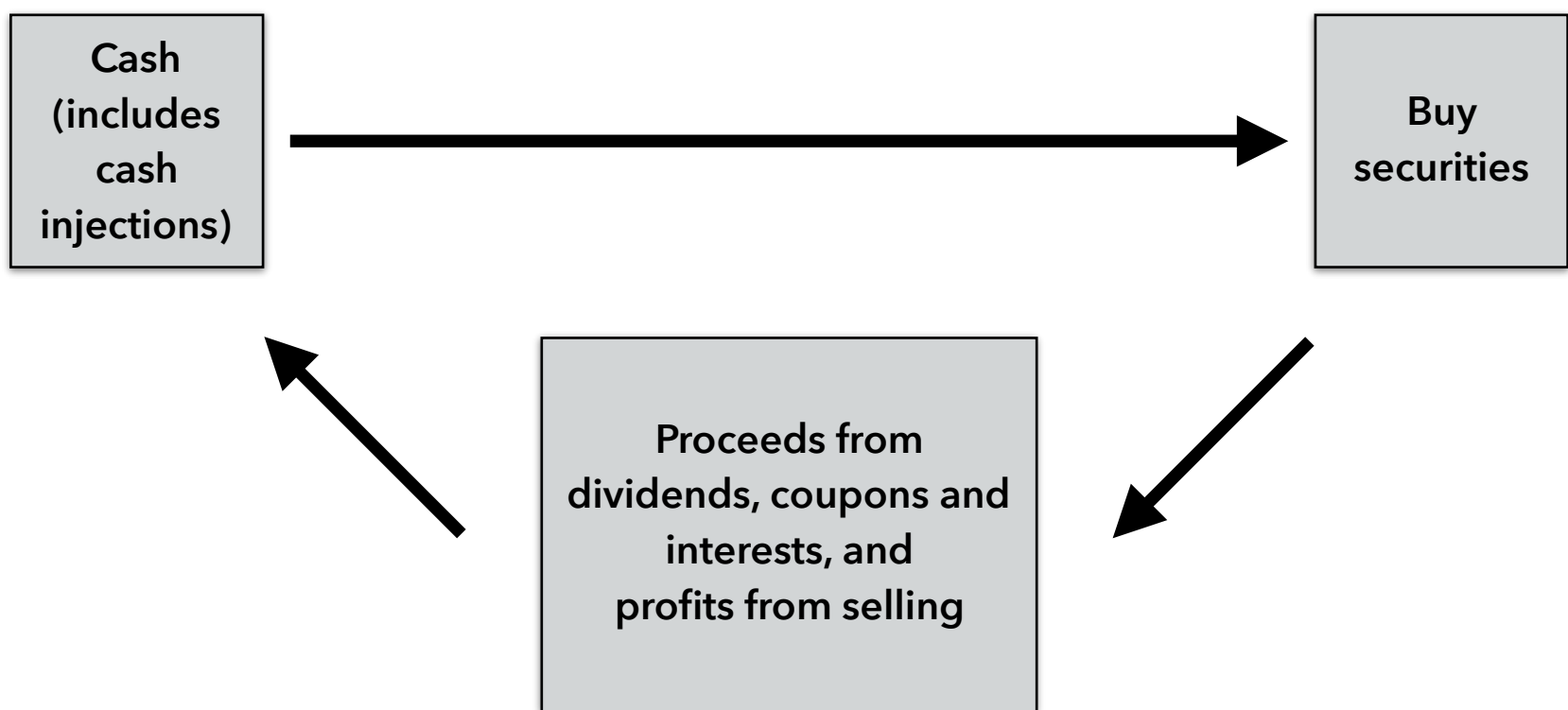


Figure 10.1: The "Circle of Reinvestment"

You may have realised by now that this is a bit off from the compounding effect that I have been espousing from the beginning of this book. If you have not realised it, here is the thing; compounding effect works best if the yield is gained and automatically added back to the amount, but in this case, the yield is being kept as cash first before being redeployed, therefore there is opportunity cost of using it to gain more. Although DRP is the closest to the compounding effect, its difficulties mentioned beforehand require a compromise on the method of reinvesting the yield.

Periodic Rebalancing 101

Rebalancing is very important if you wish to let The Bedokian Portfolio perform at optimum according to your age and/or risk appetite. If you are a passive Bedokian Portfolio investor, this is a section for you.

Let us use the balanced Bedokian Portfolio as an example (see Figure 10.2). At the start of implementation, you have 35% equities, 35% REITs, 20% bonds, 5% commodities and 5% cash, by value.

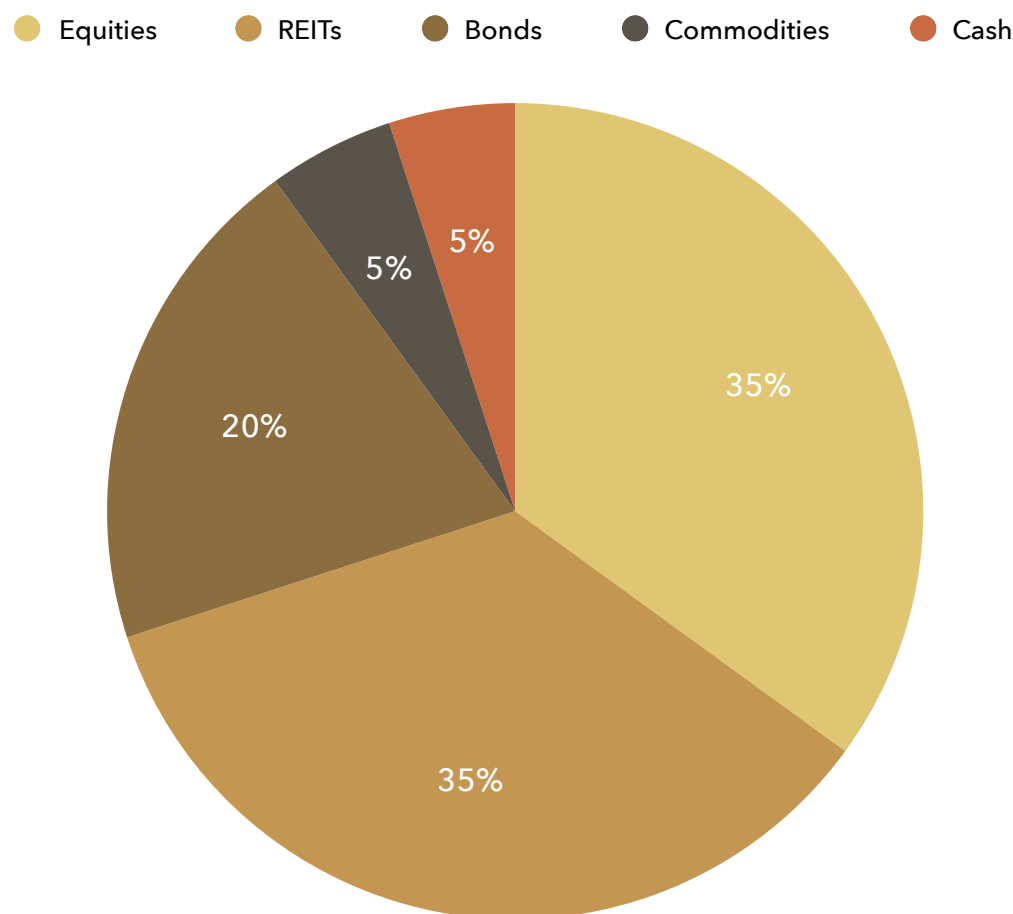


Figure 10.2: Balanced Bedokian Portfolio at start of implementation.

When you relook at your portfolio one year later, the values of the various asset classes might have changed. Take for example in between the year there is some changes in the economic situation, where equities went on a huge rise, bonds took a beating and REITs remain somewhat stagnant. Figure 10.3 shows what eventually happened to The Bedokian Portfolio a year later.

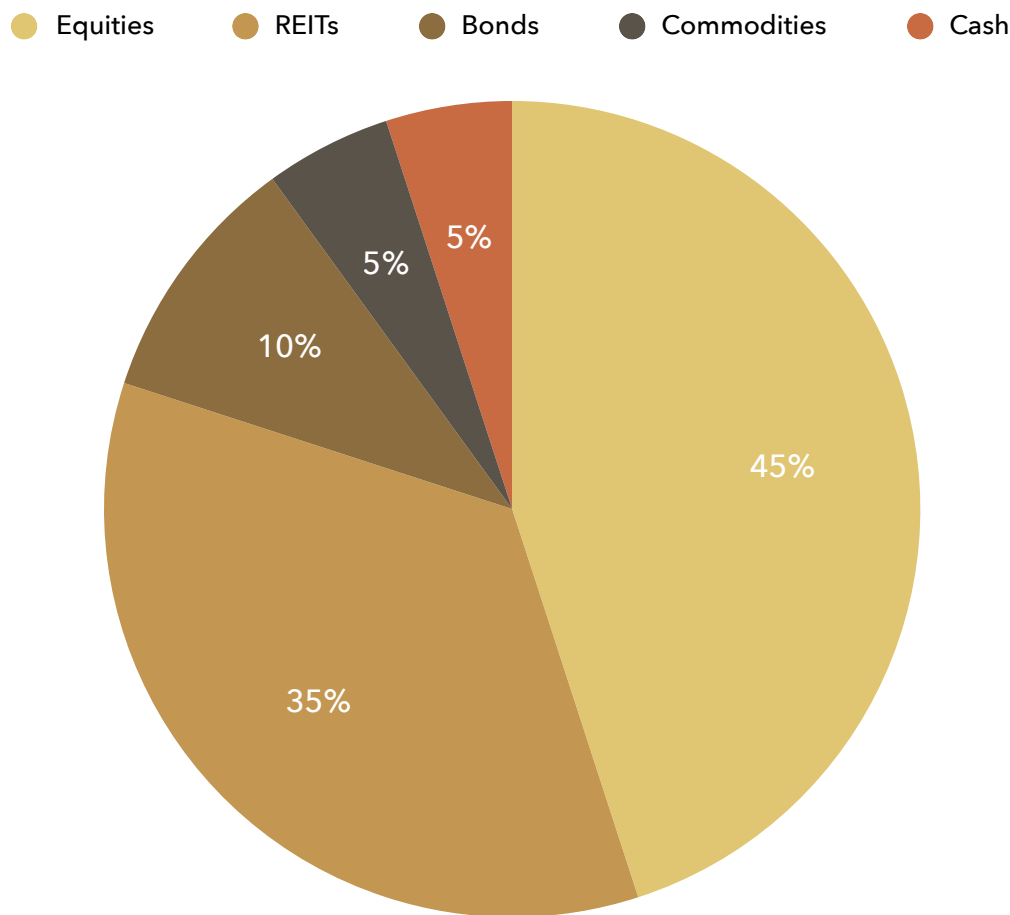


Figure 10.3: Balanced Bedokian Portfolio one year later.

Unless you are happy and satisfied with the new portfolio make-up, that is fine. However, there is a pitfall in going about on this thought. Supposed you leave it as it is, and in another year your equity portion goes up to 55%. Suddenly right after that there is a financial market crash, and your equities plunged down to 25%. Yes, ouch.

Rebalancing has its advantages; firstly, it forces you to keep your Bedokian Portfolio back to its original asset class allocation. This is healthy as there is diversification at play. In the above scenario, the equity portion became too big and therefore too concentrated, bringing high risk to the portfolio. Diversification helps to reduce the amount of risk in it.

Secondly, rebalancing makes you sell away the good performing asset classes and buy in the not-so-good performing ones. You may wonder why this is so, since the good performing ones are on the rise and you would want to capitalise on it. One thing to note is that each asset class

has its boom and bust periods, and there is no such thing that it will be booming all the time. Remember that different asset classes behave differently in different economic conditions, and rebalancing helps to reinforce that characteristic of the financial markets. So, in a nutshell, rebalancing and diversification goes hand in hand.

The time to rebalance is also a good time to introduce additional funds into The Bedokian Portfolio, and this is how your portfolio will grow over time. These funds could be from your additional savings or bonuses.

Let us use Figure 10.3 again, this time with numbers, assuming the total portfolio value is S\$10,000.00 after one year.

Asset Class	Amount (S\$)	Percentage
Equities	4,500.00	45%
REITs	3,500.00	35%
Bonds	1,000.00	10%
Commodities	500.00	5%
Cash	500.00	5%
Total	10,000.00	100%

Figure 10.4: Balanced Bedokian Portfolio after one year, using Figure 10.3 as basis.

At this rebalancing point, you decided to add S\$2,000.00 to The Bedokian Portfolio. As a simple guide, all fund injections are to go towards the Cash portion (Figure 10.5).

Asset Class	Amount (S\$)	Percentage	Change (S\$)
Equities	4,500.00	37.5%	0
REITs	3,500.00	29.2%	0
Bonds	1,000.00	8.3%	0
Commodities	500.00	4.2%	0
Cash	2,500.00	20.8%	+2,000.00
Total	12,000.00	100%	

Figure 10.5: From Figure 10.4, after fund injection of S\$2,000.00 to the Cash portion.

From here, we need to bring all the asset classes back to the balanced Bedokian Portfolio allocation of 35% equities, 35% REITs, 20% bonds, 5% commodities and 5% cash. At first glance, you could tell you would need to do some selling of equities, reduction of cash, and buying up of more REITs, bonds and commodities.

See Figure 10.6 for the rebalanced Bedokian Portfolio.

Asset Class	Amount (S\$)	Percentage	Change (S\$)
Equities	4,200.00	35%	-300.00
REITs	4,200.00	35%	+700.00
Bonds	2,400.00	20%	+1,400.00
Commodities	600.00	5%	+100.00
Cash	600.00	5%	-1,900.00
Total	12,000.00	100%	

Figure 10.6: Rebalanced Bedokian Portfolio from Figure 10.4. The amount does not take into account transaction costs.

From here, you could just sit back, relax, collect your yield, and wait for next year to do the rebalance again.

There are times where after rebalancing, you cannot get back the perfect makeup, like probably the equities will be around 36%, or REITs could be at 34.5%. This is perfectly fine, as it is not possible in the practical world to have that round figure. As a rule of thumb, for asset classes that require 5%-10% allocation, a deviation of 2.5% is acceptable. For asset classes that are 10% and above, you can have a deviation of 5%.

Summary

- There are two methods of rebalancing for The Bedokian Portfolio: periodic rebalancing and opportunistic rebalancing.
- During rebalancing, do be mindful of the transaction costs.
- All yields from dividends, coupons, interests, sales proceeds and cash injections are to be put into the Cash portion of The Bedokian Portfolio.
- DRP is not preferred due to the odd number of shares, unless the DRP enables you to have at least 100 shares (or 1 share in some overseas financial markets)
- Rebalancing is important as it is a way to diversify the asset classes properly as well as to manage the risks of the portfolio.
- For periodic rebalancing, during the rebalancing moment, funds could be injected into The Bedokian Portfolio.
- It is acceptable to have some deviation in the asset class allocation due to the practical aspects of transacting in the financial markets.

Chapter 11

Fundamental Analysis

In this chapter, I will be discussing about fundamental analysis. There are books written solely on this topic, but I will summarise it to within just one chapter. Further reading on this is recommended if you want to know more. In the next chapter I will be applying fundamental analysis into equities, REITs and bonds.

What is Fundamental Analysis?

Fundamental analysis is the analysis of a company's financial statements, the said company's environment (including strengths and competitors) and the whole economy in general. It is a useful tool in finding good equities, REITs and to a certain extent, bonds, to invest in.

The Importance of Fundamental Analysis

For active investors of The Bedokian Portfolio, like myself, we are always in constant search for good company equities, REITs and bonds to invest in so that they would be able to provide a good yield in accordance to The Bedokian Portfolio's objective. Fundamental analysis, or FA for short, is the main method of looking for such "deals". From FA, a type of investing known as value investing emerges, which is the buying of equities and REITs that are undervalued in the financial market with reference to their financial status.

While filling up the asset class “rooms” with “furniture”, it is important to get the “furniture” at the right price and value that would give you the maximum yield. Price and value are different concepts. For example, a share that is priced at S\$1.00 in the financial market is only worth S\$0.80 from FA has lesser value than a share that is priced at S\$0.80 but from FA it is worth S\$1.00. Prices fluctuate due to market sentiments, but value rarely does. With FA, you could get equities and REITs that are “more bang for the buck”.

There are two ways to do FA: the bottom up approach and the top down approach. The bottom up approach is the analysis from the company/ REIT level (i.e. financial statements) right up to the general economy level, while the top down approach is the reverse of the former. To have a pictorial sense, refer to Figure 11.1.

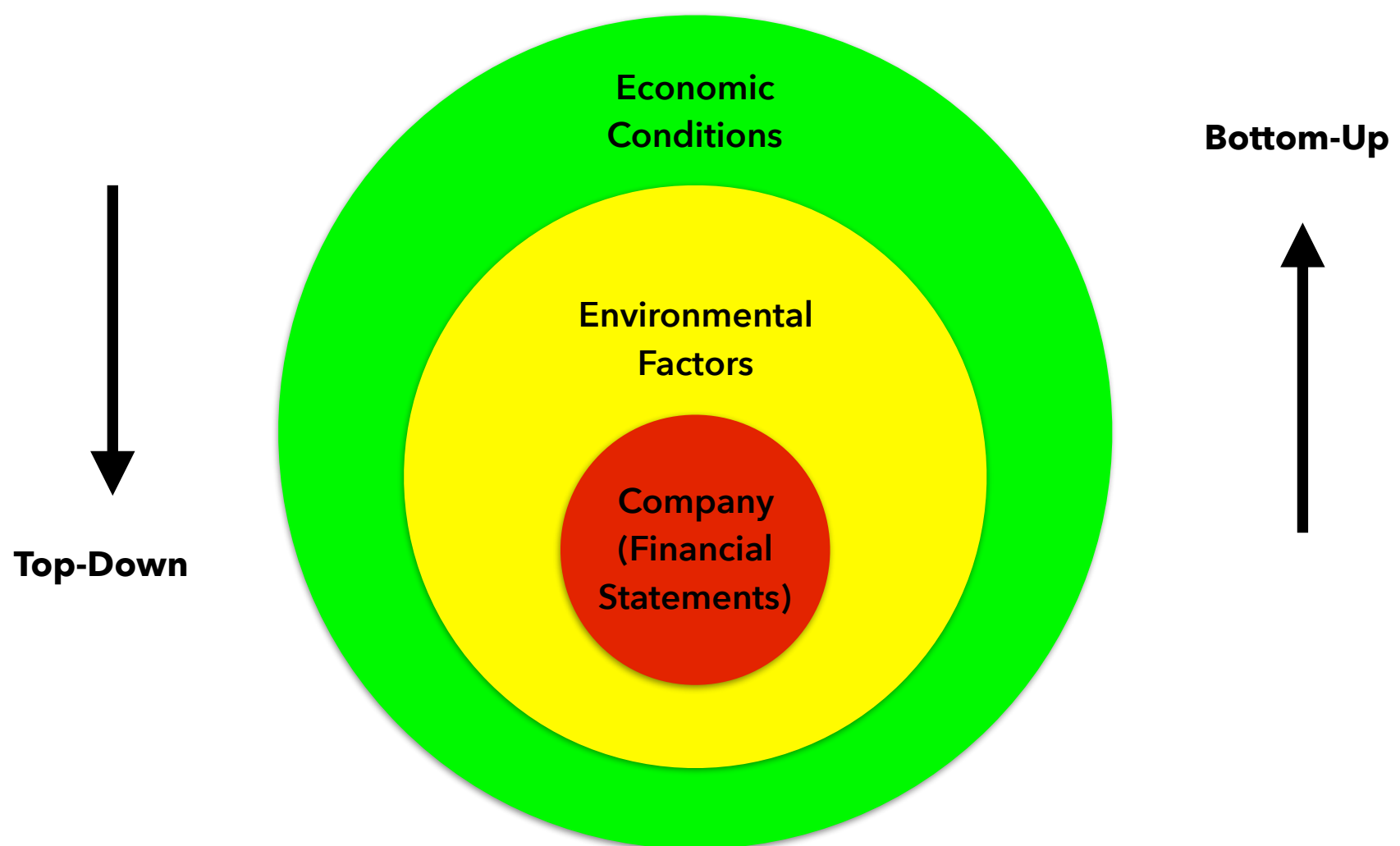


Figure 11.1: Fundamental analysis levels and approaches.

Financial Statements

A company is legally required to submit their financial statements every year to the relevant authorities, such as the tax office. For public listed companies (and REITs), they are also required to submit them to the relevant market exchange authorities and release them to the public.

Public listed companies and REITs typically come out with annual reports, which contain the financial statements, messages from the head of the company (chief executive officer, chairperson, etc.) and board of directors, plus any plans that they might have in the future. These annual reports are publicly available on the company's/REIT's and in the market exchange websites.

In addition, public listed companies and REITs report their earnings on a quarterly or half-yearly basis, on top of the annual ones. It is during these times that dividends are announced, depending on the dividend paying policy of the company/REIT.

Financial statements are made up of three parts; the income statement, the balance sheet and the cash flow statement.

Income Statement - The income statement, also referred to as the profit and loss statement, details the profit gained or loss incurred for a particular year. It includes items such as revenue, expenses and depreciation.

Balance Sheet - The balance sheet contains information on a company's assets, liabilities and shareholders' equity (including shares). The basis of the balance sheet derives from the accounting equation, which I will share later in the chapter.

Cash Flow Statement - The cash flow statement is a report of the movement of cash, and it obtains this information from both the income statement and balance sheet.

Environmental Factors

Environmental factors are issues and parameters that exist outside of the company's financial statements. Things such as the condition of the sector or industry that the company is in, regulations covering the sector or industry, and the market competition (e.g. the company's exposure, its competitors, etc.), are to be considered.

If you are doing FA on a company whose sector or industry that you are familiar with or working in, then it would be advantageous as you would know more of the goings-on. However, not many of us have the luxury of being in the industry, and also buying too much into that industry would be risky as there is no diversification. In this case, it pays to read broadly on topics and subjects that cover a particular sector, so that you would be better informed.

The major considerations on environmental factors are as follows:

Sector/Industry - This is the "playing field" of the company, where it does its business and derives its revenues. It is important to know what the company is doing, and which sector/industry it belongs to. There are certain events and situations where a sector/industry could be affected, for better or for worse. Identification and knowledge of these occasions and events are important in knowing the general direction of the sector/industry.

Market Share - Market share is the size of the “slice” a company has in the sector/industry “pie”. Usually expressed in percentages in financial news and publications, it gives you a picture of where the company stands in the “playing field”.

Competitors - As the name goes, competitors are the “opponents” in the “playing field”, i.e. other companies that are in the same sector/industry that compete with your company in question. Knowing their strengths and weaknesses, as well as their market shares, gives a better picture of how they stand in the sector/industry.

All the above information could be obtained by personal observation (e.g. how many publicly listed banks in Singapore); financial websites, news sites and publications; and financial news television channels. Do note due diligence is to be taken if you are gathering information from such sources, as sometimes there could be inaccuracies, differing opinions that could confuse you and most importantly, the danger of “information overload”.

Economic Conditions

On a bigger scale would be the economic conditions as a whole. The general conditions such as growth, recession, inflation and deflation meant different things to different people, as well as to different asset classes.

A general rule of thumb to gauge the economic conditions would be to look at the economic indicators, which are numbers and figures that indicate the past, present and implied future heading of the economy. There are many economic indicators at hand, but I list out the important ones and explain what they are in brief:

Gross Domestic Product (GDP) - GDP is the sum of all goods and services produced and consumed within an economy of a country. GDP is typically reported on a quarterly basis, so you can hear 4 GDP numbers within a year. If the GDP is a positive value (e.g. +0.5%), it means good times are here, and vice versa if the GDP is in negative values (e.g. -0.5%). GDP is used by economists and governments as one of the major indicators of whether the economy is at growth or in recession. To some economists and investors, when GDP is in the negative region for two consecutive quarters or more, the economy is deemed to be in recession.

Unemployment Rate - Unemployment rate is the measurement in percentage the proportion of a population of a country that is not working and actively looking for jobs. A rise in unemployment rate indicates that the economy is not doing well, and vice versa. In most cases unemployment rate and GDP are used together to give a clearer picture on the state of the economy.

Inflation Rate - I had defined what was inflation in the previous chapters in general. To put it in strict economic sense, inflation rate is the rate (in percentage) of the rising prices of goods and services with reference to the purchasing power of money compared annually. For example, with a 2% inflation rate across 2 years, an item that cost S\$10.00 last year would cost S\$10.20 this year. Inflation is healthy for the economy if it is growing at a steady rate. Too much inflation will result in hyperinflation where you will need huge amounts of monetary value to buy the same item. The reverse of inflation, called deflation, will cause the price reduction of goods and services, which meant the prices of assets and investments would go down.

Interest Rate - Interest rates set by a country's central bank have an impact on the overall economy. Economic theory dictates that a rising interest rate is used as a tool by governments to rein in an economy that

is growing too fast for its own good (dubbed as an overheating economy). A low interest rate meant “cheap credit” since the returns from investment would surpass the cost of loan. An increase in interest rates meant the cost of borrowing would become higher, thus investments by using loan money would be reduced.

Besides economic indicators, the holistic view of the various sectors/industries is counted as an economic condition as well. A sector/industry could have a direct or indirect impact, proportional or inverse relationships with other sectors/industries. A good example would be the rise of e-commerce; it brought growth to the information technology (IT) and logistics sectors/industries, but spelt a little bit of bad news for physical shops and retailers (think retail REITs).

Finally, there are other factors which affect the economic conditions, too, such as geo-political, socio-economic and natural events. Wars, legal and regulatory changes, floods, etc., could bring an impact to your overall FA.

In conclusion, doing FA is akin to doing a SWOT analysis in business terms. SWOT stands for Strengths, Weaknesses, Opportunities and Threats. Strengths and Weaknesses are from the company's viewpoint and standpoint, denoting its advantages and disadvantages within itself, respectively. Opportunities and Threats are the economic conditions and environmental factors in the sector/industry that is advantageous and disadvantageous to the economy and sector/industry, most of the time it is beyond the control of the company.

The Accounting Equation

Before I go into financial ratios, I would like to share with you on the accounting equation, which goes like this:

$$\text{Assets (A)} = \text{Liabilities (L)} + \text{Shareholders' Equity (E)}$$

In short, the assets of a company is made up of the liabilities (or debt) incurred and the equity (or shares) of shareholders. Also, you could figure out how much of a company's assets is made up of debt and how much is from equity.

Going back to the topic of ratios, from the above equation, we could already derive two of them; liability (or debt) over equity (D/E) and liability over assets (D/A).

Financial Ratios

From all the numbers in the financial statements and using simple mathematics, financial ratios are derived. These financial ratios would be used to determine the health of the company and in turn, whether to consider it for addition into The Bedokian Portfolio.

There are many financial ratios around, but The Bedokian Portfolio would highlight the following as the more important ones (abbreviations, if any, and formulae indicated in brackets respectively).

Earnings Per Share (EPS, Net Earnings/Number of Shares) - As the ratio goes, EPS is the net profit divided by the number of shares of the company. It indicates how much profit is gained per share.

Price to Earnings Ratio (P/E Ratio, Share Price/EPS) - The P/E ratio is often used as a parameter to gauge the value of a company's share. A high P/E ratio could mean the company's share is getting overvalued, while a low P/E ratio could mean the share is getting undervalued. However, a high P/E ratio is often associated with an expected strong growth of the company, and the reverse is assumed for a low P/E ratio.

Also, the ratio can be seen as the length of time (in years) an investor is recouping his/her investment; assume the EPS and share price remain constant, a P/E ratio of 10 indicates it would take 10 years for an investor to regain the initial capital from the company earnings.

The P/E ratio changes constantly due to the fluctuating share price. Different sectors/industries would also have differing average ratios across the companies.

Price to Book Ratio (P/B Ratio, Share Price/[Assets-Liabilities]) - The P/B ratio is the most important ratio in assessing the price and value of a company share, in which the "book" part denotes the true value of a company from the financial statements. A ratio of above 1 denotes the price exceeds the value, and a ratio below 1 means the value exceeds the price, and therefore a good bargain.

Net Asset Value (NAV, [Assets-Liabilities]/Number of Shares) - Similar to the P/B ratio, the NAV shows the true value of the company's share, in its exact figure. The NAV is used for a quick glance for comparing with the current company share price.

Debt to Equity Ratio (D/E Ratio, Liabilities/Shareholders' Equity) - Also known as gearing ratio, which I had covered in the Chapter 6 on REITs, it is the total liabilities of a company over the total amount of shareholders' equity. This ratio is useful of the amount of debt a

company is taking on, or gearing. Note that for REITs, gearing is debt to asset (D/A ratio).

Current Ratio (Current Assets/Current Liabilities) - Current ratio is the ability of the company to settle debts within the next 12 months, using its liquid assets such as cash. This ratio tests the short-term liquidity of the company.

Dividend Payout Ratio (Dividends Paid/Net Earnings) - The dividend payout ratio is the proportion of a company's net earnings being paid out as dividends, usually expressed as a percentage. This ratio is dependant on each company's dividend policy, thus it is not universal throughout. Though a high dividend payout ratio is preferred for dividend investors, do consider that a company would need to strike a balance between distributing earnings to shareholders and keeping some of it for future expansion.

Dividend Yield (Dividend/Current Share Price) - The Bedokian Portfolio's all time favourite, it is the measurement of the dividend yield over its current share price.

All these ratios could be calculated or sourced from financial websites (Google Finance, Yahoo Finance, Bloomberg, etc.).

Free Cash Flow

Though technically not a ratio, free cash flow, or FCF, is an important measure of a company's cash generation ability. The formula for FCF is:

$$\text{FCF} = \text{Operating cash flow} - \text{Capital expenditure}$$

These figures can be obtained from the cash flow statement.

Gauging from the amount of a positive FCF, we could see if a company is able to expand its business, settle its liabilities, and of course, pay out dividends. Though a company may show a negative FCF at certain periods, it should be viewed holistically by comparing with other periods, and a closer look on the operating cash flow and capital expenditure of the said negative FCF periods is recommended.

Summary

- Fundamental analysis, or FA, is the analysis of the company's financial statements, its environment in a business sense and the economy in general.
- FA brings about a type of investing called value investing, which it sought to look for undervalued companies whose share prices do not reflect their true financial value.
- FA could be done from a bottom-up or a top-down approach.

- A company, especially a public listed one, is required to produce financial statements periodically. Financial statements are made up of three parts; the income statement, the balance sheet and the cash flow statement.
- Environment factors consider the sector/industry the company is in, its market share within the sector/industry and its competitors in the same sector/industry.
- For economic conditions, economic indicators such as GDP, unemployment rate, inflation rate and interest rate are to be looked at. All the sectors/industries have to be viewed holistically, since they have a direct/indirect impact and proportional/inverse relationships with one another. Geo-political, socio-economical and natural events are factors that will affect economic conditions.
- Doing FA is akin to doing a SWOT analysis; Strengths; Weaknesses; Opportunities and Threats.
- The accounting equation defines that the assets of a company is made up of liabilities and shareholders' equity.
- Financial statements could tell a company's financial health and status by using financial ratios.
- There are various financial ratios, but the important ones are Earnings Per Share (EPS), Price to Earnings Ratio (P/E Ratio), Price to Book Ratio (P/B Ratio), Net Asset Value (NAV), Debt to Equity Ratio (D/E Ratio, or Gearing), Current Ratio, Dividend Payout Ratio and Dividend Yield.

Chapter 12

Selection and Selling

This is a follow-up to the previous chapter on FA, where I will go into the practical aspects of selecting company shares, REITs and bonds, to buy and to sell.

Active Management and Rebalancing

In Chapter 10, I had shared on passive rebalancing on The Bedokian Portfolio, where it is done in an orderly and periodic fashion. There is nothing wrong being in the passive investment side of things, for the objective of The Bedokian Portfolio of getting passive income through dividend and index investing is still met. However, if you feel that you are up to the challenge of moving into active and/or you want to have better returns than the passive mode, this is the chapter.

Being in the active camp, you have to be constantly “on your toes”. Unlike passive, you need to be connected more often to the world of financial markets in the form of information, conduct analysis, and make inferences and deductions before you make the decision to hit the “buy” or “sell” button on your trading platform.

The mechanics of rebalancing for an active Bedokian Portfolio is similar to that of the passive one, with the starting point being the cash portion. Fresh fund injections and proceeds from the sale of other asset classes are put in the cash part as well. The main difference is the act of rebalancing is done more often than the passive one.

I mentioned earlier that The Bedokian Portfolio must maintain your preferred allocation and with active rebalancing there is a chance that the cash part will be reduced to 0%. To prevent this, we have to go beyond the portfolio and look at your emergency fund or savings level. If the amount of money in your emergency funds or savings is above the threshold set by you, then you can deploy this excess to the cash part of The Bedokian Portfolio. If not, do not ever compromise on your emergency funds and savings, even if the price of the financial instrument is tempting. This is a form of “check and balance” system that you put in place to ensure your emergency fund/savings and The Bedokian Portfolio works separately and smoothly.

In addition, you have to constantly remember your preferred make-up of The Bedokian Portfolio (e.g. 35% equities, 35% REITs, 20% bonds, 5% commodities and 5% cash) and stick to it. Never fall into the temptation of getting a lot of undervalued company shares, only to find out later that the shares become 80% of your overall portfolio. Diversification of asset classes is still paramount in The Bedokian Portfolio.

Shortlisting

The first step you need to do when you are actively managing your Bedokian Portfolio is to make a shortlist of financial instruments and investment vehicles. This is to become your “wishlist” common in online shopping platforms. The shortlist could contain individual companies, REITs, bonds, ETFs and even bank interest rates to store your cash. It may sound a bit daunting and tedious, but following the FA as learnt in the previous chapter, it is not so difficult at all.

If you are doing FA from a top-down approach, the first thing to see is what is the current economic condition and/or what would it be trending

towards. To get this feel, it pays to read up on current affairs and goings-on from the media. From here, you could go down to the various sectors/industries and identify those who are directly or indirectly involved in the trend. Also, you could analyse the environment of those sectors/industries themselves, and finally, for companies and REITs, do a first-look financial ratio check on them.

If you happened to come across a publicly listed company or REIT and want to find out more, then it would be better to do FA from a bottom-up approach. You could research the company or REIT further and see whether it is a potential for your shortlist. If it is, you could go up a level higher and study the sector/industry, and then move on to the economic condition level for analysis.

Make sure to record your findings somewhere, either on hardcopy (in a trusty notebook) or softcopy (on a spreadsheet in your computer). Depending on your depth of general, financial and economic knowledge, shortlisting of a financial instrument and investment vehicle could be done within a short time. After all, I believe you still have a day job and other family and social time to enjoy. Shortlisting should be done on a cursory basis. However, if the financial instrument you are shortlisting is screaming “buy me!” at the first instance, you could continue on with a more detailed FA, and if that financial instrument passes your analysis and requirements (using the selection guidelines covered later), you could just go ahead with the purchase.

T-Analysis

It has always been a perennial question asked by a few investors about FA, and that is “how much FA is to be done?”. To deconstruct that

question, I would view it as two separate questions, and they are to be asked as “how wide is the analysis?” and “how deep is the analysis?”.

Enter the “T-analysis”. The horizontal part of the “T” denotes the width of the analysis, and the vertical part stands for the depth of the analysis. Width is the amount of factors that you wish to consider, and depth is the amount of analysis for each factor. The key thing here is to have your “T” looking like a “T”, i.e. equal weightage is given to the number of factors and the depth of each factor’s analysis. A “T” with a long horizontal line but a short vertical line indicates a wide glancing check, while a “T” with a short horizontal line and a long vertical line denotes an overkill of analysis on just a few factors.

Regardless of the number of factors and the amount of analysis done on each of them, the decision that you make based on the information that you have and analysed is always considered “the best you could have”. After all, no one could predict how the financial markets behave in the future, but at least FA could provide an educated and better guess, and it is better than a guess that is based on nothing.

Selection Guidelines

Firstly I would like to state that the following selection guidelines do not consider the environmental factors and economic conditions. The main reasons being are that there are too many combinations of these two to describe, and different combinations spelt different inferences and results for different sectors/industries and even companies/REITs/bonds. Instead, I would use financial ratios and other parameters. They are objective, quantitative, transparent and easily available. Nevertheless, a full FA is to be carried out in conjunction with the selection guidelines.

Note that there is no selection guideline for commodities, cash and ETFs here, as I had covered them in their respective chapters (Chapters 5, 7 and 8).

The selection guidelines that I am using is for the conservative Bedokian Portfolio investor.

Equity Selection

I shall now start off with equities:

- P/B Ratio of 1 and below (or priced at NAV and below);
- D/E Ratio of 0.5 and below (or 50% and below gearing);
- Current Ratio of 1.5 to 3;
- P/E Ratio being the 25% lowest amongst other companies within the same sector/industry;
- Dividend Payout Ratio of 25% and above, and;
- Dividend Yield higher than the 10-year average inflation rate (based on past three years).

Here are the reasons for each guideline:

- *P/B Ratio of 1 and below* - This is foremost the first guideline to look out for using financial ratios. It is common sense and practical to buy equity at a price which is at its worth based on the financial statements, or better yet at a discount.

- *D/E Ratio of 0.5 and below* - The number for this ratio is dependent on the risk appetite of the individual investor, but for The Bedokian Portfolio, you should try to look for equity that has 50% or less gearing to provide a wider margin of safety.
- *Current Ratio of 1.5 to 3* - This is the standard range accepted by most investors when they check on this ratio. For the low range, "1.5" is preferred over "1" as the "0.5" provided a margin of safety. And for the high range, "3" is the maximum you could accept; a high current ratio (above "3") signifies that the company in question may not be deploying its assets efficiently.
- *P/E Ratio being the 25% lowest amongst other companies within the same sector/industry* - Firstly, using P/E as a financial ratio guideline is a bit tricky, as different sectors/industries have a different average P/E ratio. Though the norm is between 10 and 20, it is better to compare with the P/E ratios of the other companies within the same sector/industry. For The Bedokian Portfolio, finding the lowest 25% of P/E ratio would cover those companies that are in the undervalued to fairly valued range.
- *Dividend Payout Ratio of 25% and above* - Different companies have different dividend payout ratios, and some of them had made it a policy to pay a certain amount of the retained earnings as dividends. As a dividend investor, it is important that the company you had invested in share its profits with shareholders, though you could make some exceptions.
- *Dividend Yield higher than the 10-year average inflation rate* - One of the common objectives of investing is to have returns that beat the inflation rate, and for The Bedokian Portfolio the passive income should rise in tandem with inflation. A ten-year period is used as most

investment horizons are minimally set at that duration. The three-year track record of dividend yield is used as an affirmation of consistency.

Besides dividend yield, I would only look at the current information for the other financial ratios in the guidelines, reason being we need to be forward looking in our analysis. However, if you are prudent, you could look back three years to get average readings. You could also apply this to REITs, which I will touch on in the next section.

There are times when I shortlisted a number of equities, none of them fit the guidelines stipulated above. This is true especially in times of economic boom, where a lot of equities are priced way above their P/B ratio or NAV, and/or their P/E ratio is at a high range for some sectors/industries, assume all things equal. Although it is recommended to follow the guidelines with the reasons above, it is reasonable to have a bit of deviation, but this deviation would increase the risk of not getting the equities at their true value. If deviation is necessary, then I would say a maximum of 50% total deviation for the guidelines, meaning the total sum of deviations for the five financial ratios must not exceed 50%.

Using the guidelines as an example, you could buy an equity whose P/B ratio is 1.5 (50% above the recommended "1") with the rest followed the guidelines; or getting an equity whose P/B ratio is 1.25 (25% above the recommended "1") and a D/E ratio of 0.625 (25% above the recommended "0.5"), with the rest followed the guidelines.

However, if for example you have spotted an equity that is selling at P/B ratio of 0.8 (20% below the recommended "1"), it does not mean you could have a higher deviation of $50\% + 20\% = 70\%$. This would inadvertently increase your risk, and this risk is an unnecessary one to bear.

If you are a moderate investor, you can set the deviation up to 200%. For the aggressive investor, a 400% deviation is the maximum. The risk tolerance of equities could be set higher due to the effect of market sentiment (see Chapter 14).

REIT Selection

Next up would be REITs. Since it is a hybrid asset class, you will see some of the financial ratios used are from equities, but I will also include a feature called Weighted Average Lease to Expiry, or WALE that is unique to REITs.

WALE is the average number of all of one REIT tenants' lease duration, and it is measured in years. A tenant is a person or organisation that rents properties from a landlord or building owner, in this case REITs. The rent is usually fixed for a few years, called lease duration. Rents are a REIT's main income source, and a longer lease duration is seen as more stable income flow.

Here are the selection guidelines for REITs:

- P/B Ratio of 1 and below (or priced at NAV and below);
- D/A Ratio of 0.5 and below (or 50% and below gearing);
- Dividend Yield of 5% and above (based on past three years), and;
- WALE being the top 25% amongst other REITs of the same type.

Here is the rationale for each guideline:

- *P/B Ratio of 1 and below* - Like equities, I emphasise on getting REITs at their value or at a discount.
- *D/A Ratio of 0.5 and below* - The D/A ratio of 0.5, or 50% gearing, follows the recent leverage limit set by the Monetary Authority of Singapore.
- *Dividend Yield of 5% and above* - REITs are obliged to pay off at least 90% of its profit to unitholders as dividends, thus with that payout their dividend yield is typically higher than that of most equities. The 5% figure is instrumental for The Bedokian Portfolio to provide the necessary returns to fulfil its objectives. Similar to equities, dividend yield for the past three years are looked at for consistency.
- *WALE being the top 25% amongst other REITs of the same type* - Different types of REITs have different ballpark WALE values. Comparing WALE between industrial and retail REITs is like comparing apples and oranges, therefore it is obvious to compare WALE of REITs of the same type. A longer WALE, as I mentioned earlier, meant a more stable income for the REIT and hence, a more stable flow of dividends. Selecting the top 25% in terms of WALE gives a safer range for stable REIT income.

As with equities, a deviation can be used on the guidelines. However, since the guidelines for REITs are lesser and more stringent, 10%, 30% and 50% deviations are used instead for the conservative, moderate and aggressive investors, respectively.

Bond Selection

The selection guideline for bonds is different from equities and REITs; after all, bonds are a different asset class. Here are the guidelines:

- Bond is priced at par or discount;
- If the bond is at premium, the premium must not be more than 50% of the coupon rate;
- Credit Rating of “investment grade”, and;
- At least five years to the bond maturity date.

Let us take a look at the selection guidelines in detail:

- *Bond priced at par or discount* - In Chapter 4, I had briefly described bonds priced at par, premium and discount. If you could get bonds at par or discount, meaning you are getting it at what is worth or cheaper (like the P/B ratio for equities and REITs).
- *If the bond is at premium, the premium must not be more than 50% of the coupon rate* - If you wish to get a bond that is trading above its premium, make sure to get it when the premium is 50% of the coupon rate. For example, if the bond is priced at S\$1.01 and the coupon rate is 3%, then it is good to purchase it; but if the bond is priced at S\$1.02 and the coupon rate is 3%, then it is a no-go. A half-year's opportunity cost in coupon is the most you would pay for a bond, excluding the accompanying transaction costs.
- *Credit rating of “investment grade”* - As the term stated and also briefly mentioned in Chapter 4, investment grade bonds are recommended

for, well, investment. This is due to the credit rating agencies' ranking of the bond after careful consideration of the bond issuer's financial credibility. Using the major credit ratings agencies' ratings, the lowest ratings given for investment grade bonds are "Baa3", "BBB-" and "BBB-" by Moody's, S&P and Fitch, respectively. Junk bonds tend to behave more like equities, so you really would not want too many equities or equity-like asset classes in your Bedokian Portfolio.

- *At least five years to the bond maturity date* - The five year ballpark figure was thought up by myself, since I have to incorporate both government bonds, which a majority have longer bond maturity dates, and corporate bonds, which mostly have shorter bond maturity dates, for the selection guidelines. So in a way the five-year duration works as an average between the two types of bonds. Five years is also apt for generating enough coupon returns to make the bond investment worthwhile. Do note that as bonds approach their maturity date, their prices would go very close to par.

The same goes for the other two asset classes, a deviation can be applied on bonds. Given the stable and conservative nature of bonds, I would recommend a 20% deviation across all types of investors. For credit rating, a level of it would be a score of 10% deviation.

Selling Triggers

The Bedokian Portfolio's main characteristic is that it adopts a "net buyer" investment approach, meaning cash is injected to purchase more financial instruments and thus increasing the portfolio size. There are times, however, that rebalancing needs to be done by selling some of the financial instruments. The key thing of rebalancing is, similar to passive rebalancing, that you will be selling away the over-performers

and buy in the under-performers, or selling the high risk financial instruments and buying in the low risk ones.

Instead of guidelines, I would use the term “trigger” in initiating selling. Unlike the selection guidelines in the previous sections, where there is a form of checklist, selling triggers work on a more impromptu and situational call, therefore discretion is advised on what I will be sharing later.

Here are the straightforward triggers using financial ratios and parameters. Note that you could activate the selling of the financial instrument with using one, some or all of the triggers combined, on top of analysis and considerations done on environmental factors and economic conditions:

- P/B Ratio of 1.5 or more (or priced at 50% above the NAV), and/or;
- D/E Ratio (for equities) or D/A Ratio (for REITs) increasing for the past three years, and/or;
- Current Ratio decreasing down to below 1 for the past three years, and/or;
- P/E Ratio is increasing to the top 25% or falling below 10% amongst the companies of the sector/industry, and/or;
- WALE is decreasing over the past three years (for REITs only), and/or;
- Credit rating goes down to two ratings over the past three years (for bonds only), and/or;
- Dividend Yield is reducing over the past three years, and/or;

- Equity/REIT price has increased by at least the prevailing dividend yield (e.g. if an equity/REIT price was bought at S\$1.00 and the current dividend yield is 4%, the selling trigger would be at least S\$1.04).

At this moment the numerous triggers may surprise you, but some of them provide a form of alert on the financial instrument concerned. They are indicators that the company/REIT/bond may not be doing well. You may incur some losses depending on the nature of the trigger(s). If you are more aggressive, you could adjust the triggers with a higher threshold (like changing the trigger of P/B ratio from 1.5 to 2, etc.).

For a sudden drop of a financial instrument price, further analysis is required to find out the reason for the drop. If it is due to the deteriorating financial condition of the financial instrument, then it is prudent to exit it as soon as possible. If the financial instrument is still financially healthy and the drop is due to environmental factors and economic conditions, then you could bear with it and weather the storm.

In the case of the equity/REIT price increased by at least the prevailing dividend yield, this is not a bad thing, as it is a sign of a booming financial market. Fundamentally wise, however, the price of the equity/REIT may have gone above its value, so it is prudent to lock in the capital gains and deploy the cash obtained to another financial instrument in your Bedokian Portfolio, or keep it as cash first. You could place this particular equity/REIT back in your shortlist and buy it again should it fall back to its value on a good manner.

Balancing Active Rebalancing

The last word that I want to add here for this chapter is to maintain a balance for your active rebalancing. There is a thin fine line between

active rebalancing and trading. The main focus is on the yield obtained through dividends, coupons and interests. Also, constant transactions will incur unnecessary transaction costs, which will erode your yield, as stated in Chapter 10.

Summary

- Active rebalancing of The Bedokian Portfolio requires you to be constantly on the lookout and be informed of the goings-on that could affect your portfolio.
- Use your emergency fund and/or savings surplus to fund the active rebalancing through the cash portion. Diversification of asset classes and maintenance of the make-up of The Bedokian Portfolio must be fulfilled.
- You could shortlist the financial instruments that you are interested in either through a top down or bottom up approach. Record down somewhere the shortlist. Do not hesitate to purchase the financial instrument during the shortlisting stage if it meets your FA.
- Use the T-Analysis is determining the width and depth of FA. Remember to give equal coverage to the width and depth of analysis (i.e. making the "T" look like a "T").
- Selection guidelines for equities: P/B Ratio of 1 and below (or priced at NAV and below); D/E Ratio of 0.5 and below (or 50% and below gearing); Current Ratio of 1.5 to 3; P/E Ratio being the 25% lowest amongst other companies within the same sector/industry; Dividend Payout Ratio of at least 25%, and; Dividend Yield higher than the 10-year average inflation rate (based on past three years).

- Selection guidelines for REITs: P/B Ratio of 1 and below (or priced at NAV and below); D/A Ratio of 0.5 and below (or 50% and below gearing); Dividend Yield of 5% and above (based on past three years), and; WALE being the top 25% amongst other REITs of the same type.
- Selection guidelines for bonds: Bond is priced at par or discount; If the bond is at premium, the premium must not be more than 50% of the coupon rate; Credit Rating of "investment grade", and; At least five years to the bond maturity date.
- Deviations to the guidelines are allowed, but subject to more risk.
- Selling triggers include: P/B Ratio of 1.5 or more (or priced at 50% above the NAV), and/or; D/E Ratio increasing for the past three years, and/or; Current Ratio decreasing down to below 1 for the past three years, and/or; P/E Ratio is increasing to the top 25% or falling below 10% amongst the companies of the sector/industry, and/or; WALE is decreasing over the past three years (for REITs only), and/or; Credit rating goes down to junk bond status (for bonds only), and/or; Dividend Yield is reducing over the past three years, and/or; Equity/REIT price has increased by at least the dividend yield as at the time of purchase.
- Some of the trigger points indicate alerts on a financial instrument's financial health and status.
- You could adjust some of the selling trigger parameters depending on your aggressiveness.
- It is prudent to sell the financial instrument if there is a fall in price due to its financial health. If the fall in price is only due to environmental factors and economic conditions, then bear with it and weather the storm.

- If the equity/REIT price has increased by at least the dividend yield, this is a good sign of the financial market although the price has gone above its fundamental value. Lock in the capital gains and place it back on your shortlist should it fall back to its fundamental value.
- There is a fine balance between active rebalancing and trading. It is recommended to transact only when necessary to prevent the erosion of returns from transaction costs.

Chapter 13

Foreign Financial Markets

Most of the previous chapters were written with a bias on the Singapore financial market. In this chapter I will touch on expanding The Bedokian Portfolio with asset classes from foreign financial markets. Trust me, it is a whole new world out there.

Going Foreign

As far back as Chapter 1, I had supported diversification between local and foreign financial markets, provided that they are under the asset class umbrella. Hence, shares bought in a foreign financial market will still be classified as equities, and so on.

The main aim of going foreign is to seek diversification across different regions and countries. While some countries may be in recession, others are not. Even in the face of the GFC, we still see some countries' economies chugging along (e.g. Australia). Going further back, the Asian Financial Crisis of 1997 brought recession to some Asian countries, but in the United States it was business as usual.

Underneath this diversification, you could take advantage of the differing growth and forex rates of the different regions and countries. It does not matter if the foreign financial markets are in growth or recession, and/or the forex rates are strengthening or weakening against the Singapore Dollar, for rebalancing is done at the asset class level. The doctrine of "selling the over-performers and buying the "under-

performers” during rebalancing would systematically bring your Bedokian Portfolio back to your desired portfolio make-up.

Foreign Financial Market Classifications

There are a few ways to classify the foreign financial markets. First up is by asset classes (international equities, international bonds, etc.), then there is sector/industry (international technology sector, international health sector, etc.), by regional (North America, Europe, Far East, etc.) and by individual country. There is also another classification that goes by the development stage of the various financial markets and economies of the world, such as developed markets, emerging markets and frontier markets.

For The Bedokian Portfolio, the order of diversification into foreign financial markets would go according to the following order: world, regional, country and sector/industry. This is in line with the diversification principles explained in Chapter 1. So this means you buy the “world” first, and as time goes by and you are getting more familiar, you will settle for the different regions, then countries, and so on.

And since passive income is the main prerogative for The Bedokian Portfolio, it is advisable to go for financial markets that are developed. A developed financial market means the economy is matured and stable, and along with it comes a steady stream of dividends from established companies. Emerging and frontier financial markets are more for growth than dividends, but there is no harm in dipping your portfolio in a bit of them (see Chapter 17).

In the following sections, I will touch on two foreign financial markets that are familiar with most investors; the United States and the region classification called Europe-Australasia-Far East, or EAFE.

United States

The United States (US) has the largest economy in the world, taking up about 25% of the world's GDP as at 2020¹¹. A lot of its public listed companies have presence all over the world, and you would have used a product and/or service from at least one of them in your lifetime. The US economy is what I called a "complete economy", which means it has almost everything for everyone. Being a huge country, it has a lot of natural resources, such as agricultural crops, crude oil, minerals, etc. It also has a huge manufacturing base as well as a strong retail consumer market. Furthermore, the US is in the forefront of technological innovation and advances, especially in the information technology and pharmaceutical fields.

With so many opportunities abound, the US is always the first stop for local investors to venture abroad. The US financial markets are matured and stable, especially with their strong government and legal structure. The US government bonds, known as Treasury Bonds, are bought not only by individuals and organisations inside and outside of the US, but by other countries' governments as well. The United States Dollar is used as one of the world's reserve currency, which means it is used by governments around the world as a backing for their own currencies.

Most brokerages allow you to invest in the US. If you are not a US citizen, your brokerage will issue you a form known as a "W-8BEN Form". This form is for the purpose of withholding tax under the US tax laws, which

¹¹ GDP (current US\$). The World Bank. <https://data.worldbank.org> (accessed 31 Jul 2021)

means dividends and coupons paid out from US financial instruments are subjected to tax. When a dividend or coupon is paid to you, the amount received is after the tax deduction, the rest being “withheld” (hence the term withholding tax) for payment to the US tax authorities.

Unlike local securities where you have to buy mostly in lots of 100 (or sometimes 10), the minimum number of US financial instruments (most of them) you can buy is one.

There are many equity indices in the US. To name a few, there is the S&P 500 that I used as an example in Chapter 3, the Dow Jones Industrial Average, the Nasdaq Composite, etc. Along with these indices, there are many US-based ETFs that follow them. If you are new to the US and not sure which company to go for, just start off with index investing, and the S&P 500 index is recommended for The Bedokian Portfolio. The S&P 500 is chosen because it contains 500 large companies from a myriad of sectors, thus giving a good representation of the US equities as a whole.

EAFE

EAFE comprises of the regions of Europe, Australia, Asia and the Far East (or eastern Asia). At first glance these regions meant almost the rest of the world besides the US, but in investment circles EAFE meant the developed financial markets within these regions. Narrowing down further, the main countries that made up the EAFE are Japan, Australia, developed countries in Europe (especially western and central Europe, like United Kingdom, Germany, France, Switzerland, etc.), South Korea and to a certain extent Hong Kong and Singapore.

These regions and countries are well-developed economies that are comparable to the US’s in terms of the “complete economy”. Japan has

manufacturing capabilities and sports a large retail consumer market, while Australia has an abundance of raw materials. A large number of the currencies used by the regions and countries in the EAFE index are also reserve currencies, such as the Japanese Yen, the British Sterling Pound and the Euro.

The EAFE index would be ideal for Bedokian Portfolio investors to start off if there is no specific region/country/company in mind, and to provide coverage of the developed financial markets outside of the US.

Foreign Proportion

Since the aim of The Bedokian Portfolio is to generate passive income, the income has to be on local terms, which means a major portion would still be based on local asset classes. This reduces the forex risk, and the income obtained would “go with the flow” of the local economic conditions (e.g. inflation).

However, there is no harm in investing in foreign financial instruments for diversification in other regions and countries. There is no hard and fast rule for determining the foreign proportion in The Bedokian Portfolio, but the ideal number would be between 10% and 50%. This percentage is across all asset classes, be it equities, bonds, REITs and/or forex, meaning if you had set your foreign portion at 20%, and if foreign equities took up 10%, the remaining 10% would be set aside for foreign bonds/REITs/forex.

Do note that commodities are not to be included in the foreign proportion, even if they are priced in foreign currencies. This is because commodities are considered region/country neutral, so despite the forex changes, the real price of the underlying commodity remains the

same. Furthermore, during the rebalancing stage, it would still be done on local currency terms (in this case, Singapore Dollars).

How to Invest in Foreign Financial Markets?

Most brokerages give you access to the major foreign financial markets, though you have to take note of the relevant transaction costs. As foreign financial instruments are kept in custodian by the respective brokerages (CDP is not applicable for foreign securities), take note of any additional costs incurred in keeping them, known as custodial fees. These fees are charged on an ongoing basis and could erode your returns in the long term, although some brokerages would waive them if you transact with them a number of times within a given timeframe.

If you are unsure of where to begin, start off with the US and EAFE by buying their ETFs. There are many ETFs available locally in SGX as well as in the foreign financial markets, though you have to take note of withholding tax issues for the latter. As time goes by and if you are getting familiar with the foreign financial markets, you could proceed to buy the individual companies and bonds. Bear in mind that the proper selection and selling guidelines highlighted in Chapter 12 must be adhered to.

Local Companies/REITs with Foreign Exposure

It is common for local public listed companies to have a sizeable foreign investment component. Also, there are foreign companies listed in the local SGX. The next question would be, what would be the treatment of

such equities and how to divide them between local and foreign components for The Bedokian Portfolio?

I have devised a two-question checklist to answer that in a simple way.

- Is it listed in Singapore Dollars?
- Are at least 50% of its assets or revenue come from the local economy?

If both answers are “yes”, then treat it as local. If either one is a “no”, then take it as foreign. The above checklist applies to REITs as well.

Summary

- The main aim of going foreign is to seek diversification across different regions and countries. It is also to take advantage of their different growth and forex rates.
- There are many foreign financial market classifications, which includes by asset classes, sectors, regions, countries and development stages of the financial markets.
- Since the prerogative of The Bedokian Portfolio is passive income, it is advisable to go for developed financial markets that is matured and stable, which gives a stream of dividends.
- The United States financial markets are the first stop for most investors going overseas. Being a “complete economy”, it has natural resources, large manufacturing base and retail consumer market.

- The Europe-Australasia-Far East region contains developed financial markets, which covers almost the rest of the world besides the US.
- The ideal foreign component in The Bedokian Portfolio is between 10% and 50%, across all asset classes. Commodities are not included as it is region/country neutral and the real price of the underlying commodities, even if it is priced with foreign currency.
- Most brokerages allow access to foreign financial markets. Do note of transaction costs and custodial fees, if any.
- For locally listed companies and REITs with foreign investments to be treated as local asset classes, it has to be denominated in Singapore Dollars and at least 50% of the assets or revenue come from the local economy.

Chapter 14

Mind of the Investor

I have summed up the financial market basics and the approaches to implement The Bedokian Portfolio in the preceding chapters. For this one, I will talk more about the mind, or the "human software", behind everything. Though this topic is more on psychology, it is still an important aspect in carrying out The Bedokian Portfolio. I can say this is one of the easiest chapters to read, but will be one of the most difficult to follow.

The Power of the Mind

The mind is the most powerful tool a human has. It gives you the ability to think, reason and provides the driving force to execute certain tasks and decisions. The challenging thing is not all human minds are alike; each one of us is a unique individual, which is why we all have different characters and personalities.

Since there are different characters and personalities, there will be different viewpoints and opinions from individuals. Rationality, or common sense, is not absolute as there are different opinions on what is "common". What is rational to you may not be rational to me.

The funny thing about the mind is, even though it is unique, there is a tendency where "groupthink" occurs, in which somehow the minds of a group of people begin to think alike. With groupthink comes the herd

mentality, where the group would just go one direction as a whole, most of time irrationally.

The financial markets are made up of people, and financial institutions that obviously made up of people as well. And yes, herd mentality exists among them. The herd mentality must never be underestimated, for the two most common emotions of the financial markets, namely greed and fear, are a result of this groupthink.

Market Sentiment

In a financial market in a perfect world, the price of a financial instrument in a financial market is dictated by its demand and supply, according to basic economic principles. However, in reality, you could look around and see that this is not the case. For example, and assuming all things equal, financial instruments whose prices are way above their NAV are still sought after, but those which are below their NAV are not even considered by many. There are many factors at work here on why the perfect financial market is not working, but to sum it up I would say the investor rationality/irrationality, the groupthink, fear and greed are involved, and these factors I would use a term to sum it all up; market sentiment.

So, in the real world, the price of a financial instrument would be determined by demand, supply AND market sentiment.

Not only the price of a financial instrument, but the happenings and issues in the financial markets could be explained by market sentiment. Generally, when there is a perceived recession looming or some negative news, some investors would want to exit the financial markets, and their actions will spark a chain reaction among other investors.

Likewise when times are getting better, there will be a euphoria of buying, and soon many others will follow suit. This can be described as “jumping on the bandwagon”.

There are a few examples where market sentiment plays a role in the historical milestones of the financial markets. The dot-com bubble in the late 1990s and early 2000s is one of them, where the rise of the Internet caused the prices of anything-related-to-the-Internet equities to soar beyond anyone's imagination, and literally common sense. Another example closer to home and recently happened would be the great penny stock crash back in 2013. Going back much further to the 17th century, there was the “tulip mania” that happened in the Dutch Republic (now known as the Netherlands).

Behavioural Economics

Behavioural economics is a study of economic decisions made by individuals and organisations, and their results and consequences on the financial markets. Behavioural economics attempt to explain why certain people make certain decisions, even if the particular decision is not rational to begin with. In past economic theories, all parties, whether individuals or organisations, are viewed as rational, therefore all decisions made are based on logical reasons.

One of the areas covered by behavioural economics is the prospect theory. The prospect theory states that, if given two choices of the same nature but one is worded positively with gains while the other is worded negatively with losses, a person would likely choose the former, due to the general preference of gains over losses.

For example, consider the following phrases:

- *"There is a 90% chance of positive returns if you invest in this."*
- *"There is a 10% chance of losses if you invest in this."*

Although both presented the same probability, albeit worded differently, most investors would choose the one with the words "positive returns". This is due to the tendency of people preferring a potential gain and averting a potential loss, thus the prospect theory is also known as loss-aversion theory.

Cognitive Biases

Still relating to behavioural economics, the next segment I want to touch on are other cognitive biases that may hamper an investor's rationality, besides those that I had shared above. Take a look at the list and see if you have had experienced any of these in your daily thoughts and decision making.

- **Confirmation Bias** - Confirmation bias is where an individual would look for information that supports and justifies his/her view, and ignores those that goes against the said view. It is like thinking of a thousand and one reasons of buying your favourite item, while disregarding the disadvantages of getting it.
- **Recency Bias** - It is a bias where the most recent memory of an individual is given more importance over those that occurred much longer before. Therefore a judgement based on recent events as opposed to looking over a longer timeframe is considered a recency-biased one.

- **Anchoring Bias** - Anchoring bias is the over-reliance on a piece of data or information (known as a reference point) in decision making. It is also considered by some as the “make or break” factor. Usually the reference point is a result of a set of embedded beliefs that one has or being the first piece of information that one encounters, with which it is used for subsequent comparisons.
- **Hindsight Bias** - Also known as the “I knew it all along” phenomenon, hindsight bias gives a person the false impression that he/she is able to predict the future. It usually manifests after an event had happened and the person is convinced that the happening is somehow known to him/her earlier.
- **Overconfidence Bias** - This is a bias where one thinks highly of his/her intelligence and/or abilities, which objectively and in reality they are not so. Overconfidence bias is common yet dangerous; typically people whose decisions made with this bias tend to bite off more than they can chew.

With these cognitive biases, it is interesting to see that the financial markets are filled with non-rational elements, even if they perceived themselves to be rational. It is difficult not to mix biases, emotions and sentiments into investment, since we are all human. In the next section I will bring up some pointers on how to be a rational investor.

The Rational Investor

The rational Bedokian Portfolio investor has the following characteristics:

- **Stick to the plan** - Sticking to the plan means you have to follow through the Bedokian Portfolio investment approach throughout,

adhere to your preferred portfolio mix and stick to the active or passive rebalancing methodologies. If you constantly alter plans throughout your investment journey, like changing from one investment approach to the other, or change your portfolio mix from 100% equities to 100% bonds and vice versa, within a short time frame, not only you would be confusing yourself, but the changes could also be detrimental to your overall returns.

- **View from different angles** - Most inexperienced investors tend to view a one-sided picture of the financial markets. For example, when it is boom time, everything is well, but when the financial market is heading down, pessimism will naturally kick in. Opportunities will arise if you see things from different angles. When the economy is down, it is not only doom and gloom, but it also means that some securities are at a great discount or value. Also, when the financial markets are going up, it is time to view other asset classes that do not perform well in such periods, and thus it is a good time to buy-in.
- **Keep an open mind** - When you are conducting FA, do keep an open mind and take in other opinions and views as well. Although you would be bombarded by information from different sources giving you different viewpoints, accept them into your analysis. Sometimes they could provide something that you may have overlooked or did not pay attention to during your FA.
- **Do not be emotional** - Do not be affected by emotions, which includes the keeping of your favourite financial instrument even if it is at the brink of collapse, or giving in to the greed and fear sentiments of the crowd. The financial market is a business environment, and therefore it should be treated as such. Keep your emotions for your loved ones and hobbies instead.

Adhering to the above would reduce the chances of having emotions getting the better of you in your investment journey and decisions.

Summary

- The mind is a very powerful tool and it is unique to different individuals.
- Rationality/irrationality, groupthink, fear and greed make up the market sentiment factor in determining the price of a financial instrument.
- Behavioural economics is a study of economic decisions and their impact on the financial markets.
- There are types of cognitive biases that may hamper an investor's rationality, like confirmation, recency, anchoring, hindsight and overconfidence biases.
- The rational Bedokian Portfolio investor has the characteristics of sticking to the plan, view from different angles, keep an open mind and do not be emotional.

Chapter 15

Tips and Strategies

Great! By now you would have known the importance of passive income, the basics of investing, and starting and maintaining The Bedokian Portfolio. In this chapter, I will share with you some of the tips and strategies that I find do not belong to any of the previous chapters, but worth mentioning nonetheless.

Initial Public Offerings

I had mentioned about initial public offerings, or IPOs, way back in Chapter 3. I will touch on more details here. If you remember, IPO is a way for a company to go from privately held to public listed, thus making its shares available for the public to transact. IPO is not just limited to equities, but to bonds and ETFs as well. For bonds, the bond issuer uses the IPO way to raise the bond principal. For ETFs, it is for the raising of capital to get the funds started and going.

When there is an IPO coming, it would be covered in the financial news media. There would also be a prospectus (sometimes called offer document), a document issued by the company/bond issuer/ETF provider detailing the aims of the IPO. For companies, they will provide their past financial statements, future plans and most importantly, what they are going to do with the equity capital obtained from the public. It will also indicate the starting price. When the public subscribes to the IPO, it would pay at that starting price, if they were allotted the financial instruments.

Traditionally, IPOs are used for stagging, or flipping, in which the IPO financial instruments, especially equity shares, are sold off within the first day or two. The notion of this flipping is that usually (I stress usually here) the price of an IPO would go higher than its starting price during the first two days of listing, and people who had been allocated them would earn the difference as profits if they sold them off.

For The Bedokian Portfolio, however, flipping is not recommended as it is more of a trading than investing approach. Instead, we use fundamental analysis to analyse IPOs. The prospectus could be used to study the financial statements and, to an extent, the environmental factors and economic conditions. There may still be hearsays and rumours on how a certain IPO may perform, but as long as your FA is done proper and good to go on your decision, then by all means go ahead and subscribe to the IPO.

10-30 Rule

If you are an active Bedokian Portfolio investor, you may want to look at this “10-30 Rule” as an option for active rebalancing.

In summary, the 10-30 Rule stipulates that, for every 10% downturn of the financial markets, you would employ 30% of the cash portion of your Bedokian Portfolio to buy equities.

I will highlight further in detail the basis for this 10-30 Rule. Firstly, when the economy is down, equities are hit the hardest, being the asset class that is most positively correlated to growth and recession. In a downturn, due to market sentiments, some company shares that looked healthy also took the plunge due to fear. This would make equities go below their NAV, thus it is like a discount sale happening. If you had done the

shortlist of your equities as highlighted in Chapter 12, you could start to relook at them and decide which one to get.

The next step is to determine a reference point from which to determine the percentage fall. For this, I would use the most prevailing index of a region/country as reference. For the local market, I would take the Straits Times Index, and for the US market, it would be the S&P 500 Index. To get the starting index number, you add up the lowest and highest numbers of the index's 52-week range, and divide the sum by two. You could find out the 52-week high/low index numbers from Google Finance or Yahoo Finance websites. With this number, you could now find out when will be the "trigger point" in initiating the next active rebalancing moment. The trigger point will be 90% of the number. For example, if the reference point index number is 3,000 points, and after three months, it fell to 2,700 points (90% of 3,000, down 10%), then this trigger point is reached for active rebalancing. This reference point could be used for at most one year.

At any given index number reference point, meaning within the timeframe of one year, three times is the maximum number you could use the 10-30 Rule. This means your cash portion would be reduced to just 10% (before topping up from your savings/emergency funds and/or dividend payouts), having spent 90% (30% x 3) of it. Even if the index number goes down to 40%, 50% or even 60% within the year, hold your horses and do not commit further.

Although this is a bit of a "doom and gloom" news, but let me share with you one interesting fact. Using the S&P 500 Index as basis, between the years 1928 and 2020, the whole of 93 years, the number of years that had a decline of more than 30% are just three (1931, 1937 and 2008)¹²,

¹² S&P 500 Historical Annual Returns. Macrotrends. <https://www.macrotrends.net/2526/sp-500-historical-annual-returns> (accessed 3 Aug 2021)

so in a way the chance of doing the 10-30 Rule three times in a given reference point or in a year is very slim.

Yield Is Not Everything

You may find it ironic that given The Bedokian Portfolio's objective of "passive income through dividend and index investing", yet in this section I had stated "yield is not everything". The statement is true to a certain extent, especially in the context of chasing yield.

Financial instruments that have a high dividend/coupon/interest yield is high for a reason; In the financial markets, it is a generic belief that low yield is associated with low risk financial instruments, and high yield goes hand-in-hand with high risk. There could be exceptions to this belief but in most cases, it is tried and tested.

A clear example would be junk bonds, which are bonds below investment grade. Normally junk bonds have a higher yield than investment grade bonds, but in return for that high yield comes with the higher risk of default by the junk bond issuers.

During the Eurozone crisis of 2011, the coupon rate of the Greek government 10-year bonds went up as high as almost 40 percent¹³. Good yield, yes, but during that time the Greek government was facing a huge risk of non-payment of their debt.

For equities, there could be periods where a company issues a higher than usual dividend yield. Again, you have to look through the financial statements on why this is so. When a company divests, or sell off, some

¹³ Greece Government Bond 10Y. Trading Economics. <https://tradingeconomics.com/greece/government-bond-yield> (accessed 3 Aug 2021)

of its assets, the management might distribute the proceeds as dividends. This, together with the regular dividends from profits, results in a higher yield. Do note that such divestments do not take place every year, and a high dividend yield this year may not mean the same for the next year.

So now you know why yield is not everything.

Index Investing Continued

Back in Chapter 8, I had advocated index investing due to the unpredictability of the markets and “going with the flow”. To add further, index investing is a good way of approaching the financial markets from the diversification and macro points of view. Why is this so? Imagine that you are thinking of investing in the US financial markets, but are unfamiliar with the various sectors and companies within it. In this situation, “buying in” the financial market would make more sense as you would be diversified on a country scale, and a very good way to do this would be through ETFs.

This may sound a bit contradicting as index investors would only buy index ETFs and not buy individual shares and bonds, but The Bedokian Portfolio investor buys both. Sometimes I would buy into the individual company shares that are themselves featured in the index that I am invested in. Although there is some duplication, I am buying these two for separate reasons; the index is to capture the whole market’s returns and its exposure, while for individual companies I am investing for their own merits and yields. Having said that, here is another piece of advice; do not buy all the companies in an index AND the said index ETF itself. There is no point in doing it.

Another good thing about ETFs is that in times of rebalancing, whether active or passive, ETFs would be able to cover if your current shortlist of financial instruments is not “ripe” for the picking. For example, if you are underweight on equities, and there is no suitable equity at the moment, one good way would be to buy into an equity ETF.

Again back in Chapter 8 I am practising what is called a form of DCA in which I buy a fixed number of ETF shares per month, regardless of the price. The main advantage is that you are in touch with the financial markets regardless of the economic conditions. With the small investable amount, it is negligible enough to affect the portfolio allocation, while still “in the financial market”.

“Core and Satellite” Bedokian Portfolio

You may have heard of the term “core and satellite” from other investment material and sources. If not, basically what this means is that the investment portfolio is being split into two categories; a central group of financial instruments (typically index ETFs and unit trusts) that forms the main basis of the portfolio (the core) and an outlying group consisting of other financial instruments (individual equities or bonds) which could be used to enhance the portfolio further (the satellite). The main aim of this core and satellite approach is to enhance the yield by mixing some individual financial instruments as opposed to having an all-passive ETF portfolio.

This core and satellite strategy could also be implemented onto The Bedokian Portfolio itself, and it is just a matter of redefinition. Using the “rooms” and “furniture” analogy from Chapter 11, the “furniture” (financial instruments) are still placed in their appropriate “rooms” (asset classes), but the more important “furniture” such as beds and tables

(ETFs) are considered core, whereas the satellite “furniture” such as individual equities and bonds are like the bedside tables and lamps, which could be changed easily. In other words, during rebalancing, the satellite financial instruments could be in the first line of being transacted to maintain the percentages of the asset classes in The Bedokian Portfolio. This way could also facilitate the issue of selecting which financial instrument to sell based on the guidelines in Chapter 12.

For commodities, if you are holding physical gold and/or silver, these physical assets are deemed as core, while the gold/silver/oil ETFs are satellite. The reasoning behind this is that commodity ETFs are much more liquid and have a lower bid/ask spread than physicals, so for rebalancing the first to be transacted would be the ETFs.

Therefore, modifying the Balanced Bedokian Portfolio in Chapter 9, the core and satellite could be implemented in this way:

- 35% Equities (18% in equity index ETF, 17% in individual equities)
- 35% REITs (18% in REIT index ETF, 17% in individual REITs)
- 20% Bonds (10% in bond ETF, 10% in individual bonds)
- 5% Commodities (2.5% in physical, 2.5% in ETFs, if physical forms part of this asset class)
- 5% Cash

Noticed that the allocation between core and satellite for each asset class is almost half-half. This is to ensure a balance of risk and returns between having passive core financial instruments and active satellite financial instruments. Remember this allocation is a guideline and you

could make variations to these percentages depending on your preference.

Associative Investing

In the financial markets and in the economy, everything and everyone have a relationship with one another, whether it is direct or indirect. For indirect relationships, there could be many “degrees of separation” or layers between one thing or another. Thus, if there is a change in a sector or industry, there will be a ripple effect felt across, akin to what is known as a “butterfly effect”.

The basis for associative investing is to make use of these interdependent relationships to carry out investing. For example, if you want to invest in e-commerce, besides e-commerce companies, you could take a look at sectors and industries that are related, like data centres, logistics firms, payment solution companies, etc.

A simple way to carry out associative investing is to draw out a relationship chart (e.g. a family tree or an organisation chart) of the sectors/industries concerned. To draw the lines and fill out the various boxes in the chart, you could get the information from online and documentary sources, personal observations or even logical inferences and deductions. After filling out the related sectors, you could select companies and ETFs that best fit these sectors/industries, and then carry out FA on them to pick the right ones for your Bedokian Portfolio.

It is not necessary to name the sectors/industries or their sub-categories if you are not familiar with them. Using the e-commerce example above, you could instead use simple terms such as “computers”, “smart phones”, “delivery vehicles”, etc. in your charting.

Once you get the hang of this relationship charting, you could further modify it by having the target sector/industry in the middle of the chart, with suppliers/supporters on top and consumers/resultants at the bottom, creating an “upstream and downstream” map. You could also include competitors and substitutes, making it like a SWOT analysis.

Associative investing allows you to view the entire economic and market ecosystem, as well as the dynamics amongst them.

The 12% Limit

Imagine a simple 60% / 40% equity / bond portfolio: The equity portion is made up of shares from two companies, Company A (30%) and Company B (30%), while the bond portion is made up of just Bond Z (40%). Hence, the ratio of the holdings between Company A, Company B and Bond Z is 30:30:40 respectively.

There are a number of risks inherent in this portfolio. First on the list would be bond default risk; the worst case scenario is a total default of Bond Z, and this would mean a 40% wipeout of his portfolio. Next up is market risk; if the price of Company A goes down by half, it would translate to a 15% overall loss for the portfolio. The doomsday scenario would be the complete price collapse of Companies A and B, and Company Z which issues Bond Z, during a market downturn. It did happen during the 2008-2009 GFC. That is a scary thought.

This is where the importance of diversification comes in, as it helps to reduce risks. By having more individual equities, bonds and REITs within a portfolio means the risks are spread across, and a collapse or default of one company or REIT would be less painful. As a guideline, I would recommend that an individual equity/bond/REIT do not exceed 12% of

the portfolio value. In the event of a wipeout, 12% would be the maximum loss you could bear.

Why 12%, you may ask. It's an arbitrary number based from my observation from the STI index a few years ago, which I had noted that the three largest constituents were about 11.xx%, thus I rounded it up to 12%¹⁴.

There are a few asset classes and investment vehicles that are exempted from the 12% limit. Exchange Traded Funds (ETFs) are one of them; after all, they are made up of different individual equities/bonds/REITs/commodities. The only risk of concern would be the counterparty risk against the ETF provider, but that is low compared to the risks of holding Company A, Company B and Bond Z only. The others would be physical commodities (e.g. physical gold and silver) and cash.

¹⁴ As at early Aug 2021 while I was penning this, I was aware that the largest constituent of the STI had gone above 12%. However, the 12% limit had become part of my investment philosophy and approach to The Bedokian Portfolio.

Chapter 16

Portfolio Drawdown

There will always come a time when you have to start converting cash from your investment portfolio, and such actions are called drawdowns. In this chapter, I will be providing some pointers on how to go about drawing down or liquidating your Bedokian Portfolio.

Determining Drawdown

For a period of time in your life, you would have enjoyed your passive income stream either fully or partially from your Bedokian Portfolio. As you advance in age, you would probably feel that it is time to realise the full value of The Bedokian Portfolio. The next question would be, when is the right time to do it?

This is not an easy question to answer, and there are many answers to this. Some may say immediately after retirement (again, at which age is retirement is another complex question), or some said after a certain age (maybe 55, 60 or 65). To put it a bit morbidly, some say around 20 years before the life expectancy.

Regardless of when to start, the first consideration you would need is whether you wish to drawdown your Bedokian Portfolio entirely, or to leave all or some for your beneficiaries. The next consideration is how much to withdraw and at what interval from your allocated drawdown amount. These two issues have to be addressed before embarking on The Bedokian Portfolio drawdown plan.

With the two considerations in mind, the following show the four choices of drawdowns:

- **Choice #1: Continue with the yield** - This means you are getting what The Bedokian Portfolio is giving you as passive income, as per status quo, and with the intention of leaving all of it to your beneficiaries.
- **Choice #2: Taking pro-rata yield** - For this one, your Bedokian Portfolio is essentially split into two; one “frozen” portion is kept for your beneficiaries while living off the yield from the other “unfrozen” portion. Basically you are taking only a part of your passive income that you used to have, hence the term “pro-rata”. This would also mean that the yield generated from the “frozen” portion would be used to compound itself.
- **Choice #3: Partial portfolio drawdown** - Same as Choice #2, except that you would be drawing down the “unfrozen” part of your Bedokian Portfolio, rather than getting its yield only.
- **Choice #4: Full portfolio drawdown** - This would be the full drawdown of your entire Bedokian Portfolio.

Choices #1 and #2 are fairly simple and straightforward, as they involve preserving or altering slightly the status quo of getting only the yield. If you decide on choices #3 and #4, read on to the next section.

The Drawdown Process

The oft-quoted strategy for drawing down would be the famous “4% rule”¹⁵, which is to start withdrawing 4% of your original Bedokian Portfolio amount every year, adjusting with the inflation rate in the following years. Assuming a constant inflation rate of 3% and a S\$1,000,000 Bedokian Portfolio, the 4% would be S\$40,000. For the first year, you would withdraw S\$40,000; in the second year, you would be withdrawing S\$41,200 (S\$40,000 plus 3% inflation), and; in the third year, you would be withdrawing S\$42,436 (S\$41,200 plus 3% inflation), and so on.

So if this continues, by year 19 The Bedokian Portfolio would have been completely drained out (see Figure 16.1).

Year	Drawdown Amount	Portfolio Balance	Year	Drawdown Amount	Portfolio Balance
0	0.00	1,000,000.00	10	52,190.93	541,444.83
1	40,000.00	960,000.00	11	53,756.66	487,688.17
2	41,200.00	918,800.00	12	55,369.35	432,318.82
3	42,436.00	876,364.00	13	57,030.44	375,288.38
4	43,709.08	832,654.92	14	58,741.35	316,547.03
5	45,020.35	787,634.57	15	60,503.59	256,043.44
6	46,370.96	741,263.60	16	62,318.70	193,724.75
7	47,762.09	693,501.51	17	64,188.26	129,536.49
8	49,194.95	644,306.56	18	66,113.91	63,422.59
9	50,670.80	593,635.75	19	63,422.59	0.00

Figure 16.1: Drawdown of S\$1,000,000 Bedokian Portfolio, using the “4% rule” with 3% inflation rate.

¹⁵ Kagan, Julia. Four Percent Rule. Investopedia. 23 Jul 2021. <https://www.investopedia.com/terms/f/four-percent-rule.asp> (accessed 6 Aug 2021)

The above table is based on the assumption that no more further returns is generated. Truth is, even as you begin the drawdown process, your portfolio is still generating returns. Therefore, assuming a 5% returns per year, The Bedokian Portfolio would only be emptied out by year 37 or so (see Figure 16.2).

Year	Drawdown Amount	Portfolio Balance	Year	Drawdown Amount	Portfolio Balance
0	0.00	1,000,000.00	19	68,097.32	980,061.91
1	40,000.00	1,010,000.00	20	70,140.24	958,924.76
2	41,200.00	1,019,300.00	21	72,244.45	934,626.55
3	42,436.00	1,027,829.00	22	74,411.78	906,946.10
4	43,709.08	1,035,511.37	23	76,644.14	875,649.27
5	45,020.35	1,042,266.59	24	78,943.46	840,488.27
6	46,370.96	1,048,008.95	25	81,311.76	801,200.92
7	47,762.09	1,052,647.31	26	83,751.12	757,509.85
8	49,194.95	1,056,084.72	27	86,263.65	709,121.69
9	50,670.80	1,058,218.15	28	88,851.56	655,726.21
10	52,190.93	1,058,938.13	29	91,517.11	596,995.42
11	53,756.66	1,058,128.38	30	94,262.62	532,582.57
12	55,369.35	1,055,665.45	31	97,090.50	462,121.20
13	57,030.44	1,051,418.28	32	100,003.21	385,224.04
14	58,741.35	1,045,247.85	33	103,003.31	301,481.93
15	60,503.59	1,037,006.65	34	106,093.41	210,462.62
16	62,318.70	1,026,538.29	35	109,276.21	111,709.54
17	64,188.26	1,013,676.95	36	112,554.50	4,740.52
18	66,113.91	998,246.89	37	4,740.52	0.00

Figure 16.2: Drawdown of S\$1,000,000 Bedokian Portfolio, using the “4% rule” with 3% inflation rate and 5% annual returns.

Figures 16.1 and 16.2 serve as a guide to the drawdown process. However, in real life, things are unpredictable, and so are the parameters being assumed here. The annual 5% returns may not stay as such, and

inflation may not always be at a steady 3% every year. With the variations in the percentages, and coupled with the prevailing economic conditions, the portfolio balance may reflect higher or lower than what was presented in Figures 16.1 and 16.2.

From here, we could see now that there could be two ways in drawing down according to the “4% rule”:

- **Maintain fixed drawdown as planned** - This is assuming that you would be withdrawing the amount based on the numbers in Figures 16.1 or 16.2, regardless of how much the portfolio balance will be. There are two advantages to this approach, the first one being the stability and expectancy of cashflow, while the second is that the portfolio balance may be more in certain economic conditions. However, the second advantage may become a disadvantage if the portfolio balance dips below the benchmark numbers in other economic conditions, causing you to probably drain the portfolio out faster.
- **Fixed variable drawdown** - This may sound as an oxymoron but what it means is that the drawdown is done at a fixed percentage (4% in this instance) of the prevailing portfolio balance. For this to work, you would have to look at your portfolio balance at a specific time and drawdown 4% of it (you may also want to include whatever inflation rate figures as provided by credible sources). The advantage of this would be your portfolio balance could be preserved longer, but the disadvantage is that your cashflow would be unpredictable.

No matter what is your choice, the guidelines and discipline that are used to build and maintain your Bedokian Portfolio (as described in Chapters 9 to 12, and Chapter 14) must also be followed in the “dismantling” of it, especially on the part of sticking to your asset class percentages and selling guidelines. If these are followed, the volatility as

described earlier in this section would be reduced and your drawdown could become more manageable.

Drawdown Variations

There have been a lot of questions pertaining to the “4% rule”. Although it is a mainstream drawdown “magic number”, depending on your preferences, you need not follow it. You could drawdown lesser at 2%, or more at 5%, but one thing you must remember is that the higher the drawdown percentage is, the faster your portfolio balance is completely drawn down.

Another strategy is a shift of asset class allocation while the drawdown is in progress. This means in a given drawdown, one asset class is liquidated more than the other asset classes, so as to decrease one asset class’s percentage over the others in The Bedokian Portfolio. This may sound contradicting to what I had said in the previous section of maintaining the portfolio in its allocated form, but as long as diversification of asset classes is observed, it is fine.

Drawdown Administration

In this section I would state how the drawdown is to be administered. The first question would be the frequency of the drawdown. Figures 16.1 and 16.2 showed the drawdown is done annually, and I recommend that this is the best method. The reasons for this would be to save on transaction costs and to free yourself of the hassle of choosing which financial instrument to liquidate weekly/monthly/quarterly/half-yearly.

If going by annual, fix a date on the calendar to determine the portfolio balance, then sell off the designated financial instruments on the same day to get the cash. Never mind the administrative delay (normally a few days) of getting the cash from the brokerages, for you would already have locked in the amount.

When your financial instruments are liquidated, the cash proceeds are to be completely removed from The Bedokian Portfolio and placed into your savings or emergency funds account. This is to prevent distortion of the asset class percentage to your Bedokian Portfolio. Once this drawdown amount is in your bank account, follow strictly on how you would want to withdraw it, maybe on a monthly basis like a salary.

Summary

- Regardless of when to start the drawdown, the first consideration would be whether you wish to drawdown your Bedokian Portfolio entirely, or to leave all or some for your beneficiaries. The second consideration is how much to withdraw and at what interval from your allocated drawdown amount.
- With the two considerations, four choices are available; continue with the yield, take pro-rata yield, partial portfolio drawdown and full portfolio drawdown.
- For drawing down, two additional methods are available; maintain fixed drawdown as planned, and fixed variable drawdown.
- The building and maintenance guidelines and discipline for The Bedokian Portfolio must be adhered to in the drawdown as well.

- There are drawdown variations such as using other percentages of drawdown other than the "4% rule", and to shift the asset class percentages while in the midst of the drawdown process.
- It is advisable to do the drawdown on an annual basis to save transaction costs.
- The cash from the drawdown has to be removed from The Bedokian Portfolio and placed in the savings/emergency funds account for withdrawal.

Chapter 17

Growth Investing

While The Bedokian Portfolio's aim is "passive income through dividend and index investing", we can include another methodology into it, and that is growth investing.

What is Growth Investing?

As mentioned back in Chapter 3, returns from equities consist of capital gains and dividend yield.

In fact, in investing 101 for all types of securities:

Returns = Capital gains + Income.

Capital gains, as we know it, derives from the price appreciation of the asset. Income is either the dividend/coupon/interest that is paid out from holding the asset.

Growth investing focuses more on the capital gains component and investors in this school of thought pay attention to companies that are growing fast and/or in high-growth sectors. New and upcoming companies, sectors/industries, countries/regions and frontier/emerging/developing economies also belong to the growth category.

In the world of investment styles, growth, value, dividend and index are usually seen as distinct from one another. However, for The Bedokian

Portfolio, we are able to blend them together to form a coherent approach.

Integrating Growth Investing

There are three ways to go about integrating and balancing growth investing into The Bedokian Portfolio: by age of investor, weightage of portfolio or a mix of both.

By age - In most investment literature, it is encouraged that young investors in their 20s and 30s to have an aggressive portfolio, which means a majority of it is made up of equities. The Bedokian Portfolio has a suggested mix catered to this group in the form of 40% equities, 40% REITs, 10% bonds, 5% commodities and 5% cash (as mentioned in Chapter 9). Since growth comes from equities, the entire 40% could be dedicated to it, with the REITs and bonds providing the income stream. As one gets older, the growth equities will be reduced to 35% and eventually 20%, if going by The Bedokian Portfolio's age category.

By weightage - If a complete growth component in your equities portion is unsettling for you, then you may want to consider having a 50-50 split (or any other ratio) between growth and dividend, and make this ratio fixed throughout your investing life. With the variety of securities and investment vehicles available, you can work out a number of combinations (e.g. 50% dividend ETF and 50% growth ETF).

Mix of both - This balance features elements from the above two ways, and in gist by having a higher proportion of growth equities to dividend equities during the younger years, and increase the latter component as you get older, while reducing the overall equities proportion in your Bedokian Portfolio simultaneously.

Growth Investing and Life Cycle

When a new product and/or service is introduced, it goes through what is called a product life cycle. Though there are variations on the number of stages depending on where you get your reference from, generally there are four: introduction, growth, maturity and decline. Similarly for a company (called organisational life cycle), it would go through these stages, too, although it would definitely try not to hit the decline part.

There are companies who are or whose products/services are in the maturity stage for a very long time, especially those which provide products/services that almost everyone needs (e.g. financial services, utilities, etc.). These are the type of companies/products/services where most dividend investors would go for, barring any catastrophic or disruptive event that may affect them. Still, not all companies in all sectors/industries enjoy this seemingly long maturity phase. In order for a company not to end up at the fatal decline stage, it would need to either innovate to have more new products/services, or to source for other markets for its current crop of products/services, or both.

Typical areas of growth come from the technology and pharmaceutical sectors, as these are the sectors where there is constant innovation; new technological products (e.g. new mobile phone models, new drugs/vaccines) and services (e.g. online services and applications, new patents). From this context, the ideal combination would be a series of overlapping product/service cycles to maintain a constant introduction-to-growth stage of a company, in which the two stated sectors are having.

Regions and countries do go through this cycle, too, but a full cycle would probably take many decades or even centuries, so we do not place much concern on this point. Similarly for the various development

stage of the economies (the aforementioned frontier/emerging/developing categories), it would also take decades for them to move to the next stage, or some may not move at all due to a myriad of reasons.

For a growth investor, he/she would be interested in the first two stages of the cycle, for that is where the capital gains are perceived to be the biggest. As for the time taken to experience the growth, the duration would be the shortest at the product/service level, followed by company, sector/industry and countries/regions/economic development stages.

How to Invest in Growth?

You can have growth investing at the various levels cited in the previous paragraph. For an individual company, a proper FA is to be carried out, of which I would share the quantifiable selection guideline in the next few paragraphs. For a group of growth companies, sector/industry, country/region and development stage of the economy wise, there are ETFs covering these categories.

The thing about selecting individual growth companies using metrics and ratios is very subjective, for growth could mean 10% annually to you but 20% annually for someone else. Also, beyond numbers, it is difficult to gauge what the future direction of the company would be, as the potential for returns is really in the future.

For conservative growth, here are the following selection guidelines:

- Price/Earnings-to-Growth Ratio (PEG Ratio) of 1 and below;

- Operating Margin percentage being top 50% among other companies within the same sector/industry;
- Return on Equity (ROE) percentage being average among other companies within the same sector/industry;
- Positive FCF for at least the past three years, and;
- Gearing Ratio (Debt/Equity) is constant or reducing for the past three years.

Here are the reasons for each guideline:

Price/Earnings-to-Growth Ratio (PEG Ratio) of 1 and below - The PEG ratio is calculated by taking the P/E ratio divided by the EPS growth. You could use the PEG ratios available online or you could calculate them yourself, though the EPS growth numbers of a company are varied across sources and averaging may be needed. In terms of valuation, a low PEG ratio denotes that the current price is worth in proportion to the expected growth in earnings.

Operating Margin percentage being top 50% among other companies within the same sector/industry - The formula for operating margin, also known as return on sales, is the company's operating earnings (or earnings before interest and taxes, EBIT) divided by its revenue. It is a measure of how much earnings a company could get from its revenue after netting off operating expenses, thus operating margin can be seen as a cost efficiency indicator. The higher the operating margin, the better.

Return on Equity (ROE) percentage being average among other companies within the same sector/industry - ROE is the percentage derived by dividing a company's net income with its shareholders'

equity. Picking the company whose ROE is average among its peers, in my opinion, shows that it could deploy shareholders' capital as effectively as the rest. A higher ROE, albeit desirable, needs to be looked at in more detail as the net income may be attributed more to liabilities than equity (hint: the accounting equation highlighted in Chapter 11).

Positive FCF for at least the past three years - Growth companies are able to sustain themselves as long as the cash keeps flowing in, therefore it is crucial that their free cash flow is positive for at least the past three years.

Gearing Ratio (Debt/Equity) is constant or reducing for the past three years - It is natural to see growth companies taking on debt to expand themselves, and for that reason we should see liabilities as a given and not in a negative light. Still, no one wants debt to spiral out of control and for this we should see the gearing ratio be consistent or reducing for the past three years.

Similar to the selection guidelines in Chapter 12, for PEG, Operating Margin and ROE numbers, you can look back a few years to get an average figure in your analysis before committing a decision. Additionally, you could adjust the guidelines according to your preferences, e.g. PEG ratio of 2 and below (instead of 1), Operating Margin percentage being top 30% among the sector/industry (instead of 50%), etc.

The Next Big Thing

Another way to view growth is looking for things that could become "the next big thing". For this facet, however, it is more of a hit-and-miss, for if eventually the big thing is not really big at all, then we may not be capturing returns from the growth or even run into losses.

Spotting the next big thing involves asking yourself two questions: how to spot it and whether it is a long or short term. For spotting, I use two items: indicators and signs. In my lingo, indicators are statistics, figures and hard data pertaining to the issues at hand, i.e. quantitative, while signs are a bit more qualitative in nature, such as personal observations, user experiences and that subjective “gut feel”. On researching for the next big thing, however, you may need to go beyond your typical FA scope, as a more holistic view is required to better gauge the possible outcomes. This is where the methodology of associative investing (Chapter 15) comes in useful.

For long and short term, I use two words that are commonly heard in the fashion industry: trend and fad. Translating these phrases to the business world, a trend is where a product, service or paradigm could exist for a longer time and may evolve into something better at the next level, whereas a fad is like a “flash in the pan” and it could just come and go at an instant. On the investment front, trends would bring good returns in both growth and income (i.e. dividends), while fads would give you good short term but non-sustainable returns. To know whether the current big thing can last long (trend) or just a burst of fireworks (fad), we use indicators and signs to determine which is it.

We have to place a caveat on the conclusions even when extensive research is done. If you are still not sure of what the next big thing is, and/or whether the current big thing can last long, then it is better to exercise your decisions on a prudent stance.

When to Divest Growth?

It is understandable to equate growth investing with trading, as often times we have heard some investors/traders letting go of their growth

securities after it had reached a certain price point, whether in profit or in loss. This is a common occurrence while investing in individual companies as compared to sector/industry, country/region and developmental stages of economy, for the risk of the former is much higher as compared to the rest which are more collective and the risk distributed.

As per Chapter 12, I will set out some selling triggers based on the aforementioned selection guidelines and their rationale, but an overall quantitative and qualitative analysis is necessary to further determine if divesting is necessary.

Here are the triggers:

- PEG ratio of 2 and above, and/or;
- Operating margin reducing for the past two years, and/or;
- ROE is reducing for the past two years, and/or;
- FCF is reducing by more than 50% for the past two years, and/or;
- Gearing ratio is increasing by more than 10% for the past two years.

Summary

- Growth investing emphasises on the capital growth portion of a financial instrument's overall returns.
- Technology and pharmaceutical sectors are traditional areas for growth investing. Others include new/upcoming companies, sectors/

industries and countries/regions, as well as frontier/emerging/developing economies also belong to the growth category.

- We can integrate growth investing into The Bedokian Portfolio in three ways: by age of investor, by weightage of portfolio or a mix of both.
- In a product or organisation life cycle, there are four stages: introduction, growth, maturity and decline. The growth investor would be interested in the first two stages.
- For growth investing in a group of companies, sectors/industries, countries/regions, and developmental stages of the economy, there are ETFs available.
- For individual companies, the selection guidelines would be: PEG ratio of 1 and below; Operating Margin of being in the top 50% of companies within the same sector/industry; Average ROE among the companies within the same sector/industry; Positive FCF for the past three years, and; Gearing ratio remaining constant or reducing for the past three years.
- Spotting the next big thing involves using indicators and signs, and using them to determine if the next big thing is a trend or a fad. Associative investing methodology comes in useful for determining the next big thing.
- Selling triggers would be: PEG ratio of 2 and above, and/or; Operating margin reducing for the past two years, and/or; ROE is reducing for the past two years, and/or; FCF is reducing by more than 50% for the past two years, and/or; Gearing ratio is increasing by more than 10% for the past two years.

Chapter 18

The Portfolio Multiverse

In this chapter I would be going beyond The Bedokian Portfolio, and introduce the concept of the Portfolio Multiverse.

What is the Portfolio Multiverse?

Borrowing a concept from physics and astronomy where there may be the existence of other universes besides ours, the Portfolio Multiverse is a concept in which an individual would plan, manage and organise his/her investment and trading portfolios based on each portfolio's objective(s) and characteristics, and the individual's risk appetite, risk tolerance, knowledge and allowable time for the portfolios, asset classes and/or financial instruments used in it. This concept stemmed from my mental accounting bias and personally I felt it is easy to view one's overall investment/trading picture.

Is it difficult to start off this Portfolio Multiverse? Not really. In fact, if you are a salaried person and have started out investing using your disposable income, you already have a Portfolio Multiverse in place. For common folks like you and me, we can start off our Portfolio Multiverse with three basic portfolios.

Mental Accounting Bias

Mental accounting is a form of bias, and it is one of the biases discussed in the field of behavioural economics and finance (see Chapter 14). Due to the segregation and non-transferable nature of how one views his/her resources, it could have a profound effect on investment and/or trading decisions.

In my opinion, there are some advantages in having this bias. Since mental accounting contains the word “accounting”, we can associate it with accounts and budgets. A runaway account or budget is a definite no-no as this would mean uncontrolled spending. Translating this to your personal or family context, it is a good form of controlling your expenses.

Also, the bias allows us to see a clearer picture, and this is what separates between good and bad mental accounting. Those with bad mental accounting tend to see their capital and resources as parts only, while a good one will see the parts and how they all fit together. By seeing it on a whole, we tend to be more flexible and willing in moving the capital across the various parts. Breaking down the mutually exclusive thinking is key. In other words, differentiate, then integrate.

The Three Basic Portfolios

For most Singaporeans, the first basic portfolio to start with is their almost risk-free Central Provident Fund (CPF) accounts. Regardless of whether you tinker with it by investing, or just leave it as it is, the age to

start withdrawing is known¹⁶ (from age 65, using the CPF Life model¹⁷), so there is a sort of rough gauge on how much you will be getting per month at a certain point of time. We can treat this as the basic retirement portfolio.

Then you can create an investment portfolio (e.g. The Bedokian Portfolio) using your disposable income to augment your CPF for retirement. Since the use of CPF is subjected to regulations, this portfolio is more flexible and liquid, and it can also be used to fulfil your financial objectives such as determining when to start collecting the yield as passive income or to fund foreseeable big ticket items like your kid's education.

If you still have spare cash, you may consider opening up a Supplementary Retirement Scheme (SRS) account. You can save some taxes along the way while building up the SRS fund through investing. The uniqueness about SRS is that you are given up to 10 years to withdraw the amount¹⁸, and can start at or after the prevailing statutory retirement age when you first made the contribution (currently is age 62, and after 1 July 2022, the age will be raised to 63¹⁹).

There will be some differences in implementing the Portfolio Multiverse in the three mentioned basic portfolios. In terms of the types of financial instruments and investment vehicles, CPF would have the most

¹⁶ Based on current regulations, at age 55, monies from the CPF Ordinary and Special Accounts are withdrawable, after setting aside at least the prevailing basic retirement sum. However, we are not assuming this withdrawal scenario and instead use the CPF Life payout model.

¹⁷ CPF Life. Central Provident Fund Board. <https://www.cpf.gov.sg/Members/Schemes/schemes/retirement/cpf-life> (accessed 8 Aug 2021)

¹⁸ You need not withdraw everything after 10 years. However, 50% of the balance remaining in your SRS account at the end of the withdrawal period will be subject to income tax.

¹⁹ Raising of retirement, re-employment ages will go ahead as planned in 2022. The Business Times. 4 Mar 2021. <https://www.businesstimes.com.sg/government-economy/singapore-budget-2021/raising-of-retirement-re-employment-ages-will-go-ahead-as> (accessed 8 Aug 2021)

restrictions and limitations, followed by SRS and finally, the portfolio using your disposable income (which I will coin it as “disposable income portfolio”). I will talk about investing with CPF and SRS in the next two sections.

Investing with CPF

The CPF's main aim is to save up for your retirement, but the savings inside could also be used to pay for your housing, medical bills and investments. CPF can be seen as almost risk-free. For those who are below the age of 55, their CPF would have three accounts, namely the Ordinary Account (CPF-OA), the Special Account (CPF-SA) and the Medisave Account, with the former two being investible. With the CPF-SA being more restrictive in the choice of securities to invest and generating at least 4% interest annually (which I find it attractive given its almost risk-free nature), we would leave CPF-SA as it is. This meant we are left with CPF-OA, which yields at least 2.5% interest yearly.

The question on whether one should invest in his/her CPF-OA would depend on the person's preferences and circumstances. Factors such as risk appetite, returns expectations, financial commitments that utilises the CPF-OA (e.g. home loans, kids' education fees, etc.) would impact such a decision. Investment savvy people, armed with past information on investment returns, would see that there are better alternatives to the minimum 2.5% annual returns, and would go for securities that could provide a higher return than that, despite the additional risks taken to achieve it.

Nevertheless, if the choice to invest the CPF-OA is made, first you need to open a CPF Investment Account (CPF-IA) with one of the three banks: DBS Bank (DBS), Oversea-Chinese Banking Corporation (OCBC) or

United Overseas Bank (UOB). Note that you can only have one CPF-IA at any one time and pay attention to the various charges and fees imposed by each bank.

Next, check with your brokerage if they are able to link with your CPF-IA. If not, you may have to find another brokerage that could do so. Once the linkage is done, you are able to transact securities with monies from your CPF-OA.

The following numbers need to be noted:

- **First S\$20,000 is not investible** - this amount would earn an additional 1% per annum (if you are below 55 years old).
- **35% of investible savings can be used for stocks (a.k.a 35% Stock Limit)** - The formula to derive this amount is: $[35\% \times (\text{Prevailing CPF-OA Balance} + \text{Net Amount Withdrawn for Investment (if any)} + \text{Net Amount Withdrawn for Education (if any)})] - \text{Cost of Stock Investment (if any)}$. If you had not invested and/or used your CPF-OA to pay for your kids' education before, the amount would be: $35\% \times \text{Prevailing CPF-OA Balance}$.
- **10% of investible savings can be used for gold (a.k.a. 10% Gold Limit)** - Similar to the formula to calculate the amount for stocks, for gold it would be: $[10\% \times (\text{Prevailing CPF-OA Balance} + \text{Net Amount Withdrawn for Investment (if any)} + \text{Net Amount Withdrawn for Education (if any)})] - \text{Cost of Gold Investment (if any)}$. If you had not invested and/or used your CPF-OA to pay for your kids' education before, the amount would be: $10\% \times \text{Prevailing CPF-OA Balance}$.
- **Professionally Managed Products** - The amount that can be invested in this category is your prevailing CPF-OA less S\$20,000, which is the non-investible part.

The 35% and 10% limits are computed typically on the 11th of every month (or 12th if 10th is a Sunday/public holiday) based on the previous month end's CPF-OA balance. You can check them out by accessing the CPF website using your Singpass.

There are many types of securities and investment vehicles that can be invested using CPF-OA²⁰, although they are restricted along the lines stated in the above points. For simplicity, I will only mention pure investment products (i.e., endowment policies, investment-linked insurance products, annuities, etc. are not included).

- **35% Stock Limit** - Selected shares, property funds and corporate bonds from SGX.
- **10% Gold Limit** - SPDR Gold ETF; Physical gold, Gold certificates, Gold savings account (currently only applicable if CPF-IA is opened with United Overseas Bank).
- **Professionally Managed Products** - Selected unit trusts; Singapore Government bonds and treasury bills; selected ETFs (except SPDR Gold ETF) from SGX.

With the stated restrictions, it is difficult to construct along the lines of a balanced Bedokian Portfolio (35% equities and REITs, 20% bonds, and 5% commodities and cash), but we could still implement a coherent investment strategy/methodology that encompasses the principles of diversification amongst asset classes, countries/regions and developmental stages of economies. Also, though cash is traditionally seen as the lowest yield bearing asset class in The Bedokian Portfolio, but with the relatively higher CPF-OA interest, we can allocate a much

²⁰ *Investment Products Included Under CPF Investment Scheme (CPFIS). Central Provident Fund. Jan 2020. <https://www.cpf.gov.sg/Assets/members/Documents/CPFISInvestmentProducts.pdf> (accessed 9 Aug 2021)*

higher portion to it. In this way, the cash can act as a safety buffer and it is not necessary to deploy the entire CPF-OA balance into investing.

One suggested portfolio makeup can go like this:

- **35% Stock Limit** - Individual REITs.
- **10% Gold Limit** - SPDR Gold ETF (since gold is a non-yielding financial instrument, you may consider not allocating the full 10%).
- **Professionally Managed Products** - Equity ETFs, Unit Trusts (for overseas exposure), Bond ETFs (if the yield is above 2.5%).

Lastly, do remember that the aim of investing the CPF-OA monies is to generate returns higher than the 2.5% while taking acceptable risks, so look at the big picture and do not overcomplicate things while building the portfolio.

Investing with SRS

The SRS is similar to the CPF in that it is a retirement savings scheme, but the SRS is voluntary and there is some flexibility to it as compared to the CPF. You could open a SRS account with any of the three local banks; DBS, OCBC and UOB, but similar to the CPF-IA, you can only have one SRS account at any one time.

Since SRS does not have any limits, the entire amount can be invested. It is strongly encouraged to invest the monies in SRS, as unlike CPF, the returns for just leaving them there is the current bank interest rate, which is not very high at this moment. Furthermore, the amount can only be

withdrawn from the statutory age of retirement; any withdrawal earlier is likely to invite taxation and penalties.

On the type of securities and investment vehicles that can be invested with SRS, the possibilities are endless (with the exception of direct property investments and certain insurance products), so do check them out from financial institutions such as banks, fund management companies, etc. on the investible items. With this, we can implement the various Bedokian Portfolio combinations with your SRS.

The Timeline Map

The timeline map is a useful Portfolio Multiverse tool that could help chart your financial plans and milestones. Each portfolio is assigned a timeline, and on each of it you can indicate the objectives, milestones and payouts along the way; for example on the Bedokian Portfolio timeline, you can indicate that you want to have \$100,000 by age 30 with a projected yield of 5%, and by age 62 you would want to commence drawdown at 3%, etc.

The timelines are not isolated from one another. They are supposed to work together to achieve your overall financial goals along the way, such as purchase and finance of property with CPF and Bedokian Portfolio, and income streams from CPF, SRS and the Bedokian Portfolio at the retirement stage. Furthermore, depending on what other timelines you might have and the prevailing regulations for CPF and SRS, the funds can be transferred among one another (e.g. allocate a portion of the dividends from your Bedokian Portfolio to top up your CPF or SRS).

An example of a simple timeline map can be seen at Figure 18.1.

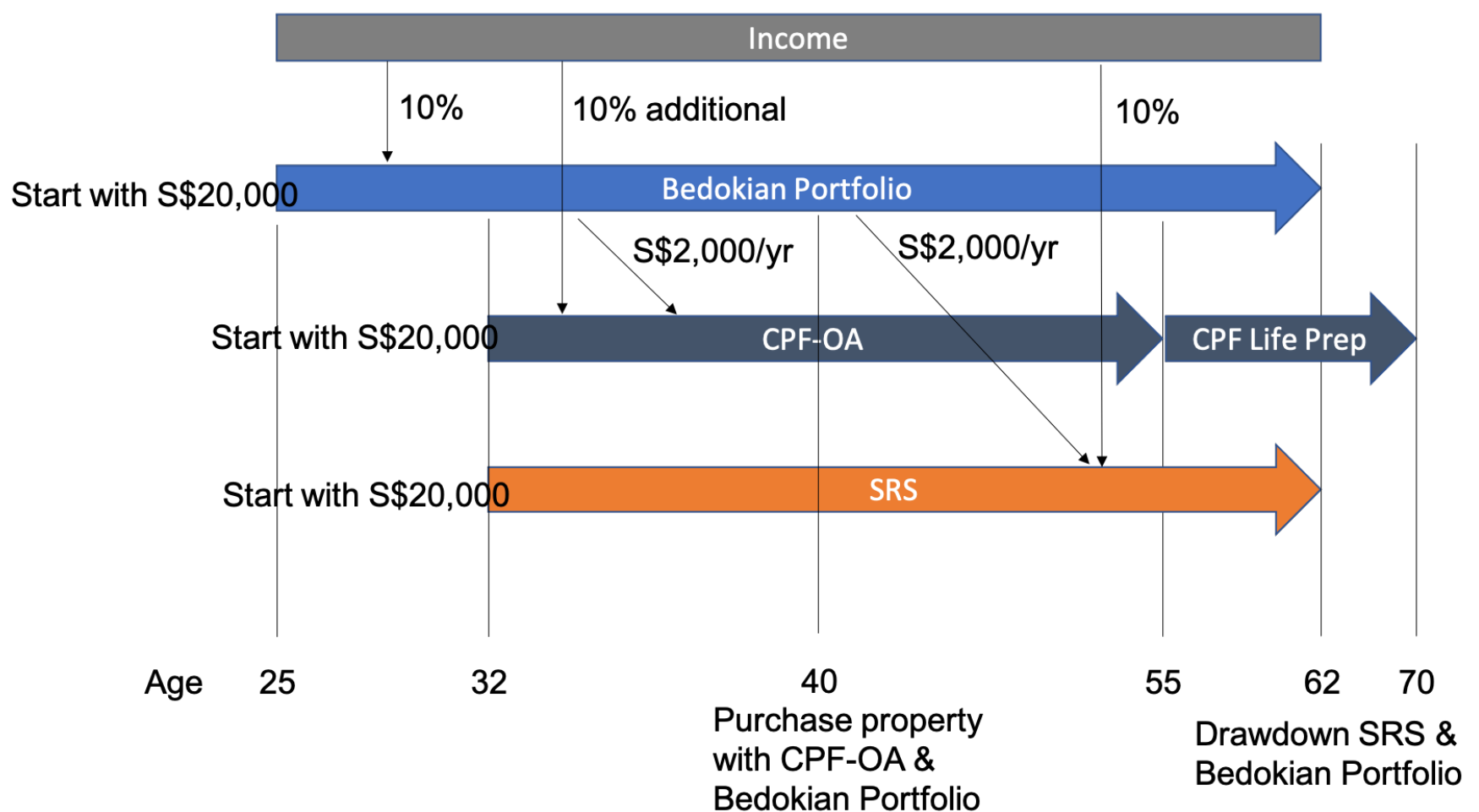


Figure 18.1: Simple Portfolio Multiverse Timeline Map.

This timeline map acts as a guide and not set in stone. It is understandable that there may be some changes to your life and goals, so feel free to make adjustments as time goes by. After all, having a plan is better than no planning at all. If more capital is made available to you, you could either just add it into these three, or go for other portfolios, asset classes and financial instruments/investment vehicles such as property, options, annuities, etc., provided you have gained some knowledge on how to invest in them. There you can create additional timelines and further plan your financial path.

Portfolio Multiverse Variations

Recall that the Portfolio Multiverse works on the varying objectives and characteristics of each component portfolio or “universe”; for CPF, the earliest age of withdrawal is at 55 and the monies inside is not really transferable to other portfolios; in SRS, the earliest age of withdrawal is

at the statutory retirement age and ideally be completed within 10 years, and; the most flexible disposal income portfolio (e.g. Bedokian Portfolio) can be withdrawn, utilised and deployed to other portfolios at any time.

The good thing about the Portfolio Multiverse is that they can work separately among the individual “universes”, or they can work across as a single unitary entity, the former suitable for varying degrees of withdrawal, while the latter of which comes in handy when the portfolios are planned to end at the same point. Again, these are guidelines and can be modified anytime to suit the circumstances.

Another set of variations is the makeup of the portfolios themselves. In a simple separate setup, you can have The Bedokian Portfolio in your disposable income and SRS portfolio, and an invested CPF according to the limits (see Figure 18.2).

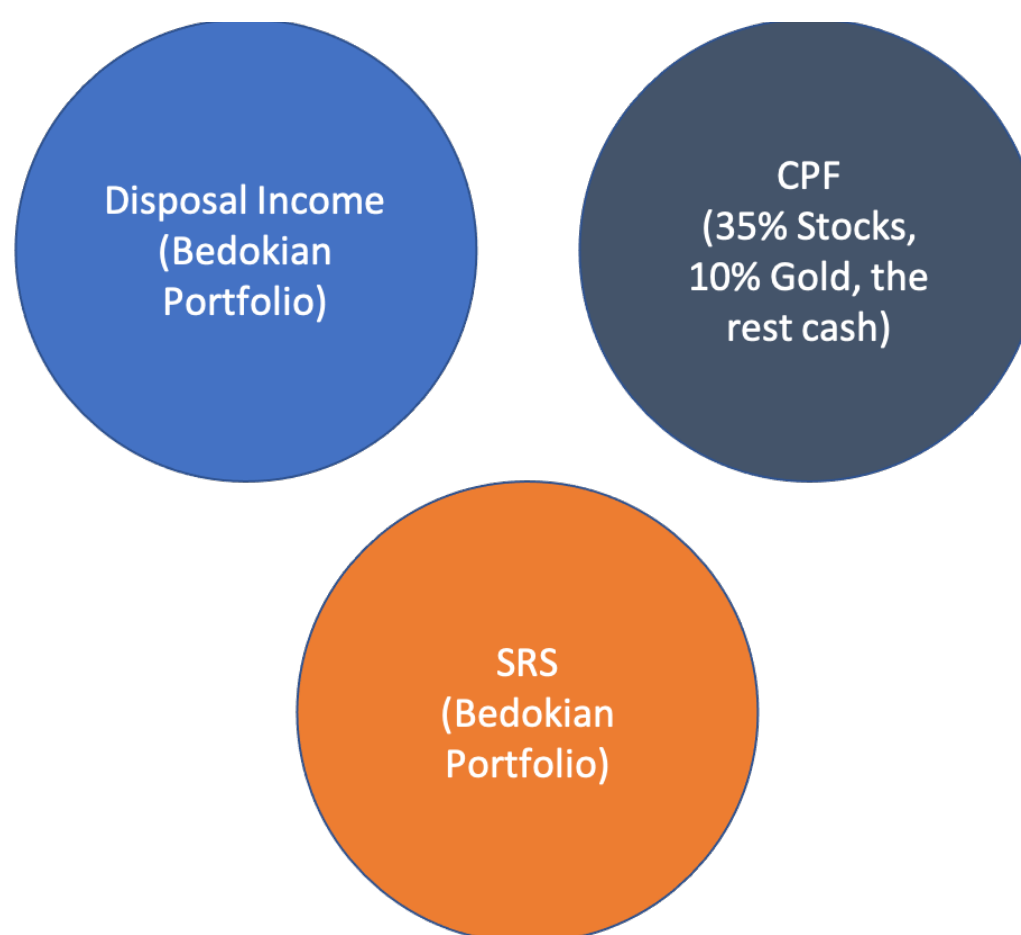


Figure 18.2: Portfolio Multiverse simple separate setup.

The second type is the existence of different portfolios (e.g. Bedokian Portfolio, 60/40 equity/bond) within each “universe”, which may look like the one in Figure 18.3.

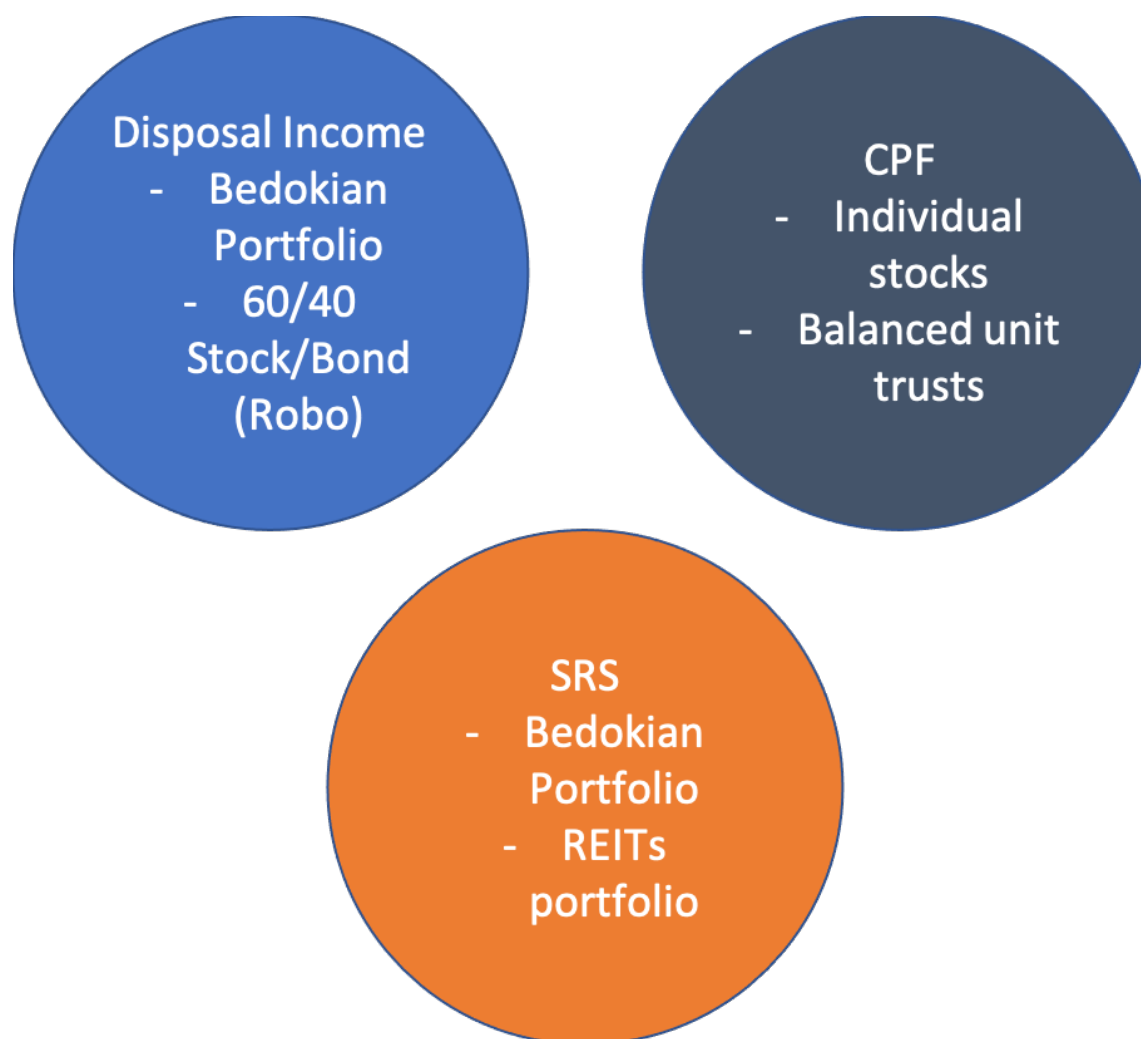


Figure 18.3: Portfolio Multiverse with different portfolios in each “universe”.

The third type is the entire Portfolio Multiverse is viewed as a gigantic portfolio, with each “universe” contributing a particular asset class (see Figure 18.4).

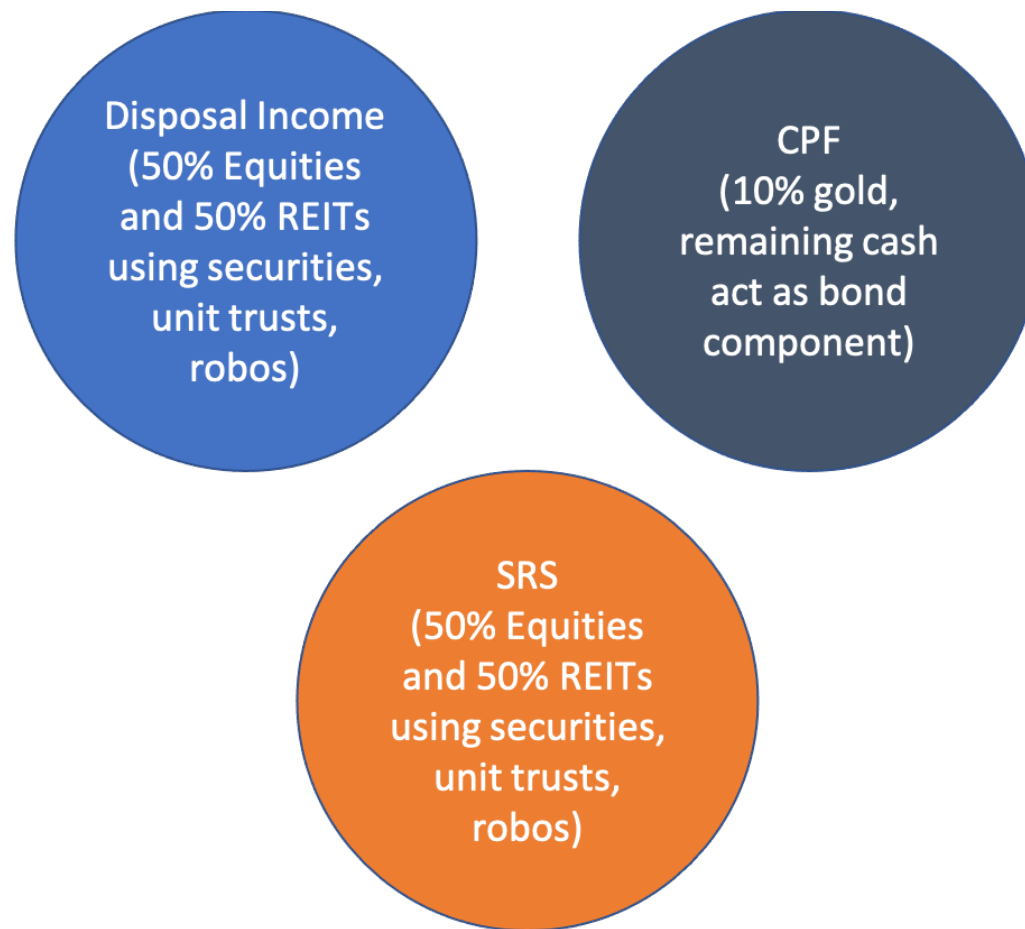


Figure 18.4: Entire Portfolio Multiverse working as one gigantic portfolio.

There are no limits to the combinations. By applying the timeline map on the “universes”, a complete chronological and portfolio combination map is derived from which you could make them work well together, and plan the ultimate aim of retirement and other important financial milestones in your life. Also, as described in the previous section, with additional capital and knowledge, you can incorporate more “universes” made up of property, options, etc. into the multiverse.

Robo-Advisors

Financial technology, or fintech, is revolutionising the financial world in terms of processes and services, and one of its products is the robo-advisors. On the investment front, robo-advisors, or robos, would help you craft your investment portfolio(s) according to your needs, preferences, and risk profiles, all of it done with an online platform or application. The robos would then, if you want, automatically maintain your investment portfolio, which includes rebalancing.

Robos use ETFs, unit trusts and individual securities to build your portfolio, and most, if not all, would disclose them. With this, you could research further on their holdings and related information, like ETF expense ratios and associated unit trust fees. Robos charge a small fee in managing your portfolio, and this fee is usually a percentage of your portfolio value and may include an annual fee.

Due to the automated feature of robos, it is an option to include them in your Portfolio Multiverse, especially when you prefer a passive approach to investing and/or practise periodic investment contribution (e.g. regular savings plan, dollar cost averaging, etc.).

Summary

- The Portfolio Multiverse a concept in which an individual would plan, manage and organise his/her investment and trading portfolios based on each portfolio's objective(s) and characteristics, and the individual's risk appetite, risk tolerance, knowledge and allowable time for the portfolios, asset classes and/or financial instruments used in it.

- The three basic portfolios to start off the Portfolio Multiverse are using your disposal income, CPF and SRS.
- CPF's main aim is to save up for your retirement. The question on whether one should invest in his/her CPF-OA would depend on the person's preferences and circumstances. Factors such as risk appetite, returns expectations, financial commitments that utilises the CPF-OA (e.g. home loans, kids' education fees, etc.) would impact such a decision. Take note of the limitations and regulations of investing with CPF.
- The SRS is similar to the CPF in that it is a retirement savings scheme, but the SRS is voluntary and there is some flexibility to it as compared to the CPF. You can invest in SRS and save some taxes along the way. With the exception of direct property investments and certain insurance products, the possible types of securities and investment vehicles that can be invested with SRS are endless, depending on the items offered by financial institutions.
- The timeline map is a useful Portfolio Multiverse tool that could help chart your financial plans and milestones. Each portfolio is assigned a timeline, and on each of it you can indicate the objectives, milestones and payouts along the way.
- The Portfolio Multiverse can work separately among the individual "universes", or they can work across as a single unitary entity, the former suitable for varying degrees of withdrawal, while the latter of which comes in handy when the portfolios are planned to end at the same point. Again, these are guidelines and can be modified anytime to suit the circumstances.

- Another set of variations of the Portfolio Multiverse involves having each portfolio or “universe” working separately, together as a gigantic portfolio, or with each “universe” having different portfolios inside.



Scan the QR Code above to access The Bedokian Portfolio's blog.

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