Some Thoughts on Equity (Stock Market) Investing

(I put this brief discussion together after an interesting conversation with a student. Fine points of the issues addressed, like investment funds' required minimum contributions, can change over time, so some statements might be outdated or not precisely correct. But I hope it provides a user-friendly, big-picture overview of some aspects of stock market investing not always addressed in more technical investment class coverages.)

Corporations are business organizations that do productive things – anything from making tractors (Caterpillar); to flying people to nice destinations (Southwest Airlines); to selling merchandise we all need (WalMart); to owning office buildings, shopping centers, and apartment complexes or other rental real estate (real estate investment trusts, or REITs).

Common stockholders are the owners of a corporation. When you buy shares of stock, you become a tiny fractional owner of that big business. Being an owner does not mean you make decisions; "managers" make all the decisions. Stockholders elect a board of directors to make big strategic decisions (think: building a new factory overseas), while day-to-day decisions (think: changing electrical parts suppliers) are made by the operating managers, like the president and divisional vice presidents, who are hired by and report to the directors. [However, in a large corporation the directors and operating managers almost always are stockholders too; they wear the dual hats of being decision-makers and owners. We like for the management group to have an ownership stake, in the belief that it will make them more sensitive and attentive to the stockholders' broad-based concerns.]

Being an owner just means that you provide money for the managers to use in buying assets, and then you get financial returns in the form of profit, or net income, that remains in a given quarter or year after everything else that must be paid for from the corporation's revenue stream (wages, material costs, utility bills, advertising, interest to lenders, taxes to government) has been paid. The decision-making managers might decide in a particular time period to pay some or all of the earned net income to the owning stockholders as *dividends*, cash they can immediately spend however they wish. But another possibility is for the managers to keep the net income (*retain* the earnings), and use the money to buy new assets and thereby make the corporation bigger and stronger for the future. If those *retained earnings* do indeed strengthen the business going forward, then everyone should recognize that the corporation is stronger, and in a perfect world the shares of stock that represent ownership of the corporation should be expected to go up in value by something close to the amount of earnings that was retained. (In the world we know it likely will not work out exactly that way, perhaps because the investing public is not convinced that the managers bought assets that genuinely will strengthen the business – like if they bought corporate jets or luxury vehicles that would not be likely to add much to productivity.)

So the stockholders can benefit from the net income the corporation has earned for them, either by receiving dividends they can spend now (but then that money is not left in the managers' hands to make the corporation stronger), or else by watching their shares of stock go up in value as investment market observers recognize that the corporation has become stronger (but the money spent on new assets is not available to be paid out as dividends). Some companies have a recent, or even long-term, history of paying steady dividends, and people who become owners of those companies by buying shares of their common stock probably want to get steady cash dividends – but then the cash received as dividends is considered income that the stockholders must pay income tax on every year.

Other companies have a recent history of retaining earnings – often these are somewhat newer operations, still growing and needing to hang on to cash to help pay for the assets that support the growth. When you check your brokerage account statement and see that the shares of stock you hold have gone up in value because retained earnings were used to grow the asset base, you do not have to pay income tax on your increase in wealth – you would have to pay income tax on that gained wealth only if you chose to sell your shares.

If you do sell, then the amount by which your shares have gone up in value (which might tend to be approximately the amount that the managers could instead have chosen to pay as dividends) is called a *capital gain*, and a capital gain is a form of income that you have to pay income tax on in the year when you sell the shares. (Tax accountants say that a capital gain is *realized* when you see the value increase on your brokerage statement, but only *recognized* when you sell the shares and have to pay tax on the related income.)

So if your small fractional proportion of the corporation's big net income is $100 in 2024 and the managers pay it to you as a dividend (probably $25 each quarter), you will have to pay tax on an additional $100 in income with your 2024 income tax return. But if instead they retain all the net income and your shares rise in value by $100, and then in 2025 you decide to sell the shares and they are worth $100 more than you originally paid for them because of the earnings retention, then you will pay tax on the extra $100 in income with your 2025 return. Thus people who become owners of corporations with a recent history of retaining earnings instead of paying dividends might tend to be those who do not need cash, at least not right now, and like the idea of delaying the possible requirement of paying income tax until a later year (a result that has a time value of money benefit).

Now let's tie a few real-world loose ends together. First, a corporation need not take an all-or-nothing approach to paying dividends *vs*. retaining earnings; many corporations tend to do some of both. In fact, the proportion of net income paid as dividends rather than retained in a given quarter or year has a name: the *dividend payout ratio* (which might, but usually does not, stay the same from year to year – in fact, the *dollar amount* of dividends paid each period is more likely to stay steady). Second, even if corporations did follow all-or-nothing strategies, an individual investor might want to achieve a mix of getting cash on one hand, while watching their stock values grow on the other, by buying shares of stock in some corporations that pay steady dividends (more income to spend now) and in other corporations that largely retain earnings (grow wealth for the future).

Indeed, what every stock market investor should do is to *diversify*: have money invested not just in one steady dividend paying corporation or a few corporations to get a mix of dividends and value growth, but rather in a wider range of firms that are active in different sectors of the economy. In an unpredictable world you do not want all of your investment eggs in one basket. We call the diversified group of stocks we hold our *portfolio*, a term that originally meant a leather carrying case. Decades ago the buyer of shares of common stock received a printed certificate showing the name of the corporation and the number of shares bought, so someone who held stock in many corporations ended up with a stack of those fancy certificates. It was sensible to keep them safe, dry, and organized by storing them in a leather case. So a mix of stock certificates organized in a leather carrying case came to be called a portfolio of stocks. Today you do not get a certificate to prove your ownership of common stock shares; you just see an entry on your (probably on-line) brokerage statement. But even though the leather case now plays no role, we still call the

mix of stocks held our "portfolio," and the systematic analysis of combining different stocks into mixes designed to reach desired investment goals is called "portfolio theory."

How might we achieve having a diversified portfolio of common stocks?

Option 1: Do It Yourself
Until a relatively small number of years ago it would have been prohibitively expensive for people of modest means to put together meaningfully diversified portfolios of common stocks on their own. First, purchases generally had to be made through stock brokerage firms that charged commissions, and the commissions had high fixed-cost components that meant it was cost-effective to buy only if you could purchase a large dollar amount of a particular company's stock all at once. Buying just a few hundred dollars' worth of stock might have left you paying more in commissions than you were getting in stock for your portfolio. Second, the situation was exacerbated by the fact that brokerage firms charged additional "odd lot" penalty fees when something less than 100 shares (or any multiple of 100) was purchased, because 100 shares was the "round lot" trading standard of the day. Someone buying seven shares left the broker with an oddball 93 shares that would be costly to keep track of with older information management tools. So it would have been impossible to build a diverse individual portfolio with a few thousand dollars.

Then over time the brokerage industry changed with advancing information technology. First we saw "discount" brokerage firms (Charles Schwab got started that way), which charged lower commissions but typically did not offer brokers' historical level of advice. Then later a range of on-line brokers came on the scene that provided no advice, but merely processed trades, handling a stock purchase or sale for a small fixed commission, like $10, no matter the trade's size. Now trading platforms like Robinhood seem to allow buying even fractional shares of individual corporations' stocks with no commissions paid, so someone with a few hundred dollars might be able to buy a wee number of shares in each of enough individual firms' common stocks to be well diversified, with their small balance, across the economy. Then your on-line brokerage statement would show how values changed by the day, and report dividends when received. It might actually be interesting and somewhat fun to watch those changes, though it also might be tedious to monitor an account holding so many individual stocks involving such small dollar values.

Option 2: Go Through an Investment Fund: Traditional Mutual Fund or ETF
A mutual fund is just a large pile of money that a financial firm amasses through small contributions from many investment clients. You send a firm like Fidelity or Vanguard a relatively small amount, and by combining your small contribution with small amounts from many others they end up with a really big total that they can invest efficiently, on a grand scale – and you have your little piece of the action on a huge, well diversified investment portfolio. A benefit of traditional mutual funds is that you could buy shares directly from fund managers without paying commissions ("loads") [fund managers pay commissions to buy the underlying stocks, and those costs reduce the fund shareholders' returns, but a fund would buy big enough amounts to incur commissions efficiently].

a. Actively Managed Mutual Fund – an actively managed fund employs analysts who study the financial performance of individual corporations and decide which are the best to include in their portfolios. Of course, the people doing the analysis must be paid, and their compensation comes from the returns earned on the stocks in the portfolio before the

fund shareholders receive what is left. And many academic studies have concluded that individual corporations' fortunes are sufficiently hard to predict that active managers often make choices that end up not having been the best. If an actively managed fund delivers poor returns compared to average returns seen across the stock market, over a reasonably long period of time (we know there will always be ups and downs in the short run), then it is reasonable to complain about the fund managers' performance.

b. Passive or "Index" Mutual Fund – the managers of an index fund have embraced the logic of the academic studies referred to above, which indicate that most of the fund managers who try actively to select the best stocks have performed sub-optimally over time, often delivering returns to their funds' shareholders that are lower than the average returns earned across the stock market overall (with a contributing factor being all the money spent on analysis that has been proven to be very hard to do well consistently).

Managers of an index fund do not do expensive analysis; they merely incur the ever-lower transaction costs involved with buying stock in all of the corporations that constitute some broad portion ("index") of the stock market. An example is the Standard & Poor's 500 index, made up of the 500 largest U.S. corporations by "market capitalization" (the total value of all the shares of common stock that investors hold). So someone who buys shares in an S&P 500 index fund (Fidelity and most other retail investment companies offer S&P 500 index funds) becomes a very tiny fractional owner of each of those 500 biggest corporations in the country. Fidelity competitor Vanguard actually has a "total market" index fund that holds shares in every U.S. "publicly traded" corporation you can buy stock in. Both obviously offer great diversification to someone of modest means.

An index fund will deliver returns to its shareholders that equal the average percentage returns on all the stocks held (minus a tiny fraction of 1% per year to compensate the fund managers for transaction and paperwork costs). No one can complain about the quality of job the fund managers did since they are not making investment decisions, but merely purchasing pre-determined stocks on a large scale that creates efficiencies you or I as individuals might not realize. So if the stock market overall delivers 7% returns over a particular time period the index fund investor earns about 7%, while if the market is down on average so will be the index fund performance accordingly. And the statement your mutual fund managers provide, by mail or on-line, shows you have just one holding, with dividends earned on that single holding, the mutual fund itself, rather than a horribly messy large number (hundreds or thousands) of individual corporations' common shares. The fund keeps track, in its internal records, of what goes on with the underlying stocks.

c. Exchange-Traded Fund (ETF) – traditional mutual funds can have two annoying features. First, "mutual" indicates that holders of the fund shares own, as a group, the shares of stock in the corporations the fund managers have purchased. So if some fund shareholders want to withdraw their money and the managers have to sell some of those shares of corporation stock to get cash to pay them, and they sell that stock for more than the price originally paid, there is a capital gain to pay income tax on. And every fund shareholder has to pay income tax on their small proportion of those gains, even though they had not wanted stock to be sold. So mutual funds can bring income tax problems – not always, because the fund managers also might sell some stock for prices below what were paid, generating *capital losses* that offset the capital gains. But the possibility of having to pay income tax based on other fund shareholders' actions looms persistently.

Second, mutual fund shares generally are not bought and sold in real time; instead, you pay or receive the price that prevails at the end of the trading day. Let's say it is 11 AM on a given day and the market is down (corporation common stocks generally are selling at prices lower than those seen on recent trading days), and you say now is a good time to buy shares in a mutual fund that holds a range of those bargain-priced corporate common stocks. The purchase order you place will not clear until after trading closes for the day, at 4 PM in New York – and by that time there could have been a rally that drove the prices of the underlying corporate shares, and in turn the "Net Asset Value" (NAV) price of the mutual fund shares, higher. So there can be some uncertainty in what you are paying when you buy (or if values are up early in the day and you decide to sell fund shares for a profit your sale will clear at the day's end, by which time NAV prices may have fallen).

A solution to those problems came a few decades ago with the advent of the exchange-traded fund, an investment fund whose shares are bought and sold in real time because they are listed and traded on a stock exchange. So if you log in to your brokerage account at 11 AM you can see the ETF shares' current market price, and if that price looks good the buy or sell order you place will be executed immediately, with the amount you pay or receive determined by market conditions at that moment, rather than at the end of the day. This transparency in pricing can be a big advantage, especially in a period when stock prices have been showing a lot of intra-day volatility. Also, each ETF share is a separate unit containing small pieces of all the corporate stock shares the fund managers have purchased (through active stock selection or indexing). Thus, an ETF shareholder who wants to get money out just sells some ETF shares; the fund managers do not have to sell underlying corporate stock shares. So if stock prices have gone up the person who sells ETF shares will likely have a capital gain to pay tax on, but fellow ETF shareholders are not affected. ETFs thus tend to be very tax-efficient relative to traditional mutual funds.

Here is an interesting irony. Not too many years ago we would have said that mutual funds were for the small investor, while the arguably overall more attractive ETFs were accessible only to people who had stock trading accounts, and enough money to be able to buy in volume and not get eaten alive by the commissions paid (with their high fixed-cost components). But now the tables have been turned to some extent. Today Vanguard has a $3,000 initial investment minimum on most of its traditional mutual funds, such as its Real Estate Index fund containing a wide array of real estate investment trust shares (trading or "ticker" symbol VGSLX) [then you can add to your holdings later in smaller increments]. But with a Vanguard brokerage account you could buy just one share of an ETF with similar underlying REIT stocks (symbol VNQ) for a small dollar amount, about $80 at this writing – and Vanguard charges no commission on any stock or ETF purchase. But of course firms adjust to market pressures; Fidelity now allows purchases of its index (not actively managed) traditional mutual funds with no minimum dollar amount required.

Finally, how can today's brokerage firms or platforms afford to facilitate trades while charging zero commissions? One reason: when Vanguard, which offers no-commission brokerage accounts, gets a buy order for a few shares they pass it to a major wholesaler or market specialist firm, like Citadel, to actually sell shares to the investor. Citadel makes money like any merchant does, charging a "spread" (price a bit higher for selling shares than it would be if you wanted to sell and Citadel bought the shares – the wholesaler is allowed to charge a spread, but still must use its market power to get the investor the best price). Vanguard then gets a small fee from Citadel for directing "order flow" its way. •