

# The Big Picture

Just down the street a company has been making and selling fruit pies for over 50 years. Frank & Emma's Fruit Pies the company is called. It's been a good business, but now that Frank & Emma have passed on, their three children have decided that the market for their fruit pies is much bigger than either Frank or Emma ever imagined. After talking to several advisers, Jeremy, Jason, and Jennifer decide it's time to raise some serious cash and invest it back into the business.

The local banks, however, aren't interested in lending the company the \$100 million it needs to build a new factory, hire 100 more employees and set up distribution centers throughout the Midwest. Luckily, there are investors who might be willing to provide the capital in exchange for owning a little slice of Frank & Emma's Fruit Pies. Actually, the investors will provide the company with m-o-n-e-y, but we prefer to use words like "capital" because it makes us sound much smarter than we really are. Basically, if a company wants your money for one year or less, we go ahead and call that the "money market." But if a company wants your money for more than a year—usually *much* more—then maybe you get a little nervous so we dignify the whole thing by calling it the "capital market." In the "capital market" investors provide capital (m-o-n-e-y) to corporations in exchange for ownership positions, called "equity securities." Just as homeowners have equity/ownership in their homes, stockholders have equity/ownership in the corporations whose stock they hold.

Frank & Emma's Fruit Pies would use the stockholders' money to make the business a whole lot sweeter. The money (capital) that investors provide to Frank & Emma's Fruit Pies would allow the business to pay for equipment, wages, computers, and all the basic ingredients businesses need in order to grow from small companies to bigger, sweeter corporations. What do the shareholders get in return?

Basically, slices of the big earnings pie. If the company has earnings (profits), the shareholders are entitled to their share of the pie. An ever-growing earnings or "profit pie" means that the shares get bigger and taste better all the time. Eventually, not only will the shares get bigger and sweeter, but Frank & Emma's might start cutting checks to the shareholders every quarter and calling them "dividends," which are perhaps the most fun checks they'll ever cash.

Or not. Maybe the business won't spend the money wisely and will end up running the whole thing into the ground. See, there's always a risk when you buy a company's equity securities. But, if things work out the way we think, your slice of the pie could end up feeding you and your grandchildren's grandchildren, the way Microsoft, IBM, and Coca-Cola (to name just a few companies) have enriched their early investors beyond their wildest dreams.

So Jeremy, Jason, and Jennifer decide to offer 30% of the company for sale to public investors. They don't plan to do the offering themselves, though. The process of issuing stock to public investors is very complex, with little room for error. So, they hire a firm called an underwriting or investment-banking firm. Like a bank, the firm could raise money for Frank & Emma's Fruit Pies, but this wasn't a loan. The underwriting firm would promise to buy all the stock the company was issuing and immediately re-sell it to investors, keeping a piece of the proceeds for their efforts. It was a firm commitment of capital on the part of the underwriters, but if everything went according to plan, they would walk away with a nice profit, and Frank & Emma's Fruit Pies would have the \$100 million it needed to expand the business. Since the brothers and sister owned the majority of the company, their own wealth would most likely grow, too, right along with the company's increased profits. And if everything went as planned, the investors who bought the slices of the big pie would also see their equity/ownership stakes in the company grow, too.

The underwriters registered the stock with the Securities and Exchange Commission, which under the Securities Act of 1933 requires companies issuing securities to provide disclosure to investors in the form of a prospectus. The registration statement with the SEC and the prospectus delivered to investors must reveal not just the promises of success but all the chances for failure, as well. Only if an investor has been provided with essential or "material" facts can he/she make an informed decision about buying or not buying a particular security.

So the company and the underwriters performed due diligence in providing information on the company's story to investors: its history, plans for the future, purpose for raising the money, as well as information on the management and board of directors. Also, a section on the risks involved in buying stock in this particular company was prepared and placed toward the front of the document. Some of the risks included were:

- The fluctuating price of oil can unpredictably raise delivery costs and compromise profit margins
- Unionized laborers can unpredictably raise labor costs and force slowdowns in production and delivery
- Product liability risks, should contaminated ingredients ever make their way

into the production line, would have a material negative effect on the price of the stock

It took a long time to get the SEC to finally give the green light, but, eventually, the underwriters were permitted to sell the shares to pension funds, mutual funds, and individual investors, who all liked Frank & Emma's Fruit Pies' chances for future success, weighed carefully against their possibility for failure.

The underwriting was over in a few days, and after keeping the "spread" or profit margin from the proceeds, the underwriters gave the company \$100 million, which was quickly invested in new equipment, employee salaries, computer systems, and an aggressive TV and radio marketing campaign. Frank & Emma's Fruit Pies was looking a whole lot sweeter with the fresh infusion of capital.

Now that it is a public company, Frank & Emma's has to file quarterly and annual reports with the SEC, which is actually kind of a pain in the neck. So, they hired an in-house attorney and accountant primarily to work on the 10-Q (quarterly) and 10-K (annual) reports. In the reports, the company discloses financial information to investors, as required by the Securities Exchange Act of 1934. This Act, sometimes called the "People Act," requires issuers of securities to file reports so public investors have enough information to decide whether to invest or stay invested in the company.

Public investors apparently like what they read in the reports because the shares keep trading among investors at higher and higher prices. Sold at a public offering price of \$10, the stock is now trading over NASDAQ as high as \$25. NASDAQ, the main stocks traded "over the counter," and the NYSE are part of the secondary market. When the stock was first issued, it was issued in the primary market, where the issuer received the proceeds. When those shares trade back and forth among investors, we call that process the secondary market, where the issuer does not get the proceeds. Underwriters work in the primary market. Broker-dealers work in the secondary market, facilitating trades between investors and making commissions or markups for their services. Some broker-dealers maintain an inventory of over-the-counter stock, acting as market makers. A market maker allows investors to sell their securities when the time comes to sell and, hopefully, receive a decent price from an interested buyer. The market maker buys stock from one party at the lower "bid" price and sells the stock to another at the higher "ask" price. Maybe the bid for 10,000 shares of Frank & Emma's common stock is \$25.00 and the ask is \$25.25. If the market maker can buy 10,000 shares at the bid and immediately re-sell them at the ask, they will keep the 25-cent "spread" per share, which is a quick \$2,500 profit. What if they buy the 10,000 shares and then no buyers show up to take them off their hands?

That's the risk they take by making a market in the stock. Market makers act as

principals, which means they have money at risk. When a firm sells a customer a stock from its inventory, it is said to be acting as a “dealer” or “principal.” When it simply arranges the trade for a customer, it is said to be acting as a “broker.” That’s why the firm is called a “broker-dealer,” since it can act either as a broker, earning a commission, or as a dealer, earning a profit or markup on a particular trade. They can’t do both on the same trade; they either act as a broker or a dealer on any particular trade.

And, they also get involved in the primary market taking companies public. When they do that, they call themselves underwriters/investment bankers. When they help investors unload and purchase securities in the secondary market, they call themselves broker-dealers.

You will be working for one of these broker-dealer firms, helping investors choose investments in stocks, bonds, options, mutual funds, and other products. Some investors will need the income provided by bonds. Others will need the growth offered by stocks. Still others will choose to risk their money on options. So, when a new customer decides to establish an investment account with you, you will fill out a customer account form that provides basic information on the customer’s financial situation and investment goals. The younger the investor, the more likely you will recommend stocks, such as the stock in Frank & Emma’s Fruit Pies. Or, maybe some day Frank & Emma will decide to offer bonds to investors, whereby the company simply borrows money from the public investors and pays a rate of interest on the loan/bonds until the loan is paid off in full. Instead of offering equity, then, the company would be offering debt securities. And that would make the bondholders creditors, who have to be paid on time. If not, the company goes into bankruptcy, and all the pie makers and other equipment could be sold at auction, the proceeds returned to the bondholders.



But bankruptcy seems like a remote possibility since Frank & Emma’s is now a better-established company, with manufacturing facilities in Chicago, Cleveland, Milwaukee, and Indianapolis. Their fleet of delivery vans now stocks the shelves of regional grocers like Jewel and Dominick’s, as well as serving up pies to school, hospital, and large corporate cafeterias. Their cash flow is strong, their sales are growing 20% a year, but the company could still benefit from a fresh infusion of capital.

Rather than cut the big earnings pie into more slices by selling equity/stock, Jeremy and his siblings have decided to heed the advice of their investment bankers by offering bonds to investors. Not just any bonds, though. Convertible bonds. When the underwriters offer the bonds to investors, they will point out the slightly lower rate of return paid by the convertibles. Bonds offered

by corporations with the same A+ rating by Standard & Poor's would pay approximately 6% interest, while Frank & Emma's convertible debentures will offer only 5.15%. However, investors holding out for the higher 6% will get exactly that—six percent—and nothing more. What happens if the stocks of those companies go up? Nothing. The bondholders keep making their same old 6%. However, in exchange for taking a lower coupon/interest rate, the owners of Frank & Emma's convertible debentures can use their par value of \$1,000 to buy Frank & Emma's common stock at a set price of \$50 per share. In other words, they can convert the bonds into 20 shares of stock, whenever they feel like it ( $\$1,000 / \$50 = 20$  shares).

What if the stock is really worth \$65 at the time?

Excellent. Then they could buy 20 shares worth \$65 each, making their convertible bond worth at least \$1,300. Which doesn't happen for other bonds unless interest rates drop sharply, and that would make the Frank & Emma bonds more valuable, too.

So, this way the investors are creditors of the corporation who have to be paid 5.15% interest every year. But, unlike creditors who hold non-convertible bonds, Frank & Emma's bondholders will enjoy a big price increase if the common stock goes up. If the bonds are convertible into common at \$50 a share, each bond will "buy" 20 shares of stock, regardless of its price. So, the bonds should trade for whatever 20 shares of stock trade for. If the stock goes to \$60, 20 shares would be worth \$1,200. That would be the bond's "parity" price, where the number of shares the bondholder could buy is worth exactly what the bond is trading for. If the share price goes to \$70, the parity price of the bonds would be \$1,400, since 20 shares would now be worth \$1,400.

And so on.

So, the underwriters sell \$50 million worth of the bonds, Frank & Emma's employs the new capital to grow the business, and the big equity pie is not cut into more slices.

Yet.

If the convertible bondholders decide to convert, the same earnings pie will be cut into more (thinner) slices, which is called "dilution of equity." And that nasty side effect is why the current shareholders got to vote on this issuance before it happened. But, a majority did agree to approve it, and many of the existing investors snatched up some of the convertibles to boot. Why not? They already believe in the stock of the company—why not receive a 5.15% interest payment on a piece of paper worth whatever 20 shares of common stock are worth? If the stock stays flat, they collect \$51.50 every year. And if the stock goes up, they collect \$51.50 every year...as the market price of the bond skyrockets.

Such a deal!

While the market price for FREM common stock and FREM convertible bonds is

important to Jeremy, Jason, and Jennifer, the three have more important day-to-day concerns. So, let's let Frank & Emma's run their business a while, while we talk about serving your own customers, the investors kind enough to supply growing companies like FREM with capital.

Tomorrow morning you get a phone call from a Ms. Michelle Montoya. Michelle has been referred to you through a friend, who spoke highly of your recommendations and attention to detail. First thing you do is pull out a new account form for Ms. Montoya, filling it in with her contact information, employment situation, financial information, and investment goals. Once this is completed, you will sign it and get the signature of your supervisor. Michelle does not have to sign the new account form—she'll sign other documents—but this is just a profile you can use to make recommendations.

If Michelle is showing a high net worth and high tax bracket, you might interest her in tax-free municipal bonds issued by cities and states to fund roads, schools, and other necessary infrastructure improvements. Since the IRS generally does not tax the interest, these bonds offer lower nominal interest rates (coupon rates), but high tax-bracket people still come out ahead. If you're in the 30% bracket and receive a 10% nominal yield on a corporate bond, you only keep 70% of that, since the other 30% goes to the IRS. Therefore a 10% corporate bond would be equivalent to a 7% municipal bond, since either way the investor keeps \$70 a year. They might receive \$100 on the corporate bond, but \$30 is "shared" with Uncle Sam. The municipal bond pays \$70 and the investor keeps all of it.

Equivalent.

Michelle likes the idea of some tax-free income, so you and she agree to put 25% of her money into general obligation municipal securities issued by Chicago, Cleveland, and New York City. To get a slightly higher yield, you also use some of that 25% to purchase revenue bonds, backed only by the revenues on sports stadiums and toll roads, issued by the same municipalities. See, the general obligation bonds are a legal obligation of the issuer to pay bondholders with tax money. Revenue bonds are backed by the revenues generated from the facility built with the proceeds of the bonds. If the revenue bond builds a toll road, the bonds are backed by the tolls, for example. The state or city doesn't have to step in to pay back the bondholders, so revenue bonds are riskier than general obligation (GO) bonds. Therefore, they have a higher yield.

So 25% of Michelle's money is now invested in tax-free municipals.

Michelle is 41 years old and plans to work at least another 20 years. With such a long time horizon, you suggest she invest 50% of her capital in common stock like FREM. Michelle has never considered investing in FREM, but she has seen the pies

at the supermarket and was quite taken by a recent French Silk with Pecan creation that she picked up on a whim at Wal-Mart.

You and Michelle decide to invest in common stock for the growth she'll need between here and retirement. Some of the companies have relatively few shares outstanding, making them "small cap" stocks, like FREM. These "small cap stocks" have less established histories but also potentially brighter futures than "large cap" stocks, in general. Their P/E ratios are high, since much of the perceived value is built on speculation of future profits. But, if the future is as bright as investors hope, millionaires are created, just as they were when investors took a chance on companies such as Microsoft®, IBM®, Oracle®, and Starbucks®.

So, Michelle now has 25% in tax-free municipals and 50% in common stocks of companies as small as Frank & Emma's and as large as General Electric. That's diversification, or the "don't put all your eggs in one basket" principle of equity investment.

What about the other 25%?

Michelle puts 20% in the money market, which is a very boring holding place for cash. Money market securities are short-term debt obligations that will be paid back within 1 year (usually 270 days maximum) by high-quality issuers. Commercial paper, banker's acceptances, and jumbo CD's are the most common of these safe, short-term debt securities that will end up paying Michelle some interest without subjecting her principal to any significant risk.

And the final 5% Michelle decides to use speculating in equity options. Calls and puts, in other words. Although not your strong suit, you decide that 5% is not a lot to risk on these high-risk securities that derive their value from an underlying stock. Which is why options are called "derivatives."

Ever heard that you shouldn't try to time the market?

Well, options are all about trying to time the market.

If you think a stock is going up in a hurry, buy a call. If the stock goes up in a hurry, the value of the call skyrockets.

What if the stock drops in a hurry, instead?

The call expires worthless and you lose.

Magically, you can make just as much money when stocks do belly flops by buying puts. If you have a WorldCom August 70 put when WorldCom drops to \$10 a share, your put would be worth at least that \$60 difference. And you might have bought the thing for just \$5.

Or not.

It's all speculation, this world of options, but since Michelle has plenty of financial means and is only risking 5% of her capital on options, you decide not to talk her out of it. Instead, you send her the OCC disclosure document that lays out all the risks

and characteristics of options trading and get her to sign an options agreement. As soon as your firm's ROP (registered options principal) approves the account, Michelle can start trading.

Now that you have met your suitability requirements with Michelle by carefully recommending securities that make sense given her time horizon, risk tolerance, and financial means, you must continue to deal fairly and equitably with her. The NASD's Member Conduct Rules try to ensure that customers get a fair deal from their agents and broker-dealers, and if you violate these rules the NASD has a whole system in place to handle infractions, called Code of Procedure (COP). Just like on the street, somebody breaks the rules, call a COP. Under Code of Procedure, you could be fined, sanctioned, suspended, expelled, or even barred from doing business with any other firm.

Which is bad.

You can appeal these decisions, but who wants to end up there?

No one. So, to avoid going through this Code of Procedure, make sure you take the time to evaluate your customer's needs and make suitable recommendations. Don't "borrow" money from customer accounts, even when you fully intend to replace it after hitting it big at the racetrack. Don't use inside information to make recommendations, and always forward written complaints to your supervisor/principal at the firm. Above all, never deceive a client for financial gain. That's called fraud, and it can not only get you suspended, but also get you thrown in jail.

So, here's the big picture: in order for a company to expand, it needs capital. It accesses this capital in the "primary market," where investment bankers sell the company's securities to investors, keeping a "spread" for their trouble. The issuing corporation takes the capital and buys equipment, technology, or whatever it needs for expansion. Investors can now trade their stocks and bonds with other investors on the secondary market. Securities firms like yours might work both the primary market as underwriters, and the secondary market as broker-dealers or market makers. Whether offering new stock to a customer in the primary market or helping her trade in the secondary market, your firm's actions are regulated by their self-regulatory organization (SRO)—the NASD or NYSE—as well as the government body called the SEC. Regulators like truthfulness and full disclosure. That's why companies who access the public markets have to disclose all kinds of stuff before issuing their securities and then have to disclose all kinds of stuff through quarterly and annual reports filed with the SEC. This way investors have a fair shot at discerning a good investment opportunity from a poor one. There is always risk, but through full disclosure, truthfulness, and fair dealings, investors can manage this risk, using a highly regulated professional such as yourself to help choose suitable investments.

Now that you have a grasp of the big picture, let's start looking at all the details

your exam will expect you to know. But, no matter how detailed the material may get, please remember one thing:

This is not rocket science.

It isn't even close.

Just keep in mind the big ideas, and the little ones should fall in place.

Ready?

Sure you are.



## CHAPTER 1

# Equity Securities

Let's say you own a small, growing business. You're convinced you could turn it into a much bigger company if you only had \$100,000. Trouble is, you don't seem to have an extra hundred grand lying around.

However, you do have a friend who could provide some financing. You ask if you can borrow the money, but your friend has a better idea. Rather than borrow money from him, why not let him buy into your company as an equity investor? This way you print up a certificate and sell this piece of paper to him for \$100,000, which you will use to grow your business. He'll use the paper as evidence of his status as a proportional owner of your company. If the company does well, so do you and so does he. His piece of paper or "equity stake in the company" is worth more money, and maybe you feel so gosh-darned generous you start cutting him a check every three months and call it a "dividend," which is sort of a thank-you note you can actually cash at the bank. And everybody's happy.

That's basically the deal with equity securities. It's all about corporations selling paper to raise money. The folks who buy the paper don't get interest payments, because they aren't lenders. They're investors who think the company's chances for success are reasonably good. So good, in fact, that they choose to become part-owners of the company, owning exactly as much of the enterprise as their equity stake entitles them to. If they want a bigger stake, guess what they have to do—buy more equity.

## COMMON STOCK

The most basic form of this "equity" or "ownership" is known as common stock. Common stock is easily transferable, which means it can be sold without breaking a sweat. If investors get tired of looking at the stock certificates, they can sell them to other investors. That's how common stock works. You get tired of it, you sell it. You start to miss it, you buy it back.

A corporation hires a firm (usually a bank) to keep track of all of those transfers

of ownership, by the way, and guess what we call them? The transfer agent. The transfer agent keeps the ownership records of the company's stock. Equate the word "certificates" with "transfer agent." The transfer agent deals with issuing and validating certificates, recording all the name changes when investors sell their certificates, that sort of thing. Lost, stolen, mutilated...if there's a problem with the certificates, contact the transfer agent. They can validate them or re-issue them, as the case may be. And, usually for a fee. They're a business. They like fees.

Just to make sure the transfer agent does a good job, the corporation also hires another outside firm—typically a bank—and we refer to this bank as the registrar. The registrar audits/oversees the transfer agent, just to make sure there aren't more shares outstanding than the company is authorized to sell.

### AUTHORIZED, ISSUED, TREASURY, OUTSTANDING

Which brings us to four very important terms: authorized, issued, treasury, and outstanding. To answer most test questions successfully, all you really have to do is take the number of "issued" shares and subtract the number of "treasury" shares to get the number of shares "outstanding." But, if you want to grasp the concept of the four terms, you'll need to read the next few paragraphs.

Sorry about that.

Authorized shares represent the number of shares a company has authorized itself to issue to the public, a number disclosed in the corporate charter. Let's say a company is authorized to issue 1,000,000 shares of common stock, according to the charter. When they first sell shares to the public during their IPO, they probably won't issue all of them the first time out. The number they actually issue would be known, surprisingly enough, as issued shares. This corporation could issue 1 million, but they only issue 500,000. Therefore, there are 500,000 issued.

For various reasons, the corporation might decide to buy back some of those shares that are out in the secondary market. Why? Well, their stock has value. It could be used to acquire other companies. Or, they could send it to shareholders as a stock dividend. Whatever their reasons for repurchasing it, the important point is that corporations can buy stock and hold it in the treasury. We call this treasury stock. Since it's sort of locked up in a vault, it has no voting rights and pays no dividends. But, it can be used in many ways by the issuing corporation. For the test, you just have to take the number of shares actually issued and subtract the number repurchased and held in the treasury. If this corporation had issued 500,000 shares and then purchased 100,000 for the treasury, they would have how many shares left outstanding?

Exactly. 400,000 shares outstanding.

So, just take "issued" and subtract "treasury" to get the number of shares "outstanding."