Trefzger, FIL 240 & FIL 404
Assignment: Debt and Equity Financing and Form of Business Organization

Please read the following story that provides insights into debt (lenders) and equity (owners) financing. It will be the basis for a brief class discussion if we have a traditional face-to-face section or a brief discussion forum assignment if our class meets online. It is part of "big picture" Topic 1, so there is nothing specific to be concerned about from a testing standpoint. But do not dismiss the reading by saying "we saw these ideas in earlier classes." While other courses might discuss things like the limited liability that accompanies the corporate form of ownership vs. unlimited liability for owners of proprietorships and partnerships, it is very unlikely that earlier courses covered the important ideas of liquidity (being able to sell quickly without high costs or loss of value), agency problems (potential lost value from others' actions), capital structure (proportion of debt vs. equity financing), or ownership explained as the claim on what remains (residual) after all other parties with financial claims have been compensated.

Brief Review/Background

A proprietorship is a business owned by one person who has *unlimited liability*. If an individual or organization is owed money by a proprietorship and the proprietorship is unable to generate enough cash to make the payment by conducting normal business operations or selling off its assets, then the party who is owed can sue the proprietor personally for the shortfall, and the proprietor could be forced to sell his house and car, and empty his personal savings account – not merely forfeit the money he has provided to pay for assets of the business. Things work the same way in a general partnership, which is a business owned by multiple people, each of whom has unlimited liability. If a person or organization is owed money by a general partnership and that partnership is unable to generate enough cash to make the payment by conducting business or selling assets, then the party who is owed can sue the partners personally, and the partners could lose their homes, cars, and personal savings, and not just the money they have provided to pay for assets of the business. In fact being a general partner can be a bit scarier than being an owner in a proprietorship setting, because a partner can lose his or her life savings repaying parties who are owed money as a result of bad business decisions made by other partners (partners in a traditional general partnership have "joint and several" liability).

Finally, a corporation is a business owned by multiple people, called *common stockholders* (or shareholders), each of whose liability is limited to the amount of money he/she has provided for the corporation to buy assets with (the amount spent buying shares of the corporation's common stock). If a party is owed money by a corporation and the managers of the corporation cannot generate enough cash to make the payment through normal business activities or the sale of assets, the party owed has no right to sue the individual common stockholders personally for the shortfall. For example, if it becomes evident that a corporation's managers will be unable to pay various people or other companies $1,000,000 that the corporation owes to them, and a bankruptcy court orders that the corporation's assets (buildings, equipment, inventory) be sold to settle the debts, and the sale generates only $850,000, then the parties who are owed will be underpaid by $150,000, and they will just have to live with the disappointing loss. Of course in this situation the common stockholders will receive nothing at all from the sale of the assets that they helped pay for, so they lose everything they have invested in the corporation – but their homes, vehicles, and personal savings accounts are safe. (If there were such a selling off of all the corporation's assets, the common stockholders would get to keep any amounts received in excess of the $1,000,000, plus some interest, owed to the lenders.)

Two special points to note: first, a lender knows that the owners of a corporation cannot be held personally liable for the corporation's debts, so the lender must consider that risk when quoting the interest rate it will charge a corporation, and setting other terms of the loan. (An offsetting reduction in risk may be that a corporation often is a larger, more stable, more professionally managed business than a proprietorship or partnership. Or think of it from the opposite direction: a lender might be comfortable lending to a large, well established corporation without the ability to sue individual owners, but might willingly lend to a small startup firm only if the proprietor personally agreed to give up his personal belongings, if need be, to repay the unproven business's debts.) Second, ownership is nothing more (or less) than the claim on *residual* values, values that remain after all other parties with financial claims against the company – employees, material suppliers, sellers of services the firm uses, government taxing bodies, and lenders – have been paid. An owner might also play a management role, but need not. It would be fairly common for a proprietor to both own and manage the business, whereas the typical corporate common stockholder plays no management role, doing no more than putting up a small fraction of the money that the corporation's managers will need for buying assets to use in operating the business. [Companies' revenue streams rise and fall from year to year based on things like changes in the economy or the actions of competitors, yet most parties that provide something of value (labor, materials, money) want to receive pre-determined financial returns (pay per hour, price per pound, interest rate per dollar lent). The only way most providers of value can receive pre-determined returns, when the revenue stream varies from year to year, is for some other party to be willing to accept, as its financial return, whatever is left from the changing revenue stream after all pre-determined payments have been made. That party is the owner, or owner group.]

(In this introductory discussion we focus on a distinct proprietorship/partnership/corporation breakdown. In the real world smaller firms often are set up in such "hybrid" forms as limited liability company, limited partnership, Subchapter S corporation, or professional corporation to limit owners' liability while keeping income tax benefits that proprietorships and partnerships enjoy. Just always bear in mind that there is no "free lunch," no way to dodge the risk/return tradeoff. A lender's ability to tap the business owners' personal assets for repayment is a factor considered in setting the interest rate and other loan terms, or in deciding whether to lend at all.)

<u>Our Story</u>

Imagine that you want to start a mobile restaurant/food truck business. The cost of the truck, high quality cooking/refrigeration equipment, and initial inventory of food items, condiments, and paper/plastic supplies would be $100,000.

You go to your local bank and tell the loan officer who handles business loans your plan. She does some analysis and replies that the plan seems solid, and asks how much of the $100,000 asset cost you want to borrow. You reply: $100,000. The banker says: no, a lender is not going to lend a business all of the money for buying assets. Lenders want to be the money providers who face low levels of risk, and lender risks are reduced by the presence of a cushion of equity money from owners. After all, lenders receive financial returns before owners do, in fact lenders are compensated in full with *interest* payments each year before owners receive any financial returns (the owners get *net income*, the value that remains from the year's revenue stream after all other parties – workers, material suppliers, other vendors, taxing bodies, and the lenders – have been compensated). Lenders are willing to lend only if there are people willing to be owners; owners are the first to accept losses (if we look at things from a risk perspective) and the last to receive compensation (if we look at things from a financial return perspective).

The banker states that the bank will lend $50,000, but that you as the owner must contribute the other $50,000. The banker likely is thinking something like the following. In a worst-case scenario – say it turns out the business cannot attract enough customers/generate enough revenue to pay its bills, and therefore the truck and other items would have to be sold (liquidated) quickly under adverse conditions – the assets surely would end up selling for less than their original purchase cost. But they probably would not sell for less, on average, than 50¢ on the original purchase dollar, and the bank would be repaid in full as long as the sum received for the assets averaged at least 50¢ on the original purchase dollar, or $50,000 total. (The bank might well insist on having the truck and equipment pledged as collateral or security on the loan, so that its legal claim on their values could not be disputed.) If less than $50,000 were realized the lender would face losses (although if the business were organized as a proprietorship, with unlimited liability on the part of the owner, the lender could attempt to sue you for the shortfall, but you might not have much to sue for if all of your personal resources already were invested in the business). Anything received from the asset sale in excess of $50,000 (and some interest owed to the bank) would go to you, the owner; if the assets could be sold for $80,000 the lending bank would get back its $50,000-plus-interest, and you would keep the remainder or residual of roughly $30,000, suffering a loss of about $20,000 relative to the $50,000 you initially had contributed. (For simplicity we are ignoring the legal and administrative costs that would accompany closing down a business through a voluntary liquidation or a forced bankruptcy, but of course those costs would have to be met before the owner could claim the residual.)

[We use 50% here as a convenient but plausible representation of the portion of asset purchase costs the bank is willing to lend. In practice that proportion could range somewhat higher or lower, and in a more typical business situation there could be separate loans with varied terms for different assets: long-term loan for a high proportion of a building's cost, shorter-term loan for a lower proportion of the cost of a specialized piece of equipment that could be difficult to sell. Of course it can be possible to borrow 100% of the cost of something you buy; when you swipe your credit card the bank that issued the card is lending you 100% of the money to buy things like gasoline and movie tickets. But because those things have no resale value the bank is facing a lot of risk, and it charges a really high interest rate accordingly. And it can be difficult to get a credit card unless you have an established record of paying your bills on time.]

[Why is anyone willing to be an owner, given the risks faced? Here is why: say that shortly after you started the business an eccentric billionaire fell in love with the quaint food truck and offered to buy it on the spot for $250,000, and you agreed to sell. The business would be closed down, the bank would get back its $50,000 plus any interest owed to it, and you would keep the remainder of roughly $200,000. The distinguishing characteristic of ownership is the claim on what is left (from periodic revenues or liquidation proceeds) after all other parties who contributed value have been compensated.] So after being convinced by the banker's argument, you withdraw the $50,000 you have in a savings account and combine it with the $50,000 the bank will lend, buy the $100,000 of needed assets, and create Food Truck Proprietorship.

<u>Initial Success</u>

It turns out that the plan was a good one; hungry locals become such loyal customers of Food Truck Proprietorship that you want to expand and buy another truck. You approach the banker and say: I want to start a second truck operation; the assets will cost $100,000. The banker asks how much of that total you want to borrow and you reply: $100,000. The banker says: no, we've been through this before; our bank, as a prudent lender, will provide only half of the funding for a firm like yours to buy its assets – you have to contribute the other $50,000. You reply that the $50,000 you paid toward the first truck and supporting assets constituted your entire life savings;

you are tapped out. The banker says: we don't care who takes the owner's risky position (first to suffer losses, last to be paid), as long as someone does. She suggests: maybe you need a partner. So you ask your cousin George if he would like to contribute $50,000 and become your partner in a newly constituted Food Truck Partners. Maybe George will manage the second truck, or maybe he will be a "silent" partner who contributes only money and has no management role – again, the distinguishing feature of ownership (equity financing) is the claim on values that remain after all others' claims have been satisfied. An owner might or might not play an active role in running the business and making decisions. Owners who do perform management tasks should be compensated both for their labor and for their investment of money. But you could be the owner of a business and never step foot on the premises, hiring others to do all the work and make all the key decisions; you would merely get to keep any money remaining each year after all other parties with financial claims (including salaries to those workers) had been fully paid.

(Think of a corporate lawyer who inherits a corner store after his grocer parents die; he wants to keep the store operating for sentimental reasons but does not want to be distracted from his lucrative law practice stocking shelves and placing inventory orders. So he hires his parents' long-time employee Nancy to manage the store but, as the owner, he gets to keep values that remain from the revenue stream each year after all the costs of operating the business, including Nancy's salary, have been met. If he later decides he no longer wishes to own the business he will liquidate, selling the business as a whole or else the individual assets (whichever would be expected to generate more money); pay any money owed to workers, suppliers, taxing bodies, and lenders; and then keep any residual. Or think of a recent college graduate with a vision for a sports bar in her home town and the ability to run it, but no money. A banker who likes her business plan might agree to lend half of what is needed to pay for assets, and the grad could ask her uncle to provide the other half as the owner. The uncle need not know anything about the sports bar business; he would merely provide an equity cushion to protect the lender and would receive, as his financial return, what is left each year after all other financial claims – including a salary for the recent grad who manages the business – have been met.)

George accepts the offer and puts up $50,000, so the bank is willing to lend another $50,000, and the second food truck and related assets are purchased for $100,000 and placed into service. You manage the first truck operation and George oversees the second one. Then as the business thrives you continue to expand, bringing in a new partner with $50,000 of equity money and borrowing another $50,000 from the bank for every addition to the food truck fleet, and having each new partner manage the truck for which his/her $50,000 was the equity portion of the financing. At some point you run out of friends and relatives who have $50,000 and who you would trust to be partners (recall that in a general partnership each partner faces unlimited liability for financial obligations created by the actions of other partners – so you have to be very careful who your partners are!). You also recognize that the business has reached a size at which it makes sense to have centralized coordination under a professional management team. At that point you incorporate; all the partners turn in their Food Truck Partnership shares and are issued shares of common stock in the newly constituted corporation Food Trucks, Incorporated.

Going Big Time

In a corporation the owners – the providers of equity financing (first to face losses, last to be compensated) – are called common stockholders. (As suggested above, in a proprietorship the equity financing is provided by the sole owner, the proprietor; in a partnership the equity financing is provided by the owning partners.) The corporate form of organization can facilitate business growth. One important reason is that corporate common stockholders do not face unlimited liability – the amounts they can lose are limited to what they have invested in the

business itself (if the business fails and the assets are liquidated for less money than the lenders are owed, such that lenders are not fully repaid, those lenders cannot sue common stockholders for the shortfall, the way they could sue a proprietor or sue the partners in a standard general partnership). So whereas partners must be careful about who their fellow owners (partners) are, a corporation can grow to take advantage of economies of scale by getting equity money from a very broad base of people, and the common stockholders do not have to worry much about who their fellow owners (the other common stockholders) are. After all, key decisions are likely to be made by a team of professional business managers, and even if those managers make poor decisions the common stockholders' limited liability means that they can lose only what they already have invested in the business – not their residences, cars, or personal savings accounts. The downside to the corporate form of organization is that because the corporation is viewed as a legal entity distinct from its owners – an entity that can conduct business and own property in its own corporate name – it must pay income tax at the business entity level. So the corporation pays income tax each year on the amount by which revenues exceed all business expenses. Then when after-tax profits are distributed directly to the owning common stockholders (we call that paying *dividends*), those stockholders must pay a second level of income tax on earnings that already were taxed at the corporate level – *double taxation*.

A proprietorship or partnership, on the other hand, is not seen legally as an entity separate from its owners. Neither Food Truck Partnership nor Food Truck Proprietorship had to pay income tax on the amount by which the revenues exceeded total business expenses; all income was attributed to the proprietor or partners, and was taxed only once, at the individual level. Double income taxation might be thought of as the price a corporation's owners (common stockholders) pay for the benefit of limited liability. The income of a partnership or proprietorship is taxed only once, at the individual owner level. (Partnerships file *informational* income tax returns to inform the government of the total income that was earned and the proportion attributed or *allocated* to each partner.) But if a firm of one of those types is liquidated and the proceeds from selling the assets are not enough to fully pay parties that have provided valuable goods, services, or money, then the owning proprietor or partners can be sued and can lose all of their personal wealth, and not just forfeit the equity investment made in the business.

Liquidity and Diversification

Perhaps the biggest financial benefit owners derive from the corporate form of organization is the *liquidity* of the shares of common stock. Here liquidity means the ability to sell something quickly, and without having to pay excessive transaction fees or accept a price very far below an objective measure of the sold item's true value. Because a corporation tends to be large and thus in need of centralized management, and because the owners enjoy limited liability, the common stockholders generally do not care who their fellow common stockholders are. (What they may worry about is the capability and honesty of the management team that is hired to run the corporation as the common stockholders' employees, or *agents*. The possibility that company money will be used to buy expensive vehicles for top managers to drive, for example, when such an expenditure does not benefit the owners if the managers have little need to drive around in conducting business, is an example of an *agency problem*. Or think of the uncle who provides the equity money for the sports bar but does not understand the business; an agency problem he faces is that his niece might pay her friends to work at times when extra staffers are not needed. To help control the owner-manager agency problem the common stockholders elect a small committee of fellow stockholders called the *board of directors*, whose members usually are people with experience in business, law, specific technologies used, or the regulatory process, to hire the top managers, decide how much to compensate them, and oversee/evaluate their performance. But the directors also are paid, sometimes quite well for a part-time job, and there

can be cases in which critics claim that the directors come to feel more loyalty to the managers they oversee than to the owners who elected them and whose well-being they are supposed to be looking out for. Thus important *corporate governance* issues are how directors are elected and how top managers are paid.)

So ownership claims in a corporation can be split into small pieces that are easily sold to a wide audience. While you might not want to manage a mobile restaurant, you might be happy holding pieces of paper (shares of common stock) that give you a small portion of the owners' residual claim on a company that operates food trucks – especially since managers' poor business decisions could cost you no more than what you have paid for those shares; your personal assets are safe. In fact the breaking of ownership claims into small pieces allows an individual to spread his/her money across a diverse range of corporations, with only a small fraction of his/her personal wealth tied up in any single company's shares of common stock. Thus if you are a common stockholder (part-owner) of a corporation that goes bankrupt, you can lose only the money you spent buying the shares of common stock in that specific company. And that amount is likely to be only a small fraction of your overall wealth, because the availability of shares of stock (you can buy some pieces of paper that represent small residual claims on the nationwide food truck operation's productivity; no need to pay for half of a truck) allows you to be a small partial owner of each of a diverse group of companies involved in many sectors of the economy. (This mix of small partial ownership interests in a diverse group of corporations is called a *portfolio* of common stocks.) For just a few thousand dollars people have long been able to gain a tiny residual claim on each of a large, diverse group of corporations by purchasing shares in a *mutual fund* that combines small contributions from small investors to purchase multi-billion dollar diversified stock portfolios. But as advances in technology have brought the ability to purchase fractional shares of stock, and to buy/sell shares with zero transaction costs on platforms like *Robinhood*, it is possible now to hold small ownership stakes in numerous corporations with perhaps just a few hundred dollars.

<u>Quick Summary and Some Practical Lessons to Take Away</u>

Many who could provide money for business managers to buy assets with want assurance that they will get their money back, plus a fair return based on the risks they face. Managers provide that assurance by getting money to buy assets from two groups, and then using the cash generated by using (or selling) all those assets to pay first the group (lenders) that wants the assurances; the other group (owners) then receives what is left. A company can grow only if the managers can obtain owner money from multiple parties, and while owners are willing to take more risk than lenders are they do not want risks to be excessive. So multiple owners can be leery of the general partnership arrangement, in which there is no legal separation between the business and its partner owners, such that an owner might be required to sell personal assets to repay business debts even if another partner's bad decisions caused the problems (unlimited liability). But a corporation is an entity legally distinct from its common stockholder owners, so the owners' liability is limited to what they have invested in the business. Someone willing to take the owner's riskier position can further limit risk by devoting just a small amount of money to buying shares of common stock in each of many corporations with business activities in diverse economic sectors. The corporate form of ownership thereby lets company managers obtain money from a wide, willing ownership base toward becoming big enough to efficiently take advantage of economies of scale. But, because the corporation is an entity separate from its owners, each year the common stockholder owners must pay income tax on dividends paid to them from the income the separate corporation already paid income tax on (double taxation). •