Finance for Academics 4/20/2012

1 Introduction

Where will your income come from after you no longer teach, research or perform service? You may have heard about private firms reducing their pension benefits. From 1983 to 2007, corporate pensions fell from 62 percent of the workforce to 17 percent. Since then pensions have almost disappeared or been frozen. Of the 44 million workers with retirement accounts, fewer than half still accrue benefits. The pensions that have been cut are “defined-benefit” pensions. Classified employees at KU get such pensions based on a formula combining years employed and final-average salary.

Most academics have never had the luxury (yes, luxury) of a defined-benefit pension, where other people contribute to one’s retirement income. We and 65% of the private workforce have “defined-contribution” retirement benefits, which means that one relies almost entirely on one’s own savings and investment. Our retirement benefits rest on the foundation of the capital that is contributed throughout an employee’s working life. What many academics do not understand is that they must contribute capital themselves if they wish to secure a comfortable life and retirement. You will live on what you accumulate, albeit with a little help from the university and defined-benefit social security.

Professors have paved the way in this new world that private employees now face. But we still have a severe disadvantage: they make more money than we do, and they sometimes get more generous matching contributions from their employers. KU is pretty good to us. The university contributes 8.5% of our salary to TIAA-CREF or ING and requires us to contribute 5.5%. Thus 14% of our salary is invested each academic year and set to grow tax-deferred. The 5.5% we contribute actually lowers our tax obligation as well.

So how much is enough capital? More than you probably think. Several years ago Charles Schwab was asked precisely this question. His response: Given inflation, everyone should strive for a retirement income of at least $100,000. Therefore the minimum retirement capital level is $2 million in financial assets, i.e., not counting your house. Why $2,000,000? Because 5 percent of it equals $100,000. Pension actuaries say one has to have ten times one’s net salary for retirement, which is probably less than $2 million, but not appreciably so. William Bernstein in *The Investor’s Manifesto* says $2.5 million is perfectly safe; $1.67 million is fairly secure; with $1.25 million one is taking chances.

It is not easy to get 5%, but cheer up. We will show you how to increase your capital and defeat inflation. Here is immediate cheer: assume a household with one earner. Social security should provide about $24,000 and is indexed for inflation. So you only need $76,000 in income beyond

social security. A little proportional algebra shows how much you might need:

$$\frac{2000000}{100000} = \frac{x}{76000};$$

x = $1,520,000. If you are in a two-person household and the sum of social security for both is $44,000, then you need only assemble $1,120,000. Better already!

2 Principles

So it is up to us to make sure that we have enough capital to retire securely and comfortably. There are two ways to use retirement funds: (1) you may annuitize your money, i.e., TIAA-CREF or ING will issue you monthly checks for a defined term or for life (which lowers the monthly amount) or (2) we can live from the interest and dividends distributed by our capital. Annuities are irreversible decisions. Also, if you create an annuity and die, the firm keeps all the rest of your capital; it does not become part of your estate. TIAA-CREF is better about this than most insurance companies, but do not forget that it is a mutual insurance firm. That is why I prefer the second method, but it requires a higher base of capital.

I have three principles for investing: (1) maximize potential income; (2) minimize taxes; and (3) minimize fees. The latter two are especially important for academics because we generally enjoy lower levels of capital than those who work in private firms.

The principal danger you face is inflation. While social security adds money for inflation, annuities do not and bonds maintain a steady interest rate for their term. How much a danger is inflation? To understand this, it is time to introduce one of the main functions of finance: the rule of 72 (well, since we now all have calculators it should be the rule of 69.3).[1] Divide any rate of increase into 69.3 and the quotient is the time for doubling of the rate factor. Right now the *official* inflation rate is about 1.2%, so it would take 57.75 years for prices to double. From 1978 to 2000, the average was 4.7% which doubles prices in 14.74 years. With energy growing scarce, food costs rising, water availability decreasing, and all of our oil-based products based on oil prices, I would not be sanguine about inflation. In 1966, the top 1% income level in the U.S. started at $56,700. Now the median U.S. income is $50,000. Any retirement finance strategy must have a way to overcome the inflation danger. Fixed income investments are vulnerable to inflation and should be shunned as a holistic approach.

3 Evaluating your Status

Here is a table drawn from a random sample of 3,941 households of various ages on financial data. The mean is from the sample, while the goals represent what you should have in order to generate 80% of your current income in retirement. At present the average retirement account balance for 55 to 64 year-olds is $140,672. That is insufficient.

[1]The mathematical derivation of the rule stems from ln 2, which is approximately 0.693. 72 was chosen for mental calculation because it has many factors. Also, the rule assumes continuous compounding, not quarterly. Similarly, the rule of 116 to compute tripling is based on ln 3, or about 1.098612 which when multiplied by 100 is 109.8612. Use 110.

Table 1: Mean Household Data and Targets for 80% of Current Income in Retirement

Savings Rate Mean	Savings Rate Target	Savings to Income Ratio Mean	Savings to Income Target	Mortgage to Income Ratio Mean	Mortgage to Income Ratio Target	Age
9.5%	12%	1.2	2.4	1.84	1.8	40-44
11.1	15	1.63	3.7	1.56	1.7	45-49
12.4	15	2.43	5.2	1.38	1.5	50-54
10.9	15	3.58	7.1	1.35	1.2	55-59
14.96	15	5.31	9.4	1.12	0.7	60+

4 Action Steps

If we seek to maximize potential income, minimize taxes and fees, and generate sufficient capital for retirement, what can we do? There are many choices, but here are four of the most sensible: (1) open a supplemental account with TIAA-CREF or ING; (2) invest in index market mutual funds at Vanguard or through exchange-traded funds at a discount brokerage; and (3) open a Roth IRA at Vanguard with index funds or a discount brokerage with after tax funds with dividend-growth stocks (which act as a hedge against inflation) and with closed-end bond funds; and (4) reinvest your dividends. $100 invested in the S&P 500 on December 31, 1929 has now grown on price alone to $4,989; but if one reinvested the dividends, one would have $117,774, 95.8% of the total return. Dividends were 84% of total return from 2002 to 2010. All of these actions invoke another concept of finance: dollar-cost averaging. The idea is that if you contribute the same amount per month or quarter, then you buy more shares when prices are low and fewer shares when prices go up. Over time, this works well in all contexts except a secular rise, which is rare.

Let us take the first three choices in step. First, opening a supplemental account is almost mandatory if you seek the easiest way to increase your capital while eluding and lowering taxes. Human Resources can arrange this for you. The only down side is eventually turning this capital into income, but we will present more about this problem below. Roth 403(b)s are available, invest in them: they make retirement income totally tax free. You will not get the tax deduction you had, but it is worth it for tax-free retirment income.

Second, invest in index funds. It is well-known in finance that actively managed stock mutual funds do not beat market averages (e.g., the Dow Jones Industrial Average or the S&P 500 average) over time. Mutual funds get fees based on their total assets, not their performance. In a typical year, 75% of managed mutual funds fail to do as well as the S&P 500 average. If the same 25% always did better, we would buy those, but the 25% that do better shift every year. Five-star Morningstar rated funds do much worse once they get the stellar rating. One is much better off buying mutual funds that match the market (e.g., Vanguard's total stock market fund or the CREF bond fund or Vanguard total bond fund) than trying to score gains with actively managed funds. The problem here as well is how to turn these funds into income at retirement. It is a difficult problem unless it is a bond fund, which is why I recommend the third choice.

A Roth IRA provides a great opportunity to build retirement capital without taxation. It is funded by after-tax capital and does not afford a current-year tax deduction for that reason. But this is more than overcome by the fact that neither the capital nor the gains can ever be taxed. In

other words, anything you put in a Roth IRA during your working life grows tax-free and comes to you tax-free in retirement. There is another reason Roth IRAs are good: there is no minimum distribution requirement. Traditional IRAs force people to take minimum distributions beginning at age 70.5. Not so Roth IRAs. This is why I have chosen paths one and three for the most part (we also own index funds). Any individual is eligible for a Roth IRA with less than $105,000/year in adjusted gross income; couples can invest in two Roth IRAs as long as joint income is less than $167,000. There are reduced benefits at higher income levels, but the reductions are large. So it is best to maintain your adjusted gross income below the threshold levels. From 2008 any employer-sponsored retirement program can be rolled over to a Roth IRA, but one would have to pay taxes at the rollover, so this is best at low levels of capital and younger ages. The 2011 limit for a Roth IRA contribution is $5,000, or about $416.66 per month. Those over 50 can contribute $6,000. Only 19% of Americans have Roth IRAs, making the Congress happy. More should take advantage of this opportunity. Knowledge is power. Don't be afraid to use it.

But what to put in the Roth IRA? If our objective is retirement income, our danger is inflation, and our advantage is no taxation, then dividend-growth stocks and investment-grade bond funds optimize retirement capital. In the next section, we will show you how to evaluate dividend growth and how it can help you to secure an advantage over inflation. For retirement income, I prefer this to index funds.

5 Compounding and dividend growth

Albert Einstein called compounding the "eighth wonder of the world." The more years you can use it, the better off you will be. Young people need to expend much less financial effort than do their superannuated colleagues.[2] Pay special attention to "payout ratios", i.e., the ratio of the dividend to current earnings. Try for firms with payouts 50% or under their earnings. We have prepared a section below that includes such equities.

Before we see the results of compounding, let us show you how to compute the annual rate of growth of dividends. Go to http://finance.yahoo.com and type in any of the trade symbols below. Click on "historical prices", then on "dividends only" and finally on "get prices". Go down and get the dividend in 2006 and then the dividend in 2011. We'll call the 2006 dividend d_0 and the 2011 dividend d_f. Then the following formula will allow you to compute the annual rate of growth (which is different, more conservative and accurate than the percentage change divided by years):

annual dividend-growth rate = $\left(\frac{d_f}{d_0}\right)^{1/n}$-1, where n = the number of years elapsed. Let us do some examples:

Procter & Gamble (PG):

$(0.565/0.31)^{0.2}$-1 = 1.1276 -1 = .1276, or 12.76% growth per year; by the rule of 69.3, the dividend doubles in 5.431 years.

Johnson and Johnson (JNJ):

$(0.57/0.375)^{0.2}$-1 = 1.0873 - 1 = 0.0873, or 8.73% growth per year; dividend doubles in 7.94 years.

Raven Industries (RAVN):

[2] To replace $1,000 in income requires saving $4,500 at 45; $7,700 at 50 and $37,200 at age 60.

$(0.21/0.09)^{0.2} - 1$= 1.1847 = 0.1847 - 1, or 18.47% growth per year; dividend doubles every 3.752 years.

Marathon Oil (MRO):

$(0.24/0.14)^{0.2}$-1 = 1.1138 -1 = 0.1138, or 11.38% growth per year; dividend doubles every 6.1 years.

Now we introduce another of the fundamental concepts in finance, the Gordon equation, or the dividend discount model (see "Gordon model" in Wikipedia).[3] It is powerfully simple: market value = dividend yield + annual dividend growth rate.

My rule of thumb is never to buy a stock that does not have at least a score of 10 on a Gordon equation. Let us look how the companies above fare with this analysis:

MRO = 3.2 + 11.38 = 14.5

PG = 3.3 + 11.11 = 14.41

JNJ = 2.5 + .8.73 = 11.23

RAVN = 2.1 + 14.78 = 16.88

6 Low Payout ratio dividend growth firms

Now let's look at some other dividend-growth choices displayed in a series of tables based on total market capitalization, i.e., company size. We determined these values by multiplying the number of shares times the price per share. We include only corporations with a payout ratio (dividends per share divided by earnings per share) of less than or equal to 50 percent. Firms in this category have a greater opportunity to raise their dividends than do corporations that already pay out almost all of their earnings. We also add the dividend schedule for you to see. Most firms pay quarterly on one of the following three schedules: **January**, April, July, October; or **February**, May, August, November; or **March**, June, September, December. As equity accumulates, one could spread income throughout the year simply by diversifying around dividend schedules.

Two exchange-traded funds (ETFs) stress dividend growth: (1) Vanguard Dividend Appreciation (VIG). This fund yields only 2.16 percent and its payouts fluctuate a good deal. It owns 200 firms that do have a history of dividend raises. (2) Wisdom Tree Global Equity Income (DEW); DEW yields 4.09 percent, but has highly variable dividends. Exchange-traded funds are transparent on a daily basis. i.e., one can view their holdings on any given day. Now, however, BlackRock has asked the Securities and Exchange Commission for permission to reveal holdings only every three months, the same schedule as mutual funds. One wonders why BlackRock prefers to shield its holdings. This would not be a good change.

We proceed from the largest to the smallest firms. Larger firms tend to be more stable, but do not grow as fast as smaller companies. Therefore, when designing a long-term portfolio, try not to purchase stocks lower than middle capitalization. Table 2 shows the largest firms. As you can see,

[3] Wall Street's favorite model is the capital asset pricing model (CAPM), which requires one to estimate future cash flows and growth. The Gordon model is based on future cash flows by design. CAPM stresses a parameter called beta, a measure of the risk of a firm. The whole stock market has a beta of 1. CAPM seeks a high beta, because that leads to higher growth. But risk also implies a greater chance of loss. Most dividend growth stocks have a beta under 1. You can find beta in Yahoo! finance if you click on "key statistics". It is the upper right number. If you are interested in CAPM, an Internet search will tell you all that you might want to know, except how to estimate the values in the model. See Emanuel Derman, *Models Behaving Badly,* 2012.

many increase their dividends at a high percentage rate. Note that Visa has paid dividends only for three years.

Table 2: Dividend-Growth Firms over $50 Billion

Firm	Symbol	Activity	Dividend-Growth Rate	Payout Ratio	Dividend Pa
Bank of Nova Scotia	BNS	banking	7.75%	44%	January
Coca-Cola	KO	beverages	8.68%	34%	January
Disney	DIS	entertainment	14.12%	16%	Annual
IBM	IBM	computers	20.11%	22%	March
McDonald’s	MCD	food	19.53%	48%	March
Occidental Petroleum	OXY	oil	20.69%	24%	January
Siemens	SI	electronics	18.87%	34%	February
Toronto Dominion	TD	banking	8.75%	34%	January
Wal-Mart	WMT	retail	16.79%	28%	March
Visa	V	credit	53.47%	10%	March
Yum! Brands	YUM	food	37.7%	38%	February

Table 3 displays firms that are still large, but only have market capitalizations between $25 billion and $50 billion.

Table 3: Dividend-Growth Firms from $25 Billion $49 Billion

Firm	Symbol	Activity	Dividend-Growth Rate	Payout Ratio	Dividend Paid
Colgate Palmolive	CL	household products	12.63%	45%	February
CVS Caremark	CVS	health care	26.23	17%	January
Deere	DE	farm machines	16.02%	23%	January
General Mills	GIS	food	11.75%	44%	January
Honeywell	HON	electronics	7.97%	37%	March
Lockheed Martin	LMT	defense	16.47%	36%	March
Medtronic	MDT	health care	17.18%	32%	January
Nike	NKE	athletic clothes	14.25%	26%	January
Norfolk Southern	NSC	railroad	16.4%	30%	March
Target	TGT	retail	20.11%	24%	March
Texas Instruments	TXN	electronics	34.08%	20%	February
Union Pacific	UNP	railroad	31.95%	26%	March
Sysco	SYY	food delivery	9.69%	50%	January
Walgreens	WAG	retail	23.6%	28%	March

We continue with somewhat smaller, but still large firms with between $10 billion and $25 billion. More of these appear in the dividend-growth sector.

Table 4: Dividend-Growth Firms from $10 Billion to $24 Billion

Firm	**Symbol**	**Activity**	**Dividend-Growth Rate**	**Payout Ratio**	**Dividend Paid**
Archer-Daniels-Midland	ADM	food	9.86%	20%	March
Becton Dickinson	BDX	medical	13.78%	27%	March
Campbell Soup	CPB	food	7.71%	47%	January
CME Group	CME	finance	17.32%	29%	February
CSX Railroad	CSX	railroad	29.2%	19%	March
Eaton	ETN	aviation	11.76%	37%	February
Ecolab	ECL	cleaning	11.84%	31%	January
Edison International	EIX	utility	5.06%	40%	January
Grainger	GWW	maintenance	17.88%	27%	February
Kellogg	K	food	9.12%	48%	March
Kroger	KR	retail	10.07%	21%	February
McCormick	MKC	spices	9.24%	39%	January
Murphy Oil	MUR	oil	12.89%	22%	March
Nordstrom	JWN	retail	16.98%	28%	March
Parker Hanniflan	PH	fluid systems	16.38%	20%	March
Raytheon	RTN	defense	12.37%	28%	January
Williams	WMB	natural gas	22.67%	39%	March
Wisconsin Energy	WEC	utility	17.72%	42%	February

Next in line are the smallest of the large capitalization companies. Table 5 shows firms with between $5 billion and $10 billion in market capitalization.

Table 5: Dividend-Growth Firms with from $5 Billion to $9 Billion

Firm	Symbol	Activity	Dividend-Growth Rate	Payout Ratio	Dividend Paid
Darden	DRI	food	16.54%	41%	February
Dr. Pepper Snapple	DPS	beverages	46.06%	45%	January
Expediters Intl.	EXPD	shipping	17.84%	26%	March
ITT	ITT	telephone	17.84%	26%	March
Hormel	HRL	food	12.83%	28%	February
JB Hunt	JBHT	trucking	10.82%	28%	February
L3 Communications	LLL	communication	19.07%	20%	March
Perrigo	PRGO	generic drugs	9.24%	8%	March
Ross Stores	ROST	retail	29.67%	15%	March
Seagate Technology	STX	disk drives	17.61%	33%	February
Sherwin Williams	SHW	paint	7.86%	32%	March

We now move down in size to the MidCap group. These firms have between $1 billion and $4 billion in market capitalization.

Table 6: Dividend-Growth Mid-Capitalization Stocks (under $5 billion)

Firm	Symbol	Activity	Dividend-Growth Rate	Payout Ratio	Dividend Paid
Amtrust	AFSI	finance	35.1%	11%	January
Atargroup	ATR	personal care	17.08%	27%	February
Buckle	BKE	retail	21.5%	26.76%	January
Broad Ridge	BR	finance	27.79%	45%	March
Chemed	CHE	hospice/drains	21.67%	15%	March
Corn Products	CPO	corn syrup	14.87%	14%	January
Donaldson	DCI	filters	10.76%	19%	March
Hasbro	HAS	toys	20.11%	40%	February
Holly Frontier	HFC	oil	17.08%	9%	January
Prosperity Bank	PRSP	banking	11.84%	24%	January
Raven	RAVN	manufacturing	14.87%	26.82%	January
Rollins	ROL	pest control	20.11%	40%	March
Reliance Steel	RS	metals	14.87%	12%	March
Thor	THO	RVs	16.47%	21%	January
Toro	TTC	lawn care	17.32%	21%	January
UMB	UMBF	banking	8.45%	31%	January
Valmont	VMI	irrigation	16.19%	14%	January

As corporation size reduces, risk rises. We profile several small capitalization firms, but these are not usually high income generators, and again, risk is clearly higher. These firms, with under

$1 billion in market capitalization, have been hit hard since 2007. However, we found three to consider in Table 4.6.

Table 7: Small Capitalization Dividend-Growth Stocks (under $1 Billion)

Firm	Symbol	Activity	Dividend-Growth Rate	Payout Ratio	Dividend Paid
Badger Meter	BMI	meters	14.87%	32%	March
First Financial	FFBC	banking	11.03%	41%	January
Weyco Group	WEYS	shoes	12.2%	49%	March

As we have stressed, always look for companies that have low payout ratios, i.e., their dividend payments are a low proportion of their earnings. These firms have more flexibility in raising dividends.

If you prefer additional choices, go to *http://fniviz.com*, where you can request filtered classes of stocks. Alas, there is no dividend-growth filter. There are many books that deal with dividend investing and somewhat fewer cover dividend growth (for example, [**?**]; [**?**]; [**?**]). Another good site for dividends is http://www.dividendchannel.com. The original book on dividend-growth investing by Roxann Klugman makes interesting reading ([**?**]).

If you want more choices, go to http://fniviz.com, where you can do all sorts of stock screens. Alas, there is no dividend-growth choice.

7 The Power of Compounding

As you can see, many firms raise payouts at a rate that easily exceeds the inflation rate. This provides a hedge against inflation.

Now let us look at compounding at work with these rates of growth (assuming reinvested dividends):

100 shares of Johnson and Johnson provides $216 per year. What will it be in 20 years, 25 years or 30 years? Let's find out!

JNJ future income$_{2031}$= $216 \times (1+0.0873)^{20}$= $1,151.97
JNJ future income $_{2036}$= $216 \times (1+.0873)^{25}$= $1,750.61
JNJ future income $_{2041}$= $216 \times (1+0.0873)^{30}$= $2,660.33

Johnson & Johnson raised its dividend 20 cents in 2011. Let's do Raven Industries to show that a higher rate of dividend growth matters:

300 shares of Raven Industries now pays $216 per year.

RAVN future income$_{2031}$= $216 \times (1+.1847)^{20}$= $6,407
RAVN future income$_{2036}$= $216 \times (1+.1847)^{25}$= $14,950.77
RAVN future income $_{2041}$ = $216 \times (1+.1847)^{30}$= $34,890

Now a further example, Walgreen's that raises dividends 26.99% per year. 200 shares pay $140 currently.

WAG future income $_{2031}$ $140\ x\ (1 + .2699)^{20}$= $16,654

WAG future income $_{2036}$ 140 x $(1+ .2699)^{25}$= \$55,000

WAG future income $_{2041}$ 140 x $(1+ .2699)^{30}$= \$181,641

Now you see the power of compounding. If you put an average of \$5,500 in a Roth IRA for 25 years in a stock with a dividend growth of 24.45%, you would have \$2,193,843 at the end of the twenty-fifth year. If you put it in a stock like Yum Brands and continues to raise its dividend over 30% per year, you would have over \$2.5 million in a Roth IRA alone. That makes the \$2 million number not quite as scary. All of this assumes that you reinvest dividends. Note also that as firms generate higher dividends, it is difficult to maintain the same percentage growth. McDonald's in 2011 raised its dividend 36 cents to \$2.80 per share. But this was only a 14.98% raise. As this process continues, it amounts to a lower percentage over time. So the best advice is to acquire firms that raise their dividends regularly, at least 4 but preferably 8 cents per year to defeat inflation. The main objective you should have is to increase your level of capital. Capital grows proportionally to the amount you have, so get a lot.

How do you find firms like these that raise dividends? One open source is the Standard & Poor's website. Look there for the S&P 500 "dividend aristocrats". These are firms that have raised dividends consistently for 25 years. There are only 39 of them; the crash reduced their ranks by almost two-thirds. You can find a list of dividend champions at http://dripinvesting.org/Tools/Tools.asp. Another interesting website is: http://dynamicdividend.com/dividend-dynamics/. There are also three other ways: (1) easy: ask me or Al Cigler; (2) harder: read the dividend growth sections of the *Wall Street Journal* or *Barron's*; or (3) more bother and more expensive: get the spring edition of Mergent's *Dividend Achievers*, which lists all firms that have raised dividends for the past 10 years, also providing the rate of increase and a great deal more information. I get this if anyone would like to see it.

Jeremy Siegel, well-known finance professor at the Wharton School (University of Pennsylvania) claims that no measure of corporate earnings satisfies him. In order to know if a firm is making money, look for a dividend. If a firm raises dividends over time, that shows that it is making even more profit.

How do we know that these firms will continue to raise their dividends? We do not, but some firms have made it a habit. A nice aspect of a Roth IRA is that you can sell a stock that does not raise its payout without tax consequences and buy a better substitute in its place with no tax considertions. In fact, a Roth IRA is a great place to stick egregiously taxable equities. For example, Real Estate Investment Trusts (REITs) do not qualify for the the 15% dividend tax. Many are challenged now, but in a Roth IRA they can be great. Bond funds are also good, because their interest does not enjoy the 15% tax rate that dividends receive.

There is another aspect of dividend-growth investing that is calming. When the stock market crashes you do not see Al Cigler or me morose. Why? Because we get more reinvestment shares at a cheaper price and thus more dividends in the future.

8 Fixed-Income Alternatives and Asset Allocation

8.1 General Choices

Table 8: General Closed-End Bond Funds

Fund	Symbol	Pays:
Alliance Bernstein Income	ACG	monthly
Alpine Global Premier Properties	AWF	monthly
Alpine Global Dynamic Dividend Fund	AGD	monthly
BlackRock Credit Allocation	BTZ	monthly
First Trust Fidac Mortgage	FMY	monthly
First Trust/Aberdeen Global Opportunity	FAM	monthly
Helios Strategic Income	HSA	monthly
Helios Strategic Mortgage	HSM	monthly
John Hancock Income Securities	JHS	quarterly
John Hancock Investors' Trust	JHI	quarterly
PCM Fund	PCM	monthly
Pimco Corporate Opportunity	PTY	monthly
Pimco Corporate Income	PCN	monthly
Pimco Income Opportunity	PKO	monthly
Wells Fargo Advantage Multi-Sector	ERC	monthly
Wells Fargo Utilities & High Income	ERH	monthly
Western Asset Premier Bond Fund	WEA	monthly
Western Asset Global Partners Income	GDF	monthly
Western Asset Worldwide Income	SBW	monthly

The recent market turmoil following the worst ten years in stock market history has led me to invest increasingly in fixed income instead of equities. There are many choices here, including the CREF bond fund (not the Bond Plus Fund). The CREF bond fund has a -0.29% yield year to date. Now that TIAA-CREF members have institutional fees in the supplemental account, the best bond fund is the TIAA-CREF bond index fund (TBILX). Its yield is 2.14%. Vanguard's total bond market mutual fund and exchange-traded fund (ETF), yield 3.12%. These yields are why I recommend closed-end funds (meaning they can be bought like stocks), especially two that buy investment-grade corporate bonds: (1) Pimco Corporate and Opportunity (PTY) and (2) Pimco Corporate and Income (PCN). They currently yield 7.8% and 8% respectively; the PCM Fund (PCM) mostly buys government mortgage bonds and yields 8.79%. There is also global bond fund, Pimco Income Opportunity Fund (PKO) (yields 8.64%). Pimco is the acronym for Pacific Investment Management, Inc., which is owned by Allianz (AZ), a German financial firm. Michael Lewis calls Pimco the stage after putting money in a mattress. It is safe and conservative.

Bonds typically pay interest every six months. I prefer bond funds because they create "ladders" of bonds that generate payment every month. Income from these vehicles is interest and does not enjoy the tax advantages now provided to dividends, unless, of course, they are in a Roth IRA. Then you would pay nothing. There is a principle in finance that stresses more fixed income as one

ages. The idea is that there is less chance of a loss in bonds. Be careful: the most important thing to check is the dividend versus revenue per share in “key statistics” on Yahoo! finance. If you find a fund whose revenue per share is under the dividend, stay away.

There is another kind of fund that combines international stocks and investment-grade bonds. Again it is a Pimco fund, Global Stocksplus & Income Fund (PGP). It uses global stock index derivatives (not in the mathematical sense) and limited-term investment-grade debt to provide income to shareholders. Currently it yields 10.86%. A similar fund is the Madison Strategic Sector Fund (MSP) has dividend stocks and call (buy) options and pays 9%. Still another is the Gabelli Global Gold, Natural Resources & Income Trust (GGN). Two business development funds are interesting: (1) Fifth Street Finance (FSC) and (2) Gladstone Investment Corporation (GAIN).

8.2 Closed-end Municipal Bond Funds

Table 9: State-Level Closed-End Municipal Bonds

Fund	Symbol	Pays
Pimco California Municipal Income II	PCK	monthly
Nuveen Connecticut Premium Income Municipal Fund	NTC	monthly
Nuveen Massachusetts Premium Income Municipal Fund	NMT	monthly
BlackRock New Jersey Municipal Bond Trust	BLJ	monthly
Pimco New York Municipal Income	PNI	monthly
Eaton Vance Pennsylvania Municipal Bond Fund	EIP	monthly

There are several closed-end municipal bond funds available. See Table 9. These funds are federally tax-free. If one retires in Kansas with TIAA-CREF or ING income state tax-free, then federally tax-free bonds balance that income with funds that are taxable only at the state level. To the extent that the fund holds Kansas, Puerto Rico, Mariana Islands or Guam municipal bonds, you will even get a state tax break. Vanguard’s High-Yield Tax Exempt Fund has only 27% below investment-grade bonds.

There are two things to consider with bond funds. One is that right now interest rates are low, so bond prices are high. As interest rates rise, bond prices decline in lockstep. So do not load up on bonds right now. You will be able to get them cheaper later. The other matter is that they pay monthly, so they compound monthly. This actually does not make much difference. Here is a simple example: Ms. Compounding has $2,000 plus transaction costs. She buys 100 shares of a bond fund for $10 per share and buys a stock that pays quarterly for $10 as well. Ms. Compounding reinvests her 7% yield dividends. After five years the bond fund has $1,417.63, while the stock (which has remained at $10) is worth $1,414.78. There is less than a $3 difference. So at low levels of capital, compounding periods do not much matter.

8.3 Dipping Cautiously into High Yield Bond Funds

With interest rates low generally and general bond yields low, there is increasing interest in high yield bonds, i.e., rated below BBB. One must be careful. So here are 4 funds that generate more

income per share than their dividend: (1) Dreyfus High Yield Strategies (DHF) yields 11.62%; (2) Invesco Van Kampen High Income (VLT) yields 8.4%, but has the best revenue differential; (3) Wells Fargo Advantage Income Opportunities Fund (EAD) yields 10.7%; and (4) Western Asset High Income Fund (HIX) yields 11.1%. If we do not have another crash, these should work out well. But a crash would be hard on these funds.

8.4 Preferred Stock and Convertible Closed-End Funds

Preferred stocks maintain a constant dividend, albeit a high one. There are good closed-end funds that contain preferred stocks. Flahety & Crummine/Claymore (FFC) pays a yield of 8.9%. John Hancock Preferred Income II (HPF) yields 8.49%. Finally, John Hancock Preferred Income (HPI) yields 8.28%. There is also an ETF, iShares Preferred Stock (PFF) which yields 7.28%.

There is one covertible bond fund that I find interesting. It is the Advent Claymore Convertible Securities Income Fund (AVK). Convertible bonds can be converted to stock at a specified strike price.

8.5 Make a Date with Ginnie Mae

Ginnie Mae, unlike her unruly and naughty siblings Fannie Mae and Freddie Mac, has behaved well. Freddie and Fannie went to the market and tried to make a profit. Now they are back home with their parent, the federal government. Ginnie Mae never left. Ginnie's real name is the Government National Mortgage Association (GNMA). She has two salutary qualities: (1) her interest is guaranteed by the federal government; and (2) she pays higher interest than do Treasury bonds. GNMA packages FHA mortgages into $25,000 bundles and sells them on the market. But the best way to invest these mortgage bonds is through a mutual fund. The highest yield is at the fund with the lowest fees, Vanguard GMNA. What is the risk? That people will prepay their mortgage, but the fund handles that problem; your interest is guaranteed.

8.6 Inflation-Protected Bonds

For many years now there have been Treasury Inflation-Protected Securities (TIPS) which are bonds that have an underlying interest rate and an added rate for the consumer price inflation index (CPI). I have two problems with these bonds. First, the underlying interest rate has been zero or near zero for the past two years. Second, the CPI, according to most economists, understates inflation. I would rather invest in bonds that pay 8-10% and stocks that raise dividends more than the real inflation rate.

8.7 Modern Portfolio Theory or Asset Allocation

Harry Markowitz won a Nobel prize for his modern portfolio theory, which says that one should take a derivative (tangent slope to the function) of the efficient frontier[4] curve for asset allocation. This is complicated, especially when it is based on predicted data. Usually the derivative is taken near the apex of the efficient frontier curve, so it has a low slope. Then one moves left for less risk

[4] An internet search will tell you what this means

or right for more risk in a portfolio. Not even Harry Markowitz actually uses it. Most applications are similar to the one I present in Table 10 from data provided by Roger Ibbotson:

Table 10: Portfolio Composition, Simplified (5-year returns)

Portfolio Composition	Average	Best	Worst
100% stocks	10%	29%	-12%
90% stocks, 10% bonds	9%	27%	-10%
70% stocks, 30% bonds	9%	23%	-6%
50% stocks, 50% bonds	8%	21%	-3%
30% stocks, 70% bonds	7%	21%	0%

Most pension funds use an asset allocation formula of 60% stocks and 40% bonds, a portfolio allocation that has only one-half the standard deviation of a 100% stock portfolio. If you want to analyze your portfolio allocation, go to Morningstar.com and use its "Instant X-Ray" feature. This is for mutual funds. For stocks, go to trowprice.com. Table 11 shows the results of portfolio allocations in the recent crash. In this case the bond-dominant portfolio won, but that is not always the case, especially under inflation.

Table 11: Asset Allocation and Results of the Credit Crunch Era (from Morningstar)

U.S. stocks	Foreign stocks	Bonds	Cash	Results (9/1/08-3/9/09
50%	30%	15%	5%	-38%
45%	25%	20%	10%	-33%
25%	25%	25%	25%	-24%
23%	17%	40%	20%	-18%

The credit crunch has caused asset allocation to be reconsidered. FinaMetrica has created the level of stocks (versus bonds) one should have in a portfolio given the level of one's risk tolerance. Here is a table with their results.

Table 12: Level of Stocks as a Percentage of a Portfolio given Risk Tolerance

Heavily Risk-Averse	Moderately Risk-Averse	Average Investor	Moderately Risk-Tolerant	Heavily Risk-Tolerant
30	42	56	70	83

It may surprise some that a heavily risk-averse investor should have 30% in equities. Once again, bonds are fixed income instruments. They do not do well when there is inflation. Stocks do, but at a far higher level of risk. There are choices that conservative investors can use. For example, Vanguard Wellesley Income (VWINX) has 60% of its assets in high-quality bonds and the rest in dividend-paying stocks. This fund lost just 10% in 2008 and has had only three down years in the last 15. You won't get rich quickly with such a choice, but you are unlikely to get poor. For the really risk-averse, there is the Vanguard Short-Term Federal fund, which buys Treasury bills, so it yields just 1.5%. But it does not lose money.

8.8 Unfixed Income: Slow Dividend Growth of Utilities

Seeking Alpha recently presented a list of utilities that had increased dividends for decades (Table 13). These firms do not raise dividends rapidly, but they are reliable. I own shares of Integrys Energy in my Roth IRA. It is the product of the 2007 merger of Chicago's People's Gas and Wisconsin Public Service. Black Hills provides natural gas in Lawrence. There are 2 ETFs that hold utilities (XLU) and energy firms (XLE).

Table 13: Utilities that Increase Dividends Every Year

Firm	Symbol	Years of Growth	Dividend	Yield (%)	Dividend Growth per Year (%)
Black Hills	BKH	39	$1.42	5.6	2.28
Consolidated Edison	ED	35	$2.36	5.8	0.72
Otter Tail	OTTR	33	$1.19	4.8	1.35
Integrys Energy	TEG	51	$2.72	7.5	3.76
Vectra Corp.	VVC	49	$1.34	5.7	2.73
Florida Public Utilities	FPU	41	$0.48	3.9	3.09
MGE Energy	MGEE	33	$1.47	4	1.43
Northwest Natural Gas	NWN	53	$1.66	3.8	3.3
National Fuel Gas	NFG	39	$1.34	2.6	3.66
WGL Holdings	WGL	33	$1.47	4.4	2.09
Piedmont Natural Gas	PNY	31	$1.08	4.5	3.87
Energen	EGN	27	$0.50	1.1	4.41
Questar	STR	29	$0.50	1.4	2.55
Connecticut Water Services	CTWS	39	$0.90	4	1.38
American States Water	AWR	54	$1.00	2.8	1.77
California Water Service	CWT	42	$1.18	3.1	0.69
SJW Corp.	SJW	42	$0.66	2	4.39
Middlesex Water Co.	MSEX	35	$0.71	4.6	0.97

8.9 Immediate Annuities

Still another choice is an immediate annuity. Insurance firms do not publicize these, because they have low fees. Yet if you want guaranteed monthly income, they are hard to beat. The insurance company bears the risk. You can sleep more soundly. They require a large chunk of capital in order to unleash large income. $350,000 will buy on average $2,083 income per month for life (more for males, less for females, who on average live longer). See the website http://www.immediateannuities.com; fill in your state, age and how much you want per month and it will tell you what you need to invest. Immediate annuities are affected by three factors (1) age (the older you are, the more you get); (2) the prevailing interest rate; and (3) which insurance company offers it. It is a good idea to shop around. Presently TIAA-CREF is paying only 2.85% on its fixed annuities. Other firms have higher interest rates. Some suggest laddering annuities, i.e., deploying $100,000 at 65, $100,000 at 70, and another $100,000 at 75, to take advantage of

higher interest rates and to generate more income on the age variable. Be sure to check the quality of insurance firms on ambest.com.

9 Costs Compound as Well

Compounding of dividends is wonderful; compounded costs are awful. Remember that our relevant costs are fees, taxes and inflation. We try to minimize the first two and elude inflation. Here is a sobering tale I fashion from data provided by John Bogle[5], founder of Vanguard and stalwart champion of the individual investor. A baby is born on January 1, 1960. Her grandmother is so enthralled that she gives the infant $1,000 in cash. The baby's mother prudently sends the money to a mutual fund with a representative sample of common stocks. Fast forward to January 1, 2010. Our baby is a successful professional woman. But how has her investment done? The stock market gained 11% per year during this half-century (5% of that 11% was from dividends). So her investment is worth $184,600. Nice! But it was in a mutual fund, so knock 2% off for management fees. That lowers the total to $74,400. Oh, and this was a taxable mutual fund, so we knock another 1.5% off the total and we now have $37,000. So we lost $147,600 from management fees and taxes. Let us not forget inflation! The mean inflation rate for the period was 4.1%, bringing the investment total of 50 years down to $5,300. This is a five-fold increase in real dollars, but not much of value after 50 years. Watch expenses! I calculated the geometric mean on TIAA-CREF costs. Equity Index has increased fees 9.56% per year since 2003. The CREF bond market has increased fees over 8% per year. If our retirement funds were at Vanguard rather than TIAA-CREF or ING, we would all have more money, because Vanguard's fees are lower. Even Vanguard, though, has high fees on portfolio allocation advice ($40-$60 per $10,000 invested).

If you are risk averse to the time it takes to investigate equities or to their individual pitfalls, you can minimize fees with exchange-traded funds (ETF), but you must be selective. These tend to be index funds, perfectly good vehicles for the long term, but harder to convert into income. For the S&P 500, select SPY which charges only 9 cents per $100. Vanguard's All World ETF uses the FTSE All World ex-US Index (the world minus the United States). It charges 25 cents per $100. If you are young and want the growth potential (and risk) of a small-capital index, the Russell 2000 (IWM) index is *not* the thing to choose. The S&P SmallCap600 (IJR) performs twice as well because the S&P firms are carefully selected. There is an EFT based on the Mergent's Dividend Achievers index (PFM), but it has a low yield and has issued highly variant dividends. A better choice for income is the iShares IBoxx High Yield Bond (HGY) that yields 9.81%, costs $90. These indexes tend to be cheaper than their respective mutual fund counterparts, but one must buy them at a brokerage, incurring a one-time fee. An advantage of these ETFs outside a Roth IRA is that they are tax efficient. They do not issue capital gains, because they do not buy and sell stock. One pays taxes on the dividends, but at a lower rate.

[5] John C. Bogle, *Enough.* New York: John Wiley & Sons, 2009.

10 Dealing with TIAA-CREF & ING and choosing a brokerage

10.1 TIAA-CREF and ING

If you have your retirement benefits with TIAA-CREF and you have TIAA Traditional, think about getting out of it, but see below. It has intensely restrictive rules that limit your choices severely in retirement. It is not easy to get out: one must "journal out" (an accounting term) over ten years. In other words, they move 10% of your TIAA Traditional every year for ten years. It is worth doing; I have heard enough horror stories about TIAA Traditional from estate lawyers, financial planners and bank trust officers. Note that this only applies to TIAA Traditional in the university mandatory system. If one has in in a 403(b) or supplemental account it is not restricted at all. Here is a new wrinkle: If one wishes to retain principal and take only dividends and interest, TIAA Traditional is the only vehicle TIAA-CREF has that does this. If you keep TIAA Traditional for your retirement and then expire, all the restrictions vanish for heirs, who get the money as an IRA.

The other difficulty with TIAA-CREF or ING is how to convert your retirement capital to income. If you want an annuity (and they want you to want an annuity) then it is easy, but your heirs lose almost all of your money. Neither TIAA-CREF nor ING has a provision for someone who simply wants dividends and interest payments, preserving principal. Remember, TIAA-CREF is essentially an insurance firm and ING is a huge financial firm. All TIAA-CREF funds are mutual funds; all TIAA or CREF funds are variable annuities. If you want to preserve your principal, you should invest in the mutual funds, because then you can compute distributions. TIAA-CREF suggests investing in bond funds and taking 5% per year from them. This might work, but see the 4% takeout rule below. I plan to take no more than 3%. Both ING and TIAA-CREF want everyone to annuitize, so they make those who do not annuitize do their own computations on distributions. Presumably they will help compute mandatory distributions after age 70.5.

As long as we stay in Kansas, the benefits we receive in retirement from TIAA-CREF or ING are non-taxable by the state. That is a failrly strong incentive to stay a resident of the state, but is it a good reason after you retire to stay with TIAA-CREF? Perhaps, but TIAA-CREF has lower bond yields and lower levels of immediate annuities than any of their competitors. Their main interest is taking your capital when you pass away. For that reason, they will pay you an annuity that is twice the size of income than your capital would support. They use their own capital, from annuities since 1918, to give this incentive.

10.2 Choosing a Brokerage

If you choose the Roth IRA dividend-growth stock option, how do you choose a brokerage? The key is to minimize fees and maximize benefits. The way to do this is to stay with on-line discount brokerages. These are mainly E-Trade, Scottrade and TD Ameritrade. We chose TD Ameritrade because it has a uniform trading fee of $9.99 and has full, free, fractional-share dividend reinvestment. E-Trade has gotten into trouble lately with subprime mortgage bonds and it charges $40 in any account that does not trade for three months. A new entry is just2trade.com, which is for "experienced investors" and charges only $2.50 per trade. Look into these and other brokerages and see what they offer. Most offer you free trading when you invest for the first time. Competition is heating up in the online sector. Charles Schwab will let you trade for $8.98 and Fidelity charges only $7.95. Zecco will give you 10 free trades per year if you deposit $25,000. If you deposit

$25,000 in Bank of America or Wells Fargo, they let you have 100 free trades per year, but they do not do free dividend reinvestment. If one has at least $50,000 at Vanguard, one can trade for $7; with $500,000 the commission is $2. Vanguard has free dividend reinvestment.

Watch out for financial firms' "wrap accounts" which are integrated money market and brokerage accounts. They have high fees (typically 3% per year). Even pension funds are fighting these battles now. The best advice I can offer is to stay away.

11 Special Dividends, Stock Dividends and Stock Splits

These three are topics of mirth on Wall Street. Investment bankers make fun of individual investors who become gleeful at special dividends, stock dividends and stock splits. There is reason to investigate whether glee is called for. Let us take these topics in order and investigate them.

11.1 Special Dividends

Many firms generate a great deal of cash, especially firms with little or no debt. Sometimes the cash is so large in proportion to the firm's needs that the board of directors declares a special dividend. This is a one-time payout to shareholders that goes beyond the normal dividend. Raven Industries does this occasionally. In October 2008 and September 2010 Raven paid $1.25 per share to its owners. Capitol Federal pays 25% of its profits at the end of the year; in 2010 it paid 30 cents extra. Even bond funds pay special dividends. Of those noted above, PCN will pay $0.49 per share, PKO $0.78, PTY $0.69 and PCM $0.10 on 20 January 2012. WEA paid 17 cents per share on December 30, 2011. These are positive actions. If one is in a dividend-reinvestment plan, one gets more shares. Since these payouts exceed normal dividends, there is no reason not to be happy, if not wholly gleeful.

11.2 Stock Dividends

Stock dividends are additional shares granted by a firm to all shareholders. Tootsie Roll (TR) pays 3% more shares each year as a dividend. This is silly, because it simply enlarges the float without giving any shareholder any advantage. Everyone stays in the same relation to everyone else, since stock dividends are paid according to how many shares one owns. Stock dividends are worthy of mirth.

11.3 Stock Splits

When stocks rise to high levels they sometimes declare splits. Typically a firm will split two-for-one; it doubles its total shares and float. If the firm does not pay a dividend, this is effectively no action: one has twice as many shares at half the previous value. So for non-dividend paying stocks, Wall Street is right to laugh. But what about dividend-growth stocks? Do dividends grow faster or more slowly after a stock split? I investigated several of the firms above and report the results in Table 14.

Table 14: Annual Percentage Dividend Growth Rates Before and After 2-for-1 Stock Splits

Firm	Before	After
C.H. Robinson Worldwide	16.5	10.76
Exelon	14.04	11.38
Fastenal	61.89	19.01
Johnson & Johnson	23.8	14.94
McDonald's	6.99	54.64
Pitney Bowes	10.06	8.15
Procter & Gamble	6.12	9.88
Raven Industries	9.16	16.85
Sysco	13.89	19.12
Wal-Mart	15.56	17.26
Weyco	3.09	16.47

The arithmetic mean of the before column is 19.845 and the after column is 17.4642. A paired two-sample t-test between the two columns was statistically insignificant. So Wall Street can laugh, but after stock splits dividend-growth firms continue to raise dividends. Whether the pace is faster than earlier depends, as always, on the firm.

12 Relative Dividend Yield and "Owner's Earnings"

Two finance professors created the relative dividend yield concept in 1992. The idea is to learn when to buy a stock as a bargain. It is simple: divide the dividend yield of any stock by the yield of the Standard and Poor's 500 yield, which is currently 1.9%. The higher the ratio, the more attractive the investment. As with all measures of this sort, be careful. A firm might have a very high yield just before cutting the dividend. So be certain that a firm is financially sound before resorting to this ratio. How to use this? Which utility should you buy, Westar Energy or Exelon? WR's relative yield is 3.11%, while EXC's is 2.32%, so buy WR. You can even use this on fixed income, though that is not what its creators intended. The PCM Fund has a relative yield of 5.79%, while PTY's is 5.211%. If you can do five times better than the stock market, it might make sense to buy bonds.

If you are interested in the evaluation of candidate stocks, the best item to compute is Warren Buffett's "owner's earnings"= (net income + depreciation and amortization + non-cash charges) - (mean capital expenditures). This is the best measure of a firm to use for investment. If it grows over time, it is good.

13 What Can Go Wrong?

Markets can and do crash, recessions happen and all of these challenges must be accepted as you attempt to generate sufficient capital to retire. Standard & Poor's have released a list of firms with ability to pay and raise dividends. Here is a list of the firms not included above: Exxon-Mobil (XOM); FPL Group (FPL); Owens & Minor (OMI); Pitney Bowes (PBI); Teleflex (TFX);

Teva Pharm (TEVA); Transatlantic Holdings (TRH); United Technologies (UTX); and Universal (UVV).

13.1 Market Crashes

The stock market has crashed in 1869, 1874, 1893-1896, 1929, 1932, 1973-1974, 1987, 2000-2001, 2008-2009 and 2011. Don't look for a pattern, but most of these crashes were caused by a catastrophic debt issue (in 1929, margin debt on stock, in 2008 it was mortgage debt that has been magnified by being "securitized"). Market crashes usually create another problem: recession. Yale University and the *Wall Street Journal* have reported that from 1830 through 2009, the absolute worst decade is the one that just passed. From 2000 through 2009 all stocks lost 0.5%. In the 1930s, all stocks lost just 0.2%. So we have just experienced the absolutely worst period ever in the stock market. From these data, the mean was 8.68% growth, the standard deviation 1.351, the median decade 7.9% growth, the minimum -0.5% and the maximum 18.2% (the 1950s).

13.2 Recession

Recessions are dangerous to retirement funding, especially when linked to severe market crashes. Unemployment rises, earnings plummet and tax revenue falls, so everyone faces some kind of trouble. The usual prescription for these problems is diversification. One is supposed to buy a set of uncorrelated asset classes. This is a noble idea, but as noted above, 14 of 15 asset classes were down about 50%. So much for diversification as a perfect solution. We are likely to have persistently high unemployment and state and local governments with little money. I think of this as a depression, not a run-of-the-mill recession.

13.3 The 4% Takeout Rule

For decades financial planners have told prospective retirees that they could live on 4% of their retirement capital each year without fear of running out of money. I have always regarded this advice as dangerous. Let's say Mr. Brown retired in 2007 with $1 million. He takes 4% in 2007, leaving him with $960,000. Then in 2008-2009 Mr. Brown finds he has only $480,000 left after the market crash. What he must do in 2010 and thereafter is unclear. There is a real danger of using all of the capital and becoming a ward of the state. This happens to many people. Here is William Bernstein's take on the problem in his most recent book: "At a 2% withdrawal rate, your nest egg will survive all but catastrophic institutional and military collapse; at 3% you are probably safe; at 4% you are taking real chances; and at 5% and beyond, you should consider annuitizing most, if not all, of your nest egg." In a recent poll, 31% think 4% is good; 26% believe 7% will work, while 43% seek to withdraw 10 to 15% per year. Here is a table from research by J.P. Morgan Chase with sobering results.

Table 15: Ideal vs. Reality in Retirement Finance

Topic	Ideal	Reality
Contributions	10% by age 35	10% by age 55
Loans	No loans	20% take loans from retirement accounts
Early withdrawals	None	15% take early withdrawals
Retirement	Take less than 4%	Many take 20% from retirement accounts per year

13.4 What to do about these problems?

First, realize that firms that pay dividends do not fall as far as those that do not. So it is important to select firms that can continue to pay dividends. This is why we have inserted a section on low payout ratios. Second, use your own knowledge about each economic downturn. What firms are doing well now? They are the firms that supply daily needs for people. Companies doing well in this recession are Wal-Mart, McDonalds, C.H. Robinson Worldwide, Johnson & Johnson as well as Sysco. Utilities have been stable in this downturn; Westar Energy and Exelon even raised their dividends. Also stable in this crash have been the master limited partnership pipelines (Energy Product, Energy Transfer, Kinder Morgan, Oneok, Plains All American and TC Pipelines [see below]). Community banks have held up well, though one must be careful. Check bank safety at bankrate.com. Our local Capitol Federal has been one of the best performers in the crash. A good alternative is the closed-end bond funds cited above. Bonds are wonderfully boring, and if you can lock in a yield of 10%, why not do it? If you want U.S. government interest guarantees, seek out GNMA. Another choice to look at is the Vanguard Managed Payout Funds. These are vehicles that generate income for people given at least $25,000 in capital. There are 3 funds to choose from based on takeout levels: 3, 5 of 7% of assets per year. These are like endowments, not annuities, so capital is left for heirs.

Recognize that the more capital you have, the more you will get. If C = capital; t = time in years; and r = the interest rate on capital, then $\frac{dC}{dt}$= rC; the solution to this is $C(t) = C_0 exp\{rt\}$. In other words, capital growth is proportional to capital. Of course, losses are greater as well.

14 Windfalls and Inheritance

What do you do when Aunt Gertrude dies and leaves you $30,000? You cannot invest that in a Roth IRA. You cannot add it to your institutional supplement retirement benefits. Instead, if you choose to invest it, you face the vagaries of taxes. The traditional way to save on taxes down is to invest in state-level municipal bonds. This is easy in high population states, but harder in Kansas. The only no-load, i.e., no sales charge, Kansas municipal bond fund is Commerce Kansas Intermediate Tax-Free Fund (KTXIX), which yields 3.3%, equivalent to a 4.8% taxable yield for most of us. The alternative is to buy individual municipal bonds from a brokerage. A.G. Edwards does this locally.

There is another alternative, however. The Congress gave some firms incentives to create public goods, i.e., non-competitive goods, especially infrastructure. Pipeline (oil, gas and water) firms are the most numerous of these. They are called Master Limited Partnerships (MLPs). The great advantage to the individual is that these MLPs are not taxed until one has received all the money

one paid for the MLP. For example, let's say you put Aunt Gertrude's $30,000 into 380 units (that is what they are called, not shares) of Oneok Partners (OKS). You would receive $1,717.60 per year as "return of capital" until you received $30,000 from OKS. That would take about 17.5 years. As long as you continue to reinvest the distributions (this is what their "dividends" are called), you probably will never run out of capital to be returned. Nonetheless, if you sell an MLP, your cost-basis is reduced by the amount of money you have received, so your capital gains tax would be higher. These are investments that should be purchased with the goal of maintaining them throughout retirement. Also, they make tax computation more complicated with their required K-1 forms that arrive in March. These investments almost force one to find a CPA to do taxes, but such help is cheap in view of the tax-free funds that flow to owners. If you don't want to deal with this, SteelPath advisors in Dallas have mutual funds that are tax free, but use 1099 forms instead of K-1.

What choices do you have in these limited partnerships? I like ten of them especially:

Boardwalk Pipeline Partners (BWP): yields 7.28% and raises distributions 28.95% per year (it started 4 years ago).

Energy Product Partners (EPD): yields 8% and raises distributions 6.52% per year. Its float is only 64.94% of its total units.

Energy Transfer Partners (ETP): yields 10.2% and raises its distribution 16.99% per year.

Inergy (NRGY) markets propane gas. it yields 8.3% and raises its distribution 8.89% per year.

Kinder-Morgan Energy Partners (KMP): yields 6.5% and raises its distribution 6.74% per year.

Magellan Midstream Partners (MMP): yields 5.4% and raises its distribution 7.6% per year.

Oneok Partners (OKS): yields 7.5% and raises its distribution 5.77% per year. Its float is only 58% of total units after a 2 for 1 split.

Plains All American (PAA) yields 7.1% and raises its distribution 7.38% per year.

Sunoco Logistics (SXL) yields 7.1% and raises distributions 11.2% per year.

TC Pipelines (TCLP): yields 8.4% and raises its distribution 4.91% per year (this one does not get its hands oily; it only finances pipelines).

All of these MLPs pay on the February schedule. If you do not want to deal with K-1 forms, new exchange-traded notes are available.

15 Good luck!

This is necessarily a brief review of finance for academics. It is focused on retirement because that is the challenge all of us face. I do not warrant any claims. Factors change often and care is due in selecting securities. We have left out many concepts of finance. If you wonder about these, ask me. If you are concerned about college funds for kids, pay special attention to fees on 529 (the best ones now are Illinois's Bright Start and Utah's and Nevada's which all use Vanguard's index funds) and Coverdell plans, which have been good, but the Congress has made them less desirable. The maximum contribution per year decreases from $2,000 to $500. One salutary feature for Kansans is that we can invest in any state's 529 program and still take a full tax deduction on our state taxes. Parents should check out upromise.com, where one can buy normal items from many retailers and have a percentage of the cost shifted directly to a 529 account. Ask me if you have questions.

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