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Updated annually, the award-winning^{*} Guide to Retirement provides an effective framework for supporting your retirement planning conversations with clients. It includes charts and graphs to help you explain complex issues in a clear and concise manner. A description and audio commentary are available for every slide.

*The Guide to Retirement won the 2012 RIIA Retirement Income Communications award, the 2014 MFEA STAR Award for retail education and the 2015 WealthManagement.com Industry Award for Thought Leadership – Investing. In addition, in 2018 it won "**Highly Commended"** in the "**Best Pensions Paper 2018 (North America)**" category: <u>https://www.savvyinvestor.net/blog/awards-best-pensions-white-paper-north-america-</u> <u>2018</u>, and most recently won the Investment Management Education Alliance (IMEA) Star Awards for "Retirement Ongoing Education".



Planning for retirement can be overwhelming as individuals navigate various retirement factors over which we have varying levels of control. There are challenges in retirement planning over which we have no control, like the future of tax policy, legislative and regulatory reform and market returns, and factors over which we have limited control, like longevity and how long we plan to work. The best way to achieve a secure retirement is to develop a comprehensive retirement plan and to focus on the factors we can control: maximize savings, understand and manage spending and adhere to a disciplined approach to investing.

Federal						49
Federal i						
. outrai	ncome tax rates a	pplicable to taxable in				
Tax rate	Single filers	Married filing jointly	Capital gains & dividends	Medicare tax on earned income	Medicare tax on investment incom	Limits to itemized deductions
10%	Up to \$9,875	Up to \$19,750	0% [up to \$40,000		0% 3.80% (additional tax will be levied on lesser of i) net investment income or ii) excess MAGI above \$200,0003250.000 threshold)	-Medical expenses greater than 7.5% of AGI deductible
	\$9,875-\$40,125	\$19,750-\$80,250	(single) / \$80,000 (married)]			-SALT (state and local taxes)
22%	\$40,125-\$85,525	\$80,250-\$171,050	15%	1.45% (employee portion, employers also pay 1.45%)		deduction capped at \$10,000
24%	\$85,525-\$163,300	\$171,050-\$326,600	[up to \$441,050 (single) / \$496,600			 Mortgage interest deduction limited to primary/secondary homes with up to \$750.000
	\$163,300-\$207,350	\$326,600-\$414,700	(married)]			new debt. Deduction is
35%	\$207,350-\$518,400	\$414,700-\$622,050		2.35% (includes 1.45% employee tax referenced above plus additional		All all the tip would be seen in
	\$518,400 or more	\$622,050 or more	20%	0.90% tax for earned income above MAGI* \$200,000/\$250,000 threshold)		t i i
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		d and individual tax rates and persor			threshold))
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At-a-glance individual federal income tax guide for 2020.



Stay on top of current IRA and Roth contribution limits, phase-out ranges for IRA contribution deductibility and for Roth contribution eligibility for 2019 and 2020.

Type of Retirement Account	Specifics	2019	2020	
	401(k) elective deferral limit/catch-up contribution (age 50 and over)	\$19,000 /\$25,000	\$19,500 /\$25,500	
	Annual defined contribution limit	\$56,000	\$57,000	
401(k), 403(b), 457(b)	Annual compensation limit	mpensation limit \$280,000 \$285,000		
	Highly compensated employees	\$120,000	\$125,000	
	403(b)/457 elective deferrals/catch-up contribution (age 50 and over)	\$19,000 /\$25,000	\$19,500 /\$25,500	
SIMPLE IRA	SIMPLE employee deferrals/catch-up deferral (age 50 and over) ¹	\$13,000 /\$16,000	\$13,500 /\$16,500	
	Maximum contribution ²	faximum contribution ² \$56,000 \$57,000		
SEP IRA	SEP minimum compensation	\$600	\$600	
	SEP annual compensation limit	\$280,000	\$280,000	
	Maximum contribution amount/over age 55	Single: \$3,500 /\$4,500 Family: \$7,000 /\$8,000	Single: \$3,550 /\$4,550 Family: \$7,100 /\$8,1003	
Health Savings Accounts (HSAs)	Minimum deductible	Single: \$1,350 Family: \$2,700	Single: \$1,400 Family: \$2,800 Single: \$6,900 Family: \$13,800	
	Maximum out-of-pocket expenses	Single: \$6,750 Family: \$13,500		
	Wage base	\$132,900	\$137,700	
Social Security	Maximum earnings test exempt amounts under FRA for entire calendar year/during year of FRA ⁴	\$17,640 /year \$46,920 /year	\$18,240 /year \$48,600 /year	
	Maximum Social Security benefit at FRA	\$2,861 /month	\$3,011 /month	
Defined benefit – Maximum a	nnual benefit at retirement	\$225.000	\$230.000	

This is a useful guide to retirement plan contribution and deferral limits for 2019 and 2020, as well as Social Security limits and maximum benefits.



One of the factors in the retirement equation that an individual cannot control is legislative changes that affect the American retirement system. The Setting Every Community Up for Retirement Enhancement Act was passed with strong bipartisan support at the end of 2019. It included several significant changes that should be carefully reviewed by individuals, small business owners and plan sponsors. The changes go into effect either beginning in 2020 or after 2020.



Life expectancies in the United States continue to increase as more people are living to older ages than ever before. This chart shows the probability that 65-year-old men and women today will reach various ages. For a 65-year-old couple, there is nearly an even chance that one of them will live to age 90 or beyond. Individuals should plan for living well beyond the average – to age 95 or even 100 – especially those in good health and with a family history of longevity.



While many people want to work at older ages, everyone may not be able to do so. Current workers overwhelmingly expect to work to 65 or later, but the experience of actual retirees is quite different. Nearly a third of retirees said they retired before they planned primarily due to health problems or disability, or due to changes at their company. It is very important that clients have a financial back-up plan in the event that they are not able to work as long as they desire, which should include appropriate disability coverage to protect their income.



Start at the bottom of our chart, then work your way up. First, have employees build an emergency reserve of 3 to 6 months of living expenses. Then they should take advantage of any company match. Unless they have relatively high interest loans, they may want to put more funds in their retirement accounts or Health Savings Accounts before paying off their loan balances.



Health Savings Accounts are triple-tax free, so if you are eligible to contribute, make the most of it. Tax advantages include tax-free or tax-deductible contributions, tax-deferred earnings in the account and tax-free withdrawals for qualified health care expenses. If you invest your HSA dollars, the earnings inside your account may be significant. You are likely to have the best chance to accumulate earnings if you are able to pay for health care expenses outside of your HSA. This approach may help you defray qualified health care expenses in retirement.

A quick note: If you lack other funds and need to pay for some or all of your qualified health care expenses out of your HSA, don't worry – you will likely have a lower balance at retirement, but you will still have the benefit of some important tax advantages.

While HSAs are very tax-advantaged, there will be tax penalties for withdrawals that are not qualified before the age of 65; therefore, it is important to have a separate emergency savings account. See IRS publications 502 and 969 for details on qualified withdrawals.



All the different tax-advantaged savings types can get confusing, so we created this chart. Earnings in tax-advantaged accounts are usually tax-free while within the account. For retirement accounts, money may go into the account or come out of the account tax-free, depending on the account type and if deposits and withdrawals are qualified. Nondeductible or after-tax contributions are less tax advantaged and should be considered after exhausting opportunities to save in the other tax-advantaged accounts. These accounts are designed for long-term retirement saving, so there may be penalties on early or non-qualified withdrawals. Health Savings Accounts, or HSAs, are especially tax advantaged. They must be paired with a qualified high-deductible health plan. Prior to age 65, withdrawals from an HSA must be used for qualified medical expenses, or taxes and penalties will apply. No contributions may be made to an HSA while on Medicare, but the funds may be used to pay for qualified health expenses in retirement tax-free. After age 65, the account owner may withdraw funds free of penalties but must pay taxes on nonqualified withdrawals. See IRS publications for details.



The decision to make a pre-tax/deductible contribution to a Traditional 401(k) or IRA or an after-tax contribution to a Roth 401(k) or Roth IRA is based on the income tax rate of the individual at the time of the contribution, and his/her anticipated tax rate in the future. The difference in tax rates can be caused by an investor's personal situation and/or tax policy over time. This chart shows a typical wage curve and the general "rule of thumb" about what type of contribution may be most appropriate based on current income and the bracket in retirement. An additional consideration is to maintain a healthy mix of taxable, tax-free (Roth) and tax-deferred accounts so that you can have greater flexibility to manage your income taxes. The numbers on the chart specify situations in which contributing to a Roth option should be carefully considered.



Increasing the contribution each year can be an effective way to save for retirement. This chart shows 3 employees who each have a starting salary of \$50,000 that increases with inflation and a 50% employer match capped at 3%. Stubborn Sara – who gets stuck at a 3% contribution rate – is left far behind. However, Escalating Ethan – who ends up not far behind Super Sam – shows the power and value of escalating contributions each year.



The top chart shows that employees who take loans or withdrawals from their accounts may end up with significantly lower balances in the end. The bottom chart shows that the employee did not get the benefit of contributions and a company match when paying back their loans. To avoid this scenario, stress the importance of an emergency reserve and savings for other goals outside of the retirement account. If the employee must borrow, if they keep contributing while paying back the loan, it may mitigate the negative impact of the loan.



Achieving multiple goals with varying time horizons and savings requirements can be challenging if wealth and savings are grouped all together. For greater clarity and control, consider using a goals-based wealth management approach in which assets are invested according to the time horizon of major goals, and the savings required to achieve each goal is determined and managed on an individual basis. This goals-based approach is only successful if an emergency reserve fund of at least three to six months of total expenses is maintained in cash or cash equivalents, or is accessible through a short-term liquidity option to be readily available, if needed.



Aligning retirement assets based on how they will be used to support an individual's retirement lifestyle is one way to ensure a higher degree of confidence through retirement. Known as "guarantee the floor," this chart shows how needs, or non-discretionary spending, can be aligned with relatively safe or guaranteed funding sources, while wants can align to more of a balanced portfolio. If leaving a legacy is a goal, a more aggressive portfolio may make sense given the longer time horizon.





This chart shows the S&P Composite Index, on a logarithmic scale, since 1900. The log scale helps illustrate long-term index patterns, namely the distinct periods of range- and trend-bound markets. Annotations help to indicate what caused movements in the market.



This chart shows historical recessions, their corresponding bear markets (a 20% market decline from the previous all-time high), what caused them, and the magnitude of the drawdown. This is meant to illustrate that lofty valuations are not predictors of bear markets, but rather, bear markets are caused by external factors such as geopolitical conflict, monetary policy action and recessions.



This chart shows intra-year stock market declines (red dot and number), as well as the market's return for the full year (gray bar). What is clear is that the market is capable of recovering from intra-year drops and finishing the year in positive territory, which should encourage investors to stay the course when markets get choppy.



This slide looks at various measures of market volatility, with the top chart showing the magnitude and date of significant pullbacks since the Global Financial Crisis and the bottom chart showing the corresponding spike in the VIX, the volatility index.



A portfolio's investment return will vary year to year. How does this variation affect retirement outcomes? The bottom chart shows three very different return scenarios. The first is a great start/bad end, shown in blue – which means that returns were higher or above average during the first 5 years, and the last 5 years, or "the end", experienced poor returns. The bad start/great end shown at the bottom in green is exactly the same "sequence of returns" but reversed with a poor first 5 years, and great final 5 years. The average of both of these sequence of return scenarios is 5% – meaning a 5% average annual return over 30 years. For illustrative purposes, we'll also look at a scenario in which that average return was achieved each and every year – the "steadily average" scenario in gray. It, of course, also averages 5% over 30 years, and we understand that this scenario would never happen in reality. The top chart shows the effect of these different return scenarios result in a \$1.3M portfolio after 30 years. This shows that in lump sum situations (no cash flows), the average return over the time period will drive the outcome, not the sequence in which that return was experienced.



During periods of extreme market declines, a natural emotional reaction can be to sell out of the market and seek safety in cash. The results of this reaction can be devastating because often the best days occur close to the worst days during periods of market volatility. This chart compares an individual who was fully invested for the past 20 years in the S&P 500 to investors who missed some of the best days as a result of being out of the market for a period of time. Missing the top 10 best days will halve the annualized return; missing the top 30 days will result in a negative annualized return on the original \$10,000 investment. Rather than emotionally reacting to or trying to time the market, adopting a disciplined long-term investment strategy may produce a better retirement outcome.



This chart shows the historical performance and volatility of different asset classes, as well as an annually rebalanced asset allocation portfolio. The asset allocation portfolio incorporates the various asset classes shown in the chart and highlights that balance and diversification can help reduce volatility and enhance returns.



This page shows the year-to-date performance of the S&P 500 by sectors and select sub-sectors. The chart illustrates the incredibly uneven recovery when we look beneath the surface of the broad market. This recovery has been led by sectors such as online retail and home improvements, which have been winners of the pandemic-induced shutdowns. On the other extreme, we have sectors such as airlines, energy, and department stores which have been the losers.



This page looks at the year-to-date performance of different regions in the world in local currencies. We can see that there is a great dispersion in style and regional performances this year. Growth stocks in the U.S. and EM Asia equities have led the gains, while Europe, Japan, Latin America, EMEA and U.S.value have been lagging.



This chart shows historical returns by holding period for stocks, bonds and a 50/50 portfolio, rebalanced annually, over different time horizons. The bars show the highest and lowest return that you could have gotten during each of the time periods (1-year, 5year rolling, 10-year rolling and 20-year rolling). This page advocates for simple balanced portfolio, as well as for having an appropriate time horizon.



The top chart shows the powerful effects of portfolio diversification. It illustrates the difference in movements between the S&P 500, a 60/40 portfolio and a 40/60 portfolio indicating when each respective portfolio would have recovered its original value at the peak of the market in February 19th from the market bottom in March 23rd. It shows that the S&P 500 fell far more than either of the two diversified portfolio and also took longer to recover its value. The bottom chart shows 20-year annualized returns by asset class, as well as how an "average investor" would have fared. The average

investor asset allocation return is based on an analysis by Dalbar, which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior.



This chart shows the annual income generated by a \$100,000 investment in a typical banks savings account and the income that would have been needed to beat inflation.



J.P. Morgan Asset Management – Index definitions

are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

Dow Jones Industrial Average is a price-weighted average of 30 actively traded blue-chip U.S. stocks. MSCI ACVII (All Country World Index) is a free float-adjusted market capitalization weighted index that is designed to measure the equity inter performance of developed and emerging markets. MSCI EAFE Index (Europe, Australizatio, Far East) is a free float-adjusted market capitalization index that is designed to measure the equity interperformance of developed markets, excluding the US & Canada. MSCI EAFE Index (Harkets Index is a free float-adjusted market capitalization index that is designed to measure the equity MSCI EAFE Index (Harkets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in global emerging markets.

MSCI Europe Index is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in

MSCI Pacific Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific

Russell 1000 Index® measures the performance of the 1,000 largest companies in the Russell 3000. Russell 1000 Growth Index® measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher

Trecasted growth values. The Russell 1000 Value Index® measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted truth values.

grown rause. The Russell 2000 Index® measures the performance of the 2.000 smallest companies in the Russell 3000 Index. The Russell 2000 Growth Index® measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values. The Russell 2000 Value Index® measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted

growth values. The Russell 3000 Index® measures the performance of the 3.000 largest U.S. comparies based on total market capitalization. The Russell 1000 Index® measures the performance of the 800 smallest comparies in the Russell 1000 Index. The Russell 1000 rough comparing the service the performance of the 800 smallest comparies with higher proce-to-color talos and higher forecasted growth values. The stocks are also members of the Russell 1000 Crowth Index. The Russell 1000 rough Values Index® measures the performance of those Russell Middage companies with higher proce-to-color talos and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index. The Russell Middage Qrowth Index® measures the performance of those Russell Middage companies with higher proce-to-color talos and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index. The SaPS 001 medex® traider growth values. The stocks are also members of the Russell 1000 Value index. The SaPS 001 medex® traider growth values are presentative sample of 500 highing companies in leading inducting of the U.S. given prove the the large-cap segment of the market; however, since the stocks are significant profess of the bid wale of the market. I also represents the market: The market.

The Bioomberg Barclays 1-3 Month U.S. Treasury Bill Index includes all publicly issued zero-coupon UIS Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In additori, the securities must be denominated in U.S. obligs and must be faited rate and non convertible.

The Bioomberg Barclays Global High Yield Index is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indexs. The high yield and emerging markets sub-components are mulually exclusive. Until January 1, 2011, the index also included CMBS high yield sourcilles. The Blo The Bioomberg Barclays Municipal Index: consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The Bloomberg Barclays US Dollar Floating Rate Note (FRN) Index provides a measure of the U.S. dollar de ominated floating rate note

The Bioomberg Barclays US Corporate Investment Grade Index is an unmanaged index consisting of publicly issued US Corporate and specified forsign detentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agancies, have at least one year to final manufuly and have at least 250 million par amount outsidanding. To quality, howing must BSC-registreet.

The Bioomberg Barclays US High Yield Index covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (covereign rating of Bas/IBBB+RBB= and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bords (SEC registered) of suser in non-EMC countries are included.

The Bloomberg Barclays US Mortgage Backed Securities Index is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

Inset-sea inorgage cackes pass-imposite sections or towink, HNM and PTLMC.
The Bloomberg Backes pass-imposite sections of the inflavor Protection securities issued by the U.S. Treasury.
The J.P. Morgan Emerging Market Bond Global Index (EMB) includes U.S. colar denominated Brady bonds, Eurobonds, traded loans and local market deb inflavor instant issued by soverging and quasi-sovergine inflavor.
The J.P. Morgan Demostic High Yield Index is designed to mirror the investable universe of the U.S. colar domestic high yield corporate debt

The J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified) is an expansion of the J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI). The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging markets in the constant bonds.

emerging market corporate orons. The JP, Worgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified) tracks total returns for U.S. dotar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities. Brady bonds, Ioans, Eurobonds. The index limits the exposure

of some of the larger countries. The J.P. Morgan GBI EM Global Diversified tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by whost of the international investor base. The U.S. Treasury Index is a component of the U.S. Government index.

J.P. Morgan Asset Management – Index definitions & disclosures

HFRI Monthly Indices (HFRI) are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents included in the HFRI FIL Fund Weighted Composite, which accounts for over 200 funds listed on the internal HFR Database.

ARARTI CQUITY REIT Index is designed outproved by more tackcosts of work of the second second second outproved by more complementary assessment of averall industry parformance, and includes all tack-lifted real estate investment tacks (REI's) that are issed on the NYSE, the American Stock Exchange or the NASDAQ Hadrona Market List. NFRODEC, short for NCREFT kind Index, Open End Diversiting Core Equity, is an investment stately; some of which have performance, the hashorid cuarter blass the results of XS open-end commigied funds pursuing a core investment stately; some of which have performance hashorids in data to the 1975X. The NFOOCE choice is explainable and instructing or sole of sections the stately relations.

Lemmons, attending assets involves higher risks than had/cord investments and is suitable only for cophisit static directors. Attending the investing is attending asset risks that tending investment and should neb devined a complete investment program. They are not as efficient and an investor should consult with higher tax advices prior to investing. Attending investments have higher fees their traditional investments and they may also be highly leveraged and engage is speculative investment bechniques, which can angult the potential for investment is or they may also be highly leveraged and engage is speculative investment bechniques, which can angult the potential for investment is or the value of the investment may fail as well as near directors may get back less than they invested. Boards are subject to interest tar ensist. Board priors generally all who in interest rise rise.

Bonds are subject to interest that risks. Bond prices generally fal when interest rates rise. The value of commolity-inked derivative structures may be affected by tranges in overall market movements, commolity inkes that and end to be prices at the second structure and the prices at the second structure and the prices at the second structure and the second structure

Investments in emerging markets can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of laught, which leads to increased volatility, also, emerging markets may not provide adequate legal protection for proles of foreign investment or phrate property. The price of equity securities mark race, or fail because of changes in the broad market or changes in a company 5 financial condition, sometimes rapidly or unpredicably. These price movements may result from clacks affecting individual companies, activity of individual calculations of the securities market as a whole, such as stock proces in general may decline over short or retended periods of time.

Instructionsex: Instructionsex: Intermol LB index is composite of the S9 most prominent energy Master Limited Partnerships (MLPs) that provides investors with a discomparing Commonly Index and Index Longanica Londonse Commonly Section 2014 (Intermol Head Partnerships) (MLPs) that provides investors with a the comparing Commonly Index and Index Longanica Londonse Longal securities market as a whole is to second provide According to the same compared of futures contracts on physical commonlies and represents twenty two provides tradied or U.S. exchanges, with the exception of aluminum, notel, and znc marking Associational Exception exception of aluminum, notel, and znc marking Associational Exception exception of aluminum, notel, and znc marking Associational Exception exception of aluminum, notel, and znc marking Associational Exception exception of aluminum, notel, and znc marking Associational Exception exception of aluminum, notel, and znc marking Associational Exception exception of aluminum, notel, and znc marking Associational Exception exception of aluminum, notel, and znc marking Association experiment according section exception of aluminum, notel, and znc marking Association experiment according association experiment and and and comparing association of aluminum, notel, and znc marking Association experiment according association experiment and and and and and according association experiment association experiment according association experiment a

Correnzy and commonly means. International involution involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

users instruction.
There is no guarantee that the use of long and short positions will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short stelling additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

Merger arbitrage strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transac

equity and equity related instruments of companies which are currently engaged in a corporate transaction. Mid-capatilatization investing hytically-circles more risk than investing in well-estabilished "blac-hpt" companies. Historically, mid-agi companies stock has experienced a greater degree of market volatily than an energy stock. The book output companies and the stock of the protect-barrier grant (PE) Lung for constant energy stock. The book output companies a choice market risk book output companies and the stock of the protect-barrier grant of the protect-barrier grant of the protect-barrier grant of the stock output companies and the stock output companies and

